

PPC2: Patient Tracking and Registry Functions

Element F: Use of System for Population Management

At CHC-B we use our EMR, clinical event manager, and the ad hoc reporting system (Business Objects) for a multi-pronged approach for population management. Clinical Event Manager and Business Objects allow us to link decision rules to the relevant patient-specific data, such as diagnosis, age, procedure codes, medication, test results, and clinical data (i.e. blood pressure, BMI, A1c value, etc)

1. Patients needing pre-visit planning (obtaining tests prior to visit, etc)

Providers enter deferred orders for lab and other tests that are to be obtained prior to the next visit. This is date sensitive and would “pop up” on the provider and staff organizer when due. Here is a lipid panel deferred for a patient with hypertension from 4/21/10 to 7/20/10. Because it is purple, it is past due and staff should be attempting patient notification.

The screenshot displays an EMR interface with several tabs: Encounters, Vitals, Problems, Orders, Misc Index, Patient Alerts, Overview, and Previous Visits. The 'Patient Alerts' tab is active, showing a table of deferred orders. A red box highlights two rows in the table. Below the table are buttons for 'Add...', 'Delete', 'Save', 'Undo', 'Activate', 'Problems', 'Eleg...', 'History', 'Run CEM', and 'Print'. At the bottom, there are sections for 'Orders Not Performed' and 'Clinical Event Manager'.

D	STAT	Cpt Code	Description	Proposed Date	Problem(s)	Deferring Clinician	Deferred Date	Deferred By
*	<input type="checkbox"/>	80061	LIPID PANEL	07/20/2010	ESSENTIAL H T.		04/21/2010	L.
	<input type="checkbox"/>	RECALL	RECALL Return for Appt	04/23/2011		T	04/21/2010	L.

R	Date	Description
<input type="checkbox"/>	08/03/2010	SPUTUM GRAM STAIN AND CULTL
<input type="checkbox"/>	07/23/2010	X-RAY EXAM OF SKULL

Rule	Action
Chronic- Pneumococcal Vaccine	Make phone call
See Health Coach DM, CVD	Make phone call

Phase:
Due Date:

2. Patients needing clinician review or action. Each month population reports and corresponding lists are generated and distributed to providers for patients whose

condition is uncontrolled.

Defer LIPID PANEL Summary

Deferred Date: 04/21/2010

Deferring Clinician: [dropdown]

Code: 80061 Units: [dropdown]

Proposed Date: 07/20/2010

Modifiers: [list]

Associate with Current Problems:

Code	Description
<input type="checkbox"/> 959.2	SHOULDER
<input type="checkbox"/> 079.99	VIRAL SYNDROME
<input type="checkbox"/> 790.6	OTHER ABNORMAL BLOOD
<input type="checkbox"/> 786.2	cough
<input type="checkbox"/> 611.9	BREAST DISORDERS
<input type="checkbox"/> 473.9	SINUSITIS
<input type="checkbox"/> V76.12	OTHER SCREENING MAMMO
<input type="checkbox"/> 626.2	MENORRHAGIA
<input type="checkbox"/> 305.02	ALCOHOL ABUSE, EPISODIC

Confidentiality: Level 1 Level 2 Level 3

Comments: 04.21.2010 recheck LIPIDS 6 months per Dr. J.L
07.16.2010 pt will have drawn next week..L

Save Cancel

Federal Health Plan Goal - HYPERTENSION (BP Control)

Increase the % of patients age 18-85 with hypertension whose last blood pressure measurement is <140/90 from 62% to 69%

