Integrating Evidence-Based Practice and Process Improvement Models to Decrease Catheter-Associated Urinary Tract Infection

Flagstaff Medical Center
Flagstaff, AZ
Evidence-Based Practice Department
Objectives

- Define how evidence-based practice, lean six sigma, and the IHI PDSA cycles integrate to achieve sustained practice and process change
- Define original CAUTI practices instituted at Flagstaff Medical Center
- Cite best evidence in evidence-based CAUTI prevention
- Discuss how clinical educators from ED, OR, ICU and Medical-Surgical/Telemetry areas successfully implemented CAUTI prevention practice changes
- Disseminate CAUTI reduction and urinary catheter maintenance practice change data
Our Hospitals:
Flagstaff Medical Center and
Verde Valley Medical Center
“Making Lives Better”
Focus

- Eliminate defects, waste, and variation
- DMAIC Mnemonic
  - D = Define
  - M = Measure
  - A = Analyze
  - I = Improve
  - C = Control
- Process-focused improvement strategy
Advancing Research & Clinical Practice Through Close Collaboration EBP Model (ARCC)

* Defines evidence-based practice using a holistic approach to change
* EBP is a **problem-solving** approach to clinical practice that integrates the conscientious use of **best evidence** in combination with a **clinician’s expertise** as well as **patient preferences and values** to make decisions about the type of care that is provided. **Resources** must be considered in the decision-making process as well.

Step 0: Cultivate a Spirit of Inquiry

Melnyk & Fineout-Overholt’s Advancing Research & Clinical Practice through Close Collaboration (ARCC) Model

Potential Strengths
- Philosophy of EBP (paradigm is system-wide)
- Presence of EBP Mentors & Champions
- Administrative Support

Clinicians’ Beliefs About the Value of EBP & Ability to Implement the EBP Process*

Nurse Satisfaction
- Cohesion
- Intent to Leave
- Turnover

Decreased Hospital Costs

Improve Patient Outcomes

Potential Strengths
- Lack of EBP Mentors & Champions
- Inadequate EBP Knowledge & Skills
- Lack of EBP Valuing

Implementation of ARCC Strategies
- Interactive EBP Skills Building
- EBP Rounds & Journal Clubs

* Scale Developed
+ Based on the EBP Paradigm & using the EBP process

Scale Developed

Based on the EBP Paradigm & using the EBP process

Northern Arizona Healthcare
Organizational Culture: Lean Six Sigma and EBP

* Lean Six Sigma
  * Introductory Lean classes
  * Critical mass of both Lean Six Sigma Green Belts and Black Belts
  * Lean Six Sigma process improvement tools widely used throughout facility
* EBP
  * Small group of educators and one Clinical Nurse Specialist trained in EBP principles
  * EBP tools used among educator/CNS group and in limited interactions with certain disciplines
Integrating LSS, EBP, and PDSA Cycles

- Step 0 = Cultivate a spirit of inquiry
- D = Define
  - Step 1 = Clinical Question (PICOT)
- M = Measure
  - Step 2 = Search for best evidence
- A = Analyze
  - Step 3 = Evaluate the evidence
  - Step 4 = Determine best fit
- I = Improve
- C = Control
  - Step 5 = Outcomes evaluation
- Step 6 = Dissemination plan
Do System-Based Interventions Affect Catheter-Associated Urinary Tract Infection?

By Margo A. Halm, RN, PhD, ACNS-BC and Nancy O’Connor, RN, BSN, MSBA, CIC

Table 2
American Association of Critical-Care Nurses evidence-leveling system

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Meta-analysis of multiple controlled studies or metasynthesis of qualitative studies with results that consistently support a specific action, intervention, or treatment</td>
</tr>
<tr>
<td>B</td>
<td>Well-designed controlled studies, both randomized and nonrandomized, with results that consistently support a specific action, intervention, or treatment</td>
</tr>
<tr>
<td>C</td>
<td>Qualitative studies, descriptive or correlational studies, integrative reviews, systematic reviews, or randomized controlled trials with inconsistent results</td>
</tr>
<tr>
<td>D</td>
<td>Peer-reviewed professional organizational standards, with clinical studies to support recommendations</td>
</tr>
<tr>
<td>E</td>
<td>Theory-based evidence from expert opinion or multiple case reports</td>
</tr>
<tr>
<td>M</td>
<td>Manufacturer's recommendation only</td>
</tr>
</tbody>
</table>

From Armola et al,17 with permission.

