# *Florida Department of Health: Healthcare Associated Infection Prevention Program*

## CAUTI Collaborative
## Cohort 2 Call
## February 15, 2012

# Agenda

- Review Pre-assessment results
- Joint Commission expectations and HICPAC recommendations for a CAUTI prevention program
- Indwelling urinary catheter policies/protocols/procedures
- Daily assessment of catheterized patients
- Documentation
- Planning for the Implementation Period

# Reminders

- Please submit January data into NHSN by February 25th
- Join FDOH CAUTI COHORT 2 NHSN user group
- NHSN CAUTI Event has been revised

# Revision:
# NHSN CAUTI Event

| *Chapter 7: CAUTI Event* | | |
|---|---|---|
| 7-2 | Indwelling catheter definition | Addition of guidance that urinary catheters that are irrigated are not considered closed systems and therefore not included in CAUTI surveillance. |
| 7-5 thru 7-6 | Table1 and figures | Addition to all SUTI criteria so that they read "...at time of specimen collection or onset of signs or symptoms..." to identify that the presence of catheter is related to both of these elements. |
| 7-9 thru 7-13 | Figures | Slight reorganization of the UTI flowcharts to be more informative and easier to interpret and associate with catheter use. |
| 7-13 | Figure 5 | Addition of previously omitted symptom "dysuria" to Figure 5 flowchart for ABUTI for patient ≤ 1 year of age. |
| 7-7 | Table 1 Comments | Addition of Reporting Instruction: Laboratory cultures reported as "mixed flora" represent at least 2 species of organisms. Therefore an additional organism recovered from the same culture, would represent > 2 species of microorganisms. Such a specimen cannot be used to meet the UTI criteria. |

# Pre-assessment Review

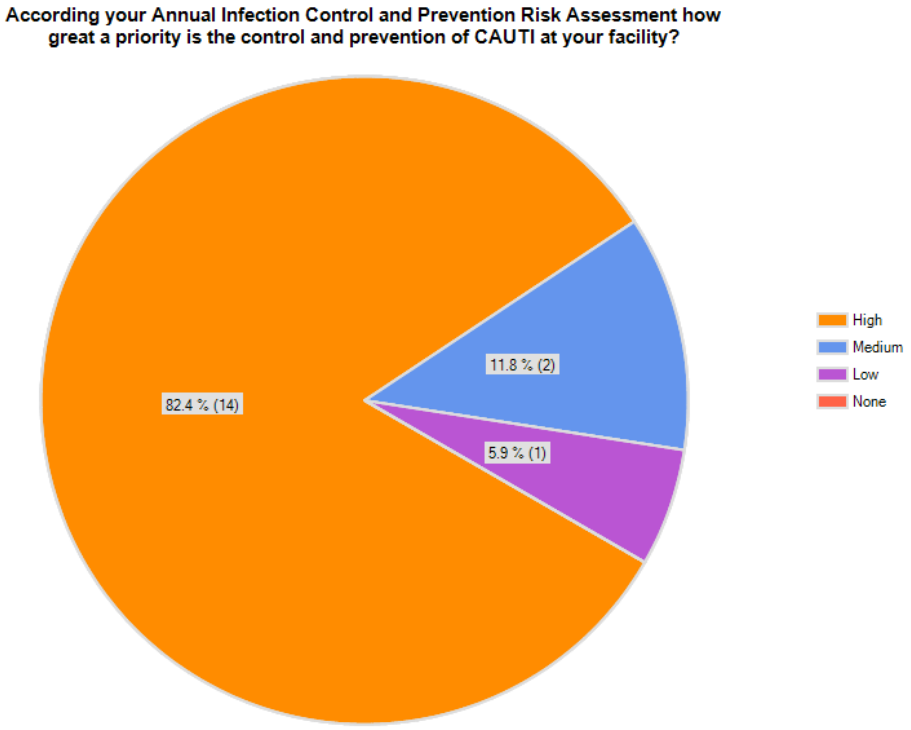
- **Purpose:**
  - **To identify current policies and practice with regard to urinary catheterization and CAUTI prevention.**
  - **Will be used to tailor a CAUTI prevention program for each facility involved.**
    - **Mandatory interventions**
    - **Other optional interventions that could possibly further impact the infection rates in the facility**

