Electronic White Boards and Nursing Support Tools: Innovative Approaches for Advancing Nurse Sensitive Quality Measures

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Objectives

At the completion of today, you will be able to...

- 1. Discuss the integrated technology model incorporated into the Nursing Process.

- 2. Demonstrate the role of technology in providing timely data to facilitate awareness and improve outcomes

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About UK HealthCare:

o The Enterprise is made up of the Albert B. Chandler Medical Center, Good Samaritan Hospital, Kentucky Neuroscience Institute, Gill Heart Institute, Markey Cancer Center, and Kentucky Children's Hospital

• Our new patient care pavilion opened in May of 2011. Our new facility will provide Kentucky with a state-of-the-art patient-centered facility staffed by nationally recognized experts in specialty and sub-specialty care.

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Background

- In fall of 2010 opportunities were identified related to Nursing Care and the **need for visibility and Readability** for NSI's and other Clinical Information at the unit level, managerial Level and Executive Level .

- Through Clinical Retreats and participation from multiple councils the model was developed for Nurse Sensitive Quality Measures.

Care

Documentation
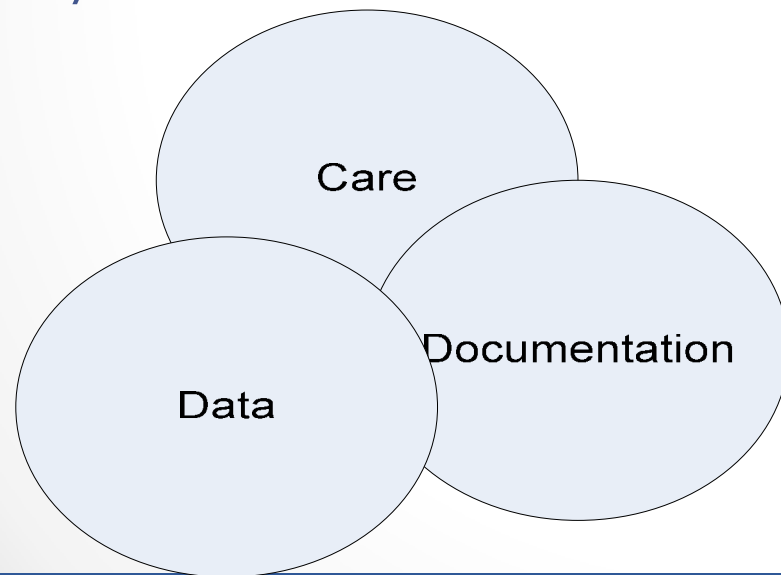
Data

Care – Knowledge of care processes incorporating Evidence based practice

Documentation – Consistence of practice – clarifies the who/when/where

Data – Data abstraction and evaluation of compliance and patient outcomes

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Nurse Sensitive Indicator Model

- **GOAL:**
  1. Ensure standard work for each indicator reflective of Evidence Based Practice
  2. Technically Hardwire the documentation and care processes for each identified measure
  3. Establish the communication and reporting processes to increase visibility and readability related to the NSI Clinical Information and outcomes.

SCM Display Boards
- Staff

Daily Rounding Report
- Managers

Monthly Scorecard
- Everyone

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Nurse Sensitive Indicator Model

