



INTERNAL MEDICINE/PEDIATRIC

Residency Program Curriculum

**Rotation Educational Goals and Objectives
Categorized by ACGME Competencies**

2011 – 2012

The University of Texas – Houston Health Science Center Medical School

Internal Medicine/Pediatric
Residency Program Curriculum

Rotation Educational Goals and Objectives
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2011-2012

This document reflects the educational goals and objectives of the rotations available for resident physicians in the University of Texas-Houston Internal Medicine – Pediatric training program. The goals and objectives indicated for each rotation are categorized by relevant competencies of the Accreditation Council for Graduate Medical Education (ACGME). The six newly defined areas of competency which residents must obtain over the course of their training were introduced in July, 2001. The ACGME Core Competencies are defined as: Patient Care, Medical Knowledge, Interpersonal and Communication Skills, Professionalism, Practice-Based Learning and Improvement, and Systems-Based Practice.

Teaching hospitals for resident physicians at the University of Texas Medical School-Houston are Memorial Hermann Hospital, Lyndon B. Johnson General Hospital, The M.D. Anderson Cancer Center and St. Luke's Episcopal Hospital. Residents receive ambulatory training at a variety of outpatient clinics. Educational goals and objectives for interns and upper level house staff officers are indicated in the descriptions of the individual rotations. Also indicated next to each goal are appropriate learning activities and evaluation methods categorized by the core competencies. A detailed description of the on-going learning activities at each teaching hospital is included in the front of the document for further information.

This document was prepared in a collaborative effort by the faculty, residents and staff of the Department of Internal Medicine and the Department of Pediatrics of the University of Texas Medical School-Houston. Teaching physicians in each Division of the Department of Internal Medicine and the Department of Pediatrics, faculty of the Office of Educational Programs at the University of Texas Medical School-Houston, physicians at the M.D. Anderson Cancer Center, and physicians at St. Luke's Episcopal Hospital assisted in the preparation of this document. This edition (2011) is an updated version of the document which was originally introduced in December of 2002.

This document is organized by rotations as they are located at the various teaching hospitals, with a separate category for outpatient rotations and descriptions of the learning activities at each teaching hospital. A list of the rotations is attached, as well as a list of the definitions of the ACGME competencies.

University of Texas-Houston Internal Medicine/Pediatric Residency Program Educational Goals and Objectives – Residency Curriculum

Overview

List of Rotations
List of ACGME Core Competencies
Description of Memorial Hermann Learning Activities
Description of Lyndon B. Johnson General Hospital Learning Activities
Description of M.D. Anderson Cancer Center Learning Activities
Description of St. Luke's Episcopal Hospital Learning Activities

Outpatient Rotations:

Continuity Clinic
Memorial Hermann/LBJ Ambulatory Block Rotation
LBJ Subspecialties Rotation
Allergy Rotation
Geriatric Rotation

Memorial Hermann Hospital Rotations:

Memorial Hermann General Medicine Services A - D
Memorial Hermann General Pediatric Services
Memorial Hermann CCU and Cardiology Ward Service
Memorial Hermann Medical Intensive Care Unit
Memorial Hermann Well Baby Nursery
Memorial Hermann Neonatal Intensive Care Unit
Memorial Hermann Pediatric Intensive Care Unit
Memorial Hermann Renal Inpatient Service
Memorial Hermann Emergency Medicine and Acute Illness Service

Consultation Services: Memorial Hermann & LBJ General Hospital

Memorial Hermann/LBJ Adolescent Medicine Rotation
Memorial Hermann/LBJ Adult Cardiology Consultation
Memorial Hermann/LBJ Pediatric Cardiology Consultation
Memorial Hermann/LBJ Developmental and Behavior Pediatric Consultation
Memorial Hermann/LBJ Adult Endocrinology Consultation
Memorial Hermann/LBJ Pediatric Endocrinology Consultation
Memorial Hermann/LBJ Adult Gastroenterology Consultation
Memorial Hermann/LBJ Pediatric Gastroenterology Consultation
Memorial Hermann/LBJ General Medicine Consultation
Memorial Hermann/LBJ Adult Hematology Consultation
Memorial Hermann/LBJ Pediatric Hematology Consultation
Memorial Hermann Hepatology Consultation
Memorial Hermann/LBJ Adult Infectious Disease Consultation
Memorial Hermann/LBJ Pediatric Infectious Disease Consultation
Memorial Hermann/LBJ Adult Pulmonary Medicine Consultation
Memorial Hermann/LBJ Pediatric Pulmonary Medicine Consultation
Memorial Hermann/LBJ Adult Renal Consultation
Memorial Hermann/LBJ Adult Renal Consultation
Memorial Hermann/LBJ Pediatric Renal Consultation
Memorial Hermann/LBJ Adult & Pediatric Rheumatology Consultation
Memorial Hermann Oncology Consultation Service

LBJ Oncology Consultation Service

LBJ General Hospital Rotations

LBJ Adult Emergency Room & Holding Area

LBJ Pediatric Emergency Medicine and Acute Illness Service

LBJ General Medicine Services A – H

LBJ Medical Intensive Care Unit

M.D. Anderson Cancer Center Rotations

MDACC Clinics

MDACC General Medicine Consultation

St. Luke's Episcopal Hospital Rotations

SLEH Cardiology Service

SLEH General Medicine Service

SLEH Hepatology Service

SLEH Nephrology Service

Elective

Anesthesiology Elective

Dermatology Elective

MHH Pathology Elective

MHH Echocardiography Elective

MHH Sports Medicine Elective

Ophthalmology Elective

Radiology Elective

Genetics Elective

Pediatric Neurology Elective

ACGME CORE COMPETENCIES

A. PATIENT CARE

Residents are expected to provide patient care that is compassionate, appropriate and effective for the promotion of health, prevention of illness, treatment of disease and at the end of life.

Gather accurate, essential information from all sources, including medical interviews, physical examinations, medical records and diagnostic/therapeutic procedures.

Make informed recommendations about preventive, diagnostic and therapeutic options and interventions based on clinical judgment, scientific evidence, and patient preference.

Develop, negotiate and implement effective patient management plans and integration of patient care.

Perform competently the diagnostic and therapeutic procedures considered essential to the practices of Internal Medicine and Pediatrics.

B. MEDICAL KNOWLEDGE

Residents are expected to demonstrate knowledge of established and evolving biomedical, clinical and social sciences, and the application of their knowledge to patient care and the education of others.

Apply an open-minded, analytical approach to acquiring new knowledge.

Access and critically evaluate current medical information and scientific evidence.

Develop clinically applicable knowledge of the basic and clinical sciences that underlie the practices of Internal Medicine and Pediatrics.

Apply this knowledge to clinical problem-solving, clinical decision-making, and critical thinking.

C. INTERPERSONAL AND COMMUNICATION SKILLS

Residents are expected to demonstrate interpersonal and communication skills that enable them to establish and maintain professional relationships with patients, families, and other members of health care teams.

Provide effective and professional consultation to other physicians and health care professionals and sustain therapeutic and ethically sound professional relationships with patients, their families, and colleagues.

Use effective listening, nonverbal, questioning, and narrative skills to communicate with patients and families.

Interact with consultants in a respectful, appropriate manner.

Maintain comprehensive, timely, and legible medical records.

D. PROFESSIONALISM

Residents are expected to demonstrate behaviors that reflect a commitment to continuous professional developmental, ethical practice, an understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.

Demonstrate respect, compassion, integrity, and altruism in relationships with patients, families, and colleagues.

Demonstrate sensitivity and responsiveness to the gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behavior and disabilities of patients and professional colleagues.

Adhere to principles of confidentiality, scientific/academic integrity, and informed consent.

Recognize and identify deficiencies in peer performance.

E. PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents are expected to be able to use scientific evidence and methods to investigate, evaluate, and improve patient care practices.

Identify areas for improvement and implement strategies to enhance knowledge, skills, attitudes and processes of care.

Analyze and evaluate practice experiences and implement strategies to continually improve the quality of patient practice.

Develop and maintain a willingness to learn from errors and use errors to improve the system or processes of care.

Use information of technology or other available methodologies to access and manage information, support patient care decisions and enhance both patient and physician education.

F. SYSTEMS-BASED PRACTICE

Residents are expected to demonstrate both an understanding of the contexts and systems in which health care is provided, and the ability to apply this knowledge to improve and optimize health care.

Understand, access and utilize the resources, providers and systems necessary to provide optimal care.

Understand the limitations and opportunities inherent in various practice types and delivery systems, and develop strategies to optimize care for the individual patient.

Apply evidence-based, cost-conscious strategies to prevention, diagnosis, and disease management.

Collaborate with other members of the health care team to assist patients in dealing effectively with complex systems and to improve systematic processes of care.

**PRINCIPAL LEARNING ACTIVITIES
FOR MEMORIAL HERMANN HOSPITAL ROTATIONS
UNIVERSITY OF TEXAS MEDICAL SCHOOL – HOUSTON
INTERNAL MEDICINE/PEDIATRIC RESIDENCY PROGRAM**

Morning Report (MR) – These sessions are held Tuesday and Friday from 7:30 AM – 8:15 AM. Conducted by Dr. Philip Orlander, Internal Medicine Residency Program Director, all PGY1, PGY2 and PGY3s on inpatient floor teams and all interns and residents on consult services meet with the Assistant Chiefs of Service (CMRs) and one or more faculty members to discuss two patients. The patients are presented by the interns on the floor team or the PGY2 or PGY3 if presented by a consult service, and then discussed by entire group of residents and faculty members attending Morning Report. The focus of the discussion is selected by the presenting resident. For example, some cases may be presented to discuss a differential diagnosis, while others are presented to discuss specific management issues.

Attending Rounds (AR) – Daily, including weekends, usually from 9:00am to noon, patients are presented to the attending physician. Post call rounds usually start at 6:00 am. Bedside teaching is regularly included in the rounds. Occasionally specialty cases are presented for discussion depending upon the interests of the attending physician. Learning activities include the physical exam, a discussion of particular medical diseases, psychosocial and ethical themes, and management issues.

Faculty Supervision (FS) – This learning activity occurs when a faculty member is directly responsible for teaching and supervising a resident, often on a one-to-one basis and typically in a team setting. The resident is responsible for direct patient care, but the faculty member serves as a resource. The faculty member meets with the resident often to supervise patient care and to provide feedback.

Directly Supervised Procedures - (DSP) – Residents learn procedures under the direct supervision of an attending or fellow during some rotations. For example, in the Medical Intensive Care Unit the Pulmonary /Critical Care attending or fellow, or the MICU attending, observe the placement of central venous and arterial lines. Specific procedures used in patient care varies by rotation.

Direct Patient Care (DPC) – In this teaching activity, residents admit their own patients and are responsible for the ongoing care including management and discharge. Patient management is supervised by the attending physician.

Conferences – The resident conferences focus on various specialty medicine topics for eleven months of the year, i.e., Cardiology, Gastroenterology, Hematology, etc. All residents on inpatient floor teams, as well as those on ambulatory block rotations and electives, are expected to attend. During the 12th month of the year, the noon conferences are the

Noon Conferences are comprised of the following: (except for Journal Club):

Introductory Lecture Series (ILS) – These lectures are held during the month of July in place of other noon conferences, except for Grand Rounds, which continues to be

held every Tuesday throughout the year. Various introductory topics are presented by subspecialty and general medicine faculty to introduce interns to basic and essential topics in internal medicine.

Core Curriculum (CC) – This core curriculum conference is held on a Mondays and Wednesdays, and is structured in a board review context where faculty members discuss a core topic in their specialty field of medicine. Faculty members review possible board questions related to the core topic with residents. By the end of an academic year, residents should have had a thorough review of all topics covered in the core curriculum of the residency training program.

Grand Rounds (GR) – The Department of Medicine hosts Grand Rounds every Tuesday from noon to 1:00pm. The Department of Pediatrics hosts Grand Rounds every Tuesday from 8:00 AM – 9:00 AM. Speakers from local, regional and national medicine training programs are invited to present topics from the broad spectrum of both specialties. All residents on inpatient floor teams, as well as those on ambulatory block rotations and electives are expected to attend.

Senior Seminar (SS) - Senior Seminar is held in a noon conference format. Upper level residents present an in-depth review of a medical topic as well as their own research. Residents are formally critiqued by both the associate program director and their resident colleagues.

Medical Jeopardy (MJ) – Medical Jeopardy is held once a month at noon. Residents form teams and compete against each other for various prizes using a computerized medical game format.

Clinicopathologic Conference (CPC) – This noon conference is held once a month, and consists of discussions of informative cases by clinicians, radiologists, and pathologists. The case is given to a discussant, an internist or a specialist depending on the case, weeks ahead of the time of presentation. The discussant is informed of everything about the case except the diagnosis. The findings leading to the ultimate diagnosis are discussed by a radiologist and pathologist at the end of the conference.

Professionalism Curriculum (PC) - This is series of large and small group workshops focusing upon current issues with leadership, medical professionalism and ethics. Examples of these sessions include the Sacred Vocation series, UT System Leadership session, and monthly Ethics lectures.

Evidence Based Medicine (EBM) – This is a series of noon monthly lectures presented to allow residents to learn how to critically appraise journal articles, stay current on statistics, etc.

Morbidity and Mortality Conference (MM) – The M&M Conference is held occasionally at noon throughout the year. A case, with an adverse outcome, through not necessarily resulting in death, is discussed and thoroughly reviewed. Faculty members from various disciplines are invited to attend, especially if they were involved in the care of the patient. The discussion focuses on how care could have been improved.

Med/Path Conference (MP) – This conference is presented once a month in a noon conference format. A medicine resident presents a case, and then the pathology resident discusses the pathology finding including slides, involved in the case. There are four to five cases discussed per meeting.

Autopsy Review (Au) – An Autopsy Review is held once a month in a noon conference format, though there is no formal autopsy review. All autopsy reports are sent to the program director each month who then forwards them to the residents and attending involved with the case. When an autopsy is conducted, the involved residents are invited.

Pathology for Clinicians Conference (PathCI) – This conference is presented once a month at noon by pathologists to teach residents how to use the lab appropriately and to the maximum benefit of the patient. Pathologists explain how to interpret CBCs and blood smears, how to interpret lab data, how a lab test is performed, when it is appropriate to order what lab tests, and what the lab test means to the patient.

Journal Club (JC) - Journal Club is held once a month. Within these sessions, Residents and faculty critically appraise a selected article; the article is discussed in an evidence based medicine format.

Legend for Learning Activities		
AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic	FS – Faculty Supervision	NC – Noon Conferences PathCI-
Conf.	GR – Grand Rounds	Path for Clinicians PC–
CC-Core Curriculum	IL-Introductory Lecture Series	Professionalism Curriculum SS
DPC – Direct Patient Care	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	
Legend for Evaluation Methods for Residents		
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)	
DSP – Directly Supervised Procedures	PR – Peer Review	
IE – In-service Exam	SPE – Standardized patient evaluation	
MR – Morning Report		

**PRINCIPAL LEARNING ACTIVITIES
FOR LBJ GENERAL HOSPITAL ROTATIONS UNIVERSITY
OF TEXAS MEDICAL SCHOOL – HOUSTON
INTERNAL MEDICINE/PEDIATRIC RESIDENCY PROGRAM**

Morning Report (MR) – These sessions are held five mornings each week (Monday through Friday) from 8:00am to 9:00am. Monday, Thursday and Friday general Morning Report is for interns, residents and students, and Tuesday and Wednesday general Morning Report is for upper level ward residents. Interns, residents, and students meet with the ACSs (CMRs) and faculty members attending morning report to discuss two cases which are prepared by an on-call resident. The on-call resident presents the details of the case for discussion. The residents and faculty discuss the case to arrive at a diagnosis, as well as any further learning points from the case.

Attending Rounds (AR) – Daily, including weekends, usually from 9:00am to noon, patients are presented to the attending physician. Post call rounds usually start at 6:00 am. Bedside teaching is regularly included in the rounds. Occasionally specialty cases are presented for discussion depending upon the interests of the attending physician. Learning activities include the physical exam, a discussion of particular medical diseases, psychosocial and ethical themes, and management issues.

Dr. Fred Rounds (DrFR) – Dr. Fred, an attending physician and senior faculty member, conducts these rounds four days a week, from 9:00am to 11:00am. Dr. Fred has been named a Master of the American College of Physicians – American Society of Internal Medicine. These teaching rounds involve a case presentation, and then the observation of the patient in the patient's room, and a discussion follows. Each team presents the case four to five times a month.

Faculty Supervision (FS) – This learning activity occurs when a faculty member is directly responsible for teaching and supervising a resident, often on a one-to-one basis and typically in a team setting. The resident is responsible for direct patient care, but the faculty member serves as a resource. The faculty member meets with the resident often to supervise patient care and to provide feedback.

Directly Supervised Procedures - (DSP) – Residents learn procedures under the direct supervision of an attending or fellow during some rotations. For example, in the Medical Intensive Care Unit the Pulmonary /Critical Care attending or fellow, or the MICU attending, observe the placement of central venous and arterial lines. Specific procedures used in patient care varies by rotation.

Direct Patient Care (DPC) – In this teaching activity, residents admit their own patients and are responsible for the ongoing care including management and discharge. Patient management is supervised by the attending physician.

Noon Conferences (NC) – The noon conferences focus on monthly themes of the various specialty medicine topics for eleven months of the year, i.e., Cardiology, Gastroenterology, Hematology, etc. Exceptions to this are Grand Rounds, held every Tuesday at noon throughout the year, and Senior Seminar, where the topic is selected by the presenting resident. These are the same noon conferences as the conference that occur at our other

primary teaching hospital. All residents on inpatient floor teams, as well as those on ambulatory block rotations and electives, are expected to attend noon conference. During the 12th month of the year, the noon conferences are the Introductory Lecture Series.

Noon Conferences are comprised of the following: (except for Journal Club):

Introductory Lecture Series (ILS) – These lectures are held during the month of July in place of other noon conferences, except for Grand Rounds, which continues to be held every Tuesday throughout the year. Various introductory topics are presented by subspecialty and general medicine faculty to introduce interns to basic and essential topics in internal medicine.

Core Curriculum (CC) – This core curriculum conference is held on a Mondays and Wednesdays, and is structured in a board review context where faculty members discuss a core topic in their specialty field of medicine. Faculty members review possible board questions related to the core topic with residents. By the end of an academic year, residents should have had a thorough review of all topics covered in the core curriculum of the residency training program.

Grand Rounds (GR) – The Department of Medicine hosts Grand Rounds every Tuesday from noon to 1:00pm. The Department of Pediatrics hosts Grand Rounds every Tuesday from 8:00 AM – 9:00 AM. Speakers from local, regional and national medicine training programs are invited to present topics from the broad spectrum of both specialties. All residents on inpatient floor teams, as well as those on ambulatory block rotations and electives are expected to attend.

Senior Seminar (SS) - Senior Seminar is held in a noon conference format. Upper level residents present an in-depth review of a medical topic as well as their own research. Residents are formally critiqued by both the associate program director and their resident colleagues.

Medical Jeopardy (MJ) – Medical Jeopardy is held once a month at noon. Residents form teams and compete against each other for various prizes using a computerized medical game format.

Clinicopathologic Conference (CPC) – This noon conference is held once a month, and consists of discussions of informative cases by clinicians, radiologists, and pathologists. The case is given to a discussant, an internist or a specialist depending on the case, weeks ahead of the time of presentation. The discussant is informed of everything about the case except the diagnosis. The findings leading to the ultimate diagnosis are discussed by a radiologist and pathologist at the end of the conference.

Professionalism Curriculum (PC) - This is series of large and small group workshops focusing upon current issues with leadership, medical professionalism and ethics. Examples of these sessions include the Sacred Vocation series, UT System Leadership session, and monthly Ethics lectures.

Evidence Based Medicine (EBM) – This is a series of noon monthly lectures presented to allow residents to learn how to critically appraise journal articles, stay

current on statistics, etc.

Morbidity and Mortality Conference (MM) – The M&M Conference is held occasionally at noon throughout the year. A case, with an adverse outcome, through not necessarily resulting in death, is discussed and thoroughly reviewed. Faculty members from various disciplines are invited to attend, especially if they were involved in the care of the patient. The discussion focuses on how care could have been improved.

Med/Path Conference (MP) – This conference is presented once a month in a noon conference format. A medicine resident presents a case, and then the pathology resident discusses the pathology finding including slides, involved in the case. There are four to five cases discussed per meeting.

Autopsy Review (Au) – An Autopsy Review is held once a month in a noon conference format, though there is no formal autopsy review. All autopsy reports are sent to the program director each month who then forwards them to the residents and attending involved with the case. When an autopsy is conducted, the involved residents are invited.

Pathology for Clinicians Conference (PathCI) – This conference is presented once a month at noon by pathologists to teach residents how to use the lab appropriately and to the maximum benefit of the patient. Pathologists explain how to interpret CBCs and blood smears, how to interpret lab data, how a lab test is performed, when it is appropriate to order what lab tests, and what the lab test means to the patient.

Journal Club (JC) - Journal Club is held once a month. Within these sessions, Residents and faculty critically appraise a selected article; the article is discussed in an evidence based medicine format.

Legend for Learning Activities

AR – Attending Rounds	DrFR – Dr. Fred Rounds	MP – Med-Path Conference
CPC–Clinicopathologic Conf.	EBM-Evidence Based Medicine	MedRad –Med-Rad Conf.
CC-Core Curriculum	FS – Faculty Supervision	MR – Morning Report
DPC – Direct Patient Care	GR – Grand Rounds	NC – Noon Conferences
DSP – Directly Supervised Procedures	IL-Introductory Lecture Series	PathCI-Pathology Clinicians
	MJ – Medical Jeopardy	PC–Professionalism Curriculum
		SS – Senior Seminar

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

PRINCIPAL LEARNING ACTIVITIES FOR M.D. ANDERSON CANCER CENTER ROTATIONS UNIVERSITY OF TEXAS MEDICAL SCHOOL - HOUSTON INTERNAL MEDICINE/PEDIATRIC RESIDENCY PROGRAM

Morning Conference (MC) – This conference is held on Monday and Friday mornings at 8:00 am. The conference consists of didactic teaching and lectures regarding general medicine topics and oncology issues, and is administered by the Oncology fellows.

Tuesday and Thursday Teaching Conferences (TTC) – Every Tuesday and Thursday at 12:00 noon a teaching conference occurs. The Oncology Grand Rounds are conducted every Tuesday at 8:00am which is comprised of didactic lectures about oncology issues.

Wednesday Afternoon Conference (WC) – This conference is held on Wednesday afternoons with Dr. Daniel Karp. It is an informal discussion of general medicine and oncology topics relating to the resident's patients.

Attending Rounds (AR) – Patients are presented to the attending on a daily basis during Attending Rounds. Bedside teaching is regularly included in the rounds. Learning activities include the physical exam, a discussion of oncology and management issues, and psychosocial and ethical themes.

Directly Supervised Procedures - (DSP) – Residents learn procedures under the direct supervision of an attending or fellow during some rotations. For example, in the Medical Intensive Care Unit the Pulmonary /Critical Care attending or fellow, or the MICU attending, observe the placement of central venous and arterial lines. Specific procedures used in patient care varies by rotation.

Direct Patient Care (DPC) – In this teaching activity, residents admit their own patients and are responsible for the ongoing care including management and discharge. Patient management is supervised by the attending physician

Core Curriculum Conference (CC) – This conference is held at Hermann on various days at noon. The conference is structured in a board review context where faculty members discuss a topic for an hour. Faculty members then go over board review questions related to that topic with residents for an additional one-half hour. If a conference is not being held at noon at M.D. Anderson, residents on rotation at MD Anderson are required to attend Core Curriculum if the conference is being held that day at Memorial Hermann Hospital.

Legend for Learning Activities

MC – Morning Conference	DSP – Directly Supervised Procedures
TTC – Tuesday/Thursday Conferences	CC – Core Curriculum (Hermann)
WC – Wednesday Conference	AR – Attending Rounds
DPC – Direct Patient Care	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
PDR–Program Director's Review (twice annually)	

**PRINCIPAL LEARNING ACTIVITIES
FOR ST. LUKE’S EPISCOPAL HOSPITAL ROTATIONS
UNIVERSITY OF TEXAS MEDICAL SCHOOL-HOUSTON
INTERNAL MEDICINE/PEDIATRIC RESIDENTS**

Morning Report (MR) – These sessions are held every weekday from 9:00 to 10:00am. The Chief Resident at St. Luke’s conducts and directs the sessions. The resident and intern on call present a prepared case. Seven or eight faculty members attend the reports, and the patient is discussed in terms of diagnosis and management issues.

Saturday Morning Report (SMR) - These sessions are held on Saturday morning at 8:00am, and are conducted by Dr. Barry Zeluff, Associate Chief and Program Director, Education, Internal Medicine Service, St. Luke’s Episcopal Hospital, or the Chief Medical Resident at St. Luke’s. The sessions are held in Dr. Zeluff’s office, and are informal. Residents and interns review their patients which were admitted overnight. Dr. Zeluff asks if there are any issues, and if so these problems are addressed.

Noon Conferences (NC) – These conferences are held daily from 12:00noon to 1:00pm and the topics are not specifically scheduled but vary. The exception to this is on Thursdays, when Baylor College of Medicine Grand Rounds serves as the noon conference.

Teaching Rounds (TR) – Teaching Rounds are held daily at St. Luke’s. They are similar to Attending Rounds at Hermann Hospital, where patients are presented to the attending physician. Bedside teaching is regularly included in the rounds. Occasionally specialty cases are presented for discussion depending upon the interests of the attending physician. Learning activities include the physical exam, a discussion of particular medical diseases, psychosocial and ethical themes, and management issues.

Direct Patient Care (DPC) – In this teaching activity, residents learn by caring for the patients they are treating. Patient management is supervised by the attending physician.

Directly Supervised Procedures - (DSP) – Residents learn procedures under the direct supervision of an attending or fellow during some rotations. Specific procedures used in patient care vary by rotation.

Core Curriculum Conference (CC) – This conference is held at Memorial Hermann Hospital on various days at noon. The conference is structured in a board review context where faculty members discuss a topic for an hour. Faculty members then go over board review questions related to that topic with residents for an additional one-half hour. Residents at St. Luke’s are required to attend these conferences at Memorial Hermann while on rotation at St. Luke’s, even if a noon conference is offered at St. Luke’s at the same time.

Legend for Learning Activities	
DPC – Direct Patient Care	NC – Noon Conferences
DSP – Directly Supervised Procedures	SMR – Saturday Morning Report
MR – Morning Report	TR – Teaching Rounds
CC - Core Curriculum Conf at MHH	
Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	
IE – In-service Exam	
PDR–Program Director’s Review (twice annually)	

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

CONTINUITY CLINIC

The Continuity Clinic rotation occurs one-half day each week throughout residency at the Good Neighbor Clinic. On the clinic morning or afternoon residents treat and follow their same panel of patients. They routinely care for five or six new or follow-up patients during a clinic session, where they are individually supervised by an attending faculty supervisor. However, residents do not participate in clinic during the MICU and CCU rotations, or when they are post-call or on vacation.

Patients seen in the Continuity Clinic rotation include patients referred to the resident's Panel Clinic after discharge from Memorial Hermann Hospital, patients referred to the panel clinic at LBJ Hospital, from the Emergency Department, or after discharge from an inpatient service, patients receiving primary care at Harris County's Thomas Street Clinic, or the.

Legend for Learning Activities

ACS – Ambulatory Care Series	FS – Faculty Supervision	NC – Noon Conferences
CC-Core Curriculum	GR – Grand Rounds	PC–Professionalism Curriculum
DPC – Direct Patient Care	IL-Introductory Lecture Series	SS – Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

FE - Faculty Evaluations	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
PDR–Program Director's Review (twice annually)	

*Evaluations of residents on the Continuity Clinic rotation occur quarterly rather than usual monthly evaluations.

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann and LBJ Hospitals is included in the front of the report for further information. Residents are given progressive responsibility as they progress through Residency. The Intern will be directly supervised for the first 6 months of their continuity clinic experience and will gain autonomy through indirect supervision after that time. A resident’s autonomy with their continuity clinic patient panel is awarded as appropriate based on the judgment of Continuity clinic attending.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination.	DPC	FE, SPE
2..	Ability to write concise, accurate and informative histories, physical examinations and progress	DPC	FE
3.	Define and prioritize patients’ medical problems and generate appropriate differential diagnoses.	DPC, ACS	FE
4.	Develop rational, evidence-based management strategies.	DPC, SS	FE
5.	<i>PG-1</i> - Ability to make basic interpretation of chest and abdominal x-rays and electrocardiograms. <i>PG-2/3/4</i> – Develop and demonstrate proficiency	DPC, IL, CC DPC	FE, IE FE, IE
6.	<i>PG-1</i> - Ability to perform pelvic examination under supervision. <i>PG – 2/3/4</i> – Ability to perform pelvic examination.	DPC, ACS DPC, ACS	FE FE
7.	Ability to recognize the physical findings of important medical illnesses.	DPC	FE
8.	Willingness and ability to help patients engage in strategies of disease prevention.	DPC	FE, SPE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of medical patients.	DPC, IL, CC	FE, IE
2.	Access and critically evaluate current medical information and scientific evidence relevant to patient care.	DPC, CC, SS	FE, IE
3.	<i>PG-1</i> -Understand basic pathophysiology, clinical manifestations, diagnosis and management of medical illnesses seen by a general internist in the ambulatory setting. <i>PG- 2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, CC DPC, CC	FE, IE FE, IE
4.	<i>PG-1</i> - Recognize the indications for and basic interpretation of chest and abdominal X-rays, electrocardiograms, and pulmonary function tests. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, CC DPC, CC	FE, IE FE, IE
5.	<i>PG-1</i> -Learn indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC,CC DPC, CC	FE FE
6.	<i>PG-1</i> - Familiarity with basic principles of disease prevention, including adult immunizations, cardiovascular risk assessment, prevention of cardiovascular disease, screening for cancer, prevention of osteoporosis and cessation of use of tobacco. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, ACS	FE, SPE
7.	Appreciation of the evolution of chronic conditions over time.	DPC, ACS, CC	FE, SPE
8.	<i>PG –1</i> Basic familiarity with pathophysiology, clinical manifestations and non-operative management of common musculoskeletal conditions, including occupational and sports-related injuries. <i>PG-2/3/4</i> – Develop and demonstrate in-	DPC, ACS, CC DPC, ACS	FE FE
9.	<i>PG-1</i> - Basic familiarity with pathophysiology, clinical manifestations and medical management of common gynecological conditions, including acute salpingitis, vaginitis, dysmenorrhea, irregular menses and menopausal symptoms. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, ACS DPC, ACS	FE FE

10.	<i>PG-1</i> - Basic familiarity with pathophysiology, clinical manifestations and medical management of common otolaryngological conditions, including acute and chronic sinusitis and allergic rhinitis. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, ACS DPC, ACS	FE FE
11.	<i>PG-1</i> - Basic familiarity with pathophysiology, clinical manifestations and management of common ophthalmologic conditions, including minor ocular injuries and conjunctivitis. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, ACS DPC, ACS	FE FE
12.	Familiarity with special features of diagnosis, interpretation of tests and management of illnesses in a geriatric population.	DPC, SL	FE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families.	DPC, PC	FE, SPE
2.	Communicate effectively with physician colleagues at all levels.	DPC, PC	FE, PR
3.	Present information on patients concisely and clearly, both verbally and in writing.	DPC	FE, PR

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team.	DPC, PC	FE
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care.	DPC, PC	FE
3.	Appreciation of the social context of illness.	DPC, PC	FE, SPE
4.	Understand ethical concepts of confidentiality, consent, autonomy and justice in the outpatient	DPC, PC	FE
5.	Understand professionalism concepts of integrity, altruism and conflict of interest in the outpatient	DPC, PC	FE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Identify and acknowledge gaps in personal knowledge and skills in the care of ambulatory	DPC	FE
2.	Develop and implement strategies for filling gaps in knowledge and skills.	DPC	FE, IE, PDR
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence- based medicine related to the outpatient world.	DPC, SS	FE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for clinic	DPC	FE
2.	Collaborate with other members of the health care team to assure comprehensive patient	DPC	FE
3.	Use evidence-based, cost-conscious strategies in the care of outpatients.	DPC, SS	FE
4.	Effective collaboration with other members of the health care team, including nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, and providers of home health services.	DPC	FE
5.	Knowing when and how to request medical consultation, and how best to utilize the advice provided.	DPC	FE
6.	Consideration of the cost-effectiveness of outpatient diagnostic and treatment strategies.	DPC, SS	FE
7.	Knowing when to refer patients to specialists in orthopedics, gynecology, otolaryngology and ophthalmology.	DPC, ACS	FE
8.	Knowing when to consult or refer a patient to a medical subspecialist.	DPC, ACS	FE
9.	<i>PG-2/3/4</i> – Willingness and ability to teach medical students and PG-1 residents.	DPC, PC	FE, PR

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

MEMORIAL HERMANN/LBJ AMBULATORY BLOCK ROTATION

Residents participate in the Memorial Hermann Hospital ambulatory rotation for one month. They see general medicine outpatients in the general Internal Medicine clinics at Hermann Hospital each weekday from approximately 9:00am to 4:00pm. Faculty members supervise the residents in the clinics and provide ongoing teaching during the rotation. The ambulatory rotation for residents at LBJ is also for one month, but here the resident primarily rotates through several subspecialty units, usually one per day, in addition to seeing some general medicine clinic patients. The resident works with an attending, most of who are subspecialty faculty members. The hours are from 8:00am to 11:50am, and 1:00pm to 5:00 pm. The LBJ patients are typically non-resource patients, or patients who lack funds for private physician's care.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman's Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic	FS – Faculty Supervision	NC – Noon Conferences
Conf.	GR – Grand Rounds	PathCI- Path for Clinicians
CC-Core Curriculum	IL-Introductory Lecture Series	PC–Professionalism Curriculum
DPC – Direct Patient Care	JC – Journal Club	SS – Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

FE - Faculty Evaluations	PR – Peer Review
DSP – Directly Supervised Procedures	SPE – Standardized patient evaluation
IE – In-service Exam	
PDR–Program Director's Review (twice annually)	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann and LBJ Hospitals is included in the front of the report for further information.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a good medical history and perform a careful and accurate physical examination.	DPC	FE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC	FE
3.	Maintain focus and timeliness in the evaluation and management of ambulatory problems.	DPC	FE
4.	Understand and implement appropriate strategies for disease prevention and health promotion.	DPC, ACS	FE
5.	Develop strategies to efficiently evaluate and manage common ambulatory medical problems.	DPC, ACS	FE
6.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management.	DPC	FE
7.	<i>PG-1</i> - Ability to make basic interpretation of chest and abdominal x-rays. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, CC DPC, CC	FE, IE FE, IE
8.	<i>PG-1</i> - Ability to make basic interpretation of electrocardiograms. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, CC, IL DPC, CC, IL	FE, IE FE, IE
9.	<i>PG-1</i> - Ability to perform pelvic examination under supervision. <i>PG-2/3/4</i> - Ability to perform pelvic examination.	DPC, ACS DPC, ACS	FE FE
10.	Willingness and ability to help patients engage in strategies of disease prevention.	DPC	FE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities*	Evaluation Methods
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1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of ambulatory patients.	DPC, IL, CC	FE, IE
2.	Access and critically evaluate current medical information and scientific evidence relevant to ambulatory patient care.	DPC, SS	FE, IE
3.	PG-1 - Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of medical illnesses commonly seen by a general internist in the ambulatory setting. PG-2/3/4 - Develop and demonstrate proficiency in above.	DPC, CC DPC, CC	FE, IE FE, IE
4.	Understanding the clinical manifestations, diagnosis and management of problems commonly seen in adolescents.	DPC, SL	FE
5.	Familiarity with indications for and interpretation of chest and abdominal X-ray, electrocardiograms,	DPC, CC	FE, IE
6.	Familiarity with indications for and interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests, urinalysis, body fluid analyses, and microbiologic tests.	DPC, CC	FE, IE
7.	PG-1- Familiarity with basic principles of disease prevention, including adult immunizations, cardiovascular risk assessment, prevention of cardiovascular disease, screening for cancer, prevention of osteoporosis and cessation of use of tobacco. PG-2/3/4 - Develop and demonstrate proficiency in above.	DPC, CC, ACS DPC, ACS, CC	FE FE, IE
8.	PG-1- Basic familiarity with pathophysiology, clinical manifestations and non-operative management of common musculoskeletal conditions, including occupational and sports-related injuries. PG-2/3/4 - Develop and demonstrate proficiency in above.	DPC, ACS, GR DPC, ACS, GR	FE FE
9.	PG-1-Basic familiarity with pathophysiology, clinical manifestations and medical management of common gynecological conditions, including acute salpingitis, vaginitis, dysmenorrhea, irregular menses and menopausal symptoms. PG-2/3/4 - Develop and demonstrate proficiency in above.	DPC, ACS, GR DPC, ACS, GR	FE FE

10.	<i>PG-1</i> - Basic familiarity with pathophysiology, clinical manifestations and medical management of common otolaryngological conditions, including acute and chronic sinusitis and allergic rhinitis. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, ACS, GR DPC, ACS, GR	FE FE
11.	<i>PG-1</i> - Basic familiarity with pathophysiology, clinical manifestations and management of common ophthalmologic conditions, including minor ocular injuries and conjunctivitis. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC DPC	FE FE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities*	Evaluation Methods
1.	Communicate effectively with patients and families across a broad range of socioeconomic and ethnic backgrounds.	DPC, PC	FE
2.	Communicate effectively with physician colleagues and members of other health care professions to assure comprehensive patient care.	DPC, PC	FE

D. Professionalism

	Principal Educational Goals	Learning Activities*	Evaluation Methods
1.	Interact professionally towards patients, families, colleagues, and all members of the health care team.	DPC, PC	FE
2.	Appreciation of the social context of illness.	DPC, PC	FE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of ambulatory patients.	DPC	FE
2.	Develop real-time strategies for filling knowledge gaps that will benefit patients in a busy practice setting.	DPC	FE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, CC, SS	FE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for ambulatory patients.	DPC	FE
2.	Collaborate with other members of the health care team to assure comprehensive ambulatory patient	DPC	FE
3.	Use evidence-based, cost-conscious strategies in the care of ambulatory patients.	DPC, SS	FE
4.	Begin to understand the business aspects of practice management in a variety of settings.	GR, NC	FE
5.	Knowing when to consult or refer a patient to a medical subspecialist.	DPC	FE
6.	Knowing when to refer patients to specialists in orthopedics, gynecology, otolaryngology and ophthalmology.	DPC	FE
7.	Effective utilization of medical consultants, including knowing when and how to request consultation, and how best to utilize the advice provided.	DPC	FE
8.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	SS, GR	FE

**The University of Texas-Houston Health Science Center
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LBJ NON-MEDICAL SUBSPECIALTIES CLINIC ROTATION

The Non-Medical Subspecialties Rotation at LBJ Hospital consists of an ambulatory experience in various surgical and non-medical subspecialties. The clinics consist of neurology, otolaryngology, orthopedics, ophthalmology, urology, adolescent medicine, dermatology and surgical clearance. Residents assigned to this rotation are upper level residents; they participate in the LBJ Hospital outpatient subspecialty ambulatory rotation for one month. They see outpatients in the clinics at LBJ each weekday from approximately 9:00am to 4:00pm. Faculty members supervise the residents in the clinics and provide ongoing teaching during the rotation. The LBJ patients are typically non-resource patients, or patients who lack funds for private physician's care.

Legend for Learning Activities

ACS – Ambulatory Care Series	GR – Ground Rounds	PC–Professionalism Curriculum
CC-Core Curriculum	IL-Introductory Lecture Series	RC – Research Conference
DPC – Direct Patient Care	JC – Journal Club	SL – Subspecialty Lectures
FS – Faculty Supervision	NC – Noon Conferences	SS – Senior Seminar

Legend for Evaluation Methods for Residents

FE - Faculty Evaluations	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
PDR–Program Director's Review (twice annually)	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at LBJ Hospital is included in the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents only):

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Perform and document a comprehensive medical history and examination.	DPC	FE
2.	Implement appropriate strategies for disease prevention and health promotion.	DPC, ACS CC	FE
3.	Advocate for the best interest of the patient.	ACS, DPC	FE
4.	Be sensitive to confidentiality and consent issues.	ACS, DPC	FE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities*	Evaluation Methods
	Adolescent Medicine		
1.	Access and critically evaluate current medical information and scientific evidence relevant to ambulatory patient care.	DPC, CC	FE, IE
2.	Understanding the clinical manifestations, diagnosis and management of behavior problems commonly seen in adolescents.	ACS, DPC, SL	FE, IE
3.	Identify early adulthood medical issues including obesity, hypertension and diabetes.	ACS, DPC, SL	FE, IE
	Dermatology		
1.	Recognize the dermatologic manifestation of systemic disease, i.e. systemic lupus erythematosus, sarcoidosis, inflammatory bowel disease, hepatitis, herpes, AIDS	ACS, DPC, SL	FE, IE
2.	Identify and treat common skin conditions.	ACS, DPC, SL	FE, IE
	Neurology		

1.	Diagnose and perform proper imaging techniques for seizure disorders.	ACS, DPC, SL	FE, IE
2.	Differentiate non-urgent and chronic neurological diseases, i.e. Headache, seizures, movement disorders, dementias, radiculopathies, and neuropathies.	ACS, DPC, SL	FE, IE
3.	Interpret diagnostic studies (lumbar puncture, EEG, computed topography, magnetic resonance imaging) available for neurological disorders.	ACS, DPC, SL	FE, IE
Ophthalmology			
1.	Recognize and treat diabetic and hypertensive retinopathy.	ACS, DPC, SL	FE, IE
2.	Identify ophthalmologic pathology in systemic medical conditions, i.e. multiple sclerosis, AIDS, diabetes, hypertension, sarcoidosis, and leukemia.	DPC, CC	FE, IE
3.	Diagnose and treat glaucoma.	ACS, DPC, SL	FE, IE
4.	Identify predisposing conditions to the development of cataracts.	ACS, DPC, SL	FE, IE
Orthopedics			
1.	Assess and treat upper extremity (shoulder fracture/dislocations, forearm and wrist fractures, tendon and nerve injuries) and lower extremity (hip fracture, amputations) orthopedic conditions.	ACS, DPC, SL	FE, IE
Otolaryngology			
1.	Assess the various systemic medical illnesses associated with otolaryngic manifestations included but not limited to Wegner's granulomatosis, Goodpasture's disease,	ACS, DPC, SL	FE, IE
Surgical Clearance			
1.	Identify guidelines for perioperative antibiotic Prophylaxis	ACS, DPC, SL	FE, IE
2.	Identify risk reduction guidelines for pulmonary complications of surgery.	ACS, DPC, SL	FE, IE
Urology			
1.	Diagnose and treat renal stone disease.	ACS, DPC, SL	FE, IE
2.	Identify indications for various urology studies and interventions including urodynamics. Prostatic	ACS, DPC, SL	FE, IE
3.	Recognize symptoms, diagnose and treat benign prostatic hypertrophy.	ACS, DPC, SL	FE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities*	Evaluation Methods
1.	Communicate effectively with patients and families across a broad range of socioeconomic and ethnic backgrounds.	DPC, PC	FE, PDR
2.	Communicate effectively with physician colleagues and members of other health care professions to ensure comprehensive patient care.	DPC, PC	FE, PDR

D. Professionalism

	Principal Educational Goals	Learning Activities*	Evaluation Methods
1.	Interact professionally with patients, families, colleagues, and all other members of the health care team.	DPC, PC	FE, PDR
2.	Appreciation of the social context of illness.	DPC, PC	FE
3.	Demonstrate ethical behavior, integrity, honesty, professional conduct, compassion and confidentiality in the delivery of patient care, including obtaining informed consent/assent, and declaring conflict of interest.	DPC, ACS	FE, PDR

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of ambulatory patients.	DPC	FE
2.	Demonstrate principles of evidence-based medicine.	DPC	FE
3.	Demonstrate the awareness of information-based technologies and the ability to access them.	DPC, CC, SS	FE, IE

G. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Maintain an attitude of interdisciplinary collaboration, advocacy and cooperation.	DPC	FE
2.	Collaborate with other members of the health care team to assure comprehensive ambulatory patient care.	DPC, ACS	FE

3.	Use evidence-based, cost-conscious strategies in the care of ambulatory patients.	DPC, ACS, SS	FE
4.	Partner with insurance and managed care companies to meet patient needs.	DPC, ACS	FE
5.	Know when to refer patients to sub-specialists in adolescent medicine, dermatology, neurology, otolaryngology, ophthalmology, orthopedics, surgical clearance, and neurology.	DPC, ACS, SS	FE

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ALLERGY AND IMMUNOLOGY ROTATION

The Allergy and Immunology Rotation is a month long ambulatory rotation for one upper level resident. Residents work under the supervision of a board certified allergist and immunologist who is a partner in a private allergy practice near the Texas Medical Center. Patients seen include those with allergic and immunologic disorders of all ages, as this allergy practice offers specialized treatment of both adult and pediatric patients. The rotation is a Monday through Friday rotation, with no call. Residents are not expected to attend noon conferences on this rotation as they are assigned to an off campus location for the duration of the rotation. A syllabus is available for residents on this rotation, and they are expected to be responsible for the information included in the syllabus.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic	FS – Faculty Supervision	NC – Noon Conferences PathCI-
Conf.	GR – Grand Rounds	Path for Clinicians PC–
CC-Core Curriculum	IL-Introductory Lecture Series	Professionalism Curriculum SS
DPC – Direct Patient Care	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination with a focus on allergy and immunology.	DPC	AE
2.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and recommendations for further investigation and management with a focus on allergy and immunology.	DPC	AE, IE
3.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their rationale.	DPC	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of medical patients relating to allergy	DPC	AE, IE
2.	Access and critically evaluate current medical information and scientific evidence relevant to patient care of allergy and immunology patients.	DPC	AE, IE
3.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of allergic, asthmatic and immunologic disorders, including asthma, immunosuppression and HIV disease, with emphasis on those commonly seen by a specialist in the ambulatory setting.	DPC	AE, IE
4.	Familiarity with the indications for, principles, complications, and interpretation of specialized tests, including allergy skin tests, delayed hypersensitivity	DPC	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families.	DPC	AE
2.	Communicate effectively with physician colleagues at all levels.	DPC	AE
3.	Present information on patients concisely and clearly both verbally and in writing.	DPC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally with patients, families, colleagues, and all members of the health care team.	DPC	AE
2.	Develop an appreciation of the social context of illness related to allergy and immunology issues.	DPC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients with allergy and immunology issues.	DPC	AE
2.	Develop and implement strategies for filling gaps in knowledge and skills in the care of patients with allergy and immunology issues.	DPC	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC	AE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Collaborate with other members of the health care team to assure comprehensive patient care.	DPC	AE

2.	Use evidence-based, cost-conscious strategies in the care of hospitalized patients.	DPC	AE
3.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC	AE
4.	Willingness and ability to teach medical students.	DPC	AE
5.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the situation	DPC	AE
6.	Know when to consult an allergist.	DPC	AE

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GERIATRICS ROTATION

The Geriatrics Rotation is a one month rotation for four residents. This rotation is divided into 4 one week rotations. Each of the 4 residents must rotate through each of the rotations.

I. Memorial Hermann ACE Unit week

This one week inpatient experience exposes the Resident to in-patient Geriatric care under the guidance of board certified geriatricians

II. CHA (Center for Healthy Aging)/Palliative week (Memorial Hermann) exposes residents working with board certified palliative care physicians.

III. LBJ outpatient week exposes residents to the care of geriatric patient in the outpatient setting.

IV. LBJ inpatient week exposes residents to the care of geriatric patient in the outpatient setting.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic	FS – Faculty Supervision	NC – Noon Conferences
Conf.	GR – Grand Rounds	PathCI- Path for Clinicians
CC-Core Curriculum	IL-Introductory Lecture Series	PR – Professor Rounds
DS – Directed Study	JC – Journal Club	PC–Professionalism Curriculum
DPC – Direct Patient Care	MJ – Medical Jeopardy	SS – Senior Seminar
		WD – Weekly Didactic Sessions

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital is included near the front of the report for further information.

PG- 3 (Goals are for third year residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
2.	Perform an efficient, focused office visit with an older patient, including appropriate interview, taking of medical history, and physical examination.	DPC	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC	AE
3.	Recognize, evaluate and initiate appropriate treatment for geriatric syndromes.	DPC, MR, CC, PR, WD	AE, IE
4.	Promote wellness and maintenance of function in elderly patients, including direction of patients to community resources related to wellness.	DPC, PR	AE
6.	Appropriately prescribe medications in elderly patients.	DPC, MR, CC, PR	AE, IE
7.	Lead discussions of both general management and end-of-life issues with families.	DPC, PR	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of elderly patients.	DPC, PR, CC, DS, WD	AE, IE
2.	Understand the concept of wellness and appreciate the important of maintenance of function in elderly patients.	DPC, PR, CC, MR, WD	AE, IE
3.	Understand the important alterations in pharmacokinetics and pharmacological effect of medications in commonly prescribed for elderly patients.	DPC, CC	AE, IE

4.	Familiarity with special features of diagnosis, interpretation of tests and management of illnesses in a geriatric population.	DPC, MR, PR, DS, WD	AE, IE
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C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with elderly patients and their families.	DPC, PR	AE
2.	Recognize and deal effectively with the communication challenges resulting from cognitive impairment in elderly patients.	DPC, PR	AE
3.	Communicate effectively with physician colleagues and other health care professionals to assure timely, comprehensive care for elderly patients at various levels of care.	DPC, MR, PR	AE
4.	Present information concisely and clearly both verbally and in writing on patients.	DPC, MR, PR	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team.	DPC, PR	AE
2.	Develop an appreciation of the social context of illness in the geriatric population.	DPC, MR, PR	AE
3.	Know when and how to request ethics consultations, and how best to utilize the advice provided.	DPC, MR, PR	AE
4.	Understand ethical concepts of confidentiality, consent, autonomy and justice regarding the elderly patient.	DPC, MR, PR	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of elderly patients.	DPC, PR, MR, DS	AE
2.	Develop evidence-strategies for filling gaps in personal knowledge and skills in the care of elderly	DPC, DS	AE

3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence- based medicine.	DPC, DS	AE
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F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for elderly patients.	DPC, PR	AE
2.	Collaborate with other members of the health care team to assure comprehensive care for elderly patients.	DPC	AE
3.	Use evidence-based, cost-conscious strategies in the care of elderly patients.	DPC, PR	AE
4.	Understand the full range of living options for elderly persons and the cognitive and functional abilities required for successful living in these various settings.	DPC, PR, MR	AE
5.	Know when and how to request medical subspecialists regarding care of the elderly patient,	DPC, PR, MR	AE

MEMORIAL HERMANN GENERAL WARD SERVICES A – D

Residents assigned to the Memorial Hermann Hospital General Ward Services rotation work in three of four teams of one senior resident (either PGY2 or PGY3) and two interns (PGY1) during the month long rotation. All ward teams care for patients with both general medical and subspecialty problems across the full age range from adolescence to the elderly. Resident teams develop diagnostic and therapeutic management plans in collaboration with the attending physician of record through daily evaluation and discussion. Call is every fourth night, the team on call takes up to 10 admissions. The post-call team leaves the hospital at 1:00pm, at which point the post-call cover resident assumes all aspects of patient care. There is one day off during the week. The fourth team consist of one senior resident working directly with a hospitalist to care for admitted patients.

Patients seen on the Memorial Hermann General Medicine Services A - D rotation are in Memorial Hermann Hospital on the general medicine services. They include patients without a previously documented faculty physician from clinics or the ER, patients referred to faculty physicians, private patients of faculty physicians, patients of community practitioners (mostly former UTHMS residents), and managed care patients. Patients can be transferred to the Skilled Nursing Facility and are still followed by the team, requiring notes twice weekly.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic Conf.	FS – Faculty Supervision	NC – Noon Conferences PathCl-
CC-Core Curriculum	GR – Grand Rounds	Path for Clinicians PC–
DPC – Direct Patient Care	IL-Introductory Lecture Series	Professionalism Curriculum SS
	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital is included in the front of the report for further information.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
3.	Ability to take a complete medical history and perform a careful and accurate physical examination.	DPC, AR, MR	AE, MR
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC, AR	AE
3.	Define and prioritize patients' medical problems and generate appropriate differential diagnoses.	DPC, AR, CR, MR	AE, MR, IE
4.	Develop rational, evidence-based management strategies.	DPC, AR, MR, JC, EBM	AE, MR, IE
5.	<i>PG-1</i> – Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, nasogastric intubation, and endotracheal intubation. <i>PG-2/3/4</i> – Develop proficiency in performance of procedures listed above.	DPC, AR, DSP DPC, AR, DSP	AE, DSP AE, DSP
6.	<i>PG-2/3/4</i> - Ability to perform endotracheal intubation.	DPC, AR, DSP	AE, DSP
7.	Participation and later leadership of discussions of end-of-life issues with families.	DPC, AR, PC	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of medical patients.	AR, CR, DPC, EBM, NC, MR	AE, IE, MR
2.	Access and critically evaluate current medical information and scientific evidence relevant to patient care.	AR, CR, DPC, EBM, NC, MR	AE, IE
3.	<i>PG-1</i> Understand basic pathophysiology, clinical manifestations, diagnosis and management of medical illnesses seen on a general medicine inpatient service. <i>PG-2/3/4</i> Develop and demonstrate proficiency in above.	AR, CR, DPC, EBM, NC, MR AR, CR,	AE, IE AE, IE

4.	<p><i>PG-1-</i> Recognize the indications for and basic interpretation of chest and abdominal X-rays, electrocardiograms, and pulmonary function tests.</p> <p><i>PG-2/3/4-</i> Develop and demonstrate proficiency in above.</p>	<p>AR, CR, DPC, EBM, NC, MR</p> <p>AR, CR, DPC, EBM, NC, MR</p>	<p>AE, IE</p> <p>AE, IE</p>
5.	<p><i>PG-1 -</i> Learn indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation students, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests.</p> <p><i>PG-2/3/4 -</i> Develop and demonstrate proficiency in above.</p>	<p>AR, CR, DPC, EBM, NC, MR</p>	<p>AE, IE</p>

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families.	DPC, AR, PC, FS	AE, MR, PDR
2.	Communicate effectively with physician colleagues at all levels.	DPC, AR, MR, PC, CR, FS	AE, MR, PDR, PR
3.	Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of hospitalized patients.	DPC, AR, PC, FS	AE, MR, PDR
4.	Present information concisely and clearly both verbally and in writing on patients.	AR, MR, CR, NC	AE, MR

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally towards patients, families, colleagues, and all members of the health care team.	DPC, AR, PC, MR	AE, PR, PDR
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care	DPC, AR, PC	AE, PR, PDR
3.	Appreciation of the social context of illness.	DPC, AR, PC	AE
4.	Knowing when and how to request ethics consultation, and how best to utilize the advice provided.	DPC, AR, PC	AE
5.	Understand ethical concepts of confidentiality, consent, autonomy and justice.	DPC, AR, PC	AE, PDR
6.	Understand professionalism concepts of integrity, altruism and conflict of interest.	DPC, AR, PC	AE, PDR

7.	Increase self-awareness to identify methods to manage personal and professional sources of stress and burnout.	DPC, PC	PDR
8.	Increase knowledge and awareness of personal risks concerning drug/alcohol abuse for self and colleagues, including referral, treatment and follow-up.	DPC, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge/skills in the care of hospitalized patients.	DPC, AR, CR, NC	AE, MR
2.	Develop and implement strategies for filling gaps in knowledge and skills.	DPC, AR, JC, NC	AE, PDR
3.	Commitment to professional scholarship, including systematic, critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of principles of evidence-based medicine.	DPC, AR, EBM, JC, CR	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for hospitalized patients.	DPC, MR	AE, MR
2.	Use evidence-based, cost-conscious strategies in the care of hospitalized patients.	DPC, AR, CR, MR,	AE, MR
3.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, AR, CR	AE
4.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.	DPC, AR, PC	AE
5.	Knowing when and how to request medical subspecialist, and how best to utilize the advice provided.	DPC, AR, CR, NC	AE

6.	Knowing when and how to request ethics consultation, and how best to utilize the advice	DPC, AR, CR, NC, PC	AE
7.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, CR, NC, PC	AE
8.	PG-2/3/4 – Willingness and ability to teach medical students and PG-1 residents.	DPC, AR, PC	AE
9.	PG-2/3/4 - Leadership of team, including PG-1 residents, medical students, nurses, clinical pharmacists, case manager, and social worker.	AR, DPC, PC	AE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

GENERAL INPATIENT PEDIATRIC ROTATION

Residents assigned to the Memorial Hermann Children's Hospital ("MHCH") and the LBJ Hospital ("LBJ") general inpatient rotation work in teams of one senior resident (PGY-3/4), two to four residents (PGY-1/2) and two to three medical students. The senior resident functions as the team leader and is responsible for the daily management of the team and the patients in the team's care. One faculty attending is assigned to each team and participates in direct patient care and as a consultant to the team.