DUE 7/31/2010

07/31/2010

Baseline 6/30/08 = 60%

HTN Patients 18-85	909	Current HPC	GOAL
Patients with BP <140/90	682	75%	69%

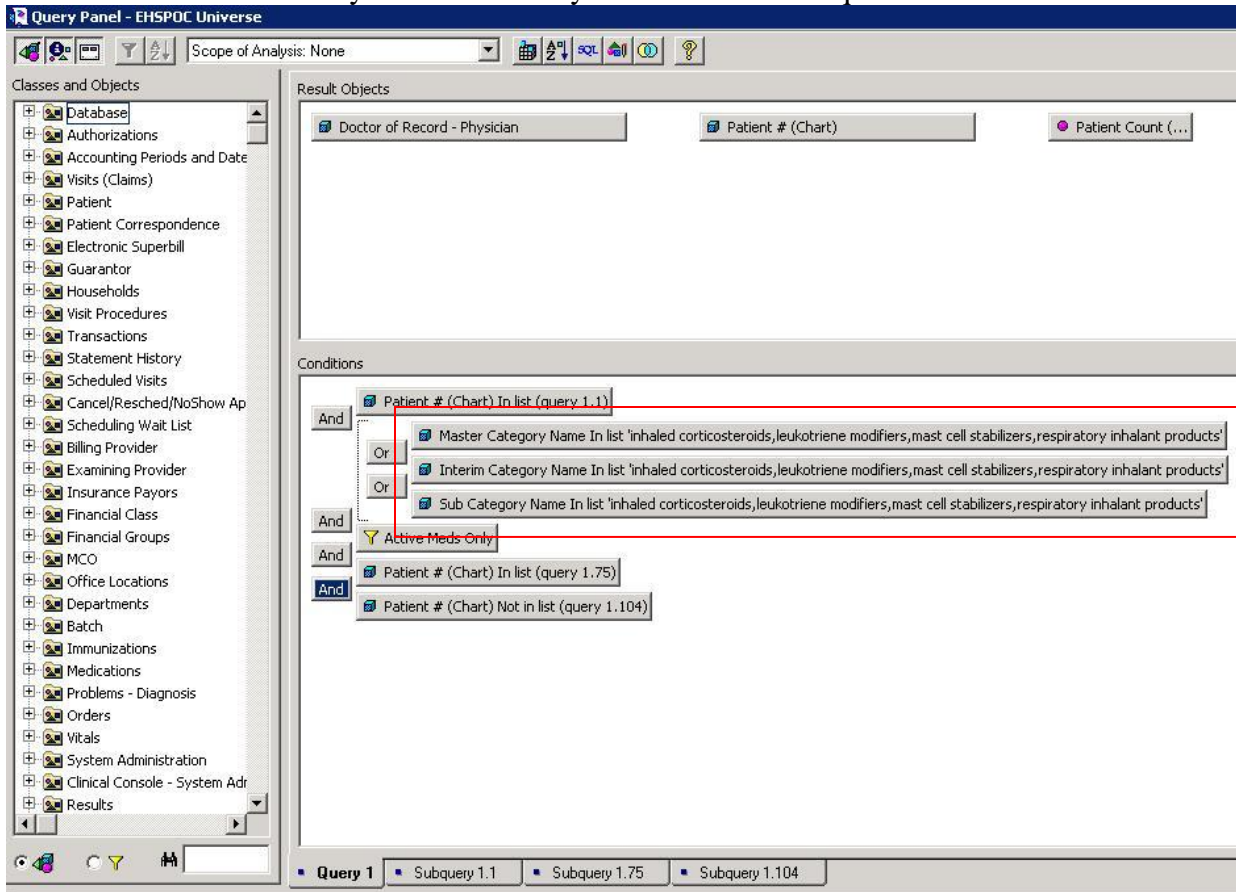
PCP	# of Pts	%	PCP	# of Pts	%
Other	1		Other	1	
SI	212	83%	Satellite POD	515	78%
BF	213	78%	Main POD	393	72%
TA	64	78%			
HI	51	75%			
F	87	72%			
SL	169	69%			
C	22	68%			
G	90	64%			

Comparisons:
State CHC's 72%
National CHC's 70%

Provider list – highlighted if patient not seen in the last 3 months.