# Pre-assessment Background

- Number of Beds:
  - Range 1 – 806 licensed beds
  - Mean number of beds 296
  - Median of 200 beds
- Number of Infection Control Professional FTEs
  - Range of 0.5 – 5 FTEs.
  - Mean number of ICP FTEs is 1.6/facility
  - Median of 1 FTEs
- ICP-to-bed ratio
  - Range of 1:25 – 1:334
  - Mean 1:192
- On average 61% of the FTEs working in the collaboratives facilities are CIC.

# Pre-assessment Background

- Priority of CAUTI per Infection Control Plan:
  - 82%(14) High Priority
  - 12%(2) Medium Priority
  - 6%(1) Low Priority
- 94% have addressed CAUTI in the Infection Control Plan for the facility.



# Pre-assessment Background

- CAUTI Surveillance
  - 100% perform CAUTI surveillance facility-wide
- Use of NHSN and/or CDC NHSN Case Definitions
  - At the time of the pre-assessment 71% were using NHSN for CAUTI surveillance.
  - 94% used NHSN CAUTI surveillance definitions regardless of whether or not NHSN was used to report CAUTI events.

# Prevention Strategies: *Count to 10 Before you Cath!*

1. Insert catheters only for appropriate indications.
2. Consider using an alternative.
3. Perform hand hygiene.
4. Insertion limited to trained personnel.
5. Use aseptic technique and sterile equipment.
6. Secure catheter after insertion.
7. Maintain a closed drainage system.
8. Maintain unobstructed urine flow.
9. Do not clean periurethral area with antiseptics.
10. Assess daily and remove unnecessary catheters.

# Pre-assessment Results

1. **Insert catheters only for appropriate indications.**
   - ***77% have procedures on appropriate indications for urinary catheter use.***
   - ***77% have a procedure for documenting indication for urinary catheter placement.***
   - ***53% sometimes use urinary catheters for management of incontinence***
   - ***42% never or rarely measure adherence to documentation of indications for urinary catheter placement***

# Pre-assessment Results

2. **Remove unnecessary catheters.**

- **89% have a procedure for documenting each urinary catheter insertion**
- **83% have a procedure for documenting each urinary catheter removal**
- **47% have alerts or reminders for removing unnecessary catheters**
- **24% have protocols for nurse-directed removal of unnecessary catheters**
- ***47% do multidisciplinary urinary catheter "rounds"***
- ***42% never or rarely measure adherence to documentation of catheter insertion and removal dates in at least one patient care area***
- ***71% have procedure for assessing each catheterized patient daily for appropriate use***

# Pre-assessment Results

3. **Perform hand hygiene in compliance with CDC or WHO.**

- **82% always and 12% often measure adherence to hand hygiene policies in at least one patient care area**