Table 1
Matrix of evidence (P < .05)

<table>
<thead>
<tr>
<th>Reference</th>
<th>Intervention and results</th>
<th>Evidence level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoon et al12</td>
<td>Hospitalwide education: catheter tagging</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter insertion date tagging increased from 46.2% (baseline) to 84.6% (after education)</td>
<td></td>
</tr>
<tr>
<td>Meddings et al11</td>
<td>Daily checklist or reminder system</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter reminders or stop orders (N = 14 studies)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter days declined 2.61 days per patient in intervention group (mean duration decreased 37%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pooled standardized mean difference for duration of catheterization was -1.11 days overall, including significant decrease when stop orders were used (but not reminders)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter-associated urinary tract infection (CAUTI) rate (per 1000 catheter days) decreased by 52% with either intervention</td>
<td></td>
</tr>
<tr>
<td>Fuchs et al10</td>
<td>Daily checklist for catheter initiation/continuation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter days declined from 402 (baseline) to 380 (after intervention)</td>
<td></td>
</tr>
<tr>
<td>Elser et al10</td>
<td>Nurse-driven daily evaluation of catheter indication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter days (mean) declined from 311.7 to 298.6 days per month</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inappropriate catheter use = 32% (common reasons included incontinence, skin integrity concerns, obesity, diabetes, perceived discomfort, patient’s request for comfort)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAUTI rate (mean) decreased from 4.7 to 0 per month during 6-month intervention period</td>
<td></td>
</tr>
<tr>
<td>Fakih et al9</td>
<td>Daily review of catheter indication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter days declined from 203 (before intervention) to 162 per 1000 patient days (after intervention)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unnecessary catheters decreased from 102 (before intervention) to 64 catheter days per 1000 patient days (during intervention) but increased to 91 catheter days after the intervention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inappropriate catheter use decreased from 50.4% (at baseline) to 39.6% (during the intervention) and 48.7% (after the intervention)</td>
<td></td>
</tr>
<tr>
<td>Apsaramathanarak et al14</td>
<td>Multidisciplinary daily review of catheter indication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter days declined from a mean of 11 (SD, 2.5) to a mean of 3.0 (SD, 0.7) days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inappropriate catheter use decreased from 20.4% to 11%</td>
<td></td>
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<tr>
<td></td>
<td>CAUTI rates decreased from 21.5 to 6.2 per 1000 catheter days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Antibiotic costs decreased 63%, from $3739 (SD, 1422) to $1378 (SD, 601)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hospitalization costs decreased 58%, from $366 (SD, 620) to $154 (SD, 34)</td>
<td></td>
</tr>
<tr>
<td>Knoll et al15</td>
<td>Multifaceted education with system redesign/rewards/feedback</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter prevalence decreased from 15.2% to 9.3% (intervention phase I), 13.6% (phase II) and 12% (phase III)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nonordered catheters decreased from 17% to 5.1% and nonindicated catheters decreased from 80% to 50%</td>
<td></td>
</tr>
<tr>
<td>Oman et al16</td>
<td>Multifaceted education, charge nurse catheter rounds, product review/standardization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catheter days declined on surgical unit from 3.01 (phase I) to 2.2 (phase III)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAUTI rates maintained at 0 per 1000 catheter days from baseline to after the intervention (pulmonary unit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Length of stay (mean) decreased from 7.39 to 7.21 and 6.72 days in 3 phases (pulmonary unit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Product removal of silver alloy catheters had annual cost savings of $52,000; no adverse effect on CAUTI rates</td>
<td></td>
</tr>
</tbody>
</table>
Equipment Change and Standardization