BP > 140/90		07/31/2010		
<i>Section: Doctor of Record - Physician (BP greater than 140/90)</i>				
		16	Are you rechecking BP?	
Patient # (Chart)	P	Date Encounter	Most Recent Sy	Most Recent Dia
2346	A	7/26/2010	132.00	90.00
6643	D	4/12/2010	172.00	90.00
8448	C	5/3/2010	148.00	92.00
10740	H	7/19/2010	162.00	102.00
13819	M	7/26/2010	158.00	78.00
14754	M	5/18/2010	140.00	70.00
18828	S	5/28/2010	152.00	68.00
19039	S	4/9/2010	148.00	92.00
20208	T	7/23/2010	132.00	90.00
20571	V	7/28/2010	142.00	92.00
21485	V	7/27/2010	132.00	92.00
23505	T	7/27/2010	144.00	90.00
24591	N	7/23/2010	142.00	82.00
25963	N	5/4/2010	140.00	90.00
27475	P	7/30/2010	142.00	82.00
30986	A	3/22/2010	136.00	92.00

3. Patients on a particular medication. Business Objects allows us to build reports for specific medications. For Asthma, we use a report to see if patients with persistent asthma are on an anti-inflammatory medication. Any medication can be queried.



Example of a list of Asthma patients on Anti-Inflammatory Medication:

Detailed Listing of Asthma Patients - Anti-Inflammatory Medication

Patient #	Pa	Date Prescribed	Medication
1040	LE	8/14/2009	Azmacort
1804	TA	7/22/2009	Flovent
		7/22/2009	Intal Inhaler
2394	MI	5/29/2009	Flovent
2824	AR	8/28/2009	Advair Diskus
3749	BC	9/6/2007	Pulmicort Flexhaler
		4/23/2009	Pulmicort Flexhaler
		4/23/2009	Singular
5426	CL	3/23/2009	Advair Diskus
6427	DE	11/26/2008	Advair Diskus
6501	DI	2/6/2009	Advair Diskus
		6/5/2009	Singular
6711	DC	9/4/2007	Flovent
6967	EC	6/2/2009	Advair Diskus
6996	MC	5/1/2009	Azmacort
7886	FR	10/16/2008	Azmacort
8162	GA	1/17/2008	Azmacort
		3/13/2008	Singular
		8/18/2008	Azmacort
8372	GA	1/17/2009	Flovent

Git R Done

Anti-Inflam Meds

Symptom Free

Need Severity Assessment

Need Influe

4. Patients needing reminders for preventative care. Business Objects allows us to build queries for patients needing well child exams, immunizations, pap smears, mammograms, etc. Providers and PF's also enter deferred orders for well exams and when the order is due it populates to their organizer. Staff then attempt phone calls and send system generated reminder letters that can be accessed from the patient's chart. Also patient alerts are built to pop up when you access a patient's chart to remind staff of preventative care that is delinquent.

Here is an example of a Pap Smear List for a provider team:

BusinessObjects - Pap Smears Lists.rep - [monetter]

File Edit View Insert Format Tools Data Analysis Window Help

Pts 18-64 w/Medical Visit and no Pap

When you call pt, tell them we are updating our Electronic Chart. If they are due, schedule the apt. If they have had a pap somewhere else, open non-billable encounter and document date in PF Use This Form 1st. If over 40, ask about date of last mammo also and document date. If they only know month/year, use the 1st of the month in your date. Thanks

Patient # (Chart)	Pa
54	AR
263	PE
268	CA
477	DY
801	HE
047	MM

Example of a deferred order for an annual breast exam & the letter sent:

Defer RECALL-Return for Appt Summary

Deferred Date: 01/29/2010

Deferring Clinician: [dropdown]

Code: RECALL Units: [input]

Proposed Date: 08/04/2010 [calendar icon]

Modifiers: [empty list box]

Associate with Current Problems:

