

Meaningful Use: Firing Up the Discharge Process

Ken Brown, RN, MSN, Program Manager, Magnet Recognition

Debbie Dusik-Brinkman, RN, BSN, Clinical Transformation Specialist

Tina Hansen, RN, BSN, Clinical Transformation Specialist

Tonya Davis-Kennedy, RN, MSN, Director, Clinical Transformation

DMC – Detroit Receiving Hospital, Detroit MI

Financial Relationships

No financial disclosures.

Goals

1. Describe steps to implement an electronic discharge plan of care.
2. Identify lessons learned when implementing an electronic discharge plan of care.



- Detroit Medical Center is an 8 hospital system in Southeast Michigan
- Children's Hospital, Rehabilitation Institute of Michigan, Detroit Receiving Hospital, Harper University Hospital/Hutzel Women's Hospital, Sinai-Grace Hospital, Huron Valley-Sinai Hospital, Detroit Surgery Hospital
- Implemented an EHR at all sites in 2006
- January 1, 2011: Vanguard Health Systems



Background / Purpose



History of Meaningful Use

- American Recovery and Reinvestment Act (ARRA) including Health Information Technology for Economic and Clinical Health Act (HITECH Act)
- Provides for Medicare and Medicaid incentive payments for “meaningful use” of certified EHR technology by eligible professionals (EP) and hospitals

HITECH Act

- Focuses on attaining meaningful use of EHRs as a pathway toward improved health system performance.
- Attaining meaningful use depends on adoption of EHRs and development of secure pathways for exchanging health information

To be Meaningful User

- Must do 3 things:
 1. Demonstrate meaningful use of certified EHR technology
 2. Demonstrate this technology allows exchange of health information to improve quality of care
 3. Submit information on clinical quality measures

Significance

Meaningful Use Incentives

- Estimated \$44.7 billion will be made available

Hospital Calculations

YEAR	MEDICARE	MEDICAID	TOTAL
2011	\$1,709,190	\$1,619,594	\$3,328,784
2012	\$1,281,893	\$1,214,407	\$2,496,300
2013	\$854,595	\$809,605	\$1,664,200
2014	\$427,298	\$404,802	\$832,100

Strategy and Implementation

Enhancement Process

- Need for update/change is identified by clinicians
 - Patient Safety
 - Standard of Care/Policy
 - Regulatory
 - Enhanced Workflow
 - Financial
- Contact is made with site clinical transformation representative
- Discussion of the requested change occurs between CT and clinician to determine feasibility
- Specifications of requested change are created



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EMR ENHANCEMENT TRACKING SYSTEM

Welcome Brown, Ken (DRH) (User)

Open/New

View/Update

Reports

Admin

OPEN A NEW REQUEST

* denotes required field.

* Enhancement Request Title: [View Similar Requests](#)* DMC Priority:

Open Date: 11/17/2010

* Requestor Details: * Last: * First: * Email: Additional Contact Details: Last: First: Email: * Facility/Site: * Application Name:

* Facility/Site Impacted:
(You can select more than one)

 **HELP**

- DMC (all sites)
- Children's Hospital of Michigan
- Detroit Receiving Hospital/UHC
- DMC Surgery Hospital
- Harper/Hutzel Hospital
- Huron Valley - Sinai Hospital
- Rehabilitation Institute of Michigan
- Sinai Grace Hospital

* Reason for Request: ☐ Customer/End User Satisfaction ☐ Enhanced Workflow ☐ Financial Impact ☐ Patient Safety ☐ Policy ☐ Regulatory ☐ Other

(You can check more than one)

* Request Description:
(include brief summary of request)

(Please limit to 1000 characters)

* Detailed Description:
(include full details of request)



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Welcome Brown, Ken (DRH) [User]

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VIEW/UPDATE ENHANCEMENT

Enhancement Request Title:

Enhancement ID:

Reported by:

Status:

Facility:

Priority:

Category:

Search

1778	Remove oxytocin from PHA_MED_PREGLACTATION3	11/16/2010	Medium	DMC (all sites)	Enhancement	Open
1777	Penicillin Desensitization Protocol Power Plan	11/16/2010	Medium	DMC (all sites)	Enhancement	Open
1776	Remove Karmanos units from Sprivia handihaler rule	11/15/2010	Medium	DMC (all sites)	Enhancement	In Process
1775	CCL Report for Capstone -SN OR Appointment List	11/12/2010	Low	DMC (all sites)	Enhancement	Open
1774	Report - CSP Instrument Needs Report	11/12/2010	High	DMC (all sites)	Enhancement	Open
1773	Add Clinic to Follow Up section	11/12/2010	Medium	Harper/Hutzel Hospital	Enhancement	Open
1772	CHM Skin/wound consult comment	11/11/2010	Medium	Children's Hospital of Michigan	Enhancement	Open
1771	PEDS ORTHO- Post-Operative Orders	11/11/2010	High	Children's Hospital of Michigan	Enhancement	Open
1770	Billing Coders Access to Diagnosis & Problem List	11/11/2010	High	DMC (all sites)	Enhancement	Open
1769	Therapy access to OR schedule by Surgeon	11/10/2010	Medium	Sinai Grace Hospital	Enhancement	In Process

Change page: < 1 [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) ... > | Displaying page 1 of 177, items 1 to 10 of 1767.

Enhancement Process

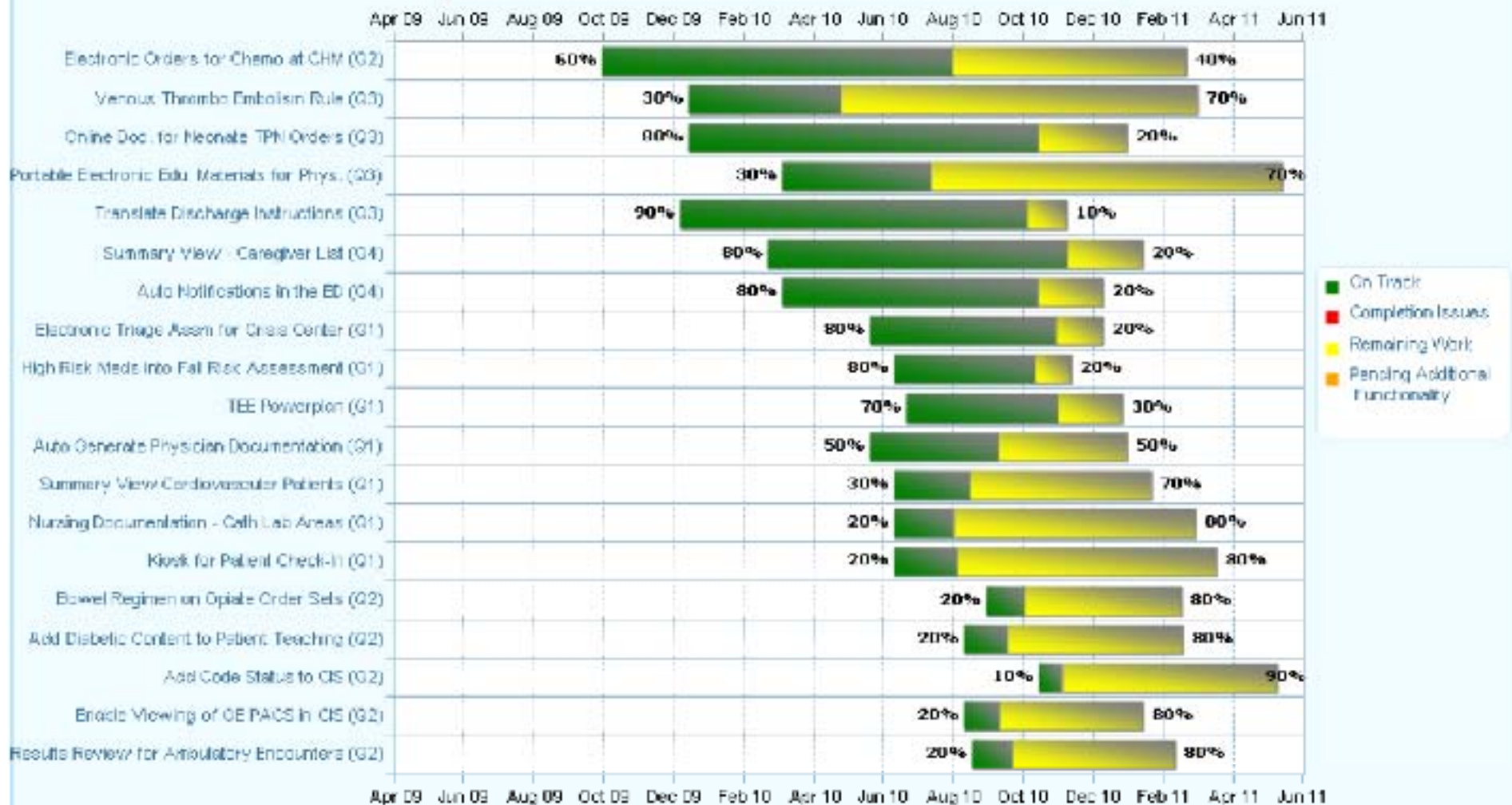
- Specifications request
- ISD evaluates feasibility and estimates time and time frame
- Build in non-production environment
- Test with requester