During the PGY-1 year, the general inpatient pediatric rotation is three one-month blocks at MHCH and a three-month block at LBJ in which low risk nursery, outpatient pediatrics and inpatient pediatrics are combined as a primary care rotation. Transitional year, PGY-1 Family Practice and PGY-1 Anesthesia residents may constitute a PGY-1 member of the team. Goals and objectives for PGY-1s apply to all PGY-1s from any service. During the PGY-2 year, residents are assigned a one month general inpatient rotation at MHCH. PGY-3s have one or two months as supervisor of an inpatient pediatric service.

All ward teams care for patients with both general medical and subspecialty problems and surgical problems. Resident teams develop diagnostic and therapeutic management plans in collaboration with the attending physician of record through daily evaluation and discussion. Call is every fourth night, the post-call team leaves the hospital at 1:00 p.m., and there is one day off during the week. There is always one senior resident and one or two PGY-1/2 residents on call. Adherence to the 80-hour work week is mandated.

The inpatient experience at LBJ is gained through a vertically integrated three month block which includes general pediatrics and outpatient pediatrics as well as normal/term newborn. There are two teams at LBJ which are composed of one senior resident and three PGY-1 residents. Each team admits new patients and takes new term infants every other day. PGY-1 residents admit on average two to four new term newborns per day. The senior resident functions as the team leader and is responsible for the daily management of the team and the patients in the team's care. A faculty attending from The University of Texas Medical School at Houston Division of Community and General Pediatrics is assigned to each team and participates in direct patient care and as a consultant to the team.

Patients seen on the general inpatient rotation include patients admitted from University of Texas clinics or the ER, patients referred to faculty physicians, private patients of faculty physicians, and patients of community practitioners who have appointments as volunteer clinical faculty.

Legend for Learning Activities

AR – Attending Rounds	GR – Grand Rounds	NC – Noon Conferences
DPC – Direct Patient Care	JC – Journal Club	PALS – Pediatric
CAT – Critically Appraised Topics	MR – Morning Report	Advanced Life Support
EBM – Evidence-Based Medicine Course	M&M – Morbidity and Mortality Conference	RC – Research Conference
E/C – Ethics/Communication Conferences	MDR – Multidisciplinary Rounds	SS – Senior Seminar
		SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents

AE – Attending Evaluations	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback
PR – Peer Review	

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to PGY-1, PGY-2 and PGY-3/4 residents and the expected competency level demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Continuum of Care

Manage the continuum of care for children with acute illness/injury from initial presentation (i.e., office, clinic, emergency room) through acute hospital care (including transfer in and out of PICU), discharge, home health services and office follow-up care.

	Principal Educational Objectives – Continuum of Care	Learning Activities	Evaluation Methods
1.	Participate in presentation of acute illness of patient by phone (with attending or referring doctor), in the clinic/office or in the emergency room.	AR, DPC, FS	AE, FS, MR, PDR, DSP (PGY-1)
2.	Review past medical history, family history, immunizations and development.	AR, DPC, FS	AE, FS, MR, PDR, DSP (PGY-1)
3.	Provide acute patient care, diagnosis, stabilization and management of a variety of acute illnesses.	AR, DPC, CAT, FS, GR, JC,	AE, FS, MR, PDR, DSP (PGY-1)
4.	Coordinate subspecialist consults for patients.	AR, DPC, FS, MR	AE, FS, MR, PDR
5.	Participate in (PGY-1) and as an upper-level resident (PGY-3/4) direct decision-making regarding transfer to and out of the PICU.	AR, DPC, FS, MR	AE, FS, MR, PDR
6.	Interact with the surgical team and manage patients in the pre-operative and post-operative environments.	AR, DPC, FS, MR	AE, FS, MR, PDR
7.	Demonstrate the skills necessary for assessing and managing pain and conscious sedation.	AR, DPC, FS, PALS	AE, FS, MR, PDR, DPS
8.	Communicate with a given family and child the impact of each phase of care on the final health care outcome. Assess the psychosocial impact of illness on the child and family and the financial burden to the family and the health care system.	AR, DPC, E/C, FS	AE, FS, PDR
9.	Provide appropriate discharge planning and follow-up care for patients with chronic illnesses.	AR, DPC, MDR	AE, FS, PDR

GOAL: Common Signs and Symptoms of General Childhood Diseases

Identify and manage common signs and symptoms of childhood illnesses cared for in the inpatient setting.

	Principal Educational Objectives – Common Signs and Symptoms	Learning Activities	Evaluation Methods
1.	Perform a directed history and physical examination including height, weight and FOC percentiles.	AR, DPC, MR, FS	AE, FS, DSP (PGY-1), PDR
2.	Perform an in-depth interview assessing behavioral, psychosocial, environmental and family unit correlates of disease.	AR, DPC, MR, FS	AE, FS, PDR, DSP (PGY-1)
3.	Evaluate and manage the following common signs and symptoms that present in the inpatient setting:	AR, DPC, CAT, GR, JC, MR, NC,	AE, FS, PDR
a.	General – failure to thrive, weight loss, fever without localizing signs, constitutional symptoms, and acute life-threatening event (ALTE)		
b.	Cardiovascular – hypotension, hypertension, rhythm disturbance, syncope, heart murmur and shock		
c.	Dermatologic – rashes, petechiae, purpura, ecchymoses, urticaria and edema		
d.	HEENT - trauma, conjunctival injection, acute visual changes, edema, epistaxis		
e.	Endocrine – polydipsia, polyuria		
f.	GI/nutrition/fluids – diarrhea, vomiting, dehydration, inadequate intake, dysphagia, regurgitation, abdominal pain, abdominal masses, hematemesis, rectal bleeding, jaundice and ascites		
g.	GU/Renal – hematuria, edema, decreased urine output, scrotal masses and dysuria		
h.	Gynecologic – genital trauma, sexual assault, pelvic pain and abnormal vaginal bleeding		
i.	Hematologic/Oncologic – pallor, abnormal bleeding, lymphadenopathy, hepatosplenomegaly and masses		

j.	Musculoskeletal – bone and soft tissue trauma, limp, arthritis/arthritis and limb pain		
k.	Neurologic – seizure, headache, delirium, lethargy, weakness, ataxia, coma, head trauma, vertigo and irritability		
l.	Psychiatric/Psychosocial – acute psychosis, suicide attempt, depression, conversion symptoms, child abuse/neglect and eating disorders		
m.	Respiratory – increased work of breathing, cyanosis, apnea, dyspnea, tachypnea, wheezing, stridor, inadequate respiratory effort, cough, hemoptysis, chest pain and respiratory failure		

GOAL: Common Conditions

Recognize and manage common childhood conditions in the inpatient setting.

	Principal Educational Objectives – Common Conditions	Learning Activities	Evaluation Methods
1.	Describe the criteria for admission to inpatient services and transfer to the PICU.	AR, MR	AE, FS, PDR, MR
2.	Develop and implement a plan for the inpatient diagnosis and treatment of common childhood conditions.	AR, MR	AE, FS, PDR, MR
3.	Describe when it is appropriate to refer a patient to a pediatric consultant.	AR, MR	AE, FS, PDR, MR
4.	Describe the criteria for discharge from inpatient services.	AR, MR, MDR	AE, FS, PDR
5.	Develop and implement discharge plans including arrangements for appropriate follow-up care and patient education.	AR, MR, MDR	AE, FS, PDR
	Common Conditions:		
a.	General – failure to thrive, fever of unknown origin and burns		
b.	Allergy/Immunology – acute exacerbation of chronic asthma, acute and significant drug		
c.	Cardiovascular – congestive heart failure, SVT, arrhythmias, Kawasaki disease and cardiomyopathy		
d.	Endocrine – diabetes (including DKA), electrolyte disturbances secondary to underlying endocrine disease		
e.	GI/Nutritional/Fluids – gastroenteritis, dehydration, electrolyte abnormalities, acidosis, gastroesophageal reflux, pyloric stenosis and liver		
f.	GU/Renal – UTI/pyelonephritis, nephrotic syndrome, glomerulonephritis, electrolyte and acid-base disturbances		

g.	Hematology/Oncology – neutropenia, sickle cell crisis and other complications, thrombocytopenia, and common malignancies		
h.	Infectious Disease – cellulitis, periorbital and orbital cellulitis, cervical adenitis, pneumonia (viral or bacterial), laryngotracheobronchitis, meningitis (bacterial or viral), encephalitis, sepsis/bacteremia (including newborns), osteomyelitis, pelvic inflammatory disease, septic arthritis, shunt or line infection,		
i.	Pharmacology/Toxicology – common drug poisoning or overdose		
j.	Neurology – seizures, severely handicapped children with acute medical conditions, developmental delay,		
k.	Respiratory – apnea, airway obstruction, croup, cystic fibrosis, aspiration and chronic lung disease		
l.	Rheumatologic – HSP, SLE		
m.	Surgery – pre- and post-op evaluation of common surgical patients, fractures, tonsillectomy and adenoidectomy		

GOAL: Management and Decision-Making

Develop a logical and appropriate clinical approach to the care of hospitalized children.

	Principal Educational Objectives – Management and Decision-Making	Learning Activities	Evaluation Methods
1.	Utilize principles of decision-making and problem solving skills in the care of hospitalized	AR, MR, DPC	AE, FS, PDR
2.	Identify and prioritize patients' medical problems and generate appropriate differential diagnoses.	AR, MR, DPC	AE, FS, PDR

GOAL: Patient Support and Advocacy

Provide sensitive support to patients and families of children with acute illness and arrange for on-going support and/or preventive services at discharge.

	Principal Educational Objectives – Patient Support and Advocacy	Learning Activities	Evaluation Methods
1.	Discuss issues such as growth and nutrition, developmental stimulation and schooling during extended hospitalizations with patients and their families.	AR, MR, DPC, MDR	AE, FS, PDR

2.	Recognize problems and/or risk factors in the child or family even outside the scope of the admission (e.g., immunizations, social risks, developmental delay) and appropriately intervene or refer.	AR, MR, DPC	AE, FS, PDR
3.	Demonstrate the skills necessary for accessing and managing pain and conscious sedation.	AR, MR, DPC, PALS	DSP
4.	Treat families in a non-judgmental, culturally sensitive manner.	AR, MR, DPC, E/C	AE, FS, PDR

B. Medical Knowledge

GOAL: Common Signs and Symptoms

Develop a differential diagnosis; formulate an appropriate work-up with diagnostic tests to establish a diagnosis. Develop appropriate treatment plan for the diagnosis.

	Principal Educational Objectives – Common Signs and Symptoms	Learning Activities	Evaluation Methods
1.	Create a differential diagnosis with age appropriate considerations.	MR, AR, DPC	AE, FS, IE, PDR
2.	Discuss indications for hospitalization and formulate a plan for inpatient diagnosis and management.	MR, DPC, AR	AE, FS, IE, PDR
3.	Discuss the pathophysiological basis for the disease or injury.	MR, AR, DPC	AE, FS, IE, PDR
	Common Signs and Symptoms:		
a.	General – failure to thrive, weight loss, fever without localizing signs, and constitutional symptoms		
b.	Cardiovascular – hypotension, hypertension, rhythm disturbance, syncope, heart murmur and shock		
c.	Dermatologic – rashes, petechiae, purpura, ecchymoses, urticaria and edema		
d.	EENT : trauma, conjunctival injection, acute visual changes, edema, epistaxis		
e.	Endocrine – polydipsia, polyuria		
f.	GI/nutrition/fluids – diarrhea, vomiting, dehydration, inadequate intake, dysphagia, regurgitation, abdominal pain, abdominal masses, hematemesis, rectal bleeding, jaundice and ascites		
g.	GU/Renal – hematuria, edema, decreased urine output, scrotal masses and dysuria		
h.	Gynecologic – genital trauma, sexual assault, pelvic pain and abnormal vaginal bleeding		
i.	Hematologic/Oncologic – pallor, abnormal bleeding, lymphadenopathy, hepatosplenomegaly and masses		
j.	Musculoskeletal – bone and soft tissue trauma, limp, arthritis/arthralgia and limb pain		

k.	Neurologic – seizure, headache, delirium, lethargy, weakness, ataxia, coma, head trauma, vertigo and irritability		
l.	Psychiatric/Psychosocial – acute psychosis, suicide attempt, depression, conversion symptoms, child abuse/neglect and eating disorders		
m.	Respiratory – increased work of breathing, cyanosis, apnea, dyspnea, tachypnea, wheezing, stridor, inadequate respiratory effort, cough, hemoptysis, chest pain and respiratory failure		

GOAL: Diagnostic Testing

Demonstrate knowledge and appropriately use common diagnostic tests in the inpatient setting.

	Principal Educational Objectives – Diagnostic Testing	Learning Activities	Evaluation Methods
1.	Discuss indications for and limitations of standard laboratory tests and imaging studies including	AR, DPC, MR, CAT	AE, FS, IE, PDR, MR
2.	Demonstrate knowledge of the age-appropriate normal readings of standard laboratory tests and imaging studies.	AR, DPC, MR	AE, FS, IE, PDR, MR
3.	Interpret abnormalities in the context of specific physiologic derangements.	AR, DPC, MR	AE, FS, IE, PDR, MR
4.	Discuss therapeutic options for correction of abnormalities when appropriate.	AR, DPC, MR, CAT	AE, FS, IE, PDR, MR
	Laboratory Tests		
a.	CBC - differential, platelet count, indices		
b.	Blood chemistries – electrolytes, glucose, calcium, and magnesium		
c.	Renal function tests		
d.	Tests of hepatic function and damage		
e.	Serologic tests for infection (e.g., hepatitis, HIV)		
f.	ESR, CRP		
g.	Therapeutic drug concentrations		
h.	Coagulation studies		
i.	Arterial, capillary and venous blood gases		
j.	Cultures for bacterial, viral and fungal pathogens		

k.	Urinalysis		
l.	CSF analysis		
m.	Gram stain		
n.	Stool studies		
o.	Other fluid studies (e.g. pleural fluid, joint fluid)		
	Imaging Studies		
a.	Plain radiographs of the chest, extremities, abdomen, skull and sinuses		
b.	Other techniques such as CT, MRI, angiography, ultrasound, nuclear scans (interpretation not expected) and contrast studies		
c.	Lateral neck x-rays		
	Skin Testing		
a.	PPD/Controls placement and interpretation		
	Other Testing		
a.	Appropriately order/use electrocardiogram and echocardiogram		

GOAL: Monitoring and Therapeutic Modalities

Demonstrate understanding of how to utilize physiologic monitoring and special technology in the general inpatient pediatric setting.

	Principal Educational Objectives – Monitoring and Therapeutic Modalities	Learning Activities	Evaluation Methods
1.	Discuss appropriate monitoring techniques for age and clinical setting, describe the indications and limitations of and interpret the results and measurement of the following monitoring modalities: body temperature, cardiac, respiratory, pulse oximetry, blood pressure, peak flow rates, mental status and food monitoring (intake, output).	DPC, MR, AR, FS	AE, FS, PDR
2.	Participate in the daily care of technologically dependent children and children that require parenteral nutrition, enteral tube feedings and/or respiratory	DPC, MR, AR, FS	AE, FS, PDR
3.	Discuss critical issues for the ongoing management of technologically dependent children in the hospital and	DPC, MR, AR, FS	AE, FS, PDR
4.	Demonstrate the skills for assessing and managing pain and conscious sedation.	DPC, MR, AR, FS, PALS	AE, FS, PDR, DSP (PGY-1)

5.	Discuss the appropriate use of the following treatments/techniques: universal precautions, nasogastric tube placement, and administration of nebulized medication	DPC, MR, AR, FS	AE, FS, PDR
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C. Practice-Based Learning and Improvement

GOAL: Management and Decision-Making

Utilize a logical and appropriate clinical approach to the care of hospitalized children applying decision-making and problem solving skills.

	Principal Educational Objectives – Management and Decision-Making	Learning Activities	Evaluation Methods
1.	Develop and apply decision-making and problem solving skills in the care of hospitalized children.	AR, MR, FS, CAT, EBM	AE, FS, PDR, MR
2.	Actively seek relevant information for patient care decisions and apply this knowledge appropriately.	AR, MR, FS, CAT, EBM	AE, FS, PDR
3.	Assess quality control and quality improvement processes and utilize results to improve patient care practices.	M&M	AE, FS, PDR
4.	Participate in chart audits as part of the quality assurance process. Utilize this process to improve	M&M	AE, FS, PDR
5.	Prioritize needs of patients in a logical order.	AR, MR, DPC, FS	AE, FS, PDR

D. Interpersonal Skills and Communication

GOAL: Teamwork and Consultation

Function as part of an interdisciplinary team on a general pediatric ward, as a primary provider (PGY-1) and as a consulting pediatrician (PGY-2/3/4).

	Principal Educational Objectives – Teamwork and Consultation	Learning Activities	Evaluation Methods
1.	Communicate well and work effectively with fellow residents, attendings, consultants, nurses, ancillary staff and referring physicians.	AR, DPC, FS	AE, FS, PDR
2.	Develop and demonstrate skills as a team participant (PGY-1) and leader (PGY-3/4) in the care of pediatric patients.	AR, DPC, FS, MR	AE, FS, PDR

3.	Present information concisely and clearly both verbally and in writing on patients to other members of the health care team.	AR, DPC, FS	AE, FS, PDR
4.	Communicate with the primary care giver in an effective and timely manner. Assist the primary care giver in assuring continuity of care for the patient.	DPC, FS	AE, FS, PDR
5.	Communicate effectively while performing the role of pediatric consultant for hospitalized patients managed by other providers (i.e., family physicians, surgeons,	DPC, FS	AE, FS, PDR
6.	Know the role of hospital and managed care case managers and work with them to optimize health care outcomes.	DPC, FS, MDR	AE, FS, PDR
7.	Communicate with families in a developmentally, culturally-sensitive manner that provides families/patient with the information they need to understand the illness/injury, participate in the care, give informed consent, and prevent future injury or dysfunction.	DPC, FS, E/C	AE, FS, PDR
8.	Communicate with families in a developmentally, culturally-sensitive manner that provides families/patient with the information they need regarding end of life issues.	DPC, FS, E/C	AE, FS, PDR
9.	Effectively listen to the concerns of patients and their families and respond with appropriate information and support.	DPC, FS, E/C	AE, FS, PDR
10.	Communicate to a given family and child the impact of each phase of care on the final health care outcome, the psychosocial impact of illness on the child and family, and the financial burden to the family and the health care system.	DPC, FS, E/C, MDR	AE, FS, PDR
11.	Effectively supervise PGY-1's and medical students (PGY-3/4).	DPC, FS, AR, MR	AE, FS, PDR, MR

GOAL: Medical Records

Maintain accurate, timely and legally appropriate medical records in the hospital inpatient setting.

	Principal Educational Objectives – Medical Records	Learning Activities	Evaluation Methods
1.	Write daily notes that clearly document the patient's progress, relevant investigations and treatment plan (PGY-1).	DPC, FS	AE, FS, PDR
2.	Ascertain which patients require more frequent documentation and ensure that this documentation takes place (PGY-1).	DPC, FS	AE, FS, PDR

3.	Prepare appropriate discharge summaries, transfer notes and off-service notes, including written communication with the primary care provider.	DPC, FS	AE, FS, PDR
4.	Review and correct medical student notes (PGY-1s and PGY-3/4s)	DPC, FS	AE, FS, PDR

E. Professionalism

GOAL: Patient Support and Advocacy

Provide sensitive support to patients and families of children with acute and chronic illnesses. Demonstrate accountability for patient care.

	Principal Educational Objectives – Patient Support and Advocacy	Learning Activities	Evaluation Methods
1.	Interact professionally with patients, families, colleagues and all members of the health care	AR, MR, DPC, FS	AE, FS, PDR
2.	Accept professional responsibility as the primary care physician for patients under his/her care.	AR, MR, DPC, FS	AE, FS, PDR
3.	Appreciate the social context of illness.	AR, MR, DPC, FS,	AE, FS, PDR
4.	Know when and how to request a pediatric specialty consult.	AR, MR, DPC, FS	AE, FS, PDR
5.	Know when and how to request ethics consultation and how best to utilize the advice provided.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR
6.	Demonstrate sensitivity and awareness in dealing with end of life issues in the hospital setting.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR

GOAL: Professional Conduct

Demonstrate commitment to following ethical and professional principles and to on-going professional development.

	Principal Educational Objectives – Professional Conduct	Learning Activities	Evaluation Methods
1.	Demonstrate knowledge of ethical concepts of confidentiality, consent, autonomy and justice.	AR, MR, DPC, FS, E/C	AE, FS, PDR
2.	Demonstrate knowledge of professionalism concepts such as integrity, altruism and conflict of interest.	AR, MR, FS, DPC, E/C	AE, FS, PDR

3.	Increase self-awareness to identify methods to manage personal and professional sources of stress and burnout.	NC, GR, E/C	AE, FS, PDR
4.	Increase knowledge and awareness of personal risks concerning drug/alcohol abuse for self and colleagues, including referral, treatment and follow-up.	NC, GR, E/C	AE, FS, PDR

F. Systems-Based Practice

GOAL: Teamwork and Consultation

Function as part of an interdisciplinary team on a general pediatric ward, as a primary provider and as a consulting pediatrician.

	Principal Educational Objectives – Teamwork and Consultation	Learning Activities	Evaluation Methods
1.	Discuss the role of the pediatric consultant and provide pediatric consultation to primary care providers and specialists in the inpatient setting (PGY-3/4).	AR, MR, DPC, FS	AE, FS, PDR
2.	Describe the role of hospital and managed care case managers. Work with these case managers to provide optimal health care (PGY-3/4).	AR, MR, DPC, FS, MDR	AE, FS, PDR

GOAL: Patient Support and Advocacy

Provide sensitive support to patients and families of children with acute illness and arrange for on-going support and/or preventive services at discharge.

	Principal Educational Objectives – Patient Support and Advocacy	Learning Activities	Evaluation Methods
1.	Discuss the unique problems in the care of children with multiple problems or chronic illness and serve as an advocate and case manager for these patients.	AR, MR, DPC, FS, MDR	AE, FS, PDR
2.	Discuss the community services available to patients with multiple handicaps.	AR, MR, DPC, FS,	AE, FS, PDR

GOAL: Financial Issues and Cost Control

Demonstrate knowledge of key aspects of cost control, billing and reimbursement in the hospital inpatient setting.

	Principal Educational Objectives – Financial Issues and Cost Control	Learning Activities	Evaluation Methods
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1.	Discuss the common mechanisms of inpatient cost control in managed care settings, including pre-authorization, concurrent review, discharge planning and guidelines.	AR, MR, MDR	AE, FS, PDR
2.	Utilize consultants and other resources appropriately.	AR, MR, MDR	AE, FS, PDR, MR
3.	Demonstrate sensitivity to the financial status of patients; utilize resources appropriately for patients/families needing financial assistance.	AR, MR, MDR	AE, FS, PDR
4.	Discuss the cost of hospitalization and commonly utilized medications, procedures and tests.	AR, MR, MDR	AE, FS, PDR
5.	Discuss common billing codes and documentation procedures.	AR, MR, MDR	AE, FS, PDR

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**MEMORIAL HERMANN CORONARY CARE UNIT (CCU)
AND CARDIOLOGY WARD SERVICE**

The Memorial Hermann Hospital Coronary Care Unit (CCU) and Cardiology Ward Service rotation lasts for one month, and consists of a team of four residents and four interns. Residents and interns take call every fourth night, and have one day a week off. During the rotation, team members have an opportunity to learn procedures under the direct supervision of the CCU attending or fellow.

Patients seen on the Memorial Hermann Hospital CCU and the Cardiology Ward Service include patients of faculty physicians, unassigned patients admitted to from the clinics or ER, and a select group of patients of community physicians who are authorized to admit patients to these services. During this rotation, residents attend the scheduled cardiology conferences which are offered while they are on the service. Residents are excused from Morning Report, but are required to attend the Department of Medicine Core Curriculum lectures which are held during their rotation.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised Procedures	M&M-Morbidity & Mortality
Au – Autopsy Report	EBM - Evidence Based Med	MP – Med/Path Conference
CR – Chairman’s Rounds	FS – Faculty Supervision	MR – Morning Report
CPC–Clinicopathologic Conf.	GR – Grand Rounds	NC – Noon Conferences PathCl- Path for Clinicians PC–
CC-Core Curriculum	IL-Introductory Lecture Series	Professionalism Curriculum SS
DPC – Direct Patient Care	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
PDR–Program Director’s Review (twice annually)	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital is included in the front of the report for further information.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Take a complete medical history and perform a careful and accurate physical examination with a cardiology focus.	DPC, AR	AE
2.	Ability to recognize the physical findings of chronic congestive heart failure, acute pulmonary edema, mitral regurgitation, mitral stenosis, aortic senosis, aortic regurgitation and tricuspid regurgitation.	DPC, AR	AE
3.	Write concise, accurate and informative histories, physical examinations and progress notes with a cardiology focus.	DPC, AR	AE
4.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management for patients with acute cardiac illness.	DPC, AR, CC	AE
5.	Effectively evaluate and manage patients with acute cardiac illness; particularly acute coronary syndromes, acute myo-cardial infarction, congestive heart failure, pulmonary edema and acute valvular heart disease.	DPC, AR, CC	AE, IE
6.	Effectively manage patients with undiagnosed chest pain, including the appropriate use of diagnostic testing.	DPC, AR, CC	AE, IE
7.	<i>PG-2/3/4</i> - Ability to recognize major abnormalities of cardiac stress tests, cardiac ECHO and coronary angiograms.	DPC, DSP, AR	AE, IE
8.	<i>PG-1</i> - Ability to interpret electrocardiograms and rhythm strips. <i>PG-2/3/4</i> - Ability to interpret complex electrocardiograms and rythm strips.	DPC, AR, CC DPC, AR, CC	AE, IE AE, IE
9.	Effectively evaluate and manage patients who have undergone interventional procedures.	DPC, AR, DSP	AE
10.	Ability to perform basic ventilator management.	DPC, AR, DSP	AE, IE

11.	<i>PG-2</i> - Ability to manage pulmonary artery (Swan-Ganz) catheters and temporary pacemakers, under supervision.	DPC, DSP, AR	AE, IE
12.	<i>PG-3/4</i> Critique the ability of <i>PG 1/2</i> to manage pulmonary artery (Swan-Ganz) catheters and temporary pacemakers.	DPC, DSP, AR	AE, IE
13.	<i>PG-2/3/4</i> - Ability to administer emergency thrombolytic treatment, under supervision.	DPC, DSP, AR	AE, IE
14.	Ability to perform CPR and advanced cardiac life support.	DPC, DSP, PC	AE, IE
15.	Willingness and ability to help patients undertake basic strategies for prevention of cardiovascular disease, including modifications of diet and physical activity, and cessation of use of tobacco.	DPC, AR	AE
16.	Participation in and later leading of discussion of end-of-life issues with families.	DPC, AR, PC	AE
	Insert central venous lines and arterial lines with proper technique.	DPC, DSP, AR	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of patients with chest pain and acute cardiac disease.	DPC, AR	AE
2.	Access and critically evaluate current medical information and scientific evidence relevant to acute cardiac care.	DPC, AR	AE, IE
3.	Understand indications for aggressive anticoagulant and antiplatelet therapy as well as the mechanisms of action of the various agents.	DPC, AR	AE, IE
4.	Understand the physiologic and pathophysiologic principles of invasive hemodynamic monitoring including indications.	DPC, AR	AE, IE
5.	<i>PG-1</i> - Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of cardiac diseases, as seen on a coronary care unit. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR	AE, IE

6.	<i>PG-1</i> - Familiarity with the basic principles of diagnosis and management of essential hypertension; ischemic heart disease, including unstable angina pectoris and myocardial infarction; congestive heart failure; common cardiac arrhythmias, especially atrial fibrillation, supraventricular tachycardia, and ventricular arrhythmias; common rheumatic heart diseases; common congenital heart diseases. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR	AE, IE
7.	<i>PG-1</i> - Basic familiarity with the indications for, principles, complications, and elementary interpretation of ECG, inpatient rhythm monitoring, exercise and chemical stress tests, electrophysiologic studies, transthoracic and transesophageal cardiac ECHO, nuclear cardiac imaging, right and left ventricular catheterization, coronary angiography, and percutaneous angioplasty. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR	AE, IE
8.	<i>PG-1</i> - Familiarity with basic principles of assessment of lifetime cardiovascular risk & cardiovascular risk prevention. <i>PG-2/3/4</i> - Fully understand principles of assessment listed above.	DPC, AR	AE, IE
9.	<i>PG-1</i> - Familiarity with basic strategies for cessation of use of tobacco. <i>PG-2/3/4</i> – Develop in-depth knowledge of above.	DPC, AR	AE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families in a stressful critical care environment.	DPC, AR	AE
2.	Communicate effectively with physician colleagues and members of other health care professions to assure timely, comprehensive patient care.	DPC, AR	AE, PR
3.	Communicate effectively with colleagues when signing out DPC or turning over care to another service.	DPC, AR	AE, PR

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team.	DPC, AR	AE, PR
2.	Interacting with patients and families in a professionally appropriate manner.	DPC, AR	AE
3.	Acceptance of professional responsibility as the primary care physician for patients under his/her care.	DPC, AR	AE, PR
4.	Appreciation of the social context of illness.	DPC, AR	AE
5.	Effective utilization of ethics knowledge and consultants. This includes guidelines for CPR and DNR and end of life cardiac care.	DPC, AR, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of acute cardiac patients.	DPC, AR	AE, IE
2.	Develop real-time strategies for filling knowledge gaps that will benefit patients in the coronary care unit.	DPC, AR	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, AR	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for acutely ill cardiac patients.	DPC, AR	AE
2.	Collaborate with other members of the health care team to assure comprehensive coronary care.	DPC, AR	AE, PR
3.	Use evidence-based, cost-conscious strategies in the care of patients with chest pain and other acute cardiac disease.	DPC, AR	AE, IE
4.	Knowing when to ask for help and advice from senior residents and attending physicians.	DPC, AR	AE, PR
5.	Effective professional collaboration with residents, fellows and faculty consultants from other disciplines such as Radiology and Surgery.	DPC, AR, GR	AE

6.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, AR	AE
7.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators ech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.	DPC, AR	AE, PR
8.	Effective utilization of ethics consultants, including knowing when and how to request consultation, and how best to utilize the advice provided.	DPC, AR, PC	AE
9.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR	AE
10.	<i>PG-2/3/4</i> - Ability to lead team, including PG-1 residents, medical students, nurses, clinical pharmacist, case manager, and social worker.	DPC, AR	AE
11.	<i>PG-2/3/4</i> - Willingness and ability to teach medical students and PG-1 residents.	DPC, AR	AE, PR

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

MEMORIAL HERMANN MEDICAL INTENSIVE CARE UNIT

The Memorial Hermann Hospital Intensive Care Unit (MICU) is a 16-bed unit specializing in the care of medically critically ill patients from a wide spectrum of medical and neurologic etiologies. Conditions cared for in the MICU include but are not limited to: acute hypoxia, acute respiratory distress syndrome, acid-base imbalances, liver and renal failure, acute stroke, intracranial hemorrhage, status epilepticus, and coma. Rotations in the MICU are one month in length, and the unit is staffed with three residents and three interns. Call on the rotation is every third night, and there is one day off during the week. Those residents assigned to the MICU are exempt from Morning Report, but are required to attend Noon Conferences.

The residents work closely with the Pulmonary/Critical Care Attending and Fellow during this month, and have the opportunity to learn procedures under the direct supervision of the MICU Attending and Fellow such as placement of central venous and arterial lines. Residents may have the opportunity to participate in the placement of Swan-Ganz catheters; in all cases the MICU Attending or another Pulmonary/Critical Care Attending is present for the entire procedure.

Patients seen on the Memorial Herman Medical Intensive Care Unit rotation include patients admitted to the MICU, patients transferred from an internal medicine service, patients admitted directly to the MICU from ER, and patients transferred to Memorial Hermann MICU from outside hospitals.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic	FS – Faculty Supervision	NC – Noon Conferences PathCI-
Conf.	GR – Grand Rounds	Path for Clinicians PC–
CC-Core Curriculum	IL-Introductory Lecture Series	Professionalism Curriculum SS
DPC – Direct Patient Care	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital is included

near the front of the report for further information.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination	DPC, AR	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC, AR	AE
3.	Effectively evaluate and manage patients with critical medical illness, including those on mechanical ventilation and vasopressors.	DPC, CC, GR, NC	AE
4.	Effectively evaluate and manage patients with critical neurological illness.	DPC	AE
5.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management for a critically ill patient	DPC, AR, CC, GR	AE, IE
6.	Insert central venous lines and arterial lines with proper technique.	DSP	AE, DSP
7.	<i>PG-1</i> - Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, AR, DSP DPC, AR, DSP	AE, DSP AE, DSP
8.	<i>PG -1</i> Ability to perform endotracheal intubation under close supervision. <i>PG -2/3/4</i> – Ability to perform endotracheal intubation independently.	DSP, DPC DSP, DPC	AE, DSP AE
9.	<i>PG-1</i> - Ability to perform basic ventilator management. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DSP, AR DSP, AR	AE AE
10	<i>PG-1</i> - Insertion and basic management of pulmonary arterial catheters under close supervision. <i>PG-2/3/4</i> - Proficiency in insertion and management of pulmonary arterial catheters under supervision.	DPC, DSP, AR DPC, DSP, AR	AE, DSP AE, DSP
11	<i>PG -1</i> - Ability to make basic interpretation of chest and abdominal x-rays and electrocardiograms. <i>PG -2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, AR DPC, AR	AE AE

12	<i>PG-1</i> - Ability to perform cardiopulmonary resuscitation and advanced cardiac life support. <i>PG-2/3/4</i> - Ability to lead a team during cardiopulmonary resuscitation and advanced cardiac life support.	DSP, DPC, AR DPC	AE AE
13	Participation in and later leadership of discussion of end-of-life issues with families.	DPC, AR, PC	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of patients with critical medical and neurological	DPC, AR, CC, NC, GR	AE, IE
2.	Access and critically evaluate current medical information and scientific evidence relevant to medical and neurological critical care	DPC, SS	AE
3.	Understand the physiologic and pathophysiologic principles of invasive hemodynamic monitoring including indications	DPC, DSP	AE
4.	<i>PG-1</i> - Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of severe and life-threatening medical illnesses. <i>PG-2/3/4</i> – Develop and demonstrate in-	DPC, AR, CC DPC,	AE, IE AE, IE
5.	<i>PG-1</i> - Familiarity with the basic principles of ventilator management. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, AR, CC DPC, AR	AE AE
6.	<i>PG-1</i> - Familiarity with the basic principles of pathophysiology, diagnosis and management of respiratory failure. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, AR, CC DPC, AR	AE AE
7.	<i>PG-1</i> - Familiarity with the basic principles of pathophysiology, diagnosis and management of sepsis and the syndrome of multiple organ failure. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, CC DPC, AR	AE, IE AE, IE
8.	Familiarity with indications for performance and basic interpretation of blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, microbiologic tests, spirometry and arterial blood gases.	DPC, AR, CC	AE, IE
9.	<i>PG-1</i> - Basic familiarity with indications for and interpretation of chest and abdominal X-ray, electrocardiograms, and pulmonary function tests. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR DPC, AR	AE AE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families in a stressful critical care environment, including discussion of end-of-life issues and limits of care.	DPC, AR, PC	AE
2.	Communicate effectively with physician colleagues and members of other health care professions to assure timely, comprehensive patient care	DPC, AR, PC	AE, PR
3.	Communicate effectively with colleagues when signing out DPC, TR patients or turning over care to another service	DPC	AE, PR

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, AR, PC	AE, PR
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care.	DPC, AR, PC	AE, PR
3.	Appreciation of the social context of illness.	DPC, AR, PC	AE, PR

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients with critical medical and neurological illness	DPC, AR	AE
2.	Develop real-time strategies for filling knowledge gaps that will benefit patients in the medical intensive care unit	DPC, AR	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence- based medicine	AR, JC, SS, EBM	AE,IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Understand and utilize the multidisciplinary resources necessary to care optimally for critically ill medical and neurological patients.	DPC, AR	AE
2.	Collaborate with other members of the health care team to assure comprehensive care for patients with critical medical and neurological illness.	DPC, AR, PC	AE, PR
3.	Use evidence-based, cost-conscious strategies in the care of patients with critical medical and neurological illness.	DPC, JC, SS, EBM	AE
4.	Knowing when to consult a medical subspecialist.	DPC, AR	AE
5.	Knowing when to ask for help and advice from senior residents and attending physicians	DPC, AR	AE, PR
6.	Effective professional collaboration with residents, fellows and faculty consultants from other disciplines such as Radiology and Surgery.	DPC, PC	AE, PR
7.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC	AE
8.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health	DPC, PC	AE, PR
9.	Effective utilization of medical consultants, including knowing when and how to request consultation, and	DPC	AE, PR
10.	Consideration of the cost-effectiveness of diagnostic	DPC	AE
11.	<i>PG-2/3/4</i> - Ability to lead team, including PG-1 residents, medical students, nurses, clinical pharmacist, case manager, and social worker.	DPC, PC	AE
12.	<i>PG-2/3/4</i> - Willingness and ability to teach medical students and PG-1 residents.	DPC, PC	AE

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

NORMAL NEWBORN ROTATION

Residents are assigned to the Lyndon B. Johnson General Hospital (“LBJ”) and Memorial Hermann Children’s Hospital (“MHCH”) for the normal/term newborn rotation. At both LBJ and MHCH, while on the inpatient team, an PGY-1 resident will spend one two-week period in the well-baby nursery as the primary caregiver. During this time the resident admits 5-12 new infants per day, manages their care until discharge, provides anticipatory guidance to the new parents and arranges for follow-up care. Residents rotating at MHCH take call every fourth night in the Neonatal Intensive Care Unit Level II and residents rotating at LBJ take call every fourth night in the well-baby nursery. Faculty from The University of Texas Medical School at Houston Division of Community and General Pediatrics are assigned to the nursery at LBJ and MHCH and participate in direct patient care and as a consultant. Adherence to the 80-hour work week is mandated.

Legend for Learning Activities		
AR – Attending Rounds	GR – Grand Rounds	NC – Noon
DPC – Direct Patient Care	JC – Journal Club	Conferences
CAT – Critically Appraised Topics	MR – Morning Report	RC – Research
EBM – Evidence-Based Medicine Course	M&M – Morbidity and Mortality Conference	Conference
E/C – Ethics/Communication Conferences	MDR – Multidisciplinary Rounds	SS – Senior Seminar
	NRP – Neonatal Resuscitation Program	SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents	
AE – Attending Evaluations	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback
PR – Peer Review	
NRP – Neonatal Resuscitation Program	

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to PGY-1 residents and the expected competency levels demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Assess a newborn utilizing history, physical examination and routine screening procedures.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Obtain and interpret information relevant to newborn health including maternal medical and obstetric history, family history, maternal laboratory tests, and social history.	AR, DPC, FS	AE, FS, MR, PDR, DSP
2.	Perform a neonatal physical examination and identify normal and abnormal findings related to the following: gestational age assessment and growth category (AGA, SGA, LGA), vital signs and measurement, general appearance, neurologic system (symmetry, reflexes, suck, behavioral state, head size and shape, spine), respiratory effort, skin, chest and breasts, heart, lungs, abdomen (including umbilical cord), genitalia, femoral and brachial pulses, hips (Ortolani and Barlow maneuvers), extremities, HEENT (red reflex, intact palate, caput, cephalohematoma), and neck and clavicles.	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
3.	Discuss with parents appropriate timing for newborn exams and why these exams are necessary.	AR, DPC, FS	AE, FS, MR, PDR, DSP

GOAL: Assess, diagnose and appropriately treat or refer newborns that present with the following common signs and symptoms.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Recognize, describe clinical significance and develop a management plan for newborns presenting the following common signs and symptoms:	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
a.	Large birth marks (Mongolian spots, hemangiomas, port wine spots)		
b.	Rashes and markings secondary to birth trauma		
c.	Peripheral and central cyanosis		
d.	High or low temperature		
e.	Tachypnea		
f.	Heart murmur – asymptomatic and symptomatic		
g.	Abdominal distension		
h.	Two vessel umbilical cords		
i.	Abnormal findings on the Barlow or Ortolani		
j.	Swollen breasts		
k.	Vaginal bleeding		

l.	Subconjunctival hemorrhages		
m.	Facial palsy		
n.	Fractured clavicle		
o.	Brachial plexus injury		
p.	Cephalohematoma		
q.	Ear tags, pits		
r.	Polydactyly		
s.	Syndactyly		

GOAL: Recognize and manage normal newborns that present the following common conditions.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Develop and implement a plan for the diagnosis and treatment of the following common childhood conditions:	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
a.	Large and/or small for gestational age babies		
b.	Infant of a diabetic mother		
c.	Infant of a substance abusing mother		
d.	Child with ABO/Rh incompatibility		
e.	Polycythemia		
f.	Premature/postmature infant		
g.	Jitteriness		
h.	Transient metabolic disturbances (hypoglycemia, etc.)		
i.	Delayed urination		
j.	Delayed stooling		
k.	Vomiting feedings		
l.	Poor/delayed suck		
m.	Jaundice		
n.	Infant with pyelectasia on prenatal US		
o.	Dysmorphic infant or infant with known chromosomal abnormality		
p.	Multiple births		

2.	Describe when it is appropriate to refer a patient to a pediatric consultant.	DPC, AR, NC, GR,	AE, FS, MR, PDR, DSP
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GOAL: Evaluate and develop a management plan for newborns with common infections.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Identify common perinatal infections.	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
2.	Utilizing history, physical exam and laboratory studies identify newborns at risk for bacterial sepsis	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
3.	Recognize and manage the following:	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
a.	Newborn with signs of sepsis		
b.	Infant born to mother with fever		
c.	Infant born to mother infected or colonized with an important pathogen		
d.	Infant born to mother with prolonged rupture of membranes		

GOAL: Provide comprehensive care in the newborn nursery (Level I).

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Function as a pediatric consultant to other health professionals in the newborn nursery, obstetrical ward, and delivery room for routine, normal pregnancies,	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
2.	Describe the physiology of neonatal transition after delivery and relate it to the overall management of the newborn in the nursery.	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
3.	Discuss the reasoning behind the nursery and delivery routines and how these impact the health and well being of families and newborns.	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP

GOAL: Educate, counsel and provide support to the parents and families of newborns.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Communicate effectively with families in a professional, caring manner.	AR, MR, DPC, MDR	AE, FS, PDR
2.	Counsel parents on feeding options and present the associated risks/difficulties.	AR, MR, DPC, MDR	AE, FS, PDR
3.	Provide anticipatory guidance to parents about the following:	AR, MR, DPC, MDR	AE, FS, PDR
a.	Postpartum issues		
b.	Newborn behavior including crying, sleep and wakefulness		
c.	Family adjustment including sibling rivalry		

d.	Injury prevention including car seats, crib safety, water temperature settings, constant supervision of newborn		
e.	Access to medical services		
4.	Discuss with parents the significance of increasing jaundice, feeding problems or fever in newborns and the rapidity with which they should seek medical care.	AR, MR, DPC, MDR	AE, FS, PDR
5.	Discuss with parents appropriate timing for newborn exams and why these exams are necessary.	AR, MR, DPC, MDR	AE, FS, PDR
6.	Provide written discharge instructions and documentation of immunization (HBV) given.	AR, MR, DPC, MDR	AE, FS, PDR
7.	Discuss the indications, risks and procedures for circumcision in newborns.	AR, MR, DPC, MDR	AE, FS, PDR

B. Medical Knowledge

GOAL: Assess and manage a newborn in the delivery room including resuscitation and stabilization of a critically ill infant.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Take and pass a course in neonatal resuscitation.	NRP	NRP
2.	Describe the normal process of transition from intrauterine to extrauterine life and recognize pathophysiology from normal physiologic	AR, DPC, NC	AE, FS, IE, PDR
3.	Assess and manage normal and high-risk newborns following delivery including assigning the one minute, five minute and subsequent Apgar scores, demonstrating how to reduce radiant heat loss, appropriately use medications during neonatal resuscitation, interpret blood and scalp gases, and inspect for signs of major malformations.	AR, DPC, NC	AE, FS, IE, PDR
4.	Describe post-partum assessment/management for high-risk deliveries including:	AR, DPC, NC	AE, FS, IE, PDR
a.	Meconium stained amniotic fluid		
b.	Effects of maternal analgesics/anesthetics on the neonate		
c.	Complicated delivery		
d.	Cardio respiratory depression		
5.	Recognize signs of significant problems in a newborn and formulate a differential diagnosis and management plan (see Patient Care).	AR, DPC, NC	AE, FS, IE, PDR

GOAL: Discuss current standards for newborn screening and clinical tests used in the newborn setting. Appropriately utilize clinical tests as needed in the newborn setting.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe current standards for newborn screening including the following:	AR, DPC, GR, JC,	AE, FS, IE, PDR, MR
a.	National (AAP) recommendations for universal newborn hearing screening.		
b.	Neonatal blood-screening program, diseases screened for, timing and testing procedures.		
c.	Current recommendations for maternal Group B Streptococcus screening and the evaluation of exposed neonates.		
2.	Use and/or interpret the following clinical tests:	AR, DPC, MR, NC,	AE, FS, IE, PDR, MR
a.	Physiologic monitoring (HR, RR, pulse oximetry, blood gas, blood pressure measurement)		
b.	Dubowitz exam for gestational age assessment, premi		
c.	CBC, ABO antibodies, blood glucose/glucometer, bilirubin, newborn metabolic screen, and maternal cord blood antibodies		
d.	X-ray of chest and abdomen		
e.	Ultrasound of kidneys/bladder, head, hips and lower spine		
3.	Discuss common assessment tools and studies used by obstetricians to assess normal pregnancies close to	AR, DPC, CAT, GR, JC, SL	AE, FS, IE, PDR, MR

C. Practice-Based Learning and Improvement

GOAL: Utilize a logical and appropriate clinical approach to the care of normal newborns applying decision-making and problem-solving skills.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Develop and apply decision-making and problem solving skills in the care of infants in the normal newborn nursery.	AR, MR, FS, CAT, EBM	AE, FS, PDR, MR
2.	Actively seek relevant information for patient care decisions and apply this knowledge appropriately.	AR, MR, FS, CAT, EBM	AE, FS, PDR
3.	Assess quality control and quality improvement processes and utilize results to improve patient care practices.	M&M	AE, FS, PDR
4.	Participate in chart audits as part of the quality assurance process. Utilize this process to improve charting and patient care.	M&M	AE, FS, PDR

5.	Prioritize needs of patients in a logical order.	AR, MR, DPC, FS	AE, FS, PDR
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D. Interpersonal Skills and Communication

GOAL: Function as part of an interdisciplinary team in the newborn nursery as a primary provider.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Communicate effectively with private physicians about patients	AR, DPC, FS	AE, FS, PDR
2.	Communicate with faculty in the NICU regarding sick infants	AR, DPC, FS	AE, FS, PDR
3.	Interact with nursing and other ancillary nursery staff to effectively communicate concerns, orders and other patient care matters.	AR, DPC, FS	AE, FS, PDR
4.	Communicate well and work effectively with fellow residents, attendings, consultants, nurses, ancillary staff and referring physicians.	AR, DPC, FS	AE, FS, PDR
5.	Develop and demonstrate skills as a team participant in the care of normal newborns.	AR, DPC, FS, MR	AE, FS, PDR
6.	Present information concisely and clearly both verbally and in writing on patients to other members of the	AR, DPC, FS	AE, FS, PDR
7.	Effectively supervise medical students.	AR, DPC, FS	AE, FS, PDR

GOAL: Communicate with families of normal newborns through effective listening, verbal, nonverbal, and explanatory skills.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Communicate effectively with families in a professional, caring manner.	AR, DPC, FS	AE, FS, PDR
2.	Communicate with families in a developmentally, culturally-sensitive manner that provides families/patient with the information they need to understand the illness/injury, participate in the care, give informed consent, and prevent future injury or dysfunction.	AR, DPC, FS, E/C	AE, FS, PDR
3.	Effectively listen to the concerns of patients and their families and respond with appropriate information and support.	AR, DPC, FS, E/C	AE, FS, PDR

E. Professionalism

GOAL: Demonstrate a commitment to following ethical and professional principles and interact with other members of the health care team in a professional manner.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Maintain confidentiality regarding patients while on rounds and on the wards.	AR, MR, DPC, FS	AE, FS, PDR
2.	Interact professionally with patients, families, colleagues and all members of the health care	AR, MR, DPC, FS	AE, FS, PDR
3.	Accept professional responsibility as the primary care physician for patients under his/her care.	AR, MR, DPC, FS	AE, FS, PDR
4.	Appreciate the social context of illness.	AR, MR, DPC, FS,	AE, FS, PDR
5.	Know when and how to request a pediatric specialty consult.	AR, MR, DPC, FS	AE, FS, PDR
6.	Interact professionally with patients, families, colleagues and all members of the health care team.	AR, MR, DPC, FS	AE, FS, PDR

F. Systems-Based Practice

GOAL: Function as an advocate for quality patient care and inform and assist patients with system complexities.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss community and hospital support systems for new families and mothers who are breast	AR, MR, DPC, FS,	AE, FS, PDR
2.	Discuss resources available to provide information and assistance with post-partum depression.	AR, MR, DPC, FS,	AE, FS, PDR
3.	Identify, assign a pediatrician and schedule follow-up care for babies being discharged from the	AR, MR, DPC, FS,	AE, FS, PDR
4.	Describe the process for audiology follow-up care.	AR, MR, DPC, FS, MDR	AE, FS, PDR
5.	Describe the roles of social workers and Children's Protective Services.	AR, MR, DPC, FS, MDR	AE, FS, PDR

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

NEONATAL ICU ROTATION

Residents rotate in the Neonatal Intensive Care Unit (“NICU”) at Memorial Hermann Children’s Hospital (“MHCH”) and at Lyndon B. Johnson General Hospital (“LBJ”). The NICU experience is comprised of four one-month block rotations, one as a PGY-1, two as a PGY-2, and one as a PGY-3. PGY-1s are assigned to a one-month block at either MHCH (Level II) or LBJ. PGY-1s are supervised by a senior resident, a fellow and/or an attending. PGY-2s are assigned one month as a supervisor for a NICU team at either MHCH or LBJ. They are responsible for overseeing the PGY-1s and acting interns on those services. PGY-2s spend their second month on the NICU Team Level III at MHCH where they are under the direct supervision of a PGY-3 resident and the neonatal fellows and faculty. PGY-2s are assigned to the MHCH Level III month prior to their supervisory month. PGY-3s have one NICU supervisory month at either LBJ or MHCH NICU Team Level III. PGY-3s are more autonomous and are expected to supervise and teach junior residents and acting interns. PGY-3s are under the direct supervision of the neonatal faculty who are available 24 hours a day to provide assistance.

Full-time faculty from The University of Texas Medical School at Houston supervise residents at both LBJ and MHCH. A neonatal faculty member is assigned to each of the NICU teams and rounds are conducted on all patients with the residents seven days a week. Residents assigned to the NICU take call every fourth night.

PGY-1s are required to take the Neonatal Resuscitation Program prior to beginning clinical duties; they repeat the course as PGY-3s. Didactic instruction in physiology and pathophysiology are provided during attending rounds and as a set of lectures in the Newborn Medicine Sessions of the Resident Education Series. Residents are exposed to all forms of invasive and non-invasive techniques for monitoring and supporting pulmonary, cardiovascular, cerebral and metabolic function. A full-time neonatal nutritionist and clinical pharmacist round with the NICU team(s) and provide input/instruction in the appropriate selection of nutrition, use of total parenteral nutrition, and use of various medications. Residents work with a multidisciplinary team of case managers, social workers, home health care providers and high-risk follow-up clinic physicians and nurses for discharge planning and appropriate follow-up.