Code	Description
<input type="checkbox"/> 729.5	limb pain
<input type="checkbox"/> 782.3	EDEMA
<input type="checkbox"/> 593.9	RENAL INSUFFICIENCY
<input type="checkbox"/> V06.1	Vaccines Prophylactic Need
<input type="checkbox"/> V04.81	Vaccines Prophylactic Need
<input type="checkbox"/> V76.10	visit for: screening exam mali
<input type="checkbox"/> 307.42	INSOMNIA RELATED TO A:
<input type="checkbox"/> V72.31	ROUTINE GYNECOLOGICAL
<input type="checkbox"/> 794.7	EPISTAXIS

Save Cancel

Confidentiality: Level 1 Level 2 Level 3

Comments: annual breast exam
sent letter..c 6-8-10
07.14.2010 pt has appt. 07.15.2010..L

System generated letter for patient reminders (bottom is cut off due to screen shot):

edit Form

Process Save Cancel Attach

Medical Office 2
Health

Date: 6/ 8/2010

This letter is to remind you that it is time for you to return for one or more of the following appointments.

- Annual Well Woman's exam with Pap Smear
- Follow up pap smear only
- Follow up breast exam
- Mammogram
- Well Child Check up
- Immunizations
- Bloodwork
- CBC
- Thyroid
- BMP
- Cholesterol
- CMP
- Liver
- Prostate
- HbA1c
- Protine
- Diabetes

Patient alert for colorectal referral:

Encounters | Vitals | Problems | Orders | Misc Index | **Patient Alerts** | Overview | Previous Visits

Deferred Orders:

D	STAT	Cpt Code	Description	Proposed Date	Problem(s)	Deferring Clinician	Deferred Date	Deferred By
*	<input type="checkbox"/>	RECALL	RECALL-Return for Appt	07/21/2010	DIABETES ME T...		05/13/2010	L
	<input type="checkbox"/>	83036	A1C- inhouse	08/13/2010	DIABETES ME T...		05/13/2010	L

Orders Not Performed:

R	Date	Description
<input type="checkbox"/>	05/13/2010	ECHO EXAM OF HEART
<input type="checkbox"/>	06/03/2008	GLUCOSE FINGERSTICK

Clinical Event Manager:

Rule	Action
DM-Foot inspection	Make phone call
Colorectal Referral	Make phone call
Chronic- Pneumococcal Vaccine	Make phone call
See Health Coach DM, CVD	Make phone call

Phase:
 Due Date:

5. Patients needing reminders for specific tests. Again, we utilize Business Objects to generate lists, deferred orders to provide a list of patients in organizer for follow up, and patient alerts to remind staff when they access the patient's chart. PF's and the Patient Navigator would call the patients on the list to get them in for the A1c and other needed care. Here is a sample list of diabetic patients who need their second A1c.

Need 2nd A1c **7/31/2010**

Patient #	(Chart)	(Need 2nd A1c)	Value	(Need 2nd A1c)
5735	CC		5.6	
13762	ME		6.4	
13762	ME		6.4	
20626	VZ		9.9	
20626	VZ		9.9	
30063	LC		7.1	
30063	LC		7.1	

Patient #	(Chart)	(Need 2nd A1c)	Value	(Need 2nd A1c)
3099	BA		6.3	
3099	BA		6.3	
5314	CF		8.2	
5314	CF		8.2	
5314	CF		8.2	
7810	FC		5.8	
7810	FC		6.2	
7810	FC		6.2	
7810	FC		5.8	
28543	W		5.1	

Diabetes Need Lipid LDL >100 have no a1c **2 A1c**

Documentation of staff working to get patient in for A1c:

Results | Details | Result Report

Order

Description: A1C- inhouse Status: SIGNED OFF W/FINAL RESULTS

Code: 8303F Units: Results Status: Final

Date Ordered: 03/19/2010 STAT

Performed: 03/19/2010 2:28 PM Ordering Clinician: Nurse, Schedule

Order Comments: Last Modified: 03/21/2010 08:00:16 PM

pt need DM appt and A1c
 l/m at hnt#... RN 2/25/10
 sent letter... 2-19-10
 PT scheduled for 3/8 @ 1400 with ... 2/25/10

