

Making our EHRs Smart

Dr. Adam Wright

Bwhlmrmapltest,Four

24252934 (BWH) 07/15/1939 (71 yrs.) F

Home Select Desktop Pt Chart: Summary Oncology Custom Reports Admin Sign Results ? Resource Popup

[Customize](#)

Reminders

- Patient 65 yrs or older, due for Pneumovax.
- Patient 50 years old or greater, recommend influenza vaccination.
- Pt is overdue for colonoscopy (rec: q 10 years). FamHx indicates average risk for colorectal cancer.
- Diabetic patient is overdue for HgbA1c measurement (recommended every 6 months).
- Diabetic Patient with renal disease, consider starting angiotensin-converting enzyme inhibitor (ACE-I).
- Patient has CAD or equivalent, consider starting anti-platelet therapy, but potential contraindications exist.
- Patient is overdue for blood pressure assessment (recommended yearly).

Referral requested	Execute
Order HbA1c	Execute
Order ACEI	Execute
Order Aspirin	Execute
Done Elsewhere	Execute

Flowsheets **Problems** **Allergies**

Health Monitoring

HM Item	Date Last	Result
HbA1c		
Home glucose monito...		
Hypoglycemia Assess...		
M-alb/creat ratio		
Microalbumin		
Nutrition Referral		
Ophthalm Exam	10/26/2010	Done
Podiatry exam	10/26/2010	Done
Bone Density		
Colonoscopy		
Alcohol Use Screening		
Smoking status	10/26/2010	Never used tobacco
Influenza Vaccine		
Pneumovax		
Td Booster		
Zostavax		
Cholesterol	10/26/2010	Done elsewhere
Mammogram		
Pap Smear		

- Problems**
- Diabetes mellitus
 - Renal insufficiency
 - Coronary artery disease
 - Peptic ulcer disease
 - Torn meniscus

- Medications**
- Glyburide 5MG TABLET Take 1 Tablet(s) PO BID
 - Hctz (HYDROCHLOROTHIAZIDE) 25 MG (25MG TABLET Take 1

- Procedures**
- Tonsillectomy

Allergies

Allergen	Reaction
Milk Protein - Moderate	- Itching - Rash

Sticky Notes

Likes to be called 4.

Notes

Date	Subject	Provider
05/14/2010	✓ Patient Note	Hanley, William A.
05/14/2010	✓ Code Status/LST Note (MGH)	Hanley, William A.
05/14/2010	✓ Code Status/LST Note (MGH)	Hanley, William A.
05/14/2010	✓ Code Status/LST Note (BWH)	Hanley, William A.
05/14/2010	✓ Patient Note	Hanley, William A.

Health Profile

Last Known Values

Test Description	Last Known	Date
------------------	------------	------

Bwhlmmrmaptest,Nine AW860 5/4

24253080 (BWH) 06/22/1955 (58 yrs.) M

BIMA

Reminders

- No documented smoking status. Click to enter status. Never smoker
- Patient overdue for total cholesterol and LDL cholesterol (rec q 5 years).
- Pt is overdue for colonoscopy (rec: q 10 yrs). Fam Hx indicates average risk for colorectal cancer. Referral requested

Flowsheets

HM Item	Last Date	Result
Cholesterol		
Colonoscopy		
Smoking status		
HbA1c	03/21/2014	9.7
Varicella	05/24/2013	Done
Influenza	05/24/2013	Done
Tdap	05/24/2013	Done
Td	05/24/2013	Done
Pneumococcal	05/24/2013	Done
Zoster	05/24/2013	Done
HPV	05/24/2013	Done
Hepatitis B	05/24/2013	Done
Hepatitis A	05/24/2013	Done
Hib	05/24/2013	Done
Meningococcal	05/24/2013	Done
PPD	05/24/2013	Done
CMV IG	05/24/2013	Done

Problems

- [Depression](#)
- [Allergic rhinitis](#)
- [Hypertension](#)
- [Gout](#)

Medications

- [Hctz \(HYDROCHLOROTHIAZIDE\) 25 MG \(25MG TABLET Take 1\) PO BID](#)
- [Lisinopril 20 MG \(20MG TABLET \) PO QD](#)
- [Glyburide 5MG TABLET Take 1 Tablet\(s\) PO BID](#)
- [Metformin 500 MG \(500MG TABLET Take 1\) PO BID](#)

Procedures

- [S/P Tonsillectomy](#)
- [S/P Arthroscopy of knee](#)