- Each Nurse Sensitive Indicator would go through a Cycle of improvement

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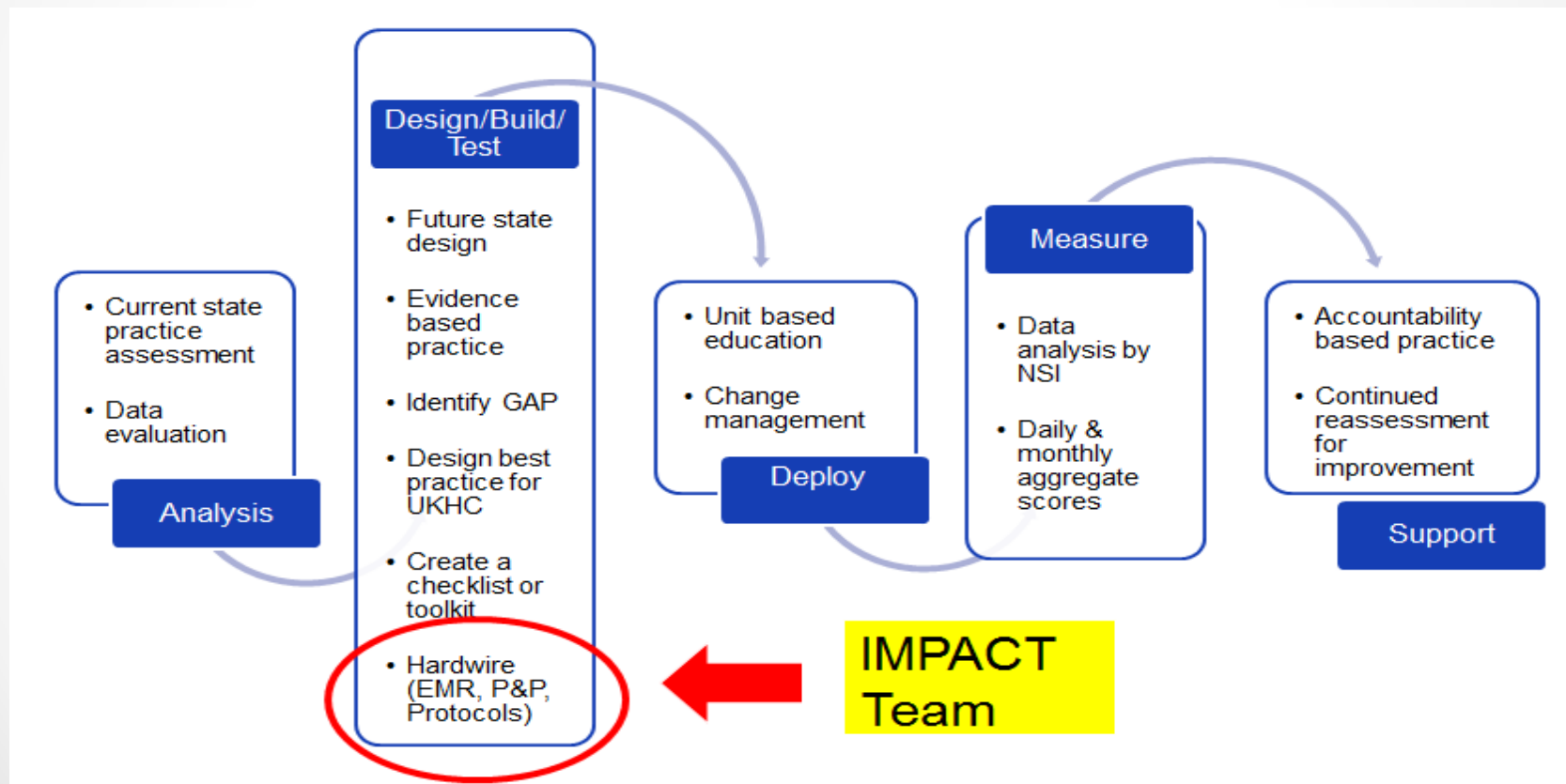
Integration of Model into Nursing Practice

- Analysis of Practice to assist in incorporating documentation standards. Design utilizing single point variable Documentation within the Electronic Medical Record…

Ex. Foley Catheter, Peripheral Line, Restraints, and Central Line Evaluation defined through hardwiring of status documentation.

Restraint Status
- initiated
- restraints remain on patient
- transferred into unit with restraints (list type)
- switched to more restrictive restraint (list type)
- switched to less restrictive restraint (list type)
- transferred out of unit with restraints
- discontinued (list reason)

Filter To:
- inserted
- present on arrival
- in place
- removed per Nurse Driven Protocol
- removed per MD order

OK   Cancel

Filter To:
- inserted
- present on arrival
- in place
- removed

OK   Cancel

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Integration of Model into Nursing Practice