Legend for Learning Activities

AR – Attending Rounds	GR – Grand Rounds	OC – Outpatient clinics
DPC – Direct Patient Care	JC – Journal Club	RC – Research
CAT – Critically Appraised Topics	MDR – Multidisciplinary	Conference
E/C – Ethics/Communication	Rounds	SC – Specialty
Conferences	MR – Morning Report	Conferences
FS – Faculty Supervision	NC – Noon Conferences	RS – Resident
	NM – Neonatal ICU Manual	Seminar
	and Text	SL – Subspecialty
		Lectures

Legend for Evaluation Methods for Residents

AE – Attending Evaluation

IE – In-Training Exam

MR – Morning Report

PDR – Program Director's Review (twice annually)

DSP – Directly Supervised Procedures

FS – Faculty Supervision & Feedback

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to PGY-1, PGY-2 and PGY-3 residents. The expected competency level demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Interpret the pediatrician's role in and become an active advocate for programs to reduce morbidity and mortality from high risk pregnancies.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Identify and describe strategies to reduce fetal and neonatal mortality.	AR, FS, GR, NC	AE, IE, FS
2.	Describe how to access the following: a. Basic vital statistics that apply to ewborns. b. Prenatal services available in this region.	AR, FS, GR, SC	AE, IE, FS
3.	Recognize potential adverse outcomes for the fetus and neonate of common prenatal and perinatal conditions, and demonstrate the pediatrician's role in assessment and management strategies to minimize the risk to the fetus and/or newborn.	AR, FS, SL	AE, IE, FS

GOAL: Assess, resuscitate and stabilize critically ill neonates.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Explain and perform steps in resuscitation and stabilization, particularly airway management, vascular access, volume resuscitation, indications for and techniques of chest compressions, resuscitative pharmacology, and management	AR, DPC, SL, FS	AE, FS, IE
2.	Describe the common causes of acute deterioration in previously stable NICU patients.	AR, DPC, NM, MR, NC, SL,	AE, FS, IE
3.	Function appropriately in codes and neonatal resuscitations as part of the NICU	DPC, FS	AE, FS

B. Medical Knowledge

GOAL: Evaluate and manage, under the supervision of a neonatologist, common signs and symptoms of disease in premature newborns.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Evaluate and manage patients with the signs and symptoms that present commonly in the NICU. Examples are: <ol style="list-style-type: none"> a. General: feeding problems, history of maternal infection or exposure, hyperthermia, hypothermia, intrauterine growth failure, irritability, jitteriness, large for gestational age, lethargy, poor post-natal weight gain, prematurity (various gestational ages) b. cardiorespiratory c. Dermatologic d. GI/surgical e. genetic/metabolic f. Hematologic g. musculoskeletal h. Neurologic i. Parental stress j. Renal/urologic 	AR, DPC, SC, SL, NM, FS, GR, NC	AE, FS, IE
2.	Recognize and manage common conditions in patients encountered in the NICU. Examples are: <ol style="list-style-type: none"> a. General: congenital malformations b. Cardiovascular c. Genetic, endocrine disorders d. GI/nutrition e. Hematologic conditions f. Infectious disease g. Neurologic disorders h. Pulmonary disorders i. Renal j. Surgery (assess and participate in management under supervision of a pediatric surgeon or cardiac surgeon) 	AR, DPC, SC, SL, NM	AE, FS, IE

GOAL: Order and discuss the indications for, limitations of, and interpretation of laboratory and imaging studies unique to the NICU setting.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Demonstrate understanding of common diagnostic tests and imaging studies used in the NICU.	AR, NC, SL, SC, NM	AE, IE, FS
2.	Know or be able to locate readily gestational age- appropriate ranges.	AR, NM	AE, IE, FS

3.	Interpret laboratory results in the context of the specific patient.	AR, NC, SL, SC, NM	AE, IE, FS
4.	Discuss therapeutic options for correction of abnormalities.	AR, NC, SL, SC, NM	AE, IE, FS

GOAL: Apply physiologic monitoring, special technology and therapeutic modalities used commonly in the care of the fetus and the newborn.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Use appropriately the following monitoring and therapeutic techniques in NICU: <ul style="list-style-type: none"> a. Physiologic monitoring of temperature, pulse, respiration, blood pressure. b. Pulse oximetry. c. Neonatal pain and drug withdrawal scales. 	AR, SL, NM, FS, DPC	AE, IE, FS
2.	Discuss the following techniques and procedures used by obstetricians and perinatal specialists: <ul style="list-style-type: none"> a. Fetal ultrasound for size and anatomy. b. Fetal heart rate monitors. c. Scalp and cord blood sampling. d. Amniocentesis. 	AR, SL, NC, FS	AE, IE, FS
3.	Utilize appropriately treatments and techniques in the NICU. Monitor effects and anticipate potential complications specific to each procedure.	AR, SL, SC, NM, FS, DPC	AE, IE, FS
4.	Describe home medical equipment and services needed for oxygen-dependent and technology-dependent graduates of the NICU (oxygen, apnea monitor, ventilator, home hyperalimentation, etc.)	AR, SL, SC, NM, FS	AE, IE, FS

C. Practice-Based Learning and Improvement.

GOAL: Utilize a logical and appropriate Approach to the care of newborns applying principles of evidence-based decision-making and problem solving skills.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Develop and apply decision-making and problem solving skills in the care of newborns and infants.	FS, CAT, DPC, AR	AE, FS
2.	Demonstrate ability to prioritize care needs: identify urgent issues that require immediate attention, use appropriate timing for diagnostic and therapeutic interventions and adjust pace to acuity and volume.	FS, DPC, AR	AE, FS

3.	Integrate professional scholarship including electronic and print literature with emphasis on the integration of basic science with clinical medicine into decision-making regarding patient care.	FS, DPC, CAT, AR	AE, FS
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D. Interpersonal & Communication Skills

GOAL: Participate effectively with specialists and other health professionals in the care of the fetus and the newborn.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Present information concisely and clearly, both verbally and in writing, on patients to other members of the health care team.	FS, DPC, AR	AE, FS
2.	Utilize consultants appropriately and communicate in an effective manner.	AR, SL, SC, DPC	AE, IE, FS

GOAL: Develop effective communication relationships with patients and their families.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Communicate with families in a developmentally, culturally-sensitive manner that provides families with the information they need to understand the illness/injury, participate in the care, give informed consent, and prevent future injury or dysfunction.	FS, DPC, E/C, AR	AE, FS
2.	Effectively listen to the concerns of families and respond with appropriate information and support.	FS, DPC, E/C	AE, FS
3.	Communicate to families the impact of the illness and/or complications on the final health care outcome. Understand the psychosocial impact of illness on the family, and the financial burden to the family and the health care system.	FS, DPC, E/C, AR	AE, FS

E. Professionalism

GOAL: Maintain standards of professional performance in the NICU.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Use a logical and effective approach to the assessment and daily management of ill neonates and their families, under the guidance of a neonatologist, using evidence-based decision-making and problem solving skills.	AR, DPC, SL, SC, FS	AE, FS

2.	Demonstrate a commitment to acquiring the knowledge base expected of general pediatricians caring for neonates.	AR, DPC, FS	AE, FS
3.	Maintain accurate, timely, and legally appropriate medical records in the critical care setting of the NICU.	DPC	AE, FS

F. Systems-Based Practice

GOAL: Interact with other health professionals, specialists and other providers who refer patients to the Neonatal Intensive Care Unit (NICU).

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the role of the neonatologist and provide appropriate consultation in the NICU	FS, DPC, AR	AE, FS
2.	Share information with the Primary Care Provider who will care for the patient after the illness.	AR, DPC	AE, FS

GOAL: Demonstrate knowledge of key aspects of health care systems including cost control, billing and reimbursement in the NICU.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Utilize consultants and other resources appropriately.	FS, DPC, AR	AE, FS
2.	Demonstrate sensitivity to the financial status of patients; utilize resources appropriately for patients/families needing financial assistance.	FS, DPC, AR	AE, FS
4.	Discuss common billing codes and documentation procedures for the NICU.	AR, DPC, AR	AE, FS

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

PEDIATRIC INTENSIVE CARE UNIT ROTATION

Residents rotate in the Pediatric Intensive Care Unit (“PICU”) at Children’s Memorial Hermann Hospital (“CMHH”). The PICU experience is comprised of two one-month block rotations, one as a PGY-2 and one as a PGY-3. PGY-2 residents are assisted by the PGY-3 resident and are supervised by an intensivist on faculty at the University of Texas Medical School-Houston. The PGY-3 residents have primary patient care responsibility, assist the PGY-2s and supervise any Anesthesia residents who are rotating in the PICU. The PGY-3 residents have more autonomy, but are still closely supervised by the attending.

While rotating in the PICU, residents are exposed to a wide variety of medical and surgical patients. Surgery patients are jointly admitted to the PICU. Residents participate in the management of those patients, round with the Surgery team and participate in pre-operative and post-operative care. As MHCH is a Level 1 Trauma Center, patients are admitted with major as well as minor trauma. Residents are exposed to patients with isolated and multiple organ failure as well as to invasive and noninvasive techniques for monitoring and supporting pulmonary, cardiovascular, cerebral and metabolic functions.

Attendings make rounds seven days a week and discuss patient management and basic issues of physiology/path physiology. All residents are required to take Pediatric Advanced Life Support as a PGY-1 and Advanced Pediatric Life Support as a PGY-2. Residents are also exposed to other members of the health care team working in the PICU. A clinical pharmacist rounds with the team. Residents work with social workers and case managers in discharge planning and evaluation/referral for child abuse cases.

Residents assigned to the PICU take call every fourth night.

Legend for Learning Activities		
AR – Attending Rounds	GR – Grand Rounds	NC – Noon Conferences
DPC – Direct Patient Care	JC – Journal Club	RC – Research Conference
CAT – Critically Appraised Topics	MR – Morning Report	SS – Senior Seminar
E/C – Ethics/Communication Conferences	M&M – Morbidity and Mortality Conference	SL – Subspecialty Lectures
FS – Faculty Supervision	MDR – Multidisciplinary Rounds	

Legend for Evaluation Methods for Residents	
AE – Attending Evaluations	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback
PR – Peer Review	

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to both PGY-2 and PGY-3 residents and the expected competency level demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Common Signs and Symptoms

Identify and manage common signs and symptoms seen in critically ill children and adolescents in the intensive care setting.

	Principal Educational Objectives – Common Signs and Symptoms	Learning Activities	Evaluation Methods
1.	Recognize signs and symptoms that indicate the onset of disease or injury.	AR, FS, GR, NC	AE, FS, PDR
2.	Gather essential and accurate information using problem-focused interview, exam and diagnostic studies.	AR, DPC, FS	AE, FS, PDR
3.	Formulate a differential diagnosis with appropriate epidemiologic considerations, considering appropriate prioritization and recognizing patients with possible life-	AR, DPC, SL, FS	AE, FS, PDR
4.	Formulate and carry out a plan for assessment and management, using principles of evidence-based decision making.	AR, DPC, SL, FS	AE, FS, PDR
5.	Perform or arrange for appropriate therapeutic procedures.	AR, DPC, SL, FS	AE, FS, PDR
6.	Evaluate and manage the following common signs and	AR, DPC, NM, MR, NC, SL,	AE, FS, PDR
a.	Cardiovascular: Bradycardia, tachycardia, cardio- pulmonary arrest, cyanosis, congestive heart failure, hypertension, hypotension, rhythm disturbances, poor capillary perfusion, acute life-threatening event		
b.	Endocrine: diabetic ketoacidosis, thyroid storm, adrenal crisis		
c.	GI: Abdominal distension, acute gastrointestinal hemorrhage, peritoneal signs, vomiting, caustic ingestion, hepatic failure, pancreatitis		
d.	Hematologic: Petechiae, purpura, polycythemia, anemia, neutropenia, thrombocytopenia, uncontrolled bleeding		
e.	Infectious Disease: endotoxic shock		
f.	Neurologic: Altered mental status, coma, delirium, encephalopathy, seizures, thermoregulatory abnormalities, acute		

g.	Renal: anuria, hematuria, oliguria, polyuria, severe electrolyte disturbance		
h.	Respiratory: Tachypnea, dyspnea, apnea, cyanosis, increased or decreased respiratory effort, poor air movement, respiratory failure, stridor, wheezing, pulmonary edema		

GOAL: Common Conditions

Recognize and manage common conditions that present in the intensive care setting.

	Principal Educational Objectives – Common Conditions	Learning Activities	Evaluation Methods
1.	Gather essential and accurate information utilizing problem-focused interview, exam and diagnostic studies.	AR, DPC, FS	AE, FS, PDR
2.	Formulate a differential diagnosis with appropriate epidemiologic considerations; consider appropriate prioritization, recognize patients with possible life- threatening conditions.	AR, DPC, SL, FS	AE, FS, PDR
3.	Evaluate and manage the following common conditions:	AR, DPC, SL, FS	AE, FS, PDR
a.	General: submersion injury, shock (cardiogenic, hypovolemic, septic, toxic), burns (thermal, electrical), common intoxications, malignant hyperthermia, drug overdose, toxic or caustic ingestion or inhalation injury		
b.	Allergy Immunology: severe graft vs. host disease, Stevens Johnson Syndrome, anaphylaxis, life-threatening angioedema		
c.	Cardiovascular: congestive heart failure, cardiac tamponade, malignant hypertension		
d.	Fluids, electrolytes, metabolic: severe dehydration (hyper-, normo- or hyponatremic), diabetic ketoacidosis, syndrome of inappropriate secretion of antidiuretic hormone (SIADH), diabetes insipidus, severe electrolyte disturbance, hypoglycemia, severe acid- base disturbances		
e.	GI/Surgery: stress ulcer, massive GI bleeding, fulminant hepatic failure, abdominal trauma (blunt/penetrating), acute abdomen, pre-op and post-op management		
f.	Hematologic: disseminated intravascular coagulopathy (DIC), DVT		
g.	Infectious Disease: sepsis, meningitis, encephalitis		
h.	Neurologic: head injury, acute increased intracranial pressure, cerebral edema, status pilepticus, coma		

i.	Pulmonary: adult respiratory distress syndrome (ARDS), respiratory failure/impending respiratory failure, status asthmaticus, pneumothorax, upper airway obstruction (infectious, structural, foreign body), epiglottitis, severe croup, bacterial tracheitis		
j.	Renal: acute oliguric or anuric renal failure		

GOAL: Management and Decision-Making

Develop a logical and appropriate approach to the care of complex multi-problem patients under high-stress situations, under the supervision of an intensivist.

	Principal Educational Objectives – Management and Decision-Making	Learning Activities	Evaluation Methods
1.	Utilize principles of decision-making and problem solving skills in the care of complex, multi-problem patients.	AR, DPC, SL, FS	AE, FS, PDR
2.	Identify and prioritize patients' medical problems and generate appropriate differential diagnoses.	AR, DPC, SL, FS	AE, FS, PDR
3.	Develop consistent short-term and long-term plans for patient care and integrate these into case management or continuing care treatment plans.	AR, DPC, SL, FS	AE, FS, PDR

GOAL: Patient Support and Advocacy

Provide sensitive support to patients with serious illness and their families and arrange for ongoing support and/or preventive services if needed.

	Principal Educational Objectives – Patient Support and Advocacy	Learning Activities	Evaluation Methods
1.	Collaborate with parents to develop an assessment and treatment plan, accepting their wishes in a non-autocratic and culturally sensitive manner.	FS, DPC, E/C, AR	AE, FS, PDR
2.	Develop treatment plans that take in to account family religious views as they relate to health care choices and coping with illness and death.	FS, DPC, E/C, AR	AE, FS, PDR
3.	Identify problems and risk factors in the child and family, even outside the scope of the acute ICU admission; appropriately intervene or refer.	AR, MR, DPC	AE, FS, PDR
4.	Treat families in a non-judgmental, culturally sensitive manner that conveys a warm, caring attitude.	AR, MR, DPC, E/C	AE, FS, PDR

B. Medical Knowledge

GOAL: Common Signs and Symptoms

Develop a differential diagnosis, formulate an appropriate work-up with diagnostic tests to establish a diagnosis. Develop appropriate treatment plan for the diagnosis.

	Principal Educational Objectives – Common Signs and Symptoms	Learning Activities	Evaluation Methods
1.	Create a differential diagnosis with age appropriate considerations.	MR, AR, DPC	AE, FS, IE, PDR
2.	Recognize indications for hospitalization and formulate a plan for inpatient diagnosis and management.	MR, DPC, AR	AE, FS, IE, PDR
3.	Discuss the pathophysiological basis for the disease or injury.	MR, AR, DPC	AE, FS, IE, PDR
	Common Signs and Symptoms:		
a.	General – failure to thrive, weight loss, fever without localizing signs, and constitutional symptoms		
b.	Cardiovascular – hypotension, hypertension, rhythm		
c.	Dermatologic – rashes, petechiae, purpura, ecchymoses, urticaria and edema		
d.	EENT: trauma, conjunctival injection, acute visual changes, edema, epistaxis		
e.	Endocrine – polydipsia, polyuria		
f.	GI/nutrition/fluids – diarrhea, vomiting, dehydration, inadequate intake, dysphagia, regurgitation, abdominal pain, abdominal masses, hematemesis, rectal bleeding, jaundice and ascites		
g.	GU/Renal – hematuria, edema, decreased urine output, scrotal masses and dysuria		
h.	Gynecologic – genital trauma, sexual assault, pelvic		
i.	Hematologic/Oncologic – pallor, abnormal bleeding, lymphadenopathy, hepatosplenomegaly and masses		
j.	Musculoskeletal – bone and soft tissue trauma, limp, arthritis/arthritis and limb pain		
k.	Neurologic – seizure, headache, delirium, lethargy, weakness, ataxia, coma, head trauma, vertigo and irritability		
l.	Psychiatric/Psychosocial – acute psychosis, suicide attempt, depression, conversion symptoms, child abuse/neglect and eating		
m.	Respiratory – increase work of breathing, cyanosis, apnea, dyspnea, tachypnea, wheezing, stridor, inadequate respiratory effort, cough, hemoptysis, chest pain and respiratory failure		

GOAL: Diagnostic Testing

Demonstrate knowledge and appropriately use common diagnostic tests and imaging studies in the intensive care unit.

	Principal Educational Objectives – Diagnostic Testing	Learning Activities	Evaluation Methods
1.	Discuss indications for and limitations of standard laboratory tests and imaging studies including principles of sensitivity and specificity.	AR, DPC, MR, CAT	AE, FS, IE, PDR, MR
2.	Demonstrate knowledge of the age-appropriate normal readings of standard laboratory tests and imaging studies.	AR, DPC, MR	AE, FS, IE, PDR, MR
3.	Apply knowledge of diagnostic test properties, including the use of sensitivity, specificity, positive predictive value, negative predictive value, likelihood ratios, and receiver operating characteristic curves, to assess test utility in clinical settings.	AR, DPC, MR	AE, FS, IE, PDR, MR
4.	Interpret the results in the context of a specific patient.	AR, DPC, MR	AE, FS, IE, PDR, MR
5.	Discuss therapeutic options for correction of abnormalities when appropriate.	AR, DPC, MR	AE, FS, IE, PDR, MR
	Laboratory Tests		
a.	CBC with differential, platelet count, RBC indices		
b.	Blood chemistries: electrolytes, glucose, calcium, magnesium, phosphate		
c.	Renal function tests		
d.	Tests of hepatic function (PT, albumin) and damage (liver enzymes, bilirubin)		
e.	Serologic tests for infection (e.g., hepatitis, HIV)		
f.	CRP, ESR		
g.	Therapeutic drug concentrations		
h.	Coagulation studies: platelets, PT/PTT, fibrinogen, FSP, D-dimers, “DIC screen”		
i.	Arterial, capillary and venous blood gases		
j.	Detection of bacterial, viral and fungal pathogens		
k.	Urinalysis		

l.	CSF analysis		
m.	Gram stain		
n.	Stool studies		
o.	Toxicologic screens/drug levels		
p.	Other fluid studies (e.g., pleural fluid, joint fluid)		
	Imaging Studies		
a.	Chest x-ray		
b.	Abdominal series		
c.	Skeletal survey		
d.	Cervical spine films		
e.	CT scans		
f.	MRI		
g.	Nuclear medicine scans		

GOAL: Monitoring and Therapeutic Modalities

Demonstrate understanding of how to utilize physiologic monitoring and special technology in the intensive care setting.

	Principal Educational Objectives – Monitoring and Therapeutic Modalities	Learning Activities	Evaluation Methods
1.	Describe the indications, contraindications and complications of monitoring techniques and special technology.	DPC, MR, AR, FS	AE, FS, PDR
2.	Describe the general technique or demonstrate proper use of technique for children of varying ages.	DPC, MR, AR, FS	DPC, MR, AR, FS
3.	Interpret the results of monitoring.	DPC, MR, AR, FS	DPC, MR, AR, FS
4.	Appropriately use and/or be familiar with the following treatments and techniques in the intensive care unit:	DPC, MR, AR, FS	DPC, MR, AR, FS
a.	CVP		
b.	Invasive arterial blood pressure monitoring		
c.	Intracranial pressure monitoring		
d.	Swan-Ganz catheter (for measurement of PAP, PCWP, C.O.)		
e.	Oxygen administration by cannula, masks, hood		

f.	Positive pressure ventilation		
g.	Basic ventilator management		
h.	Analgesics, sedatives, and paralytics		
i.	Enteral and paraenteral nutrition		
j.	Blood and blood product transfusions		
k.	Vasoactive drugs (pressors and inotropes)		

C. Practice-Based Learning and Improvement

GOAL: Management and Decision-Making

Develop a logical and appropriate approach to the care of complex multi-problem patients, under high-stress situations and under the supervision of an intensivist, applying decision-making and problem-solving skills.

	Principal Educational Objectives – Management and Decision-Making	Learning Activities	Evaluation Methods
1.	Develop and apply decision-making and problem solving skills in the care of children in the intensive care unit	AR, MR, FS, CAT, EBM	AE, FS, PDR, MR
2.	Actively seek relevant information for patient care decisions and apply this knowledge appropriately.	AR, MR, FS, CAT, EBM	AE, FS, PDR
3.	Assess quality control and quality improvement processes and utilize results to improve patient care practices.	M&M	AE, FS, PDR
4.	Describe how clinical pathways and practice guidelines can be used to improve patient care processes in the PICU.	M&M	AE, FS, PDR
5.	Prioritize needs of patients in a logical order.	AR, MR, DPC, FS	AE, FS, PDR

GOAL: Health Care System and Financial Issues

Discuss key aspects of hospital systems, cost control, billing and reimbursement as they relate to the pediatric intensive care setting.

	Principal Educational Objectives – Health Care System and Financial Issues	Learning Activities	Evaluation Methods
1.	Identify and discuss strategies that might prevent or reduce morbidity for common problems presenting to the PICU in one's community (i.e., car seat and bicycle helmet use, accident prevention, poison control).	M&M, AR, CAT, MR, FS	AE, FS, PDR

D. Interpersonal Skills and Communication

GOAL: Teamwork and Consultation

Function as part of an interdisciplinary team in the intensive care unit.

	Principal Educational Objectives – Teamwork and Consultation	Learning Activities	Evaluation Methods
1.	Communicate well and work effectively the PICU patient team (nurses, clerical staff, attending physicians, specialists, residents, fellows, respiratory therapists, pharmacists, nutritionists, social workers, etc.)	AR, DPC, FS	AE, FS, PDR
2.	Present information concisely and clearly both verbally and in writing on patients to other members of the health care team.	AR, DPC, FS	AE, FS, PDR
3.	Communicate with the primary care giver in an effective and timely manner. Assist the primary care giver in assuring continuity of care for the patient.	AR, DPC, FS	AE, FS, PDR
4.	Communicate effectively while serving as pediatric consultant to surgeons and other specialists who manage children in the PICU.	AR, DPC, FS	AE, FS, PDR
5.	Know the role of hospital and managed care case managers and work with them to optimize health care outcomes.	AR, DPC, FS	AE, FS, PDR
6.	Communicate with families in a developmentally, culturally-sensitive manner that provides families/patient with the information they need to understand the illness/injury, participate in the care, give informed consent, and prevent future injury	AR, DPC, FS, E/C	AE, FS, PDR
7.	Communicate with families in a developmentally, culturally-sensitive manner that provides families/patient with the information they need regarding end of life issues.	AR, DPC, FS, E/C	AE, FS, PDR
8.	Effectively listen to the concerns of patients and their families and respond with appropriate information and support.	AR, DPC, FS, E/C	AE, FS, PDR
9.	Communicate to a given family and child the impact of each phase of care on the final health care outcome, the psychosocial impact of illness on the child and family, and the financial burden to the family and the health care system.	AR, DPC, FS, E/C	AE, FS, PDR

GOAL: Medical Records

Maintain accurate, timely and legally appropriate medical records on complex and critically ill children.

	Principal Educational Objectives – Medical Records	Learning Activities	Evaluation Methods
1.	Write daily notes (or more frequent if necessary) that clearly document the patient’s progress, relevant investigations, and plan, with special attention to information needed by covering providers.	DPC, FS	AE, FS, PDR
2.	Prepare discharge summaries, transfer notes, and off-service notes, including written communication with the primary care provider.	DPC, FS	AE, FS, PDR
3.	Prepare an accurate death certificate if necessary.	DPC, FS	AE, FS, PDR

E. Professionalism**GOAL: Patient Support and Advocacy**

Provide sensitive support to patients and families of children with acute illness and accountability for patient care.

	Principal Educational Objectives – Patient Support and Advocacy	Learning Activities	Evaluation Methods
1.	Interact professionally with patients, families, colleagues and all members of the health care team.	AR, MR, DPC, FS	AE, FS, PDR
2.	Appreciate the social context of illness.	AR, MR, DPC, FS,	AE, FS, PDR
3.	Know when and how to request a pediatric specialty consults	AR, MR, DPC, FS	AE, FS, PDR
4.	Know when and how to request ethics consultation and how best to utilize the advice provided.	AR, MR, DPC, FS	AE, FS, PDR
5.	Demonstrate sensitivity and awareness in dealing with end of life issues in the hospital setting.	AR, MR, DPC, FS,	AE, FS, PDR

GOAL: Professional Conduct

Demonstrate commitment to following ethical and professional principles and to ongoing professional development.

	Principal Educational Objectives – Professional Conduct	Learning Activities	Evaluation Methods
1.	Demonstrate knowledge of ethical concepts of confidentiality, consent, autonomy and justice.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR

2.	Demonstrate knowledge of professionalism concepts such as integrity, altruism and conflict of interest.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR
3.	Increase self-awareness to identify methods to manage personal and professional sources of stress and burnout.	AR, MR, DPC, FS, E/C,	AE, FS, PDR
4.	Increase knowledge and awareness of personal risks concerning drug/alcohol abuse for self and colleagues, including referral, treatment and follow-up.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR
5.	Demonstrate initiative in seeking out and participating in continuing education and professional development programs.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR
6.	Discuss concepts of futility, withdrawal, euthanasia, and withholding of care.	AR, MR, DPC, FS, E/C,	AE, FS, PDR
7.	Define brain death and describe criteria for organ donation.	AR, MR, DPC, FS,	AE, FS, PDR
8.	Describe hospital policy on "Do Not Resuscitate" orders.	AR, MR, DPC, FS,	AE, FS, PDR
9.	Describe and discuss ethical dilemmas requiring intervention from outside the PICU (e.g., Ethics Advisory Committee).	AR, MR, DPC, FS, E/C,	AE, FS, PDR

F. Systems-Based Practice

GOAL: Teamwork and Consultation

Function as part of an interdisciplinary team in the pediatric intensive care unit.

	Principal Educational Objectives – Teamwork and Consultation	Learning Activities	Evaluation Methods
1.	Work collaboratively in the PICU patient care team (nurses, clerical staff, attending physicians, specialists, residents, fellows, respiratory therapists, pharmacists, nutritionists, social workers, etc.). Discuss roles of team members and the added value of effective teamwork in the intensive care setting.	AR, MR, DPC, FS, MDR	AE, FS, PDR
2.	Serve as a pediatric consultant to surgeons and other specialists who manage children in the PICU.	AR, MR, DPC, FS, MDR	AE, FS, PDR
3.	Work with the patient's primary care provider to assure continuity of care.	AR, MR, DPC, FS	AE, FS, PDR
4.	Practice appropriate utilization of consultants in the PICU.	AR, MR, DPC, FS	AE, FS, PDR

GOAL: Financial Issues and Cost Control

Discuss key aspects of hospital systems, cost control, billing and reimbursement as they relate to the intensive care setting.

	Principal Educational Objectives – Financial Issues and Cost Control	Learning Activities	Evaluation Methods
1.	Identify the general cost range for diagnostic and therapeutic interventions in patient care.	AR, MR, MDR	AE, FS, PDR
2.	Demonstrate sensitivity to the financial status of patients; utilize resources appropriately for patients/families in need of financial assistance, such as social work, state or local social services.	AR, MR, MDR	AE, FS, PDR
3.	Practice cost effective health care and resource allocations that does not compromise quality of care.	AR, MR, MDR, E/C	AE, FS, PDR
4.	Discuss how the expense of patient care impacts the medical outcome, family, the service unit and managed care providers.	AR, MR, MDR	AE, FS, PDR
5.	Discuss the basic evaluation and management billing codes used for PICU, including the documentation requirements for the various levels of critical care.	AR, MR, MDR	AE, FS, PDR

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

MEMORIAL HERMANN RENAL INPATIENT SERVICE

The Memorial Hermann Renal Inpatient Service is a month long rotation for one upper level resident and two or three interns. The rotation is run by a Nephrology attending and a fellow. Patients seen include inpatients with renal insufficiency, nephrotic syndrome, nephritis, and end-stage renal disease. Though this is a ward service, the residents do not take call, they have one day off a week, and they do not participate in the nephrology clinic. Admissions are taken daily until 5 PM during weekdays and noon on weekends. After hour admissions are taken by the float resident.

Legend for Learning Activities

ACS – Ambulatory Care Series	DPC – Direct Patient Care	M&M-Morbidity & Mortality
AR – Attending Rounds	DSP – Directly Supervised Procedures	MR – Morning Report
Au – Autopsy Report	FS – Faculty Supervision	NC – Noon Conferences PC– Professionalism Curriculum RC – Research Conference
CR – Chairman’s Rounds	GR – Grand Rounds	SS – Senior Seminar
CPC–Clinicopathologic Conf.	IL-Introductory Lecture Series	SL – Subspecialty Lectures
CC-Core Curriculum	JC – Journal Club	
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital is included near the front of the report for further information.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination with a nephrology focus.	DPC, AR, MR	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a nephrology focus	DPC, AR	AE, IE
3.	Define and prioritize patients' medical problems and generate appropriate differential diagnoses.	DPC, AR, MR	AE, IE
4.	Develop rational, evidence-based management strategies.	DPC, AR, MR, PC	AE, IE
5.	Ability to make an appropriate differential diagnosis and plan of management for patients with acute renal insufficiency and oliguria.	DPC, AR, SL	AE, IE
6.	<i>PG-1</i> - Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, AR DPC, AR	AE, IE AE, IE
7.	Participation and later leadership of discussions of end-of-life issues with families.	DPC, AR, PC	AE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of medical patients.	DPC, AR, CR, MR, NC, GR, SI	AE, IE
2.	Access and critically evaluate current medical information and scientific evidence relevant to patient care.	DPC, AR, JC, MR, CP, SI	AE, IE

3.	<i>PG-1</i> - Understanding the basic elements of pathophysiology, diagnosis and management of important renal diseases, including those caused by hypertension, immune mechanisms, diabetes, infection, drug toxicity, nephrotic syndrome, disorders of tubular function and urinary obstruction. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, MR, NC, GR, SL DPC, AR, MR, NC, GR, SS	AE, IE AE, IE
4.	<i>PG-1</i> - Familiarity with evaluation and basic management of patients with chronic and acute renal failure. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR DPC, AR	AE, IE AR, IE
5.	Familiarity with the cardiovascular, metabolic, infectious, skeletal, endocrine, immunologic, hematologic and gastrointestinal complications of chronic renal failure.	DPC, AR, SL	AE, IE
6.	<i>PG-1</i> - Familiarity with indications for performance and basic interpretation of specialized tests of renal function. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, GR, SL DPC, AR	AE, IE AE, IE
7.	<i>PG-1</i> - Basic familiarity with the indications, principles and important medical complications of hemodialysis, peritoneal dialysis and renal transplantation. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, AR, SL DPC, AR	AE, IE AE, IE
8.	<i>PG-1</i> - Recognize the indications of basic interpretation of chest and abdominal X-rays, electrocardiograms, and pulmonary function tests. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, CC DPC, CC	AE, IE AE, IE
9.	<i>PG-1</i> Learn indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, AR, MR, GR DPC, AR, MR, GR	AE, IE AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families.	DPC, AR, CR, PC	AE
2.	Communicate effectively with physician colleagues at all levels.	DPC, AR, CR, MR, PC	AE, PR

3.	Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of hospitalized patients.	DPC, AR, PC	AE
4.	Present information on patients concisely and clearly both verbally and in writing.	DPC, AR, CR, MR	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally with patients, families, colleagues, and all members of the health care team.	DPC, AR, MR	AE, PR
2.	Appreciation of the social context of illness.	DPC, AR, MR, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of hospitalized patients.	DPC, AR, MR	AE, IE
2.	Develop and implement strategies for filling gaps in knowledge and skills.	JC, SS, NC	AE, IE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence- based medicine.	DPC, AR, MR, JC, NC, SS	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for hospitalized patients.	DPC, MR, AR	AE
2.	Collaborate with other members of the health care team to assure comprehensive patient care.	DPC, MR, AR	AE
3.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, AR	AE, PR

4.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.	DPC, AR, MR	AE, PR
5.	Knowing when and how to request medical consultation, and how best to utilize the advice provided.	DPC, AR	AE
6.	Knowing when and how to request ethics consultation, and how best to utilize the advice provided.	DPC, AR, PC	AE
7.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, MR	AE
8.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, MR, NC	AE
9.	<i>PG-2/3/4</i> - Leadership of team, including PG-1 residents, medical students, nurses, clinical pharmacist, case manager, and social worker.	DPC, AR, PC	AE, PR
10	<i>PG-2/3/4</i> - Willingness and ability to teach medical students and PG-1 residents.	DPC, PC	AE, PR

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**EMERGENCY MEDICINE AND AMBULATORY ACUTE ILLNESS
ROTATIONS**

Residents are assigned to the Memorial Hermann Hospital (“MHH”) and the Lyndon B. Johnson General Hospital (“LBJ”) for the emergency medicine rotation. Residents are assigned a one-month rotation at the LBJ emergency room during the PGY-1 year and two months during the PGY-2 year. Residents are assigned to MHH for a one-month rotation during the PGY-2 year. PGY-2 Pediatric residents and PGY-1 Transitional year residents have a one-month rotation at the Kid’s Place in the Hermann Professional Building (HPB), where they see ambulatory patients scheduled for a sick visit. Faculty attendings from The University of Texas Medical School at Houston Department of Emergency Medicine supervise the residents in the Emergency Rooms at LBJ and MHH. Faculty from The University of Texas Medical School at Houston Department of Pediatrics supervise residents at the Kid’s Place clinic. Adherence to an 80-hour work week is mandated for the emergency medicine rotation and the ambulatory acute illness rotation.

All Pediatric PGY-1s are required to take Pediatric Advanced Life Support (“PALS”) and PGY-2s are required to take Advanced Pediatric Life Support (“APLS”). Residents rotating in the Emergency Center at MHH attend the Emergency Medicine Department Conferences and residents rotating at the Emergency Center at LBJ receive a series of lectures in emergency medicine and acute illness.

Legend for Learning Activities		
APLS – Advanced Pediatric Life Support	EBM – Evidence-Based Medicine Course	NC – Noon Conferences
AR – Attending Rounds	E/C – Ethics/Communication Conferences	PALS – Pediatric Advanced Life Support
DPC – Direct Patient Care	FS – Faculty Supervision	RC – Research Conference
CAT – Critically Appraised Topics	GR – Grand Rounds	RR – Radiology Rounds/Conference
	JC – Journal Club	SS – Senior Seminar
	MR – Morning Report	SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents	
AE – Attending Evaluations	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback
PR – Peer Review	

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to both PGY-1 and PGY-2 Pediatric residents and the expected competency level demonstrated by the residents should reflect their respective level of experience. The goals and objectives and rotation expectations also apply to residents from the Transitional Year Program and the Family Practice Program.

A. Patient Care

GOAL: Assess, resuscitate, and stabilize critically ill or injured children in the Emergency Center in a timely manner.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Recognize and evaluate urgent patients by performing the primary survey for all patients in an efficient manner, formulate a differential diagnosis, differentiate between cardiogenic, distributive and hypovolemic shock and assist in evaluating and stabilizing a child with multiple traumas.	DPC, SL, FS	AE, FS, PDR
2.	Establish and manage the airways of infants, children and adolescents recognizing the need for assistance with ventilation and/or oxygenation.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
3.	Demonstrate proficiency in the following techniques: proper airway positioning, administration of supplemental oxygen, bag-valve-mask ventilation, nasal and oral airways, endotracheal intubation, mechanical ventilation, and C-spine immobilization to protect the airway in a head trauma patient.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
4.	Discuss indications and describe technique for and complications of nasotracheal intubation and emergency cricothyroidotomy.	APLS, PALS, DPS, SL,	AE, FS, PDR
5.	Recognize the need for vascular access including diagnosing and managing early and late signs of shock.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
6.	Establish vascular access in the critically ill child as indicated.	APLS, PALS,	AE, FS, PDR
7.	Demonstrate proficiency in the following techniques: cannulation of peripheral veins, intraosseous needle insertion and umbilical vessel cannulation.	APLS, PALS, DPC, SL,	AE, FS, PDR
8.	Explain indications and describe the technique for central venous access and arterial access.	APLS, PALS,	AE, FS, PDR
9.	Manage fluid and pressor therapy in the initial resuscitation of patients in distributive, hypovolemic and cardiogenic shock.	APLS, PALS, DPC, SL,	AE, FS, PDR

10	Demonstrate proficiency at cardiopulmonary resuscitation by obtaining and maintaining certification as a provider of APLS (PGY-2s) and PALS (PGY-1s), actual emergency situations, and using resuscitation drugs appropriately. directing resuscitation efforts in mock codes.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
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GOAL: Assess, diagnose and appropriately treat or refer infants, children and adolescents that present with the following common signs and symptoms in the Emergency Center or as a sick visit in the ambulatory clinic.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Gather essential and accurate information using problem-focused interview, exam and diagnostic studies.	DPC, GR, JC, NC, SL, MR, FS	AE, FS, PDR
2.	Formulate a differential diagnosis with appropriate epidemiologic considerations.	DPC, GR, JC, NC, SL, MR,	AE, FS, PDR, IE
3.	Make decisions using clinical problem-solving skills, consultants and referrals as appropriate.	DPC, FS, JC, EBM,	AE, FS, PDR
4.	Carry out patient care management plans, with special attention to urgency, whether admission is indicated, and where to complete the evaluation and management.	DPC, GR, JC, NC, SL, MR, FS	AE, FS, PDR
5.	Communicate with families in a developmentally, culturally-sensitive manner and provide families/patients with the information they need to understand the illness/injury, participate in the care, give informed consent and prevent further injury or dysfunction.	DPC, E/C, FS	AE, FS, PDR
6.	Arrange appropriate follow-up and patient education at the time of discharge.	DPC, FS	AE, FS, PDR
7.	Evaluate and manage the following signs and symptoms that present in the Emergency Center or as a sick visit in the ambulatory setting:	DPC, SL, NC, GR, APLS,	AE, FS, PDR
	a. General: septic or ill-appearing infant/child, unexplained crying, fever, hypothermia, acute life threatening event (ALTE), sudden death, weight loss, failure to thrive, agitated/disturbed child, dehydration, alleged or suspected child abuse or neglect, fatigue, malaise, and exercise intolerance.	PLS, DPC, FS, JL, NC	AE, FS, IE
	b. Allergy/Immunology: acute allergic reactions	APLS, DPC, FS,	FS, AE, IE

	c. Cardiorespiratory: apnea, respiratory distress, tachypnea or shortness of breath, respiratory failure, cyanosis, tachycardia, bradycardia, cough, wheezing, chest pain, palpitations, stridor, hypertension, hypotension (including orthostatic),	APLS, DPC, FS, JL	FS, AE, IE
	d. Dental: tooth injury or loss, pain or trauma of the mouth, jaw or tooth	APLS, DPC, FS, JL	FS, AE, IE
	e. Dermatologic: skin rash, hair loss, itching	DPC, FS, SL	FS, AE, IE
	f. HEENT: dizziness, nosebleed, sore throat, painful swallowing, earache, ear discharge, sudden hearing loss, red eye, abnormal pupils or eye movement, visual disturbances, eye pain.	APLS, DPC, SL	FS, AE, IE
	g. Endocrine: heat/cold intolerance, polydipsia, polyphagia	APLS, DPC, SL	FS, AE, IE
	h. GI: Abdominal pain, distension, diarrhea, vomiting (bilious and non-bilious), constipation, GI bleeding, jaundice, difficulty swallowing	APLS, DPC, SL	FS, AE, IE
	i. GU/Renal: Edema, decreased or increased urination, urinary frequency or urgency, bloody or discolored	APLS, DPC, SL	FS, AE, IE
	j. GYN: Menstrual problems, vaginal bleeding, vaginal discharge	DPC, SL	FS, AE, IE
	k. Hematology/Oncology: Abnormal bleeding, bruising, petechiae, masses, hepatosplenomegaly, lymphadenopathy, pallor, acute illness or fever in a neutropenic child/cancer patient	APLS, DPC, FS, SL	AE, FS, IE
	l. Musculoskeletal: limb pain, limp, arthralgia, joint swelling, inability to move an extremity, trauma, back	APLS, DPC, FS, SL, NC	AE, FS, IE
	m. Neurological: ataxia, spasticity, abnormal movements, coma, lethargy, confusion, fainting spells, seizures, headache, weakness or	NC, APLS, DPC, FS, SL	AE, FS, IE
	n. Psychiatric: depression, suicidal ideation, hysteria, anxiety, hallucinations, violent	DPC, FS, JL	AE, FS, IE
	o. Surgery/trauma: trauma, lacerations, burns, acute abdomen	GR, DPC, EPLS, FS, SL	AE, FS, IE

GOAL: Recognize and manage infants, children and adolescents that present with the following common conditions.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
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1.	Evaluate and manage the following common conditions:	DPC, SL, NC, GR, FS	AE, FS, PDR
	a. Allergy/Immunology: Asthma, anaphylaxis, angioedema, urticaria, serum sickness, HIV/AIDS, acute illness in an immunocompromised child	APLS, DPC, SL, NC, GR, FS	AE, FS, IE
	b. Cardiovascular: acute hypertension, congestive heart failure, pericarditis, cardiomyopathy, dysrhythmias (asystole, bradycardia, SVT, ventricular fibrillation and tachycardia, atrial fibrillation and flutter, electromechanical dissociation), shock (hypovolemic, cardiogenic, distributive), Kawasaki's disease, acute illness in a patient with congenital heart disease	APLS, DPC, SL, NC, ER, FS	AE, FS, IE
	c. Dermatology: acute drug reactions, contact dermatitis, bacterial, viral and fungal infections of skin and hair, scabies, pediculosis, cutaneous manifestations of systemic and/or contagious diseases	APLS, DPC, SL, FS	AE, FS, IE
	d. Endocrine/Metabolic: diabetes and ketoacidosis, hypoglycemia, hypocalcemia, hypo- and hypernatremia, diabetes insipidus, SIADH, acute illness in a child with underlying endocrine/metabolic disease	APLS, DPC, SL, FS	AE, FS, IE
	e. GI/surgical: acute abdomen, peritonitis, bowel obstruction, ileus, appendicitis, malrotation, peptic ulcer disease, pyloric stenosis, intussusception, incarcerated hernia, gastroenteritis, hepatitis, hepatosplenomegaly, gastroesophageal reflux, dehydration, constipation, biliary tract disease, inflammatory bowel disease, upper and lower GI tract bleeding, pancreatitis, foreign body in GI tract, caustic ingestion	APLS, DPC, SL, FS	AE, FS, IE
	f. GU/renal: acute renal failure, hematuria, proteinuria, urinary tract infection, phimosis, paraphimosis, balanitis, labial adhesions, testicular torsion, epididymitis, STD, edema, renal lithiasis, acute illness in a child on chronic dialysis or with transplanted kidney	APLS, FR, DPC, SL, FS	AE, FS, IE
	g. GYN: dysfunctional vaginal bleeding, PID, pregnancy (intrauterine, ectopic, abortion), cervicitis, ovarian torsion, ruptured ovarian cyst, sexually transmitted diseases	APLS, SL, DPC, FS	AE, FS, IE

	h. Hematology/Oncology: sickle cell pain crisis, sequestration and chest syndrome, fever in a child with sickle cell disease or leukemia, anemia, thrombocytopenia, coagulopathy, hemophilia with acute trauma, possible tumor (masses), Henoch Schönlein purpura	APLS, SL, DPC, FS	AE, FS, IE
	i. Infectious Disease: Otitis media/externa, pharyngitis, stomatitis, cervical adenitis, cellulitis, dental abscess, sinusitis, meningitis, encephalitis, sepsis/bacteremia, fever without source, infected wounds and bites, pelvic inflammatory disease,	APLS, SL, DPC, FS	AE, FS, IE
	j. Neurological: Altered mental status, migraine, muscle contraction headache, febrile seizures, afebrile seizures, status epilepticus, paresis/paralysis, ataxia, shunt malfunction/infection, increased intracranial pressure, brain tumor	NC, APLS, SL, DPC, FS, GR	AE, FS, IE
	k. Ophthalmologic: corneal abrasion, conjunctivitis, ocular foreign body, penetrating trauma to the globe, hyphema	APLS, SL, DPC, FS	DSP, AE, FS, IE
	l. Orthopedic: gait disturbance, sprains, strains, fractures, arthritis, osteomyelitis, septic arthritis, common dislocations, Osgood Slatter's Disease	APLS, NC, SL, DPC, FS	DSP, AE, FS, IE
	m. Otolaryngologic: epistaxis, foreign body aspiration, peritonsillar or retropharyngeal abscess	APLS, SL, DPC, FS	AE, FS, IE
	n. Pulmonary: respiratory failure, pneumonia, epiglottitis, bacterial tracheitis, croup, asthma, status asthmaticus, foreign body aspiration, pneumothorax, bronchiolitis, pleural effusion, smoke inhalation, acute illness in a child with cystic fibrosis, BPD, SIDS	APLS, SL, DPC, FS	AE, FS, IE
	o. Trauma/surgical: Burns, closed head injury, skull fractures, intracranial hemorrhages (subdural, epidural, subarachnoid), soft tissue injury (including lacerations, abrasions, and contusions), common dental injuries	APLS, SL, DPC, FS	AE, FS, IE
	p. Toxins/environmental injuries: ingestion/poisoning with an emphasis on common poisons (acetaminophen, iron, hydrocarbons, tricyclic antidepressants, cough and cold medicines, street drugs including cocaine. Toxins with antidotes, such as digoxin, benzodiazepines, and narcotics. Bite and sting injuries, submersion, electrical injury, heat and cold injury	GR, DPC, APLS, FS, SL	AE, FS, IE

	q. Psychiatric: depression, suicide attempt/ideation, combative patient, conversion reaction, panic attacks	DPC, FS, SL	AE, IE, FS
	r. Rheumatologic: joint pain, soft tissue pain, arthritis, lupus, dermatomyositis	DPC, FS, SL	AE, IE, FS
	s. Social: child abuse or neglect, sexual abuse, rape, substance abuse, domestic violence	DPC, FS, SL	AE, IE, FS

B. Medical Knowledge

GOAL: Discuss common diagnostic tests and imaging studies utilized in the Emergency Center. Appropriately utilize diagnostic tests and imaging studies as needed in the care of infants, children and adolescents.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Select and interpret results of common diagnostic tests in the Emergency Center setting.	DPC, NC, SL, GR, FS	AE, IE, FS, PDR
2.	Discuss age-appropriate normals for lab studies.	DPC, NC, SL, GR, FS	AE, IE, FS, PDR
3.	Discuss diagnostic test properties including the use of sensitivity, specificity, positive predictive value, negative predictive value, likelihood ratios, and receiver operating characteristic curves to assess test utility in clinical settings.	DPC, NC, SL, GR, FS, EBM, CAT	AE, IE, FS, PDR
4.	Interpret results in the context of the care of a specific patient.	DPC, NC, SL, GR, FS	AE, FS, PDR
5.	Discuss therapeutic options for correction of abnormalities.	DPC, NC, SL, GR, FS	AE, FS, PDR
6.	Appropriately utilize the following laboratory studies:	DPC, NC, SL, GR, FS	AE, FS, PDR, IE
	a. CBC with differential count, platelets, RBC indices	DPC, SL, FS	AE, FS, IE
	b. Bacterial, viral and fungal cultures and rapid screens	DPC, SL, FS	AE, FS, IE
	c. Serologic tests for infection	DPC, SL, FS	AE, FS, IE
	d. Blood chemistries: electrolytes, calcium, magnesium, phosphate, and glucose	DPC, SL, FS	AE, FS, IE
	e. Arterial, venous and capillary blood gases	DPC, SL, FS	AE, FS, IE
	f. Renal function tests	DPC, SL, FS	AE, FS, IE
	g. Tests of hepatic function and damage	DPC, SL, FS	AE, FS, IE
	h. Drug levels and toxic screens	DPC, SL, FS	AE, FS, IE
	i. Gram stain, wet mount	JL, FS	AE, FS, IE
	j. Urinalysis	DPC, SL, FS	AE, FS, IE
	k. CSF studies	DPC, SL, FS	AE, FS, IE
	l. Stool studies	DPC, SL, FS	AE, FS, IE

	m. Coagulation studies	DPC, SL, FS	AE, FS, IE
	n. Pregnancy test (urine, blood)	DPC, SL, FS	AE, FS, IE
	o. Other fluid studies (e.g., pleural fluid, joint aspiration fluid)	DPC, SL, FS	AE, FS, IE
7.	Appropriately utilize the following imaging or radiologic studies:	DPC, NC, RR, SL, FS	AE, IE, FS, PDR
	a. Plain radiographs of chest, skull, extremity bones, abdomen, cervical spine	DPC, NC, RR, SL, FS	AE, FS, IE
	b. More sophisticated techniques such as CT, MRI, ultrasound, and nuclear scans (interpretation not)	DPC, NC, RR, SL, FS	AE, FS, IE
	c. Contrast enema for suspected intussusception or upper GI series for suspected malrotation	DPC, NC, RR, SL, FS	AE, FS, IE
8.	Appropriately utilize the following screening and diagnostic studies:	DPC, NC, SL, FS	AE, IE, FS, PDR
	a. Electrocardiogram	DPC, NC, SL, FS	AE, FS, IE
	b. Screening audiogram/tympanogram	DPC, FS, SL	AE, FS, IE
	c. Vision screening	DPC, FS, SL	AE, FS, IE
	d. Appropriate urgent use of echocardiography	DPC, FS, SL	AE, FS, IE

GOAL: Discuss the use of physiologic monitoring and special technology and treatment in the Emergency Center.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the indications, contraindications and complications of physiologic monitoring and special technology.	DPC, NC, SL, FS	AE, FS, PDR
2.	Demonstrate appropriate use of technique for treatment for children for varying ages.	DPC, NC, SL,	AE, FS,
3.	Interpret results of monitoring based on method used, age, and clinical situation.	DPC, NC, SL, FS	AE, FS, PDR
4.	Appropriately use the following monitoring techniques:	DPC, NC, SL, FS	AE, FS, PDR
	a. Physiologic monitoring of temperature, blood pressure, heart rate, respirations	FS, APLS, PALS, DPC, SL	AE, FS
	b. Pulse oximetry	FS, APLS, PALS, DPC, SL	AE, FS
	c. Capnometry/end-tidal CO ₂	FS, APLS, PALS, DPC, SL	AE, FS
5.	Appropriately use the following treatments and techniques:	DPC, NC, SL, FS	AE, FS, PDR
	a. Universal precautions	DPC, APLS, PALS, FS, SL	AE, FS, DSP

	b. Gastrointestinal decontamination for poisoning	DPC, APLS, SL, FS	AE, FS, DSP
	c. Administration of nebulized medication	DPC, APLS, FS, SL	AE, FS, DSP
	d. Injury, wound and burn care	DPC, APLS, FS, SL	AE, FS, DSP
	e. Suturing and dermabond	DPC, APLS, FS, SL	AE, FS, DSP
	f. Splinting and casting	DPC, APLS, FS,	AE, FS, DSP
	g. Oxygen delivering system	FS, APLS, PALS, SL, DPC	AE, FS
6.	Appropriately use the following methods of anesthesia or pain management:	DPC, NC, SL, FS	AE, FS, PDR
	a. Methods for recognizing and evaluating pain	PALS, APLS	AE DSP, IE, FS
	b. Topical/local/regional anesthesia	FS, APLS, DPC, SL,	AE, DSP, IE, FS
	c. "Conscious" sedation	FS, APLS, DPC, SL,	AE, DSP, IE, FS
	d. Rapid sequence intubation	FS, APLS, DPC, SL,	AE, IE, DSP, FS
	e. Sedatives, non-narcotic and narcotic analgesics	FS, APLS, DPC, SL	AE, IE, FS
	f. Behavioral techniques and supportive care	FS, APLS, DPC,	AE, IE, FS
	g. Other non-pharmacologic methods of pain control	FS, APLS, D PC, SL	AE, IE, FS

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ADOLESCENT MEDICINE ROTATION

The Adolescent Medicine rotation is a required subspecialty experience for all Pediatric PGY-2 and Medicine-Pediatric PGY-3 residents. It is a one-month outpatient rotation which takes place at a variety of outpatient sites including the Adolescent Clinic at the University of Texas Professional Building, the Adolescent Clinic at Lyndon B. Johnson General Hospital, Planned Parenthood, Burnett-Bayland Home, and the Harris County Juvenile Detention Center. Adherence to the 80-hour work week is mandated. Residents are supervised by faculty members who are board certified in Adolescent Medicine.

At all sites health maintenance, disease prevention, family planning, STDs, and reproductive health and gynecology are regular experiences. Residents attend to general healthcare needs, violence prevention and chemical dependency and psychological issues at the Juvenile Detention Center. Residents are assigned homework in the form of written material and quizzes throughout the course of the rotation.

