



The Diabetes Registry and Future Panel Management Tool

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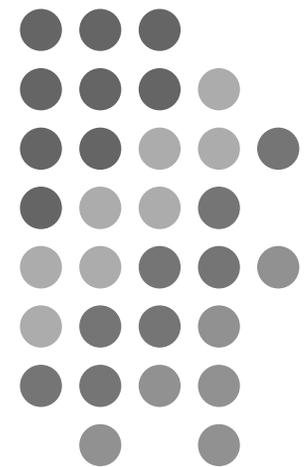
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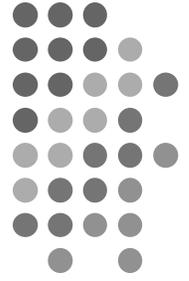
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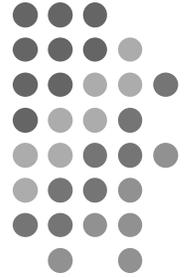


In collaboration with clinical staff from the Portland VAMC & VISN 20 facilities



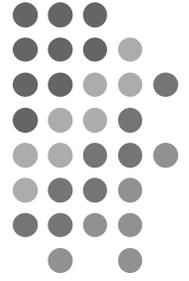
Poll question

- Please add question, “What is your background?” (select all that apply)
- Research
- Primary Care Physician
- Specialty Care Physician
- Nurse
- Pharmacist
- Information Technology (IT)
- Quality & Performance



Overview

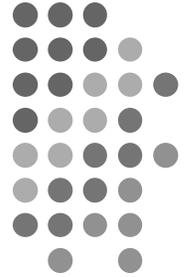
- Diabetes Registry:
 - Background & development
 - Features & associated functions
 - Use in practice
- Future Panel Management Tool:
 - Planned architecture
 - Planned features
- Summary & questions



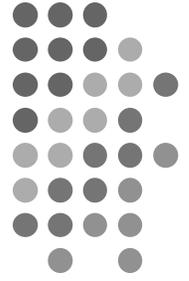
Background –July 2008

- Increasing diabetic population
- Intensive resource use
- Population at high risk for co-morbidities
- Not meeting EPRP performance measures
- No access to real-time data:
 - Who are our diabetic patients?
 - Who is at risk for poor outcomes?
- Multi-disciplinary team chartered by PVAMC Chief of Staff to develop registry

Registry Development



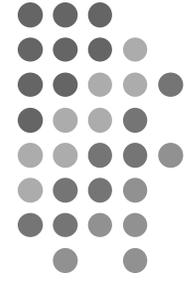
- Reviewed existing registries with program developers:
 - Cleveland VA
 - VISN 7 – Atlanta
 - Kaiser Permanente
- Defined registry format & functions based on local need & identified strong practices – “in-reach” & “out-reach”
- Partnered with VISN 20 Data Manager & PVAMC Web Master for data routines & display
- Piloted by 6 Primary Care teams for feedback with rapid development cycles to meet user specifications



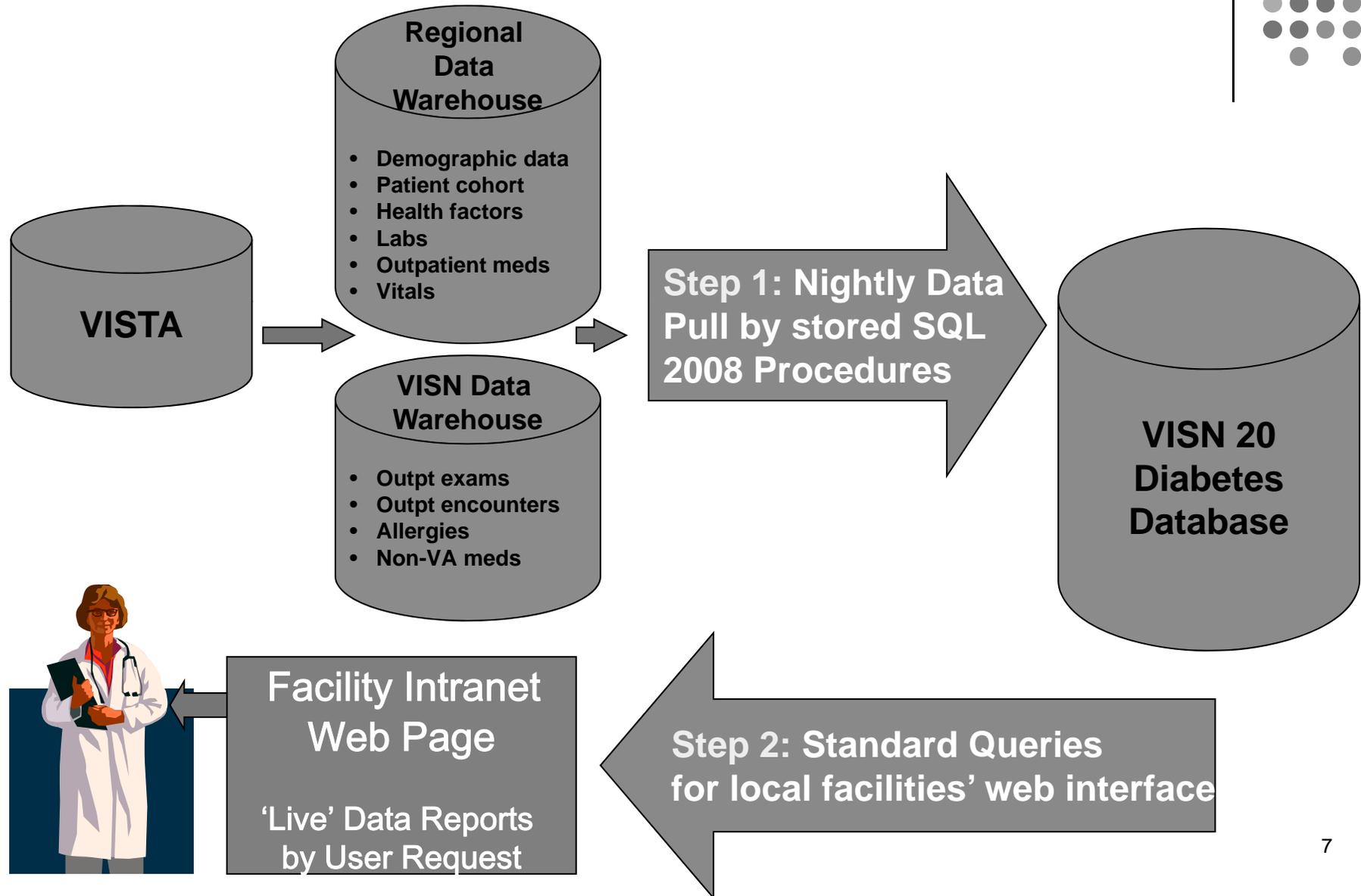
Inclusion Criteria - (looking back 1yr)