- **New kit**
  - Silicon catheter
  - Sterile gloves
  - Hand gel for provider
  - Castile wipes
  - Betadine swabs
  - Lubricating jelly
  - Urometer standard
  - Securement device standard
  - Kit standardized throughout hospital

- **Old kit**
  - Silicon catheter
  - Sterile gloves
  - Cotton balls
  - Tweezers
  - Betadine packet
  - Lubricating jelly
  - May or may not have urometer
  - No securement device
  - Multiple kits in use and not standardized

All RNs watched educational video and took quiz on appropriate catheter insertion and use of new kit
Audit Planning

- Standardized audits addressing:
  - Use of new kits
  - Common catheter mishaps
  - Appropriate clinical indications

- Additional education addressing specific problems in each clinical area

- Continuous feedback regarding results

- Involvement of clinical staff

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**Table 5**

<table>
<thead>
<tr>
<th>Do</th>
<th>Don't</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use aseptic technique to insert catheter</td>
<td>Clean periurethral area with antiseptics</td>
</tr>
<tr>
<td>Secure catheter to prevent movement and traction</td>
<td>Let drainage bag touch floor</td>
</tr>
<tr>
<td>Perform routine meatal cleansing</td>
<td>Disconnect drainage system</td>
</tr>
<tr>
<td>Always keep drainage bag below level of bladder</td>
<td>Routinely irrigate bladder</td>
</tr>
<tr>
<td>Maintain free urine flow by keeping catheter and tubing free of kinks</td>
<td>Routinely change catheters or drainage bags</td>
</tr>
<tr>
<td>Empty bag regularly by using a separate clean container</td>
<td>Clamp tubing during transport</td>
</tr>
<tr>
<td>Disinfect port before and after urine sampling</td>
<td>Clamp catheter before removal</td>
</tr>
<tr>
<td>Replace catheter and system if a break in aseptic technique, disconnection, or leakage occurs</td>
<td></td>
</tr>
<tr>
<td>Consider closed continuous irrigation if obstruction is anticipated</td>
<td></td>
</tr>
<tr>
<td>Consider alternatives (external catheters or intermittent catheterization)</td>
<td></td>
</tr>
<tr>
<td>Use bladder ultrasound to evaluate urinary retention</td>
<td></td>
</tr>
</tbody>
</table>

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* Based on information from Gould et al., Fink et al., and Bledgett.

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# FMC CAUTI Audit Tool

## Urinary Catheter Audit Tool

<table>
<thead>
<tr>
<th>Auditor:</th>
<th>Unit:</th>
<th>Unit Census:</th>
<th>Date/Time:</th>
<th>RN Reason? (Free Text)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Sticker and Primary RN Name on Sticker</strong></td>
<td>Cath System (See Below)</td>
<td>Seal intact? (Y/N)</td>
<td>Cath secured? (Y/N/NA)</td>
<td>Securement type? (See Below)</td>
</tr>
<tr>
<td></td>
<td>Urometer overflowing? (Y/N)</td>
<td>Tubing looped/ kinked? (Y/N)</td>
<td>Green clip used? (Y/N)</td>
<td>Tubing/bag below bladder? (Y/N)</td>
</tr>
<tr>
<td></td>
<td>Bag/ Meter Touching Floor? (Y/N)</td>
<td>Patient sitting up in chair? (Y/N)</td>
<td>Secure grade for each patient? (Y/N/NA)</td>
<td>Sticker insert date? (Y/N)</td>
</tr>
<tr>
<td></td>
<td>Sticker insert time? (Y/N)</td>
<td>Sticker insert initials? (Y/N)</td>
<td>Evidence-based reason? (See Below)</td>
<td></td>
</tr>
</tbody>
</table>

**Region Details:**
- **B 3W 0**
- **SLT SO**
CAUTI Prevention and Urinary Catheter Care Results
* 100,000 CFU/ml will be the threshold for reporting

* Non-bacteria will no longer be eligible pathogens for symptomatic/asymptomatic bacteremic UTI.