Result Comments:

3/21/10 @ 8pm- A1C ok.- does she have appt? Needing fasting labs- and dm appt- has not been seen since 11/09- I assume collaborative team called her to come in for A1C;

Reflex tests: Delete

Handling Instructions:

Modifiers:

Buttons: Close, Save, Undo, Sign Off, Edit, Edit Log..., Flag..., Print

Patient Alert for A1c that pops up when we access the patient chart:

Encounters Vitals Problems Orders Misc Index **Patient Alerts** Overview Previous Visits

Deferred Orders:

D	STAT	Cpt Code	Description	Proposed Date	Problem(s)	Deferring Clinician	Deferred Date	Deferred By

Orders Not Performed:

R	Date	Description
<input type="checkbox"/>	05/14/2010	A1C- inhouse
<input type="checkbox"/>	05/14/2010	RECALL-Return for Appt

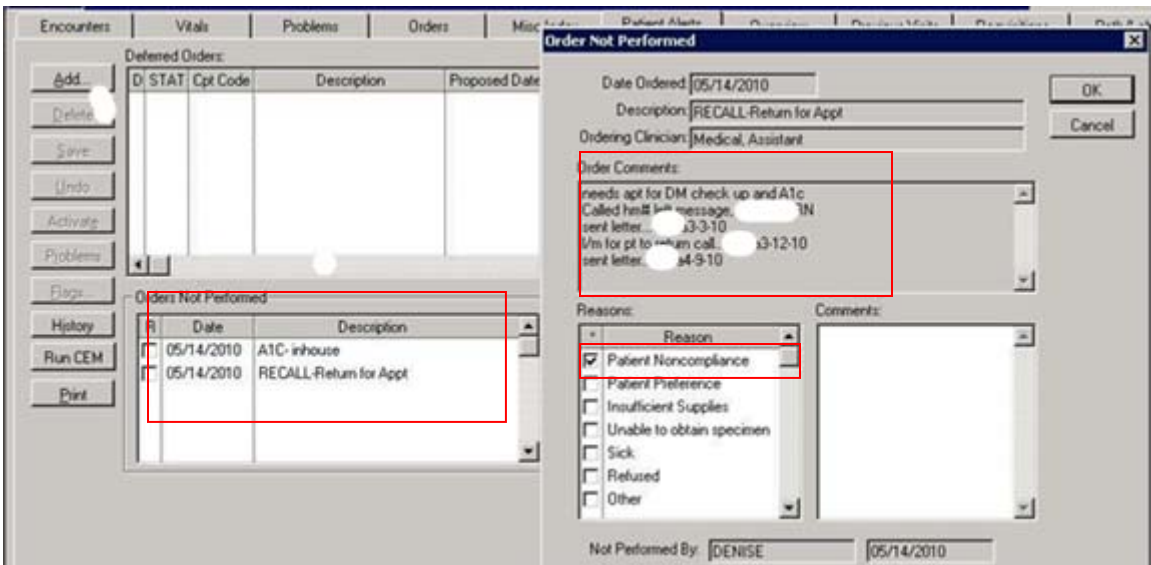
Clinical Event Manager

Rule	Action	Ne
DM- Leap Exam	Make phone call	Final Pha
DM-A1c Every 90 Days	Make phone call	Final Pha
Cancer - Mammogram	Make phone call	Final Pha
Chronic- Lipid in 12 mos	Make phone call	Final Pha

Phase: Phase 1 Due Date: 07/14/2010 Activate Order(s)