Real Time NSI Visibility: **Electronic White Boards**

NSI Variables

Loc △	Patient	Password	SVC	Pager.	RN.	NCT.	New Res	Isol.	VS	FS.	FSBS	Diet	CL	PL	IV	FC	PU	Brd Scr	Mob.	Fall Ris	Res	CM	CMNTS	MOT	Stat
531			MT2 - 2612		Rothing, Jamie Carita	Alisa	🚩	environmental su	q4h			2 gram sodium		✓				19	6-ambu	9	🟢				TBADM
532	.	blue	MT1 - 2611		Rothing, Jamie Carita	Alisa		environmental su		✓	108	2 gram sodium;med a	✓				21	6-ambu	17	🔴	✚			TIP
533		2076	MT5 - 1591		Rothing, Jamie Carita	Alisa		Contact isolation	q8h			regular	✓				22	6-ambu	6	🟢			W/C	TBADM
534		1234	MT5 - 1591		Rennecker, Allison	Alisa		Contact isolation	q8h			NPO;tube feeding		✓			10	1-turn	7	🟢	🫁		BED	TBADM
535		Jim	MT1 - 2611		Rennecker, Allison	Alisa		Contact isolation		✓	223	regular	✓	✓			21	6-ambu	7	🟢	❤️			TBADM
536			MT3 - 2613		Rennecker, Allison	Derrick		environmental su	q4h	q6h ✓	112	regular	✓				22	6-ambu	6	🟢				TBADM
537		BIG GUN	MT1 - 2611		Rennecker, Allison	Derrick		Contact isolation	q4h			regular;no added salt	✓				20	6-ambu	13	🔴			W/C	TBADM
539		Genesis	OB - C 2652		Walrath RNA, Cathryn M	Derrick		Airborne isolatic	q8h			regular lactating					22	6-ambu	4	🟢				TBADM
540			MT1 - 2611		Mann RN, Shannon M	Derrick		Contact D isolat	q4h			regular		✓			22	6-ambu	6	🟢				TBADM
542			SGG - 2331		Mann RN, Shannon M	Derrick		Contact isolation	q4h			regular	✓				20	6-ambu	9	🟢				TBADM

Clinical Information

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NDNQI
NATIONAL DATABASE OF NURSING QUALITY INDICATORS

Bed	MRN	Patient Name	Admit	LOS	PU	POA	Braden	Fall Risk	Restraints	Line	Day	Foley	Day	Vent	Day	Culture
5E-531-B				5	No					⚪		⚪		⚪		
Service:	Medicine / Internal Medicine Team 2		**Core Measures:**						**24h Temp (F):** 97.2-97.8			**72h WBC:** 6.7-10.4				
5E-532-B				15	No				N - 65h Active	🔴	4	🔴	4	⚪		
Service:	Medicine / Internal Medicine Team 1		**Core Measures:**						**24h Temp (F):** 96.8-96.8			**72h WBC:** 12.1-13.1				
5E-533-B				27	No					🔴	24	⚪		⚪		
Service:	Medicine / Internal Medicine Team 5		**Core Measures:**						**24h Temp (F):** 97.3-97.3			**72h WBC:**				
5E-534-B				137	Yes	Yes				⚪		🔴	62	⚪		
Service:	Medicine / Internal Medicine Team 5		**Core Measures:**	PN					**24h Temp (F):** 96.8-96.8			**72h WBC:**				
5E-535-A				10	No					🔴	3	🔴	10	⚪		🚩
Service:	Medicine / Internal Medicine Team 1		**Core Measures:**	HF					**24h Temp (F):** 98.6-98.6			**72h WBC:** 6.0-7.6				
5E-536-A				8	No					🔴	3	⚪		⚪		🚩
Service:	Medicine / Internal Medicine Team 3		**Core Measures:**						**24h Temp (F):** 96.2-97.2			**72h WBC:** 6.9-9.7				
5E-537-A				10	No					🔴	3	⚪		⚪		
Service:	Medicine / Internal Medicine Team 1		**Core Measures:**						**24h Temp (F):** 96.1-96.5			**72h WBC:**				
5E-539-B				4	No					⚪		⚪		⚪		
Service:	Obstetrics/Gynecology / Obstetrics		**Core Measures:**						**24h Temp (F):** 97.1-97.1			**72h WBC:**				
5E-540-A				1	No					⚪		⚪		⚪		
Service:	Medicine / Internal Medicine Team 1		**Core Measures:**						**24h Temp (F):** 96.1-96.7			**72h WBC:** 13.5-13.7				

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Nursing Sensitive Indicators
Catheter-Associated Urinary Tract Infections (CAUTI)

3 Markey BMC

3 Markey BMC Nov. Details

	Counts	
Patients	412	
Patients With Foley	20	
CAUTI	0	✅
CAUTI Rate*	0.00	

* CAUTI Rate Definition
 # of infections
# of indwelling foley catheter days
multiplied by 1000 days