* Urinalysis will not be used for any NHSN criteria.
FMC Foley Audits: Number of audit days (n=192)
FMC Foley Audits: Number of catheters audited per month – Adult patients only (n=924)
FMC Foley Audits: Catheter type per month - Adult patients (n=924)

- Bard
- Other
- 3 Way Irrigation

<table>
<thead>
<tr>
<th>Month</th>
<th>Bard</th>
<th>Other</th>
<th>3 Way Irrigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct</td>
<td>28</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nov</td>
<td>20</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Dec</td>
<td>42</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Jan</td>
<td>34</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Feb</td>
<td>24</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mar</td>
<td>33</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Apr</td>
<td>19</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>May</td>
<td>18</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Jun</td>
<td>31</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Jul</td>
<td>31</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Aug</td>
<td>60</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>
FMC Foley Audits: Catheter securement per month- Adult patients (n=924)

Goal: 90%

FMC Urinary Catheter Focus Study

October 2014 - August 2015

FMC Foley use Indicators: All units, Adult patients (n=924)

- Tamper seal
- Catheter Secure
- Tubing bag below bladder
- Green clip used
- Date/Time sticker applied
FMC Foley use Indicators: All units, Adult patients (n=924)

- Tubing looped/kinked (Goal <10%)
- Urometer overflowing (Goal <10%)
- Bag/meter touching floor (Goal 0%)
FMC Foley Audits: Reasons for use, All units - Adult patients (n=967)

*Please note that some cases have more than one reason listed*
FMC Foley Audits: Top 5 Evidence Based reasons, All units - Adult patients

- Critically ill patient needing accurate measurement of I and O
- Post-surgical patient within the first 24-48 hours post-op
- Acute urinary retention or obstruction
- Chronic indwelling urinary catheter prior to admission
- Hospice/Comfort Care
Emergency Department Role in CAUTI Prevention

• Quality measures begin when the patient enters the hospital/health care system

• Emergency Department is a hospital front door
  • A major point of entry into the hospital/healthcare system

• Patient outcomes are affected by the quality of our care
  • Trauma
  • S-T elevation myocardial infarction
  • Stroke
  • CAUTI
• Conducted trial of new indwelling urinary catheter kit
• ED inserts “lots of catheters”
  • High use of supplies

• Kit contained extra supplies recommended for prevention of CAUTI
  • Wipes for gross patient contamination
  • RN alcohol gel
  • Securement device
  • Big orange insertion date/time sticker for inpatient RN’s
    • Prevented time wasted scrolling thru chart for insertion date/time
• Sheet clip
Sticker for Date/Time Insertion

Visual reminder for inpatient nurses!
Product Representative Educational Support

• Product Representative clinical educator provided several educational sessions to ED Staff
  • Shift meeting at 0700 and 1900 hrs.

• ED Clinical Educator and ED RN Champion educated remainder of staff

• 100% of staff educated with checkoff list
• Education regarding how to use new kit with demonstration

• Education regarding new guidelines to reduce CAUTI’s

• New hospital policy written establishing new guidelines to reduce CAUTI’s
  • Result -- Overall reduction in IUC placement in the ED

• Video and post test created for larger inpatient staff education
Involvement of ED and Patient Care Technicians

- Previously considered RN only practice
- Education for ED Techs to empty urometers and document urinary output
- Management of drainage system to prevent dependent loops
- Keep urometers below bladder level
- Urometer never touches floor
Technician Training Program and Badge Card for Every RN and Technician

- ED & Patient Care Technician Training Program Created
- Trained existing technicians
- Train all incoming nurses and technicians
Trial Outcomes – The Easy Part

• Staff feedback about indwelling urinary catheter kit overwhelmingly positive
  • Useful
  • Easy
  • Extra supplies helpful

• The ED recommended kit for use house-wide to:
  • Educators
  • Quality (Clinical Value Department)
  • Management