Allergies

Allergen	Reaction
Latex	- Anaphylaxis
Codeine	- Dystonia

Sticky Notes

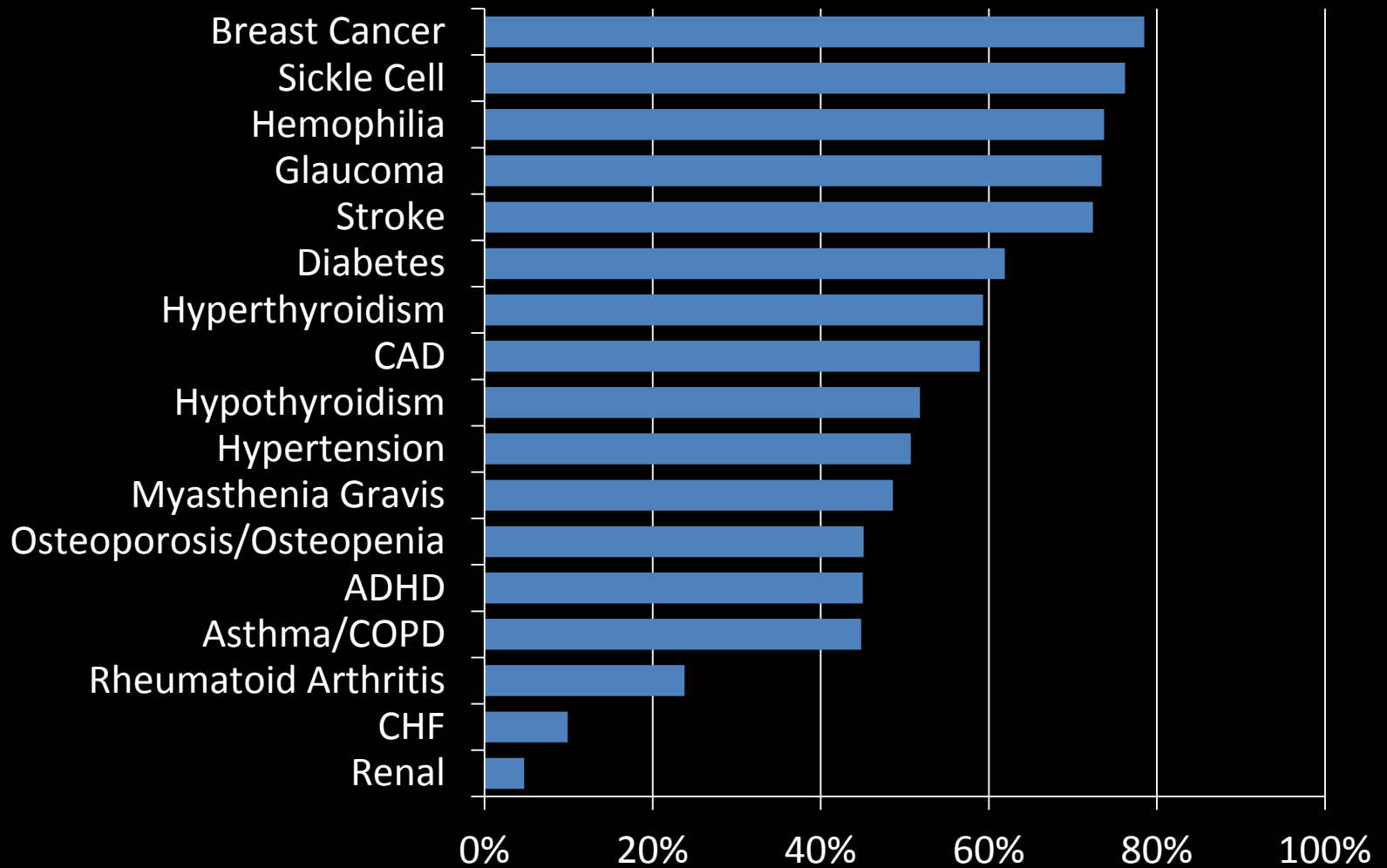
Likes to be called 9.

Notes

Date	Subject	Provider	Spec
03/21/2014	Patient Note	Wright, Adam, Ph.D.	Internal Me

Health Profile

Last Known Values



Reminders

- Patient has CHD-equivalent, overdue for lipid assessment (rec: q 1 year).
- Patient has an incomplete Advance Directive profile. Click to complete documentation Open Advance Directives Form Execute
- Recommend bone densitometry and appropriate treatment for patients at high risk for osteoporosis.
- Pt on Metformin > 365 consecutive days. Checking Creatinine (serum) is recommended.
- Pt on ACE Inhibitor for > 365 consecutive days. Checking K+ is recommended.
- Diabetic patient is overdue for HgbA1c measurement (recommended every 6 months). Order HbA1c Execute
- Diabetic patient is due for ophthalmologic exam (recommended yearly). Appointment scheduled Execute
- Diabetic patient is due for foot exam (recommended yearly). Appointment scheduled Execute
- Diabetic patient is due for urine microalbumin/creatinine ratio measurement (recommended yearly). Order Urine Microalbumin/creatinine ratio Execute
- Patient is overdue for blood pressure assessment (recommended yearly). Done Elsewhere Execute