Legend for Learning Activities

AR – Attending Rounds	GR – Grand Rounds	RC – Research Conference
ASR – Assigned Reading	JC – Journal Club	SS – Senior Seminar
DPC – Direct Patient Care	MR – Morning Report	SL – Subspecialty Lectures
CAT – Critically Appraised Topics	M/DO – Modeling/Direct Observation	WH – Written Homework
E/C – Ethics/Communication Conferences	NC – Noon Conferences	
FS – Faculty Supervision		

Legend for Evaluation Methods for Residents

AE – Attending Evaluation	AE – Attending Evaluation
DSP – Directly Supervised Procedures	MR – Morning Report
MR – Morning Report	DO – Direct Observation
AMQ – Adolescent Medicine Quizzes	RWH – Review of Written Homework
CR – Chart Review	CSR – Chart Stimulated Review
	360° - Global Evaluation

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities, and the evaluation methods for each objective. The educational goals and objectives are applicable to PGY-2/3 residents. The expected competency level demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Provide medical care to adolescents.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Conduct health maintenance visits, preparticipation exams, and problem-oriented visits for minor acute injuries, respiratory infections, headaches, chest pain, acne, depression, and anxiety.	WH, M/DO, FS, SL	AE, RWH, CR, CSR, 360°
2.	Remove an ingrown toenail.	M/DO	AE, DO, DSP
3.	Recognize the common innocent heart murmurs of adolescents and differentiate them from pathologic murmurs with which they can be confused.	FS, WH, SL	AE, DO, RWH

GOAL: Perform health supervision for adolescents related to sexual issues.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Perform a pelvic examination.	M/DO, FS, WH	AE, DSP, DO, CR, RWH
2.	Describe how to assess for vaginitis, cervicitis, PID and genital warts.	M/DO, FS, WH	AE, DSP, DO, CR, RWH
3.	Diagnose and treat the common STDs of adolescents.	M/DO, FS, WH	AE, DSP, DO, CR, RWH
4.	Describe appropriate follow-up plans for abnormal Pap smears.	FS, WH	AE, CR, RWH
5.	Evaluate and describe the common genital abnormalities of males.	M/DO, FS, WH, SL	AE, DSP, DO, CR, RWH
6.	Evaluate and manage amenorrhea, dysmenorrhea, and dysfunctional uterine bleeding.	FS, WH, SL	AE, CR, RWH

B. Medical Knowledge

GOAL: Recognize presenting symptoms, diagnose, describe the pathophysiology, and manage common presentations of the following conditions in adolescents.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Recognize the common innocent heart murmurs of adolescents and differentiate them from pathologic murmurs with which they can be confused.	FS, WH, SL	AE, DSP, DO, RWH
2.	Diagnose and treat the common STDs of adolescents.	M/DO, FS, WH	AE, DO, DSP, CR, RWH

C. Practice-Based Learning and Improvement

GOAL: Demonstrate ability to utilize information technology to access on-line medical information related to adolescent medicine.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Visit and evaluate several Internet sites related to adolescent medicine issues.	FS, WH, SL	AE, RWH

GOAL: Critically appraise research in the field of adolescent medicine.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Critically appraise at least two original research reports in the field of adolescent medicine.	WH, SL	AE, RWH

GOAL: Analyze practice experience and perform practice-based improvement activities using a systematic methodology.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Conduct self-assessment of performance through chart reviews.	WH, SL	AE, RWH

D. Interpersonal and Communication Skills

GOAL: Demonstrate skills that result in effective information exchange and teaming with patients, patients' families and professional associates.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Create and sustain a therapeutic and ethically sound relationship with patients.	M/DO, FS	AE, DO, DSP, CR, CSR, 360°
2.	Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning and writing skills.	M/DO, FS	AE, DO, DSP, CR, CSR, 360°
3.	Work effectively with others as a member or leader of a health care team or other professional group.	M/DO, FS	AE, DO, DSP, 360°, AMQ

E. Professionalism

GOAL: Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Demonstrate respect, compassion and integrity.	M/DO, FS	AE, DO, CR, CSR, DSP, 360°
2.	Demonstrate responsiveness to patient needs and society that supersedes self-interest.	M/DO, FS	AE, DO, CR, CSR, DSP, 360°
3.	Demonstrate accountability to patients, society and the profession.	M/DO, FS	AE, DO, CR, CSR, DSP, 360°
4.	Demonstrate a commitment to excellence and ongoing professional development.	M/DO, FS, SL	AE, DO, CR, CSR, DSP, 360°
5.	Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent and business practices.	M/DO, FS, SL	AE, DO, CR, CSR, DSP, 360°
6.	Demonstrate sensitivity and responsiveness to patients' culture, age, gender and disabilities.	M/DO, FS, SL	AE, DO, CR, CSR, DSP, 360°

E. Systems-Based Practice

GOAL: Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
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1.	Understand how their patient care and other professional practices affect health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice.	M/DO, FS	AE, DO, CR, CSR, DSP, 360°
2.	Practice cost-effective health care and resource allocation that does not compromise quality of care.	M/DO, FS	AE, DO, CR, CSR, DSP, 360°
3.	Advocate for quality patient care and assist patients in dealing with system complexities.	M/DO, FS	AE, DO, CR, CSR, DSP, 360°
4.	Partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.	M/DO, FS, SL	AE, DO, CR, CSR, DSP, 360°

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**MEMORIAL HERMANN AND LBJ CARDIOLOGY
CONSULTATION SERVICE**

The Memorial Hermann Hospital and the LBJ Cardiology Consultation Service rotations are two separate rotations, both lasting for one month. LBJ has two upper level residents assigned to the rotation, and Memorial Hermann has at least two upper level residents assigned to the rotation. There is no call during this rotation, which is for residents only; there are no interns assigned to the service. Patients seen on the Memorial Hermann Hospital and LBJ Cardiology Consultation Service rotation include inpatients on medical and other services at Memorial Herman Hospital and LBJ Hospital for whom a cardiology consultation is requested, and subspecialty clinic patients (ages 16 and over) at LBJ Hospital. At LBJ, the cardiac consultation resident sees any cardiac patient in the ICU during the day, while at night the ICU patients needing cardiac care are cared for by the MICU resident with the help of the cardiology fellow by phone.

Residents are required to attend Morning Report while on this rotation. Residents assigned to this rotation should attend the many Cardiology conferences which are offered through the Cardiology Division. If they are not attending a noon Cardiology educational conference, the residents are required to attend the regularly scheduled Internal Medicine noon conferences.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic Conf.	FS – Faculty Supervision	NC – Noon Conferences PathCl-Path for Clinicians PC–
CC-Core Curriculum	GR – Grand Rounds	Professionalism Curriculum SS
DPC – Direct Patient Care	IL-Introductory Lecture Series	– Senior Seminar
	JC – Journal Club	
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for

that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at both Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Take a complete medical history and perform a careful and accurate physical examination with a cardiology focus.	DPC, AR, NC, FS, IL, M&M	AE
2.	Write concise, accurate and informative histories, physical examinations and progress notes with a cardiology focus.	DPC, AR, NC, FS, IL	AE, IE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management for patients with cardiac illness.	DPC, AR, NC, MR, EBM, JC, CC, FS,	AE, IE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their rationale.	DPC, AR, NC, MR, EBM, CC, FS	AE, IE
5.	Ability to interpret electrocardiograms and rhythm strips, chest and abdominal x-rays.	DPC, AR, NC, IL, M&M, FS,	AE
6.	Ability to recognize major abnormalities of cardiac stress tests, cardiac ECHO and coronary angiograms.	DPC, AR, NC, CC, IL, M&M, DSP	AE, IE
7.	Ability to counsel patient and surgeon regarding medical risks of surgery.	DPC, AR, NC, EBM	AE
8.	Ability to diagnose and treat important cardiovascular complications of surgery.	DPC, AR, NC, Au, CC	AE, IE
9.	Ability to recognize the physical findings of chronic congestive heart failure, mitral regurgitation, mitral stenosis, aortic stenosis, aortic regurgitation and tricuspid regurgitation.	DPC, AR, NC, CC, ILS, M&M, MR	AE, IE
10.	Willingness and ability to help patients undertake basic strategies for prevention of cardiovascular disease, including modifications of diet and physical activity, and cessation of use of tobacco.	DPC, AR, NC, CC, JC	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Familiarity with the indications for, principles, complications, and interpretation of ECG, inpatient and ambulatory rhythm monitoring, exercise and chemical stress tests, electrophysiologic studies, transthoracic and transesophageal cardiac ECHO, nuclear cardiac imaging, right and left ventricular catheterization, coronary angiography, and percutaneous angioplasty.	DPC, AR, NC, CC, ILS, MR, M&M, GR, JC, EBM	AE, IE
2.	Familiarity with principles of assessment of lifetime cardiovascular risk, and cardiovascular risk prevention.	DPC, AR, NC, JC, EBM, CC, ILS	AE, IE
3.	Familiarity with strategies for cessation of use of tobacco.	DPC, AR, NC, EBM, FS	AE
4.	Familiarity with principles of assessment of surgical risk.	DPC, AR, NC, ILS, CC,	AE, IE
5.	Familiarity with pathophysiology, clinical manifestations, diagnosis and management of important cardiovascular complications of surgery.	DPC, AR, NC, EBM, M&M, JC	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with physician colleagues and members of other health care professions to assure timely, comprehensive patient care.	DPC, AR, FS, M&M	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health	DPC, AR, PC, FS	AE
2.	Appreciation of the social context of illness.	DPC, AR, PC, M&M,	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, AR, NC, EBM, JC, M&M, CC	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, AR, NC	AE
2.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, NC, JC, M&M	AE
3.	Willingness and ability to teach medical students and PG-1 residents.	DPC, NC, PC, FS	AE
4.	Knowing when to consult or refer a patient to a cardiologist.	DPC, AR, NC, FS, ILS,	AE
5.	Willingness and ability to help the requesting physician in a consultative or co- anagement capacity, according to the needs of the situation.	DPC, AR, NC, PC	AE

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PEDIATRIC CARDIOLOGY ROTATION

The Cardiology rotation is a required subspecialty experience for all Pediatric residents. It is a one-month rotation and typically occurs during the PGY-2 year. Medicine-Pediatric residents may select it as an elective during their PGY-3 year.

The Cardiology rotation occurs primarily at Memorial Hermann Children's Hospital ("MHCH") and at The University of Texas Outpatient Clinics. Residents also provide consultation services and see patients presenting to the Outpatient Clinic at Lyndon B. Johnson General Hospital ("LBJ"). Patients seen during the month-long rotation include patients newly referred for cardiologic evaluation as well as patients who are in the continuing care of a cardiologist. Residents are supervised by faculty from the Department of Pediatrics Division of Cardiology. Adherence to the 80-hour work week is mandated.

Legend for Learning Activities

AR – Attending Rounds	GR – Grand Rounds	RC – Research Conference
ASR – Assigned Reading	JC – Journal Club	SC – Specialty Conferences
DPC – Direct Patient Care	MDR – Multidisciplinary Rounds	SS – Senior Seminar
CAT – Critically Appraised Topics	MR – Morning Report	SL – Subspecialty Lectures
E/C – Ethics/Communication Conferences	NC – Noon Conferences	
FS – Faculty Supervision		

Legend for Evaluation Methods for Residents

AE – Attending Evaluation	PDR – Program Director's Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to PGY-2 residents and the expected competency levels demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Identify, diagnose, and manage cardiological conditions in children.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Identify timing of the murmur (systolic, diastolic, or continuous) by auscultation.	AR, DPC, FS	AE, FS, DSP
2.	Differentiate functional or innocent murmurs from those associated with organic heart disease.	AR, DPC, FS	AE, FS, DSP
3.	Prepare differential diagnoses of organic murmurs based on history, physical findings, chest radiograph and ECG.	AR, DPC, FS	AE, FS, DSP

GOAL: Identify, diagnose, and manage neonates with suspected cardiologic problems.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Identify cyanosis and heart failure in neonates.	AR, DPC, FS, SL,	AE, FS, DSP
2.	Prepare differential diagnoses for cyanotic newborn.	AR, DPC, FS, SL,	AE, FS, DSP
3.	Prepare diagnoses based on clinical and laboratory data (including chest radiograph, ECG and blood gases).	AR, DPC, FS, SL, CAT	AE, FS, DSP
4.	Create management plans at initial presentation and delineate options available for treatment.	AR, DPC, FS, SL,	AE, FS, DSP

B. Medical Knowledge

GOAL: Diagnose and manage children presenting with congestive heart failure.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe the differences in the signs and symptoms of heart failure between the neonate and infant when compared to older children and adults.	AR, DPC, FS, CAT, SL	AE, FS, DSP
2.	Discuss the use of various drugs in the treatment of heart failure and indicate how specific drugs are selected for specific patients.	AR, DPC, FS, CAT, SL	AE, FS, DSP

GOAL: Discuss common diagnostic tests utilized in children presenting with cardiologic problems.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Interpret electrocardiogram tests with regard to atrial and ventricular hypertrophy.	AR, DPC, FS	AE, FS, DSP
2.	Utilize electrocardiograms to identify common arrhythmias.	AR, DPC, FS	AE, FS, DSP
3.	Describe when echocardiography and Doppler tests should be used and discuss the advantages and limitations of each test.	AR, DPC, FS	AE, FS, DSP
4.	Interpret chest x-ray as it relates to the heart.	AR, DPC, FS	AE, FS, DSP

GOAL: Demonstrate knowledge regarding general cardiology diseases and preventive measures.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe circulatory changes at birth and their relationship to the development of left-to-right	AR, DPC, FS	AE, FS, DSP
2.	Discuss pulmonary artery hypertension, pulmonary vascular resistance and pulmonary vascular obstructive disease.	AR, DPC, FS	AE, FS, DSP
3.	Delineate the principles of prevention of bacterial endocarditis.	AR, DPC, FS	AE, FS, DSP
4.	Discuss the criteria for diagnosis of acute rheumatic fever and Kawasaki Syndrome and describe the long- term cardiac sequelae.	AR, DPC, FS	AE, FS, DSP
5.	Describe the clinical features of the nine most common congenital heart defects (AS, PS, COA, VSD, ASD<PDA, TOF, TGA, TrAt)	AR, DPC, FS	AE, FS, DSP
6.	Describe the effects of polycythemia and how it is treated.	AR, DPC, FS	AE, FS, DSP
7.	Discuss the etiology of congenital heart disease.	AR, DPC, FS	AE, FS, DSP
8.	Discuss the risk factors associated with atherosclerosis.	AR, DPC, FS	AE, FS, DSP

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS ROTATION

Residents assigned to the Developmental and Behavioral Pediatrics rotation work in a team of one or two pediatric interns. Residents are exposed to outpatients with developmental and psychiatric problems. Adherence to the 80-hour work week is mandated.

Pediatric residents are required to fulfill a one-month block rotation in Developmental and Behavioral Pediatrics. The rotation occurs at the Mental Sciences Institute (MSI). Residents see patients in the outpatient child and adolescent psychiatry clinic and the mental retardation/developmental disabilities clinic. Residents are supervised by faculty in the Department of Psychiatry, and child and adolescent psychiatry fellows.

The goals and objectives listed below are covered through discussions about patients seen on an outpatient basis, various conferences, and reading assignments.

Legend for Learning Activities

AR – Attending Rounds	GR – Grand Rounds	RC – Research Conference
ASR – Assigned Reading	JC – Journal Club	SC – Specialty Conferences
DPC – Direct Patient Care	MDR – Multidisciplinary Rounds	SS – Senior Seminar
CAT – Critically Appraised Topics	MR – Morning Report	SL – Subspecialty Lectures
E/C – Ethics/Communication Conferences	NC – Noon Conferences	
FS – Faculty Supervision		

Legend for Evaluation Methods for Residents

AE – Attending Evaluation	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	FS – Faculty Supervision & Feedback
MR – Morning Report	
IE – In-Training Exam	



Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to PGY-1 residents. The expected competency level demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Evaluate and manage common developmental-behavioral signs and symptoms in children and adolescents.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Conduct a comprehensive assessment of children and adolescents with developmental and behavioral problems.	AR, DPC, SL, SC, FS	AE, PDR, IE, FS, DSP
2.	Establish rapport and develop therapeutic relationships with children and their families.	AR, SL, SC, DPC, FS	AE, IE, PDR, FS
3.	Develop and implement a treatment plan that is supported by evidence and may include the use of individual psychotherapy, behavioral therapy, family therapy, and pharmacology.	AR, SL, SC, DPC, FS	AE, IE, PDR, FS
4.	Demonstrate timely and comprehensive documentation skills.	AR, SL, SC, DPC, FS	AE, IE, PDR, FS
5.	Act as a liaison with parents, schools, and other community agencies to provide the best care for	AR, SL, SC, DPC, FS	AE, IE, PDR, FS

B. Medical Knowledge

GOAL: Recognize the diagnostic criteria and psychopathology for the various diagnoses common in developmental and behavioral pediatrics.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the diagnostic criteria for the various diagnoses common in children with various developmental and psychiatric disorders.	AR, ASR, NC, SC, DPC	AE, IE, PDR
2.	Discuss the psychopathology of the various diagnoses common in children with various developmental and psychiatric disorders including risk factors/etiology, epidemiology, common comorbid conditions, treatment, and prognosis.	AR, ASR, SL, DPC	IE, AE
3.	Describe normal development in children.		AE, IE, PDR, FS

GOAL: Understand the pharmacology of psychotropic medications used in children.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe the pharmacology of psychotropic medications used in children including how these medications are used and monitored clinically.	AR, ASR, NC, SC, DPC	AE, IE, PDR
2.	Discuss research that supports or does not support the use of these medications in children.	AR, ASR, SL, DPC	IE, AE

C. Practice-Based Learning and Improvement

GOAL: Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe research which supports or does not support the use of psychotropic medications in children.	AR, DPC, SC	AE, FS, PDR
2.	Develop and implement treatment plans that are supported by evidence and may include the use of individual psychotherapy, behavioral therapy, family therapy, and pharmacology.	AR, DPC, SC	AE, FS, PDR

D. Interpersonal and Communication Skills

GOAL: Create and maintain therapeutically sound relationships with patients; communicate effectively with referring physicians.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Establish rapport and develop therapeutic relationships with children and their families.	AR, DPC, SL, SC	AE, FS, PDR
2.	Act as a liaison with parents, schools, and other community agencies to provide the best care for children.	AR, DPC, SC	AE, FS, PDR

E. Professionalism

GOAL: Create and maintain therapeutically sound relationships with patients; communicate effectively with referring physicians.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Demonstrate respect for patients and colleagues.	AR, DPC, SL, SC	AE, FS, PDR
2.	Demonstrate a high-level of responsibility for patients through the timely return of phone calls and follow-through on requested tasks.	AR, DPC, SC	AE, FS, PDR
3.	Demonstrate an attitude of curiosity and interest in learning.	AR, DPC, SC	AE, FS, PDR

F. Systems-Based Practice

GOAL: Advocate for quality patient care and assist patients in dealing with system complexities.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Act as a liaison with parents, schools, and other community agencies to provide the best care for children.	AR, DPC, SC	AE, FS, PDR

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**MEMORIAL HERMANN AND LBJ ENDOCRINOLOGY
CONSULTATION SERVICE**

The Memorial Hermann and LBJ Endocrinology Consultation Service is one rotation, serving both Memorial Hermann and LBJ Hospital for Endocrinology consultations. This rotation is for an upper level resident, there is no call, and the resident has one day off during the seven-day week. Consults in these hospitals may be requested on inpatients with diabetes, endocrine and metabolic diseases, inpatients on medical and other services at Memorial Hermann Hospital and LBJ Hospital, and patients, ages 16 and over, seen in the ambulatory and specialty clinics Memorial Hermann or LBJ. This rotation is primarily an ambulatory experience. Supervision is on a individual basis by Endocrine attending faculty and fellows assigned to the consult service. The residents attend Endocrine clinic at the University of Texas Professional Building clinic.

Additionally, weekly subspecialty conferences are held on the Endocrine elective. City-wide Endocrine Grand Rounds meet established basic science and medical knowledge requirements for the goals for the rotation. Multidisciplinary Case Presentations meet medical knowledge, interpersonal skills, professionalism, practice based learning, and systems-based practice goals. There is a series of introductory lectures on reproductive endocrinology which meet additional goals. Residents on this rotation are required to attend Morning Report, and Endocrine conferences. If the residents are not attending an Endocrine conference during the noon hour, they are required to attend Noon Conference.

Legend for Learning Activities		
AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic	FS – Faculty Supervision	NC – Noon Conferences PathCl-
Conf.	GR – Grand Rounds	Path for Clinicians PC–
CC-Core Curriculum	IL-Introductory Lecture Series	Professionalism Curriculum SS
DPC – Direct Patient Care	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included in the front of the report for further information.

PG-2/3/4 – (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination, focusing on the endocrine system.	DPC, AR, MR	AE, MR
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes	DPC, AR	AE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management for endocrine problems.	DPC, AR	AE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their rationale.	DPC, AR	AR

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation METHODS
1.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of endocrine and metabolic problems, including diabetes mellitus, with emphasis on those commonly seen by a specialist in the ambulatory setting.	DPC, AR, MR	AE, MR
2.	Familiarity with the clinical manifestations and principles of treatment of major endocrine emergencies, including decompensated diabetes mellitus, severe hypoglycemia, Addisonian crisis, pituitary apoplexy, thyroid storm, and myxedema coma.	DPC, AR, CC, MR	AE, MR
3.	Familiarity with the indications for, principles, complications, and interpretation of specialized tests, including thyroid function tests, dynamic testing of pituitary-adrenal function, immunoassays of various hormones, MRI of the pituitary, nuclear imaging of the thyroid, fine-needle aspiration of the thyroid, and bone mineral density studies.	DPC, AR, CC, JC, NC, MR, EBM	AE, MR

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate sensitively and effectively with patients with endocrine problems and with their families.	DPC, AR	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team	DPC, AR, PC	AE
2.	Appreciation of the social context of illness.	DPC, AR, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of	DPC, JC, SS, JC, EBM, NC, MR	AE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Work with the service requesting the consultation to assure that care for the patient's medical needs is properly coordinated with care being delivered by the	DPC, AR	AE
2.	Knowing when to consult or refer a patient to an endocrinologist.	DPC, AR	AE
3.	Learning by participation in ward rounds, teaching conferences and other educational	DPC, AR	AE
4.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the	DPC, AR	AE
5.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, SS	AE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

PEDIATRIC ENDOCRINOLOGY ROTATION

Residents assigned to the pediatric endocrinology rotation work in a team of one senior Pediatric or Medicine-Pediatric resident (PGY-3 or 4) and one or more PGY-1s. Residents are exposed to both outpatient and hospitalized pediatric endocrinology patients. Adherence to the 80-hour work week is mandated.

Pediatric residents are required to fulfill a one-month block rotation in pediatric endocrinology. The rotation occurs at Memorial Hermann Children’s Hospital (MHCH), The University of Texas Outpatient Clinics, and LBJ Hospital. Residents provide primary care for inpatients admitted to the Endocrinology service at MHCH, see Endocrinology consults on other services, and see patients in the Endocrinology outpatient clinics. Residents are supervised by faculty in the Department of Pediatrics’ Division of Endocrinology.

The goals and objectives listed below are achieved through rounding on the inpatient service, discussions about patients seen on an outpatient basis, various conferences, review articles and other handouts. Residents will have access to computer-based literature searches as well.

Each resident is required to present an article at the Endocrinology Journal Club. Residents are expected to critically appraise an article and present it orally to the adult and pediatric endocrinology faculty.

Residents are given a quiz at the end of the rotation and this assessment is incorporated into their final evaluation by the attending.

Legend for Learning Activities		
AR – Attending Rounds	GR – Grand Rounds	OC Outpatient clinics
DPC – Direct Patient Care	JC – Journal Club	RC – Research Conference
CAT – Critically Appraised Topics	MDR – Multidisciplinary Rounds	SC – Specialty Conferences ¹
E/C – Ethics/Communication Conferences	MR – Morning Report	RS – Resident Seminar
FS – Faculty Supervision	NC – Noon Conferences	SL – Subspecialty Lectures
	NM – Nephrology Manual and Text	

Legend for Evaluation Methods for Residents	
AE – Attending Evaluation	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback

¹ Specialty Conferences include Renal Biopsy Conference, Clinical Case Conference, Renal Grand Rounds, Pediatric

Uroradiology Conference, Journal Club, Renal Transplant Conference, Pediatric Renal Grand Rounds

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to both PGY-1 and PGY-3/4 residents as they are both 'naïve' to pediatric endocrinology experience and the expected competency level demonstrated by the residents should reflect their respective level of experience.

Note that the majority of objectives for medical knowledge will by definition or need apply also to patient care. For clarification purposes, each will be listed only once.

A. Patient Care

1.	Accurately measure and chart infant length.	AR, SL, NM, SC,	AE, PDR, IE, FS
2.	Record growth on a standardized growth chart.	AR, SL, NM, SC,	AE, IE, PDR, FS
3.	Discuss growth rate calculation and appropriate use of a growth chart.	AR, SL, NM, SC, FS	AE, IE, PDR, FS
4.	Correctly use a stadiometer to measure children.	AR, SL, NM, SC,	AE, IE, PDR, FS
5.	Calculate a patient's "target height" from the mid parental height.	AR, SL, NM, SC, FS	AE, IE, PDR, FS
6.	Perform a diagnostic evaluation of short stature.	AR, SL, NM, SC, FS	AE, IE, PDR, FS
7.	Describe the circumstances under which a patient would be referred for growth problems.	AR, SL, NM, SC, FS	AE, IE, PDR, FS

B. Medical Knowledge

GOAL: Describe normal growth in infants and children.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss growth rate calculation and appropriate use of a growth chart.	AR, SL, NM, SC, FS	AE, IE, PDR, FS
2.	Describe the circumstances under which a patient would be referred for growth problems.	AR, SL, NM, SC, FS	AE, IE, PDR, FS

GOAL: Describe and diagnose sexual differentiation.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Determine genotypic sex by testes determining factor.	AR, DPC, NM, MR, NC, SL,	AE, FS, PDR
2.	Describe gonadal sex and function of the gonads.	AR, DPC, NM, MR, NC, SL,	AE, FS, PDR

3.	Describe phenotypic sex including development of the genital ducts and development of external genitalia.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR
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GOAL: Describe the signs of normal puberty, delayed puberty, and precocious puberty.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe the physical changes involved in puberty.	AR, DPC, SC, SL, NM,	AE, FS, PDR
2.	Assign Tanner scores for sexual development.	AR, DPC, SC, SL, NM	AE, FS, PDR
3.	Describe the signs of delayed puberty.	AR, DPC, SC, SL, NM	AE, FS, PDR
4.	Discuss treatments for delayed puberty.	AR, DPC, SC, SL, NM	AE, FS, PDR
5.	Describe the differences between precocious puberty, premature adrenarache, and premature thelarche.	AR, DPC, SC, SL, NM	AE, FS, PDR
6.	Complete a diagnostic evaluation for early puberty.	AR, DPC, SC, SL, NM	AE, FS, PDR
7.	Describe the treatment for precocious puberty.	AR, DPC, SC, SL, NM	AE, FS, PDR

GOAL: Describe and diagnose thyroid disease.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Perform a physical examination of the thyroid gland to determine when the gland is absent, enlarged (goiter), or to palpate a nodule.	AR, DPC, SC, SL, NM, FS	AE, FS
2.	Discuss the reasoning behind state screening for congenital hypothyroidism.	AR, DPC, SC, SL, NM	AE, FS, PDR
3.	Interpret the results of the state screen for congenital hypothyroidism.	AR, DPC, SC, SL, NM	AE, FS
4.	Describe the differential diagnosis for congenital hypothyroidism.	AR, DPC, SC, SL, NM	AE, FS
5.	Discuss the signs and symptoms of untreated congenital hypothyroidism.	AR, DPC, SC, SL, NM	AE, FS
6.	Discuss how to assess if a patient with hypothyroidism is being adequately supplemented with thyroid	AR, DPC, SC, SL, NM	AE, FS
7.	Describe the differential diagnosis for acquired hypothyroidism.	AR, DPC, SC, SL, NM	AE, FS
8.	Discuss the signs and symptoms of acquired hypothyroidism.	AR, DPC, SC, SL, NM	AE, FS
9.	Describe the differential diagnosis of hyperthyroidism including Grave's Disease, Hashimoto's thyroiditis, and neonatal thyrotoxicosis.	AR, DPC, SC, SL, NM	AE, FS
10.	Describe the treatment for hyperthyroidism.	AR, DPC, SC, SL, NM	AE, FS
11.	Diagnose and treat acute/subacute thyroiditis.	AR, DPC, SC, SL, NM	AE, FS

GOAL: Describe normal adrenal physiology and discuss hypo-adrenalism, hyper-adrenalism, and the clinical manifestations of diseases of the adrenal medulla.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe normal adrenal physiology including the biological and physiological effects of CRF, ACTH, cortisol, renin, aldosterone, testosterone, and DHEA.	AR, NC, SL, SC, NM	AE, IE, PDR
2.	Describe signs and symptoms of the hypoadrenal state.	AR, NC, SL, SC,	AE, IE, PDR
3.	Conduct a laboratory evaluation for the hypoadrenal state.		
4.	Discuss how to treat "adrenal crisis".		AE, FS
5.	Describe the clinical characteristics of the two most common types of Congenital Adrenal Hyperplasia (CAH).		AE, FS
6.	Demonstrate a working knowledge of the adrenal steroid pathway (utilizing a diagram).		AE, FS
7.	Describe the clinical conditions and common physical findings associated with Addison's Disease.		AE, FS
8.	Describe iatrogenic glucocorticoid deficiency.		AE, FS
9.	Describe the physical characteristics of patients with hyper-adrenalism (Cushing's Syndrome).		AE, FS
10.	Discuss the differential diagnosis of Cushing's Syndrome including abnormalities of the pituitary- adrenal axis and abnormalities of the adrenal gland.		AE, FS
11.	Describe the diagnostic evaluation for Cushing's Syndrome and how it is treated.		AE, FS
12.	Discuss the clinical manifestations and treatment of diseases of the adrenal medulla including pheochromocytoma and neuroblastoma.		AE, FS

GOAL: Describe the role of anti-diuretic hormone ("ADH") and the abnormalities associated with it.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe the role of ADH in maintenance of normal osmolarity.	AR, NC, SL, SC, NM	AE, IE, PDR
2.	Interpret laboratory values for urine specific gravity, serum and urine osmolarity, and electrolytes.	AR, MR, NC, SL, NM	AE, IE, PDR

3.	Describe the clinical features diabetes insipidus (DI).	AR, MR, NC, SL, NM	AE, IE, PDR
4.	Take a medical history that differentiates DI from psychogenic water intoxication.	AR, MR, NC, SL, NM	AE, IE, PDR
5.	Describe the procedure involved in a water deprivation test		AE, FS
6.	Identify the clinical manifestations of syndrome of inappropriate antidiuretic hormone secretion (SIADH).		AE, FS
7.	Describe patients that are most at risk for SIADH.		AE, FS
8.	Explain the treatment for SIADH.		AE, FS

GOAL: Describe the clinical differences and treatment options for insulin-dependent diabetes mellitus (IDDM) and non-insulin-dependent diabetes mellitus (NIDDM).

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the common clinical manifestations of IDDM.	AR, SL, SC, NM	AE, IE, PDR
2.	Describe the pathogenesis and genetics of IDDM.	AR, SL, SC, NM	AE, IE, PDR
3.	Differentiate the types of insulin and their duration of action. Apply this to patient care.	AR, SL, SC, NM	AE, IE, PDR
4.	Describe appropriate outpatient follow-up care for an IDDM patient including dietary management, insulin adjustment, psychosocial concerns, management of exercise in the diabetic child, management of hypoglycemia, and "sick-day" management		AE, IE, PDR
5.	Interpret glycosylated hemoglobin results.		
6.	Describe the physiological changes that occur in diabetic ketoacidosis.		
7.	Describe acute management and evaluation for a patient in ketoacidosis including proper use of intravenous fluids, management of electrolytes, use of an insulin drip, proper correction of acidosis, and prevention of cerebral edema.		
8.	Distinguish Type II diabetes from Type I diabetes.		AE, IE, PDR
9.	Describe what is meant by the term MODY.		AE, IE, PDR
10.	List treatment options for Type II diabetes.		AE, IE, PDR

GOAL: Describe hypoglycemia and the role of hormones in the maintenance of blood sugar.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Explain the role of gluconeogenesis and glycolysis in the maintenance of normoglycemia.	AR, NC, SL, SC, NM	AE, IE, PDR
2.	Describe the role of insulin, cortisol, glucagon, and epinephrine in the maintenance of blood sugar.	AR, MR, NC, SL, NM	AE, IE, PDR
3.	Cite the symptoms of hypoglycemia and the acute management of a patient exhibiting those symptoms.	AR, MR, NC, SL, NM	AE, IE, PDR
4.	Describe a differential diagnosis for neonatal hypoglycemia.	AR, MR, NC, SL, NM	AE, IE, PDR
5.	Describe the differential diagnosis of childhood hypoglycemia including “ketotic hypoglycemia”, defects in gluconeogenesis and glycolysis, hormone deficiency, and hyperinsulin.		

GOAL: Describe the effects of calcium metabolism in the pediatric patient.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe the roles of nutrition, parathyroid hormone (PTH), vitamin D, the GI tract, the kidney and bones in the maintenance of normal serum calcium.	AR, NC, SL, SC, NM	AE, IE, PDR
2.	Discuss the physiologic interactions of calcium, magnesium, and phosphorus.	AR, MR, NC, SL, NM	AE, IE, PDR
3.	State the normal values for serum calcium.	AR, MR, NC, SL, NM	AE, IE, PDR
4.	Recognize clinical manifestations of hypocalcemia.	AR, MR, NC, SL, NM	AE, IE, PDR
5.	Discuss the treatment of acute hypocalcemia.		
6.	Describe the differential diagnosis for the etiology of Rickets and be familiar with the medical therapy for this type of condition.		
7.	Describe the major symptoms and the acute management of hypercalcemia.		

C. Practice-Based Learning and Improvement

GOAL: Demonstrate knowledge, skills, and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate and improve one's patient care practice.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Identify standardized guidelines for diagnosis and treatment of complex diseases and learn the rationale for adaptations that optimize treatment.	AR, MDR, E/C	AE, FS, PDR
2.	Identify personal learning needs, systematically organize relevant information resources for future reference, and plan for continuing data acquisition if appropriate.	AR, MDR, E/C	AE, FS, PDR

D. Interpersonal Skills and Communication

GOAL: Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families, and professional associates.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Talk to family members about sensitive issues that relate to a patient's illness, e.g., coping with child's altered needs in his/her home setting.	AR, DPC, SL, SC	AE, FS, PDR
2.	Treat families in a non-judgmental, culturally sensitive manner.	DPC, FS	AE, FS, PDR
3.	Effectively listen to the concerns of patients and their families and respond with appropriate information and support.	FS, DPC, E/C	AE, FS, PDR
4.	Communicate effectively with physicians, other health professionals, and health related agencies to create and sustain information exchange and team work for patient care.	AR, DPC, SL, SC	AE, FS, PDR
5.	Recognize problems and/or risk factors in the child or family (e.g., immunizations, social risks) and appropriately intervene or refer.	DPC, FS	AE, FS, PDR

E. Professionalism

GOAL: Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
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1.	Demonstrate personal accountability to the well being of all patients, even when other physicians are primarily responsible for their care (i.e., following up on lab results, writing comprehensive notes, seeking answers to difficult patient care questions, and communicating with primary care physicians).	AR, DPC, SL, SC	AE, FS, PDR
2.	Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical and legal principles, and sensitivity to diversity while providing care to children.	AR, DPC, SL, SC	AE, FS, PDR
3.	Maintain accurate, timely, and legally appropriate medical records for endocrine patients in the outpatient and inpatient setting.		
4.	Practice ethical concepts of confidentiality, consent, autonomy and justice.	FS, DPC, E/C	AE, FS, PDR
5.	Demonstrate knowledge of professionalism concepts such as integrity, altruism and conflict of interest.	FS, DPC, E/C	AE, FS, PDR

F. Systems-Based Practice

GOAL: Understand how to practice quality health care and advocate for patients within the context of the health care system.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Demonstrate sensitivity to the costs of clinical care in the endocrinology setting and take steps to minimize costs without compromising quality.	AR, MDR, E/C	AE, FS, PDR
2.	Recognize the limits of one's knowledge and expertise and take steps to avoid medical errors.	AR, MDR, E/C	AE, FS, PDR
3.	Understand key aspects of health care systems as they apply to care of patients and their families, including cost control, billing, and reimbursement.	AR, MR, NC, SL, NM	AE, IE, PDR
4.	Recognize and advocate for families who need assistance to deal with system complexities, such as lack of insurance, multiple medication refills, multiple appointments with long transport times, or inconvenient hours of service.	AR, MR, NC, SL, NM	AE, FS

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MEMORIAL HERMANN AND LBJ GASTROENTEROLOGY CONSULTATION SERVICE

The Memorial Hermann and LBJ General Gastroenterology Consultation Service is one combined rotation for three upper level residents, one of whom is sent to LBJ. Consults may be requested on inpatients on medical and other services at Memorial Hermann and LBJ Hospital. Residents gain knowledge through consultation rounds with faculty specialists in gastroenterology, through one-on-one supervision by faculty physicians and fellows in gastroenterology clinic and through observing endoscopies. There is no call during these rotations, and residents, who are all upper levels, have one day a week off. Residents do not cover weekends at LBJ. Residents on this rotation are required to attend Morning Report, and Gastroenterology conferences. They are required to attend Noon Conference if there is not a Gastroenterology conference during the noon hour.

The Gastroenterology Consult Service provides the opportunity for residents to consult on hospitalized patients referred by their primary care physicians regarding specific issues related to gastrointestinal problems that often include complex cases. This responsibility includes response to consult requests in a timely fashion as required by the circumstances, knowledge of all patients on the service, supervision of senior medical students, participation in provides including patient preparation and disposition following hospital discharge.

Competency is expected in, but not limited to, the following disorders: complicated acid-peptic disease, motility disturbances, complicated inflammatory bowel disease, diverticulitis, mesenteric vascular events, gastrointestinal infections, and pancreaticobiliary disease including cholelithiasis.

Evaluation and management skills will be developed in patients presenting with abdominal pain including the acute abdomen, nausea and vomiting, gastrointestinal bleeding, malnutrition, and post-surgical care.

GI faculty and a Gastroenterology fellow will round daily with the residents. Rounds will include seeing new consultations, followup of active consultations and teaching, both at bedside and with informal lectures every day.

Learning Venue Competency: Medicine residents will participate in a variety of weekly conferences / educational events. These include:

- GI Grand Rounds. This conference is held on Thursdays from 8:00 – 9:00 a.m. (Baylor, 201A)
- GI Research Forum. This conference is held on Thursdays from 4:00 to 5:00 p.m. (Baylor, DeBaKey Room M112)

Procedures: Residents will have the opportunity to observe and participate in a number of procedures. Residents should have basic knowledge of the appropriate use of the following procedures:

Direct Experience:
Paracentesis

Observation Experience:

- Liver biopsy under ultrasound guidance and transjugular and basic knowledge of the interpretation of the biopsy
- Upper endoscopy, variceal bleeding control with sclerotherapy or band ligation
- Placement of Blakemore tube
- ERCP
- Endoscopic ultrasound
- Percutaneous transhepatic cholangiography (PTC)
- Liver and biliary nuclear medicine scans (HIDA, colloid scan)
- Fashioning of a transjugular intrahepatic porto-systemic shunt (TIPSS)
- Surgical porto-systemic shunts
- Hepatic venography and measurement of Wedged Hepatic Venous Gradient (WHVG)
- Liver imaging (ultrasound, CT, MRI)

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic	FS – Faculty Supervision	NC – Noon Conferences PathCI-
Conf.	GR – Grand Rounds	Path for Clinicians PC–
CC-Core Curriculum	IL-Introductory Lecture Series	Professionalism Curriculum SS
DPC – Direct Patient Care	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on the above rotations are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 – (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination, focusing on gastroenterologic problems.	DPC, AR	AE

2.	Ability to write concise, accurate and informative histories, physical examinations and progress	DPC, AR	AE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of	DPC, AR	AE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the	DPC, AR	AE
5.	Ability to interpret major abnormalities of upper GI series, barium enemas, and abdominal x-rays.	DPC, AR	AE
6.	Ability to perform flexible sigmoidoscopy under supervision.	DPC, AR, FS	AE
7.	Ability to assess and manage gastrointestinal emergencies, including gastrointestinal	DPC, AR, FS	AE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation METHODS
1.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of esophageal reflux, peptic ulcer disease, Crohn's disease, ulcerative colitis, colon cancer, acute and chronic pancreatitis, viral hepatitis and cirrhosis.	DPC, AR, CC, GR	AE, IE
2.	Understanding the various diagnostic and therapeutic approaches to gastrointestinal disease.	DPC, AR, CC, GR	AE, IE
3.	Familiarity with the indications for, principles, complications, and interpretation of specialized tests, including EGD, colonoscopy, flexible sigmoidoscopy, ERCP, liver biopsy, upper GI series, barium enemas, and CT scans of the abdomen and pelvis.	DPC, AR, FS	AE, IE
4.	Understanding the rationale, benefits and shortcomings of various approaches to screening for colon cancer, <i>H. pylori</i> disease and hepatitis C.	DPC, AR, SS, CC	AE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate sensitively and effectively with patients with gastroenterology problems and with their families.	DPC, AR	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team.	DPC, AR, PC	AE, PR
2.	Appreciation of the social context of illness.	DPC, AR, PC2	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine	DPC, AR, JC, SS	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation METHODS
1.	Work with the service requesting the consultation to assure that care for the patient's medical needs is properly coordinated with care being delivered by the primary service.	DPC, AR	AE
2.	Knowing when to consult or refer a patient to a gastroenterologist.	DPC, AR	AE
3.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, AR	AE
4.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the situation.	DPC, AR	AE
5.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, SS	AE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

PEDIATRIC GASTROENTROLOGY ROTATION

The Pediatric Gastroenterology (G.I.) rotation is a one-month rotation to which Pediatrics PGY-3s and Medicine-Pediatrics PGY-2s are assigned. Residents are exposed to both outpatient and hospitalized pediatric gastroenterology patients. The rotation occurs at Memorial Hermann children’s Hospital (MHCH), The University of Texas Outpatient Clinic, and the Lyndon B. Johnson (LBJ) General Hospital. Adherence to the 80-hour work week is mandated.

The goals and objectives listed below are covered through rounding on inpatient G.I. consultations, examination and discussion of patients referred to the G.I. clinic for consultation, and didactic conferences.

Medicine-Pediatrics PGY-2s and Pediatrics PGY-3s have comparable experience levels in G.I. coming into their one-month Pediatric G.I. rotation, therefore the following goals and objectives apply equally to all residents.

Legend for Learning Activities

AR – Attending Rounds	GR – Grand Rounds	OC Outpatient clinics
DPC – Direct Patient Care	JC – Journal Club	RC – Research
CAT – Critically Appraised Topics	MDR – Multidisciplinary Rounds	Conference
E/C – Ethics/Communication Conferences	MR – Morning Report	SC – Specialty Conferences
FS – Faculty Supervision	NC – Noon Conferences	RS – Resident Seminar
	GM – Gastroenterology Manual and Text	SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents

AE – Attending Evaluation	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to both PGY-1 and PGY-3/4 residents. The expected competency level demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: The resident will understand the role of the pediatrician in preventing gastrointestinal disease or nutritional deficiencies, and in counseling and screening individuals at risk for these diseases.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	As part of regular GI screening, plot growth parameters using appropriate growth charts (e.g., charts for Downs, achondroplasia, Turner prematurity), and measure BMI to monitor trends suggestive of failure to thrive, overweight and obesity.	AR, NC, SL, SC, GM	AE, IE, FS
2.	Provide gastrointestinal preventive counseling to parents and patients that addresses the following. <ol style="list-style-type: none"> a. Good nutrition which includes: breast feeding and age appropriate diet, good eating habits, safety (choking, food preparation, and storage), prevention of dietary deficiencies or excesses, prudent diet to reduce risks of cardiovascular disease or cancer risk in adulthood, and safe methods of weight gain or weight loss. b. Bowel training and dietary prevention of constipation c. Prevention of Hepatitis A and B through immunization d. Good hand washing and food preparation techniques for the prevention of gastrointestinal infections 	AR, NC, FS, MR, OC, SL	AE, FS, IE
3.	Provide counseling to parents and patients with specific gastroenterological conditions that addresses: <ol style="list-style-type: none"> a. Importance of compliance with medications for chronic disease b. Surgical indications in specific gastroenterological conditions c. The role of specialized diets in certain gastroenterological conditions, e.g., IBD, celiac disease, failure to thrive, obesity, lactose intolerance, etc. d. Coping with recurrent abdominal pain and the attendant anxiety. 	AR, NC, FS, OC	AE, IE, FS
4.	Interpret growth data and body mass index to monitor trends suggestive of failure to thrive, overweight and obesity.	AR, NC, FS, OC	AE, IE, FS

GOAL: The resident will evaluate and treat, and/or refer patients with presenting signs and symptoms that suggest a gastrointestinal disease process.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Evaluate, treat, and/or refer patients with presenting signs and symptoms that suggest a gastrointestinal disease process.	AR, DPC, GM, MR, NC, SL, FS	AE, FS, PDR
2.	Develop a strategy to determine if the following presenting signs and symptoms are caused by a gastrointestinal disease process and decide if the patient needs treatment or referral. <ul style="list-style-type: none"> a. Fatigue b. Vomiting\Growth failure/weight loss/failure to thrive c. Diarrhea d. Constipation e. Abdominal pain f. Jaundice g. Colic h. Chest pain i. Ascites 	AR, DPC, GM, MR, NC, SL, FS	AE, FS, PDR
3.	Evaluate and manage a child with recurrent abdominal pain.	AR, DPC, GM, MR, NC, SL, FS	AE, FS, PDR

GOAL: The resident will diagnose, explain, and manage patients with gastrointestinal conditions generally not requiring referral.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Diagnose, explain, and manage the following gastrointestinal conditions: <ul style="list-style-type: none"> a. Infectious diarrhea, including bacterial enteritis, giardiasis and viral gastroenteritis b. Non-infectious diarrhea, including chronic nonspecific diarrhea, milk protein intolerance, and lactose intolerance c. Common nutritional deficiencies d. Constipation, encopresis e. Gastroesophageal reflux f. Dyspepsia g. Irritable bowel syndrome h. Jaundice associated with breast feeding i. Viral hepatitis 	AR, DPC, SC, SL, GM, FS	AE, FS, PDR

GOAL: The resident will recognize and initiate management of patients with gastrointestinal conditions that generally require referral.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	<p>Identify, explain, provide initial management, and obtain consultation or refer the following gastrointestinal conditions:</p> <ul style="list-style-type: none"> a. Conditions generally not referred, if severe or management is unsuccessful. b. Conditions warranting urgent surgical or gastroenterology evaluation, such as: abdominal mass, bowel obstruction, volvulus, intussusception, pyloric stenosis, esophageal foreign bodies, caustic ingestions (including watch batteries). c. G.I. bleeding d. Hepatobiliary diseases, including: neonatal cholestasis, alpha 1 antitrypsin deficiency; pancreatitis, biliary tract disorders, hepatosplenomegaly. e. Severe acute or chronic intestinal conditions, including suspected inflammatory bowel disease and colitis. f. Severe or uncommon nutritional deficiencies, including rickets, kwashiorkor, and marasmus. g. Chronic diarrhea with or without malabsorption, including: suspected celiac disease, cystic fibrosis, pancreatic insufficiency, gastrointestinal infection with prolonged diarrhea, and undiagnosed diarrhea. h. Gastrointestinal entities requiring special evaluation and follow-up, including anorexia nervosa, bulimia, severe failure to thrive. 	AR, DPC, SC, SL, GM, FS	AE, FS, PDR
2.	<p>Discuss the role and scope of gastroenterology; recognize situations where children benefit from the skills of specialist trained in the care of children and work effectively with these professionals to care for children's gastroenterology and nutrition disease process.</p>	AR, NC, FS, OC	AE, IE, FS

GOAL: The resident will diagnose and manage vomiting.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
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1.	Distinguish physiologic gastroesophageal reflux from complicated gastroesophageal reflux and from vomiting due to disorders requiring evaluation and treatment.	AR, DPC, SC, SL, GM, FS	AE, FS
2.	Develop a differential diagnosis including both common and serious disorders (both intestinal and extra intestinal) presenting with vomiting and the appropriate use of laboratory and imaging studies to aid in diagnosis.	AR, DPC, SC, SL, GM, FS	AE, FS
3.	Recognize symptoms and urgently refer children with vomiting caused by intestinal obstruction.	AR, DPC, SC, SL, GM, FS	AE, FS
4.	Describe the typical presentation and suspected course of viral gastroenteritis and evaluate vomiting that does not conform to this presentation and course.	AR, DPC, SC, SL, GM, FS	AE, FS
5.	Recognize signs and symptoms of dehydration in a child with vomiting. Calculate fluid deficits based on weight and clinical symptoms and manage rehydration using IV fluids or oral rehydration solutions.	AR, DPC, SC, SL, GM, FS	AE, FS
6.	Develop an evidence-based plan, based on etiology, for withholding, feeding or reintroducing solid foods during and after vomiting.	AR, DPC, SC, SL, GM, FS	AE, FS
7.	Discuss common remedies and medications used to treat vomiting, along with indications, limitations and potential adverse effects.	AR, DPC, SC, SL, GM, FS	AE, FS
8.	Identify the indicators for a gastroenterology consultation or referral of a child with vomiting.	AR, DPC, SC, SL, GM, FS	AE, FS

GOAL: The resident will diagnose and manage abdominal pain.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Compare the common causes of abdominal pain and describe signs and symptoms that differentiate recurrent (functional) abdominal pain of childhood from other organic causes that require further evaluation and treatment.	AR, DPC, SC, SL, GM, FS	AE, FS
2.	Explain the key components of a complete history and physical examination for abdominal pain. This should include pain patterns, weight loss, complete diet history, elimination history (including stool size, pattern, and consistency), psychosocial history, rectal exam and an age/gender dependent pelvic exam.	AR, DPC, SC, SL, GM	AE, FS
3.	Develop a diagnostic and treatment plan for a patient with abdominal pain that uses step-wise evaluation and treatment.	AR, DPC, SC, SL, GM	AE, FS

4.	Identify indicators that suggest need for a gastroenterology or surgery consultation or referral for a child with abdominal pain.	AR, DPC, SC, SL, GM	AE, FS
5.	Counsel parents about behavioral and psychological factors in children with abdominal pain, and how to handle them.	AR, DPC, SC, SL, GM	AE, FS

GOAL: The resident will diagnose and manage diarrhea.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Compare and contrast the infectious and non-infectious causes of diarrhea. Describe signs and symptoms that differentiate self-limiting diarrhea from diarrhea requiring further evaluation and treatment.	AR, SL, SC, GM	AE, IE, PDR
2.	Explain the key components of a complete history and physical examination for diarrhea, including a complete diet history, length of illness, elimination history (including stool size, pattern, and consistency), and travel history, in order to classify a diarrheal illness as acute or chronic.	AR, SL, SC, GM	AE, IE, PDR
3.	Describe the appropriate diagnostic work-up for a patient with acute or chronic diarrhea, including factors that suggest celiac disease or cystic fibrosis.	AR, SL, SC, GM	AE, IE, PDR
4.	Recognize signs and symptoms of dehydration in a child with diarrhea. Calculate fluid deficits based on weight and clinical symptoms and manage rehydration using IV fluids or oral rehydration solutions.	AR, SL, SC, GM	AE, IE, PDR
5.	Develop an evidence-based plan that is based on etiology for withholding, feeding or reintroducing solid foods during and after a diarrheal illness.	AR, SL, SC, GM	AE, IE, PDR
6.	Discuss common remedies and medications used for diarrhea, along with indications, limitations and potential adverse effects.	AR, SL, SC, GM	AE, IE, PDR
7.	Identify the indicators for a gastroenterology consultation or referral of a child with diarrhea.	AR, SL, SC, GM	AE, IE, PDR
8.	Counsel parents about possible behavioral and psychological causes of diarrhea, and explain how to handle a child with recurrent diarrhea, and explain how to handle a child with recurrent diarrhea of apparent psychosomatic origin.	AR, SL, SC, GM	AE, IE, PDR

GOAL: The resident will demonstrate an understanding of the principles of nutrition

important to the general pediatrician.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Conduct an age-appropriate dietary history and examination for physical signs of a nutritional disorder.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
2.	List conditions that may present with malnutrition or which commonly occur in combination with malnutrition.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
3.	Compare and contrast the major components (e.g. carbohydrate, protein, fat sources) of human breast milk, cow's-milk-based infant formula, soy formula, specialized formulas, and whole milk.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
4.	List common signs and symptoms of deficiency in the following nutritional components, and identify children at high risk for deficiency. Describe the adequate dietary requirements and dietary source for each component. <ul style="list-style-type: none"> a. B12 b. Calcium c. Calorie d. Fat e. Fluoride f. Folate g. Iron h. Protein i. Vitamins A, C, D, K, E j. Zinc 	AR, SL, GM, SC, FS	AE, PDR, IE, FS
5.	Provide informative and accurate nutritional counseling to parents and patients suspected of a nutritional deficiency or with exogenous obesity.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
6.	Describe intervention approaches to helping children, adolescents and families alter their eating and exercise habits, in order to reduce obesity and its attendant lifelong health risks.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
7.	Discuss nutritional supplements that can be added to children's diets to increase caloric and nutritional content.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
8.	Describe parenteral nutrition regimens and components (proteins, glucose electrolytes, vitamins, minerals, and lipid) and situations that warrant their use.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
9.	Describe the typical monitoring of a child on TPN. Identify the indicators that would lead to a sound nutritional consultation or referral for a child with suspected or identified nutritional deficiency and/or exogenous obesity.	AR, SL, GM, SC, FS	AE, PDR, IE, FS

10.	Identify conditions in which weight alteration may be necessary and provide guidelines for safe weight gain or loss.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
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11.	Discuss the presentation, diagnosis, and management of eating disorders.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
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B. Medical Knowledge

GOAL: The resident will differentiate between normal and pathological states related to gastroenterology.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe the normal eating patterns from birth through adolescence, including expected weight gain and typical feeding behaviors.	AR, SL, GM, SC, FS	AE, PDR, IE, FS
2.	Discuss developmental patterns in gastrointestinal development, including gastroesophageal reflux, bowel habits, and description of stool.	AR, SL, GM, SC, DPC, FS	AE, IE, PDR, FS
3.	Explain the findings on clinical history and examination that suggest gastrointestinal disease requiring further evaluation or treatment. Such findings include symptomatic gastroesophageal reflux, vomiting, diarrhea, constipation, abdominal pain, hematemesis, hematochezia, melena, and weight loss.	AR, SL, GM, SC, DPC, FS	AE, IE, PDR, FS
4.	Recognize the features that will distinguish symptoms of irritable bowel syndrome and dyspepsia from abdominal pain due to pathologic conditions.	AR, SL, GM, SC, DPC, FS	AE, IE, PDR, FS
5.	Understand the interpretation of liver function tests and be able to distinguish between cholestasis, hepatocellular inflammation/necrosis and portal hypertension using laboratory values.	AR, SL, GM, SC, DPC, FS	AE, IE, PDR, FS

GOAL: The resident will understand the general pediatrician's role in the management of cystic fibrosis.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the presenting signs and symptoms of cystic fibrosis and refer the patient for appropriate confirmatory testing, education, and treatment. Describe high risk populations, associated symptoms, treatment options and expected course of the disease.	AR, SL, GM, SC, FS	AE, PDR, IE, FS

2.	Participate in development and implementation of a coordinated pulmonary and nutritional treatment plan for a patient with cystic fibrosis, including recognition and treatment of acute episodic illnesses, nutritional	AR, SL, GM, SC, FS	AE, IE, PDR, FS
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	deficiencies, intestinal obstructions, and psychosocial issues. Discuss the multidisciplinary approach to cystic fibrosis care and the role of the general pediatrician.		
3.	Identify indicators that signify an exacerbation of pulmonary symptoms. Provide appropriate initial treatment and referral to a specialty center for further evaluation and treatment.	AR, SL, GM, SC, FS	AE, IE, PDR, FS

GOAL: The resident will describe the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge needed by a pediatrician; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Critically evaluate current medical information and scientific evidence related to this subspecialty area and modify his/her knowledge base accordingly.	AR, DPC, SL, SC	AE, FS
2.	At the beginning and end of a rotation or clinical experience, the resident will clarify his/her learning needs related to this subspecialty.	AR, DPC, SL, SC	AE, FS

C. Practice-Based Learning and Improvement

GOAL: The resident will demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one's patient care practice.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Identify standardized guidelines for diagnosis and treatment of complex diseases and learn the rationale for adaptations that optimize treatment.	AR, DPC, SL, SC	AE, FS
2.	Identify personal learning needs, systematically organize relevant information resources for future reference, and plan for continuing data acquisition if appropriate.	AR, DPC, SL, SC	AE, FS

D. Professionalism and Interpersonal Skills and Communication

GOAL: The resident will provide family-centered patient care that is developmentally and age appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
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1.	Demonstrate personal accountability to the well being of all patients, even when other physicians are primarily responsible for their care, for example, by following up on lab results, writing comprehensive notes, seeking answers to difficult patient care questions, and communicating with primary care physicians.	AR, DPC, SL, SC	AE, FS
2.	Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical and legal principles, and sensitivity to diversity while providing care to children.	AR, DPC, SL, SC	AE, FS
3.	With help of a subspecialist, hone skills in identifying key elements of the history and physical examination needed to evaluate children presenting with conditions related to nutrition and the gastrointestinal system.	AR, DPC, SL, SC	AE, FS
4.	Discuss general indications for subspecialty procedures and interpret results for families.	AR, DPC, SL, SC	AE, FS
5.	Talk to family members about sensitive issues that relate to a patient's illness, e.g. coping with the child's altered needs in his/her home setting.	AR, DPC, SL, SC	AE, FS
6.	Counsel parents about possible behavioral and psychological sources of abdominal pain, diarrhea or vomiting, and how to handle a child with recurrent psychosomatic pain.	AR, DPC, SL, SC	AE, FS

GOAL: Develop effective communication relationships with patients and their families.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Communicate with families in a developmentally, culturally-sensitive manner that provides families/patient with the information they need to understand the illness/injury, participate in the care, give informed consent, and prevent future injury or dysfunction.	FS, DPC, E/C	AE, FS, PDR
2.	Effectively listen to the concerns of patients and their families and respond with appropriate information and support.	FS, DPC, E/C	AE, FS, PDR
3.	Communicate to a given family and child the impact of each phase of care on the final health care outcome, the psychosocial impact of illness on the child and family, and the financial burden to the family and the health care system.	FS, DPC, E/C	AE, FS, PDR

D. Systems-Based Practice

GOAL: The resident will understand how to practice quality health care and advocate for patients within the context of the health care system.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Demonstrate sensitivity to the costs of clinical care in this subspecialty setting, and take steps to minimize costs without compromising quality.	AR, MDR, E/C	AE, FS
2.	Recognize the limits of one's knowledge and expertise and take steps to avoid medical errors.	AR, MDR, E/C	AE, FS
3.	Understand key aspects of health care systems as they apply to care of patients and their families, including cost control, billing, and reimbursement.	AR, MDR, E/C	AE, FS
4.	Recognize and advocate for families who need assistance to deal with systems complexities, such as lack of insurance, multiple medication refills, multiple appointments with long transport times, or inconvenient hours of service.	AR, MDR, E/C	AE, FS
5.	Communicate effectively with physicians, other health professionals, and health related agencies to create and sustain information exchange and team work for patient care.	AR, MDR, E/C	AE, FS
6.	Identify the role and general scope of the practice of gastroenterology; recognize situations where children would benefit from the skills of specialists trained in the care of children; and work closely with these professionals to care for children's gastroenterology and nutrition disease process.	AR, MDR, E/C	AE, FS

Goal: The resident will maintain accurate, legible, timely, and legally appropriate medical records for gastroenterology patients in the outpatient and inpatient setting.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe HIPPA regulations governing privacy.	AR, MDR, E/C	AE, FS
2.	Learn to utilize electronic medical records to provide documentation of patient's medical care, provide better communication among medical staff and the multiple patient care sites and communicate with referring physicians.	AR, MDR, E/C	AE, FS

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**MEMORIAL HERMANN AND LBJ GENERAL MEDICINE
CONSULTATION SERVICE**

The Memorial Hermann and LBJ General Medicine Consultation Service rotations are two separate services, one serving Memorial Hermann and one serving LBJ for General Medicine consults on inpatients in these hospitals. There is one upper level resident for Memorial Hermann and one upper level resident for LBJ. Patients seen on these rotations include inpatients at Memorial Hermann who represent a mixture of community, managed care and private patients, and patients on inpatient services at LBJ. General medicine faculty members supervise the residents on this rotation. The LBJ Pulmonary consult resident also provides general medicine consultations at LBJ. There is no call, and the residents have one day off during the seven-day week. Residents on this rotation are required to attend Morning Report and noon conferences.