• Hospital-wide transition to this kit
Translation into Practice – The Hard Part

- Live educational audits of patients with indwelling urinary catheters
  - Had nurses implemented what they learned?
  - Were nurses using all parts of kit?
    - Collection bag lower than bladder level
    - Emptying collection bags/uroimeters prior to transport anywhere (no yellow in the hallways)
    - No dependent loops with use of sheet clip
    - Use of securement device
    - Peri-care daily and PRN

- On the spot education by Clinical Educators
Current State – *Maintaining* Evidence Based Best Practices

- Work in progress
- Some ED nurses still want to place IUC’s for inappropriate indications
- Education for alternatives
  - Straight cath to empty bladder
  - Condom catheter for males
  - Risks of placement
- Reinforcement and repetition
Surgical Services……

The accidental late adaptor or laggard if you prefer
Surgical Services Structure

- Consists of Pre-Op, OR, PACU and ENDO
- 11 ORs in Main
- 4 ORs in Outpatient
- Average of about 800 cases per month
- High orthopedic volume
Work in a Specialty Area, OR

- Challenging and Rewarding
- This does not apply to me
- A shifted focus
- Money is a motivator
- Supply Chain differences
My introduction to Surgical Services Educator

- Welcome... teach this new protocol to help prevent CAUTI's.
- P.S. we go live in 2 weeks
- Good luck!

The question I asked myself... how do I get a team of staff who will NEVER get charged with a CAUTI to adapt to a new practice?
The answer:

Persistence
Surgical Services Receptiveness to EBP

- Receptiveness to EBP
  - Mixed reviews
- Tolerance to change
  - New Kits were a pain point
- Decreased Utilization
Audits

* Audits as a teaching opportunity
  * Immediate correction
  * Positive staff interactions
  * Time consuming

* Audits as a data collection tool
  * Had to slightly change this for the surgical services departments
The OR... things are a little different

- Surgical beds are great for surgery, but not much else
  - Where to hang the bag
  - How to keep the tubing out of the way of surgery
- Use of chosen catheter securement device in the OR is not ideal
  - Goal became save the catheter securement device for PACU
- EBP Reason – “The Audits are ever in our favor”
Things are going well, could we do better?

- Audits showed improvement, however talking with the staff revealed other issues
- Gap Analysis
  - Skills Lab
  - Making experienced staff demonstrate urinary catheter insertion
FMC Foley Audits: Number of catheters audited per month - Surgery and PACU, Adult patients (n=81)

- November 2014: 21
- December 2014: 19
- January 2015: 10
- February 2015: 12
- April 2015: 16
- June 2015: 3

Note: No audits conducted since June 2015.
Urinary Catheter Utilization Benchmarks

**FMC Ortho/ 3N Utilization Ratio**

*Data collection was automated in April 2015*

FMC Urinary Catheter Focus Study
Surgery and PACU* 
(please note: no audits conducted since June 2015)

FMC Foley use Indicators: Surgery and PACU, Adult patients (n=81)

- Tamper seal
- Catheter Secure
- Tubing bag below bladder
- Green clip used
- Date/Time sticker applied

Northern Arizona Healthcare
FMC Urinary Catheter Focus Study
Surgery and PACU*
October 2014 - August 2015
(please note: no audits conducted since June 2015)

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- Tubing looped/kinked (Goal <10%)
- Urometer overflowing (Goal <10%)
- Bag/meter touching floor (Goal 0%)

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Lessons Learned

Persistence Matters
Know your audience
Open honest communication
Smile while giving orders
Engage staff in the process

DETERMINATION
has to be admired even though you look like a muppet
Consists of 3 in-patient units:

* ICU – 20 beds
* CVICU – 11 beds
* SDU – 22 beds

Semi-open Admission Structure
CCC Pre-Implementation Strengths & Weaknesses

STRENGTHS

* Data driven – quality goals and statistics were visible
* Receptive to standardization and protocols
* Passionate

WEAKNESSES

* Reliance on convenience of hourly output
* Breaking the “we’ve always done it that way” philosophy with catheters
* Lack of catheter product standardization and process for discontinuation
ICUs have highest prevalence of CAUTIs – Now what?