Flowsheets Add New

Item Name			
BLOOD PRESSURE	172/75 L Arm	124/84 L Arm	104/62 L Arm
TEMPERATURE	96.0 F	95.2 F	
PULSE	67	72 Regular	96 Regular
RESPIRATORY RATE			
O2 SAT			
HEIGHT			
WEIGHT	175.6 lb	178 lb	180 lb
BMI	31.2	31.6	32.0
PAIN LEVEL			

Problems Enter new probl Add New

- Diabetes mellitus
- Elevated cholesterol
- ? transient ischemic attack
- Hypertension

Health Monitoring

- M-alb/creat ratio
- Ophthal Exam
- Colonoscopy
- Smoking status
- Pneumovax never
- Mammogram long time ago

Care Providers Add New

BMT Flowsheet

Allergies Add New

Allergen	Reaction
NKA	-

Summary

- Cholesterol:** 213mg/dL on 5/17/2004
- Triglycerides:** 87mg/dL on 5/17/2004
- HDL Cholesterol:** 58mg/dL on 5/17/2004
- VLDL:** 17mg/dL on 5/17/2004
- LDL Chol (Calculated):** 138mg/dL on 5/17/2004

Medications Enter new medic Add New

- Asa (ACETYLSALICYLIC ACID) 81 MG (81MG TABLET Take 1) P
- Glyburide 5 MG (5MG TABLET Take 1) PO BID
- Lisinopril 5 MG (5MG TABLET Take 1) PO QD
- Metformin XR (METFORMIN EXTENDED RELEASE) 500MG TABL

AW860

Reminders

- Patient has CHD-equivalent, overdue for lipid assessment (rec: q 1 year).
- Patient has an incomplete Advance Directive profile. Click to complete documentation
- Recommend bone densitometry and appropriate treatment for patients at high risk for osteoporosis.
- Pt on Metformin > 365 consecutive days. Checking Creatinine (serum) is recommended.
- Pt on ACE Inhibitor for > 365 consecutive days. Checking K+ is recommended.
- Diabetic patient is overdue for HgbA1c measurement (recommended every 6 months).
- Diabetic patient is due for ophthalmologic exam (recommended yearly).
- Diabetic patient is due for foot exam (recommended yearly).
- Diabetic patient is due for urine microalbumin/creatinine ratio measurement (recommended yearly).
- Patient is overdue for blood pressure assessment (recommended yearly).

Flowsheets Add New

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O2 SAT			
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WEIGHT	175.6 lb	178 lb	180 lb
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PAIN LEVEL			

Problems Enter new probl Add New

- Diabetes mellitus
- Elevated cholesterol
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Health Monitoring

- M-alb/creat ratio
- Ophthalm Exam
- Colonoscopy
- Smoking status
- Pneumovax
- Mammogram