- Hgb A1c ≥ 6.5 (looks back last 3 years)
- Outpt insulin rx
- Oral hypoglycemic agent rx other than metformin
- Metformin rx w/ diabetes ICD-9 code on active problem list
- Metformin rx with outpt visit with diabetes ICD-9 code
- Glucose test strip rx w/ diabetes ICD-9 code on active problem list
- Glucose test strip rx w/ outpt visit with diabetes ICD-9 code

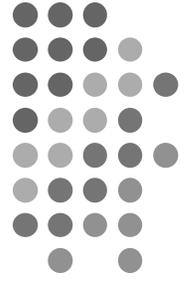
Note: plan to use problem list to identify “diet controlled” diabetics – capture in separate report



Nightly Registry Data Flow

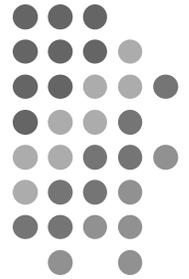


Converting Data Tables to Functional Registry



- Software for web-based platform:
 - Build software - Active Server Page, JavaScript, Cascading Style Sheet, JQuery, and Active Data Object technologies. Plan for ASP.net for future
 - Rapid development cycles
 - Ease of maintenance
 - Simple but powerful functionality
 - Intuitive interface
 - Design software - Visual Studio 2008, Expression Web 4, Access 2007 and Adobe Fireworks.
- User Reports
 - Implemented using Microsoft SQL Server 2008 and SQL Server 2008 Reporting Services
 - Access data through multiple predefined reports with minimal user interaction
 - Custom query feature for power users – full parameterized access to the data

Back-end User Database: Registry Access & Constants



- Forms streamline process to grant user access
- Flexible to meet unique site staffing & roles
- Designation of lab/exam thresholds
- Reports by site, role, user look-up, etc.

Total Health
Diabetes Care
Portland VA Medical Center

PVAMC - 648
PCECS
Diabetes Registry

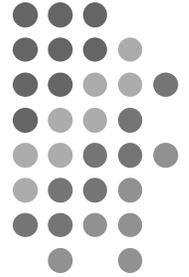
[Configuration]

- Users
- Sites
- Roles
- Site Configuration
- PCP Support Configuration
- Administrators
- Constants
- Thresholds

[Reports]

- Users
- Roles
- Sites
- Site Configuration
- Site Configuration w/PCP Support
- PCP Support Configuration
- Administrators
- Access Schema

Hierarchical Access to Clinical & Performance Data



Individual providers:

- Own panel

Clinic staff (RN, MA/LPN, SW, etc)

- Clinical data for all providers at site (no performance data)

Clinic managers:

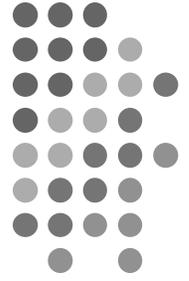
- Individual provider panels & clinic aggregate

Division & executive leadership:

- Individual provider panels, clinic aggregates for comparison, & division aggregate



Registry Features



- ✓ Data updated daily
- ✓ Batched individualized patient letters
- ✓ Scorecards for Team: patient trends & issues
- ✓ Scorecards for patients: education & engagement

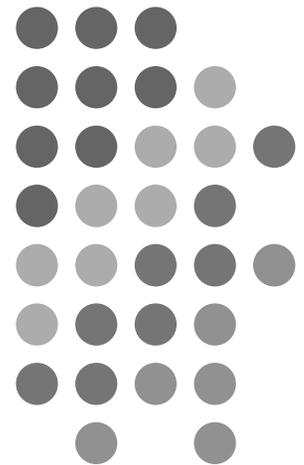
Population Mgmt	EPRP Performance	User Friendly
<ul style="list-style-type: none">▪ Aggregate data display▪ New diabetics▪ Outside labs▪ Triage patients▪ Upcoming appointments▪ Patient pick lists	<ul style="list-style-type: none">▪ Identify outlier patients▪ Performance dashboard	<ul style="list-style-type: none">▪ Web interface▪ Fast retrieval▪ 1-click canned reports▪ Custom queries▪ Print and export reports

Demonstration...

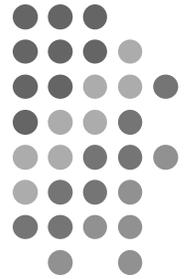
Diabetes Registry



Total Health
Diabetes Care
Portland VA Medical Center



Sample Registry Screen Shots





Total Health
Diabetes Care
Portland VA Medical Center

Diabetes Registry

Current User: VHAPORTESTUSER
Role: Administrator (Administrator)
Station Code: 999
Data extracted on: 10/13/2010 4:42:14 AM

About Custom Query Custom Lists Feedback Thresholds

Select PCP: -- All --

Or

Select Site: -- All --

Select Custom Patient List: -- All Patients --

Options: View as Report Print Diabetes Report Cards

All Diabetic Patients in Panel:

Next Appointment Within: 7 days, All PCP

A1C Greater Than or Equal to: 7

LDL Greater Than or Equal to: 100

BP Greater Than or Equal to: 140 over 90

Labs/Exams Due: A1C or LDL

New to Cohort Within: 30 days Last updated: 10/13/2010

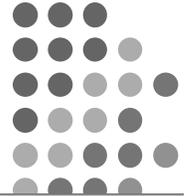
Patient Name or Last Four:

Main dashboard

Select cohort and then desired canned report from most common functions

Links to other functions on blue tool bar

Common Data Display



Diabetes Registry - All Diabetic Patients in Panel Site: All

#	Patient Name	Age	A1C			LDL		MA/CR		Blood Pressure		Foot Exam	Retinal Exam	Prx	Flu	Insulin
			Last	Last Date	Prev	Last	Date	Value	Date	Sys/Dia	Date					
1	test123 (1234)	68	6.7	09/16/09	6.6	57.00	09/16/09	ND	ND	113/65	05/20/10	03/24/10	04/07/09	12/22/05	09/29/09	No
2	test124 (1234)	79	5.9	12/09/09	6.5	131.00	12/09/09	9.62	10/15/07	136/79	06/23/10	06/08/10	03/10/09	11/16/05	09/18/09	ND
3	test125 (1234)	92	5.6	07/10/07	5.5	139.00	07/10/07	ND	ND	118/56	06/28/10					
4	test126 (1234)	65	6.9	01/08/10	6.9	113.00	01/08/10	54.88	01/08/10	141/81	07/21/09					
5	test127 (1234)	69	7.7	09/22/09	8.0	87.00	09/22/09	ND	ND	125/59	06/22/10					
6	test128 (1234)	71	6.0	03/23/10	6.8	61.00	03/23/10	47.02	03/23/10	130/93	04/26/10					
7	test129 (1234)	73	6.4	03/16/10	6.5	114.00	08/27/09	2039.00	08/27/09	122/72	04/08/10					
8	test130 (1234)	66	9.9	05/29/08	ND	ND	ND	ND	ND	138/82	03/25/10					
9	test131 (1234)	55	5.6	03/13/09	5.4	126.00	03/09/10	27.90	03/09/10	116/63	02/10/10					
10	test132 (1234)	50	6.7	01/07/10	8.1	60.00	03/17/10	ND	01/06/10	104/69	03/03/10					
11	test133 (1234)	70	6.9	05/13/10	6.9	101.00	07/02/09	ND	ND	127/65	06/23/10					
12	test134 (1234)	62	8.0	05/08/10	6.7	54.00	05/07/10	ND	06/23/08	119/59	06/15/10					
13	test135 (1234)	65	6.1	01/16/10	5.9	62.00	01/15/10	ND	ND	135/84	06/18/10					
14	test136 (1234)	66	7.5	06/19/09	7.6	83.00	06/19/09	28.78	03/20/08	143/86	06/07/10					
15	test137 (1234)	69	6.5	04/28/10	6.6	65.00	04/27/10	6.88	07/23/08	138/89	03/16/10					
16	test138 (1234)	58	7.0	04/23/10	6.7	90.00	04/23/10	ND	ND	138/69	03/17/10					
17	test139 (1234)	63	6.8	01/14/10	6.7	56.00	11/19/09	51.33	01/29/07	124/76	06/02/10					
18	test140 (1234)	80	6.5	06/05/08	6.7	85.00	06/05/08	7.04	06/05/08	145/87	03/09/09					
19	test141 (1234)	84	8.3	04/21/10	6.8	134.00	04/21/10	ND	09/15/08	113/70	06/10/09					
20	test142 (1234)	76	6.3	04/29/10	6.4	75.00	04/29/10	6.34	04/29/10	132/54	02/10/10					

Data for DM clinical measures

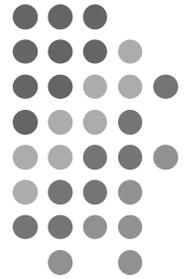
Trended data for HgbA1c at a glance

Outliers in red by clinical threshold or date

All columns sortable for triage

1-Click Canned Report

Example: Hgb A1C ≥ 7



Diabetes Registry - A1C ≥ 7 Site: All

#	Patient Name	Age	A1C			LDL		MA/CR		Blood Pressure		Foot Exam	Retinal Exam	Prnx	Flu	Insulin
			Last	Last Date	Prev	Last	Date	Value	Date	Sys/Dia	Date					
1	test127 (1234)	69	7.7	09/22/09	8.0	87.00	09/22/09	ND	ND	125/59	06/22/10	ND	ND	ND	ND	Yes
2	test130 (1234)	66	9.9	05/29/08	ND	ND	ND	ND	ND	138/82	03/25/10	04/06/10	04/28/09	ND	11/10/08	No
3	test134 (1234)	62	8.0	05/08/10	6.7	54.00	05/07/10	ND	06/23/08	119/59	06/15/10	10/31/07	12/29/04	10/20/00	10/06/09	Yes
4	test136 (1234)	66	7.5	06/19/09	7.6	83.00	06/19/09	28.78	03/20/08	143/86	06/07/10	10/16/09	05/28/09	10/05/09	10/05/09	No
5	test138 (1234)	58	7.0	04/23/10	6.7	90.00	04/23/10	ND	ND	138/69	03/17/10	06/07/10	10/20/09	07/12/01	09/22/09	No
6	test141 (1234)	84	8.3	04/21/10	6.8	134.00	04/21/10	ND	09/15/08	113/70	06/10/09	01/21/10	07/17/09	12/09/03	11/04/09	No

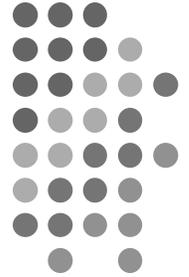
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1-click reports to identify all patients meeting specific criteria

built using most common search requests & following EPRP measure compliance

Upcoming Appointments Canned Report



Diabetes Registry - Next Appt Within 7 days, scope=All Site: All

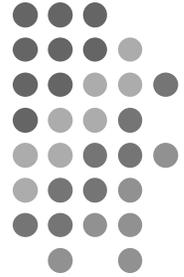
#	Patient Name	Age	Next Appt		A1C		LDL		MA/CR		Blood Pressure		Foot Exam	Retinal Exam	Prx	Flu
			Date	Loc	Last	Last Date	Last	Date	Value	Date	Sys/Dia	Date				
1	test124 (1234)	79	10/16/10	OPTOMETRY	5.9	12/09/09	131.00	12/09/09	9.62	10/15/07	136/79	06/23/10	06/08/10	03/10/09	11/16/05	09/18/09
2	test128 (1234)	71	10/14/10	TELEPHONE/MEDICINE	6.0	03/23/10	61.00	03/23/10	47.02	03/23/10	130/93	04/26/10	10/26/09	09/09/09	09/30/09	09/16/09
3	test130 (1234)	66	10/21/10	LABORATORY	9.9	05/29/08	ND	ND	ND	ND	138/82	03/25/10	04/06/10	04/28/09	ND	11/10/08
4	test131 (1234)	55	10/13/10	PRIMARY CARE GROUP PRI ONLY	5.6	03/13/09	126.00	03/09/10	27.90	03/09/10	116/63	02/10/10	ND	ND	ND	10/21/09
5	test132 (1234)	50	10/12/10	NEUROLOGY	6.7	01/07/10	60.00	03/17/10	ND	01/06/10	104/69	03/03/10	03/22/10	12/02/09	06/06/05	12/06/06
6	test133 (1234)	70	10/22/10	OPTOMETRY	6.9	05/13/10	101.00	07/02/09	ND						05/18/04	11/01/08
7	test137 (1234)	69	10/15/10	PHYSICAL THERAPY	6.5	04/28/10	65.00	04/27/10	6.88						ND	10/23/07

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Identify patients with upcoming appointments by PCP appointment or ALL appointments

Facilitates proactive care approach

Team Report Card



1 of 1 100% Find | Next Select a format Export

Diabetes Registry - Scorecard

Patient Name: test132

Age: 50 PCP: TestProvA,Test
 Body Mass Index: 36.00 Resident: NA
 Date of Next PCP Visit: NA Home Phone: 555-555-5564
 Recall Date: NA Work Phone: 444-444-4453

[Diabetes Report Card \(PDF\)](#)

Labs	Upcoming Medical Center Appointments	Screening Measures
HgbA1c: 6.70, 1/7/2010 Prev 1: 8.10, 9/22/2009 Prev 2: 8.20, 6/23/2009 LDL: 60.00, 3/17/2010 Prev 1: 49.00, 4/3/2009 Prev 2: NA MA/CR: , 1/6/2010	Next PCP NA Appt: Next Appt: NEUROLOGY 10/12/2010 12:00:00 PM	BP: 104/69, 1/7/2010 Last Foot Exam: 3/22/2010 Last Retinal Exam: 12/2/2009 DIABETIC EYE EXAM ICD-9:
	Preventive Measures	
	Flu Shot: 12/6/2006 Pneumovax: 6/6/2005	

