Addressing Appropriate Urinary Catheter Use in the Emergency Department

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Session Overview

- Timeline and data collection review
- Urinary catheter utilization in the Emergency Department
- Emergency Department nursing strategies to prevent CAUTI’s
Data Collection

- Will continue collecting outcome data monthly through March 2013
  - Outcome measure (CAUTI rates), calculated in both catheter days and patient days
- Started collecting process data September 3rd
  - Process measure (Prevalence/appropriateness), # of patients with a catheter, indication for why patient has a catheter, collected M-F for 3 weeks
Data Collection continued

- Start of baseline process data is September 3rd and ends September 21st
- Then have an “educational period” to look at what you need to focus your improvement efforts on.
- Implementation period begins October 1st. Data collection occurs for the first two weeks of the Implementation Period (October 1-12), then once a week for 7 weeks. (October 16, 23, 30, and November 6, 13, 20, and 27.

Intervention Planning

- Daily rounding process in place
- Educating physician champion, getting other physicians on board
- Begin reviewing current Foley catheter polices and discussing with key stakeholders any recommended changes that should be made
- Don’t forget the ED staff, they need to know what is going on as well.
Urinary Catheter Use in the Emergency Department

Urinary Catheter Utilization

- About 15 - 25% of patients will have a urinary catheter placed during their hospitalization.
- Many are placed either in the intensive care unit, emergency department or the operating room.

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Reducing Risk of CAUTI

- Limit catheter use to indications (Avoid placing the catheter unless appropriately indicated)
- Limit catheter use to indications (promptly remove those that are no longer necessary)
- Reduce urinary catheter days leading to a reduction in days at risk for CAUTI
- Reduce risk of introducing organisms to the bladder leading to a reduction of risk of CAUTI when catheter in place

Reducing Unnecessary Use: Limit to Indications

- Avoid use unless appropriate indication
- Promptly remove of catheter when no longer indicated
- Reduction in Inappropriate Urinary Catheter Use

Clear Identification of what is considered an appropriate indication
Inappropriate Use in non-ICU: Michigan Experience 2007-10
(Fakhri et al., Arch Intern Med 2012;172:255-260)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Baseline % of all patients with catheters (57.6%)</th>
<th>% of patients with catheters without appropriate indications*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-obstructive renal insufficiency</td>
<td>2.2</td>
<td>3.8</td>
</tr>
<tr>
<td>Transferred from intensive care</td>
<td>4.2</td>
<td>7.3</td>
</tr>
<tr>
<td>Patient request</td>
<td>1.5</td>
<td>2.6</td>
</tr>
<tr>
<td>Confusion</td>
<td>4.6</td>
<td>8.0</td>
</tr>
<tr>
<td>Incontinence</td>
<td>6.5</td>
<td>11.3</td>
</tr>
<tr>
<td>Other or no clear reasons</td>
<td>38.6</td>
<td><strong>67.0</strong></td>
</tr>
</tbody>
</table>

*Based on the 1983 CDC recommendations

Addressing the Urinary Catheters

- Most of the work has been in the non-intensive care units
- Focus has been reducing the duration of use
- But where do the catheters come from?
Areas for Potential Interventions

PACU/OR
- Avoid insertion unless required for surgery
- Remove promptly after surgery before transfer out

ICU
- Evaluate for continued need
- Discontinue no longer needed before transfer out

Non-ICU
- Evaluate need on admission
- Evaluate for continued need

ED
- Avoid initial placement
- Reevaluate for continued need after patient stabilizes

Intervening in ED
- The emergency department is an area where a large number of urinary catheters are placed.
Intervening in ED

- Addressing the appropriateness of placement of urinary catheters in the ED and promoting removal of the urinary catheters prior to transfer to the inpatient units may help reduce unnecessary urinary catheter use.

ED Compliance with Institutional Guidelines

(Fakhri et al, Acad Emerg Med 2010; 17:337–340)

- Established institutional guidelines for UC placement in ED
- Compared the rate of placement before and after guidelines
- ED physician champion involved
- Minimal nursing education/ intervention
- Pre- and post-intervention: 12 months baseline, and 9 months intervention/ sustainability (sampled 5 days per quarter)
Physician Intervention ED
(Fakhri et al, Acad Emerg Med, 2010; 17:337-340)

- UC utilization dropped significantly after starting the physician intervention from 212 of 1421 (14.9%) pre-intervention to 110 of 1041 (10.6%) post-intervention (p=0.002)
- Physicians ordered fewer UCs post-intervention (45 of 1041, 4.3%) compared to pre-intervention (106 of 1421, 7.5%), (p=0.002)
- Only 151 of 322 (47.0%) UCs initially placed in the ED had a physician order documented

UC Placement in the ED Pre- and Post-Intervention Accounting for Physician Order (1a)

Figure 1a.
What was learned?

- Essential to establish clear guidelines for UC insertion in the ED
- Physicians play a significant role in UC use
- Nurses play a significant role in UC use
**ED Physician Champion**

- Motivated, want to help improve safety, interested in making a change.
- Have recognition and respect from colleagues
- Likely to be engaged in efforts if interested in reducing the harm related to the catheter.
- Engage the ED champion from the start and make sure s/he is visible to both staff and other physicians.