Care Providers

BMT Flowsheet

Allergies Add New

Allergen	Reaction

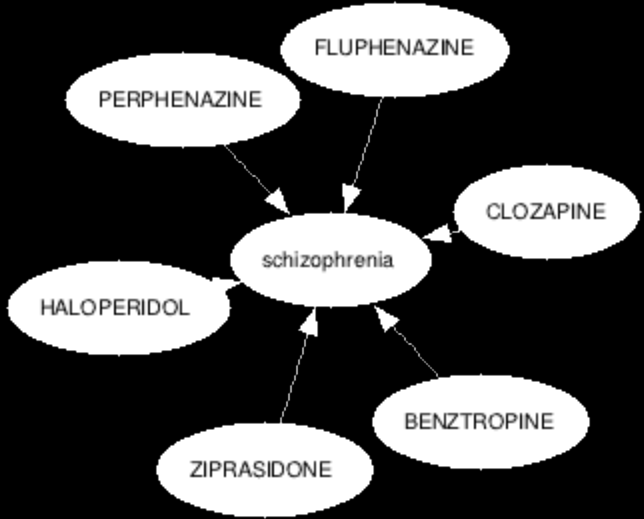
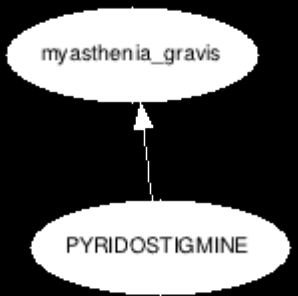
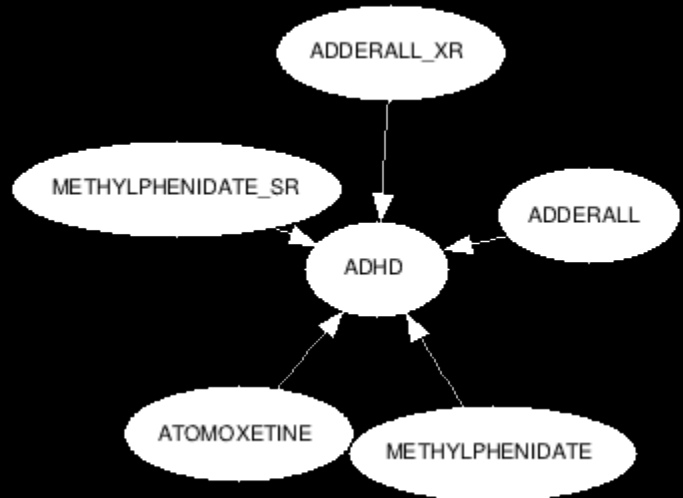
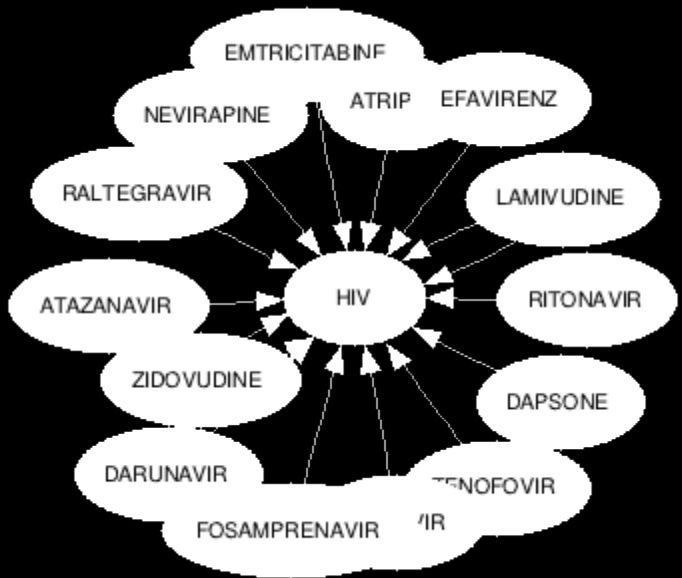
Summary

- Glyburide 5MG PO BID
- Metformin XR 500MG take 4 PO QD
- Cholesterol: 174mg/dL on
- Triglycerides: 80mg/dL on
- HDL Cholesterol: 46mg/dL on
- VLDL: 16mg/dL on
- Creatinine: 0.74mg/dL on
- Glucose: 176mg/dL on
- LDL Chol (Calculated): 112mg/dL on
- Hgb A1C: 7.8% on *2.9 7.5 7.8*
- MALB, urine (mg/dL): <ASSAY RANGE, 0.3mg/dL on

Medications Enter new medic Add New

- Asa (ACETYSALICYLIC ACID) 81 MG (81MG TABLET Take 1) P
- Glyburide 5 MG (5MG TABLET Take 1) PO BID
- Lisinopril 5 MG (5MG TABLET Take 1) PO QD
- Metformin XR (METFORMIN EXTENDED RELEASE) 500MG TABL

- **Hypothyroidism:** The patient's last TSH was 6.5. The patient's levothyroxine dose is 50 mcg. If they are compliant with their medication, the patient appears to be undertreated. You might consider increasing the [levothyroxine dose and then rechecking the TSH in 6 weeks](#).
- **Weight:** Patient weighs 210 pounds (up 6 pounds from last visit on 12/9/07) and is 5'10" with a BMI of 31 (click here for a BMI trend graph). At the last visit patient received counseling on weight loss and a referral to a dietitian however no follow-up visit occurred. Consider counseling patient today and referring to the dietitian.
- **Diabetes:** Patient has Type 2 DM diagnosed on 7/1/03 which is currently well-controlled on metformin and rosiglitazone. Most recent A1c was 6.1% on 12/9/07 (down from 7.2% six months prior). Other parameters are all up to date and in range. Patient is overdue for an A1c at this visit - [click here to order](#).
- **BP:** BP today 110/70. Patient is on metoprolol and hydrochlorothiazide. Blood pressure has been normal for the last three visits ([click here to see BP trend graph](#)). Last K 4 weeks ago 4.4.
- **Opioid narcotics:** Patient is receiving oxycodone/acetaminophen 5 mg/325 mg q6h for pain and hydromorphone 4mg prn for breakthrough pain not to exceed q6h. The oxycodone/acetaminophen was last refilled 6/9/2008 with 90 tablets, a 30 day supply that should run out on 7/8/2008. The patient has had 6 early refills in the past 12 months. The patient had a scheduled visit to the pain clinic on 6/18/2008 at 10:00am with Dr. Jones but did not attend. The patient has a narcotic contract with Dr. Jones.