EMR Awards Project Milestone Report

Planned Milestone Completion Dates												
ID #	Project Name	DMC Lead	Reqs Received	Analysis / Design Approved	Build/ Unit Test	UAT Test/Work flow	Training/ Communicati on	Launch (Tuesday)	Status			
105	3Q 2007 - POC Lab Draw Documentation/Label Gen.(Pilot at DRH ED) (BI-2005)	Tonya Davis-Kennedy	Completed	08/31/09	10/30/09	12/04/09	10/18/10	10/26/10	Complete			
450 461	2Q 2008 - Electronic Orders for Chemo at CHM Hem-Onc Unit and Clinic (BI-2211)	Ken Rakko Kathy Dodde	10/2/2009	10/9/2009	10/20/2010 12/31/2010	11/26/2010 02/11/2011	11/8/2011 03/11/2011	1/12/2011 03/15/2011	Build/Unit Test			
580	3Q 2008 - Translate Discharge Instructions Into Arabic and Spanish (BI-2780) CHM, DRH, DSH, HWSH, HUH/HWH, SCH	Kathy Dodde Tonya Davis-Kennedy Brian Urban	12/11/2009 10/06/2010	1/29/2010 10/15/2010	11/5/2010	11/12/10	11/16/10	11/19/10	Upgrade Complete at all Sites Training			
580	3Q 2008 - Portable Electronic Education Materials for Physicians (BI-2878)	Linda Bell Brian Urban	3/12/2010	3/19/2010	11/24/2010 03/24/2011	12/8/2010 04/08/2011	12/22/2010 04/22/2011	1/19/2011 04/29/2011	Build/Unit Test			
583	3Q 2008 - Online Documentation for Neonate TPN Orders (BI-2887) CHM, HWH, SCH, HWSH	Lisa Galkier	12/16/2009	1/7/2010	10/1/2010	11/16/10	12/03/10	12/21/10	UAT/Workflow			
576	3Q 2008 - Venous ThromboEmbolism Rule (BI-2886) DMC System Wide	Ken Rakko Tonya Davis-Kennedy	12/16/2009	1/7/2010	1/12/2011	02/11/11	03/08/11	03/15/11	Build/Unit Test			
620	4Q 2008 - Auto Notifications in the ED (BI-2995) DRH, SCH	Brian Urban Tonya Davis-Kennedy	3/12/2010	3/19/2010	10/29/2010	11/19/10	12/17/10	12/21/10	UAT Workflow			
615	4Q 2008 - Summary View - Trauma (BI-2647) DRH, SCH	Tonya Davis-Kennedy	3/9/2010	3/12/2010	10/1/2010	10/19/10	10/22/10	10/26/10	Complete			
609	4Q 2008 - Crush Mtd Alert (BI-3019) DMC System Wide	Tonya Davis-Kennedy Ken Rakko	2/26/2010	3/9/2010	3/27/2010	09/24/10	10/22/10	10/26/10	Complete			
606	4Q 2008 - Summary View - Caroglier List (BI-3006) DMC System Wide REV 2	Brian Urban	10/29/2010	11/12/2010	12/3/2010	12/3/10	01/14/11	01/25/11	Requirements			