**Implementation: Nurses**

- Nurse champion promotes use of appropriate indications and proper insertion technique by all ED nurses.
- The goals of the program and the potential benefits to patients are discussed with nurses.
- Nursing staff are educated about the appropriate indications for urinary catheter placement and insertion procedures.
- Printed educational material, lectures, posters, and pocket cards may be useful tools.
Implementation: Nurses

- Emphasize the importance of obtaining a physician order for placement if they believe the patient requires urinary catheterization.
- Use other strategies to reduce the need for indwelling urinary catheterization (alternatives to the urinary catheter).

Pocket Cards for Physicians & Nurses

Do NOT PLACE URINARY CATHETERS UNLESS NEEDED!
Emergency Department-Specific Guidelines

Always obtain physician order before placement of a urinary catheter.

Urinary Catheters are NOT Indicated for:
- Incontinence
- Matted bladder
- Dementia/Confusion
- Patient’s request
- Nursing convenience
- Urine specimen collection (may straight catheterize if unable to obtain specimen)

Urinary catheters can increase:
- Infections
- Length of Stay
- Cost
- Patient discomfort
- Antibiotic use

Urinary Catheters can lead to more immobility which increases the risk of skin breakdown and deep venous thrombosis.

Prevention is Key.

Do NOT PLACE URINARY CATHETERS UNLESS NEEDED!
Emergency Department-Specific Guidelines

Appropriate Urinary Catheters Indications:
- Acute urinary retention or obstruction
- Perioperative use in selected surgeries
- Assist healing of perineal and sacral wounds in incontinent patients
- Improve comfort for end of life care (thoracic/palliative care)
- Required immobilization for trauma or surgery
- Monitoring fluids in the critically ill patients

Urinary catheter use is also considered acceptable:
Chronic urinary catheter use is present on admission

Always obtain a physician order before placement of a urinary catheter.

For questions, please contact [Enter contact information here].
Data Collection in the Emergency Department: Advantages

- Prospective data collection on indications and documentation of physician order
- Only one unit/department is involved in data collection: the ED.
- Feedback on utilization is more accepted because it is collected by the ED staff.

Data Collection in the Emergency Department: Disadvantages

- Multiple people are obtaining data. Ensure that data collection is accurate!
- The sheet itself may have some impact on the placement, thus underestimating the baseline rate.
- *More sheets to use!!* Especially cumbersome in hospitals who have established EMR
Successful ED Nursing Strategies to Prevent CAUTI’s

Catheter Insertion

- Guidelines for CAUTI prevention have always recommended aseptic insertion techniques.
- Nurses learn insertion while in school, using an elaborate protocol.
- Other healthcare workers may learn while “on the job.”
- Nurses are responsible for the maintenance of indwelling urinary catheters.
Barriers to aseptic insertion

- Lack of knowledge
- Lack of importance
- Lack of feedback
- Lack of resources

Lack of Knowledge

- There a few similarities between the controlled environment in which healthcare providers learn to insert catheters and the chaotic work environments in which they practice.
- Healthcare providers may not have the skills to maintain aseptic technique given work environment constraints.
- They may observe peers inserting catheters and notice that aseptic technique is not used.
Lack of Knowledge: Strategies to Overcome

- Develop competencies for those who insert catheters.
- Review catheter insertion technique during annual competency testing.
- Require that there be oversight for catheter insertion by a licensed provider.
- Develop a policy on catheter insertion techniques if none is in place.
- Use a variety of checklists.

Lack of Importance

- Activities strictly within the nursing domain may not perceived as being important or of much value, compared to activities that cross disciplinary boundaries.
- Catheter insertion may be perceived as one of many “tasks” rather than as a component of evidence-based practice.
Lack of Importance: Strategies to Overcome

- Aseptic insertion of indwelling urinary catheters is a component of evidence-based practice, no matter what the discipline.
- Develop a culture where evidence-based practice is recognized and rewarded.
- Think in terms of nursing practice components rather than a set of tasks to be completed.

Lack of Feedback

- Those who insert catheters may not be aware of the consequences when aseptic insertion technique is violated.
- Patients move from the ED to other units, and there is no systematic process to let ED staff know of patient outcomes.
- CAUTI can result from poor insertion technique.
Lack of Feedback: Strategies to Overcome

- Unit level strategies: Report monthly CAUTI rates during staff meetings.
- Post monthly CAUTI rates in a prominent location.
- Organizational level strategies: Post CAUTI rates for all units, so that comparisons can be seen.

Lack of Resources

- Time, financial, space, equipment constraints can all contribute to situations where aseptic insertion techniques are not used.
- Variation in staffing resources contributes as well: High turnover
- Understaffing
Lack of Resources: Strategies to Minimize

- Adequate supplies:
  - over-the-bed tables
  - hand sanitizers
  - sterile gloves
  - best type of kit to stock for your patient population
- Would individual supplies be better than a kit?
- Adequate facilities for hand hygiene
- Location: are kits close to procedure room?
- Checklists

Checklists

- Alternatives to Indwelling Catheters—bladder scanner, straight catheter, condom catheters
- Appropriate Indications—catheter is being inserted for an appropriate indication
- Different checklists for men and women—aseptic procedure for catheter insertion
Tips for Success

- Organizational, unit, and individual strategies
- **Organizational**
  - Non-punitive culture
  - Visible and supportive leadership
  - Integrate an evidence-based, professional practice model into the workplace
  - Annual aseptic insertion competency for all staff that insert catheters.

Tips for Success continued

- **Unit**
  - Identify a change champion: someone who other staff respect and who is committed to the aseptic insertion technique
  - Consider relocating supplies
  - Report monthly CAUTI rates
- **Individual**
  - Provide staff opportunity to collect CAUTI data
  - Involve staff in peer QI checks for insertion practices