Order Entry

Record w/o Ordering

Aricept 5 MG Oral Tablet

Link to: [1] Alzheimer's Disease

Co-Pay and Coverage Detail

Sig Status... Active;

SIG: Personal New Structured New Free Text

Dosage Calculator

ALL TAKE 1 TABLET DAILY AS DIRECTED. Days: 30, Qty: 30, Refill: 6
GD TAKE TABLET DAILY

Days: Qty: Tablet Refill: 0 Evaluate DAW Save as default for selected SIG

Send To Retail Pharmacy: TEST PHARMACY RxBenefit: Split Rx

Additional Details

Pharmacy Instructions: (210 chars) Cite Result

Ordered By: THOMAS,ERIC

Managed By: THOMAS,ERIC Supervised By: Auth: Not Required

Rx Date: 19Aug2011 Expires: 19Aug2012 Therapy Start: 19Aug2011 End:

Replaced: Link Unverified Order:

Medication History

Fill History

There are no items to show in this view

- Add New Problem
Alzheimer's Disease 331.0
A Fall E888.9
A Fall From A Wall E882
Abdominal Pain 789.00
Abdominal Pain 789.00
Accelerated Essential Hypertension 401.0
Accident Caused By Controlled Fire In Private Dwelling E895
Acoustic Trauma (Explosive) 388.11
Acquired Deformity Of Knee 736.6
Acute Nasopharyngitis 460
Abrial Septal Defect 745.5
Cat Bite E906.3
Cervical Spondylosis (C1 - C2) 721.0
Coronary Artery Disease 414.00
Depression Chronic
Depression With Anxiety 300.4
Factor VIII Deficiency (Hemophilia) 286.0
Fracture Of The Patella 822.0
Health Maintenance V70.0
Hypertension 401.9
Ischemic Stroke 434.90
Joint Pain, Localized In The Wrist 719.43
Memory Lapses Or Loss 780.93
Parkinson's Disease 332.0
Seizure Disorder 345.90
Sore Throat 462
Tropical Acne 706.1
Vomiting (Symptom) 787.03
Wrist Sprain 842.00
Show All Problems
Link To Order



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Diabetes mellitus

From Wikipedia, the free encyclopedia

"Diabetes" redirects here. For other uses, see [Diabetes \(disambiguation\)](#).

Diabetes mellitus, or simply **diabetes**, is a group of metabolic diseases in which a person has high **blood sugar**, either because the **pancreas** does not produce enough **insulin**, or because cells do not respond to the insulin that is produced.^[2] This high blood sugar produces the classical symptoms of **polyuria** (frequent urination), **polydipsia** (increased thirst), and **polyphagia** (increased hunger).

There are three main types of diabetes mellitus (DM).

- **Type 1 DM** results from the body's failure to produce insulin, and currently requires the person to inject insulin or wear an insulin pump. This form was previously referred to as "insulin-dependent diabetes mellitus" (IDDM) or "juvenile diabetes".
- **Type 2 DM** results from **insulin resistance**, a condition in which cells fail to use insulin properly, sometimes combined with an absolute insulin deficiency. This form was previously referred to as non insulin-dependent diabetes mellitus (NIDDM) or "adult-onset diabetes".
- The third main form, **gestational diabetes**, occurs when pregnant women without a previous diagnosis of diabetes develop a high blood glucose level. It may precede development of type 2 DM.

Other forms of diabetes mellitus include congenital diabetes, which is due to **genetic** defects of insulin secretion, **cystic fibrosis**-related diabetes, steroid diabetes induced by high doses of **glucocorticoids**, and several forms of **monogenic diabetes**.

Untreated, diabetes can cause many complications. **Acute** complications include **diabetic ketoacidosis** and **nonketotic hyperosmolar coma**. Serious long-term complications include **cardiovascular disease**, **chronic renal failure**, and **diabetic retinopathy** (retinal damage). Adequate treatment of diabetes is thus important, as well as **blood pressure** control and lifestyle factors such as stopping **smoking** and maintaining a healthy **body weight**.

All forms of diabetes have been treatable since **insulin** became available in 1921, and type 2 diabetes may be controlled with medications. Insulin and some oral medications can cause **hypoglycemia** (low blood sugars), which can be dangerous if severe. Both types 1 and 2 are **chronic** conditions that cannot be cured.^[3] **Pancreas transplants** have been tried with limited success in type 1 DM; **gastric bypass surgery** has been successful in many with **morbid obesity** and type 2 DM. Gestational diabetes usually resolves after delivery.