In addition to their regular clinical duties, the consult resident at Memorial Hermann Hospital is responsible for preparing and leading the discussion of the monthly Journal Club article. He or she will be assisted by the supervising faculty member regarding this task.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic Conf.	FS – Faculty Supervision	NC – Noon Conferences PathCl-
CC-Core Curriculum	GR – Grand Rounds	Path for Clinicians PC–
DPC – Direct Patient Care	IL-Introductory Lecture Series	Professionalism Curriculum SS
	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principle educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at both Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 – (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination.	DPC, AR	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC, AR	AE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of	DPC, AR, NC	AE, IE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the	DPC, AR, NC, PC	AE, IE
5.	Ability to interpret chest and abdominal x-rays, and electrocardiograms.	DPC, AR	AE
6.	Ability to counsel patient and surgeon regarding medical risks of surgery.	DPC, AR	AE
7.	Ability to diagnose and treat important medical complications of surgery.	DPC, AR	AE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation
1.	Understand the pathophysiology, clinical manifestations, diagnosis and management of medical illnesses commonly seen by a consultant in general internal medicine.	DPC, AR, EBM	AE, IE
2.	Familiarity with principles of assessment of surgical risk.	DPC, AR	AE, IE
3.	Understand the pathophysiology, clinical manifestations, diagnosis and management of important medical complications of	DPC, AR	AE, IE

4.	Familiarity with indications for and interpretation of chest and abdominal X-ray, electrocardiograms, and pulmonary function tests.	DPC, AR	AE, IE
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C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation
1.	Communicate sensitively and effectively with patients with medical illness on non-medical services and patients being assessed for pre-operative medical risk	DPC, AR, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team.	DPC, AR, PC	AE
2.	Appreciation of the social context of illness.	DPC, AR, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients with medical illness on non-medical services and patients being	DPC, AR	AE, IE
2.	Develop evidence-strategies strategies for filling gaps in personal knowledge and skills in the care of patients with medical illness on non-medical services and patients being assessed for pre-operative medical risk.	DPC, AR	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles	DPC, AR, NC, SS, JC, EBM	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation METHODS
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1.	Work with the service requesting the consultation to ensure that care for the patient's medical needs is properly coordinated with care being delivered by the	DPC, AR, PC	AE
2.	Knowing when to consult or refer a patient to a medical subspecialist.	DPC, AR	AE
3.	Learning by participation in ward rounds, teaching conferences and other educational	DPC, AR, PC	AE
4.	Willingness and ability to help the requesting physician in a consultative or co-management capacity,	DPC, AR, PC	AE
5.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, NC	AE

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**MEMORIAL HERMANN and LBJ HEMATOLOGY
CONSULTATION SERVICE**

The Memorial Hermann and LBJ Hematology Consultation Service is one rotation, serving primarily Memorial Hermann Hospital. On occasion the resident will go to LBJ Hospital for a Hematology consult. There are at least two upper level residents on this rotation, working with a fellow and an attending. Consults may be requested on inpatients on medical and other services at Memorial Hermann Hospital and LBJ Hospital. There is no call during this rotation, and there is one day off during the seven-day week.

Hematology subspecialty conferences are held in the afternoons each week which provide learning opportunities to residents about Hematology issues. Residents on this rotation are required to attend Morning Report and noon conference when they do not attend a Hematology subspecialty conference.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic Conf.	FS – Faculty Supervision	NC – Noon Conferences PathCl-Path for Clinicians
CC-Core Curriculum	GR – Grand Rounds	PC–Professionalism Curriculum
DPC – Direct Patient Care	IL-Introductory Lecture Series	SS – Senior Seminar
	JC – Journal Club	
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital, LBJ Hospital and M.D.Andeson Cancer Center is included near the front of the report for further information.

PG-2/3/4 – (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Ability to take a complete medical history and perform a careful and accurate physical examination with a focus on hematology.	DPC, AR	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a focus on hematology.	DPC, AR	AE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management.	DPC, AR	AE, IE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their	DPC, AR	AE
5.	Ability to interpret major abnormalities of bone marrow aspirates and biopsies and peripheral smears.	DPC, AR, NC, FS, Path CI	AE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation METHOD
1.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of disorders of blood cells and coagulation.	DPC, AR, IL	AE, IE
2.	Understanding the indications for, principles, complications, bleeding and coagulation disorders/hemoglobinopathies, and interpretation of specialized tests, including coagulation studies, bone marrow aspiration and biopsy, lymph node biopsy, lymphoid cell immunophenotypes and cytogenetic analysis of bone marrow samples and peripheral smears.	DPC, AR, DSP, IL, Path CI	AE, IE
3.	Understanding the indications for and complications of transfusion of red cells, platelets and clotting	DPC, AR, IL	AE, IE
4.	Understanding the pharmacology and clinical utility of common chemotherapeutic regimens for treatment of leukemias and lymphomas.	DPC, AR, IL	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation
1.	Communicate sensitively and effectively with patients with hematology problems and with their families.	DPC, AR, PC	AE
2.	Communicate effectively with colleagues, staff and other services regarding hematology	DPC, AR, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care	DPC, AR, PC	AE
2.	Appreciation of the social context of illness.	DPC, AR, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-	DPC, AR, NC, SS, JC, EBM	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation METHODS
1.	Work with the service requesting the consultation to assure that care for the patient's medical needs is properly coordinated with care being delivered by the primary service.	DPC, AR, PC	AE
2.	Knowing when to consult or refer a patient to a hematologist.	DPC, AR	AE
3.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the	DPC, AR, PC	AE
4.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, AR, PC	AE
5.	Willingness and ability to teach medical students.	DPC, AR, PC	AE
6.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR	AE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

PEDIATRIC HEMATOLOGY ROTATION

The overall goal of the one-month rotation experience in hematology is to provide the pediatric hematology/oncology resident with the fund of knowledge and appropriate skills for evaluation, diagnosis, treatment, and management of pediatric patients with disorders in hematologic function. These include hemostatic disorders, thrombophilia disorders, hemoglobinopathics, other anemias, thrombocytopenias, and congenital neutropenias.

Residents assigned to the pediatric hematology rotation work in a typical team of one attending physician, one fellow, one pediatric resident (PGY-1 or PGY-2), two medical students and nursing staff. Residents are exposed to both outpatient and hospitalized pediatric Hematology patients. Adherence to the 80-hour work week is mandated.

The hematology rotation occurs at Memorial Hermann Children's Hospital (MHCH), The University of Texas Outpatient Clinics, and the UT MD Anderson Cancer Center. Under the supervision of faculty in the Department of Hematology, residents assume responsibility for the evaluation, treatment, and management of the patient with disorders of the blood.

Residents are expected to attend all appropriate Department of Pediatrics conferences. In addition, residents will attend the Division of Pediatric Hematology/Adult Hematology teaching conferences.

Pediatrics:

- Daily Teaching Rounds
- Multidisciplinary Rounds
- Pediatric Grand Rounds
- Patient Care Conference
- Pediatric Resident Seminar

Pediatric Hematology/Adult Hematology:

- Gulf States Hemophilia/Thrombophilia
- General Hematology Journal Club
- Hematology Grand Rounds

Clinics to attend if time allows:

- Weekly Citywide Hematology Conference

The goals and objectives listed below are covered through rounding on the inpatient service, discussions about patients seen on an outpatient basis, various conferences, reading targeted textbooks (e.g. Nathan Oski's Hematology of Infancy and Childhood and Colman's Hemostasis and Thrombosis), articles authored by Hematology faculty, and selected journal articles focused on these disease processes. Residents will have access to computer-based literature searches as well.

The resident is responsible for preparing a patient care conference at morning report with attending supervision and attendance. Residents will also be evaluated on their effectiveness

and willingness to teach medical students. Residents will also learn Hematology related skills such as the examination of histopathologic slides, use of erythropoietin and iron replacement therapy, and the appropriate use of blood products.

Residents will have a checklist of hematologic conditions that must be covered during the month through patient care, lecture, rounds or reading.

Legend for Learning Activities		
AR – Attending Rounds	GR – Grand Rounds	OC Outpatient clinics
DPC – Direct Patient Care	JC – Journal Club	RC – Research
CAT – Critically Appraised Topics	MDR – Multidisciplinary	Conference
E/C – Ethics/Communication	Rounds	SC – Specialty
Conferences	MR – Morning Report	Conferences
FS – Faculty Supervision	NC – Noon Conferences	RS – Resident Seminar
	HM – Hematology Manual	SL – Subspecialty
	and Text	Lectures

Legend for Evaluation Methods for Residents	
AE – Attending Evaluation	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to both PGY-1 and PGY-2 residents and the expected competency level demonstrated by the residents should reflect their respective level of experience.

I. Patient Care

GOAL: Participate in therapeutic interventions for hematologic disorders in consultation with a pediatric hematologist.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1	Conduct the routine management of hemophiliac and/or bleeding patient.	AR, NC, SL, SC, HM	AE, IE, FS
2	Analyze and discuss therapeutic options for management of microangiopathic diseases and sickle cell.	AR, DPC, SL, SC, HM	AE, FS
3	Evaluate common adult hemostatic problems.	AR, DPC, SL, SC, HM	AE, IE, FS
4	Describe infectious complications associated with the pediatric patient with hematologic abnormalities.	AR, DPC, SL, SC, HM	AE, FS

GOAL: Evaluate, diagnose and treat the anemic pediatric patient.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1	Describe the etiology, biology, clinical consequences and treatment of iron metabolic disorders, sideroblastic anemia and lead poisoning.	AR, DPC, SC, SL, HM, FS	AE, FS
2	Use erythropoietin and iron replacement therapy appropriately.	AR, DPC, SC, SL, HM	AE, FS

GOAL: Practice the effective evaluation, diagnosis, treatment and management of newborn and premature infants.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Distinguish the hematologic and hemostatic values of the pre-term and term infant.	AR, NC, SL, SC	AE, IE, FS
2.	Describe characteristics of the newborn erythrocyte and how it differs from the adult red	AR, DPC, MR, NC, SL,	AE, FS
3.	Understand the various causes of fetal anemias and hyper viscosity syndromes.	AR, DPC, MR, NC, SL,	AE, FS
4.	Analyze hemolytic disease of the newborn, acquired cytopenias from congenital infection and hepatic injury, and synthetic/BM lability of hematologic	AR, DPC, HM, MR, NC, SL, FS	AE, FS

II. Medical Knowledge

GOAL: Describe inherited and acquired bone marrow failure syndromes.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Explain cytopenic conditions that may be associated with preleukemic bone marrow	AR, NC, SL, SC, HM	AE, IE, FS
2.	Identify and evaluate leukoerythroblastosis in consultation with a pediatric hematologist.	AR, MR, NC, SL, HM	AE, IE, FS
3.	Discuss the complications associated with blood product use.	AR, DPC, SC, SL, HM	AE, FS

GOAL: Assess problematic clinical presentations of hemostasis and thrombosis.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
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1.	Apply sound basic science to decision regarding vascular injury, inflammation and	AR, SL, SC	AE
2.	Employ pharmacological therapies to treat excess clotting and bleeding.	AR, SL, SC, HM	AE
3.	Discuss primary and secondary platelet abnormalities in children and adolescents.	AR, SL, SC, HM	AE
4.	Recognize the less common clinical entities such as protein C/S deficiency, Factor V Leiden, and other congenital and acquired thrombophilias.	AR, NC, SL, SC, HM	AE
5.	Differentiate between acute and chronic Hemophilia and von Willebrand Disease.	AR, NC, SL, SC, HM	AE
6.	Conduct therapeutic interventions such as transfusion and infusion.	AR, SL, SC, FS, DPC	AE, FS

III. Practice Based Learning & Improvement

GOAL: Learn to utilize and integrate technological advances in the care of children with hematologic diseases.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Utilize electronic medical records to provide documentation of patient's	AR, MDR, E/C	AE, FS
3.	Describe HIPPA regulations governing privacy.	AR	AE, FS
4.	Creatively apply technologies or other tools to improve medical care and communication	AR, MDR, E/C	AE, FS
5.	Demonstrate ability in accessing PubMed and other resources to obtain information relevant to hematologic patient care issues.	AR, DPC, SC	AE, FS

IV. Interpersonal Skills and Communication

GOAL: Develop skills to effectively teach others.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1	Utilize effective listening skills and questioning techniques to elicit information from the patient and/or the patient's family during the history and	AR, DPC, SL, SC	AE, FS, PDR
2	Communicate with families in a developmentally, culturally-sensitive manner that provides families/patient with the	FS, DPC, E/C	AE, FS, PDR
3	Present a lecture on the hematologic subject of his/her choice and/or present a case conference at morning report or noon conference	AR, DPC, SL, SC	AE, FS

4 .	Present information concisely and clearly both verbally and in writing on patients to other	FS, DPC, AR	AE, FS
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	of the health care team.		
5	Learn the value of team models of clinic care delivery. Example: the Comprehensive Hemophilia Treatment Center Module.	DPC, HM	AE, FS

V. Professionalism

1	Treat families in a non-judgmental, culturally sensitive manner.	DPC, FS	AE, FS
2	Communicate well and work effectively with fellow residents, attendings, consultants, nurses, ancillary	AR, FS, DPC	AE, FS
3	Develop and demonstrate skills as a team participant and leader in the care of pediatric	AR, FS, DPC	AE, FS

D. Systems-Based Practice

GOAL: Function as part of an interdisciplinary team in the management of children with hematologic diseases.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1	Discuss the psychosocial and financial aspects of the child with hematologic disease.	AR, MDR, E/C, HM	AE, FS
2	Utilize consultants and other resources appropriately	FS, DPC	AE, FS
3	Demonstrate sensitivity to the financial status of patients; utilize resources appropriately for patients/families needing financial assistance.	FS, DPC	AE, FS
4	Discuss use of home and school monitoring of disease.	AR, MR, NC, SL	AE, FS

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

MEMORIAL HERMANN HEPATOLOGY INPATIENT SERVICE

The Memorial Hermann Hepatology Inpatient Service rotation is for one month. Patients on this rotation include inpatients of attendings on the Hepatology service, patients with liver disease and patients who have had or are listed for a liver transplant. Knowledge is gained on this rotation by rounding with the attending Hepatology physician and a Hepatology fellow. The interns participate in the care of liver transplant patients by attending the medical review board meeting on a weekly basis and rounding on inpatients who have had or are waiting on a liver transplant. The interns on this rotation attend Morning Report and noon conferences.

The overall goal of the rotation through Hepatology is to become familiar with clinical problems in hepatology and liver transplant, by participating in the management of patients with liver and hepatobiliary disorders, and in the care of pre- and post-liver transplant patients.

Training: The intern, while on the Liver Service, is a member of the Liver Service team, which consists of an attending, GI fellow, and two or three Internal Medicine, Dermatology or Anesthesia medical residents or interns on electives. During training, the interns will receive training in the cognitive and practical aspects of consultative hepatology, as well as perform paracentesis. The interns will gain expertise in the management of liver disease in both the inpatient and outpatient setting.

Competency is expected in, but not limited to, the following disorders; portal hypertension, jaundice, abnormal liver function tests, cirrhosis, immune basis, ETOH liver, hepatitis, cholestasis, drug-induced, hepatobiliary CA, chronic liver disease, acute liver failure, and liver transplant.

Technical competency, including knowledge of appropriate use, is developed in diagnostic and therapeutic paracentesis.

Learning Venue Competency. Interns participate in a variety of weekly conferences/educational educational events. These include:

Liver Transplant Medical Review Board Conference & Liver Transplant Service Rounds: This conference is held on Friday from 10:00 am to 12:00 noon. Patients that are being evaluated for listing for liver transplantation are presented and discussed with the liver team. The interns will present and discuss eligibility of their patients for a liver transplant.

Liver Service Consult & Clinic: The Hepatology Team will meet every morning at 9:00 am at the Texas Liver Center in order to organize and coordinate the daily rounds and Hepatology Clinic support for the day. Rounds occur in the mornings following morning report. The attending faculty physician strictly supervises fellows and is always available for questions, commentaries and suggestions.

Hepatology Journal Club: The HJC is held every Wednesday at 8:00 am in the lobby of the Texas Liver Center, Suite 370 UTPB. The interns are expected to attend and present articles for discussion as assigned by the on call Hepatology attending.

Procedures: Interns will have the opportunity to observe and participate in a number of procedures and should have basic knowledge of the appropriate use of the following procedures:

Direct Experience:
Paracentesis

Observation Experience:

- Liver biopsy under ultrasound guidance and transjugular and basic knowledge of the interpretation of the biopsy
- Upper endoscopy, variceal bleeding control with sclerotherapy or band ligation
- Placement of Blakemore tube
- ERCP
- Endoscopic ultrasound
- Percutaneous transhepatic cholangiography (PTC)
- Liver and biliary nuclear medicine scans (HIDA, colloid scan)
- Liver transplant
- Organ retrieval
- Fashioning of a transjugular intrahepatic porto-systemic shunt (TIPSS)
- Surgical porto-systemic shunts
- Thoracentesis, central line placement/Swan-Ganz
- Diagnostic and therapeutic paracentesis
- Hepatic venography and measurement of Wedged Hepatic Venous Gradient (WHVG)
- Diagnostic laparoscopy
- Liver imaging (ultrasound, CT, MRI)

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic	FS – Faculty Supervision	NC – Noon Conferences PathCl-
Conf.	GR – Grand Rounds	Path for Clinicians PC–
CC-Core Curriculum	IL-Introductory Lecture Series	Professionalism Curriculum SS
DPC – Direct Patient Care	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A

detailed description of the on-going learning activities at Memorial Hermann Hospital is included in the front of the report for further information.

PG-1 (Goals are for intern level only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
8.	Ability to take a complete medical history and perform a careful and accurate physical examination with a hepatology focus.	DPC, AR	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a hepatology focus.	DPC, AR	AE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management for hepatology problems.	DPC, AR	AE
4.	Ability to make interpret major abnormalities of liver tests and liver imaging tests.	DPC, AR	AE
5.	Ability to assess and manage the manifestations of chronic liver disease including encephalopathy, GI bleeding and ascites.	DPC, AR, FS	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation METHOD
1.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of hepatic problems commonly seen by a specialist.	DPC, AR, CC, GR	AE, IE
2.	Understanding the various diagnostic and therapeutic approaches to gastrointestinal disease.	DPC, AR, CC, GR	AE, IE
3.	Familiarity with the indications for, principles, complications, and interpretation of specialized tests, including ERCP, liver biopsy, and CT scans of the abdomen and pelvis.	DPC, AR, FS	AE, IE
4.	Understanding the rationale, benefits and shortcomings of various approaches to screening for hepatitis C.	DPC, AR, CC	AE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation
1.	Communicate sensitively and effectively with patients with hepatology problems and with their families.	DPC, AR, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally towards patients, families, colleagues, and all members of the health care team.	DPC, AR, MR, PC	AE, PR
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care.	DPC, AR, MR, PC	AE, PR
3.	Appreciation of the social context of illness.	DPC, AR, MR, PC	AE
4.	Understand ethical issues involved with hepatic transplantation.	DPC, PC, AR	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-	DPC, AR, JC, SS, EBM	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for hospitalized patients.	DPC, AR	AE
2.	Use evidence-based, cost-conscious strategies in the care of hospitalized patients.	DPC, AR, JC, SS,	AE
3.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, AR, PC	AE, PR
4.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of	DPC, AR, PC	AE
5.	Knowing when and how to request medical consultation, and how best to utilize the advice provided.	DPC, AR	AE
6.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR	AE

**The University of Texas-Houston Health Science Center
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**MEMORIAL HERMANN AND LBJ INFECTIOUS DISEASE
CONSULTATION SERVICE**

The Memorial Hermann and LBJ Infectious Disease Consultation Service rotations are two separate services, one serving Memorial Hermann Hospital and one serving LBJ Hospital. The LBJ service is run by fellows and does not have Internal Medicine residents on the service. There are two upper level residents on the Memorial Hermann Hospital service. Consults may be requested on inpatients on medical and other services at Memorial Hermann Hospital. There is no call on the rotation, and residents have one day off during the seven-day week. There are subspecialty Infectious Disease conferences which the residents attend while on this rotation. Residents are required to attend Morning Report and noon conference, if they are not attending an ID conference during the same AM or noon hour.

Legend for Learning Activities		
AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic Conf.	FS – Faculty Supervision	NC – Noon Conferences PathCl-
CC-Core Curriculum	GR – Grand Rounds	Path for Clinicians PC–
DPC – Direct Patient Care	IL-Introductory Lecture Series	Professionalism Curriculum SS
	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LJB Hospital is included near the front of the report for further information.

PG-2/3/4 – (Goals are for upper level residents only).

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods

1.	Ability to take a complete medical history and perform a careful and accurate physical examination	DPC, AR	AE
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2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes	DPC, AR, NC	AE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management.	DPC, AR, NC, CPC, M&M, JC	AE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their	DPC, AR, NC	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation METHOD
1.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of infections and disorders of host defense commonly seen by a specialist.	DPC, AR, NC, JC, CC	AE, IE
2.	Familiarity with the indications for, principles, complications, and interpretation of specialized tests, including histopathology, microbiologic cultures and sensitivities and serologic tests for infection and immune competence.	DPC, AR, NC, JC, CC	AE, IE
3.	Familiarity with the indications for and complications of various immunizations and	DPC, AR, NC, JC, CC	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation
1.	Communicate sensitively and effectively with patients with infectious disease problems and their	DPC, AR, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally towards patients, families, colleagues, and all members of the health care	DPC, AR, PC	AE
2.	Appreciation of the social context of illness.	DPC, AR, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation	DPC, AR, NC, JC, CC	AE, IE
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	based medicine		
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F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Work with the service requesting the consultation to assure that care for the patient's medical needs is properly coordinated with care being delivered by	DPC, AR	AE
2.	Knowing when to consult or refer a patient to a specialist in infectious disease.	DPC, AR, NC	AE, IE
3.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the	DPC, AR, PC	AE
4.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, AR, NC, JC, CC	AE
5.	Willingness and ability to teach medical students.	DPC, AR, PC, JC, CC	AE
6.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, NC, JC, CC	AE
7.	Learning to work with managed care organizations, state and city agencies.	DPC, AR, NC	AE

**The University of Texas-Houston Health Science Center
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PEDIATRIC INFECTIOUS DISEASES ROTATION

Residents assigned to the pediatric infectious diseases rotation work in a team of one or two senior Pediatric or Medicine-Pediatric residents (PGY-2/3/4). Residents are exposed to both outpatient and hospitalized pediatric infectious disease patients. Adherence to the 80-hour work week is mandated.

Pediatric residents are required to fulfill a one-month block rotation in pediatric infectious disease. The rotation occurs at Memorial Hermann Children’s Hospital (MHCH) and The University of Texas Outpatient Clinics. Residents provide primary care for inpatients admitted to the Infectious Diseases service, see Infectious Diseases consults on other services, and see patients in the Infectious Diseases outpatient clinics. Residents are supervised by faculty in the Department of Pediatric’s Division of Infectious Diseases.

The goals and objectives listed below are covered through rounding on the inpatient service, discussions about patients seen on an outpatient basis, various conferences, and reading assignments in Pediatric Infectious Diseases (Long, Pickering and Prober, 2003). Residents will complete weekly quizzes over the reading assignments. Quizzes will be reviewed with each resident and copies will be maintained in the resident’s portfolio.

Each resident is required to present Morning Report on an infectious disease patient of his/her choice during the rotation. Residents will also be evaluated on their effectiveness and willingness to teach medical students.

Legend for Learning Activities		
AR – Attending Rounds	GR – Grand Rounds	RC – Research Conference
ASR – Assigned Reading	JC – Journal Club	SC – Specialty Conferences
DPC – Direct Patient Care	MDR – Multidisciplinary Rounds	SS – Senior Seminar
CAT – Critically Appraised Topics	MR – Morning Report	SL – Subspecialty Lectures
E/C – Ethics/Communication Conferences	NC – Noon Conferences	
FS – Faculty Supervision		

Legend for Evaluation Methods for Residents	
AE – Attending Evaluation	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback
IDQ – Infectious Disease Quizzes	

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to PGY-2/3/4 residents as residents at each level will complete only a one-month rotation in infectious disease during their training. The expected competency level demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Provide medical care to patients presenting with infectious disease indicators.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Demonstrate an infectious disease focused history and physical exam on infectious disease patients.	AR, ASR, SL, SC, FS	AE, PDR, IE, FS
2.	Present differential diagnoses and management plans from the infectious disease perspective on inpatient and outpatient consults.	AR, ASR, SL, SC, DPC, FS	AE, IDQ, IE, PDR, FS
3.	Correspond with referring doctors on infectious disease consults. Correspondence will be reviewed with attending and critiqued prior to mailing.	AR, SL, SC, DPC, FS	AE, IE, PDR, FS

B. Medical Knowledge

GOAL: Develop a differential diagnosis and management plan from the infectious diseases perspective in the inpatient and outpatient setting.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Present differential diagnosis and management plans from the infectious diseases perspective on inpatient and outpatient consults.	AR, ASR, NC, SC	AE, IDQ, IE, PDR
2.	Demonstrate knowledge of infectious disease topics.	AR, ASR, SL	IE, IDQ

C. Practice-Based Learning and Improvement

GOAL: Demonstrate ability to utilize information technology to manage information and access on-line medical information.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Demonstrate ability in accessing PubMed and other resources to obtain information relevant to infectious disease patient care issues.	AR, DPC, SC	AE, FS, PDR

D. Interpersonal and Communication Skills

GOAL: Create and maintain therapeutically sound relationships with patients; communicate effectively with referring physicians.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Utilize effective listening skills and questioning techniques to elicit information from the patient and/or the patient's family during the history and physical exam.	AR, DPC, SL, SC	AE, FS, PDR
2.	Write letters to referring physicians regarding status of patients. Letters will be reviewed and critiqued by attending before sending to the referring physician.	AR, DPC, SC	AE, FS, PDR

E. Professionalism

GOAL: Create and maintain therapeutically sound relationships with patients; communicate effectively with referring physicians.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Utilize effective listening skills and questioning techniques to elicit information from the patient and/or the patient's family during the history and physical exam.	AR, DPC, SL, SC	AE, FS, PDR
2.	Write letters to referring physicians regarding status of patients. Letters will be reviewed and critiqued by attending before sending to the referring physician.	AR, DPC, SC	AE, FS, PDR

F. Systems-Based Practice

GOAL: Discuss Medicaid and other insurance documentation issues regarding consultation referral services; communicate effectively with referring physicians.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss Medicaid documentation requirements and insurance company consultation referral issues.	AR, E/C	AE, FS, PDR
2.	Write letters to referring physicians regarding status of patients. Letters will be reviewed and critiqued by attending before sending to the referring physician.	AR, E/C	AE, FS, PDR

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**MEMORIAL HERMANN AND LBJ PULMONARY MEDICINE
CONSULTATION SERVICE**

The Memorial Hermann and LBJ Pulmonary Medicine Consultation Service rotations are two separate services, one serving Memorial Hermann Hospital and one serving LBJ Hospital. There are two residents at Memorial Hermann, and one at LBJ; all are upper levels residents. The residents assist in procedures as well as perform consults requested on inpatients on medical and other services at Memorial Hermann Hospital and LBJ Hospital. An attending and fellow supervise the rotations. The LBJ resident also sees general medicine consults at LBJ, and patients, ages 16 and over, in subspecialty clinics at LBJ. There is no call for these rotations, and there is one day off during the seven-day week. Residents are required to attend Morning Report and Pulmonary subspecialty conferences which are offered to them while on the rotation. They are required to attend noon conference if they are not attending a Pulmonary conference that takes place during the noon hour.

Legend for Learning Activities		
AR – Attending Rounds	DSP – Directly Supervised	M&M-Morbidity & Mortality
Au – Autopsy Report	Procedures	MP – Med/Path Conference
CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic Conf.	FS – Faculty Supervision	NC – Noon Conferences PathCl-Path for Clinicians PC–
CC-Core Curriculum	GR – Grand Rounds	Professionalism Curriculum SS
DPC – Direct Patient Care	IL-Introductory Lecture Series	– Senior Seminar
	JC – Journal Club	
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 – (Goals are for upper level residents only).

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Ability to take a complete medical history and perform a careful and accurate physical	DPC, AR, FS	AE
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	with a pulmonary focus.		
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a pulmonary focus.	DPC, AR, FS	AE, IE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management.	DPC, AR, FS, NC	AE, IE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their rationale.	DPC, AR, FS, NC	AE, IE
5.	Ability to recognize major abnormalities of plain films and CT scan of the chest, arterial blood gases, and spirometry.	DPC, AR, FS, NC	AE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation METHOD
1.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of disorders of the lungs and airways commonly seen by a specialist, in both the inpatient and ambulatory settings.	DPC, AR, FS, NC	AE, IE
2.	Familiarity with the indications for, principles, complications, and interpretation of specialized tests, including plain films and CT scan of the chest and lungs, arterial blood gases, spirometry, and fiber-optic bronchoscopy.	DPC, AR, FS, NC	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation
1.	Communicate sensitively and effectively with patients with pulmonary problems and their families.	DPC, AR, FS, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally towards patients, families, colleagues, and all members of the health care	DPC, AR, FS, PC	AE
2.	Appreciation of the social context of illness.	DPC, AR, FS, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, AR, FS, NC	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Work with the service requesting the consultation to assure that care for the patient's medical needs is properly coordinated with care being delivered by the primary service.	DPC, AR, FS	AE
2.	Knowing when to consult or refer a patient to a specialist in pulmonary medicine.	DPC, AR, FS, NC	AE, IE
3.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the situation.	DPC, AR, FS, NC, PC	AE, PR
4.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, AR, FS	AE
5.	Willingness and ability to teach medical students.	DPC, AR, FS, PC	AE, PR
6.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, FS, NC	AE, SPE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

PEDIATRIC PULMONOLOGY ROTATION

Residents assigned to the pediatric pulmonology rotation work in a team of one senior Pediatric or Medicine-Pediatric resident (PGY-2 or 3/4) and one Transitional or Anesthesia PGY-1 resident. Residents will experience treating outpatient and hospitalized pediatric pulmonary patients.

Upper level Pediatric residents are required to fulfill a one-month block rotation in pediatric pulmonology. The rotation occurs at Memorial Hermann Children's Hospital (MHCH), The University of Texas Outpatient Clinics, and at The Lyndon B. Johnson General Hospital (LBJ) and clinics. Residents see pulmonary inpatient and outpatient consults and participate in the management of outpatients followed by the Pulmonary service. In addition, they provide care of continuity for patients on the pediatric pulmonary inpatient service. Residents are supervised by faculty in the Department of Pediatrics' Division of Pulmonology.

The Pediatric Pulmonology team consults on patients in General Pediatrics, PSCU, PICU, NICU and NBSCU at Memorial Hermann Children's Hospital. The team or attending will occasionally provide consultation to patients at LBJ Hospital, MD Anderson Cancer Center, and St. Joseph's Hospital.

Care for asthmatic patients at MHCH should be individualized to the child's needs; however, the *NEAPP Guidelines for the Diagnosis and Management of Asthma* have been translated into a clinical pathway with orders and educational guidelines. Residents are encouraged to use these materials and individualize them to their asthmatic patients. The pathway and orders are part of the reading packet. It is very important that patients get the necessary education about disease process, medications, environmental control, emergency management and follow-up care. Residents are a valuable part of the Pediatric Pulmonary Medicine Team and they will participate in educating patients. As part of pulmonary training, residents will need to demonstrate proficiency in the following areas of patient asthma education:

- Peak flow meter use and interpretation
- MDI (inhaler) and spacer use
- Nebulizer use
- Environmental control measures
- Asthma disease process
- Emergency management
- Asthma medications

Residents need to keep in mind the discharge needs of their inpatients and plan for needed equipment (ex. Nebulizers) in advance to facilitate discharge.

Legend for Learning Activities		Rounds
AR – Attending Rounds	FS – Faculty Supervision	
DPC – Direct Patient Care	GR – Grand Rounds	
CAT – Critically Appraised Topics	JC – Journal Club	
E/C – Ethics/Communication	MR – Morning Report	
Conferences	MDR – Multidisciplinary	

NC – Noon Conferences PALS –
Pediatric Advanced Life Support
RC – Research Conference
SS – Senior Seminar
SL – Subspecialty Lecture

Legend for Evaluation Methods for Residents

AE – Attending Evaluation

DSP – Directly Supervised Procedures

MR – Morning Report

PDR – Program Director’s Review (twice annually)

IE – In-Training Exam

FS – Faculty Supervision & Feedback

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to both PGY-1 and PGY-2/3/4 residents and the expected competency levels demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Diagnose and manage pulmonary problems in children under the guidance of a Pediatric Pulmonologist.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Diagnose and manage asthma. Discuss goals of therapy, NAEPP guidelines, pharmacotherapy, environmental control, and guidelines for referral to a specialist.	AR, DPC, FS, NC, SL, MR	AE, FS, PDR, MR
2.	Diagnose and manage infectious pulmonary disorders in children. Discuss the pathophysiology and management of RSV bronchiolitis, pneumonia, TB, Pertussis, and Aspergillosis.	AR, DPC, FS, NC, SL, MR	AE, FS, PDR, MR
3.	Diagnose and manage premature infants with bronchopulmonary dysplasia (BPD) and infants with chronic disorders.	AR, DPC, FS, NC, SL, MR	AE, FS, PDR, MR
4.	Diagnose and manage patients with chronic restrictive and obstructive lung disorders, recurrent infections and hemoptysis.	AR, DPC, FS, NC, SL, MR	AE, FS, PDR, MR

GOAL: Diagnose and manage, under the supervision of a Pediatric Pulmonologist or Intensivist, patients with acute respiratory failure.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the recognition of patients with impending respiratory failure.	AR, DPC, FS, SL	AE, FS, PDR
2.	Discuss/demonstrate airway management in patients in respiratory failure.	AR, DPC, FS, PALS	AE, FS, PDR
3.	Discuss ventilation management of children with respiratory failure.	AR, DPC, FS, SL	AE, FS, PDR

B. Medical Knowledge

GOAL: Recognize and discuss the management of noninfectious pulmonary disorders in children and neonates.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the differential diagnosis for the wheezing child.	AR, NC, SL	AE, IE, PDR
2.	Discuss the pathophysiology and management of the following noninfectious pulmonary disorders in children:	AR, NC, SL	AE, IE, PDR
a.	Chest wall deformities		
b.	Compression syndromes		
c.	Obstructive sleep apnea		
d.	Aspiration		
e.	Foreign body aspiration		
f.	Bronchiectasis		
g.	ILD		
h.	Pulmonary hemorrhage		
i.	Emphysema		
j.	Alpha-1-Antitrypsin deficiency		
k.	Hypersensitivity pneumonitis		
l.	Eosinophilic diseases		
m.	Cystic Fibrosis		
n.	ARDS		
o.	Ciliary Dyskinesia		
p.	Sarcoidosis		
q.	Cor pulmonale		
r.	Childhood cancer and GVH disease		
s.	Acute Chest/Sickle Cell		
t.	SIDS, ALTE		
3.	Discuss the pathophysiology and management of neonates with the following pulmonary disorders:	AR, NC, SL	AE, IE, PDR
a.	Apnea		

b.	Transient Tachypnea of Newborn		
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c.	Pneumonia		
d.	Meconium Aspiration		
e.	Persistent Pulmonary Hypertension		
f.	Pulmonary hypoplasia		
g.	PIE-airblock syndromes		
h.	Pulmonary edema		
i.	Pulmonary hemorrhage		
j.	Surfactant protein B deficiency		
k.	Airwall disorders		
l.	Vocal cord paralysis		
m.	Subglottic stenosis		

GOAL: Demonstrate skill in performing basic pulmonary diagnostic procedures.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Demonstrate basic interpretation of spirometry.	AR, FS, DPC	AE, FS, PDR
2.	Discuss the use of bronchoscopy as a diagnostic tool.	AR, FS, DPC, SL	AE, FS, PDR

C. Practice-Based Learning and Improvement

GOAL: Develop a logical, evidence-based approach to the management of chronic obstructive lung disorders in children.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Evaluate the evidence for various treatment modalities for asthma and discuss management based on that evidence.	AR, FS, CAT, SL	AE, FS, PDR
2.	Evaluate the evidence for various therapeutic regimes in Cystic Fibrosis and discuss a management plan based on that evidence.	AR, FS, CAT, SL	AE, FS, PDR

D. Interpersonal Skills and Communication

GOAL: Learn the role of a Pediatric consultant.

	<u>PRINCIPAL EDUCATIONAL OBJECTIVES</u>	Learning Activities	Evaluation Methods
1.	Discuss the role of primary care physicians in the management of children with chronic pulmonary conditions.	AR, FS, E/C, SL	AE, FS, PDR
2.	Demonstrate effective communication with primary care physicians requesting consultation from the Pediatric Pulmonary Service.	AR, FS, E/C, SL	AE, FS, PDR

GOAL: Communicate effectively with patients and families of children with chronic respiratory conditions.

	<u>PRINCIPAL EDUCATIONAL OBJECTIVES</u>	Learning Activities	Evaluation Methods
1.	Educate patients with asthma and their families about environmental factors relating to asthma.	AR, FS, E/C	AE, FS, PDR
2.	Demonstrate sensitivity and skill in dealing with patients/families with newly diagnosed chronic pulmonary diseases such as Cystic Fibrosis.	AR, FS, E/C	AE, FS, PDR

E. Professionalism

GOAL: Learn the role of a Pediatric consultant.

	<u>PRINCIPAL EDUCATIONAL OBJECTIVES</u>	Learning Activities	Evaluation Methods
1.	Discuss the role of primary care physicians in the management of children with chronic pulmonary conditions.	AR, FS, E/C, SL	AE, FS, PDR
2.	Demonstrate effective communication with primary care physicians requesting consultation from the Pediatric Pulmonary Service.	AR, FS, E/C, SL	AE, FS, PDR

GOAL: Communicate effectively with patients and families of children with chronic respiratory conditions.

	<u>PRINCIPAL EDUCATIONAL OBJECTIVES</u>	Learning Activities	Evaluation Methods
1.	Educate patients with asthma and their families about environmental factors relating to asthma.	AR, FS, E/C	AE, FS, PDR
2.	Demonstrate sensitivity and skill in dealing with patients/families with newly diagnosed chronic pulmonary diseases such as Cystic Fibrosis.	AR, FS, E/C	AE, FS, PDR

F. Systems-Based Practice

GOAL: Function as part of an interdisciplinary team to provide care for patients with chronic respiratory diseases.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Work with respiratory therapists, case managers, and nutritionists to develop a plan for outpatient management of patients with chronic pulmonary disorders such as cystic fibrosis and asthma.	AR, FS, MDR	AE, FS, PDR
2.	Discuss local and state resources available to assist families in the care of a child with a chronic respiratory condition such as cystic fibrosis.	AR, MDR, SL	AE, FS, PDR

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**MEMORIAL HERMANN AND LBJ RENAL
CONSULTATION SERVICE**

The Memorial Hermann and LBJ Renal Consultation Service rotations are two separate rotations, one serving Memorial Hermann Hospital and one serving LBJ Hospital. Memorial Hermann has two or three upper level residents on this rotation, and LBJ has two upper level residents. A Renal attending and a fellow supervise the rotation. Consults may be requested on inpatients on medical and other services at Memorial Hermann Hospital and LBJ Hospital. Additionally, residents may assist in renal biopsies. LBJ residents see patients, ages 16 and over, in subspecialty clinics at LBJ. The LBJ residents also admit established dialysis patients for short-term dialysis; these patients are assigned by the Renal fellow. Residents on the rotation are required to attend Morning Report and noon conferences.

Legend for Learning Activities		
AR – Attending Rounds	DSP – Directly Supervised Procedures	M&M-Morbidity & Mortality
Au – Autopsy Report	EBM - Evidence Based Med	MP – Med/Path Conference
CR – Chairman’s Rounds	FS – Faculty Supervision	MR – Morning Report
CPC–Clinicopathologic Conf.	GR – Grand Rounds	NC – Noon Conferences PathCl-Path for Clinicians PC–
CC-Core Curriculum	IL-Introductory Lecture Series	Professionalism Curriculum SS
DPC – Direct Patient Care	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 – (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination with a focus on nephrology.	DPC, AR	AE

2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a focus on nephrology.	DPC, AR	AE, IE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management.	DPC, AR, GR, NC	AE, IE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their rationale.	DPC, AR, FS, NC	AE, IE
5.	Ability to recognize major abnormalities of acid-base balance, urinary composition and renal function.	DPC, AR, FS, NC	AE, IE
6.	Ability to determine whether a patient requires immediate dialysis.	DPC, AR, FS, NC	AE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation METHODS
1.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of diseases of the kidneys and disorders of fluid, electrolyte and acid-base metabolism commonly seen by a specialist in both the inpatient and ambulatory settings.	DPC, AR, FS, NC	AE, IE
2.	Familiarity with the indications for, principles, complications, and interpretation of specialized tests, including urinalysis, tests of glomerular filtration and tubular function, tests of acid-base balance, imaging of kidneys and urinary tract, and renal biopsy.	DPC, AR, FS, NC, CPC	AE, IE
3.	Familiarity with the indications for and complications of various forms of renal replacement therapy, including hemodialysis, venous dialysis, continuous ambulatory peritoneal dialysis, and renal transplantation.	DPC, AR, FS, NC	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate sensitively and effectively with patients with renal problems and their families.	DPC, AR, FS, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally towards patients, families, colleagues, and all members of the health care team	DPC, AR, FS, PC	AE
2.	Appreciation of the social context of illness.	DPC, AR, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, AR, FS, NC, SS, EBM	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Work with the service requesting the consultation to assure that care for the patient's medical needs is properly coordinated with care being delivered by the primary service.	DPC, AR, FS	AE
2.	Knowing when to consult or refer a patient to a nephrologist.	DPC, AR, FS	AE, IE
3.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the situation.	DPC, AR, FS	AE
4.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, AR, NC	AE
5.	Willingness and ability to teach medical students.	DPC, AR, PC	AE
6.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR	AE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

PEDIATRIC NEPHROLOGY ROTATION

Residents assigned to the pediatric nephrology rotation work in a team of one senior Pediatric or Medicine-Pediatric resident (PGY-3 or 4) and one or more PGY-1s. Residents are exposed to both outpatient and hospitalized pediatric nephrology patients. Adherence to the 80-hour work week is mandated.

Pediatric residents are required to fulfill a one-month block rotation in pediatric nephrology. The rotation occurs at Memorial Hermann Children's Hospital (MHCH), The University of Texas Outpatient Clinics, UT MD Anderson Cancer Center and LBJ Hospital. Residents provide primary care for inpatients admitted to the Nephrology service at MHCH, see Nephrology consults on other services, and see patients in the Nephrology/Hypertension outpatient clinics. Residents are supervised by faculty in the Department of Pediatric's Division of Nephrology and Hypertension. Transitional year residents may choose Nephrology as one of their Pediatric rotations.

The goals and objectives listed below are covered through rounding on the inpatient service, discussions about patients seen on an outpatient basis, various conferences, reading in a pediatric nephrology/hypertension syllabus updated yearly to contain the best review articles on general topics in pediatric nephrology and hypertension that would be important for general pediatricians to know, review articles and other handouts. Residents will have access to computer-based literature searches as well.

Each resident is required to give a talk on a nephrologic subject of his/her choice during the rotation. The resident is also responsible for preparing a patient care conference at morning report with attending supervision and attendance. Residents will also be evaluated on their effectiveness and willingness to teach medical students. Residents will also learn nephrology related skills such as the urinalysis, techniques for accurate 24 hour urine collection and interpretation, how to take an accurate BP, ambulatory blood pressure monitoring, the use of random urine studies and interpretation of radiographic tests related to nephrology.

Residents will have a check-list of nephrologic conditions that must be covered during the month through patient care, lecture, rounds or reading. Residents receive a pre-test to evaluate their level of knowledge at the start of the rotation and a final written examination containing many questions from PREP and the Pediatric Nephrology Boards as well as those developed by the faculty. This examination must be passed in order for the resident to receive credit for the rotation.

Legend for Learning Activities

AR – Attending Rounds	GR – Grand Rounds	OC Outpatient clinics
DPC – Direct Patient Care	JC – Journal Club	RC – Research
CAT – Critically Appraised Topics	MDR – Multidisciplinary	Conference
E/C – Ethics/Communication	Rounds	SC – Specialty
Conferences	MR – Morning Report	Conferences ²

² Specialty Conferences include Renal Biopsy Conference, Clinical Case Conference, Renal Grand Rounds, Pediatric

Uroradiology Conference, Journal Club, Renal Transplant Conference, Pediatric Renal Grand Rounds

FS – Faculty Supervision

NC – Noon Conferences
 NM – Nephrology Manual
 and Text

RS – Resident Seminar
 SL – Subspecialty
 Lectures

Legend for Evaluation Methods for Residents

AE – Attending Evaluation

DSP – Directly Supervised Procedures

MR – Morning Report

PDR – Program Director’s Review (twice
 annually)

IE – In-Training Exam

FS – Faculty Supervision & Feedback

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to both PGY-1 and PGY-3/4 residents as they are both ‘naïve’ to pediatric nephrology experience and the expected competency level demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Differentiate between normal and pathological states related to the renal system.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe the age related changes in blood pressure including normal ranges from birth through adolescence and learn to personally measure BP accurately.	AR, SL, NM, SC, FS	AE, PDR, IE, FS
2.	Differentiate transient hematuria from clinically significant gross or microscopic hematuria.	AR, SL, NM, SC, DPC, FS	AE, IE, PDR, FS
3.	Differentiate transient proteinuria from clinically significant persistent or intermittent proteinuria.	AR, SL, NM, SC, DPC, FS	AE, IE, PDR, FS
4.	Describe the findings on clinical history and examination that would suggest renal disease and require further evaluation and treatment.	AR, SL, NM, SC, FS	AE, IE, PDR, FS
5.	Apply measures of glomerular and tubular function to determine normal versus abnormal kidney function. Learn to perform urinalysis	AR, SL, NM, SC, FS	AE, IE, PDR, FS

GOAL: Evaluate and treat common renal diseases presenting in the outpatient setting.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Evaluate and manage the child with a urinary tract infection.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR
2.	Determine the need for and the extent of the radiographic evaluation required for the patient with a UTI.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR
3.	Evaluate the patient who presents with hematuria and/or proteinuria.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR

4.	Diagnose and manage the patient with hypertension.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR
5.	Learn to diagnose and manage common fluid and electrolyte disturbances with intravenous and oral rehydration.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR

GOAL: Evaluate and manage complicated diseases of the renal system in consultation with a Pediatric Nephrologist.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Diagnose and manage patients with acute and chronic glomerulonephritis including nephrotic syndrome.	AR, DPC, SC, SL, NM, FS	AE, FS, PDR
2.	Diagnose and manage renal diseases associated with systemic diseases, e.g., systemic lupus, hemolytic-uremic syndrome, ANCA positive diseases, and Henoch-Schoenlein Purpura.	AR, DPC, SC, SL, NM	AE, FS, PDR
3.	Diagnose and manage issues related to bone disease commonly seen in children with renal disease including growth retardation, renal tubular acidosis, and rickets	AR, DPC, SC, SL, NM	AE, FS, PDR

B. Medical Knowledge

GOAL: Describe kidney development and measures of renal function.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the normal neonatal development of the kidney both anatomy and function.	AR, NC, SL, SC, NM	AE, IE, PDR
2.	Discuss measures of renal function including GFR, urinary concentration, proximal tubular function, and acid-base handling.	AR, NC, SL, SC, NM	AE, IE, PDR

GOAL: Discuss the physiology of issues related to renal function.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss handling of drugs by the kidney and dosing of medication for chronic kidney disease	AR, NC, SL, SC, NM	AE, IE, PDR
2.	Discuss fluid and electrolyte problems in childhood.	AR, MR, NC, SL, NM	AE, IE, PDR
3.	Discuss structural problems of the kidney including vesicoureteral reflux, obstructions of the urinary tract, urolithiasis and bladder dysfunction.	AR, MR, NC, SL, NM	AE, IE, PDR
4.	Discuss abnormal kidney development such as cystic diseases of the kidney, hypoplasia, dysplasia, abnormalities of renal position, and prune belly syndrome	AR, MR, NC, SL, NM	AE, IE, PDR

GOAL: Discuss issues involved with complicated renal disease generally managed by a Pediatric Nephrologist.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the etiologies, complications and diagnosis and management of chronic kidney disease including osteodystrophy, anemia, growth failure, developmental delay, hyperlipidemia and progression to ESRD.	AR, SL, SC, NM	AE, IE, PDR
2.	Discuss the principles of renal replacement therapy including hemodialysis, peritoneal dialysis, CVVHD and SLED.	AR, SL, SC, NM	AE, IE, PDR
3.	Discuss the principles and management of the child with a renal transplant.	AR, SL, SC, NM	AE, IE, PDR

C. Practice-Based Learning and Improvement

GOAL: Learn to utilize and integrate technological advances in the care of children with renal disease

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Learn to utilize electronic medical record to provide documentation of patient's medical care, provide better communication among medical staff and the multiple patient care sites and communicate with referring physicians.	AR, MDR, E/C	AE, FS, PDR
2.	Learn to utilize hand held technology to facilitate patient care. Learn HIPPA regulations governing privacy.	AR, MDR, E/C	AE, FS, PDR
3.	Residents are encouraged to be creative in trying to improve technological or other area of medical practice that can improve medical care and communication	AR, MDR, E/C	AE, FS, PDR

D. Interpersonal Skills and Communication

GOAL: Develop skills to effectively teach others.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Present a lecture on the nephrologic subject of his/her choice and present a case conference at morning report and biopsy conference	AR, DPC, SL, SC	AE, FS, PDR
2.	Demonstrate instruction of medical students in an effective, enthusiastic manner.	AR, DPC, SL, SC	AE, FS, PDR

E. Professionalism

GOAL: Develop skills to effectively teach others.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Present a lecture on the nephrologic subject of his/her choice and present a case conference at morning report and biopsy conference	AR, DPC, SL, SC	AE, FS, PDR
2.	Demonstrate instruction of medical students in an effective, enthusiastic manner.	AR, DPC, SL, SC	AE, FS, PDR

F. Systems-Based Practice

GOAL: Function as part of an interdisciplinary team in the management of children with renal diseases.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the psychosocial and financial aspects of the child with renal disease.	AR, MDR, E/C	AE, FS, PDR
2.	Communicate and work effectively with psychiatrists/psychologists, Child Life, nutritionists, and case managers to provide financial and psychosocial support for children with end stage renal disease and renal transplant.	AR, MDR, E/C	AE, FS, PDR
3.	Discuss use of home and school monitoring of disease including urinary dipsticks, and BP monitoring	AR, MR, NC, SL, NM	AE, IE, PDR

**The University of Texas-Houston Health Science Center
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MEMORIAL HERMANN ONCOLOGY CONSULTATION SERVICE

The Memorial Hermann Oncology Consultation Service is a month long rotation for one upper level resident and one or two interns. The service is run by an Oncology attending. Residents participate in oncology consults on inpatients at Memorial Hermann and in oncology clinic at Memorial Hermann. Additionally, residents have one day off during the seven-day week, and they take call once a week at MD Anderson. They attend conferences at MD Anderson on Monday, Tuesday and Friday mornings, and attend Morning Report at Memorial Hermann on Wednesday and Thursday mornings. On Tuesday afternoons the interns and residents and an Oncology attending physician attend a Tuesday afternoon combined modality/oncology conference and present cases with an attending. Interns and residents assigned to this rotation attend noon conferences at Memorial Hermann every day.