6. Patients needing reminders for follow-up visits such as for a chronic condition.

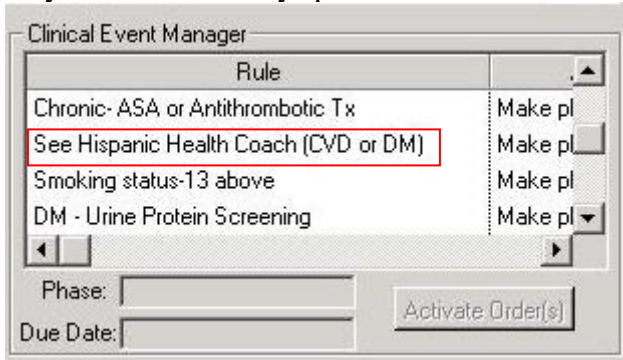
Again, we utilize Business Objects to generate lists, deferred orders to provide a list of patients in organizer for follow up, and patient alerts to remind staff when they access the patient’s chart. PF’s and the Patient Navigator would call the patients on the list to get them in for the chronic condition and other needed care. (See an example above, as the same process is used). This deferred order for DM follow up shows staff attempts to get the patient in for a DM check up. Per health disparities guidelines, we mark the patient “UNABLE TO CONTACT FOR ALERTS” after at least 3 attempts to contact the patient. The recall for the appointment then is marked “not performed” with a reason. The order with the notes still remains on the Patient Alerts page and would pop up any time the chart is accessed. If the patient eventually comes in, staff would check all alerts on this page for items the patient needs.



When the patient is marked “UNABLE TO CONTACT” this note pops up throughout the system i.e. when the patient is accessed for scheduling, charting, phone calls, etc. to alert the staff member that the patient has alerts that are past due:

Date	Originated By	Modified Date	Modified By	Note Type	Note Text
		04/21/2010		Patient	PT HAS HAD 3 CONTACT ATTEMPTS OR HAS REFUSED ALERTS. SEE ENCOUNTERS FOR DETAILS. IF PT DOES ALERTS, PLEASE REMOVE THIS STATUS IN PAM

7. Patients who might benefit from care management support. We have four health coaches supported by grants that focus on patients with cardiovascular disease, diabetes, and BMI > 25. Two are bi-lingual and concentrate their efforts on our Hispanic population. We have a Patient Navigator who helps patients access care (calls lists) and helps with barriers such as transportation, the cost of medications, and specialty care. We have an SBIRT Health Educator who assists patients with substance abuse or risky substance use. We utilize the Clinical Event Manager in our EMR to create alerts for patients in these identified populations who need to see the health coach or SBIRT. These alerts can be customized based on race, diagnosis, age, insurance, patient status, etc. so they can be made very specific:



Health Coaches also work a “Master List” using phone calls and letters to engage patients in lifestyle changes, behavior modification, increased activity, improved nutrition, tobacco cessation, and our free classes. We then track the percentage of their target patients that they have contact with:

The screenshot shows a BusinessObjects report titled 'Hispanic Health Disparities Master.rep - [monetter]'. The report content is as follows:

Hispanic Health Disparities

Goal: See 75% of hispanic patients with CVD, DM or BMI>25

07/01/2009 to 06/30/2010

Total	# seen	%
1181	862	73%

We have many resources internally and in the community that we refer patients to for self management support. Any staff member can mark the referral to resource in the patient's chart and then we run a BO report for health coaches, patient navigator or SBIRT to follow up with.

BusinessObjects - Referrals to resources.rep - [monetter]

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100%

Referrals to Resources 03/01/2010 05/12/2010

a dentist or for dental care.+

Pat	Patient #	Date Encounter	Examining Clinician
CAF	31354	3/4/2010	
FAH	7411	5/11/2010	
MEI	13775	5/6/2010	
PAC	15682	5/6/2010	
VAL	20503	3/2/2010	
WIL	21485	5/5/2010	
	6		

Baby and Me Tobacco Cessation class with County Nursing Office

Pat	Patient #	Date Encounter	Examining Clinician
ARC	2725	4/7/2010	
ROI	31799	4/7/2010	
	2		

Community Building. Patient provided with voucher to use HPCHC punch card

Pat	Patient #	Date Encounter	Examining Clinician
ALE	2342	5/25/2010	
ALE	2391	5/25/2010	