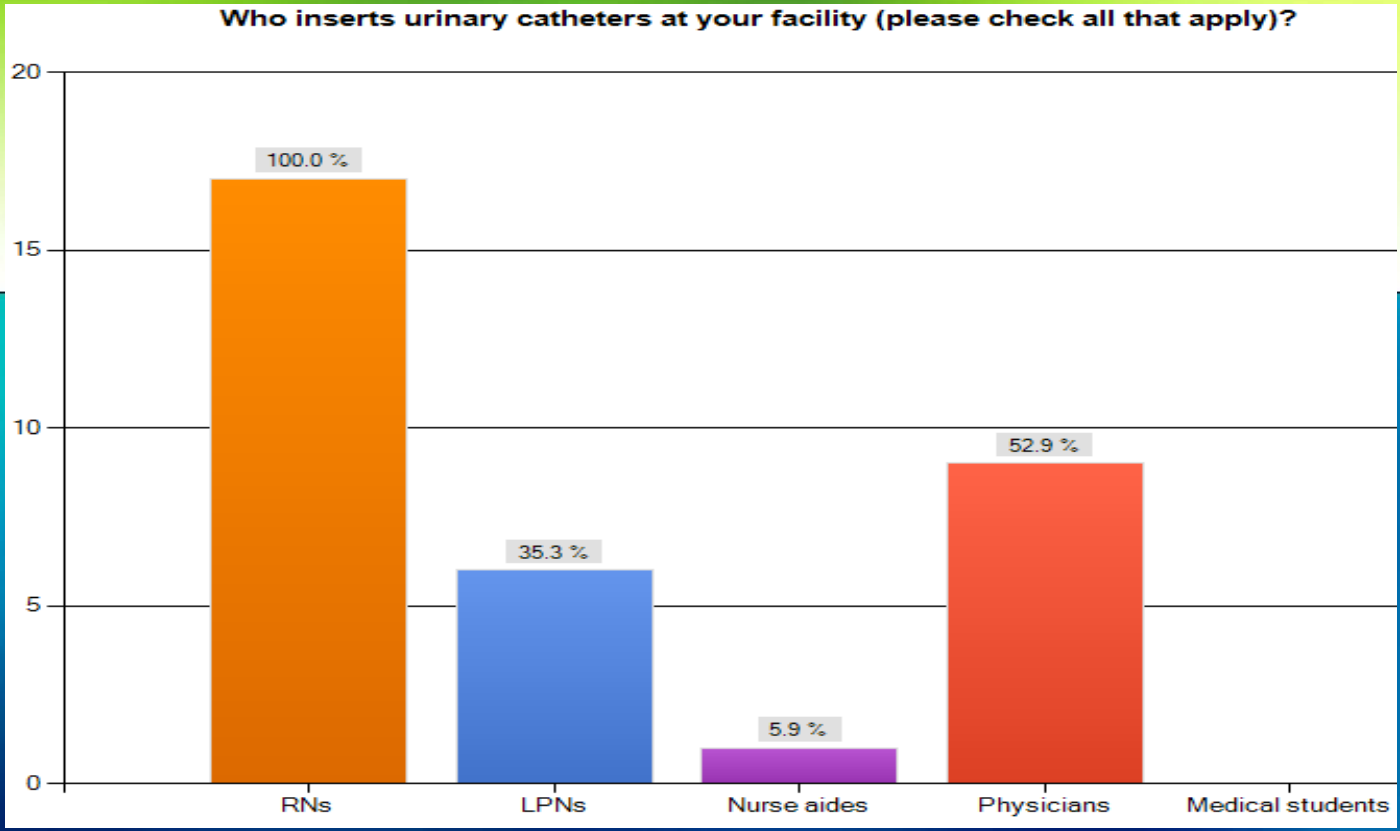
# Pre-assessment Results

4. **Provide education on proper insertion and maintenance.**

- *94% have procedures on proper techniques for urinary catheter insertion*
- *88% have procedures for urinary catheter maintenance*
- ***77% have facility-wide regular in-service training for appropriate healthcare personnel on techniques and procedures for urinary catheter insertion, maintenance, and removal***
- ***77% always or often provide feedback to nursing staff and other appropriate clinical care staff regarding rates and adherence to prevention strategies.***

# Pre-assessment Results

5. Limit insertion of catheters to trained personnel.




- ***77% of facilities have trained these personnel on the proper insertion and maintenance of indwelling catheterization***

# Pre-assessment Results

6. **Insert catheters using aseptic technique and sterile equipment.**

- *100% have supplies necessary for aseptic urinary catheter insertion available*
- *77% always have insertions using aseptic technique and sterile equipment*
- *65% use a CAUTI bundle*
- *64% always or often measure adherence to proper aseptic insertion of urinary catheters in at least one patient care area*