Contents [\[hide\]](#)

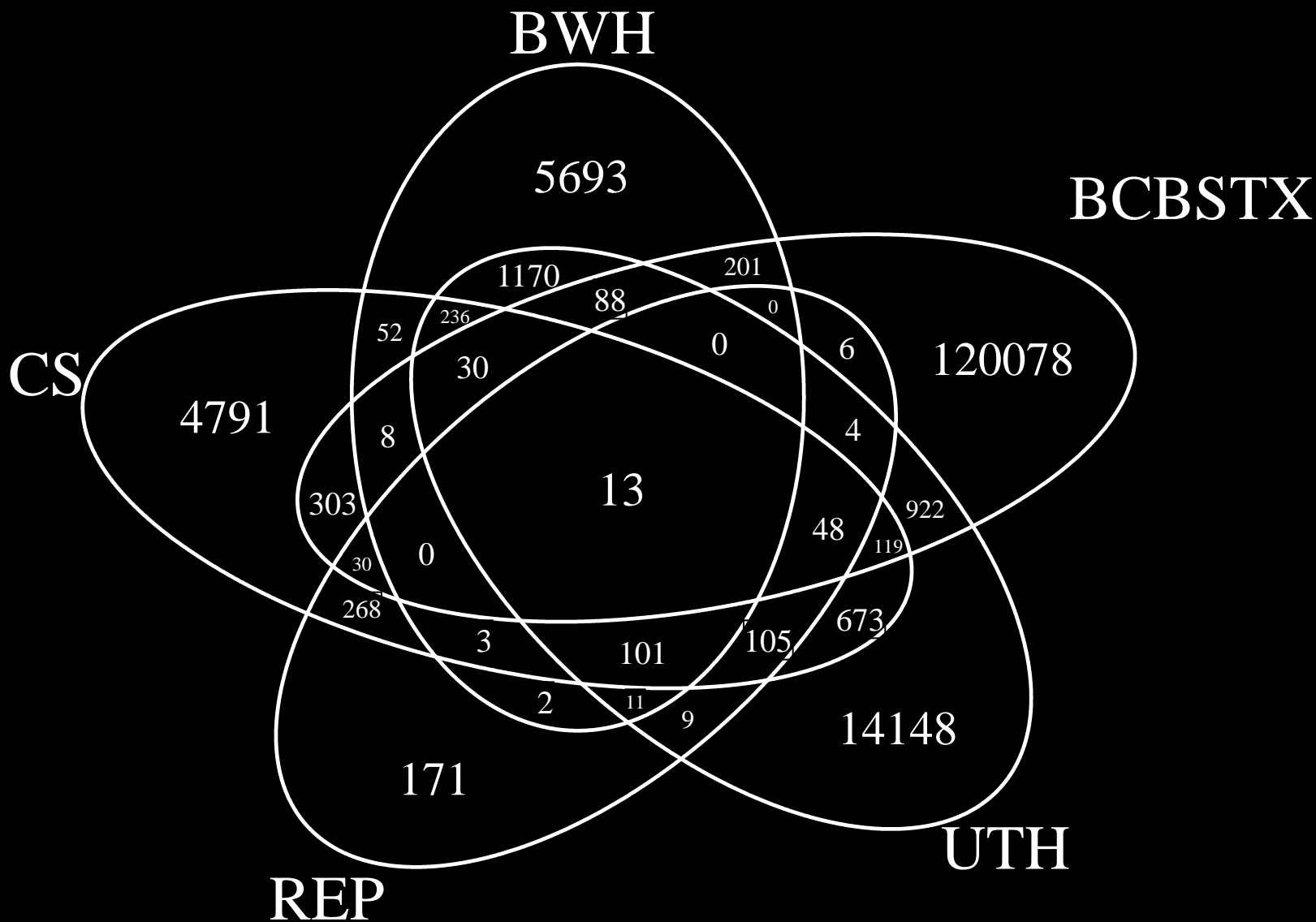
Diabetes mellitus

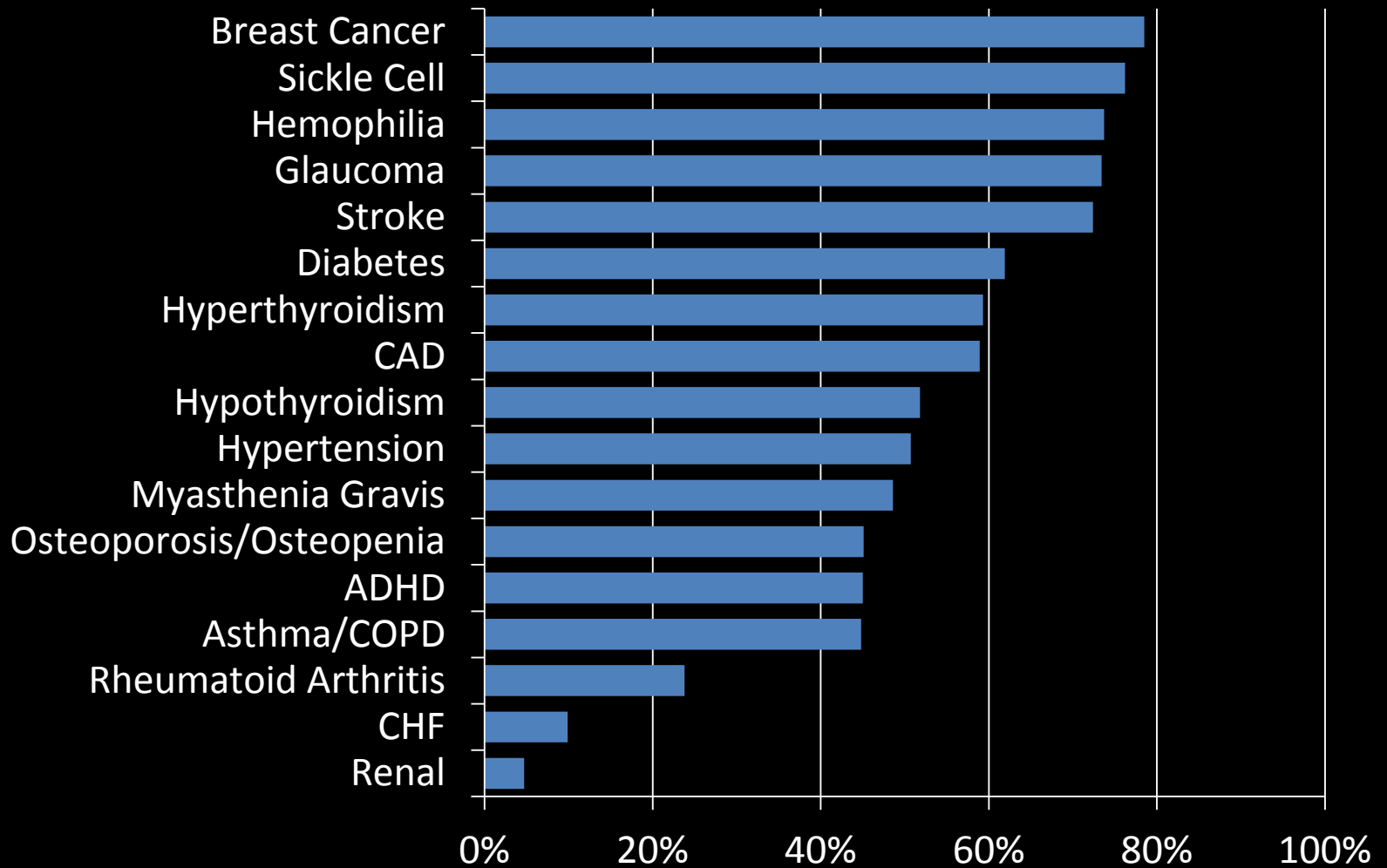
Classification and external resources



Universal blue circle symbol for diabetes.^[1]

ICD-10	E10 E11 E12 E13 E14
ICD-9	250 250.0 250.1 250.2 250.3 250.4 250.5 250.6 250.7 250.8 250.9
MedlinePlus	001214 001214
eMedicine	med/546 emerg/134
MeSH	C18.452.394.750 C18.452.394.750





Problem List Suggestion

Based on patient's clinical and billing data, the patient may have the following problems. Upon save, checked items will be added to the problem list. Unchecked items will not be added, and you will not be prompted again.