EMR Improvement Schedule

Click or Hover over an item to view more details.



Enhancement Process

- Submitted by CT and placed in the enhancement database
- All sites are responsible for reviewing each enhancement and identify whether or not the change would benefit their site
- Enhancements are presented at various levels for approval by site representatives, other departments, and ISD

Enhancement Process

- Once approved, and prioritized, enhancements move throughout the process until completion
 - Weekly conference call updates to progress
- ISD notifies the requesting site, build is completed, site tests to ensure build is functioning as expected



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EMR ENHANCEMENT TRACKING SYSTEM

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EMR ENHANCEMENT TRACKING SYSTEM - PROJECT MILESTONE REPORT

11/17/2010 8:51:02 AM



Export to Excel



Status	Ref #	Work Code	Application	Description	Reqs	Analysis/Design	ISD/Build/ Test	UAT Test	Launch
Build	1159	000059	CIS PowerChart	Updated requirements for the DME (Durable Medical Equipment) orderable and correlating DME printed paper regulation.	06/18/2010	C-05/11/2010	C-11/09/2010	11/10/2010	11/23/2010
Build	1430	T00105	CIS Orders/Order Sets	The orthopedic surgeons have requested to add Bupivacaine 0.5% with epinephrine 1-200,000 to their OR order set.	06/18/2010	C-05/21/2010	C-09/28/2010	10/05/2010	10/12/2010
Build	1455	1	CIS PowerChart	ENHANCEMENT REQUEST: For all MRI orders entered by PA's, MLP's force entry of physician (MD, DO) name; with new order communication type of 'order for co-signature' that will forward order to entered physician's inbox for signature. Requirement: State of Michigan (COM-273) requires that MRI's can only be ordered by attending, referring, house officer, resident, consulting physicians (MD or DO). PA's/MLP's can place MRI orders as verbal or written, but need co-signature by attending physician. Orders that are placed by PA's/MLP's, without co-signature by attending, will not be reimbursed. This has been reviewed/interpreted by compliance and regulatory.	06/23/2010	C-10/02/2010	C-11/02/2010	11/23/2010	11/30/2010
Build	1456	100101	CIS Orders/Order Sets	Revise zidovudine dosing in affected order sets for neonates to prevent perinatal HIV transmission. Order sets need to be revised ASAP so infants are treated with the appropriate dose for the appropriate length of time.	06/18/2010	C-05/21/2010	C-09/28/2010	10/05/2010	10/12/2010
Build	1462	T00104	CIS Orders/Order Sets	Add hydromorphone PCA option to the sickle cell PCA order set.	06/18/2010	C-05/22/2010	C-09/29/2010	10/05/2010	10/12/2010
Build	1476	T00105	CIS Orders/Order Sets	Add an order set/notes for preservative free morphine to the PEDS OR - Orthopedic surgery order set.	06/18/2010	C-05/21/2010	C-09/28/2010	10/05/2010	10/12/2010
Build	1498		CIS	Please add the normal heart rate ranges and flag the others as abnormal.	11/21/2010	C-10/23/2010	C-11/12/2010	11/10/2010	11/23/2010