Allergies				
Allergy	Type	Observed or Historical	Mechanien	Verified Date
IBUPROFEN	Drug	HISTORICAL	ALLERGY	7/28/2005
LISINOPRIL	Drug	HISTORICAL	ALLERGY	5/1/2007
TERAZOSIN	Drug	HISTORICAL	PHARMACOLOGIC	5/2/2000

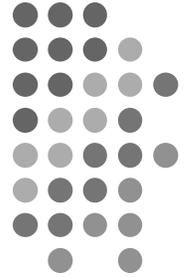
Active Diabetes Medications					
Drug Classification	Drug	Sig	Qty	Supply	Release Date
ANTILIPEMIC AGENTS	EZETIMIBE 10MG TAB	TAKE ONE TABLET BY MOUTH EVERY DAY FOR.	90	90	1/28/2008
INSULIN	INSULIN NPH HUMAN 100 UNIT/ML NOVOLIN N	INJECT 100 UNITS SUBCUTANEOUSLY TWO TIM	18	90	3/27/2008

Click on patient name from data display to get to comprehensive team report card

More trended lab data, contact info, appointment info

Drug allergies, DM meds by drug class, and outside drugs updated daily

Patient Report Card





DEPARTMENT OF VETERANS AFFAIRS
 Test VA Medical Center
 543 Robin Hood Rd.
 Havre de Grace, MD. 99999

Diabetes Report Card

Patient Name: test132 **DOB:** 7/25/1960

Primary Care Provider: TestProvA,Test

Recall Date:

Next PCP Appointment Date:

Please note that your goals for these diabetic tests may be different due to your specific health care needs. Discuss any questions or concerns with your Primary Care Health Care Team.

Diabetes Tests	Your Last Test Value & Date Done	Goal for Test	Your Results	Next Test Due
Blood Pressure	104/69 3/3/2010	Less than 130/80 for most people	Controlled	Due at every clinic visit
Eye Exam	12/2/2009	No signs of diabetes complications	No signs of diabetes complications	Due: Dec 2011
Foot Exam	3/22/2010	Foot exam done yearly	Foot exam done	Due: Mar 2011
A1c (3 month average blood sugar test)	6.70 1/7/2010	Goal set by your PCP	Controlled	Due: Jan 2011
LDL (Bad Cholesterol)	60.00 3/17/2010	Less than 100mg/dL	Controlled	Due: Mar 2011
Urine Protein	1/6/2010	< 30 mg/g	Not Done	Due: Jan 2011
Flu Shot	12/6/2006	Yearly flu shot	Remember to get your flu shot yearly – available at the VA during Fall and Winter	Yearly at start of flu season(Fall)
Pneumonia Shot	6/6/2005	Pneumonia shot done	Pneumonia shot done	Discuss with your PCP

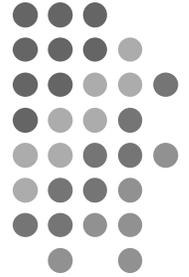
If you are due now for a shot or any of the above exams or labs, please call your Primary Care Health Care Team for assistance. If you do not know the phone number for your Primary Care Health Care Team you can call one of the following numbers to transfer to your local Primary Care Clinic for assistance:

Calling from Havre de Grace Area Toll-free Number
 (123) 456-7890 (888) 456-7890

For education and outreach to patients – includes for all DM measures:

- date and values of last test
- goal for most people for test
- interpretation of last results
- date test next due
- back side is a glossary of terms explaining each test, why needed, how done.

Custom Query



Custom Query

Location: All Provider Site

Patient Cohort:

- New to cohort within days
- Next Appointment(All) in days
- Next PCP Appointment in days
- Recall Month
- Birth Month

Labs:

- A1C >= Due >= plus Due
- LDL >= Due >= plus Due
- MA/CR >= Due >= plus Due

Vitals:

- BP > 140/90 > 130/80

Medications:

<input type="checkbox"/> Ace Inhibitors	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	HTN Medications
<input type="checkbox"/> Angiotensin II Inhibitors	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	
<input type="checkbox"/> Antihypertensive Combinations	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	
<input type="checkbox"/> Potassium Sparing/Combinations Diuretics	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	
<input type="checkbox"/> Thiazides/Related Diuretics	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	
<hr/>		
<input type="checkbox"/> Antilipemic Agents	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	Lipid Medications
<input type="checkbox"/> Nicotinic Acid	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	
<hr/>		
<input type="checkbox"/> Insulin	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	Diabetes Medications
<input type="checkbox"/> Oral Hypoglycemic Agents	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	
<hr/>		
<input type="checkbox"/> Non-Opioid Analgesics	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	Other
<input type="checkbox"/> Diagnostics, Other (i.e. Test strips)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Expired	

Preventive:

- Annual Flu not done
- Pneumovax not done
- Annual Foot exam not done
- Retinal exam not done
- Tobacco use in past 12 months

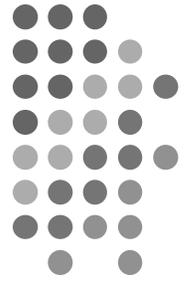
Fields to Display: All Customize

Sort On: Ascending Descending

Format: Report Excel PDF

For power users – allows flexibility in search parameters

Example Registry Function: Patient Lab Letters



- Three month pilot started 2/23/09
- Centralized 1-2 click production
- Letters to patients missing A1c or LDL with appointment w/in 2 weeks
- Last available lab results, how to get labs done, and appointment reminder
- Used policy order to allow lab staff to enter order
- Approximately 1000 letters sent during pilot

Example Patient Letter



According to our records, you are due for annual lab tests as part of your ongoing care. Two important labs that are monitored yearly for patients with diabetes or at risk for developing diabetes are the Hemoglobin A1c and the LDL cholesterol. Please note that your goals for these labs may be different due to your specific health conditions. If your past lab result is not controlled, consider discussing with your health care team at your next regularly scheduled visit.



	Goal	Your Past Lab Results		How often test due
A1c (Diabetes Test)	Goal set by your PCP	7.9% June 8 2009	<i>May need improvement</i>	Yearly or as needed
LDL (Bad Cholesterol)	Less than 100mg/dL	102 July 18 2008	<i>Not controlled</i>	Yearly or as needed

*******THE FOLLOWING LAB TESTS ARE DUE NOW*******

*******Lab: order the test indicated and underlined below*******

- ✓ LDL - Fasting Lipid Profile - You must NOT eat or drink anything BUT WATER from midnight before the test. Please take your AM diabetes medications AFTER your fasting lab is drawn. Recommend getting lab drawn before 10am to avoid a long period of fasting.

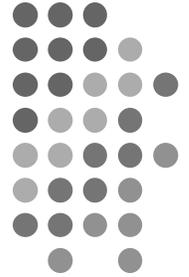
If you have had these labs done within the last year by a non-VA provider, please provide a copy of the results to your Primary Care Health Team.