Percentage of Patients with a Indwelling Foley Catheter

Legend: 3 Markey BMC — Hospital Rate — Acute Care
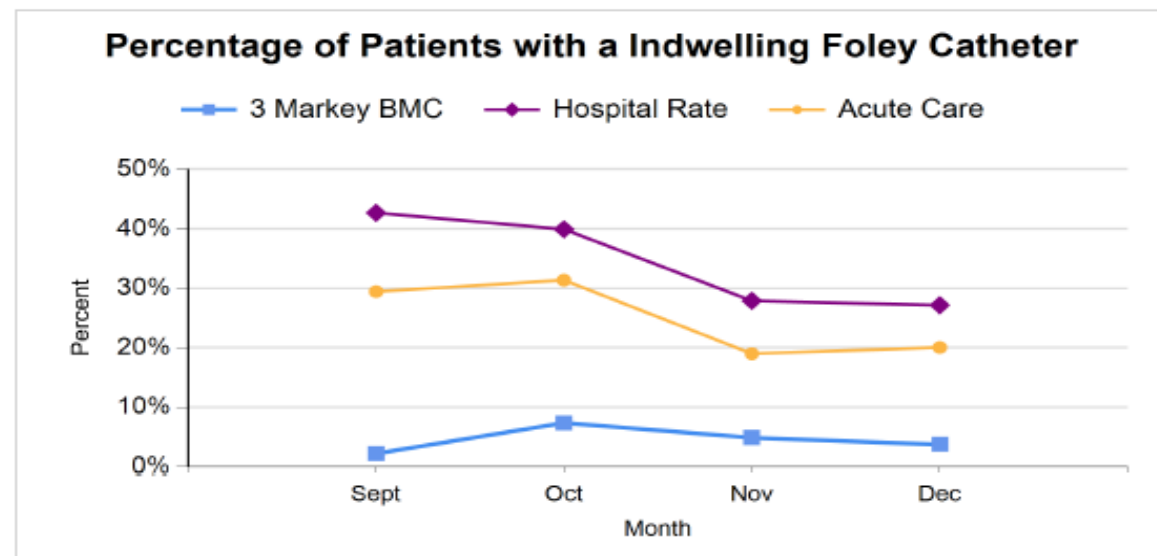
Month	Sept	Oct	Nov	Dec
# CAUTI	0 ✅	0 ✅	0 ✅	0 ✅
% Patients with Foley				
3 Markey BMC ---	2.2 %	7.4 %	4.9 %	3.7 %
Hospital Rate ---	42.7 %	39.9 %	27.9 %	27.1 %
Acute Care ---	29.4 %	31.4 %	19.0 %	20.0 %

Data based on a daily electronic point prevalance of foley status documentation.

NSI Monthly CAUTI Outcomes for Managers and Nurse Specialist

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Nursing Sensitive Indicators
Central Line-Associated Bloodstream Infection (CLABSI)

3 Markey BMC

3 Markey BMC Nov. Details

	Counts	
Patient Days	412	
Device Days	374	
CLABSI	1	❌
CLABSI Rate*	2.67	

* CLABSI Rate Definition
# of infections
# of central line days
multiplied by 1000 days

Percentage of Patients with a Central Line

Legend: 3 Markey BMC — Hospital Rate — Acute Care
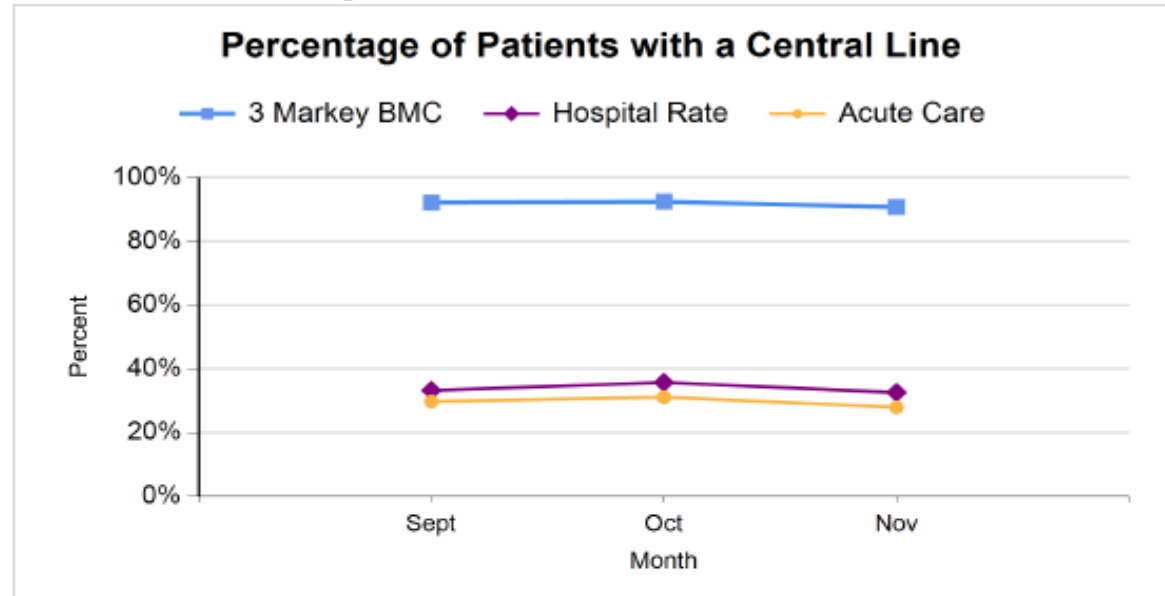
Month	Sept	Oct	Nov
# CLABSI	4 ❌	4 ❌	1 ❌
% Patients with Central Line			
3 Markey BMC ---	92.2 %	92.4 %	90.8 %
Hospital Rate ---	33.2 %	35.7 %	32.6 %
Acute Care ---	29.7 %	31.1 %	27.9 %