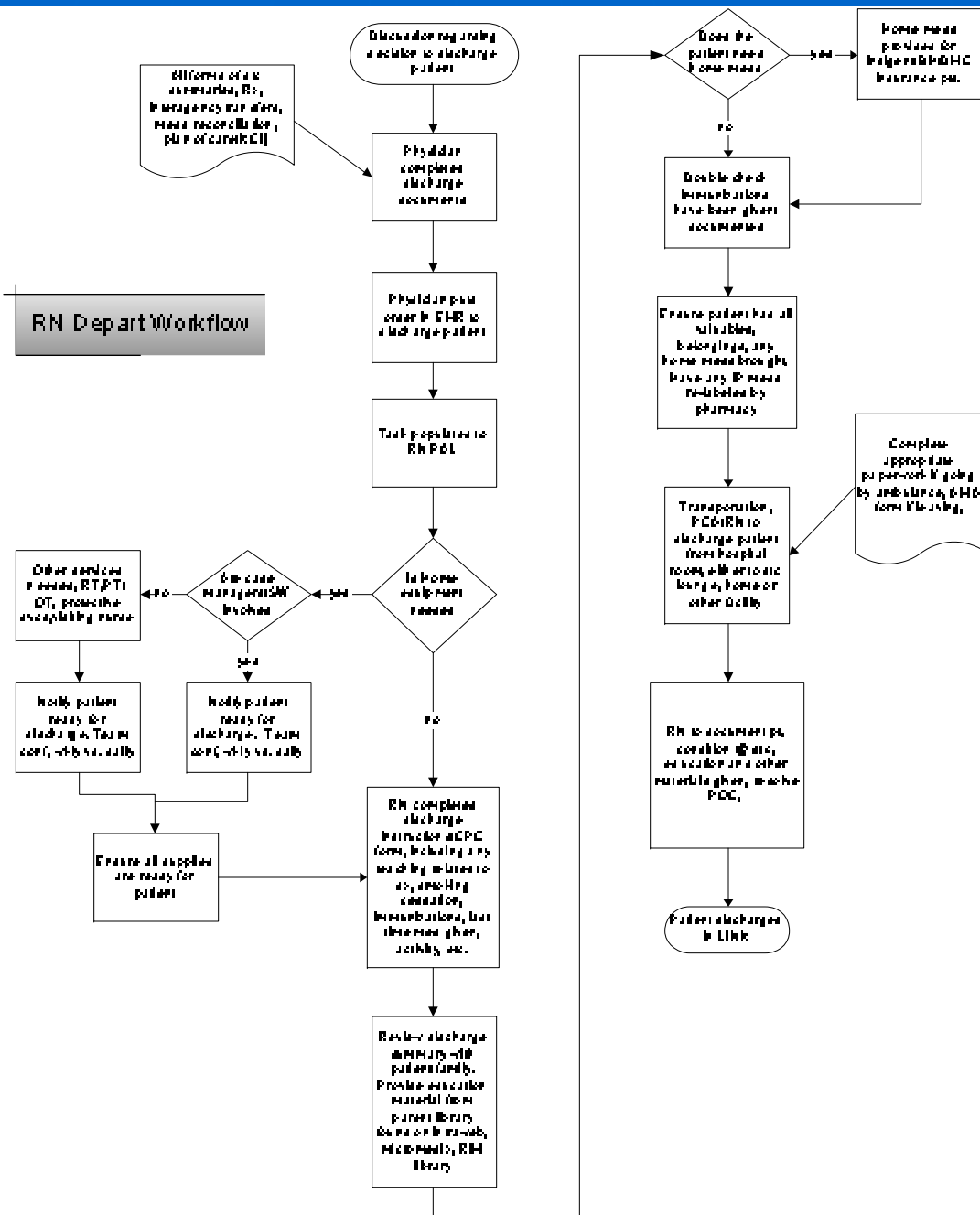
Enhancement Process

- Once approved, the build is moved into production for use by the clinicians
 - Build takes days to weeks amount of time depending on complexity and testing