Legend for Learning Activities

AR – Attending Rounds	DSP – Directly Supervised Procedures	M&M-Morbidity & Mortality
Au – Autopsy Report	EBM - Evidence Based Med	MP – Med/Path Conference
CR – Chairman’s Rounds	FS – Faculty Supervision	MR – Morning Report
CPC–Clinicopathologic Conf.	GR – Grand Rounds	NC – Noon Conferences PathCI-Path for Clinicians PC–
CC-Core Curriculum	IL-Introductory Lecture Series	Professionalism Curriculum SS
DPC – Direct Patient Care	JC – Journal Club	– Senior Seminar
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital is included near the front of the report for further information.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination with an oncology focus.	DPC, AR, NC	AE

2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with an oncology focus.	DPC, AR, NC	AE
3.	Define and prioritize patients' medical problems and generate appropriate differential diagnoses.	DPC, AR, NC	AE, IE
4.	Develop rational, evidence-based management strategies.	DPC, AR, NC	AE, IE
5.	<i>PG-1</i> - Ability to make appropriate diagnostic and treatment plans for patients with newly diagnosed cancer. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, AR, NC, CC, DPC, AR, NC	AE, IE AE, IE
6.	<i>PG-1</i> - Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation. <i>PG-2/3/4</i> – Develop proficiency in performance of procedures listed above.	DPC, AR, NC DPC, AR, NC	AE AE
7.	<i>PG-1</i> - Ability to make basic interpretation of imaging studies, including X-rays of chest and abdomen; CT scans of brain, chest, abdomen and pelvis. <i>PG-2/3/4</i> – Develop and demonstrate proficiency in above.	DPC, AR, NC DPC, AR, NC	AE AE
8.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their rationale.	DPC, AR, NC, PC	AE
9.	Participation and later leadership of discussions of end-of-life issues with families.	DPC, AR, NC, PC	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	<i>PG-1</i> - Understand basic pathophysiology, clinical manifestations, diagnosis and management of medical illnesses seen in common types of cancer. <i>PG-2/3/4</i> – Develop and demonstrate proficiency in above.	DPC, AR, NC DPC, AR, NC	AE, IE AE, IE
2.	Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of complications of cancer and its treatment, including infection and neutropenia, as well as cardiovascular, metabolic, renal and neurological emergencies.	DPC, AR, NC, CC	AE, IE
3.	<i>PG-1</i> - Familiarity with the basic principles of medical care of patients with cancer. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, NC DPC, AR, NC	AE, IE AE, IE

4.	<i>PG-1</i> - Familiarity with the basic principles of initial evaluation and treatment planning for patients with newly discovered cancer.	DPC, AR, NC, CC	AE, IE
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	<i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, NC	AE, IE
5.	<i>PG-1</i> - Familiarity with the basic principles of management of fever and infection in the neutropenic and immunosuppressed patient. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, NC, CC DPC, AR, NC	AE, IE AE, IE
6.	<i>PG-1</i> - Familiarity with the basic principles of palliative care. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, NC, PC DPC, AR, NC	AE, IE AE, IE
7.	<i>PG-1</i> - Familiarity with the basic principles of action and major side effects of chemotherapeutic drugs.– <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, AR, NC, CC DPC, AR, NC	AE, IE AE, IE
8.	<i>PG-1</i> - Familiarity with the basic principles of evaluation and staging of cancer, and determination of prognosis. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, NC, CC DPC, AR, NC	AE, IE AE, IE
9.	<i>PG-1</i> - Basic familiarity with indications for and interpretation of chest and abdominal X-rays, CT scans of brain, chest, abdomen and pelvis, and electrocardiograms. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, NC DPC, AR, NC	AE, IE AE, IE
10.	<i>PG-1</i> - Learn indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation students, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, AR, NC DPC, AR, NC	AE , IE AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families.	DPC, AR, PC	AE
2.	Communicate effectively with physician colleagues at all levels.	DPC, AR, PC	AE
3.	Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of hospitalized patients.	DPC, AR, PC	AE
4.	Present information on patients concisely and clearly both verbally and in writing.	DPC, AR, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, AR, PC	AE
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care	DPC, AR, PC	AE
3.	Appreciation of the social context of illness.	DPC, AR, NC, PC	AE
4.	Knowing when and how to request ethics consultation, and how best to utilize the advice provided.	DPC, AR, NC, PC	AE
5.	Understand ethical concepts of confidentiality, consent, autonomy and justice.	DPC, AR, NC, PC	AE
6.	Understand professionalism concepts of integrity, altruism and conflict of interest.	DPC, AR, NC, PC	AE, PDR

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of hospitalized patients.	DPC, AR, NC	AE, IE
2.	Develop and implement strategies for filling gaps in knowledge and skills.	DPC, AR, NC	AE, IE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, AR, NC, JC, EBM	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for hospitalized patients.	DPC, AR, NC	AE
2.	Collaborate with other members of the health care team to assure comprehensive patient care.	DPC, AR, NC, PC	AE
3.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, AR, NC	AE
4.	Effective professional collaboration with residents, fellows and faculty consultants from other disciplines such as Radiology and Surgery.	DPC, AR, NC	AE

5.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.	DPC, AR, NC, PC	AE
6.	Knowing when and how to request medical consultation, and how best to utilize the advice provided.	DPC, AR, NC	AE
7.	Knowing when to consult a medical oncologist.	DPC, AR, NC	AE
8.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, NCL	AE
9.	<i>PG-2/3/4</i> - Willingness and ability to teach medical students and PG-1 residents.	DPC, AR, NC	AE
10.	<i>PG -2/3/4</i> - Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the situation.	DPC, AR, NC	AE

**The University of Texas-Houston Health Science Center
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LBJ ONCOLOGY CONSULTATION SERVICE

The LBJ Hospital Oncology Consultation Service is a month long rotation for one upper level resident. Faculty oncologists from M.D. Anderson Cancer Center supervise in assessing consultations. Residents participate in oncology clinic at LBJ, where they work under faculty physicians. There is one day off each week, and residents take call at M.D. Anderson approximately every fifth night during this rotation. Residents attend noon conferences and Morning Report while on this rotation.

Legend for Learning Activities		
AR – Attending Rounds	DrFR – Dr. Fred Rounds	MP – Med-Path Conference
CPC–Clinicopathologic Conf.	EBM-Evidence Based Medicine	MedRad –Med-Rad Conf.
CC-Core Curriculum	FS – Faculty Supervision	MR – Morning Report
DPC – Direct Patient Care	GR – Grand Rounds	NC – Noon Conferences
DSP – Directly Supervised Procedures	IL-Introductory Lecture Series	PathCI-Pathology Clinicians
	MJ – Medical Jeopardy	PC–Professionalism Curriculum
		SS – Senior Seminar

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination with a focus on oncology.		AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a focus on oncology.		AE
3.	Ability to make appropriate diagnostic and treatment plans for patients with newly diagnosed cancer.		AE, IE

4.	Proficiency in performance of basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation.		AE, DSP
5.	Ability to interpret imaging studies, including X-rays of chest and abdomen; CT scans of brain, chest, abdomen and pelvis.		AE
6.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their rationale.		AE
7.	Leadership of discussions of end-of-life issues with families.		AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand the essentials of pathophysiology, clinical manifestations, diagnosis and management of common types of cancer as seen by a specialist in both the inpatient and ambulatory settings.		AE, IE
2.	Understand the pathophysiology, clinical manifestations, diagnosis and management of complications of cancer and its treatment, including infection and neutropenia, as well as cardiovascular, metabolic, renal and neurological emergencies.		AE, IE
3.	Familiarity with the principles of medical care of patients with cancer.		AE, IE
4.	Familiarity with the principles of initial evaluation and treatment planning for patients with newly discovered cancer.		AE, IE
5.	Familiarity with the principles of management of fever and infection in the neutropenic and immunosuppressed patient.		AE, IE
6.	Familiarity with the principles of palliative care.		AE, IE
7.	Familiarity with the principles of action and major side effects of chemotherapeutic drugs.		AE, IE
8.	Familiarity with the principles of evaluation and staging of cancer, and determination of prognosis.		AE, IE
9.	Basic familiarity with indications for and interpretation of chest and abdominal X-rays, CT scans of brain, chest, abdomen and pelvis, and electrocardiograms.		AE, IE
10.	Familiarity with indications for performance and interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests.		AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families with oncology issues.		AE
2.	Communicate effectively with all physician colleagues and members of other members of the health care team to assure comprehensive and timely care of hospitalized patients.		AE
3.	Present information on patients concisely and clearly both verbally and in writing.		AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally with patients, families, colleagues, and all members of the health care team.		AE
2.	Appreciation of the social context of illness.		AE
3.	Knowing when and how to request ethics consultation, and how best to utilize the advice provided.		AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of hospitalized cancer patients.		AE, IE
2.	Develop and implement strategies for filling gaps in knowledge and skills.		AE, IE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.		AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for hospitalized patients.		AE

2.	Understand when to ask for help and advice from attending physicians.		AE
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3.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.		AE
4.	Knowing when and how to request medical consultation, and how best to utilize the advice provided.		AE
5.	Knowing when to consult a medical oncologist.		AE
6.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.		AE
7.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the situation.		AE

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**MEMORIAL HERMANN AND LBJ RHEUMATOLOGY
CONSULTATION SERVICE**

The Memorial Hermann and LBJ Rheumatology Consultation Service is one rotation, serving both Memorial Hermann Hospital and LBJ Hospital. There is a minimum of two upper level residents on this rotation. There is one attending and fellow supervising the rotations for both Memorial Hermann and LBJ. Consults may be requested on inpatients on medical and other services at Memorial Hermann Hospital and LBJ Hospital. Residents also see patients, ages 16 and over, in subspecialty clinics at LBJ and at the University of Texas- Houston Rheumatology Clinic in the University of Texas Professional Building. Patients with rheumatic diseases will be seen by residents in these clinics, which are staffed by faculty physicians. Residents participate in consultation rounds with faculty specialists in rheumatology, and are supervised on a one-on-one basis by faculty in rheumatology clinics. There is no call during this rotation, and there are two days off during the seven day week.

Three weekly subspecialty conferences are held on this rotation which provide residents learning opportunities about rheumatology issues; these include a weekly rheumatology case conference, a core curriculum lecture and journal club. Residents on this rotation are required to attend Morning Report and noon conference.

Legend for Learning Activities

AR – Attending Rounds

DSP – Directly Supervised

M&M-Morbidity & Mortality

Au – Autopsy Report

Procedures

MP – Med/Path Conference

CR – Chairman’s Rounds	EBM - Evidence Based Med	MR – Morning Report
CPC–Clinicopathologic Conf.	FS – Faculty Supervision	NC – Noon Conferences PathCI-Path for Clinicians
CC-Core Curriculum	GR – Grand Rounds	PC– Professionalism Curriculum
DPC – Direct Patient Care	IL-Introductory Lecture Series	SS – Senior Seminar
	JC – Journal Club	
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 – (Goals are for upper level residents only).

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination with a rheumatology focus.	DPC, AR, FS	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a rheumatology focus.	DPC, AR, FS, NC	AE, IE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management.	DPC, AR, FS, NC	AE, IE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their rationale.	DPC, AR, FS, NC	AE, IE
5.	Ability to recognize major abnormalities in radiographs of joints.	DPC, AR, FS, NC	AE, IE
6.	Ability to perform arthrocentesis of the joints such as the knee as well as intra-bursal injections.	DPC, AR, FS, DSP	AE, DSP

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation METHODS
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1.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of diseases of autoimmunity and disorders of the joints and musculoskeletal system, with emphasis on those commonly seen by a specialist in the ambulatory setting.	DPC, AR, FS, NC	AE, IE
2.	Familiarity with basic mechanisms of action, potential benefits, potential toxicities and indications for prescription of pharmacologic agents used in the management of rheumatic diseases, including nonsteroidal anti-inflammatory agents, corticosteroids, immunosuppressive agents, and newer biological response modifiers.	DPC, AR, FS, NC	AE, IE
3.	Familiarity with indications for radiographic studies of joints.	DPC, AR, FS, NC	AE, IE
4.	Familiarity with indications and interpretation of tests of the immune system, including measurement of autoantibodies.	DPC, AR, FS, NC	AE, IE
5.	Familiarity with the indications for, principles, complications, and interpretation of specialized tests, including arthrocentesis and examination of joint fluid.	DPC, AR, FS, NC	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate sensitively and effectively with patients with rheumatology problems and their families.	DPC, AR, FS, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally towards patients, families, colleagues, and all members of the health care team.	DPC, AR, FS, PC	AE
2.	Appreciation of the social context of illness.	DPC, AR, FS, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine	DPC, AR, FS, NC, JC, EBM	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Work with the service requesting the consultation to assure that care for the patient's medical needs is properly coordinated with care being delivered by the primary service.	DPC, AR, FS	AE
2.	Knowing when to consult or refer a patient to a rheumatologist.	DPC, AR, FS	AE, IE
3.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the situation.	DPC, AR, FS, PC	AE
4.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, AR, FS, NC	AE
5.	Willingness and ability to teach medical students.	DPC, AR, FS, PC	AE
6.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, FS, NC	AE

**The University of Texas-Houston Health Science Center
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**LBJ EMERGENCY MEDICINE
LBJ EMERGENCY ROOM AND HOLDING AREA**

The LBJ Emergency Medicine rotation has five to seven interns assigned to the Emergency Room at LBJ, and three to four residents assigned to the ER “Check Room” or “Suture Room”. There is a Holding Area for patients for 23 hour observation. All patients sent to the Holding Area are followed by the resident/intern who initially saw them. Residents assigned to the Suture Room manage all critical patients and routine minor surgical care such as lacerations and kidney stones. The rotation is one month long. Interns and residents work 11 hour staggered shifts for three consecutive days followed by one day off. There is a switch from the day to the night shift mid-month for both residents and interns. Supervision in the Emergency Room is by full-time faculty in our Department of Emergency Medicine. Residents perform initial evaluations of adult patients presenting to the Emergency Room with undifferentiated medical problems in this rotation. Residents and interns attend a weekly conference on Wednesday morning which covers various ER topics.

Legend for Learning Activities

AR – Attending Rounds	DrFR – Dr. Fred Rounds	MP – Med-Path Conference
CPC–Clinicopathologic Conf.	EBM-Evidence Based Medicine	MedRad –Med-Rad Conf.
CC-Core Curriculum	FS – Faculty Supervision	MR – Morning Report
DPC – Direct Patient Care	GR – Grand Rounds	NC – Noon Conferences
DSP – Directly Supervised Procedures	IL-Introductory Lecture Series	PathCI-Pathology Clinicians
	MJ – Medical Jeopardy	PC–Professionalism Curriculum
		SS – Senior Seminar

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
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DSP – Directly Supervised Procedures
 IE – In-service Exam
 MR – Morning Report

PR – Peer Review
 SPE – Standardized patient evaluation

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at LBJ Hospital is included near the front of the report for further information.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Effectively perform initial evaluation and management of patients with medical emergencies.	DPC, FS, CC, NC	AE
2.	Effectively assess patients' need for hospital admission and appropriate level of inpatient care.	DPC, FS, CC, NC	AE
3.	Know indications for common emergency department procedures and perform these procedures with proper technique.	DPC, DSP, FS, IL, CC, NC	AE, IE, DSP
4.	Ability to take a complete medical history and perform a careful and accurate physical examination.	DPC, FS, IL, NC, CC	AE, IE
5.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC, FS, IL, NC, CC	AE, IE
6.	<i>PG-1</i> - Ability to make basic interpretation of chest and abdominal x-rays, and electrocardiograms. <i>PG - 2/3/4</i> – Develop and demonstrate proficiency above.	DPC, FS, IL, CC, NC DPC, FS,CC,NC	AE, IE AE, IE
7.	<i>PG-1</i> - Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation. <i>PG-2/3/4</i> – Develop and demonstrate proficiency in above.	DPC, DSP, FS DPC, DSP, FS	AE, IE, DSP AE, IE, DSP
8.	Ability to perform endotracheal intubation under close supervision.	DPC, DSP, FS	AE, IE, DSP
9.	Ability to perform cardiopulmonary resuscitation and advanced cardiac life support, including application of electrodes for defibrillation and external pacing.	DPC, DSP, FS, IL, CC	AE, IE, DSP
10.	<i>PG-2/3/4</i> - Ability to administer emergency thrombolytic treatment, under supervision.	DPC, DSP, FS	AE, IE, DSP
11.	<i>PG-2/3/4</i> - Ability to perform basic ventilator management.	DPC, DSP, FS	AE, IE, DSP

12.	<i>PG-1</i> - Ability to perform pelvic examination under supervision. <i>PG-2/3/4</i> – Develop and demonstrate proficiency in	DPC, DSP, FS DPC, FS	AE, IE, DSP AE, IE, DSP
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B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of patients with medical emergencies.	DPC, FS, CC, IL, NC	AE, IE
2.	Access and critically evaluate current medical information and scientific evidence relevant to medical emergency care.	DPC, JC, GR	AE, IE
3.	<i>PG-1</i> - Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of acute and emergent presentations of medical illnesses, including myocardial infarction, aortic dissection, seizure disorders, gastrointestinal hemorrhage, alcohol withdrawal, decompensated diabetes, exacerbations of asthma and chronic obstructive lung disease, meningitis, drug over dosage and poisoning. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, FS, CC, IL DPC, FS, CC	AE, IE AE, IE
4.	<i>PG-1</i> - Familiarity with basic pathophysiology, clinical manifestations, diagnosis and management of common gynecologic emergencies, including rape, vaginal bleeding, spontaneous abortion, acute salpingitis, and pregnancy induced hypertension. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, FS, CC, IL, DPC, FS, CC	AE, IE AE, IE
5.	<i>PG-1</i> - Familiarity with basic pathophysiology, clinical manifestations, diagnosis and management of common ophthalmologic emergencies, including ocular injuries and conjunctivitis. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, FS, CC, IL DPC, FS, CC	AE, IE AE, IE
6.	<i>PG-1</i> - Familiarity with basic pathophysiology, clinical manifestations, diagnosis and management of common musculoskeletal emergencies, including non-operative management of common fractures, ligamentous sprains and muscular strains, and acute arthritis. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, FS, CC, IL DPC, FS, CC	AE, IE AE, IE

7.	<p><i>PG-1</i> - Familiarity with basic pathophysiology, clinical manifestations, diagnosis and management of common otolaryngological emergencies, including epistaxis, acute pharyngitis, acute sinusitis, and obstruction of the upper airway.</p> <p><i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.</p>	<p>DPC, FS, CC, IL</p> <p>DPC, FS, CC</p>	<p>AE, IE</p> <p>AE, IE</p>
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8.	<i>PG-1</i> - Familiarity with basic clinical manifestations, diagnosis and management of common psychiatric emergencies, including attempted suicide, acute psychosis and anxiety states. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, FS, CC, IL DPC, FS, CC	AE, IE AE, IE
9.	Familiarity with recognition and treatment of non-emergent conditions frequently seen in emergency rooms, including allergic reactions, dermatitis and minor burns.	DPC, FS, CC, IL	AE, IE
10.	Recognition of signs of domestic violence, elderly abuse and other social issues which result in visits to the emergency room.	DPC, FS, CC, IL	AE, IE
11.	Plan how to access and follow the Harris County Hospital District Disaster plan, in case of chemical, biological or nuclear emergency.	FS	AE
12.	<i>PG-1</i> - Familiarity with indications for performance and basic interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, drug screens, body fluid analyses, and microbiologic tests. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, FS, CC, IL DPC, FS, CC	AE, IE AE, IE
13.	Understanding the appropriate use of ultrasound, computed tomography and magnetic resonance imaging in emergency diagnosis.	DPC, FS, CC	AE, IE
14.	<i>PG-1</i> - Basic familiarity with indications for performance and interpretation of imaging studies, including chest X-ray, abdominal series, abdominal CT scan and CT scan of head. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, FS, CC, IL DPC, FS, CC	AE, IE AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families in a stressful Emergency Room environment.	DPC, FS, PC	AE
2.	Communicate effectively with physician colleagues in the ER & members of other health care professions to assure timely, comprehensive patient care.	DPC, FS, PC	AE
3.	Communicate effectively with consulting residents and attendings from specialty services whose assistance is needed in the evaluation or management of patients in the ER.	DPC, FS, PC	AE
4.	Communicate effectively with colleagues when signing out patients.	DPC, FS, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team	DPC, FS, PC	AE
2.	Appreciation of the social context of illness.	DPC, FS, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients with medical emergencies.	DPC, FS	AE, IE
2.	Develop real-time strategies for filling knowledge gaps that will benefit patients with medical emergencies.	DPC, FS, NC	AE, IE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine	DPC, IL, NC, SS	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for patients in the Emergency Room.	DPC, FS	AE
2.	Collaborate with other members of the health care team to assure comprehensive care for patients in the Emergency Room.	DPC, FS, PC	AE
3.	Facilitate the safe and timely transfer of admitted patients from the Emergency Room to the appropriate inpatient setting.	DPC, FS, PC	AE
4.	Use evidence-based, cost-conscious strategies in the care of patients with medical emergencies.	DPC, FS, IL, CC, NC	AE
5.	Effective collaboration with other members of the health care team, including residents at all levels, nurses, emergency medical personnel, and social worker.	DPC, FS, PC	AE

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**EMERGENCY MEDICINE AND AMBULATORY ACUTE ILLNESS
ROTATIONS**

Residents are assigned to the Memorial Hermann Hospital (“MHH”) and the Lyndon B. Johnson General Hospital (“LBJ”) for the emergency medicine rotation. Residents are assigned a one-month rotation at the LBJ emergency room during the PGY-1 year and two months during the PGY-2 year. Residents are assigned to MHH for a one-month rotation during the PGY-2 year. PGY-2 Pediatric residents and PGY-1 Transitional year residents have a one-month rotation at the Kid’s Place in the Hermann Professional Building (HPB), where they see ambulatory patients scheduled for a sick visit. Faculty attendings from The University of Texas Medical School at Houston Department of Emergency Medicine supervise the residents in the Emergency Rooms at LBJ and MHH. Faculty from The University of Texas Medical School at Houston Department of Pediatrics supervise residents at the Kid’s Place clinic. Adherence to an 80-hour work week is mandated for the emergency medicine rotation and the ambulatory acute illness rotation.

All Pediatric PGY-1s are required to take Pediatric Advanced Life Support (“PALS”) and PGY-2s are required to take Advanced Pediatric Life Support (“APLS”). Residents rotating in the Emergency Center at MHH attend the Emergency Medicine Department Conferences and residents rotating at the Emergency Center at LBJ receive a series of lectures in emergency medicine and acute illness.

Legend for Learning Activities		
APLS – Advanced Pediatric Life Support	EBM – Evidence-Based Medicine Course	NC – Noon Conferences
AR – Attending Rounds	E/C – Ethics/Communication Conferences	PALS – Pediatric Advanced Life Support
DPC – Direct Patient Care	FS – Faculty Supervision	RC – Research Conference
CAT – Critically Appraised Topics	GR – Grand Rounds	RR – Radiology Rounds/Conference
	JC – Journal Club	SS – Senior Seminar
	MR – Morning Report	SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents	
AE – Attending Evaluations	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback
PR – Peer Review	

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to both PGY-1 and PGY-2 Pediatric residents and the expected competency level demonstrated by the residents should reflect their respective level of experience. The goals and objectives and rotation expectations also apply to residents from the Transitional Year Program and the Family Practice Program.

A. Patient Care

GOAL: Assess, resuscitate, and stabilize critically ill or injured children in the Emergency Center in a timely manner.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
11.	Recognize and evaluate urgent patients by performing the primary survey for all patients in an efficient manner, formulate a differential diagnosis, differentiate between cardiogenic, distributive and hypovolemic shock and assist in evaluating and stabilizing a child with multiple traumas.	DPC, SL, FS	AE, FS, PDR
2.	Establish and manage the airways of infants, children and adolescents recognizing the need for assistance with ventilation and/or oxygenation.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
3.	Demonstrate proficiency in the following techniques: proper airway positioning, administration of supplemental oxygen, bag-valve-mask ventilation, nasal and oral airways, endotracheal intubation, mechanical ventilation, and C-spine immobilization to protect the airway in a head trauma patient.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
4.	Discuss indications and describe technique for and complications of nasotracheal intubation and emergency cricothyroidotomy.	APLS, PALS, DPS, SL, FS	AE, FS, PDR
5.	Recognize the need for vascular access including diagnosing and managing early and late signs of shock.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
6.	Establish vascular access in the critically ill child as indicated.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
7.	Demonstrate proficiency in the following techniques: cannulation of peripheral veins, intraosseous needle insertion and umbilical vessel cannulation.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
8.	Explain indications and describe the technique for central venous access and arterial access.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
9.	Manage fluid and pressor therapy in the initial resuscitation of patients in distributive, hypovolemic and cardiogenic shock.	APLS, PALS, DPC, SL, FS	AE, FS, PDR
10.	Demonstrate proficiency at cardiopulmonary resuscitation by obtaining and maintaining certification as a provider of APLS (PGY-2s) and PALS (PGY-1s), directing resuscitation efforts in mock codes and in	APLS, PALS, DPC, SL, FS	AE, FS, PDR

	actual emergency situations, and using resuscitation drugs appropriately.		
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GOAL: Assess, diagnose and appropriately treat or refer infants, children and adolescents that present with the following common signs and symptoms in the Emergency Center or as a sick visit in the ambulatory clinic.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Gather essential and accurate information using problem-focused interview, exam and diagnostic studies.	DPC, GR, JC, NC, SL, MR, FS	AE, FS, PDR
2.	Formulate a differential diagnosis with appropriate epidemiologic considerations.	DPC, GR, JC, NC, SL, MR, FS	AE, FS, PDR, IE
3.	Make decisions using clinical problem-solving skills, consultants and referrals as appropriate.	DPC, FS, JC, EBM, CAT, FS	AE, FS, PDR
4.	Carry out patient care management plans, with special attention to urgency, whether admission is indicated, and where to complete the evaluation and management.	DPC, GR, JC, NC, SL, MR, FS	AE, FS, PDR
5.	Communicate with families in a developmentally, culturally-sensitive manner and provide families/patients with the information they need to understand the illness/injury, participate in the care, give informed consent and prevent further injury or dysfunction.	DPC, E/C, FS	AE, FS, PDR
6.	Arrange appropriate follow-up and patient education at the time of discharge.	DPC, FS	AE, FS, PDR
7.	Evaluate and manage the following signs and symptoms that present in the Emergency Center or as a sick visit in the ambulatory setting:	DPC, SL, NC, GR, APLS, PALS, FS	AE, FS, PDR
	p. General: septic or ill-appearing infant/child, unexplained crying, fever, hypothermia, acute life threatening event (ALTE), sudden death, weight loss, failure to thrive, agitated/disturbed child, dehydration, alleged or suspected child abuse or neglect, fatigue, malaise, and exercise intolerance.	PLS, DPC, FS, JL, NC	AE, FS, IE
	q. Allergy/Immunology: acute allergic reactions	APLS, DPC, FS, JL	FS, AE, IE
	r. Cardiorespiratory: apnea, respiratory distress, tachypnea or shortness of breath, respiratory failure, cyanosis, tachycardia, bradycardia, cough, wheezing, chest pain, palpitations, stridor, hypertension, hypotension (including orthostatic), syncope	APLS, DPC, FS, JL	FS, AE, IE
	s. Dental: tooth injury or loss, pain or trauma of the mouth, jaw or tooth	APLS, DPC, FS, JL	FS, AE, IE
	t. Dermatologic: skin rash, hair loss, itching	DPC, FS, SL	FS, AE, IE
	u. EENT: dizziness, nosebleed, sore throat, painful swallowing, earache, ear discharge, sudden hearing loss, red eye, abnormal pupils or eye movement, visual disturbances, eye pain	APLS, DPC, SL	FS, AE, IE

	v. Endocrine: heat/cold intolerance, polydipsia, polyphagia	APLS, DPC, SL	FS, AE, IE
	w. GI: Abdominal pain, distension, diarrhea, vomiting (bilious and non-bilious), constipation, GI bleeding, jaundice, difficulty swallowing	APLS, DPC, SL	FS, AE, IE
	x. GU/Renal: Edema, decreased or increased urination, urinary frequency or urgency, bloody or discolored urine, dysuria, groin or scrotal mass or pain	APLS, DPC, SL	FS, AE, IE
	y. GYN: Menstrual problems, vaginal bleeding, vaginal discharge	DPC, SL	FS, AE, IE
	z. Hematology/Oncology: Abnormal bleeding, bruising, petechiae, masses, hepatosplenomegaly, lymphadenopathy, pallor, acute illness or fever in a neutropenic child/cancer patient	APLS, DPC, FS, SL	AE, FS, IE
	aa. Musculoskeletal: limb pain, limp, arthralgia, joint swelling, inability to move an extremity, trauma, back pain	APLS, DPC, FS, SL, NC	AE, FS, IE
	bb. Neurological: ataxia, spasticity, abnormal movements, coma, lethargy, confusion, fainting spells, seizures, headache, weakness or paralysis, bulging fontanel, stiff neck, head injury, dizziness	NC, APLS, DPC, FS, SL	AE, FS, IE
	cc. Psychiatric: depression, suicidal ideation, hysteria, anxiety, hallucinations, violent behavior	DPC, FS, JL	AE, FS, IE
	dd. Surgery/trauma: trauma, lacerations, burns, acute abdomen	GR, DPC, EPLS, FS, SL	AE, FS, IE

GOAL: Recognize and manage infants, children and adolescents that present with the following common conditions.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Evaluate and manage the following common conditions:	DPC, SL, NC, GR, FS	AE, FS, PDR
	t. Allergy/Immunology: Asthma, anaphylaxis, angioedema, urticaria, serum sickness, HIV/AIDS, acute illness in an immunocompromised child	APLS, DPC, SL, NC, GR, FS	AE, FS, IE
	u. Cardiovascular: acute hypertension, congestive heart failure, pericarditis, cardiomyopathy, dysrhythmias (asystole, bradycardia, SVT, ventricular fibrillation and tachycardia, atrial fibrillation and flutter, electromechanical dissociation), shock (hypovolemic, cardiogenic, distributive), Kawasaki's disease, acute illness in a patient with congenital heart disease	APLS, DPC, SL, NC, ER, FS	AE, FS, IE
	v. Dermatology: acute drug reactions, contact dermatitis, bacterial, viral and fungal infections of skin and hair, scabies, pediculosis, cutaneous manifestations of systemic and/or contagious diseases	APLS, DPC, SL, FS	AE, FS, IE

w. Endocrine/Metabolic: diabetes and ketoacidosis, hypoglycemia, hypocalcemia, hypo- and hypernatremia, diabetes insipidus, SIADH, acute illness in a child with underlying endocrine/metabolic disease	APLS, DPC, SL, FS	AE, FS, IE
x. GI/surgical: acute abdomen, peritonitis, bowel obstruction, ileus, appendicitis, malrotation, peptic ulcer disease, pyloric stenosis, intussusception, incarcerated hernia, gastroenteritis, hepatitis, hepatosplenomegaly, gastroesophageal reflux, dehydration, constipation, biliary tract disease, inflammatory bowel disease, upper and lower GI tract bleeding, pancreatitis, foreign body in GI tract, caustic ingestion	APLS, DPC, SL, FS	AE, FS, IE
y. GU/renal: acute renal failure, hematuria, proteinuria, urinary tract infection, phimosis, paraphimosis, balanitis, labial adhesions, testicular torsion, epididymitis, STD, edema, renal lithiasis, acute illness in a child on chronic dialysis or with transplanted kidney	APLS, FR, DPC, SL, FS	AE, FS, IE
z. GYN: dysfunctional vaginal bleeding, PID, pregnancy (intrauterine, ectopic, abortion), cervicitis, ovarian torsion, ruptured ovarian cyst, sexually transmitted diseases	APLS, SL, DPC, FS	AE, FS, IE
aa. Hematology/Oncology: sickle cell pain crisis, sequestration and chest syndrome, fever in a child with sickle cell disease or leukemia, anemia, thrombocytopenia, coagulopathy, hemophilia with acute trauma, possible tumor (masses), Henoch Schönlein purpura	APLS, SL, DPC, FS	AE, FS, IE
bb. Infectious Disease: Otitis media/externa, pharyngitis, stomatitis, cervical adenitis, cellulitis, dental abscess, sinusitis, meningitis, encephalitis, sepsis/bacteremia, fever without source, infected wounds and bites, pelvic inflammatory disease, warts, HIV	APLS, SL, DPC, FS	AE, FS, IE
cc. Neurological: Altered mental status, migraine, muscle contraction headache, febrile seizures, afebrile seizures, status epilepticus, paresis/paralysis, ataxia, shunt malfunction/infection, increased intracranial pressure, brain tumor	NC, APLS, SL, DPC, FS, GR	AE, FS, IE
dd. Ophthalmologic: corneal abrasion, conjunctivitis, ocular foreign body, penetrating trauma to the globe, hyphema	APLS, SL, DPC, FS	DSP, AE, FS, IE
ee. Orthopedic: gait disturbance, sprains, strains, fractures, arthritis, osteomyelitis, septic arthritis, common dislocations, Osgood Slatter's Disease	APLS, NC, SL, DPC, FS	DSP, AE, FS, IE
ff. Otolaryngologic: epistaxis, foreign body aspiration, peritonsillar or retropharyngeal abscess	APLS, SL, DPC, FS	AE, FS, IE

	gg. Pulmonary: respiratory failure, pneumonia, epiglottitis, bacterial tracheitis, croup, asthma, status asthmaticus, foreign body aspiration, pneumothorax, bronchiolitis, pleural effusion, smoke inhalation, acute illness in a child with cystic fibrosis, BPD, SIDS	APLS, SL, DPC, FS	AE, FS, IE
	hh. Trauma/surgical: Burns, closed head injury, skull fractures, intracranial hemorrhages (subdural, epidural, subarachnoid), soft tissue injury (including lacerations, abrasions, and contusions), common dental injuries	APLS, SL, DPC, FS	AE, FS, IE
	ii. Toxins/environmental injuries: ingestion/poisoning with an emphasis on common poisons (acetaminophen, iron, hydrocarbons, tricyclic antidepressants, cough and cold medicines, street drugs including cocaine. Toxins with antidotes, such as digoxin, benzodiazepines, and narcotics. Bite and sting injuries, submersion, electrical injury, heat and cold injury	GR, DPC, APLS, FS, SL	AE, FS, IE
	jj. Psychiatric: depression, suicide attempt/ideation, combative patient, conversion reaction, panic attacks	DPC, FS, SL	AE, IE, FS
	kk. Rheumatologic: joint pain, soft tissue pain, arthritis, lupus, dermatomyositis	DPC, FS, SL	AE, IE, FS
	ll. Social: child abuse or neglect, sexual abuse, rape, substance abuse, domestic violence	DPC, FS, SL	AE, IE, FS

B. Medical Knowledge

GOAL: Discuss common diagnostic tests and imaging studies utilized in the Emergency Center. Appropriately utilize diagnostic tests and imaging studies as needed in the care of infants, children and adolescents.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Select and interpret results of common diagnostic tests in the Emergency Center setting.	DPC, NC, SL, GR, FS	AE, IE, FS, PDR
2.	Discuss age-appropriate normals for lab studies.	DPC, NC, SL, GR, FS	AE, IE, FS, PDR
3.	Discuss diagnostic test properties including the use of sensitivity, specificity, positive predictive value, negative predictive value, likelihood ratios, and receiver operating characteristic curves to assess test utility in clinical settings.	DPC, NC, SL, GR, FS, EBM, CAT	AE, IE, FS, PDR
4.	Interpret results in the context of the care of a specific patient.	DPC, NC, SL, GR, FS	AE, FS, PDR
5.	Discuss therapeutic options for correction of abnormalities.	DPC, NC, SL, GR, FS	AE, FS, PDR
6.	Appropriately utilize the following laboratory studies:	DPC, NC, SL, GR, FS	AE, FS, PDR, IE

	p.CBC with differential count, platelets, RBC indices	DPC, SL, FS	AE, FS, IE
	q.Bacterial, viral and fungal cultures and rapid screens	DPC, SL, FS	AE, FS, IE
	r. Serologic tests for infection	DPC, SL, FS	AE, FS, IE
	s.Blood chemistries: electrolytes, calcium, magnesium, phosphate, and glucose	DPC, SL, FS	AE, FS, IE
	t. Arterial, venous and capillary blood gases	DPC, SL, FS	AE, FS, IE
	u.Renal function tests	DPC, SL, FS	AE, FS, IE
	v. Tests of hepatic function and damage	DPC, SL, FS	AE, FS, IE
	w. Drug levels and toxic screens	DPC, SL, FS	AE, FS, IE
	x. Gram stain, wet mount	JL, FS	AE, FS, IE
	y. Urinalysis	DPC, SL, FS	AE, FS, IE
	z. CSF studies	DPC, SL, FS	AE, FS, IE
	aa. Stool studies	DPC, SL, FS	AE, FS, IE
	bb. Coagulation studies	DPC, SL, FS	AE, FS, IE
	cc. Pregnancy test (urine, blood)	DPC, SL, FS	AE, FS, IE
	dd. Other fluid studies (e.g., pleural fluid, joint aspiration fluid)	DPC, SL, FS	AE, FS, IE
7.	Appropriately utilize the following imaging or radiologic studies:	DPC, NC, RR, SL, FS	AE, IE, FS, PDR
	d.Plain radiographs of chest, skull, extremity bones, abdomen, cervical spine	DPC, NC, RR, SL, FS	AE, FS, IE
	e.More sophisticated techniques such as CT, MRI, ultrasound, and nuclear scans (interpretation not required)	DPC, NC, RR, SL, FS	AE, FS, IE
	f. Contrast enema for suspected intussusception or upper GI series for suspected malrotation	DPC, NC, RR, SL, FS	AE, FS, IE
8.	Appropriately utilize the following screening and diagnostic studies:	DPC, NC, SL, FS	AE, IE, FS, PDR
	e.Electrocardiogram	DPC, NC, SL, FS	AE, FS, IE
	f. Screening audiogram/tympanogram	DPC, FS, SL	AE, FS, IE
	g.Vision screening	DPC, FS, SL	AE, FS, IE
	h.Appropriate urgent use of echocardiography	DPC, FS, SL	AE, FS, IE

GOAL: Discuss the use of physiologic monitoring and special technology and treatment in the Emergency Center.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss the indications, contraindications and complications of physiologic monitoring and special technology.	DPC, NC, SL, FS	AE, FS, PDR

2.	Demonstrate appropriate use of technique for treatment	DPC, NC, SL,	AE, FS,
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	for children for varying ages.	FS	PDR
3.	Interpret results of monitoring based on method used, age, and clinical situation.	DPC, NC, SL, FS	AE, FS, PDR
4.	Appropriately use the following monitoring techniques:	DPC, NC, SL, FS	AE, FS, PDR
	d. Physiologic monitoring of temperature, blood pressure, heart rate, respirations	FS, APLS, PALS, DPC, SL	AE, FS
	e. Pulse oximetry	FS, APLS, PALS, DPC, SL	AE, FS
	f. Capnometry/end-tidal CO ₂	FS, APLS, PALS, DPC, SL	AE, FS
5.	Appropriately use the following treatments and techniques:	DPC, NC, SL, FS	AE, FS, PDR
	h. Universal precautions	DPC, APLS, PALS, FS, SL	AE, FS, DSP
	i. Gastrointestinal decontamination for poisoning	DPC, APLS, SL, FS	AE, FS, DSP
	j. Administration of nebulized medication	DPC, APLS, FS, SL	AE, FS, DSP
	k. Injury, wound and burn care	DPC, APLS, FS, SL	AE, FS, DSP
	l. Suturing and dermabond	DPC, APLS, FS, SL	AE, FS, DSP
	m. Splinting and casting	DPC, APLS, FS, SL	AE, FS, DSP
	n. Oxygen delivering system	FS, APLS, PALS, SL, DPC	AE, FS
6.	Appropriately use the following methods of anesthesia or pain management:	DPC, NC, SL, FS	AE, FS, PDR
	h. Methods for recognizing and evaluating pain	PALS, APLS	AE DSP, IE, FS
	i. Topical/local/regional anesthesia	FS, APLS, DPC, SL, PALS	AE, DSP, IE, FS
	j. "Conscious" sedation	FS, APLS, DPC, SL, PALS	AE, DSP, IE, FS
	k. Rapid sequence intubation	FS, APLS, DPC, SL, PALS	AE, IE, DSP, FS
	l. Sedatives, non-narcotic and narcotic analgesics	FS, APLS, DPC, SL	AE, IE, FS
	m. Behavioral techniques and supportive care	FS, APLS, DPC, SL	AE, IE, FS
	n. Other non-pharmacologic methods of pain control	FS, APLS, DPC, SL	AE, IE, FS

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

LBJ GENERAL MEDICAL SERVICES A – H

Residents assigned to the LBJ Hospital general ward services work in eight teams of one senior residents (either PGY2 or PGY3) and two interns (PGY1). Two teams take call every 4 nights. They check out their patients to the long call team.

All ward teams care for patients with both general medical and subspecialty problems across the full age range from adolescence to the elderly. Resident teams develop diagnostic and therapeutic management plans in collaboration with the attending physician of record through daily evaluation and discussion. The rotation is for one month, with one day off every week.

Legend for Learning Activities		
AR – Attending Rounds	DrFR – Dr. Fred Rounds	MP – Med-Path Conference
CPC–Clinicopathologic Conf.	EBM-Evidence Based Medicine	MedRad –Med-Rad Conf.
CC-Core Curriculum	FS – Faculty Supervision	MR – Morning Report
DPC – Direct Patient Care	GR – Grand Rounds	NC – Noon Conferences
DSP – Directly Supervised Procedures	IL-Introductory Lecture Series	PathCI-Pathology Clinicians
	MJ – Medical Jeopardy	PC–Professionalism Curriculum
		SS – Senior Seminar

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at LBJ Hospital is included near the front of the report for further information.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
12.	Ability to take a complete medical history and perform a careful and accurate physical examination	DPC, AR, MR, PC	AE, MR
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC, AR,	AE
3.	Define and prioritize patients’ medical problems and generate appropriate differential diagnoses.	DPC, AR, MR	AE, IE, MR

4.	Develop rational, evidence-based management strategies.	DPC, AR, MR, PC	AE, IE, MR
5.	PG-1 – Ability to make basic interpretation of chest and abdominal x-rays and electrocardiograms. PG-2/3/4 – Develop and demonstrate proficiency in above.	DPC, CC, IL DPC, CC, IL	AE, IE AE, IE
6.	PG-1 – Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation. PG-2/3/4 – Develop proficiency in performance of procedures listed above.	DPC, DSP, AR DPC	AE, DSP, IE AE, DSP, IE
7.	PG-2/3/4 - Ability to perform endotracheal intubation.	DPC	AE
8.	Participation and later leadership of discussions of end-of-life issues with families.	DPC, AR, PC	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of medical patients	DPC, AR, MR, NC, GR	AE, IE, MR
2.	Access and critically evaluate current medical information and scientific evidence relevant to patient care	DPC, AR, MR, GR	AE, IE
3.	PG-1 Understand basic pathophysiology, clinical manifestations, diagnosis and management of medical illnesses seen on a general medicine inpatient service. PG-2/3/4- Develop and demonstrate proficiency in above.	DPC, AR, MR, NC, GR DPC, AR, MR, NC, SS, GR	AE, IE, MR AE, IE, MR
4.	PG-1- Recognize the indications for and basic interpretation of chest and abdominal X-rays, electrocardiograms, and pulmonary function tests. PG-2/3/4 -Develop and demonstrate proficiency in above.	DPC, AR, MR DPC, AR, MR	AE, IE AE, IE
5.	PG-1 - Learn indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests. PG-2/3/4 - Develop and demonstrate proficiency in above.	DPC, AR, MR, GR DPC, AR, MR	AE, IE AE, IE
6	Familiarity with special features of diagnosis, interpretation of tests and management of illnesses in a geriatric population.	DPC, AR, MR, GR	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families.	DPC, AR, PC	AE
2.	Communicate effectively with all physician colleagues and other members of the health care team to assure comprehensive and timely care of hospitalized patients.	DPC, AR, MR	AE
3.	Present information concisely and clearly both verbally and in writing on patients.	DPC, AR, MR	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team.	DPC, AR, MR, PC	AE
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care.	DPC, AR, MR, PC	AE
3.	Appreciation of the social context of illness.	DPC, AR, MR, PC	AE
4.	Knowing when and how to request ethics consultation, and how best to utilize the advice provided.	DPC, AR, PC	AE
5.	Understand ethical concepts of confidentiality, consent, autonomy and justice.	PC, DPC, AR	AE
6.	Understand professionalism concepts of integrity, altruism and conflict of interest.	PC, DPC	AE, PDR
7.	Increase self-awareness to identify methods to manage personal and professional sources of stress and burnout.	PC, NC, GR	PDR
8.	Increase knowledge and awareness of personal risks concerning drug/alcohol abuse for self and colleagues, including referral, treatment and follow-up.	PC, NC, GR	PDR

F. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of hospitalized patients.	DPC, AR, CR, MR	AE, IE
2.	Develop and implement strategies for filling gaps in knowledge and skills.	AR, SS, CC	AE, IE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of	DPC, AR, CR, MR, NC, SS	AE, IE

	basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.		
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F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for hospitalized patients	DPC	AE
2.	Collaborate with other members of the health care team to assure comprehensive patient care	DPC	AE
3.	Use evidence-based, cost-conscious strategies in the care of hospitalized patients	DPC, AR, MR, SS	AE
4.	Understand when to ask for help and advice from senior residents and attending physicians	DPC, AR,	AE
5.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services	DPC, AR	AE
6.	Knowing when and how to request medical subspecialist, and how best to utilize the advice provided.	DPC, AR	AE
7.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, MR	AE
8.	PG-2/3/4 – Willingness and ability to teach medical students and PG-1 residents.	DPC, AR, PC	AE
9.	PG-2/3/4 - Leadership of team, including PG-1 residents, medical students, nurses, clinical pharmacists, case manager, and social worker.	AR, PC	AE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

GENERAL INPATIENT PEDIATRIC ROTATION

Residents assigned to the Memorial Hermann Children's Hospital ("MHCH") and the LBJ Hospital ("LBJ") general inpatient rotation work in teams of one senior resident (PGY-3/4), two to four residents (PGY-1/2) and two to three medical students. The senior resident functions as the team leader and is responsible for the daily management of the team and the patients in the team's care. One faculty attending is assigned to each team and participates in direct patient care and as a consultant to the team.

During the PGY-1 year, the general inpatient pediatric rotation is three one-month blocks at MHCH and a three-month block at LBJ in which low risk nursery, outpatient pediatrics and inpatient pediatrics are combined as a primary care rotation. Transitional year, PGY-1 Family Practice and PGY-1 Anesthesia residents may constitute a PGY-1 member of the team. Goals and objectives for PGY-1s apply to all PGY-1s from any service. During the PGY-2 year, residents are assigned a one month general inpatient rotation at MHCH. PGY-3s have one or two months as supervisor of an inpatient pediatric service.

All ward teams care for patients with both general medical and subspecialty problems and surgical problems. Resident teams develop diagnostic and therapeutic management plans in collaboration with the attending physician of record through daily evaluation and discussion. Call is every fourth night, the post-call team leaves the hospital at 1:00 p.m., and there is one day off during the week. There is always one senior resident and one or two PGY-1/2 residents on call. Adherence to the 80-hour work week is mandated.

The inpatient experience at LBJ is gained through a vertically integrated three month block which includes general pediatrics and outpatient pediatrics as well as normal/term newborn. There are two teams at LBJ which are composed of one senior resident and three PGY-1 residents. Each team admits new patients and takes new term infants every other day. PGY-1 residents admit on average two to four new term newborns per day. The senior resident functions as the team leader and is responsible for the daily management of the team and the patients in the team's care. A faculty attending from The University of Texas Medical School at Houston Division of Community and General Pediatrics is assigned to each team and participates in direct patient care and as a consultant to the team.

Patients seen on the general inpatient rotation include patients admitted from University of Texas clinics or the ER, patients referred to faculty physicians, private patients of faculty physicians, and patients of community practitioners who have appointments as volunteer clinical faculty.

Legend for Learning Activities

AR – Attending Rounds	GR – Grand Rounds	NC – Noon Conferences
DPC – Direct Patient Care	JC – Journal Club	PALS – Pediatric
CAT – Critically Appraised Topics	MR – Morning Report	Advanced Life Support
EBM – Evidence-Based Medicine Course	M&M – Morbidity and Mortality Conference	RC – Research Conference
E/C – Ethics/Communication Conferences	MDR – Multidisciplinary Rounds	SS – Senior Seminar
		SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents

AE – Attending Evaluations	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback
PR – Peer Review	

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to PGY-1, PGY-2 and PGY-3/4 residents and the expected competency level demonstrated by the residents should reflect their respective level of experience.

A. Patient Care**GOAL: Continuum of Care**

Manage the continuum of care for children with acute illness/injury from initial presentation (i.e., office, clinic, emergency room) through acute hospital care (including transfer in and out of PICU), discharge, home health services and office follow-up care.

	Principal Educational Objectives – Continuum of Care	Learning Activities	Evaluation Methods
13.	Participate in presentation of acute illness of patient by phone (with attending or referring doctor), in the clinic/office or in the emergency room.	AR, DPC, FS	AE, FS, MR, PDR, DSP (PGY-1)
2.	Review past medical history, family history, immunizations and development.	AR, DPC, FS	AE, FS, MR, PDR, DSP (PGY-1)
3.	Provide acute patient care, diagnosis, stabilization and management of a variety of acute illnesses.	AR, DPC, CAT, FS, GR, JC, MR, NC, SL,	AE, FS, MR, PDR, DSP (PGY-1)
4.	Coordinate subspecialist consults for patients.	AR, DPC, FS, MR	AE, FS, MR, PDR

5.	Participate in (PGY-1) and as an upper-level resident (PGY-3/4) direct decision-making regarding transfer to	AR, DPC, FS, MR	AE, FS, MR, PDR
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	and out of the PICU.		
6.	Interact with the surgical team and manage patients in the pre-operative and post-operative environments.	AR, DPC, FS, MR	AE, FS, MR, PDR
7.	Demonstrate the skills necessary for assessing and managing pain and conscious sedation.	AR, DPC, FS, PALS	AE, FS, MR, PDR, DPS
8.	Communicate with a given family and child the impact of each phase of care on the final health care outcome. Assess the psychosocial impact of illness on the child and family and the financial burden to the family and the health care system.	AR, DPC, E/C, FS	AE, FS, PDR
9.	Provide appropriate discharge planning and follow-up care for patients with chronic illnesses.	AR, DPC, MDR	AE, FS, PDR

GOAL: Common Signs and Symptoms of General Childhood Diseases

Identify and manage common signs and symptoms of childhood illnesses cared for in the inpatient setting.

	Principal Educational Objectives – Common Signs and Symptoms	Learning Activities	Evaluation Methods
1.	Perform a directed history and physical examination including height, weight and FOC percentiles.	AR, DPC, MR, FS	AE, FS, DSP (PGY-1), PDR
2.	Perform an in-depth interview assessing behavioral, psychosocial, environmental and family unit correlates of disease.	AR, DPC, MR, FS	AE, FS, PDR, DSP (PGY-1)
3.	Evaluate and manage the following common signs and symptoms that present in the inpatient setting:	AR, DPC, CAT, GR, JC, MR, NC, SL	AE, FS, PDR
a.	General – failure to thrive, weight loss, fever without localizing signs, constitutional symptoms, and acute life-threatening event (ALTE)		
b.	Cardiovascular – hypotension, hypertension, rhythm disturbance, syncope, heart murmur and shock		
c.	Dermatologic – rashes, petechiae, purpura, ecchymoses, urticaria and edema		
d.	EENT - trauma, conjunctival injection, acute visual changes, edema, epistaxis		
e.	Endocrine – polydipsia, polyuria		
f.	GI/nutrition/fluids – diarrhea, vomiting, dehydration, inadequate intake, dysphagia, regurgitation, abdominal pain, abdominal masses, hematemesis, rectal bleeding, jaundice and ascites		
g.	GU/Renal – hematuria, edema, decreased urine output, scrotal masses and dysuria		
h.	Gynecologic – genital trauma, sexual assault, pelvic pain and abnormal vaginal bleeding		
i.	Hematologic/Oncologic – pallor, abnormal bleeding, lymphadenopathy, hepatosplenomegaly and masses		

j.	Musculoskeletal – bone and soft tissue trauma, limp, arthritis/arthralgia and limb pain		
k.	Neurologic – seizure, headache, delirium, lethargy, weakness, ataxia, coma, head trauma, vertigo and irritability		
l.	Psychiatric/Psychosocial – acute psychosis, suicide attempt, depression, conversion symptoms, child abuse/neglect and eating disorders		
m.	Respiratory – increased work of breathing, cyanosis, apnea, dyspnea, tachypnea, wheezing, stridor, inadequate respiratory effort, cough, hemoptysis, chest pain and respiratory failure		

GOAL: Common Conditions

Recognize and manage common childhood conditions in the inpatient setting.