Data based on a daily electronic point prevalance of central line status documentation.
Central Lines include: Central, UAC, UVC, PICC, Vascular, Pulmonary and Hemodialysis

Nursing Sensitive Indicators
Peripheral Intravenous (PIV) Infiltration

3 Markey BMC

3 Markey BMC
Dec. Details

	Counts	
Patient Days	431	
PIV Days	42	
Infiltrates	0	✅
Rate*	0.00	

* PIV Rate Definition
# of infiltrations
# of peripheral IV days
multiplied by 1000 days

Percentage of Patients with Peripheral IV (PIV)

Legend: 3 Markey BMC — Hospital Rate — Acute Care
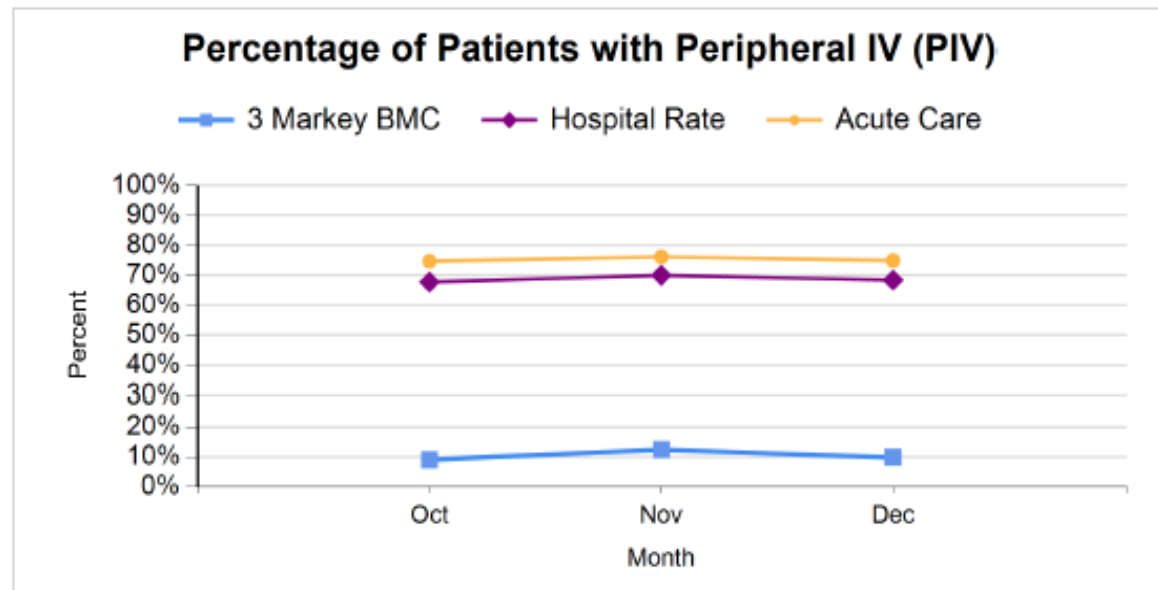
Month	Oct	Nov	Dec
# Infiltration	0 ✅	2 ❌	0 ✅
% Patients with PIV			
3 Markey BMC ---	9.1 %	12.4 %	9.7 %
Hospital Rate ---	67.8 %	70.0 %	68.4 %
Acute Care ---	74.7 %	76.2 %	75.0 %

Data based on a daily electronic point prevalance of IV status documentation.