Workflow

- EHR Team worked with end-users
 - Dietary
 - Respiratory
 - Social Work
- Determine current and future state workflow
- ISD obtained specifications to build the depart process
- Participants tested the build
- Train the Trainer approach for all end-users



RN Depart Workflow



Brochure

DISCHARGE SUMMARY

Areas of this section will be completed by nursing, dieticians, SW, CRM, or anyone else involved in the discharge process. **Only the discharging nurse should access the discharge form via Depart; all others should access the form via ad hoc charting**

- Click on the pencil icon  to open.
- Complete all appropriate fields for your patient.
- Sign the form (The section will become gray and a  will display).

Signing this section will place it on the forms tab. If you need to modify this section it needs to be done from the forms tab.

Saving this section will not display the information on the discharge summary until it has been signed.

Saving/Signing Depart

After completing your required sections of Depart you will need to click SAVE so the information will be present when the next person completes their section.

RN RESPONSIBILITIES

- Complete Discharge Summary
- Complete discharge instructions and medication leaflets if applicable.
- Explain discharge instructions to patient
- Must check box on main screen of Depart that states, "Patient and/or responsible adult verbalizes understanding of instructions given."

☐ Patient and/or responsible adult verbalizes understanding of instructions given

- Sign and print Depart
- Write discharge summary progress note as appropriate.

***** No patient signature required on discharge papers!!***

DEPART



Patricia Haddix, RN, BSN
Clinical Transformation Team
Detroit Receiving Hospital
April 2010

DMC
DETROIT MEDICAL CENTER

Citrix Desktop - Citrix XenApp Plugins for Hosted Apps [SpeedScreen On]

TEST, MEDRECTEST - C-000890002 Opened by BROWN

Task Edit View Patient Chart Links Time Scale

Depart Process

TEST, MEDRECTEST

Allergies: Allergies Not Recorded

Templates Patient_Summary_Master_

Diagnosis

Medication Reconciliation

Orders

Follow Up

Medication Leaflets

Patient Education

Interdisciplinary D/C Plan

NURSE to Sign and Print

Overvi

24 Hou

Results

I/O

MAR

MAR S

Immun

Power

Clin Dc

Forms

Tasks

Pt. Inf

Patient

Allergic

Proble

FaceS

LOS

List Vie

Medica

Refere

I-View

Histori

Lab Inf

Advan

Antimik

SBAR I

ED Sur

Infusio

Peds A

Traum

Interdisciplinary D/C Plan - TEST, MEDRECTEST

*Performed on: 01/24/2011 0845

By: BROWN RN, KENNETH L

Discharge Instru

Document Take

Interdisciplinary D/C Plan

Special Instructions or Treatments

Referrals for Continued Care: Please call 1-888-DMC-2500 for an appointment

Facility/Company Referrals	Agency/Supplier Phone Number	Reason Referred	Date of Agency Visit/Equip. Delivery	Comments
<Alpha>		<MultiAlpha>	<Date>	
<Alpha>		<MultiAlpha>	<Date>	
<Alpha>		<MultiAlpha>	<Date>	

Personal Risk Factors

Smoking Status: Cigarette use in the last 12 months

☒ Yes ☐ No

Smoking cessation material/support offered

☐ Patient Accepts ☐ Patient Refuses

Smoking Cessation Counseling provided?