# Pre-assessment Results

7. **Properly secure indwelling catheters after insertion to prevent movement and urethral traction.**
   - **100% often or always use a securement device after insertion**
8. **Maintain closed drainage system.**
   - **100% use urinary drainage systems with pre-connected, sealed catheter tubing junctions**
   - **59% rarely, and 6% never disconnect urinary catheters from collecting systems**
   - ***71% never and 12% rarely change catheters at routine fixed intervals***

# Pre-assessment Results

9. **Maintain unobstructed urine flow.**
   - **100% always or often observe that the urinary drainage bag is kept below the level of the bladder**
   - **100% always or often observe that the catheter and collecting tube is kept free from kinking**
   - **100% always or often keep the urinary drainage bag off of the floor**
   - **100% always or often empty collection bags regularly using a separate container for each patient**
10. **Cleaning the metal area with antiseptic solutions in unnecessary; routine hygiene is appropriate.**
   - **None of the pre-assessment survey questions directly correspond to this strategy.**

# Pre-assessment Results

11. **Remove catheter within 48 hours following surgical procedure or document reason for extended use.**
    - **100% often or always remove urinary catheters by PO day 2 unless indications are met**
    - **53% have procedures or algorithms for appropriate perioperative catheter management**
12. **Implement and promote alternatives to indwelling urinary catheterization.**
    - ***65% often or always use alternatives to indwelling urinary catheters when appropriate***

# What we do well….

- Use of NHSN and/or case definitions
- Addressing CAUTI in infection control plan
- Policy addressing documentation of catheter insertion and removal date
- Measuring hand hygiene
- Maintaining a closed drainage system
- Maintaining unobstructed urine flow
- Using a securement device after each insertion
- Removing the catheter on post-op day 2

# Opportunities for improvement…

- All encompassing policy addressing daily assessment of catheterized patients and appropriate indications for catheterizations.
  - Solution? *Create Policies/Procedures that reflect the importance of daily assessment and appropriate indications for catheterizations*
    - will engage key staff members whose support may be needed to make the necessary changes
- Measuring adherence to documentation of indications, insertion date, and removal date
  - Solution? *Periodic, random checks for documentation of insertion/removal dates and indications for catheterization*
    - Gives a baseline of how often documentation is being completed in order to know where to focus efforts

# Opportunities for improvement…

- **Conducting daily rounds on every catheterized patient**
  - **Solution?** ***Incorporate daily rounds into processes already in place during daily assessment of the patient. Educate each nurse on indications and checking patient each day to determine whether indications are met.***
- **Education on proper insertion and maintenance AND indications for urinary catheterization**
  - **Procedures are there but regular in-servicing and feedback to staff can be improved**
  - **Solution?** ***Use FDOH educational package or contact your vendor to provide training and/or training materials. Observe staff to be sure the education has met its purpose.***
  - ***The goal would be to require the inservice yearly for all staff.***
- **Promoting alternatives to indwelling urinary catheterization**
  - **Solution?** ***Educating and making staff aware that other options are available, making the supplies readily available.***

# National Patient Safety Goal 07.07.01

Hospital Accreditation Program

**NPSG.07.07.01**

Implement evidence-based practices to prevent indwelling catheter-associated urinary tract infections (CAUTI). *
Note: This NPSG is not applicable to pediatric populations. Research resulting in evidence-based practices was conducted with adults, and there is not consensus that these practices apply to children.
Footnote *: Evidence-based guidelines for CAUTI are located at: Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals at, http://www.shea-online.org/about/compendium.cfm
Guideline for Prevention of Catheter-associated Urinary Tract Infections, 2009 at http://www.cdc.gov/hicpac/cauti/001_cauti.html