How to get your labs done – **YOU MUST BRING THIS LETTER WITH YOU:**

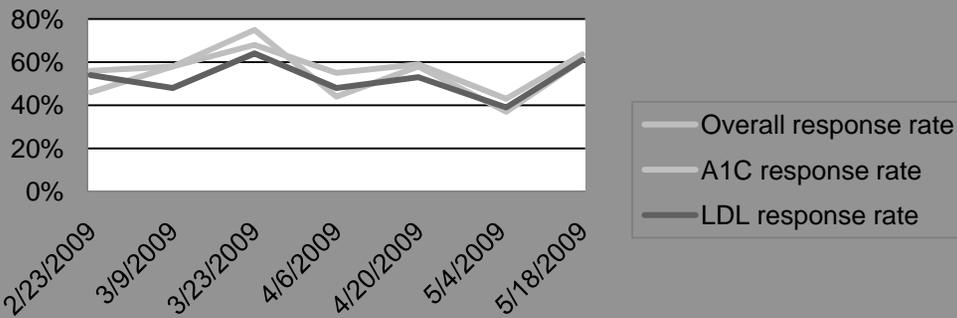
1. **Get your lab drawn at your local VA Primary Care Clinic at your convenience:**
 - Present this letter at your Primary Care Clinic within the next 30 days. Lab hours: Mon to Fri 8am – 3:30pm for all sites, except starting at 9am on Weds at Salem, Bend, and East Clinics.
 - North Coast Clinic: Thurs 8am – 11am, or by appointment: 1-800-949-1004, ext. 52593.
2. **Get your labs drawn during your next VA appointment:**
 - Present this letter at the facility lab when you come in for your next appointment: GERI JALLAD-VANC +++ at 8/17/2009 8:30:00 AM.

Patient Lab Letter Analysis

Feb 2009 – May 2009



Missing Lab Letter Response Rate



N = 1062 (7 mail batches)

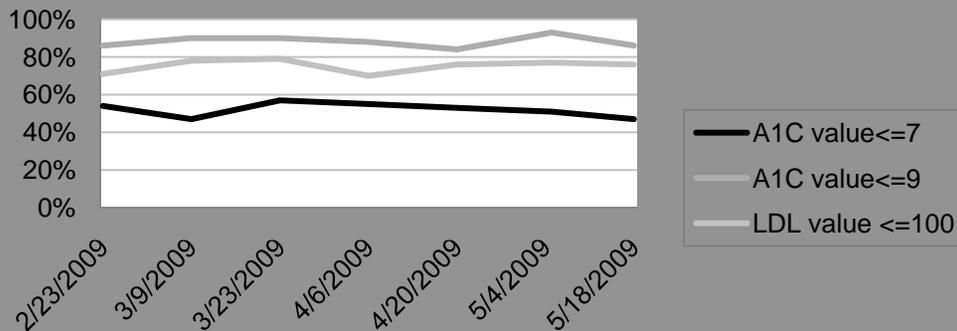
Compliance:

Ave 60% lab completion
62% had labs on day of appoint

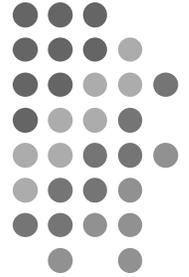
Outcome:

A1c: ~90% values $\leq 9\%$, ~55% ≤ 7
LDL: ~80% ≤ 100

Lab Results Associated with the Missing Lab Letter



How is the registry used in practice?



Patient triage and proactive disease management:

- “We identify vets with a1c’s over 8, to make sure that appropriate follow-up is being made by either via PCP phone/SMA/1:1 appts, nursing phone/drop in appts, endo, or clinical pharmacy consults.”
- “I make a custom list of the patients that are scheduled for each of my diabetes clinics so that I can review their reports, see the trends, and order the labs or appointments, perform any exams that need to be done.”
- “The RN scans for high BP and A1c. She will have pt’s come into the RN HTN group visit for rechecks and discuss needed f/u with pcp....”

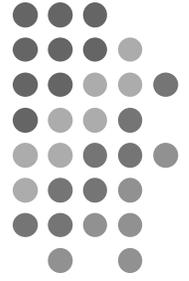
Improve annual monitoring of relevant tests/exams:

- “The RN and LPN scan the registry for tests (labs, Eye, foot exam, etc) that are overdue and schedule f/u.”
- “The facilitator pulls up a monthly patient list according to birth date and schedules those patients into our RN lead annual DM group visit.”

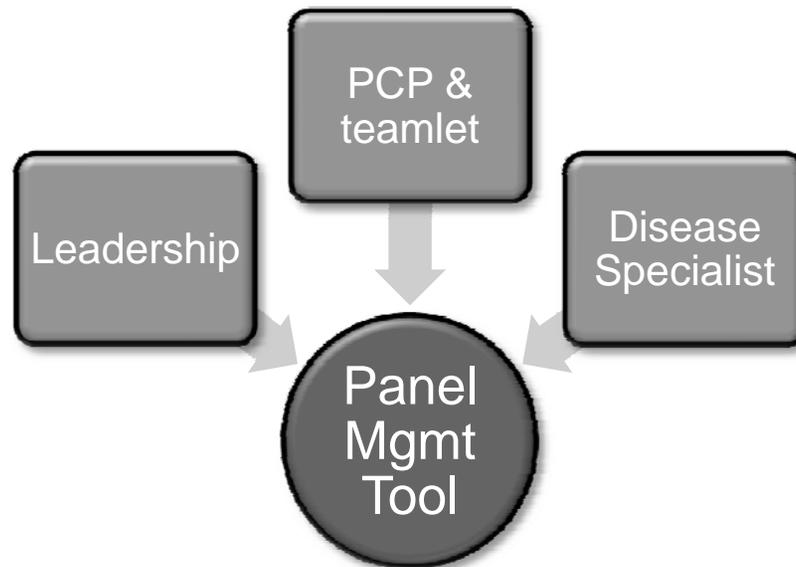
Patient education and engagement:

- “I give each veteran a copy of their report and the ‘team report card’ that gives the meds, etc, and explain what the report shows, what each section means, and I encourage them to be actively involved, i.e. if the lab test is due and they haven’t heard from their provider, that they should call and be proactive to get what needs to be done....done.”