☐ Yes ☐ No

☐ Counseling provided

☐ Extra treatment social support provided

☐ Follow-Up contact scheduled

☐ Intra treatment social support provided

☐ Pharmacotherapy recommended as appropriate

☐ Quit plan developed

☐ Supplementary materials provided

☐ Other:

Wound Care

Wound Location	Wound Dressing(s)	Attach Dressing with:	Clean wound with:	Frequency of Dressing Change	Wound Care Comments
<Alpha>	<Alpha>	<Alpha>	<Alpha>	<Alpha>	
<Alpha>	<Alpha>	<Alpha>	<Alpha>	<Alpha>	

Home Equipment

Home Equipment	Equipment Received	Instruction Given

☐ Patient and/or responsible adult verbalizes underst

In Progress

Evaluation

Objective		1st Quarter 2010			2nd Quarter 2010			3rd Quarter 2010			4th Quarter 2010		
		Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10
4) Record demographics (Goal – at least 50%)	ALL	0%	0%	0%	0%	48%	96%	96%	96%	97%	95%		
4.f) Cause of death	Inpt	N/A	N/A	N/A	N/A	97%	97%	97%	96%	96%	96%		
	Obs	N/A	N/A	N/A	N/A	100%	100%	100%	100%	100%	100%		
5) Maintain an up-to-date problem list of current and active diagnoses (Goal – at least 80%)	Inpt	88%	89%	86%	87%	86%	99%	99%	99%	100%	100%		
	Obs	79%	79%	81%	80%	76%	100%	100%	100%	100%	99%		
6) Maintain Active Medication List (Goal – at least 80%)	Inpt	93%	93%	89%	91%	92%	99%	100%	99%	99%	99%		
	Obs	94%	94%	85%	85%	88%	98%	97%	99%	99%	99%		
8) Record and chart changes in the following vital signs: (HT, WT, BMI, BP) (Goal – at least 50%)	ALL	17%	17%	13%	12%	12%	13%	12%	74%	93%	97%		
8.b) Calculate and display the body mass index (BMI) for patients 2 years and older	Inpt	17%	17%	13%	12%	12%	13%	12%	74%	93%	97%		
	Obs	7%	10%	4%	5%	3%	5%	0%	63%	85%	95%		

Action Plan/Comments/Updates	Delivery Date	Responsible Person(s)
4.i) FNR Enhancement to capture date, time and cause of death via a physician discharge order. Status - completed	9/30/2010	ISD/Clinical Transformation/Medical Informatics STATUS: COMPLETE 11/15/2010
5) Looking at options to capture Engage information for ED	October 1, 2010	ISD/Clinical Transformation. STATUS: O/CCTD: MIU Criteria changed, ED information no longer required
6) Work with ED clinicians to capture medication history - adoption	Completed	DRH - STATUS: CLOSED - DRH meets criteria
8.b) BMR Enhancement to calculate BMI and display in All Results. Status - In-production - monitor adoption	August 30, 2010	DRH - STATUS: CLOSED - DRH meets criteria

UPDATE: Since the change of the encounter type from LD to Inpatient and Observation status, action plans may need to be adjusted for your site.

Meaningful Use Dashboard

7) Identify patient-specific education resources and provide those resources to patient if appropriate