	Principal Educational Objectives – Common Conditions	Learning Activities	Evaluation Methods
1.	Describe the criteria for admission to inpatient services and transfer to the PICU.	AR, MR	AE, FS, PDR, MR
2.	Develop and implement a plan for the inpatient diagnosis and treatment of common childhood conditions.	AR, MR	AE, FS, PDR, MR
3.	Describe when it is appropriate to refer a patient to a pediatric consultant.	AR, MR	AE, FS, PDR, MR
4.	Describe the criteria for discharge from inpatient services.	AR, MR, MDR	AE, FS, PDR
5.	Develop and implement discharge plans including arrangements for appropriate follow-up care and patient education.	AR, MR, MDR	AE, FS, PDR
	Common Conditions:		
a.	General – failure to thrive, fever of unknown origin and burns		
b.	Allergy/Immunology – acute exacerbation of chronic asthma, acute and significant drug allergies/reactions		
c.	Cardiovascular – congestive heart failure, SVT, arrhythmias, Kawasaki disease and cardiomyopathy		
d.	Endocrine – diabetes (including DKA), electrolyte disturbances secondary to underlying endocrine disease		
e.	GI/Nutritional/Fluids – gastroenteritis, dehydration, electrolyte abnormalities, acidosis, gastroesophageal reflux, pyloric stenosis and liver disease		
f.	GU/Renal – UTI/pyelonephritis, nephrotic syndrome, glomerulonephritis, electrolyte and acid-base disturbances		

g.	Hematology/Oncology – neutropenia, sickle cell crisis and other complications, thrombocytopenia, and common malignancies		
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h.	Infectious Disease – cellulitis, periorbital and orbital cellulitis, cervical adenitis, pneumonia (viral or bacterial), laryngotracheobronchitis, meningitis (bacterial or viral), encephalitis, sepsis/bacteremia (including newborns), osteomyelitis, pelvic inflammatory disease, septic arthritis, shunt or line infection, infections in AIDS patients, and late presentation of congenital infections		
i.	Pharmacology/Toxicology – common drug poisoning or overdose		
j.	Neurology – seizures, severely handicapped children with acute medical conditions, developmental delay, closed head injury and acute neurological conditions		
k.	Respiratory – apnea, airway obstruction, croup, cystic fibrosis, aspiration and chronic lung disease		
l.	Rheumatologic – HSP, SLE		
m.	Surgery – pre- and post-op evaluation of common surgical patients, fractures, tonsillectomy and adenoidectomy		

GOAL: Management and Decision-Making

Develop a logical and appropriate clinical approach to the care of hospitalized children.

	Principal Educational Objectives – Management and Decision-Making	Learning Activities	Evaluation Methods
1.	Utilize principles of decision-making and problem solving skills in the care of hospitalized children.	AR, MR, DPC	AE, FS, PDR
2.	Identify and prioritize patients' medical problems and generate appropriate differential diagnoses.	AR, MR, DPC	AE, FS, PDR

GOAL: Patient Support and Advocacy

Provide sensitive support to patients and families of children with acute illness and arrange for on-going support and/or preventive services at discharge.

	Principal Educational Objectives – Patient Support and Advocacy	Learning Activities	Evaluation Methods
1.	Discuss issues such as growth and nutrition, developmental stimulation and schooling during extended hospitalizations with patients and their families.	AR, MR, DPC, MDR	AE, FS, PDR
2.	Recognize problems and/or risk factors in the child or family even outside the scope of the admission (e.g., immunizations, social risks, developmental delay) and appropriately intervene or refer.	AR, MR, DPC	AE, FS, PDR
3.	Demonstrate the skills necessary for accessing and managing pain and conscious sedation.	AR, MR, DPC, PALS	DSP

4.	Treat families in a non-judgmental, culturally sensitive	AR, MR, DPC,	AE, FS,
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manner.	E/C	PDR
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B. Medical Knowledge

GOAL: Common Signs and Symptoms

Develop a differential diagnosis; formulate an appropriate work-up with diagnostic tests to establish a diagnosis. Develop appropriate treatment plan for the diagnosis.

	Principal Educational Objectives – Common Signs and Symptoms	Learning Activities	Evaluation Methods
1.	Create a differential diagnosis with age appropriate considerations.	MR, AR, DPC	AE, FS, IE, PDR
2.	Discuss indications for hospitalization and formulate a plan for inpatient diagnosis and management.	MR, DPC, AR	AE, FS, IE, PDR
3.	Discuss the pathophysiological basis for the disease or injury.	MR, AR, DPC	AE, FS, IE, PDR
	Common Signs and Symptoms:		
a.	General – failure to thrive, weight loss, fever without localizing signs, and constitutional symptoms		
b.	Cardiovascular – hypotension, hypertension, rhythm disturbance, syncope, heart murmur and shock		
c.	Dermatologic – rashes, petechiae, purpura, ecchymoses, urticaria and edema		
d.	EENT: trauma, conjunctival injection, acute visual changes, edema, epistaxis		
e.	Endocrine – polydipsia, polyuria		
f.	GI/nutrition/fluids – diarrhea, vomiting, dehydration, inadequate intake, dysphagia, regurgitation, abdominal pain, abdominal masses, hematemesis, rectal bleeding, jaundice and ascites		
g.	GU/Renal – hematuria, edema, decreased urine output, scrotal masses and dysuria		
h.	Gynecologic – genital trauma, sexual assault, pelvic pain and abnormal vaginal bleeding		
i.	Hematologic/Oncologic – pallor, abnormal bleeding, lymphadenopathy, hepatosplenomegaly and masses		
j.	Musculoskeletal – bone and soft tissue trauma, limp, arthritis/arthralgia and limb pain		
k.	Neurologic – seizure, headache, delirium, lethargy, weakness, ataxia, coma, head trauma, vertigo and irritability		
l.	Psychiatric/Psychosocial – acute psychosis, suicide attempt, depression, conversion symptoms, child abuse/neglect and eating disorders		
m.	Respiratory – increased work of breathing, cyanosis, apnea, dyspnea, tachypnea, wheezing, stridor, inadequate respiratory effort, cough, hemoptysis, chest		

	pain and respiratory failure		
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GOAL: Diagnostic Testing

Demonstrate knowledge and appropriately use common diagnostic tests in the inpatient setting.

	Principal Educational Objectives – Diagnostic Testing	Learning Activities	Evaluation Methods
1.	Discuss indications for and limitations of standard laboratory tests and imaging studies including principles of sensitivity and specificity.	AR, DPC, MR, CAT	AE, FS, IE, PDR, MR
2.	Demonstrate knowledge of the age-appropriate normal readings of standard laboratory tests and imaging studies.	AR, DPC, MR	AE, FS, IE, PDR, MR
3.	Interpret abnormalities in the context of specific physiologic derangements.	AR, DPC, MR	AE, FS, IE, PDR, MR
4.	Discuss therapeutic options for correction of abnormalities when appropriate.	AR, DPC, MR, CAT	AE, FS, IE, PDR, MR
	Laboratory Tests		
a.	CBC - differential, platelet count, indices		
b.	Blood chemistries – electrolytes, glucose, calcium, and magnesium		
c.	Renal function tests		
d.	Tests of hepatic function and damage		
e.	Serologic tests for infection (e.g., hepatitis, HIV)		
f.	ESR, CRP		
g.	Therapeutic drug concentrations		
h.	Coagulation studies		
i.	Arterial, capillary and venous blood gases		
j.	Cultures for bacterial, viral and fungal pathogens		
k.	Urinalysis		
l.	CSF analysis		
m.	Gram stain		
n.	Stool studies		
o.	Other fluid studies (e.g. pleural fluid, joint fluid)		
	Imaging Studies		

a.	Plain radiographs of the chest, extremities, abdomen, skull and sinuses		
b.	Other techniques such as CT, MRI, angiography, ultrasound, nuclear scans (interpretation not expected) and contrast studies		
c.	Lateral neck x-rays		
	Skin Testing		
a.	PPD/Controls placement and interpretation		
	Other Testing		
a.	Appropriately order/use electrocardiogram and echocardiogram		

GOAL: Monitoring and Therapeutic Modalities

Demonstrate understanding of how to utilize physiologic monitoring and special technology in the general inpatient pediatric setting.

	Principal Educational Objectives – Monitoring and Therapeutic Modalities	Learning Activities	Evaluation Methods
1.	Discuss appropriate monitoring techniques for age and clinical setting, describe the indications and limitations of and interpret the results and measurement of the following monitoring modalities: body temperature, cardiac, respiratory, pulse oximetry, blood pressure, peak flow rates, mental status and food monitoring (intake, output).	DPC, MR, AR, FS	AE, FS, PDR
2.	Participate in the daily care of technologically dependent children and children that require parenteral nutrition, enteral tube feedings and/or respiratory support.	DPC, MR, AR, FS	AE, FS, PDR
3.	Discuss critical issues for the ongoing management of technologically dependent children in the hospital and at home.	DPC, MR, AR, FS	AE, FS, PDR
4.	Demonstrate the skills for assessing and managing pain and conscious sedation.	DPC, MR, AR, FS, PALS	AE, FS, PDR, DSP (PGY-1)
5.	Discuss the appropriate use of the following treatments/techniques: universal precautions, nasogastric tube placement, and administration of nebulized medication	DPC, MR, AR, FS	AE, FS, PDR

C. Practice-Based Learning and Improvement

GOAL: Management and Decision-Making

Utilize a logical and appropriate clinical approach to the care of hospitalized children applying decision-making and problem solving skills.

	Principal Educational Objectives – Management and Decision-Making	Learning Activities	Evaluation Methods
1.	Develop and apply decision-making and problem solving skills in the care of hospitalized children.	AR, MR, FS, CAT, EBM	AE, FS, PDR, MR
2.	Actively seek relevant information for patient care decisions and apply this knowledge appropriately.	AR, MR, FS, CAT, EBM	AE, FS, PDR
3.	Assess quality control and quality improvement processes and utilize results to improve patient care practices.	M&M	AE, FS, PDR
4.	Participate in chart audits as part of the quality assurance process. Utilize this process to improve charting and patient care.	M&M	AE, FS, PDR
5.	Prioritize needs of patients in a logical order.	AR, MR, DPC, FS	AE, FS, PDR

D. Interpersonal Skills and Communication

GOAL: Teamwork and Consultation

Function as part of an interdisciplinary team on a general pediatric ward, as a primary provider (PGY-1) and as a consulting pediatrician (PGY-2/3/4).

	PRINCIPAL EDUCATIONAL OBJECTIVES – TEAMWORK AND CONSULTATION	Learning Activities	Evaluation Methods
1.	Communicate well and work effectively with fellow residents, attendings, consultants, nurses, ancillary staff and referring physicians.	AR, DPC, FS	AE, FS, PDR
2.	Develop and demonstrate skills as a team participant (PGY-1) and leader (PGY-3/4) in the care of pediatric patients.	AR, DPC, FS, MR	AE, FS, PDR
3.	Present information concisely and clearly both verbally and in writing on patients to other members of the health care team.	AR, DPC, FS	AE, FS, PDR
4.	Communicate with the primary care giver in an effective and timely manner. Assist the primary care giver in assuring continuity of care for the patient.	DPC, FS	AE, FS, PDR
5.	Communicate effectively while performing the role of pediatric consultant for hospitalized patients managed by other providers (i.e., family physicians, surgeons, etc.) (PGY-3/4)	DPC, FS	AE, FS, PDR
6.	Know the role of hospital and managed care case managers and work with them to optimize health care outcomes.	DPC, FS, MDR	AE, FS, PDR
7.	Communicate with families in a developmentally, culturally-sensitive manner that provides families/patient with the information they need to understand the illness/injury, participate in the care, give informed consent, and prevent future injury or dysfunction.	DPC, FS, E/C	AE, FS, PDR

8.	Communicate with families in a developmentally,	DPC, FS, E/C	AE, FS, PDR
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	culturally-sensitive manner that provides families/patient with the information they need regarding end of life issues.		
9.	Effectively listen to the concerns of patients and their families and respond with appropriate information and support.	DPC, FS, E/C	AE, FS, PDR
10.	Communicate to a given family and child the impact of each phase of care on the final health care outcome, the psychosocial impact of illness on the child and family, and the financial burden to the family and the health care system.	DPC, FS, E/C, MDR	AE, FS, PDR
11.	Effectively supervise PGY-1's and medical students (PGY-3/4).	DPC, FS, AR, MR	AE, FS, PDR, MR

GOAL: Medical Records

Maintain accurate, timely and legally appropriate medical records in the hospital inpatient setting.

	Principal Educational Objectives – Medical Records	Learning Activities	Evaluation Methods
1.	Write daily notes that clearly document the patient's progress, relevant investigations and treatment plan (PGY-1).	DPC, FS	AE, FS, PDR
2.	Ascertain which patients require more frequent documentation and ensure that this documentation takes place (PGY-1).	DPC, FS	AE, FS, PDR
3.	Prepare appropriate discharge summaries, transfer notes and off-service notes, including written communication with the primary care provider.	DPC, FS	AE, FS, PDR
4.	Review and correct medical student notes (PGY-1s and PGY-3/4s)	DPC, FS	AE, FS, PDR

E. Professionalism

GOAL: Patient Support and Advocacy

Provide sensitive support to patients and families of children with acute and chronic illnesses. Demonstrate accountability for patient care.

	Principal Educational Objectives – Patient Support and Advocacy	Learning Activities	Evaluation Methods
1.	Interact professionally with patients, families, colleagues and all members of the health care team.	AR, MR, DPC, FS	AE, FS, PDR
2.	Accept professional responsibility as the primary care physician for patients under his/her care.	AR, MR, DPC, FS	AE, FS, PDR
3.	Appreciate the social context of illness.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR

4.	Know when and how to request a pediatric specialty consult.	AR, MR, DPC, FS	AE, FS, PDR
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5.	Know when and how to request ethics consultation and how best to utilize the advice provided.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR
6.	Demonstrate sensitivity and awareness in dealing with end of life issues in the hospital setting.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR

GOAL: Professional Conduct

Demonstrate commitment to following ethical and professional principles and to on-going professional development.

	Principal Educational Objectives – Professional Conduct	Learning Activities	Evaluation Methods
1.	Demonstrate knowledge of ethical concepts of confidentiality, consent, autonomy and justice.	AR, MR, DPC, FS, E/C	AE, FS, PDR
2.	Demonstrate knowledge of professionalism concepts such as integrity, altruism and conflict of interest.	AR, MR, FS, DPC, E/C	AE, FS, PDR
3.	Increase self-awareness to identify methods to manage personal and professional sources of stress and burnout.	NC, GR, E/C	AE, FS, PDR
4.	Increase knowledge and awareness of personal risks concerning drug/alcohol abuse for self and colleagues, including referral, treatment and follow-up.	NC, GR, E/C	AE, FS, PDR

F. Systems-Based Practice

GOAL: Teamwork and Consultation

Function as part of an interdisciplinary team on a general pediatric ward, as a primary provider and as a consulting pediatrician.

	Principal Educational Objectives – Teamwork and Consultation	Learning Activities	Evaluation Methods
1.	Discuss the role of the pediatric consultant and provide pediatric consultation to primary care providers and specialists in the inpatient setting (PGY-3/4).	AR, MR, DPC, FS	AE, FS, PDR
2.	Describe the role of hospital and managed care case managers. Work with these case managers to provide optimal health care (PGY-3/4).	AR, MR, DPC, FS, MDR	AE, FS, PDR

GOAL: Patient Support and Advocacy

Provide sensitive support to patients and families of children with acute illness and arrange for on-going support and/or preventive services at discharge.

	Principal Educational Objectives – Patient Support and Advocacy	Learning Activities	Evaluation Methods
1.	Discuss the unique problems in the care of children with multiple problems or chronic illness and serve as an advocate and case manager for these patients.	AR, MR, DPC, FS, MDR	AE, FS, PDR

2.	Discuss the community services available to patients with multiple handicaps.	AR, MR, DPC, FS, MDR	AE, FS, PDR
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GOAL: Financial Issues and Cost Control

Demonstrate knowledge of key aspects of cost control, billing and reimbursement in the hospital inpatient setting.

	Principal Educational Objectives – Financial Issues and Cost Control	Learning Activities	Evaluation Methods
1.	Discuss the common mechanisms of inpatient cost control in managed care settings, including pre-authorization, concurrent review, discharge planning and guidelines.	AR, MR, MDR	AE, FS, PDR
2.	Utilize consultants and other resources appropriately.	AR, MR, MDR	AE, FS, PDR, MR
3.	Demonstrate sensitivity to the financial status of patients; utilize resources appropriately for patients/families needing financial assistance.	AR, MR, MDR	AE, FS, PDR
4.	Discuss the cost of hospitalization and commonly utilized medications, procedures and tests.	AR, MR, MDR	AE, FS, PDR
5.	Discuss common billing codes and documentation procedures.	AR, MR, MDR	AE, FS, PDR

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

LBJ MEDICAL INTENSIVE CARE UNIT

The LBJ Hospital Intensive Care Unit (MICU) is a 16-bed unit shared with CCU and SICU patients specializing in the care of critically ill patients from a wide spectrum of medical and neurologic etiologies. Conditions cared for in the MICU include but are not limited to: acute hypoxia, acute respiratory distress syndrome, acid-base imbalances, liver and renal failure, acute stroke, intracranial hemorrhage, status epilepticus, and coma. MICU rotations are one month in length, and the unit is staffed with three residents and three interns. Call on the rotation is every third night, post-call residents leave the hospital by 1:00pm the next day, and there is one day off during the week. Residents assigned to the MICU are exempt from Morning Report, but are required to attend the Noon Conferences.

The residents work closely with the Pulmonary/Critical Care Attending and Fellow during this rotation, and have the opportunity to learn procedures such as placement of central venous and arterial lines under the direct supervision of the attending or fellow. They may participate in placement of Swan-Ganz catheters.

Patients seen on the LBJ Medical Intensive Care Unit rotation include patients admitted to the MICU, patients transferred from an internal medicine service, patients admitted directly to the MICU from ER, and patients transferred to LBJ MICU from outside hospitals.

Legend for Learning Activities		
AR – Attending Rounds	DrFR – Dr. Fred Rounds	MP – Med-Path Conference
CPC–Clinicopathologic Conf.	EBM-Evidence Based Medicine	MedRad –Med-Rad Conf.
CC-Core Curriculum	FS – Faculty Supervision	MR – Morning Report
DPC – Direct Patient Care	GR – Grand Rounds	NC – Noon Conferences
DSP – Directly Supervised Procedures	IL-Introductory Lecture Series	PathCI-Pathology Clinicians
	MJ – Medical Jeopardy	PC–Professionalism Curriculum
		SS – Senior Seminar

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
MR – Morning Report	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at LBJ Hospital is included near the front of the report for further information.

PG-1 and PG-2/3/4/ (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination.	DPC, AR	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC, AR	AE
3.	Effectively evaluate and manage patients with critical medical illness, including those on mechanical ventilation and vasopressors.	DPC, CC, GR, NC	AE
4.	Effectively evaluate and manage patients with critical neurological illness.	DPC, AR	AE
5.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management for a critically ill patient.	DPC, AR, CC, GR	AE, IE
6.	Insert central venous lines and arterial lines with proper technique.	DPC, DSP, FS	AE, DSP
7.	<i>PG-1</i> - Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, AR, DSP, FS DPC, AR, DSP	AE, DSP AE, DSP
8.	<i>PG -1</i> Ability to perform endotracheal intubation under close supervision. <i>PG -2/3/4</i> – Ability to perform endotracheal intubation independently.	DPC, DSP, FS DPC, DSP	AE, DSP AE
9.	<i>PG-1</i> - Ability to perform basic ventilator management. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, DSP, AR, FS DPC, DSP, AR	AE, DSP AE, DSP
10.	<i>PG-1</i> - Insertion and basic management of pulmonary arterial catheters under close supervision. <i>PG-2/3/4</i> - Proficiency in insertion and management of pulmonary arterial catheters under supervision.	DPC, DSP, AR, FS DPC, DSP, AR, FS	AE, DSP AE, DSP
11.	<i>PG -1</i> - Ability to make basic interpretation of chest and abdominal x-rays and electrocardiograms. <i>PG -2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, AR DPC, AR	AE AE
12.	<i>PG-1</i> - Ability to perform cardiopulmonary resuscitation and advanced cardiac life support. <i>PG-2/3/4</i> - Ability to lead a team during cardiopulmonary resuscitation and advanced cardiac life support.	DPC, DSP, AR, FS DPC, AR	AE, DSP AE

13.	Participation in and later leadership of discussion of end-of-life issues with families.	DPC, AR, PC	AE
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B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of patients with critical medical and neurological illness.	DPC, AR, CC, NC,GR	AE, IE
2.	Access and critically evaluate current medical information and scientific evidence relevant to medical and neurological critical care.	DPC, SS, NC	AE
3.	Understand the physiologic and pathophysiologic principles of invasive hemodynamic monitoring including indications.	DPC, AR	AE
4.	<i>PG-1</i> - Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of severe and life-threatening medical illnesses. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, AR, CC, NC DPC, AR	AE, IE AE, IE
5.	<i>PG-1</i> - Familiarity with the basic principles of ventilator management. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, AR, CC, NC DPC, AR	AE AE
6.	<i>PG-1</i> - Familiarity with the basic principles of pathophysiology, diagnosis and management of respiratory failure. <i>PG-2/3/4</i> – Develop and demonstrate in-depth knowledge of above.	DPC, AR, CC, NC DPC, AR	AE, IE AE, IE
7.	<i>PG-1</i> - Familiarity with the basic principles of pathophysiology, diagnosis and management of sepsis and the syndrome of multiple organ failure. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, CC, NC DPC, AR	AE, IE AE, IE
8.	Familiarity with indications for performance and basic interpretation of blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, microbiologic tests, spirometry and arterial blood gases.	DPC, AR, CC, NC	AE, IE
9.	<i>PG-1</i> - Basic familiarity with indications for and interpretation of chest and abdominal X-ray, electrocardiograms, and pulmonary function tests. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, AR, CC, NC DPC, AR	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families in a stressful critical care environment, including discussion of end-of-life issues and limits of care.	DPC, AR, PC	AE

2.	Communicate effectively with physician colleagues and members of other health care professions to assure timely, comprehensive patient care.	DPC, AR, PC	AE
3.	Communicate effectively with colleagues when signing out DPC, TR patients or turning over care to another service.	DPC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team.	DPC, AR, PC	AE
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care.	DPC, AR, PC	AE
3.	Appreciation of the social context of illness.	DPC, AR, PC	AE
4.	Effective utilization of ethics consultants, including knowing when and how to request consultation, and how best to utilize the advice provided.	DPC, AR, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients with critical medical and neurological illness.	DPC, AR, MR	AE
2.	Develop real-time strategies for filling knowledge gaps that will benefit patients in the medical intensive care unit.	AR, SS, NC	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	AR, SS, NC	AE

G. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for critically ill medical and neurological patients.	DPC, AR	AE
2.	Collaborate with other members of the health care team to assure comprehensive care for patients with critical medical and neurological illness.	DPC, AR	AE

3.	Use evidence-based, cost-conscious strategies in the care of patients with critical medical and neurological illness.	DPC, AR, SS, NC	AE
4.	Knowing when to consult a medical subspecialist.	DPC, AR	AE
5.	Knowing when to ask for help and advice from senior residents and attending physicians.	DPC, AR	AE
6.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC	AE
7.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.	DPC, PC	AE
8.	Effective utilization of medical consultants, including knowing when and how to request consultation, and how best to utilize the advice provided.	DPC, PC	AE
9.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR	AE
10.	<i>PG-2/3/4</i> - Ability to lead team, including PG-1 residents, medical students, nurses, clinical pharmacist, case manager, and social worker.	DPC, PC	AE
11.	<i>PG-2/3/4</i> - Willingness and ability to teach medical students and PG-1 residents.	DPC, PC	AE

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NORMAL NEWBORN ROTATION

Residents are assigned to the Lyndon B. Johnson General Hospital (“LBJ”) and Memorial Hermann Children’s Hospital (“MHCH”) for the normal/term newborn rotation. At both LBJ and MHCH, while on the inpatient team, an PGY-1 resident will spend one two-week period in the well-baby nursery as the primary caregiver. During this time the resident admits 5-12 new infants per day, manages their care until discharge, provides anticipatory guidance to the new parents and arranges for follow-up care. Residents rotating at MHCH take call every fourth night in the Neonatal Intensive Care Unit Level II and residents rotating at LBJ take call every fourth night in the well-baby nursery. Faculty from The University of Texas Medical School at Houston Division of Community and General Pediatrics are assigned to the nursery at LBJ and MHCH and participate in direct patient care and as a consultant. Adherence to the 80-hour work week is mandated.

Legend for Learning Activities		
AR – Attending Rounds	GR – Grand Rounds	NC – Noon
DPC – Direct Patient Care	JC – Journal Club	Conferences
CAT – Critically Appraised Topics	MR – Morning Report	RC – Research Conference
EBM – Evidence-Based Medicine Course	M&M – Morbidity and Mortality Conference	SS – Senior Seminar
E/C – Ethics/Communication Conferences	MDR – Multidisciplinary Rounds	SL – Subspecialty Lectures
	NRP – Neonatal Resuscitation Program	

Legend for Evaluation Methods for Residents	
AE – Attending Evaluations	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback
PR – Peer Review	
NRP – Neonatal Resuscitation Program	

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to PGY-1 residents and the expected competency levels demonstrated by the residents should reflect their respective level of experience.

A. Patient Care

GOAL: Assess a newborn utilizing history, physical examination and routine

screening procedures.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
14.	Obtain and interpret information relevant to newborn health including maternal medical and obstetric history, family history, maternal laboratory tests, and social history.	AR, DPC, FS	AE, FS, MR, PDR, DSP
2.	Perform a neonatal physical examination and identify normal and abnormal findings related to the following: gestational age assessment and growth category (AGA, SGA, LGA), vital signs and measurement, general appearance, neurologic system (symmetry, reflexes, suck, behavioral state, head size and shape, spine), respiratory effort, skin, chest and breasts, heart, lungs, abdomen (including umbilical cord), genitalia, femoral and brachial pulses, hips (Ortolani and Barlow maneuvers), extremities, HEENT (red reflex, intact palate, caput, cephalohematoma), and neck and clavicles.	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
3.	Discuss with parents appropriate timing for newborn exams and why these exams are necessary.	AR, DPC, FS	AE, FS, MR, PDR, DSP

GOAL: Assess, diagnose and appropriately treat or refer newborns that present with the following common signs and symptoms.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Recognize, describe clinical significance and develop a management plan for newborns presenting the following common signs and symptoms:	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
a.	Large birth marks (Mongolian spots, hemangiomas, port wine spots)		
b.	Rashes and markings secondary to birth trauma		
c.	Peripheral and central cyanosis		
d.	High or low temperature		
e.	Tachypnea		
f.	Heart murmur – asymptomatic and symptomatic		
g.	Abdominal distension		
h.	Two vessel umbilical cords		
i.	Abnormal findings on the Barlow or Ortolani		
j.	Swollen breasts		
k.	Vaginal bleeding		

l.	Subconjunctival hemorrhages		
m.	Facial palsy		
n.	Fractured clavicle		
o.	Brachial plexus injury		
p.	Cephalohematoma		
q.	Ear tags, pits		
r.	Polydactyly		
s.	Syndactyly		

GOAL: Recognize and manage normal newborns that present the following common conditions.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Develop and implement a plan for the diagnosis and treatment of the following common childhood conditions:	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
a.	Large and/or small for gestational age babies		
b.	Infant of a diabetic mother		
c.	Infant of a substance abusing mother		
d.	Child with ABO/Rh incompatibility		
e.	Polycythemia		
f.	Premature/postmature infant		
g.	Jitteriness		
h.	Transient metabolic disturbances (hypoglycemia, etc.)		
i.	Delayed urination		
j.	Delayed stooling		
k.	Vomiting feedings		
l.	Poor/delayed suck		
m.	Jaundice		
n.	Infant with pyelectasia on prenatal US		
o.	Dysmorphic infant or infant with known chromosomal abnormality		
p.	Multiple births		

2.	Describe when it is appropriate to refer a patient to a pediatric consultant.	DPC, AR, NC, GR, MR, SL	AE, FS, MR, PDR, DSP
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GOAL: Evaluate and develop a management plan for newborns with common infections.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Identify common perinatal infections.	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
2.	Utilizing history, physical exam and laboratory studies identify newborns at risk for bacterial sepsis	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
3.	Recognize and manage the following:	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
a.	Newborn with signs of sepsis		
b.	Infant born to mother with fever		
c.	Infant born to mother infected or colonized with an important pathogen		
d.	Infant born to mother with prolonged rupture of membranes		

GOAL: Provide comprehensive care in the newborn nursery (Level I).

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Function as a pediatric consultant to other health professionals in the newborn nursery, obstetrical ward, and delivery room for routine, normal pregnancies, deliveries and newborn care.	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
2.	Describe the physiology of neonatal transition after delivery and relate it to the overall management of the newborn in the nursery.	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP
3.	Discuss the reasoning behind the nursery and delivery routines and how these impact the health and well being of families and newborns.	AR, DPC, FS, MR	AE, FS, MR, PDR, DSP

GOAL: Educate, counsel and provide support to the parents and families of newborns.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Communicate effectively with families in a professional, caring manner.	AR, MR, DPC, MDR	AE, FS, PDR
2.	Counsel parents on feeding options and present the associated risks/difficulties.	AR, MR, DPC, MDR	AE, FS, PDR
3.	Provide anticipatory guidance to parents about the following:	AR, MR, DPC, MDR	AE, FS, PDR
a.	Postpartum issues		

b.	Newborn behavior including crying, sleep and wakefulness		
c.	Family adjustment including sibling rivalry		
d.	Injury prevention including car seats, crib safety, water temperature settings, constant supervision of newborn with siblings or pets, and sleep position		
e.	Access to medical services		
4.	Discuss with parents the significance of increasing jaundice, feeding problems or fever in newborns and the rapidity with which they should seek medical care.	AR, MR, DPC, MDR	AE, FS, PDR
5.	Discuss with parents appropriate timing for newborn exams and why these exams are necessary.	AR, MR, DPC, MDR	AE, FS, PDR
6.	Provide written discharge instructions and documentation of immunization (HBV) given.	AR, MR, DPC, MDR	AE, FS, PDR
7.	Discuss the indications, risks and procedures for circumcision in newborns.	AR, MR, DPC, MDR	AE, FS, PDR

B. Medical Knowledge

GOAL: Assess and manage a newborn in the delivery room including resuscitation and stabilization of a critically ill infant.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Take and pass a course in neonatal resuscitation.	NRP	NRP
2.	Describe the normal process of transition from intrauterine to extrauterine life and recognize pathophysiology from normal physiologic response.	AR, DPC, NC	AE, FS, IE, PDR
3.	Assess and manage normal and high-risk newborns following delivery including assigning the one minute, five minute and subsequent Apgar scores, demonstrating how to reduce radiant heat loss, appropriately use medications during neonatal resuscitation, interpret blood and scalp gases, and inspect for signs of major malformations.	AR, DPC, NC	AE, FS, IE, PDR
4.	Describe post-partum assessment/management for high-risk deliveries including:	AR, DPC, NC	AE, FS, IE, PDR
a.	Meconium stained amniotic fluid		
b.	Effects of maternal analgesics/anesthetics on the neonate		
c.	Complicated delivery		
d.	Cardio respiratory depression		
5.	Recognize signs of significant problems in a newborn and formulate a differential diagnosis and management plan (see Patient Care).	AR, DPC, NC	AE, FS, IE, PDR

GOAL: Discuss current standards for newborn screening and clinical tests used in the newborn setting. Appropriately utilize clinical tests as needed in the newborn setting.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe current standards for newborn screening including the following:	AR, DPC, GR, JC, NC, CAT	AE, FS, IE, PDR, MR
a.	National (AAP) recommendations for universal newborn hearing screening.		
b.	Neonatal blood-screening program, diseases screened for, timing and testing procedures.		
c.	Current recommendations for maternal Group B Streptococcus screening and the evaluation of exposed neonates.		
2.	Use and/or interpret the following clinical tests:	AR, DPC, MR, NC, JC	AE, FS, IE, PDR, MR
a.	Physiologic monitoring (HR, RR, pulse oximetry, blood gas, blood pressure measurement)		
b.	Dubowitz exam for gestational age assessment, preterm and term infant growth curves		
c.	CBC, ABO antibodies, blood glucose/glucometer, bilirubin, newborn metabolic screen, and maternal cord blood antibodies		
d.	X-ray of chest and abdomen		
e.	Ultrasound of kidneys/bladder, head, hips and lower spine		
3.	Discuss common assessment tools and studies used by obstetricians to assess normal pregnancies close to term and the labor and delivery process.	AR, DPC, CAT, GR, JC, SL	AE, FS, IE, PDR, MR

C. Practice-Based Learning and Improvement

GOAL: Utilize a logical and appropriate clinical approach to the care of normal newborns applying decision-making and problem-solving skills.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Develop and apply decision-making and problem solving skills in the care of infants in the normal newborn nursery.	AR, MR, FS, CAT, EBM	AE, FS, PDR, MR
2.	Actively seek relevant information for patient care decisions and apply this knowledge appropriately.	AR, MR, FS, CAT, EBM	AE, FS, PDR
3.	Assess quality control and quality improvement processes and utilize results to improve patient care practices.	M&M	AE, FS, PDR
4.	Participate in chart audits as part of the quality assurance process. Utilize this process to improve charting and patient care.	M&M	AE, FS, PDR

5.	Prioritize needs of patients in a logical order.	AR, MR, DPC, FS	AE, FS, PDR
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D. Interpersonal Skills and Communication

GOAL: Function as part of an interdisciplinary team in the newborn nursery as a primary provider.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Communicate effectively with private physicians about patients	AR, DPC, FS	AE, FS, PDR
2.	Communicate with faculty in the NICU regarding sick infants	AR, DPC, FS	AE, FS, PDR
3.	Interact with nursing and other ancillary nursery staff to effectively communicate concerns, orders and other patient care matters.	AR, DPC, FS	AE, FS, PDR
4.	Communicate well and work effectively with fellow residents, attendings, consultants, nurses, ancillary staff and referring physicians.	AR, DPC, FS	AE, FS, PDR
5.	Develop and demonstrate skills as a team participant in the care of normal newborns.	AR, DPC, FS, MR	AE, FS, PDR
6.	Present information concisely and clearly both verbally and in writing on patients to other members of the health care team.	AR, DPC, FS	AE, FS, PDR
7.	Effectively supervise medical students.	AR, DPC, FS	AE, FS, PDR

GOAL: Communicate with families of normal newborns through effective listening, verbal, nonverbal, and explanatory skills.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Communicate effectively with families in a professional, caring manner.	AR, DPC, FS	AE, FS, PDR
2.	Communicate with families in a developmentally, culturally-sensitive manner that provides families/patient with the information they need to understand the illness/injury, participate in the care, give informed consent, and prevent future injury or dysfunction.	AR, DPC, FS, E/C	AE, FS, PDR
3.	Effectively listen to the concerns of patients and their families and respond with appropriate information and support.	AR, DPC, FS, E/C	AE, FS, PDR

E. Professionalism

GOAL: Demonstrate a commitment to following ethical and professional principles and

interact with other members of the health care team in a professional manner.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Maintain confidentiality regarding patients while on rounds and on the wards.	AR, MR, DPC, FS	AE, FS, PDR
2.	Interact professionally with patients, families, colleagues and all members of the health care team.	AR, MR, DPC, FS	AE, FS, PDR
3.	Accept professional responsibility as the primary care physician for patients under his/her care.	AR, MR, DPC, FS	AE, FS, PDR
4.	Appreciate the social context of illness.	AR, MR, DPC, FS, E/C, MDR	AE, FS, PDR
5.	Know when and how to request a pediatric specialty consult.	AR, MR, DPC, FS	AE, FS, PDR
6.	Interact professionally with patients, families, colleagues and all members of the health care team.	AR, MR, DPC, FS	AE, FS, PDR

F. Systems-Based Practice

GOAL: Function as an advocate for quality patient care and inform and assist patients with system complexities.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss community and hospital support systems for new families and mothers who are breast feeding.	AR, MR, DPC, FS, MDR	AE, FS, PDR
2.	Discuss resources available to provide information and assistance with post-partum depression.	AR, MR, DPC, FS, MDR	AE, FS, PDR
3.	Identify, assign a pediatrician and schedule follow-up care for babies being discharged from the nursery.	AR, MR, DPC, FS, MDR	AE, FS, PDR
4.	Describe the process for audiology follow-up care.	AR, MR, DPC, FS, MDR	AE, FS, PDR
5.	Describe the roles of social workers and Children's Protective Services.	AR, MR, DPC, FS, MDR	AE, FS, PDR

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M.D. ANDERSON CANCER CENTER CLINICS

The M.D. Anderson Cancer Center Clinics is a month long rotation for three interns. Patients in lymphoma, leukemia, thoracic, breast, gastrointestinal, melanoma, sarcoma, genitourinary and palliative care clinics, as well as in the the emergency center at M.D. Anderson, are seen by residents, who are supervised on a one-on-one basis by full-time oncology M.D. Anderson faculty. The rotation has a Monday through Friday schedule, with call being taken one of five nights. Residents take all weekends off unless they are on call, which is an average of two weekend days per month. The residents do not take admissions during call, however they cover patients on the solid tumor floors. Residents attend conferences at M.D. Anderson except for Core Curriculum conference, which they are required to attend at Memorial Hermann Hospital.

Legend for Learning Activities	
MC – Morning Conference	DSP – Directly Supervised Procedures
TTC – Tuesday /Thursday Conferences	CC – Core Curriculum (Hermann)
WC – Wednesday Conference	AR – Attending Rounds
DPC – Direct Patient Care	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
PDR–Program Director’s Review (twice annually)	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at M.D. Anderson Cancer Center is included in the front of the report for further information.

PG-1 (Goals are for intern level only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
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15.	Ability to take a complete medical history and perform a careful and accurate physical examination	DPC, MC, NC, TTC, WC	AE
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	of cancer patients in the ambulatory setting.		
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes of cancer patients.	DPC, MC, NC, TTC, WC	AE, IE
3.	Define and prioritize patients' medical problems and generate appropriate differential diagnoses.	DPC, MC, NC, TTC, WC	AE, IE
4.	Ability to make appropriate diagnostic and treatment plans for patients with newly diagnosed cancer.	DPC, MC, NC, TTC, WC	AE, IE
5.	Ability to make basic interpretation of imaging studies, including X-rays of chest and abdomen; CT scans of brain, chest, abdomen and pelvis.	DPC, MC, NC, TTC, WC	AE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand basic pathophysiology, clinical manifestations, diagnosis and management of common types of cancer as seen in the ambulatory setting.	DPC, MC, NC, TTC, WC	AE, IE
2.	Familiarity with the basic principles of medical care of patients with cancer.	DPC, MC, NC, TTC, WC	AE, IE
3.	Familiarity with the basic principles of initial evaluation and treatment planning for patients with newly discovered cancer as seen in the ambulatory setting.	DPC, MC, NC, TTC, WC	AE, IE
4.	Familiarity with the basic principles of action and major side effects of chemotherapeutic drugs.	DPC, MC, NC, TTC, WC	AE, IE
5.	Familiarity with the basic principles of evaluation and staging of cancer, and determination of prognosis.	DPC, MC, NC, TTC, WC	AE, IE
6.	Basic familiarity with indications for and interpretation of chest and abdominal X-rays, CT scans of brain, chest, abdomen and pelvis, and electrocardiograms.	DPC, MC, NC, TTC, WC	AE, IE
7.	Learn indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests.	DPC, MC, NC, TTC, WC	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with cancer patients and their families.	DPC, MC, NC, TTC, WC	AE
2.	Communicate effectively with physician colleagues at all levels.	DPC, MC, NC, TTC, WC	AE
3.	Present information on patients concisely and clearly both verbally and in writing.	DPC, MC, NC, TTC, WC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team.	DPC, MC, NC, TTC, WC	AE
2.	Appreciation of the social context of illness.	DPC, MC, NC, TTC, WC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Develop and implement strategies for filling gaps in knowledge and skills.	DPC, MC, NC, TTC, WC	AE, IE
2.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, MC, NC, TTC, WC	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Effective professional collaboration with residents, fellows and faculty consultants from other disciplines such as Radiology and Surgery.	DPC, MC, NC, TTC, WC	AE
2.	Effective collaboration with other members of the health care team, including nurses, social workers, case managers, and clinical pharmacists.	DPC, MC, NC, TTC, WC	AE
3.	Knowing when and how to request medical consultation, and how best to utilize the advice provided.	DPC, MC, NC, TTC, WC	AE
4.	Knowing when and how to request ethics consultation, and how best to utilize the advice provided.	DPC, MC, NC, TTC, WC	AE
5.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, MC, NC, TTC, WC	AE
6.	Learning by participation in teaching conferences and other educational activities.	DPC, MC, NC, TTC, WC	AE

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**M.D. ANDERSON CANCER CENTER GENERAL MEDICINE
CONSULTATION SERVICE**

The M.D. Anderson Cancer Center General Medicine Consultation Service is a month long rotation for one upper level resident. Residents treat inpatients at M.D. Anderson Cancer Center on this service, and are supervised on a one-to-one basis by full-time general medicine M.D. Anderson faculty. Call is once every five days, and there is one day off during the week. The resident on this rotation usually rounds one of the two weekend days and has a weekday off. The resident attends conferences at M. D. Anderson except for Core Curriculum conference, which they are required to attend at Memorial Hermann Hospital.

Legend for Learning Activities	
MC – Morning Conference	DSP – Directly Supervised Procedures
TTC – Tuesday/Thursday Conferences	CC – Core Curriculum (Hermann)
WC – Wednesday Conference	AR – Attending Rounds
DPC – Direct Patient Care	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PR – Peer Review
IE – In-service Exam	SPE – Standardized patient evaluation
PDR–Program Director’s Review (twice annually)	

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at M.D. Anderson Cancer Center is included in the front of the report for further information.

PG-2/3/4 – (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Ability to take a complete medical history and perform a careful and accurate physical examination of inpatients in a cancer hospital setting.	DPC, MC, TTC, WC, AR	AE
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2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC, MC, TTC, WC, AR	AE, IE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management.	DPC, MC, TTC, WC, AR	AE, IE
4.	Ability to write concise, accurate, informative and helpful consultation notes, clearly outlining the recommendations and explaining their rationale.	DPC, MC, TTC, WC, AR	AE, IE
5.	Ability to interpret chest and abdominal x-rays, and electrocardiograms.	DPC, MC, TTC, WC, AR	AE, IE
6.	Ability to counsel cancer patients and surgeon regarding medical risks of surgery.	DPC, MC, TTC, WC, AR	AE, IE
7.	Ability to diagnose and treat important medical complications of surgery in patients with cancer.	DPC, MC, TTC, WC, AR	AE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of medical illnesses on a cancer ward seen by a consultant in general internal medicine.	DPC, MC, TTC, WC, AR	AE, IE
2.	Familiarity with principles of assessment of surgical risk.	DPC, MC, TTC, WC, AR	AE, IE
3.	Understanding the pathophysiology, clinical manifestations, diagnosis and management of important medical complications of surgery.	DPC, MC, TTC, WC, AR	AE, IE
4.	Familiarity with indications for and interpretation of chest and abdominal X-ray, electrocardiograms, and pulmonary function tests.	DPC, MC, TTC, WC, AR	AE, IE
5.	Basic familiarity with the principles of action and major side effects of chemotherapeutic drugs.	DPC, MC, TTC, WC, AR	AE, IE
6.	Familiarity with pathophysiology, clinical manifestations, diagnosis and management of medical complications of cancer and its treatment, including infection and neutropenia, as well as cardiovascular, metabolic, renal and neurological problems.	DPC, MC, TTC, WC, AR	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate sensitively and effectively with cancer patients with medical illness and those patients being assessed for pre-operative medical risk, as well as communicating effectively with these patient's families.	DPC, MC, TTC, WC, AR	AE, SPE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, MC, TTC, WC, AR	AE
2.	Appreciation of the social context of illness.	DPC, MC, TTC, WC, AR	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of cancer patients with medical illness and patients being assessed for preoperative medical risk.	DPC, MC, TTC, WC, AR	AE, IE
2.	Develop evidence-based strategies for filling gaps in personal knowledge and skills in the care of cancer patients with medical illness and patients being assessed for pre-operative medical risk.	DPC, MC, TTC, WC, AR	AE, IE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, MC, TTC, WC, AR	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation METHODS
1.	Work with the service requesting the consultation to assure that care for the patient's medical needs is properly coordinated with care being delivered by the primary service.	DPC, MC, TTC, WC, AR	AE
2.	Learning by participation in ward rounds, teaching conferences and other educational activities	DPC, MC, TTC, WC, AR	AE
3.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the situation.	DPC, MC, TTC, WC, AR	AE
4.	Effective professional collaboration with residents, fellows and faculty consultants from other disciplines such as Radiology and Surgery.	DPC, MC, TTC, WC, AR	AE
5.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, MC, TTC, WC, AR	AE

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

**ST. LUKE’S EPISCOPAL HOSPITAL
CARDIOLOGY SERVICE**

The St. Luke’s Episcopal Hospital Cardiology Service is a month long rotation for one intern. The intern works with a group of cardiologists, and cares for inpatients of private physicians who are selected to be on the voluntary teaching faculty at St. Luke’s Hospital. Call is approximately once every fifth night, and there is one day off during the week. The intern attends noon conferences at St. Luke’s except for Core Curriculum conference, which they are required to attend at Memorial Hermann Hospital.

Legend for Learning Activities	
DPC – Direct Patient Care	NC – Noon Conferences
DSP – Directly Supervised Procedures	SMR – Saturday Morning Report
MR – Morning Report	TR – Teaching Rounds
CC - Core Curriculum Conf at MHH	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at St. Luke’s Episcopal Hospital is included in the front of the report for further information.

PG-1 (Goals are for intern level only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Take a complete medical history and perform a careful and accurate physical examination with a cardiology focus.	DPC, TR, MR	AE
2.	Write concise, accurate and informative histories, physical examinations and progress notes with a cardiology focus.	DPC, TR	AE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management for patients with cardiac illness.	DPC, TR, MR	AE, IE

4.	Ability to interpret electrocardiograms and rhythm strips, chest and abdominal x-rays.	DPC, TR	AE, IE
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5.	Ability to recognize major abnormalities of cardiac stress tests, cardiac ECHO and coronary angiograms.	DPC, TR, MR	AE, IE
6.	Ability to recognize the physical findings of chronic congestive heart failure, acute pulmonary edema, mitral regurgitation, mitral stenosis, aortic stenosis, aortic regurgitation and tricuspid regurgitation.	DPC, TR, MR	AE, IE
7.	Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation.	DPC, TR, DSP	AE, IE
8.	Willingness and ability to help patients undertake basic strategies for prevention of cardiovascular disease, including modifications of diet and physical activity, and cessation of use of tobacco.	DPC, TR, MR	AE, IE
9.	Participation in discussion of end-of-life issues with families.	DPC, TR	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of cardiac diseases, as seen on an inpatient specialty service.	DPC, TR, MR	AE, IE
2.	Familiarity with the diagnosis and management of essential hypertension; ischemic heart disease, including unstable angina pectoris and myocardial infarction; congestive heart failure; common cardiac arrhythmias, especially atrial fibrillation, supraventricular tachycardia, and ventricular arrhythmias; common rheumatic heart diseases; common congenital heart diseases.	DPC, TR, MR	AE, IE
3.	Basic familiarity with the indications for, principles, complications, and elementary interpretation of ECG, inpatient and ambulatory rhythm monitoring, exercise and chemical stress tests, electrophysiologic studies, transthoracic and transesophageal cardiac ECHO, nuclear cardiac imaging, right and left ventricular catheterization, coronary angiography, and percutaneous angioplasty.	DPC, TR, MR	AE, IE
4.	Familiarity with basic principles of assessment of lifetime cardiovascular risk, and cardiovascular risk prevention.	DPC, TR, MR	AE, IE
5.	Familiarity with strategies for cessation of use of tobacco.	DPC, TR, MR	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Communicate sensitively and effectively with inpatients with cardiac problems and their families.	DPC, TR	AE
2.	Communicate effectively with physician colleagues and members of other health care professions to assure timely, comprehensive patient care.	DPC, TR	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward towards patients, families, colleagues, and all members of the health care team.	DPC, TR, MR	AE
2.	Appreciation of the social context of illness.	DPC, TR	AE
3.	Effective utilization of ethics consultants, including knowing when and how to request consultation, and how best to utilize the advice provided.	DPC, TR	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of hospitalized patients with cardiac problems.	DPC, TR, MR	AE, IE
2.	Develop evidence-strategies strategies for filling gaps in personal knowledge and skills in the care of hospitalized patients with cardiac problems.	DPC, TR	AE, IE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, TR, MR	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, TR	AE
2.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, TR	AE
3.	Knowing when to consult or refer a patient to a cardiologist.	DPC, TR	AE
4.	Knowing when to ask for help and advice from senior residents and attending physicians	DPC, TR	AE

5.	Willingness and ability to help the requesting physician in a consultative or co-management capacity, according to the needs of the situation.	DPC, TR	AE

**The University of Texas-Houston Health Science Center
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**ST. LUKE’S EPISCOPAL HOSPITAL
GENERAL MEDICINE SERVICE**

The St. Luke’s Episcopal Hospital General Medicine Service rotation is a month long rotation for five interns. The inpatients seen at St. Luke’s are patients of private physicians who are selected to be on the voluntary teaching faculty at St. Luke’s. The interns are supervised by the attending physician on an individual basis. There is call approximately every fifth night, and there is one day off during the week. The interns attend noon conferences at St. Luke’s except for Core Curriculum conference, which they are required to attend at Memorial Hermann Hospital.

Legend for Learning Activities	
DPC – Direct Patient Care	NC – Noon Conferences
DSP – Directly Supervised Procedures	SMR – Saturday Morning Report
MR – Morning Report	TR – Teaching Rounds
CC - Core Curriculum Conf at MHH	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at St. Luke’s Episcopal Hospital is included in the front of the report for further information.

PG-1 (Goals are for intern level only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination.	DPC, TR, MR	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC, TR, MR	AE, IE
3.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management.	DPC, TR, MR	AE, IE
4.	Ability to make basic interpretation of chest and abdominal x-rays, and electrocardiograms.	DPC, TR, MR	AE, IE

5.	Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines,	DPC, TR, MR DSP	AE, IE
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	lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation.		
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B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of medical illnesses seen on a general medicine inpatient service.	DPC, TR, MR	AE, IE
2.	Familiarity with indications for and interpretation of chest and abdominal X-rays, electrocardiograms, and pulmonary function tests.	DPC, TR, MR	AE, IE
3.	Familiarity with indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests.	DPC, TR, MR	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate sensitively and effectively with patients on general medicine inpatient services and their families.	DPC, TR	AE
2.	Communicate effectively with physician colleagues and members of the other health care professionals to assure timely, comprehensive patient care.	DPC, TR, MR	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, TR, MR	AE
2.	Appreciation of the social context of illness.	DPC, TR, MR	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of hospitalized patients.	DPC, TR, MR	AE
2.	Develop evidence-based strategies for filling gaps in personal knowledge and skills in the care of hospitalized patients.	DPC, TR, MR, NC	AE

3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of	DPC, TR, MR, NC	AE
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	basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.		
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F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation METHODS
1.	Understand and utilize the multidisciplinary resources necessary to care for optimally for hospitalized patients.	DPC, TR, MR	AE
2.	Knowing when to consult or refer a patient to a medical subspecialist.	DPC, TR, MR	AE
3.	Knowing when to ask for help and advice from senior residents and attending physicians.	DPC, TR, MR	AE
4.	Effective utilization of medical consultants, including knowing when and how to request consultation, and how best to utilize the advice provided.	DPC, TR, MR	AE
5.	Learning by participation in ward rounds, teaching conferences and other educational activities	DPC, TR, MR	AE
6.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.	DPC, TR, MR	AE
7.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, TR, MR	AE

**The University of Texas-Houston Health Science Center
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**ST. LUKE’S EPISCOPAL HOSPITAL
HEPATOLOGY SERVICE**

The St. Luke’s Episcopal Hospital Hepatology Service rotation is a month long rotation for one intern. The intern is supervised by the attending physician on an individual basis. Patients seen on this service include private inpatients of attendings on the hepatology service, transplant patients admitted to the service, and general patients with hepatology problems. Call is approximately every fifth night and there is one day off each week. The intern attends noon conferences at St. Luke’s except for Core Curriculum conference, which they are required to attend at Memorial Hermann Hospital.

Legend for Learning Activities	
DPC – Direct Patient Care	NC – Noon Conferences
DSP – Directly Supervised Procedures	SMR – Saturday Morning Report
MR – Morning Report	TR – Teaching Rounds
CC - Core Curriculum Conf at MHH	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at St. Luke’s Episcopal Hospital is included in the front of the report for further information.

PG-1 (Goals are for intern level only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
16.	Ability to take a complete medical history and perform a careful and accurate physical examination with a hepatology focus.	DPC, TR, MR	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a hepatology focus.	DPC, TR, MR	AE, IE
3.	Define and prioritize patients’ medical problems and generate appropriate differential diagnoses.	DPC, TR, MR	AE, IE
4.	Develop rational, evidence-based management strategies.	DPC, TR, MR	AE, IE

5.	Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines,	DPC, TR, MR, DSP	AE, IE
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	abdominal paracentesis, and nasogastric intubation.		
6.	Ability to make basic interpretation of chest and abdominal x-rays, and specialized imaging studies including abdominal CT scan, abdominal and biliary ultrasound, nuclear imaging of biliary tract and ERCP.	DPC, TR, MR	AE, IE
7.	Participation in discussions of end-of-life issues with families.	DPC, TR, MR	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of patients with hepatology problems.	DPC, TR, MR, NC	AE, IE
2.	Access and critically evaluate current medical information and scientific evidence relevant to patient care.	DPC, TR, MR, NC	AE, IE
3.	Understand basic pathophysiology, clinical manifestations, diagnosis and management of disorders of the liver and biliary tract, as seen on an inpatient specialty service.	DPC, TR, MR, NC, GR	AE, IE
4.	Learn indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests.	DPC, TR, MR, NC, GR	AE, IE
5.	Basic familiarity with indications for performance and interpretation of specialized tests, including coagulation studies, liver function tests and analyses of ascitic fluid.	DPC, TR, MR, NC, GR, DSP	AE, IE
6.	Basic familiarity with indications for performance, complications, and interpretation of specialized imaging studies, including abdominal CT scan, abdominal and biliary ultrasound, nuclear imaging of biliary tract and ERCP.	DPC, TR, MR, NC, GR, DSP	AE, IE
7.	Basic familiarity with indications for performance, complications and interpretation of liver biopsies.	DPC, TR, MR, NC, DSP	AE, IE
8.	Basic familiarity with indications for and complications of liver transplant.	DPC, TR, MR, NC	AE, IE

C. Interpersonal Skills and Communication

	<u>PRINCIPAL EDUCATIONAL GOALS</u>	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families.	DPC, TR	AE
2.	Communicate effectively with physician colleagues at all levels.	DPC, TR	AE

3.	Communicate effectively with all non-physician	DPC, TR	
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	members of the health care team to assure comprehensive and timely care of hospitalized patients.		AE
4.	Present information on hepatology patients concisely and clearly both verbally and in writing.	DPC, TR	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally towards patients, families, colleagues, and all members of the health care team.	DPC, TR	AE
2.	Appreciation of the social context of illness.	DPC, TR	AE
3.	Understand ethical issues involved with hepatic transplantation.	DPC, TR	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of hospitalized patients.	DPC, TR, MR, NC	AE, IE
2.	Develop and implement strategies for filling gaps in knowledge and skills.	DPC, TR, MR, NC	AE, IE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, TR, MR, NC	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for hospitalized patients.	DPC, TR, MR	AE
2.	Use evidence-based, cost-conscious strategies in the care of hospitalized patients.	DPC, TR, MR	AE
3.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, TR, MR	AE

4.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists,	DPC, TR, MR	AE
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	respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.		
6.	Knowing when and how to request medical consultation, and how best to utilize the advice provided.	DPC, TR, MR	AE
7.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, MR	AE

**The University of Texas-Houston Health Science Center
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**ST. LUKE’S EPISCOPAL HOSPITAL
NEPHROLOGY SERVICE**

The St. Luke’s Episcopal Hospital Nephrology Service is a month long rotation for one intern and one upper level resident. Patients seen include inpatients who are patients of private physicians who are selected to be on the voluntary teaching faculty at St. Luke’s. Residents are supervised by the attending physician on an individual basis. The residents take call approximately every fifth night, and there is one day off a week. The intern attends noon conferences at St. Luke’s except for Core Curriculum conference, which they are required to attend at Memorial Hermann Hospital.