EDUCATION!!!

Re-focus critical thinking with evidence-based reasons for catheter indication

Standardize practices, give clear directives

Audit Tool & EBP Visibility

- Instant indications for evidence-based reasons incorporated into the audit tool
- Simple and Educational

Evidence-Based Reason = CI = Critically ill patient needing accurate measurement of I & O; PS = Post-surgical patient within the first 24-48 hours post-op; UR = Acute urinary retention/obstruction; UP = Urological procedure; IM = Required immobilization for trauma or surgery; CC = Hospice or comfort care; PU = Stage III or IV pressure ulcer; ID = Chronic indwelling catheter prior to admission; RN = Reason not appropriate
Critical Care Skills Labs

* Skills Lab station based off of Audits

* Content
  * 30-45 min station
  * New Kit overview
  * Hands-on & Interactive
  * Conversations about CAUTI prevention

* Updates on improvement and performance in CCC

* Observing metrics that need consistent attention
Critical Care and CVICU

CVICU CAUTI Rates Per 1,000 Device Days

- 55% decrease

ICU N/V CAUTI Rates Per 1,000 Device Days

- 25% decrease

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FMC CV ICU Utilization Ratio

* Data collection was automated in April 2015

NHSN mean: 0.54

FMC Urinary Catheter Focus Study
Urinary Catheter Utilization Benchmarks

Data source: IP-CVD

Stepdown Unit

SOU CAUTI Rates Per 1,000 Device Days

Northern Arizona Healthcare
FMC Urinary Catheter Focus Study
Urinary Catheter Utilization Benchmarks
Data source: IP-CVD

FMC Step Down (SDU and 2CCU) Utilization Ratio
*Data collection was automated in April 2015

NHSN mean: 0.24

0.16  0.20  0.13  0.22  0.12  0.16  0.18  0.15  0.17  0.14  0.15

Medical/Surgical/Telemetry (MST) Unit structure

5 Medical/Surgical/Telemetry Floors
- 3 West
- 3 South
- Humphreys (N/S)
- 2 East/Short Stay
- 3 North

Registered Nurse/Patient Ratios
- Days vs Night
MST Receptiveness to EBP

- Desire to do what is best for the patient
- Time is often a constraint
  - RNs want the information but struggle with having the time for it
Pre-Implementation
Strengths & Weaknesses

* Historical view
  * The other units
  * 3N

* The Good, Bad & the Ugly
  * Good – facility support for protocols
  * Bad – do not execute the protocols predictably
  * Ugly – removing catheters at end of shift
Education and Opportunities for Improvement (OFIs)

- Management involvement
- Peer Audits
- Educators showing the staff the “so what factors”

- OFIs
  - Peer to Peer accountability
Medical Surgical/Telemetry and Orthopedic Units

Med/Surg CAUTI Rate per 1,000 Device Days

Ortho CAUTI Rate per 1,000 Device Days

Northern Arizona Healthcare
FMC Med-Surg Utilization Ratio (excludes 3N)

*NData collection was automated in April 2015

NHSN mean: 0.19

25th%

10th%

FMC Urinary Catheter Focus Study
Urinary Catheter Utilization Benchmarks
Data source: IP-CVD

FMC Ortho/ 3N Utilization Ratio
*Data collection was automated in April 2015

Lessons Learned Throughout the Journey

- LSS and EBP tools are easily integrated to achieve practice and process improvement
- Multiple PDSAs are implemented as part of practice and process change
- Amazing interdepartmental teamwork is essential to move an organization forward
- Highly skilled EBP mentors improve staff engagement and explain the “whys”
- Clear expectations of staff and real-time education are key in promoting practice change
Overall Wins for the Facility

- Minimized clutter of kits and products – streamlined!!
- CAUTI Awareness & staff involvement
- Clear resources for catheter practices (clinical educators)
- Decrease in utilization ratio throughout the hospital
QUESTIONS
References