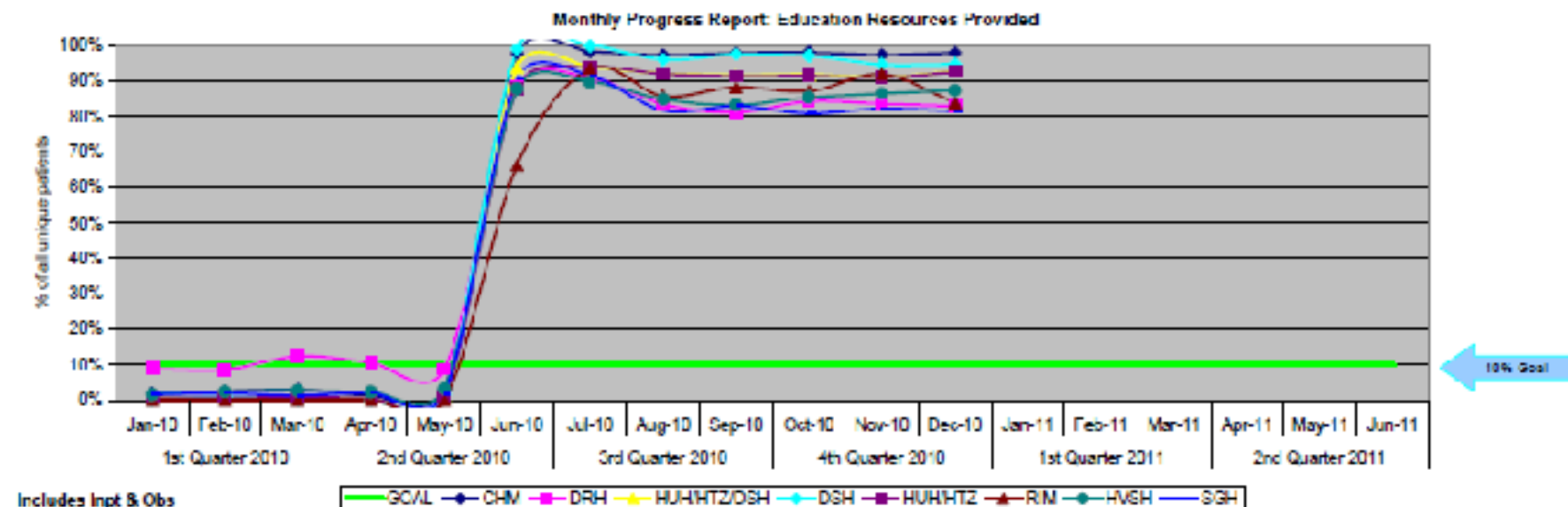
Report Specifications and Metrics

Numerator: # of unique patient IDs currently admitted who are provided patient education specific resources.

Denominator: # of unique patient IDs currently admitted

Target: At least 10 percent of all unique patients seen by the EP or admitted to inpatient or emergency department are provided patient specific education resources.

Includes Inpatient and Observation patients



		1st Quarter 2010			2nd Quarter 2010			3rd Quarter 2010			4th Quarter 2010			1st Quarter 2011			2nd Quarter 2011			
	GOAL	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	
	10% of all uniqueopt	CHM	2%	3%	3%	1%	3%	98%	98%	97%	98%	98%	97%	98%						
		CRH	9%	9%	12%	11%	9%	88%	91%	83%	81%	84%	84%	83%						
		FUL / IITZ/DGI	1%	1%	1%	1%	1%	54%	54%	52%	52%	52%	51%	52%						
		CSH	0%	1%	0%	0%	2%	55%	100%	96%	96%	97%	95%	95%						
		HUH/HI /	1%	1%	1%	1%	1%	88%	94%	94%	91%	94%	91%	94%						
		RIM	0%	0%	0%	0%	0%	66%	94%	86%	88%	87%	92%	84%						
		I/VCI	2%	2%	3%	2%	3%	66%	90%	85%	82%	85%	87%	87%						
		SGH	2%	2%	1%	2%	2%	51%	91%	82%	83%	81%	82%	82%						
	DMD - Ave	2%	2%	3%	2%	2%	89%	94%	89%	89%	90%	90%	89%	####	####	####	####	####	####	
		Deadline																		

Evaluation

- One measure of effectiveness is discharge medication reconciliation compliance
 - 11% (pre-update)
 - 60% (10 days post-update)

Lessons Learned

- Parking lot issues:
 - Created generic process for all sites
 - Should be more patient population specific:
 - Mother/baby
 - Pediatrics
 - Geriatric
 - Emergency Department admitted patients waiting for bed placement (6X)

Implication for Practice

- Numerous

- Nurses providing patients with a comprehensive, literacy – based discharge plan of care
 - Legible
 - Easily communicated to next provider of care

Comments and Questions