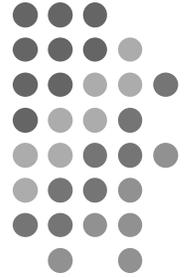
Going Forward- Total Population Management



- Panel Management Tool
 - Integrates tools for holistic care & improved efficiencies
 - Creates consolidated platform for population management
 - Supports needs for varied users



Panel Management Tool Architecture



Console Level



Panel Management Console

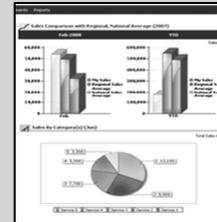
- ▶ Hub for clinical tools
- ▶ Quick access for common tasks
- ▶ Performance at a glance
- ▶ Triage by priority clinical markers

Support Level



Care Management Support Tool

- ▶ Efficient pt tracking
- ▶ Tasking & scheduling f/u



Performance Dashboard

- ▶ Real time performance data
- ▶ Aggregate & individual scores
- ▶ Link to pt lists for action

Disease-specific Level

Diabetes Registry



CHF Registry

Other Registries

Disease Registries

- ▶ Holistic team & pt report cards
- ▶ Disease-specific management
- ▶ Integrated data



Total Health

Panel Management

Portland VA Medical Center

Panel Management Console

Current User: Judy McConnachie

Role: Administrator (Administrator)

Station Code: 648

Data extracted on: 9/28/2010 4:44:22 AM

About

Feedback

Thresholds

Clinical Toolbox ▾

Panel Management

Performance at a Glance

Select PCP: -- All -- ▾

Or

Select Site: -- All -- ▾

Select Custom Patient List: -- All Patients -- ▾

All Patients in Panel:

[View](#)

Next Appointment Within:

7 days, All PCP [View](#)

Active Recall overdue:

2 mo(s) Primary Care ▾ [View](#)

Currently in Hospital:

[View](#)

Hospital Discharge
in Past:

30 days [View](#)

Emergency Department
Visit Within:

30 days [View](#)

Labs/Exams Due:

-- All -- ▾ [View](#)

Resource Intensive
Patients by Cohort:

--CHF-- ▾ Viewtop 10% ▾ [View](#)

Patient Name
or Last Four:

[View](#)

Panel Management:

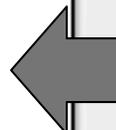
Supports teamlet in panel management

Proactive patient care

Identifies high risk patients

Enables tasking for process measures

Identifies resource intensive patients by cohort for review





Total Health

Panel Management

Portland VA Medical Center

Panel Management Console

Current User: Judy McConnachie
Role: Administrator (Administrator)

Station Code: 648

Data extracted on: 9/28/2010 4:44:22 AM

About

Feedback

Thresholds

Clinical Toolbox ▾

Panel Management

Performance at a Glance

Performance Dashboard:

Real-time performance for total population

Trended data

Aggregate for VISN; drill down to facility, clinic, individual provider

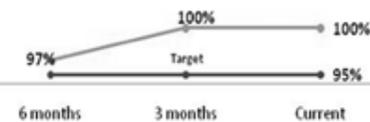
Click to retrieve list of patient outliers for action

(note: data for example purpose only)

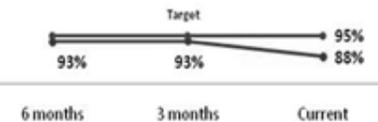
Custom Report: VISN Station PCP [View](#)

CHF Management

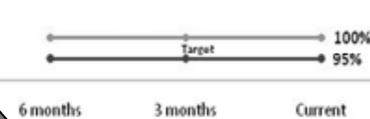
Adult Smoking Cessation Advice/Counseling (HF-4)



Discharge Instructions (HF-1)



Evaluation of LVS Function (HF-2)

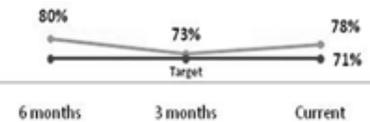


ACEI or ARB for LVSD (HF-3)



Diabetes Management

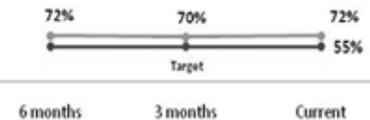
DM - Outpatient - BP < 140/90



Outpatient-HbA1c > 9 or Not Done (poor control) in Past Year



Outpatient- LDL-C < 100 mg/dL



DM-Outpatient-Retinal Exam, Timely by Disease



[+](#) More



Total Health

Panel Management

Portland VA Medical Center

Panel Management Console

Current User: Judy McConnachie
 Role: Administrator (Administrator)
 Station Code: 648
 Data extracted on: 9/28/2010 4:44:22 AM

- About
- Feedback
- Thresholds
- Clinical Toolbox ▾

Panel Management

Select PCP: -- All --

Or

Select Site: -- All --

Select Custom Patient List: -- All Patients --

- Diabetes Registry
- CHF Registry
- Care Management
- Clinical Reminders
- Protocols
- Other Registries

Draft ready for pilot – will include CHF Risk Prediction Score

View

All Patients in Panel: **View**

Next Appointment Within: 7 days, All

Active Recall overdue: 2 mo(s)

Currently in Hospital: **View**

Hospital Discharge in Past: 30 days

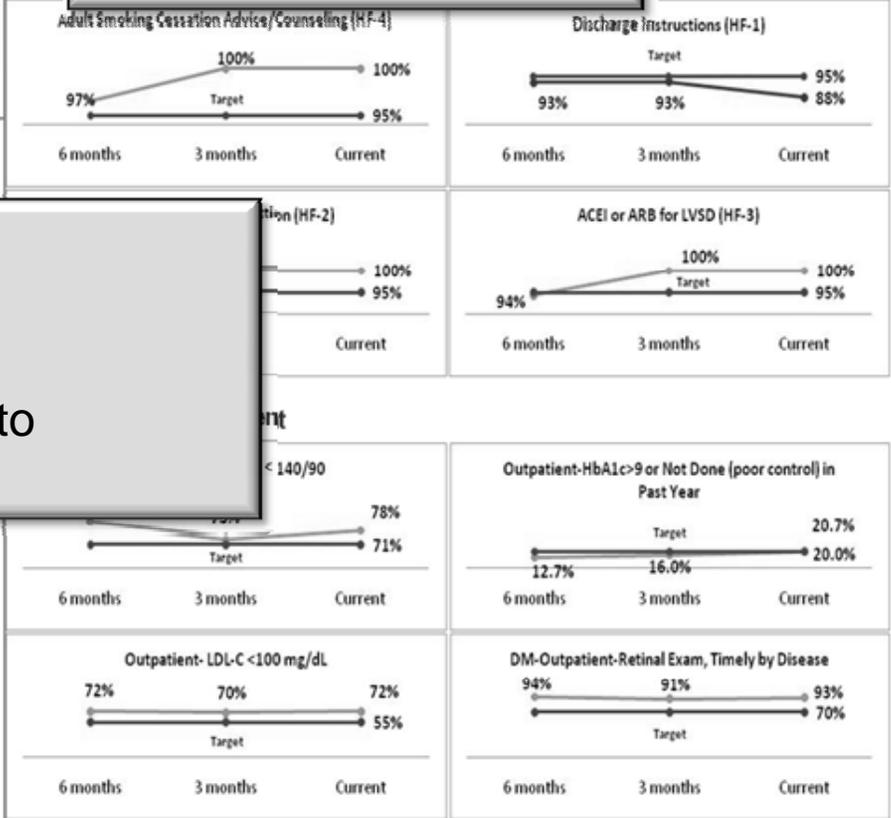
Emergency Department Visit Within: 30 days **View**