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Nursing Sensitive Indicator Overview - October 2011

↓ Below   ↑ Above   ⚠ Exceeds Threshold   ✅ Meets Threshold

Catheter-Associated Urinary Tract Infection (CAUTI)	Peripheral Intravenous (PIV) Infiltration	Central Line-Associated Bloodstream Infection (CLABSI)
Monthly Count	**Monthly Count**	**Monthly Count**
0 ✅	**2** ⚠	**0** ✅
Monthly Trend ✅	Monthly Trend	Monthly Trend ✅
Acute Care Comparison ↓	Acute Care Comparison ↑	Acute Care Comparison ↓
Redesigned August 2011	Redesigned September 2011	Redesigned October 2011

Patient Falls	Pressure Ulcers (Hospital Aquired) Stages 1 - 4	Pain Assessment (AIR) Cycle Assessment / Intervention / Reassessment
Monthly Count	**Monthly Count**	
0 ✅	**2** ⚠	COMING SOON
Monthly Trend ✅	Monthly Trend ↑	
Acute Care Comparison ↓	Acute Care Comparison ↓	
Documentation Under Redesign	Documentation Under Redesign	Documentation Under Redesign

Physical/Sexual Assault	Ventilator-Associated Pneumonia (VAP)	Physical Restraint Prevalence % of patient days with restraints
Monthly Count	**Monthly Count**	**Monthly Count**
1 ⚠	**0** ✅	**6.05 %** ⚠
Monthly Trend	Monthly Trend ✅	Monthly Trend ↓
Acute Care Comparison ↑	Acute Care Comparison ↓	Acute Care Comparison ↑
Documentation Under Redesign	Documentation Under Redesign	Documentation Under Redesign

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Tools in Development

Executive Summary of Nurse sensitive indicators:

UKHealthCare — Nursing Sensitive Indicators – November 2011

Unit	CAUTI	CLABSI	VAP	Falls	PIV	Restraints
Acute Care						
Ground CDU	2	1	0	0	2	0
2 Markey Cancer Center	1	0	0	6	4	61
3 Markey BMC	0	0	0	1	0	2
3 Markey Cancer Center	1	2	0	3	1	2
3North	0	0	0	0	1	5
4 East	0	0	0	0	2	0
4 NCU - Neonatal Care Unit	0	0	0	0	1	0
4 West	1	1	0	0	2	0
5 East	0	0	0	2	2	9
5 South	0	0	0	0	1	33
5 West	0	0	0	0	2	0
6 East	0	0	0	0	0	0
6 North	0	0	0	0	0	19
6 South	2	0	0	1	0	4
6 West	0	1	0	0	0	17
7 South	0	1	0	1	0	14
7 West	0	0	0	1	0	0
7E	1	0	0	0	1	40
8 East	0	0	0	0	1	3
8 South	0	0	0	0	1	0
8 West	0	0	0	0	1	33
Burn Unit	2	0	0	0	1	0
GS 2 West	0	0	0	0	0	23
GS 4 East	0	0	0	6	10	0
GS 4 West Telemetry	0	0	0	1	3	57
GS 5 East	0	0	0	1	1	4

NSI Recognition

- In the Pre-survey Summer of 2011, approximately 18% of the people recognized Nurse Sensitive Indicators.

- In the current survey January 2012, approximately 82% of the respondents were able recognize correctly Nurse Sensitive Indicators.

Lessons Learned

- **Continual Evaluation of the information and Process essential for Success**

- **Opportunities with Nursing Compliance and documentation**

- **Opportunities with communication**
  - **January 2012 Survey: Nearly 30 % of respondent reported they did not know where to locate their Unit Scorecard**

Innovation

OR

Recognition of Team

- Cecilia Page   IMPACT Team
- Jill Blake   NSI Swat Team
- Sharon Lake   NSI Team
- Matt Turner*   Quality and Safety Team
- Aric Schadler*   Nurse Practice Council
- Bev Tucker Hansen
- Trish Seabolt
- Kendra Foreman
- Candice Warf
- Lynda Bennett
- Greg Williams

"If everyone is moving forward together, then success takes care of itself.-
Henry Ford

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Thank You

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