**Elements of Performance for NPSG.07.07.01**

1. During 2012, plan for the full implementation of this NPSG by January 1, 2013.
   Note: Planning may include a number of different activities, such as assigning responsibility for implementation activities, creating timelines, identifying resources, and pilot testing.
2. Insert indwelling urinary catheters to prevent infection according to established evidence-based guidelines that address the following:
   - Limiting use and duration to situations necessary for patient care
   - Using aseptic techniques for site preparation, equipment, and supplies
3. Manage indwelling urinary catheters to prevent infection according to established evidence-based guidelines that address the following:
   - Securing catheters for unobstructed urine flow and drainage
   - Maintaining the sterility of the urine collection system
   - Replacing the urine collection system when required
   - Collecting urine samples
4. Measure and monitor catheter-associated urinary tract infection prevention processes and outcomes by doing the following:
   - Selecting measures using evidence-based guidelines or best practices
   - Monitoring compliance with evidence-based guidelines or best practices
   - Evaluating the effectiveness of prevention efforts

http://www.jointcommission.org/assets/1/6/NPSGs_CAUTI-VAP_HAP_20101119.pdf

# HICPAC Guidelines: QI Initiatives

- Implement QI programs or strategies to enhance appropriate use of indwelling catheters and to reduce the risk of CAUTI. (Category IB)
- The purposes of a QI initiative should be:

1) to assure appropriate utilization of catheters
2) to identify and remove catheters that are no longer needed (e.g., daily review of their continued need)
3) to ensure adherence to hand hygiene and proper care of catheters.

# HICPAC Guidelines: QI Initiatives

- Examples of programs that have been demonstrated to be effective include:
  - A system of alerts or reminders to identify all patients with urinary catheters and assess the need for continued catheterization
  - Guidelines and protocols for nurse-directed removal of unnecessary urinary catheters
  - Education and performance feedback regarding appropriate use, hand hygiene, and catheter care
  - Guidelines and algorithms for appropriate peri-operative catheter management, such as:
    - Procedure-specific guidelines for catheter placement and postoperative catheter removal
    - Protocols for management of postoperative urinary retention, such as nurse-directed use of intermittent catheterization and use of bladder ultrasound scanners

# Urinary Catheterization Policies/Procedures

- Policies and procedures should be clear and concise.
  - Create and enforce a policy with explicit criteria for appropriate catheter insertion.
    - This will ensure catheters are only placed for approved and medically necessary reasons. (HICPAC indications)
  - Incorporate prevention strategies into policy
  - Address documentation and daily assessment of all catheterized patients in the policy
  - In-service staff at least annually on the urinary catheterization policies/procedures
  - Reinforce policy with indications sheets, computerized entry for indications, and visual aids.

**Indwelling Urinary Catheter Reminder**

**This patient has had a urinary catheter in place since __/__/__**

**In an attempt to reduce catheter-associated urinary tract infections, please verify the reason(s) for continuing the indwelling urinary catheter:**

- ☐ Patient has acute urinary retention or bladder outlet obstruction.
- ☐ Need for accurate measurements of urinary output in critically ill patient.
- ☐ <48 hours post urologic surgery or other surgery on contiguous structures of the genitourinary tract.
- ☐ To assist in healing of open sacral or perineal wounds in incontinent patient.
- ☐ Prolonged immobilization (e.g., potentially unstable thoracic or lumbar spine, multiple traumatic injuries such as pelvic fractures).
- ☐ To improve comfort for end of life care.
- ☐ Other:_____

**If the patient no longer meets the above indications for indwelling urinary catheterization please get an order to discontinue.**

# Eliminate CAUTI:

## One infection at a time

**Appropriate Indications:** ***Does this patient need the catheter?***

- Ensure patient meets appropriate indications for catheter use and document reason.
- Consider alternatives to indwelling urethral catheterization.

**Hand hygiene:** ***It starts with the hands.***

- Sanitize hands thoroughly with an alcohol-based hand rub or soap and water before and after catheter insertion or manipulation.

**Insertion Technique:** ***Pay attention to detail.***

- Use sterile equipment including, sterile gloves, drape, sponges, and appropriate antiseptic solution.
- Use aseptic technique to insert catheter. If aseptic technique is broken, replace catheter and collecting system aseptically with sterile equipment.
- Use a single-use packet of lubricant jelly for insertion for each patient.
- Secure catheter to prevent movement and urethral traction.