Legend for Learning Activities	
DPC – Direct Patient Care	NC – Noon Conferences
DSP – Directly Supervised Procedures	SMR – Saturday Morning Report
MR – Morning Report	TR – Teaching Rounds
CC - Core Curriculum Conf at MHH	

Legend for Evaluation Methods for Residents	
AE - Attending Evaluations	PDR–Program Director’s Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at St. Luke’s Episcopal Hospital is included in the front of the report for further information.

PG-1 and PG-2/3/4 (Goals are for all levels unless indicated)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
17.	Ability to take a complete medical history and perform a careful and accurate physical examination with a nephrology focus.	DPC, TR, MR	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a nephrology focus.	DPC, TR, MR	AE, IE
3.	Define and prioritize patients’ medical problems and generate appropriate differential diagnoses.	DPC, TR, MR	AE, IE

4.	Develop rational, evidence-based management strategies.	DPC, TR, MR	AE, IE
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5.	<i>PG-1</i> - Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, TR, MR, DSP DPC, TR, MR	AE, IE AE, IE
6.	<i>PG-2/3/4</i> – Ability to perform advanced procedures: endotracheal intubation.	DPC, TR, MR	AE, IE
7.	Participation and later leadership of discussions of end-of-life issues with families.	DPC, TR, MR	AE, IE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	<i>PG-1</i> - Understanding the basic elements of pathophysiology, diagnosis and management of important renal diseases, including those caused by hypertension, immune mechanisms, diabetes, infection, drug toxicity, nephrotic syndrome, disorders of tubular function and urinary obstruction. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, TR, MR DPC, TR, MR	AE, IE AE, IE
2.	<i>PG-1</i> - Familiarity with evaluation and basic management of patients with chronic and acute renal failure. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, TR, MR DPC, TR, MR	AE, IE AE, IE
3.	Familiarity with the cardiovascular, metabolic, infectious, skeletal, endocrine, immunologic, hematologic and gastrointestinal complications of chronic renal failure.	DPC, TR, MR	AE, IE
4.	<i>PG-1</i> - Familiarity with indications for performance and basic interpretation of specialized tests of renal function. <i>PG-2/3/4</i> - Develop and demonstrate in-depth knowledge of above.	DPC, TR, MR DPC, TR, MR	AE, IE AE, IE
5.	<i>PG-1</i> - Basic familiarity with the indications, principles and important medical complications of hemodialysis, peritoneal dialysis and renal transplantation. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, TR, MR DPC, TR, MR	AE, IE AE, IE
6.	<i>PG-1</i> - Recognize the indications of basic interpretation of chest and abdominal X-rays, electrocardiograms, and pulmonary function tests. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, TR, MR DPC, TR, MR	AE, IE AE, IE

7.	<i>PG-1</i> Learn indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, and microbiologic tests. <i>PG-2/3/4</i> - Develop and demonstrate proficiency in above.	DPC, TR, MR	AE, IE
		DPC, TR, MR	AE, IE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families	DPC, TR	AE
2.	Communicate effectively with physician colleagues at all levels	DPC, TR, MR	AE
3.	Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of hospitalized patients.	DPC	AE
4.	Present information on nephrology patients concisely and clearly both verbally and in writing.	DPC, TR, MR	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally with patients, families, colleagues, and all members of the health care team.	DPC, TR, MR	AE
2.	Appreciation of the social context of illness.	DPC, TR, MR	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of hospitalized patients.	DPC, TR, MR	AE, IE
2.	Develop and implement strategies for filling gaps in knowledge and skills.	DPC, TR, MR, NC	AE, IE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, TR, MR, NC	AE, IE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for hospitalized patients.	DPC, TR, MR	AE
2.	Collaborate with other members of the health care team to assure comprehensive patient care.	DPC, TR, MR	AE, PR
3.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, TR, MR	AE
4.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, enterostomy nurses, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.	DPC, TR, MR	AE
5.	Knowing when and how to request medical consultation, and how best to utilize the advice provided.	DPC, TR, MR	AE
6.	Knowing when and how to request ethics consultation, and how best to utilize the advice provided.	DPC, TR, MR	AE
7.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, TR, MR	AE
8.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC, TR, MR	AE
9.	PG-2/3/4 - Willingness and ability to teach medical students and PG-1 residents.	DPC, TR, MR	AE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

MEMORIAL HERMANN and LBJ ANESTHESIOLOGY ELECTIVE

The Memorial Hermann and LBJ Anesthesiology Elective is one month long rotation for a second or third year resident. The main goal of the elective is for the upper level medicine resident to become proficient at handling an adult and pediatric airway, and handling vascular procedures. Residents enrolling in this elective have various personal goals, and therefore the elective has varied goals developed according to the specific requests of the individual resident. If a resident wants to rotate through obstetrics or concentrate on pediatrics, adults, or neonates, the Anesthesiology Department accommodates the resident as much as possible.

The resident usually rotates at Memorial Hermann, but an elective can be organized at LBJ if that is preferred. The resident is assigned to an upper level resident for the month with faculty supervision and teaching on every case. They are not asked to work weekends. The residents are expected to take call at least once during the month; a night on call in the operating room at Memorial Hermann provides many learning opportunities and experiences. Residents taking this elective are required to attend Anesthesiology Grand Rounds weekly, and welcome to attend Anesthesiology residents' lectures given Tuesdays, Wednesdays and Thursdays at 6:30 am.

Legend for Learning Activities

ACS – Ambulatory Care Series	DPC – Direct Patient Care Procedures	M&M-Morbidity & Mortality
AR – Attending Rounds	FS – Faculty Supervision	MR – Morning Report
Au – Autopsy Report	GR – Grand Rounds	NC – Noon Conferences
CR – Chairman's Rounds	IL-Introductory Lecture Series	PC – Professionalism Curriculum
CPC–Clinicopathologic Conf.	JC – Journal Club	RC – Research Conference
CC-Core Curriculum	MJ – Medical Jeopardy	SS – Senior Seminar
		SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	MR – Morning Report
DSP – Directly Supervised Procedures	PDR–Program Director's Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history with an anesthesiology focus.	DPC, FS	AE
2.	Ability to write concise, accurate and informative histories and progress notes with an anesthesiology focus.	DPC, FS	AE
3.	Begin development of skill in basic and fundamental aspects of anesthetic management in both the operating room and outpatient setting.	DPC, FS, SL	AE
4.	Develop skill in starting IVs, and possibly central lines and arterial lines, etc.	DPC, FS, SL	AE
5.	Develop skill in managing an adult and pediatric airway (mask, ventilate, intubate), using techniques of proper ventilation and intubation in both the controlled and emergent setting.	DPC, FS, SL	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Learn basics about anesthetic pharmacology (induction agents, muscle relaxants, narcotics, amnestics and anxiolytics), and how to monitor patients hemodynamically while under a general, regional or MAC anesthetic, and how to wake the patient up after a surgical procedure is finished.	DPC, FS, SL	AE
2.	Ability to manage an airway (mask, ventilate, intubate) in a controlled or emergent situation in one's practice.	DPC, FS, SL	AE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	
1.	Communicate effectively with patients and families.	DPC, FS, PC	AE
2.	Communicate effectively with physician colleagues at all levels.	DPC, FS, PC	AE
3.	Present information on patients concisely and clearly both verbally and in writing.	DPC, FS, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, FS, PC	AE
2.	Appreciation of the social context of illness.	DPC, FS, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients regarding anesthesiology.	DPC, FS, SL	AE
2.	Develop and implement strategies for filling gaps in knowledge and skills in the area of anesthesiology.	DPC, FS, SL	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, FS, SL	AE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, FS	AE
2.	Collaborate effectively with all members of the health care team including all attending physicians, residents, fellows, students, and operating room personnel.	DPC, PC	AE
3.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, FS, SL	AE

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

MEMORIAL HERMANN and LBJ DERMATOLOGY ELECTIVE

The Memorial Hermann and LBJ Dermatology Elective is a month long rotation for a second or third year resident. The elective includes a variety of experiences including eight half-days per week attending outpatient clinics, with additional time being spent doing inpatient consultations. The service is run by a Dermatology attending. A broad exposure to medical and surgical dermatology, as well as dermatopathology, is made possible by attending the following clinics on a rotational basis: Medical School private outpatient clinic, LBJ clinic, San Jose clinic, M.D.Anderson clinic, and the option of additional time in the private offices of several dermatologists. The main emphasis of this rotation is on observing and diagnosing the hundreds of different lesions and rashes that come through the clinics. There is no night call or weekend duty associated with this elective.

Legend for Learning Activities

ACS – Ambulatory Care Series	DPC – Direct Patient Care	M&M-Morbidity & Mortality
AR – Attending Rounds	DSP – Directly Supervised Procedures	MR – Morning Report
Au – Autopsy Report	FS – Faculty Supervision	NC – Noon Conferences PC– Professionalism Curriculum RC – Research Conference
CR – Chairman’s Rounds	GR – Grand Rounds	SS – Senior Seminar
CPC–Clinicopathologic Conf.	IL-Introductory Lecture Series	SL – Subspecialty Lectures
CC-Core Curriculum	JC – Journal Club	
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	MR – Morning Report
DSP – Directly Supervised Procedures	PDR–Program Director’s Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination with an dermatology focus.	DPC, AR, SL	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with a dermatology focus.	DPC, AR, SL	AE
3.	Observe and diagnose a variety of different lesions and rashes that present in the clinics and treat them.	DPC, AR, FS, SL	AE
4.	Observe these procedures: skin biopsy, Tzanck smear, KOH preparation, and excisional surgery.	DPC, AR, FS, SL	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand basic pathophysiology, clinical manifestations, diagnosis and management of skin illnesses seen by a dermatologist in the ambulatory and hospital setting.	DPC, AR, FS, SL	AE
2.	Understand the approach for evaluating skin lesions.	DPC, AR, FS, SL	AE
3.	Understand lesions and rashes and the various treatment options available.	DPC, AR, FS, SL	AE
4.	Develop a basic and broad understanding of both medical and surgical dermatology, and dermopathology.	DPC, AR, FS, SL	AE

C. Interpersonal Skills and Communication

	<u>PRINCIPAL EDUCATIONAL GOALS</u>	Learning Activities	
1.	Communicate effectively with patients and families.	DPC, AR, PC	AE

2.	Communicate effectively with physician colleagues at all levels.	DPC, AR, PC	AE
3.	Present information on patients concisely and clearly both verbally and in writing.	DPC, AR, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, AR, PC	AE
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care	DPC, AR, PC	AE
3.	Appreciation of the social context of illness.	DPC, AR, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients with dermatology problems.	DPC, AR, FS, SL	AE
2.	Develop and implement strategies for filling gaps in knowledge and skills in the area of dermatology.	DPC, AR, FS, SL	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, AR, FS, SL	AE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, AR, FS	AE
2.	Collaborate effectively with all members of the health care team including residents at all levels, medical students, nurses, clinical pharmacists, etc.	DPC, AR, PC	AE
3.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, AR, FS, SL	AE

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MEMORIAL HERMANN ECHOCARDIOGRAPHY ELECTIVE

The Memorial Hermann Echocardiography Elective is a month-long rotation for second or third year residents, during which time the resident receives training in echocardiography. Along with cardiology fellows, the resident will have an opportunity to perform and interpret transthoracic echocardiograms. In addition, the resident will be able to observe transesophageal and stress echocardiograms performed by the cardiology fellow under the direct supervision of a designated ECHO faculty member. Patients seen on the Memorial Hermann Hospital ECHO rotation include patients of faculty physicians, unassigned patients admitted from the clinics or ER, and patients of community physicians.

The echocardiography laboratory at Memorial Hermann Hospital has a volume of around 7,000-8,000 studies per year including between 600-700 transesophageal echos and around 200 stress studies. The most frequent indications are the investigation for aortic or cardiac source of embolism, valvular disease assessment, left ventricular function, pericardial disease, infectious endocarditis, aortic dissection, cardiomyopathies and complications of acute myocardial infarction.

Hours are Monday to Friday from 8:00 am to 5:00 pm, and there is no call required for this elective. The resident is expected to attend any required conferences either related to this rotation or as required by the department of Internal Medicine.

Legend for Learning Activities

ACS – Ambulatory Care Series	DPC – Direct Patient Care	M&M-Morbidity & Mortality
AR – Attending Rounds	DSP – Directly Supervised Procedures	MR – Morning Report
Au – Autopsy Report	FS – Faculty Supervision	NC – Noon Conferences PC–
CR – Chairman’s Rounds	GR – Grand Rounds	Professionalism Curriculum RC
CPC–Clinicopathologic Conf.	IL-Introductory Lecture Series	– Research Conference
CC-Core Curriculum	JC – Journal Club	SS – Senior Seminar
	MJ – Medical Jeopardy	SL – Subspecialty Lectures

Additionally, twice a month, there is an echo conference to review pertinent literature and/or technical skills in obtaining ultrasound images. This learning activity is labeled: EC

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	MR – Morning Report
DSP – Directly Supervised Procedures	PDR–Program Director’s Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning

activities for that goal, and the fourth column indicates the correlating evaluation

methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital is included near the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
3.	Take a pertinent medical history and perform a careful and accurate physical examination with a cardiology focus for the optimal performance of an echocardiographic study.	DPC, AR	AE
2.	Observe the proper techniques of performing echocardiographic procedures, including transthoracic, transesophageal, and stress echocardiography.	DPC, DSP, EC	AE, DSP
3.	Know the common medications along with potential reactions and side effects of these medications given for echocardiographic procedures.	DPC, DSP	AE
4.	Perform all procedures with emphasis on patient comfort and safety.	DPC, DSP	AE, DSP
5.	Recognize and manage complications associated with echocardiographic procedures.	DPC, AR	AE
6.	Produce accurate reports of the findings of an echocardiographic exam.	DPC, DSP	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understand the indications, contra-indications, potential complications, and benefits for performing transthoracic, transesophageal, and stress echos.	DPC, AR, EC	AE
2.	Learn the methods and technical aspects of two-dimensional echo, color flow Doppler, pulse and continuous wave Doppler, tissue Doppler, contrast and stress echocardiography.	DPC, DSP, EC	AE, DSP
3.	Master the echo evaluation of valvular heart disease, cardiac systolic and diastolic function, pericardial disease, cardiomyopathies, and diseases of the aorta.	DPC, DSP, EC	AE, DSP
4.	Learn the echocardiographic evaluation of congenital heart disease, infective endocarditis, cardiac masses and tumors.	DPC, DSP, EC	AE, DSP
5.	Echocardiographic evaluation of post-surgical cardiac patients including, valvular repair/replacement, aorta repair, ventricular assist devices, pacemakers, and cardiac defibrillators.	DPC, DSP, EC	AE, DSP

6.	Access and critically evaluate current medical information and scientific evidence relevant to echocardiography.	DPC, AR, EC	AE
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C. Interpersonal Skills and Communication

	PRINCIPAL EDUCATIONAL GOALS	Learning Activities	
1.	Communicate effectively with patients and families in a stressful critical care environment.	DPC, FS, PC	AE
2.	Communicate effectively with physician colleagues at and members of other health care professions to assure timely, comprehensive patient care.	DPC, FS, PC	AE
3.	Communicate effectively with colleagues when reporting pertinent findings of echocardiographic studies.	DPC, FS	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, FS, PC	AE
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care	DPC, FS, PC	AE
3.	Appreciation of the social context of illness.	DPC, FS, PC	AE
4.	Effective utilization of ethics knowledge and consultants. This includes guidelines for CPR and DNR and end of life cardiac care.	DPC, FS	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in performing and interpreting echocardiographic studies.	DPC, FS, EC	AE
2.	Develop and implement strategies for filling gaps in knowledge and skills that will benefit patients in the echo lab, coronary care units, or other intensive care units.	DPC, FS	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, FS	AE

F. Systems-Based Practice

	Principal Educational Goals	<i>Learning Activities</i>	Evaluation <i>Methods</i>
1.	Understand and utilize the multidisciplinary resources necessary to perform echocardiographic studies optimally on acutely ill cardiac patients.	DPC, PC	AE
2.	Collaborate with other members of the health care team to assure comprehensive care.	DPC, PC	AE
3.	Understanding when to ask for help and advice from fellows and attending physicians.	DPC, FS	AE
4.	Collaborate effectively with all members of the health care team including all residents, fellows, medical students, nurses, social workers, and other personnel.	DPC, PC	AE
5.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, FS, SL	AE
6.	Learning by performance of echocardiographic studies, attending teaching conferences and other educational activities.	DPC, AR	AE
7.	Ability to lead team, including nurses, echo technicians, and stress ECG technicians.	DPC, ACS	AE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

MEMORIAL HERMANN and LBJ PATHOLOGY ELECTIVE

The Memorial Hermann and LBJ elective rotation in Pathology and Laboratory Medicine is a two week or one month long rotation for a second or third year resident. Residents can take the elective at either Memorial Hermann or LBJ Hospitals . The elective is geared to the individual resident's choices, and they may choose to rotate through anatomic pathology, clinical pathology, or a combination of the two. Anatomic pathology includes surgical pathology, cytopathology, and autopsy pathology. Clinical pathology includes blood bank/transfusion medicine, hematopathology, clinical chemistry, immunopathology, and microbiology. Depending on the resident's career goals, he or she may spend time in a subspecialty area of pathology, for example, renal pathology for a resident planning to specialize in nephrology.

There is no night call or weekend duty associated with this elective.

Legend for Learning Activities

ACS – Ambulatory Care Series	DPC – Direct Patient Care	M&M-Morbidity & Mortality
AR – Attending Rounds	DSP – Directly Supervised Procedures	MR – Morning Report
Au – Autopsy Report	FS – Faculty Supervision	NC – Noon Conferences PC– Professionalism Curriculum RC – Research Conference
CR – Chairman's Rounds	GR – Grand Rounds	SS – Senior Seminar
CPC–Clinicopathologic Conf.	IL-Introductory Lecture Series	SL – Subspecialty Lectures
CC-Core Curriculum	JC – Journal Club	
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	MR – Morning Report
DSP – Directly Supervised Procedures	PDR–Program Director's Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents only)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
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1.	Ability to correlate clinical and physical examination	DPC, FS, SL	AE
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	findings with pathologic diagnoses.		
2.	Describe the special requirements for clinical specimens submitted to pathology, e.g., specimen requirements for viral cultures of flow cytometry immunophenotyping.	DPC, FS, SL	AE
3.	In Hematopathology, for example: examine peripheral blood smears, learn indications for a bone marrow aspiration and biopsy, and learn about common coagulation disorders and how they are diagnosed and treated utilizing a pathology laboratory.	DPC, FS, SL	AE
4.	To correlate clinical diagnoses and laboratory findings with the findings at autopsy	AU, FS, SL	AE
5.	To use findings at autopsy to recognize the limitations of laboratory tests and imaging on pre-mortem diagnoses.	AU, FS	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Review diagnostic criteria for utilizing gross, histopathologic or biochemical standards for common pathologic disease entities.	DPC, FS, SL	AE
2.	Review the pathologic mechanisms underlying common disease processes, utilizing the modalities noted above.	DPC, FS, SL	AE
3.	To identify when certain laboratory tests are indicated clinically, to recognize their limitations, and to understand how to interpret them.	DPC, FS, SL	AE

C. Interpersonal Skills and Communication

	<u>PRINCIPAL EDUCATIONAL GOALS</u>	Learning Activities	
1.	Communicate effectively with physician and technical colleagues at all levels of a pathology laboratory and Department.	DPC, PC	AE
2.	Present information on patients concisely and clearly both verbally and in writing.	DPC, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward colleagues and all members of the pathology laboratory, and toward patients when specimens are involved.	DPC, PC	AE
2.	Learn the current standards and challenges to the ethical and professional practice of pathology,	DPC, PC	AE

	including conflict of interest through laboratory ownership or investment, standards of appropriate laboratory testing referral and ethical and just reimbursement for involvement in practicing the discipline of pathology.		
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E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in pathology.	DPC, FS, SL	AE
2.	Develop and implement strategies for filling gaps in knowledge and skills in the area of pathology.	DPC, FS, SL	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, FS, SL	AE

F. Systems-Based Practice

	Principal Educational Goals	<i>Learning Activities</i>	Evaluation <i>Methods</i>
1.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, FS	AE
2.	Collaborate effectively with all members of the health care team.	DPC, FS, PC	AE
3.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, FS, SL	AE

**The University of Texas-Houston Health Science Center
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MEMORIAL HERMANN SPORTS MEDICINE ELECTIVE

The Memorial Hermann and Sports Medicine Elective is a four week rotation for a second or third year resident offered any month of the year. The following goals and objectives are written to reflect the rotation. A broad exposure to Sports and Musculoskeletal Medicine issues is the focus of the elective, with an emphasis of the role(s) of the primary care practitioner.

A compendium of articles is presented to the resident at the beginning of the elective and serves as the text for the month

Legend for Learning Activities

ACS – Ambulatory Care Series	DPC – Direct Patient Care	M&M-Morbidity & Mortality
AR – Attending Rounds	DSP – Directly Supervised Procedures	MR – Morning Report
Au – Autopsy Report	FS – Faculty Supervision	NC – Noon Conferences
CR – Chairman’s Rounds	GR – Grand Rounds	PC – Professionalism Curriculum
CPC–Clinicopathologic Conf.	IL-Introductory Lecture Series	RC – Research Conference
CC-Core Curriculum	JC – Journal Club	SS – Senior Seminar
	MJ – Medical Jeopardy	SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	MR – Morning Report
DSP – Directly Supervised Procedures	PDR–Program Director’s Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal.

PG-2/3/4 (Goals are for upper level residents)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
2.	Ability to take a complete medical history and perform a careful and accurate physical examination with a sports medicine focus. This includes the chief complaints, medical illnesses, current medications, allergies to medications, and family history of musculoskeletal disease.	DPC, FS, SL	AE

2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes	DPC, FS, SL	AE
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	with a musculoskeletal focus.		
3.	Ability to identify and diagnosis musculoskeletal problems and initiate pharmaceutical or physical therapy, order advanced imaging or refer patient to orthopedist.	DPC, FS, SL	AE
4.	Develop skill in injection techniques.	DSP, FS	AE
5.	Observe (if possible) the following surgeries and procedures: injections, knee arthroscopy	DPC, FS	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Develop working knowledge of musculoskeletal disorders.	DPC, FS, SL	AE
2.	Recognize and examine significant anatomic structures of the extremities and perform a joint-specific examination. To achieve these objectives, learn the following: To assess the shoulder including the rotator cuff musculature, impingement tests, biceps tendon disorders including SLAP tears, AC joint, and instability. To assess the knee including the patellofemoral articulation, the cruciate and collateral ligaments, disorders of frontal and patellofemoral alignment, the presence of an effusion, and accessory structures.	DPC, FS, SL	AE
3.	Understand state-of-the art physical therapy techniques and their scientific basis	DPC, FS, SL	AE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families.	DPC, FS, PC	AE
2.	Communicate effectively with physician colleagues at all levels.	DPC, FS, PC	AE
3.	Present information on patients concisely and clearly both verbally and in writing.	DPC, FS, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, FS, PC	AE
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care	DPC, FS, PC	AE

3.	Appreciation of the social context of illness.	DPC, FS, PC	AE
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E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients with musculoskeletal problems.	DPC, FS, SL	AE
2.	Develop and implement strategies for filling gaps in knowledge and skills in the area of sports medicine.	DPC, FS, SL	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, FS, SL	AE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, FS	AE
2.	Collaborate effectively with all members of the health care team including all residents, fellows, medical students, physical therapists, and nurses.	DPC, PC	AE
3.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, FS, SL	AE
4.	Understanding when to refer to patient to an orthopedist.	DPC, FS	AE

**The University of Texas-Houston Health Science Center
Internal Medicine/Pediatric Residency Program Curriculum**

MEMORIAL HERMANN and LBJ OPHTHALMOLOGY ELECTIVE

The Memorial Hermann and LBJ Ophthalmology Elective is either a two week or a four week long rotation for a second or third year resident September through June (the Department is not able to accept residents in July and August). In most cases, the resident will work in the LBJ Ophthalmology clinic for the rotation. A resident may be placed at Hermann if they specifically request to study an ophthalmologic subspecialty where the attending is based at Hermann; this is subject to availability. The following goals and objectives are written to reflect the rotation at LBJ as the rotation at Hermann is extremely varied and is defined by the specific attending the resident is assigned to. The LBJ clinic rotation has no night call or weekend duty associated with this elective, and the hours are 8:00 to 5:00 or completion of clinic. A broad exposure to ophthalmology issues are the focus of the elective. Sub-specialties offered are: Retina; glaucoma; cornea and external disease; pediatrics; oculoplastics and trauma. These sub-specialties are all represented within a month's time at the resident clinic at LBJ.

Two books are loaned to the resident at the beginning of the elective, and *it is imperative that these books be returned to the Ophthalmology Coordinator at the end of the elective.*

Legend for Learning Activities

ACS – Ambulatory Care Series	DPC – Direct Patient Care	M&M-Morbidity & Mortality
AR – Attending Rounds	DSP – Directly Supervised Procedures	MR – Morning Report
Au – Autopsy Report	FS – Faculty Supervision	NC – Noon Conferences PC– Professionalism Curriculum RC – Research Conference
CR – Chairman's Rounds	GR – Grand Rounds	SS – Senior Seminar
CPC–Clinicopathologic Conf.	IL-Introductory Lecture Series	SL – Subspecialty Lectures
CC-Core Curriculum	JC – Journal Club	
	MJ – Medical Jeopardy	

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	MR – Morning Report
DSP – Directly Supervised Procedures	PDR–Program Director's Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital and LBJ Hospital is included near the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Ability to take a complete medical history and perform a careful and accurate physical examination with an ophthalmology focus. This includes the chief complaints, medical illnesses, current medications, allergies to medications, and family history of eye disease.	DPC, FS, SL	AE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes with an ophthalmology focus.	DPC, FS, SL	AE
3.	Ability to identify and diagnosis eye diseases and visual system problems and initiate therapy or refer patient to ophthalmologist.	DPC, FS, SL	AE
4.	Develop skill in use of basic ophthalmic equipment, including slit lamp and direct ophthalmoscope.	DPC, FS	AE
5.	Observe (if possible) the following surgeries and procedures: cataract extraction, corneal transplantation, retina surgery, strabismus surgery, glaucoma surgery, and other minor ophthalmologic procedures.	DPC, FS	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Develop working knowledge of ophthalmic instruments and diseases.	DPC, FS, SL	AE

2.	Recognize significant external and internal ocular structures of the normal eye and have ability to perform basic eye examination. To achieve these objectives, learn the following: The essentials of ocular anatomy To measure and record visual acuity To assess papillary reflexes To evaluate ocular motility To use the direct ophthalmoscope for systematic fundus examination & assessment of the red reflex To dilate the pupils as an adjunct to ophthalmoscopy To evaluate visual fields by confrontation	DPC, FS, SL	AE
3.	Understand a basic eye exam may provide early warnings for Blinding eye disease (i.e, cataract, glaucoma, macular degeneration, diabetic retinopathy); Systematic disease (diabetes, hypertension, temporal arteritis); and Tumor or other disorders of the brain (meningioma, aneurysms, multiple sclerosis).	DPC, AR, FS, SL	AE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with patients and families.	DPC, FS, PC	AE
2.	Communicate effectively with physician colleagues at all levels.	DPC, FS, PC	AE
3.	Present information on patients concisely and clearly both verbally and in writing.	DPC, FS, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, FS, PC	AE
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care	DPC, FS, PC	AE
3.	Appreciation of the social context of illness.	DPC, FS, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients with ophthalmology problems.	DPC, FS, SL	AE
2.	Develop and implement strategies for filling gaps in knowledge and skills in the area of ophthalmology.	DPC, FS, SL	AE

3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	DPC, FS, SL	AE
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F. Systems-Based Practice

	Principal Educational Goals	<i>Learning Activities</i>	Evaluation <i>Methods</i>
1.	Understanding when to ask for help and advice from senior residents and attending physicians.	DPC, FS	AE
2.	Collaborate effectively with all members of the health care team including all residents, fellows, medical students, nurses, and optometric students.	DPC, PC	AE
3.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC, FS, SL	AE
4.	Understanding when to refer to patient to an ophthalmologist.	DPC, FS	AE

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MEMORIAL HERMANN RADIOLOGY ELECTIVE

The Memorial Hermann Radiology Elective is either a two week or a four week long rotation for a second or third year resident. Most often the residents work mainly under Dr. Stephen Kaminsky at the Hermann Professional Building. The main focus of the rotation is for residents to learn to read chest x-rays and review MRIs and CTs. The rotation has no night call or weekend duty associated with this elective, and the hours are 9:00 to 5:00.

Legend for Learning Activities

ACS – Ambulatory Care Series	DPC – Direct Patient Care	M&M-Morbidity & Mortality
AR – Attending Rounds	DSP – Directly Supervised Procedures	MR – Morning Report
Au – Autopsy Report	FS – Faculty Supervision	NC – Noon Conferences
CR – Chairman’s Rounds	GR – Grand Rounds	PC – Professionalism Curriculum
CPC–Clinicopathologic Conf.	IL-Introductory Lecture Series	RC – Research Conference
CC-Core Curriculum	JC – Journal Club	SS – Senior Seminar
	MJ – Medical Jeopardy	SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents

AE - Attending Evaluations	MR – Morning Report
DSP – Directly Supervised Procedures	PDR–Program Director’s Review (twice annually)
IE – In-service Exam	PR – Peer Review

Principal Educational Goals by Relevant Competency

The principal educational goals for residents on this rotation are indicated for each of the six ACGME competencies in the tables below and numbered in the first column. The second column of the table lists the goal, the third column lists the most relevant learning activities for that goal, and the fourth column indicates the correlating evaluation methods for that goal. A detailed description of the on-going learning activities at Memorial Hermann Hospital is included near the front of the report for further information.

PG-2/3/4 (Goals are for upper level residents)

A. Patient Care

	Principal Educational Goals	Learning Activities	Evaluation Methods
4.	Ability to interpret radiological films, especially chest x-rays.	FS	AE
2.	Observe preparation of written reports communicating results of studies to clinician.	FS	AE

B. Medical Knowledge

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Learn importance and relevance of clinical history when ordering radiological studies.	FS	AE
2.	Learn to be more specific regarding patient's localization of pain as a guide when ordering radiological studies.	FS	AE
3.	Know indications for ordering imaging studies.	FS	AE

C. Interpersonal Skills and Communication

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Communicate effectively with physician colleagues at all levels.	FS, PC	AE
2.	Present results of patients' radiological studies clearly in writing and verbally, including when a telephone call is necessary to report results to clinicians.	FS, PC	AE

D. Professionalism

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Interact professionally toward colleagues, and all members of the health care team.	FS, PC	AE
2.	Learn about professional issues such as conflict of interest in the ownership and control of radiological facilities.	FS, PC	AE
3.	Learn how to transmit sensitive radiological reports to patients, i.e., results of mammograms.	FS, PC	AE

E. Practice-Based Learning and Improvement

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Identify and acknowledge gaps in personal knowledge and skills in the area of radiological studies.	FS, SL	AE
2.	Develop and implement strategies for filling gaps in knowledge and skills in the area of radiological studies.	FS	AE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases upon integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine.	FS	AE

F. Systems-Based Practice

	Principal Educational Goals	Learning Activities	Evaluation Methods
1.	Collaborate effectively with all members of the health care team including all residents, fellows, medical students, and radiology technicians.	PC	AE
2.	Consideration of the cost-effectiveness of diagnostic and therapeutic radiological interventions.	FS	AE

**The University of Texas-Houston Health Science Center
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**MEDICAL GENETICS
AND SELECTED SUBSPECIALTY CLINICS ROTATION**

Medical Genetics Outpatient Clinics and Consults comprise approximately 75% of the required Medical Genetics and Selected Subspecialty Clinics for all Pediatric PGY-1 residents. This is a one-month rotation that occurs at a variety of outpatient sites including the Pediatric Medical Genetics Clinics at the Hermann Professional Building and Lyndon B. Johnson General Hospital, the Medical Genetics Clinic at the Shriners Hospital for Children, Pediatric Dermatology Clinics at HMC and San Jose, Pediatric Ophthalmology Clinic at HPB, Craniofacial Clinic at TCH, Head Molding Clinic at HPB and Pediatric Dental Clinic at HMC. Approximately 50% (half-days) will be devoted to Genetics Rounds or Inpatient Consults and background/follow-up work on Genetics patients (software searches, literature searches, dictation/corrections of notes and letters, reading assignments). Approximately 25% time will be spent in Medical Genetics outpatient clinics. The remaining 25% time will be devoted to the Specialty Clinics: Pediatric Dermatology, Pediatric Ophthalmology, Head Molding Clinic and Pediatric Dental Clinic. The remainder of this document will specifically address the Pediatric Medical Genetics aspect of the rotation. Adherence to the 80-hour work week is mandated. Residents are supervised by faculty members who are boarded in Clinical Medical Genetics (either M.D., Ph.D. or M.D./Ph.D.).

The philosophy of the Medical Genetics Rotation is two-fold: 1) to teach the resident to recognize when a patient may have a disorder with an underlying genetic etiology and 2) to provide the resident with the tools to initiate the work-up on a patient who may have a genetic condition.

Legend for Learning Activities

AR - Attending Rounds	GR- Grand Rounds	RC - Research Conference
ASR - Assigned Reading	JC - Journal Club	SS - Senior Seminar
DPC - Direct Patient Care	MR - Morning Report	SL - Subspecialty Lectures
CAT- Critically Appraised Topics E/C – Ethics/Communication Conferences	M/DO - Modeling/Direct Observation	WH - Written Homework
FS – Faculty Supervision	NC - Noon Conferences	

Legend for Evaluation Methods for Residents

AE - Attending Evaluation	MR - Morning Report
DSP- Directly Supervised Procedures	DO - Direct Observation
MR - Morning Report	RWH - Review of Written Homework
MGQ - Medical Genetics Quizzes	CSR - Chart Stimulated Review
CR - Chart Review	360° - Global Evaluation

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities, and the evaluation methods for

each objective. The educational goals and objectives are applicable to PGY-1 residents.

The expected competency level demonstrated by the residents should reflect their respective level of experience.

Competency 1 – Patient Care. Provide family centered patient care that is developmentally and age appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

GOAL: Determine whether a medical condition has a genetic etiology.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Obtain and document a medical history that includes a detailed prenatal history and a detailed family history (pedigree).	DPC, AR, FS	AE, CR, DO
2.	Perform and document a thorough physical exam on a child suspected of having a genetic disorder identifying major and minor congenital anomalies, including measurements to determine normal v. abnormal.	DPC, AR, FS	AE, CR, DO
3.	Develop a management plan for commonly encountered genetic disorders.	DPC, SL M/DO, ASR	AE, CR, DO
4.	Identify resources in your community for diagnosis, genetic counseling, therapy and psychosocial support of children with genetic defects and congenital anomalies.	ASR, AR	AE, CR, DO

GOAL: Conditions requiring urgent referral (Genetics and Inborn Errors of Metabolism). Recognize and respond to urgent and/or severe conditions related to genetics and inherited metabolic disorders.

	Principal Educational Objectives	Learning Activities	Evaluation
1.	Identify, explain, provide initial management and support, and seek urgent referral for the following genetic and/or metabolic conditions: <ul style="list-style-type: none"> - Metabolic acidosis, hyperammonemia, unexplained seizures, ketosis or hypoketosis, profound hypoglycemia. - Dysmorphic features found in chromosomal abnormalities that require prompt diagnosis in the perinatal period (e.g., Trisomy 13, 18, 21). - Developmental delay or regression of milestones suggesting an underlying metabolic or genetic disorder. 	SL, ASR, DPC, FS	AE, MGQ, DO

Competency 2 - Medical Knowledge. Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge in the area of Medical Genetics needed by a pediatrician; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care.

GOAL: Recognize presenting symptoms, diagnose, describe the pathophysiology, and manage common presentations of the following genetic conditions.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Describe findings of common chromosome abnormalities including: Trisomy 21, Trisomy 18, Trisomy 13, Turner syndrome (45X), Klinefelter syndrome	ASR, NC, SL	AE, MGQ
2.	Describe findings of common single gene disorders such as neurofibromatosis, PKU, Marfan syndrome, achondroplasia, tuberous sclerosis and galactosemia.	ASR, NC, SL	AE, MGQ
3.	Describe the findings and evaluation of a patient with a potential metabolic emergency.	ASR, NC, SL	AE, MGQ
4.	Describe common patterns of Mendelian vs. non-Mendelian inheritance (autosomal dominant and recessive, X-linked, multifactorial, and the effect of maternal and paternal age).	ASR, DPC, FS, SL	AE, MGQ, DO
5.	Discuss unusual patterns of inheritance (mitochondrial defects, triplet repeat, imprinting).	ASR, DPC,	AE, MGQ, DO

GOAL: Differentiate disorders in patients associated with genetic predisposition or genetic disease from normal states or acquired disorders.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Explain the findings on clinical history and examination that suggest a known or potential genetic disorder or inborn error of metabolism.	FS, DPC	DO
2.	Describe how well child care differs in a child with a genetic condition, e.g., use of specific growth charts for specific conditions and physical findings.	FS, DPC	DO
3.	Identify appropriate clinical and laboratory tests to help identify genetic diseases and inborn errors of metabolism. Explain the reason for the test to a family and interpret the results, with the assistance of a geneticist.	DPC, FS, M/DO	AE, DO

GOAL: Undifferentiated signs and symptoms. Evaluate, treat, and/or refer patients with the presenting signs and symptoms that suggest a genetic disease process.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Create a strategy to determine if many signs and symptoms typically seen by a pediatrician (eg. Failure to thrive, seizures etc.) are caused by genetic disease or an inborn error of metabolism and determine if the patient needs treatment or referral.	DPC, AR, M/DO	AE, CR, D

GOAL: Molecular medicine. Recognize genetic factors in common diseases of childhood and adulthood.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Discuss current knowledge regarding the molecular basis of common childhood and adult conditions.	ASR, DPC	AE, MGQ
2.	Identify the current and future uses of DNA testing in the office setting, including diagnosis of infectious diseases using DNA, pharmacogenetic testing for inborn errors of metabolic pathways prior to prescribing, DNA chips to identify genetic etiologies for complex disorders (e.g., congenital heart disease, seizure disorders, etc.).	AR, ASR	AE, MGQ

Competency 3 – Interpersonal and Communications Skills. Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families and professional associates.

GOAL: To participate in provision of genetic counseling to a patient and or the patient’s parents including: diagnosis, prognosis and recurrence risk (for the parents as well as for the child when he/she reproduces).

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Participate in a genetic counseling session	DPC, AR, FS	AE, CR, DC
2.	To write a genetic counseling letter to the family after participation in the genetic counseling session.	WH, DPC	RWH, AE
3.	Talk to family members about sensitive issues that relate to a patient’s genetic condition, e.g., coping with the child’s altered needs in his/her home setting.	DPC, AR, FS	AE, CR, DC
4.	Communicate effectively with physicians, other health professionals, and health related agencies to create and sustain information exchange and team work for patient care.	DPC, AR, FS	AE, CR, DC
5.	Maintain accurate, legible, timely and legally appropriate medical records for Medical Genetics patients in the outpatient and inpatient setting.	DPC, AR, FS	AE, CR, DC

Competency 4 – Practice-based Learning and Improvement. Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one’s patient care practice.

	Principal Educational Objectives	Learning Activities	Evaluatio
1	Develop strategies to learn about future advances in the understanding of genetic disorders, in order to incorporate into one’s practice improved screening, identification, counseling and management of such disorders.	SL, AR, ASR	MGQ, DO
2	Identify the indicators that would lead you to seek a genetics consult.	AR, DPC,	AE, CSR
3	Identify personal learning needs, systematically organize relevant information resources for future reference, and plan for continuing data acquisition if appropriate.	AR,DPC, FS, M/DO	AE, CR, DO, CSR

Competency 5 – Professionalism. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.

	Principal Educational Objectives	Learning Activities	Evaluati
1	Discuss the ethical, legal, financial and social issues involved in genetic testing of children for genetic disorders that may present in adulthood, testing children for carrier status, and providing medical care for patients	AR, DPC, E/C, SL	AE
2	Demonstrate personal accountability to the well being of all patients, even when other physicians are primarily responsible for their care, for example, by following up on lab results, writing comprehensive notes, seeking answers to difficult patient care questions, and communicating with primary care physicians.	DPC, AR, ASR, M/DO	AE, DO
3	Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical and legal principles, and sensitivity to diversity while	DPC, AR, ASR, M/DO	AE, DO

Competency 6 - Systems-Based Practice. Understand how to practice quality health care and advocate for patients within the context of the health care system.

	Principal Educational Objectives	Learning Activities	Evaluati
1	Identify written and internet resources to aid in diagnosing a genetic or inborn error of metabolism, using physical findings along with laboratory examination.	DPC, FS, ASR	AE, CR, RWH
2	Demonstrate sensitivity to the costs of clinical care in Medical Genetics and take steps to minimize costs without compromising quality.	DPC, FS,	AE, CR,
3	Recognize the limits of one’s knowledge and expertise and take steps to avoid medical errors.	DPC	AE
4	Understand key aspects of health care systems as they apply to care of patients and their families, including cost control, billing and	DPC	AE
5	Recognize and advocate for families who need assistance to deal with systems complexities, such as lack of insurance, multiple medication refills, multiple appointments with long transport times, or inconvenient hours	DPC	AE

The University of Texas-Houston Health Science Center Internal Medicine/Pediatric Residency Program Curriculum

PEDIATRIC NEUROLOGY ROTATION PROGRAM GOALS AND OBJECTIVES

THE ROTATION

Pediatric residents are required to fulfill a one-month block rotation in pediatric neurology. The rotation offers a variety of experiences in clinical, educational and research settings. Residents will observe, evaluate, and manage children with neurological and developmental disorders of the nervous system. Residents assigned to the pediatric neurology rotation work in a team of one senior Pediatric or Medicine-Pediatric resident (PGY-3 or 4) and one or more PGY-1s. Adherence to the 80-hour work week is mandated.

Residents will work in both outpatient and inpatient clinics, located at Memorial Hermann Children's Hospital (MHCH), The University of Texas Outpatient Clinics, UT MD Anderson Cancer Center, LBJ Hospital, and the Hermann Professional Building. Residents are provided opportunities to work with medical professionals as well as assist children with neurological problems. Residents are supervised by faculty in the Department of Pediatrics Division of Neurology.

Residents are expected to attend all appropriate Department of Pediatric conferences. In addition, residents will attend the Division of Pediatric Neurology teaching conferences during their rotation.

Pediatric Neurology:

- ③ Daily Teaching Rounds
- ③ Multidisciplinary Rounds
- ③ Pediatric Neurology Grand Rounds
- ③ Patient Care Conference
- ③ Monthly Pediatric Neurology Conference
- ③ Pediatric Resident Seminar

The goals and objectives listed below are achieved through rounding on the inpatient service, discussions about patients seen on an outpatient basis, various conferences, reading in a pediatric neurology syllabus updated yearly to contain the best review articles on general topics in pediatric neurology important for general pediatricians to know, and reviewing articles and other handouts. Residents have access to computer-based literature searches as well. Each resident is required to give a talk on a neurologic subject of his/her choice during the rotation. The resident is also responsible for preparing a patient care conference at morning report with attending supervision and attendance. Residents are also evaluated on their effectiveness and willingness to teach medical students. Residents learn neurology related skills such as the diagnosis and treatment of pediatric neurological disorders, including seizure syndromes, motor and movement disorders, neurometabolic, neurogenetic, and neuroncologic disorders. Residents complete a checklist of neurologic conditions to be covered during the month through patient care, lecture, rounds or reading. Residents receive a pre-test to evaluate

their level of knowledge at the start of the rotation and a final written examination containing many questions from PREP and the Pediatric Neurology Boards as well as those developed by the faculty. Residents must pass this examination in order to receive credit for the rotation.

Legend for Learning Activities

AR – Attending Rounds	GR – Grand Rounds	OC Outpatient clinics
DPC – Direct Patient Care	JC – Journal Club	RC – Research
CAT – Critically Appraised Topics	MDR – Multidisciplinary Rounds	Conference
E/C – Ethics/Communication Conferences	MR – Morning Report	SC – Specialty Conferences ³
FS – Faculty Supervision	NC – Noon Conferences	RS – Resident Seminar
	NM – Neurology Manual and Text	SL – Subspecialty Lectures

Legend for Evaluation Methods for Residents

AE – Attending Evaluation	PDR – Program Director’s Review (twice annually)
DSP – Directly Supervised Procedures	IE – In-Training Exam
MR – Morning Report	FS – Faculty Supervision & Feedback

Principal Educational Goals and Objectives by Relevant Competency

The principal educational goals for residents on this rotation are indicated for the relevant ACGME competencies. The tables below each goal list the corresponding educational objectives, the relevant learning activities and the evaluation methods for each objective. The educational goals and objectives are applicable to both PGY-1 and PGY-3/4 residents as they are both ‘naïve’ to the pediatric neurology experience. The expected competency level demonstrated by the residents should reflect their respective level of experience.

I. Patient Care

GOAL: Maintain appropriate interpersonal relationships and communicate effectively with patients, families, colleagues and the public.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Obtain, interpret, and evaluate consultations from other medical specialties. This shall include: <ul style="list-style-type: none"> a. Determine when to solicit consultation. Acquire sensitivity to assess the need for consultation. b. Discuss consultation findings with patients and their families. c. Evaluate the consultation findings. d. Communicate effectively with patients and their families. e. Gear all communication to the educational/ intellectual levels of patients and their families. f. Provide explanations of common neurological disorders of childhood (both verbally and in written form) that are jargon-free. g. Respect the cultural, ethnic and economic backgrounds of patients. h. Develop and enhance rapport and a working alliance with patients and families. 	AR, DPC, SC, SL, NM	AE, FS
2.	Maintain medical records and written prescriptions that are legible and up-to-date. These records must capture essential information while simultaneously respecting patient privacy and be useful to health professionals outside clinical pediatric neurology.	AR, DPC, SC, SL, NM	AE, FS, PDR
3.	Utilize appropriate interviewing and communication techniques.	AR, DPC, SC, SL, NM, FS	AE, FS, PDR
4.	Recognize the need for and effectively use interpreters as necessary.	AR, DPC, SC, SL, NM	AE, FS, DSP
5.	Present up-to-date information to students and fellow Residents in an organized fashion.	AR, DPC, SC, SL, NM	AE, FS
6.	Provide feedback to students, faculty and other professionals.	AR, DPC, SC, SL, NM	AE, FS, DSP, PDR
7.	Maintain an attitude of respect for others, even those with differing points of view.	AR, DPC, SC, SL, NM	AE, FS, DSP
8.	Exhibit culturally sensitive, professional, ethically sound behavior in all patient and professional interactions.	AR, DPC, SC, SL, NM	AE, FS, DSP
9.	Demonstrate a polite and courteous attitude at all times.	AR, DPC, SC, SL, NM	AE, FS, PDR
10.	Provide clinical care of patients.	AR, NC, SL, SC, NM	AE, IE, PDR

II. Medical Knowledge

GOAL: Demonstrate knowledge about established and evolving neuroscience critical to the practice of pediatric neurology.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
	Residents will display knowledge of the following:		
1.	The basic sciences on which clinical child neurology is founded, including neuroanatomy, neural and behavioral development, neuropathology, neurophysiology, neuroimaging, neuropsychology, neurochemistry, neuropharmacology, molecular biology, genetics, neuroimmunology, and epidemiology and statistics.	AR, SL, NM, SC, FS	AE, PDR, IE, FS
2.	Major neurological disorders, including epidemiology and etiology of the disorder (including contributing medical, genetic and social factors), phenomenology of the disorder, diagnostic criteria, appropriate evaluation, effective treatment strategies, and rehabilitation of the disorder.	AR, SL, NM, SC, DPC, FS	AE, IE, PDR, FS
3.	Pediatric neurology disorders.		
4.	Anticonvulsants, psychiatric and other medications, the indications for and the complications of these medications.	AR, SL, NM, SC, DPC, FS	AE, IE, PDR, FS

GOAL: Evaluate, Diagnose, and Treat pediatric neurological disorders.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Evaluate the application and relevance of common neurological investigative technologies.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR
2.	Perform and document a comprehensive patient history and assessment.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR
3.	Create differential diagnosis and management plan for the disorder.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR
4.	Assess, diagnose and treat pediatric neurological disorders, including seizure syndromes, motor and movement disorders, neurometabolic, neurogenetic, and neuroncologic disorders.	AR, DPC, NM, MR, NC, SL, FS	AE, FS, PDR

III. Practice-Based Learning and Improvement

GOAL: Initiate self-directed and independent learning. Keep abreast of current information and practices relevant to childhood neurological and developmental disorders including pain management of children.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
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1.	Demonstrate knowledge of research methodology, including critical assessment of professional journal articles	AR, NC, SL, SC, NM	AE, IE, PDR
2.	Apply principles of evidence-based medicine.	AR, NC, SL, SC, NM	AE, IE, PDR
3.	Display awareness of and utilize available information technologies.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	
4.	Obtain, interpret, and evaluate up-to-date information from the scientific and practice literature to assist in the quality care of patients. This shall include, but not be limited to: <ul style="list-style-type: none"> a. Use of medical libraries b. Use of information technology, including Internet-based searches c. Use of drug information databases 	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	
5.	Assess the applicability of research findings to patients in relation to their sociodemographic and clinical characteristics. Critically evaluate the relevant medical literature.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	
6.	Maintain an attitude of inquiry and scholarship, recognizing the need for lifelong learning.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	
7.	Exhibit openness and flexibility in treatment approaches with patients, assimilating new knowledge in patient care practices.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	
8.	Practice self-directed inquiry guiding clinical care of patients; formal presentations which include literature review, and teaching others.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	

IV. Interpersonal and Communication Skills

GOAL: Maintain appropriate interpersonal relationships and communicate effectively with patients, families, colleagues and the public.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Demonstrate appropriate interviewing and communication techniques.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS

2.	Obtain, interpret, and evaluate consultations from other medical specialties. This shall include: a. Know when to solicit consultation. Acquire sensitivity to assess the need for consultation. b. Discuss consultation findings with patients and their families.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
	c. Evaluate the consultation findings.		
3.	Communicate effectively with patients and their families. a. Gear all communication to the educational/ intellectual levels of patients and their families. b. Provide explanations of common neurological disorders of childhood (both verbally and in written form) that are jargon-free. c. Respect the cultural, ethnic and economic backgrounds of patients. d. Develop and enhance rapport and a working alliance with patients and families.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
5.	Recognize the need for and effectively use interpreters as necessary.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
7.	Provide feedback to students, faculty and other professionals.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
8.	Maintain an attitude of respect for others, even those with differing points of view.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
9.	Exhibit culturally sensitive, professional, ethically sound behavior in all patient and professional interactions.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
10.	Demonstrate a polite and courteous attitude at all times.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS

V. Professionalism and Ethical Behavior

GOAL: Practice professionally responsible, ethical and compassionate care of children with neurological and developmental disorders.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Recognize the impact of gender, culture, religion, socioeconomic factors, and family structures and systems on issues pertaining to pediatric neurology.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, FS, PDR

2.	Demonstrate knowledge of legal issues relevant to pediatric neurology.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, FS, PDR
3.	Exercise the principles of bioethical issues in pediatric neurology.	AR, DPC, CAT, E/C, FS, GR, JC,	AE, DSP, MR, PDR,
4.	Respond to communications from patients and health professionals in a timely manner.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
5.	Use medical records to appropriately document the course of illness and its treatment.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
6.	Demonstrate ethical behavior, integrity, honesty, professional conduct, compassion and confidentiality in the delivery of patient care, including obtaining informed consent/assent, and declaring conflicts of interest.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
7.	Respect patients and colleagues as individuals, by showing sensitivity to their age, culture, disabilities, ethnicity, gender, socioeconomic background, religious beliefs, political affiliations, and sexual orientation.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
8.	Appreciate compassionate methods of terminal palliative care, including adequate pain relief, and psychosocial support and counseling for patients and their families.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
9.	Exercise responsibility for his or her decisions and demonstrate commitment to the review and remediation of his or her professional conduct.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
10.	Promote the highest standards of medical healthcare to the public and participate in the review of the professional conduct of his or her colleagues.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
11.	Maintain openness and flexibility in treatment approaches with patients, assimilating new knowledge in patient care practices.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
12.	Teach students and other professionals. Give formal presentations at conferences.	AR, MR, NC, SL, NM	AE, IE, PDR
13.	Interact with and observe faculty during clinics, case conferences and chart reviews with supervisors.	AR, MR, NC, SL, NM	AE, IE, PDR
14.	Maintain medical records and written prescriptions that are legible and up-to-date. These records must capture essential information while simultaneously respecting patient privacy and be useful to health professionals outside clinical pediatric neurology.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS

6.	Present up-to-date information to students and fellow Residents in an organized fashion.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
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VI. Systems Based Practice

Goal: Manage effectively in multiple, diverse, complex systems of care to provide effective treatment, consultation, and referrals for patients.

	Principal Educational Objectives	Learning Activities	Evaluation Methods
1.	Recognize and apply basic concepts of systems theory.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
2.	Demonstrate knowledge of how patient care practices of residents and their related actions impact component units of health care delivery.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
3.	Apply systems-based approaches for controlling health care costs and allocating resources.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
4.	Partner with insurance and managed care companies to meet patient needs.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
5.	Maintain an attitude of interdisciplinary collaboration, advocacy and cooperation.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	
6.	Exercise flexibility in adapting to needs and expectations of different clinical settings and systems.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	

GOAL: Advocate for the best interests of the patient, strive to provide quality care within available resources, respect cultural differences of patients, and be sensitive to confidentiality and consent issues.

1.	Advocate for patients within a variety of systems.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	AE, DSP, MR, PDR, IE, FS
2.	Maintain the best interests of the patients as the top priority.	AR, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	

3.	Strive to practice cost-effective health care and resource allocation that does not compromise the quality of health care.	R, DPC, CAT, E/C, FS, GR, JC, MDR, MR, NC, NM	E, DSP, MR, PDR, IE, FS
4	Develop and enhance rapport and a working alliance with patients and families	R, DPC, E/C, S, GR, JC, MDR, NC	E, FS
5.	Respect the cultural, ethnic and economic backgrounds of patients.	R, DPC, E/C, FS, GR, JC, MDR, NC	E, FS