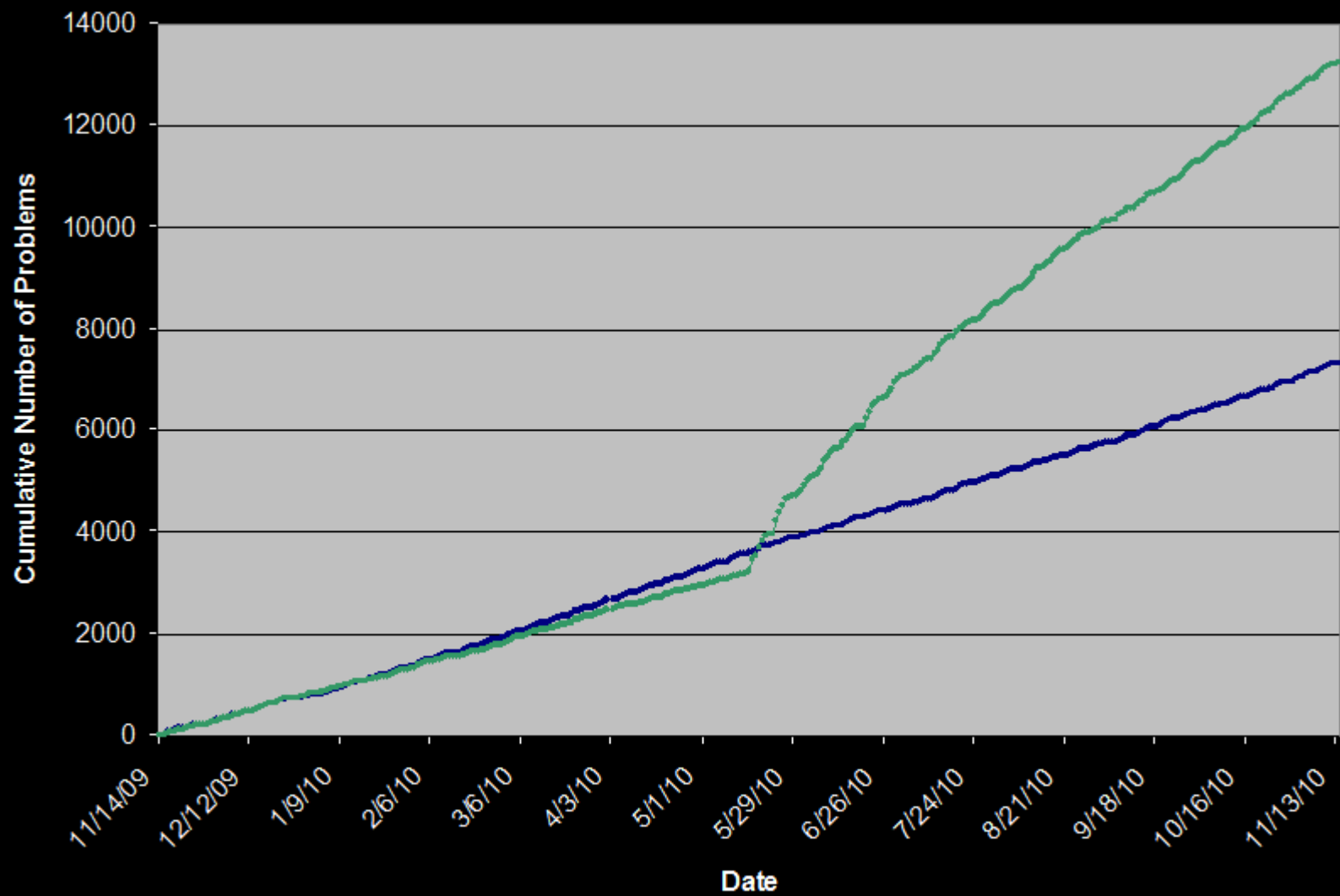
[+ Expand All](#)

Add	Problem Description	
<input checked="" type="checkbox"/>	Coronary arteriosclerosis: Patient is taking a platelet aggregation inhibitor and has been billed at least once for CAD.	<input type="text" value="Enter Customizable Description..."/>
<input checked="" type="checkbox"/>	Congestive heart failure: Patient is on at least two CHF medications and has been billed at least twice for CHF.	<input type="text" value="Enter Customizable Description..."/> + Related terms
<input checked="" type="checkbox"/>	Diabetes mellitus: Patient has a HbA1c >= 7.0%.	<input type="text" value="Enter Customizable Description..."/> + Related terms
<input checked="" type="checkbox"/>	Hypertensive disorder: Patient has been billed for hypertension and is on an antihypertensive agent.	<input type="text" value="Enter Customizable Description..."/> + Related terms
<input checked="" type="checkbox"/>	Hypothyroidism: Patient is on thyroid hormone.	<input type="text" value="Enter Customizable Description..."/>

[Explanations](#)

Save

Cancel



Problem	Intervention Period		Unadjusted** Comparison		Adjusted*** Comparison	
	Control	Intervention	Relative rate	p-value	Odds ratio	p-value
ADHD	69	157	2.086	< 0.0001	2.234	<.0001
Asthma / COPD	529	1291	2.416	< 0.0001	2.981	<.0001
Breast cancer	180	246	1.678	0.0004	1.783	<.0001
Coronary artery disease	178	576	3.960	< 0.0001	4.655	<.0001
Congenital coagulopathy	5	19	3.800	0.0133	2.055	0.0384
Congestive heart failure	97	373	4.922	< 0.0001	7.563	<.0001
Diabetes mellitus	535	814	2.037	< 0.0001	1.971	<.0001
Glaucoma	61	263	3.088	< 0.0001	3.783	<.0001
Hypertension	1,031	3,082	3.530	< 0.0001	4.118	<.0001
Hyperthyroidism	72	124	1.543	0.0308	1.298	0.2928
Hypothyroidism	205	823	3.506	< 0.0001	3.987	<.0001
Myasthenia gravis	3	5	3.333	0.2850	2.098	0.114
Osteoporosis/osteopenia	582	1,521	2.776	< 0.0001	3.396	<.0001
Rheumatoid arthritis	24	75	4.018	< 0.0001	3.966	<.0001
CKD	87	521	6.891	< 0.0001	8.223	<.0001
Sickle cell disease	13	23	1.327	0.3538	1.659	0.2897
Stroke	68	103	2.088	0.0023	2.353	0.0002
Total	3,739	10,016	2.983	< 0.0001	3.431	<.0001