**Catheter maintenance:** ***Keep it neat.***

- Keep collection bag below level of the bladder at all times.
- Check tubing frequently for kinking.
- Keep drainage bag off the floor.
- Empty the collecting bag regularly.
- Maintain a closed-drainage system.

**Catheter care:** ***Keep it clean.***

- Perform perineal care daily and after each bowel movement.

**Catheter removal:** ***Get it out!***

- Assess patient daily for catheter need.
- Take steps to remove catheter when patient no longer meets indications.

### Examples of Appropriate Indications for Indwelling Urethral Catheter Use

Patient has acute urinary retention or bladder outlet obstruction.

Need for accurate measurements of urinary output in critically ill patients.

Perioperative use for selected surgical procedures:

- *Patients undergoing urologic surgery or other surgery on contiguous structures of the genitourinary tract*
- *Anticipated prolonged duration of surgery (catheters inserted for this reason should be removed in PACU)*
- *Patients anticipated to receive large-volume infusions or diuretics during surgery*
- *Need for intraoperative monitoring of urinary output*

To assist in healing of open sacral or perineal wounds in incontinent patients.

Patient requires prolonged immobilization (e.g., potentially unstable thoracic or lumbar spine, multiple traumatic injuries such as pelvic fractures).

To improve comfort for end of life care if needed.

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- ☐ Take steps to remove catheter when patient no longer meets indications.

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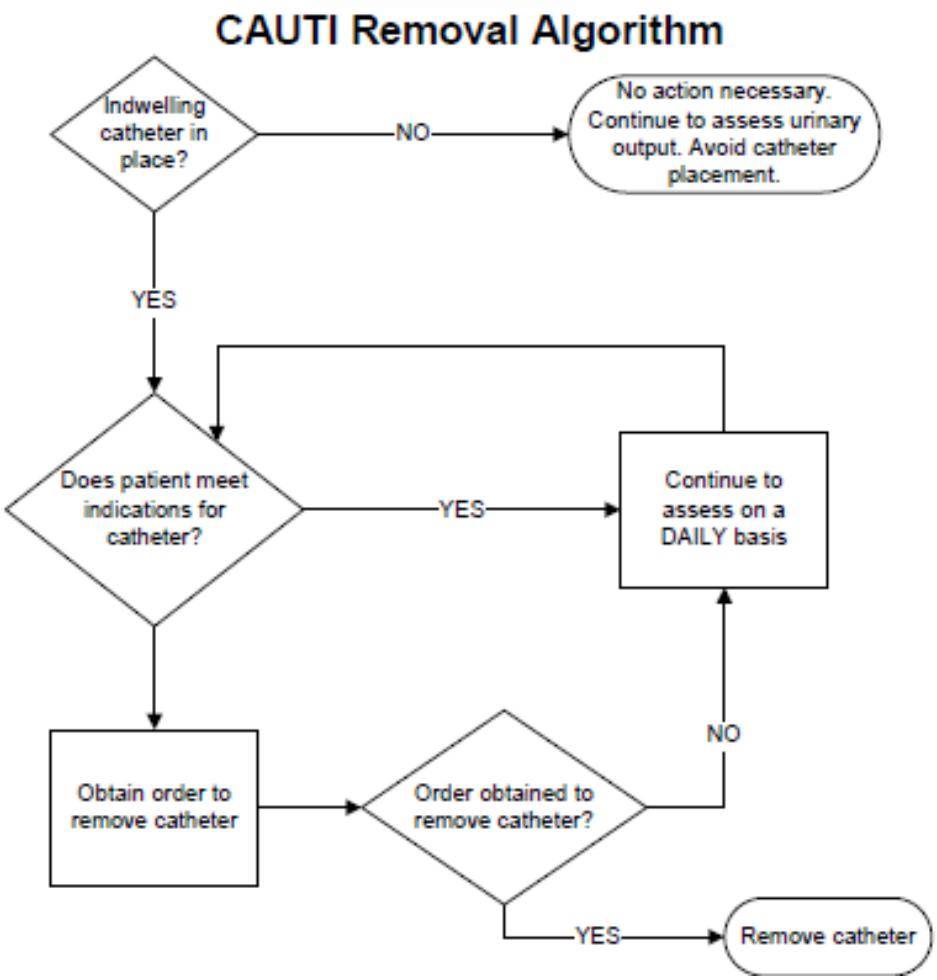
# Urinary Catheterization Policies/Procedures