Labs/Exams Due: -- All -- **View**

Resource Intensive Patients by Cohort: --CHF-- View top 10% **View**

Patient Name or Last Four: **View**

Clinical Toolbox:
Centralized access to relevant tools



More



Total Health

Panel Management

Portland VA Medical Center

Panel Management Console

Current User: Judy McConnachie

Role: Administrator (Administrator)

Station Code: 648

Data extracted on: 9/28/2010 4:44:22 AM

About

Feedback

Thresholds

Clinical Toolbox ▼

Diabetes Registry - Date of Last Hospital Discharge

Print	Patient Name	Age	PCP Appt Last	Last Hospital DC	DM	CHF	CM+	MyHealthVet	CCHT	HBPC
<input type="checkbox"/>	Test 1	27	01/16/09	05/13/10	●	●	Yes	Yes	Yes	No
<input type="checkbox"/>	Test 2	45	09/22/10	12/23/09	●	●	<input type="checkbox"/>	No	Yes	No
<input checked="" type="checkbox"/>	Test 3	62	06/21/10	10/29/09			<input checked="" type="checkbox"/>	No	Yes	No
<input type="checkbox"/>	Test 4	58	05/05/10	09/03/10		●	Yes	No	Yes	No
				6/19/10		●	Yes	No	No	No
				2/23/10			Yes	No	No	Yes
				5/22/07			<input checked="" type="checkbox"/>	No	No	No
				3/19/10	●	●	Yes	Yes	No	No
				9/23/10	●	●	Yes	Yes	No	No
				9/04/10	●	●	Yes	Yes	No	Yes
				2/04/08	●	●	<input type="checkbox"/>	Yes	No	Yes
				9/14/10	●	●	<input checked="" type="checkbox"/>	Yes	No	Yes
				2/09/09	●	●	<input type="checkbox"/>	Yes	No	No
				3/17/10		●	Yes	No	No	No
				9/16/10	●	●	<input checked="" type="checkbox"/>	No	Yes	No
				2/19/09	●	●	Yes	No	Yes	No
				5/22/07	●	●	Yes	No	Yes	No
				6/01/09		●	Yes	No	No	No
				6/01/09	●	●	Yes	No	No	No
<input checked="" type="checkbox"/>	Test 20	62	06/21/10	12/09/09			<input checked="" type="checkbox"/>	No	Yes	No
<input checked="" type="checkbox"/>	Test 21	71	04/13/10	11/25/09	●		<input checked="" type="checkbox"/>	No	No	No

Canned report output:

Define outlier thresholds, e.g. last hospital d/c < 1 month

See associated registries & whether pt meeting dz specific measures

Identify resources involved

Enroll in care management program

Batch print report cards



Total Health

Panel
Portland

Panel Management Console

Date of Next PCP Visit: NA

Home Phone: [REDACTED]

Recall Date: NA

Work Phone: [REDACTED]

[Patient Report Card \(PDF\)](#)

About

Feedback

Select patient for comprehensive team report card on all elements from associated registries.

Labs

HgbA1c: 10.90, 8/3/2010
 Prev 1: 12.80, 5/26/2010
 Prev 2: 11.10, 12/21/2009
LDL: 75.00, 8/3/2010
 Prev 1: 88.00, 12/21/2009
 Prev 2: 52.00, 9/15/2009
MA/CR: 295, 6/2/2010

Upcoming Medical Center Appointments

Next PCP NA
 Appt:
 Next Appt: NA

Preventive Measures

Flu Shot: 9/15/2009
 Pneumovax: 1/1/2007

Screening Measures

BP: 137/67, 8/3/2010
 Last Foot Exam: 7/20/2010
 Last Retinal Exam: 8/28/2010
 DIABETIC EYE EXAM
 ICD-9:

Allergies

Allergy	Type	Observed or Historical	Mechanism	Verified Date
CODEINE	Drug	HISTORICAL	UNKNOWN	11/21/2003

Active Diabetes Medications

Drug Classification	Drug	Sig	Qty	Supply	Release Date
ACE INHIBITORS	LISINOPRIL 20MG TAB	TAKE ONE TABLET BY MOUTH EVERY DAY FOR	90	90	7/20/2010
ANTILIPEMIC AGENTS	SIMVASTATIN 80MG TAB	TAKE ONE TABLET BY MOUTH AT BEDTIME TO	90	90	7/26/2010
INSULIN	INSULIN, GLARGINE 100U/ML INJ 10ML VIAL	INJECT 68 UNITS SUBCUTANEOUSLY MORNING	13	90	8/25/2010
	INSULIN, ASPART 100U/ML INJ 10ML VIAL	INJECT 15 UNITS SUBCUTANEOUSLY EVERY MO	5	90	6/14/2010

Non-VA Medications

Drug Classification	Drug	Dosage	Schedule	Start Date
MULTIVITAMINS	MULTIVITAMIN TAB	1 TABLET	EVERY DAY	

<input type="checkbox"/>	Test 6
<input type="checkbox"/>	Test 7
<input checked="" type="checkbox"/>	Test 8
<input checked="" type="checkbox"/>	Test 9
<input checked="" type="checkbox"/>	Test 10
<input checked="" type="checkbox"/>	Test 11
<input type="checkbox"/>	Test 12
<input type="checkbox"/>	Test 13
<input type="checkbox"/>	Test 14
<input type="checkbox"/>	Test 15
<input type="checkbox"/>	Test 16
<input type="checkbox"/>	Test 17
<input type="checkbox"/>	Test 18
<input type="checkbox"/>	Test 19
<input checked="" type="checkbox"/>	Test 20
<input checked="" type="checkbox"/>	Test 21

71	04/13/10	11/25/09	<input type="checkbox"/>	No	No	No 30
----	----------	----------	--------------------------	----	----	-------



Total
Patient
Portland

About

Feedback

Future patient report card will include all data elements from associated registries – 2nd page includes patient glossary.



DEPARTMENT OF VETERANS AFFAIRS

Portland Medical Center
3710 S.W. U.S. Veterans Hospital Road
Portland, OR. 97239

Diabetes Report Card

Patient Name: [Redacted]
Primary Care Provider: [Redacted]
Recall Date:
Next PCP Appointment Date:

DOB: 11/7/1943

Please note that your goals for these diabetic tests may be different due to your specific health care needs. Discuss any questions or concerns with your Primary Care Health Care Team.

