Getting the Most Out of MAK Reports

Learning Objectives

- At the completion – learner will able to identify one example of the use of information technology to improve a clinical outcome at Ellis Medicine.
- Understand the value and importance of different types of reports
- Recognize actions which can be initiated as MAK data is analyzed

- Three Campuses within 5 miles radius

Ellis Hospital

Three campuses

Ellis Hospital Campus – main campus:

Primary ER; Critical Care; Neuro Critical Care; Inpatient surgery; Med-Surg floors; Adult and Adolescent Inpatient Psychiatry; Radiation Oncology; Residential and Rehabilitation Center

McClellan campus

Second ER; Outpatient Surgery , Primary Care; Dialysis Center; Ancillary Services and etc.

Bellevue Campus

Women's care (Inpatients and Outpatients), Newborn and Neonatology with Level II neonatal care

Performance Markers

- Admissions - 18 000/year
- ER visits - 75 000/year
- Deliveries - 2600/year

Major focus on cardiac and neurosciences with active services at orthopedics, bariatrics and primary care

Data Collecting

Active Scheduled Uncharted Worklist
Bad Product Scan
Charted Meds with Overrridden Cosignature
Charted Totals
Co-Signed Medication Administration
Daily Charting Percentage
Early Unspecified Scans
Early Late Totals
Expiring Orders
Expiring Orders by MD
Expiring Orders for Pharmacy (Fri)
Expiring Orders for Pharmacy (M,T,W,Th)
Interface Charting Activity
Late Medication Reason Totals by Unit
Late Medication Reason Totals for all Units
Late Medications with Reason
Late Medications with Reason Select Unit
Late Medications with Reason Select Unit by Nurse
Med Admin Check Clinical Audit Summary (Conflict)
Med Admin Check Clinical Audit Summary (Nurse)
Missing Vitals Totals
Monthly Charted Totals (Last month)
Monthly Wrong Patient (Last month)

Nurse Verified Orders
Nursing Activity by Date and Employee Name
Nursing Activity by Drug and Employee Name
Nursing Activity by Patient and Employee Name
Orders Shifted through Med Admin Check
Pain Meds % Not Followed Up
Pain Meds Administered without Follow Up
Pain Meds Missing Required Follow Up Action
Patient ID Override, Incorrect Scan by User (All)
Patient ID Override, Incorrect Scan only Respiratory
Patient ID Override, Nursing Only
Pneumococcal and Influenza Vaccines
Product Override by Drug
Product Override by User
Respiratory Administration Totals
Respiratory Product Override
Respiratory Staff Activity
Respiratory Unreconciled Doses
Respiratory Unreconciled Doses for export
Stat Meds Entered by Nursing
Unchartable Doses
Unidentified Product Scans
Wrong Patient or Wrong Account # Scan Nursing Only

Most valuable

- Pain meds – missing required follow-up
- Uncharted doses
- Stat meds entered by nursing
- Late medication with reason
- Wrong patient scan

Charted Pain Meds and Follow-Up Action Completed

	Administered	*Follow Up Completed*	
A3NS	**125**	**102**	**82%**
A4NS	**16**	**9**	**56%**
A5NS	**99**	**76**	**77%**
A6NS	**62**	**46**	**74%**
B2NS	**37**	**28**	**76%**
B3NS	**1**	**0**	**0%**
C1NS	**52**	**31**	**60%**
C2NS	**3**	**2**	**67%**
C3NS	**10**	**7**	**70%**
C4NS	**20**	**16**	**80%**
C5NS	**16**	**8**	**50%**
C6NS	**20**	**12**	**60%**
E1NS	**5**	**3**	**60%**
E2NS	**27**	**25**	**93%**

Results for Late Meds

Total ~ 5.1% of total meds administered are late.

Conclusions on data:

- Most common reasons
- What time of the day
- What are contributing factors
- Users who most commonly fell in this category
- And many others

Results – Late Admin

- > 50 % are missing from Pharmacy or are new med orders not arrived
- ~ 10 % are bogus
- Other Common Causes:
  - Patient off unit
  - “Ate meal late”
  - “Given on time, did not chart”
  - Patient request
-

Wrong Patient or Same Patient Wrong Account #(*) Scan by Nursing

for the month of: 02 | *Local Table*

Location:

Error Type: Wrong Patient ID Scanned | **Unit Total:** 12 | ***Same Patient but wrong account #:*** 0 | ***WrongPatient:*** ~~12~~ 11 Repeat = 1