Diabetes Tests	Your Last Test Value & Date Done	Goal for Test	Your Results	Next Test Due
Blood Pressure	137/67 7/20/2010	Less than 130/80 for most people	May need improvement	Due at every clinic visit
Eye Exam	8/28/2010	No signs of diabetes complications	No signs of diabetes complications	Due: Aug 2012
Foot Exam	7/20/2010	Foot exam done yearly	Foot exam done	Due: Jul 2011
A1c (3 month average blood sugar test)	10.90 8/3/2010	Less than 7% (for most people)	Not controlled	Due: Aug 2011
LDL (Bad Cholesterol)	75.00 8/3/2010	Less than 100mg/dL	Controlled	Due: Aug 2011
Urine Protein	295 6/2/2010	< 30 mg/g	Not controlled	Due: Jun 2011
Flu Shot	9/15/2009	Yearly flu shot	Remember to get your flu shot yearly – available at the VA during Fall and Winter	Yearly at start of flu season(Fall)
Pneumonia Shot	1/1/2007	Pneumonia shot done	Pneumonia shot done	Discuss with your PCP

If you are due now for a shot or any of the above exams or labs, please call your Primary Care Health Care Team for assistance. If you do not know the phone number for your Primary Care Health Care Team you can call one of the following numbers to transfer to your local Primary Care Clinic for assistance:

<u>Calling from Portland Area</u>	<u>Calling from Vancouver Area</u>	<u>Toll-free Number</u>
(503) 220-8262	(360) 696-4067	(800) 949-1004

<input checked="" type="checkbox"/>	Test 9
<input checked="" type="checkbox"/>	Test 10
<input checked="" type="checkbox"/>	Test 11
<input type="checkbox"/>	Test 12
<input type="checkbox"/>	Test 13
<input type="checkbox"/>	Test 14
<input type="checkbox"/>	Test 15
<input type="checkbox"/>	Test 16
<input type="checkbox"/>	Test 17
<input type="checkbox"/>	Test 18
<input type="checkbox"/>	Test 19
<input checked="" type="checkbox"/>	Test 20
<input checked="" type="checkbox"/>	Test 21

sole

Administrator)

HBPC

No

No

No

No

No

Yes

No

No

No

Yes

Yes

Yes

No

No

No

No

No

No

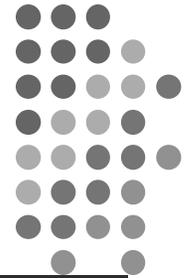
No

No

No 31

Planned Care Management Tool:

Collaboration with Care Management Plus (CM+)



Edit Encounter Information

Patient: Harry Binnes **ID: 1324234**

Scheduled Date: Scheduled Time: *
Tip: Type 'A' or 'P' to switch AM/PM With Whom: Patient Family
 Clinician Other

Encounter Type: Encounter Reason:

Actual Date: Outcome: Call Attempts to Pts:

Resource Time: (in minutes) Total Call Time for Day: (in minutes) Clinic Visit Time: (in minutes)

Number of Phone Calls: Home Visit Time: (in minutes)

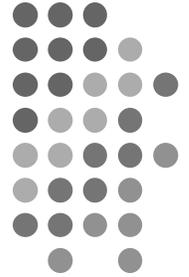
Notes:

Tasks Covered: Education Goals Medications
 Coaching Care Coordination
 Assessment Connection to Resources

Scheduled Date	Scheduled Time	With Whom	Encounter Type	Status	
05/19/2010	10:30 AM	P	Telephone Contact	Pending	Detail
03/18/2010	08:00 AM	P	CM Office Visit	Resolved	Detail
02/01/2010		P	Email/Letter/Fax	Resolved	Detail
10/28/2009	08:00 AM	P	Telephone Contact	Resolved	Detail
10/21/2009		P	Group Visit/Class	Pending	Detail
10/10/2009	08:30 AM	P	Home Visit	Resolved	Detail

The following 3 slides from D. Dorr, MD MS presentation on Care Management Plus(+)
NOTE: TOOL WILL BE CUSTOMIZED; WILL EXTRACT DATA OBJECTS; TASKS CAN BE ASSIGNED TO SPECIFIC TEAM MEMBERS

Setting, Tracking, and Documenting Goals



Add Patient Goals

Patient: Harry, Binnes

ID:
1324234

1. Set Goals

Goal Start Date:

Goal Category

- Nutrition Management
- Physical Activity
- Meds
- Monitoring
- Preventing Acute Complications
- Risk Reduction
- Psychosocial Adj.
- Other

Goal Description

[Schedule Follow Up](#)

Notes:

Save

Add New Record

Back to Patient

Delete Record

2. Schedule Follow-up Date

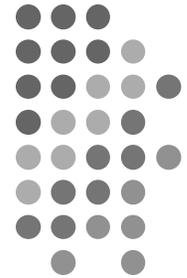
3. Record Results at Follow-Up

Goal Score

Score: Date:

Status	Follow Up Date	Category	Description	score	Set Date
Pending		Nutrition			11/04/2009 Detail
Pending		Meds			10/06/2009 Detail

Tracking workflow: Tickler List



OREGON HEALTH & SCIENCE UNIVERSITY

ICCIS Care Management Plus

User: test_test [Logout](#)
[Encounter Tickler](#)

Home
Patient Information
Record Entry/Modification
Reports
Help

Reports

- Care Management
- Patient List
- Encounter Tickler
- Encounter Summary
- Patient Goal Progress
- PHQ9 List
- High Risk List
- Quality Measures

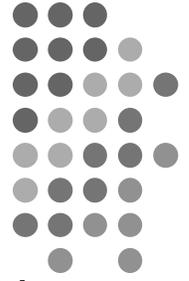
Care Manager Encounter Tickler List

Care Manager: <----- All -----> **Start Date:** 10/20/2009 **End Date:** 11/20/2009

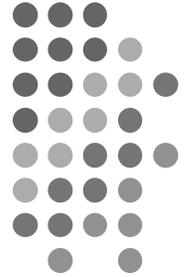
Care Manager: All Care Managers
 For Time Period: 10/20/2009 to 12/20/2009

	Scheduled Date	Scheduled Time	Encounter Type	Reason	EHR ID	First Name	Last Name	Phone	PCP	Notes
Select	2009-12-05		CM Office Visit	Depression	15463147563	hank	Commons	541.214.3566	Jeremy Rogers	
Select	2009-12-05		Telephone Contact	Family/Caregiver Check	4987651	Jerry	Montoya	124.256.3526	Hillary Caseman	Check on care giver status. How is wife coping after fall?
Select	2009-12-04	08:00	Telephone Contact	Goals	1324234	Harry	Binnes	9874584587	Parnel Fieldman	PHQ9 Follow-Up: Goals Follow Up:
Select	2009-11-28		CM Office Visit	Clinical Protocol (s)	4582317	Mariah	Bouchard	456.732.5236	Carl Generic	

Why the Panel Management Tool?



- Comprehensive & holistic
 - Up to date data for total population
 - Aggregate data for all; comprehensive for N of 1
 - Supports PACT team model & pt centric care
- Population based
 - Includes total population vs focus on outliers
 - Triage high risk patients
 - Identify resource-intensive patients
 - Supports proactive approach
- Performance support
 - Trended performance data
 - Identify outliers
 - Dashboard with actionable link to list of patients
- User-centric interface & intuitive interface
 - easy access & use with 1-click reports
 - Seamless integration - information & actionable tools
 - Meets needs of varied users
 - Aligned with future web-based EHR platform



Questions?

Contact:

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503.220.8262 ext. 51320

Jianji.Yang2@va.gov