Nurse	Patient Name	Room	Pt. Number	Date/Time	Scan Data/Reason	Wrong Patient Name /	Admit	/ Discharge
, DAN RN	, LULA	A	003000694699	02/01/2011 20:52	>3000850077<	HELEN	01/22/2011	
ALECIA R	, PAUL	C404B	003001203136	02/23/2011 15:01	>3001079189<	LEON	02/11/2011	
E, CATHERINE	, JEREMIAH	B	003001009228	02/06/2011 00:55	>3000850267<	, RUTH	01/22/2011	
, CATHERINE	S, MARY	B	003001101215	02/21/2011 06:13	>3001151848<	, ADRIEN	02/17/2011	02/21/2011
GN, CA	K, FRANCIS	B	003001112162	02/19/2011 21:50	>3001132319<	, JAMISHA	02/16/2011	
S H, ERIC RN	, CHARLES	A	003001262546	02/27/2011 17:55	>3000912786<	, CARLTON	01/27/2011	
, KATHY L RN	, EDWARD	A	003000922967	02/01/2011 03:42	>3000933782<	, VICTOR	01/28/2011	
, KATHY L RN	, ANTHONY	B	003001167042	02/19/2011 06:50	>3001173933<	, JAMES	02/18/2011	
, KATHY L RN	, PAUL	B	003001203136	02/24/2011 01:07	>3001164155<	, MAR	02/17/2011	
, KATHY L RN	, PAUL	B	003001203136	02/24/2011 01:08	>3001164155<	R, MAR	02/17/2011	
O, LAURA RN	, DAVID	B	003000866446	02/04/2011 12:07	>3000975940<	N, JAMES	02/02/2011	02/04/2011
RN, LAURE	, FRANCIS	B	003001112162	02/17/2011 10:41	>3001079189<	J, LEON	02/11/2011	

Error Type: Incorrect Patient Account Sc | **Unit Total:** 3 | ***Same Patient but wrong account #:*** 3 | ***WrongPatient:*** 0

Nurse	Patient Name	Room	Pt. Number	Date/Time	Scan Data/Reason	Wrong Patient Name /	Admit	/ Discharge
	ALBERT	A	003001027956	02/08/2011 09:34	>3000978860<	* , ALBERT	02/02/2011	02/07/2011
	, ALBERT	A	003001027956	02/07/2011 16:54	>3000978860<	* O, ALBERT	02/02/2011	02/07/2011
	ALBERT	A	003001027956	02/07/2011 21:08	>3000978860<	* , ALBERT	02/02/2011	02/07/2011

Wrong Patient Scans 2/01/11 – 2/28/11

	Wrong Patient Scans	Same Patient but wrong account #	Charted Medication Totals	Rate per 1,000		
A3	17	1	16,771	1.01		
A4	7	5	16,362	0.43		Best for no computer at bedside
A5	10	1	20,769	0.48		
A6	4	7	19,158	0.21		2nd Best for no computer at bedside
B3	2	0	2,055	0.97		
C1	7	17	10,778	0.65		
C2	13	0	5,098	2.55		
C3	16	0	4,942	3.24		WORST
C4	11	3	13,903	0.79		
C5	4	15	8,950	0.45		2nd Best for computer at bedside
C6	7	2	7,927	0.88		Best for computer at bedside
E1	3	0	11,482	0.26		
E2	1	0	11,559	0.09		
Total	102	51	149,754	0.68		

Ellis HOSPITAL

Analytics

- Causes for wrong scan:
  - Nurse uncomfortable in patient participation
  - Lack of Focus
  - Room Transfer
  - Nurse using COW vs. bedside PC
    - Wrong scans
    - Administration Errors

Actions taken

- Mobile vs. bedside
- Time for meds administration
- Additional training
- Competence fair
- Safety rounds
- Validation Tools

Detailed Review of Medication Errors:

	# of Occurrences
1. **Transcription/Verification issues**: Pharmacy transcribes the order incorrectly and nursing verifies the order as being correct.	**20**
2. **MAK System Bypass**: The medication was administered without following procedure and using MAK (medication not scanned.)	**14**
3. **Medication administered to wrong patient**: MAK not used in these two areas: Emergency Room and Cath Lab.	**2**
4. **Labs/Blood work issues**	**3**
5. **Orders not faxed to pharmacy, chart check not completed**	**10**
6. **IV Pump Problems**: IV line not connected, incorrect programming of rates.	**8**
7. **Wrong drug**: Either dispensed or transcribed.	**3**
8. **Physician handwriting issues**: Wrong drug transcribed and verified.	**1**
9. **Compliance issues**: Not following policy and procedures (30) -MAK system bypass extracted above (14) -No documentation of waste of narcotics per NYS regulations -MAR not signed (SNF on paper MAR)	**16**
10. **Unauthorized medications**	
-Medications administered that should have been held	**5**
-Medications administered against hold parameters	**2**
-Repeat doses administered	**2**
11. **Pharmacy Delay**	**3**
12. **Other**	**20**

Enhancements to assist reporting

- Ability to identify the number of Patient ID scans – Wrong Patient scans
- Ability to make encoded values non-editable

How can we benchmark? What can we benchmark?

- Similar Types of Data
  - Wrong Patient Scans
  - Late Medications, Reasons for Late Medications
  - Overrides
  - Pain Follow-up

Questions?