- **Many facilities have implemented a nurse-driven protocol and/or stop orders**
  - **<u>Nurse-driven (recommended by HICPAC)</u>: When indications are no longer met for the catheter to remain in place it can be removed at the discretion of the RN**
  - **<u>Stop Order</u>: Each time a catheter is ordered, there is a time constraint placed on the length of time it can remain. If not addressed by physician within window, catheter may be removed**
  - ***Next call we will discuss some examples of nurse-driven protocols and stop orders.***

# Daily Assessment of Catheterized Patients

- Each catheterized patient should be assessed daily to determine if urinary catheter is necessary.
  - If patient meets indications, document the reason.
  - If patient no longer meets indications, take actions to remove catheter.
- Strive to include assessment into multi-disciplinary rounds so not seen as "another process".



# Documentation: *Capture When and Why?*

- **Your facility should document:**
  - **When was the catheter placed?**
  - **Why was the catheter placed? (HICPAC Guidelines)**
    - **Patient has acute urinary retention or bladder outlet obstruction.**
    - **Need for accurate measurements of urinary output in critically ill patient.**
    - **<48 hours post-urologic surgery or other surgery on contiguous structures of the genitourinary tract.**
    - **To assist in healing of open sacral or perineal wounds in incontinent patient.**
    - **Prolonged immobilization (e.g., potentially unstable thoracic or lumbar spine, multiple traumatic injuries such as pelvic fractures).**
    - **To improve comfort for end of life care.**
  - **When was the catheter removed?**

# Documentation

- Can be implemented using:
  - The electronic medical record
  - Sheet/sticker in paper chart
  - Rounding tools
- *Biggest Challenge: Staff must be trained to get into the habit of documenting.*

*Please complete this form at the same time each day.*

**Unit:** _____

**Date:** _____

**Time:** _____

**#catheters:** _____

**#patients:** _____

# CAUTI

## Daily Data Collection Form

*Appropriate indications for urinary catheterization:*

*1.Urinary retention/obstruction*

*2. Accurate measurement of urinary output in critically ill patients*

*3.To assist in healing of open sacral or perineal wounds in incontinent patients*

*4 To improve comfort for end of life care if needed*

*5. Patient requires prolonged immobilization*

| | | | |
|---|---|---|---|
| Patient label | Foley: Y N<br>Date ins.:<br>Reason: 1 2 3 4 5<br>Continue: Y N | Patient label | Foley: Y N<br>Date Ins.:<br>Reason: 1 2 3 4 5<br>Continue: Y N |
| Patient label | Foley: Y N<br>Date Ins.:<br>Reason: 1 2 3 4 5<br>Continue: Y N | Patient label | Foley: Y N<br>Date Ins.:<br>Reason: 1 2 3 4 5<br>Continue: Y N |
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# Feedback to staff on CAUTI rates

## CAUTION!

### Count to 10 before you cath.

1. Insert catheters only for appropriate indications.
2. Consider using alternatives to indwelling urethral catheterization.
3. Perform hand hygiene!
4. Have you been trained? Insertion of catheters is limited to trained personnel.
5. Insert catheters using aseptic technique and sterile equipment.
6. Properly secure catheter after insertion.
7. Maintain a closed drainage system.
8. Maintain unobstructed urine flow.
9. Do not clean the periurethral area with antiseptics. Routine hygiene is appropriate.
10. Assess daily! Remove unnecessary catheters or document reason for extended use.

| | 2 months ago | Last month | This month |
|---|---|---|---|
| CAUTI rate | | | |

Number of infections/1000 catheter days = CAUTI rate

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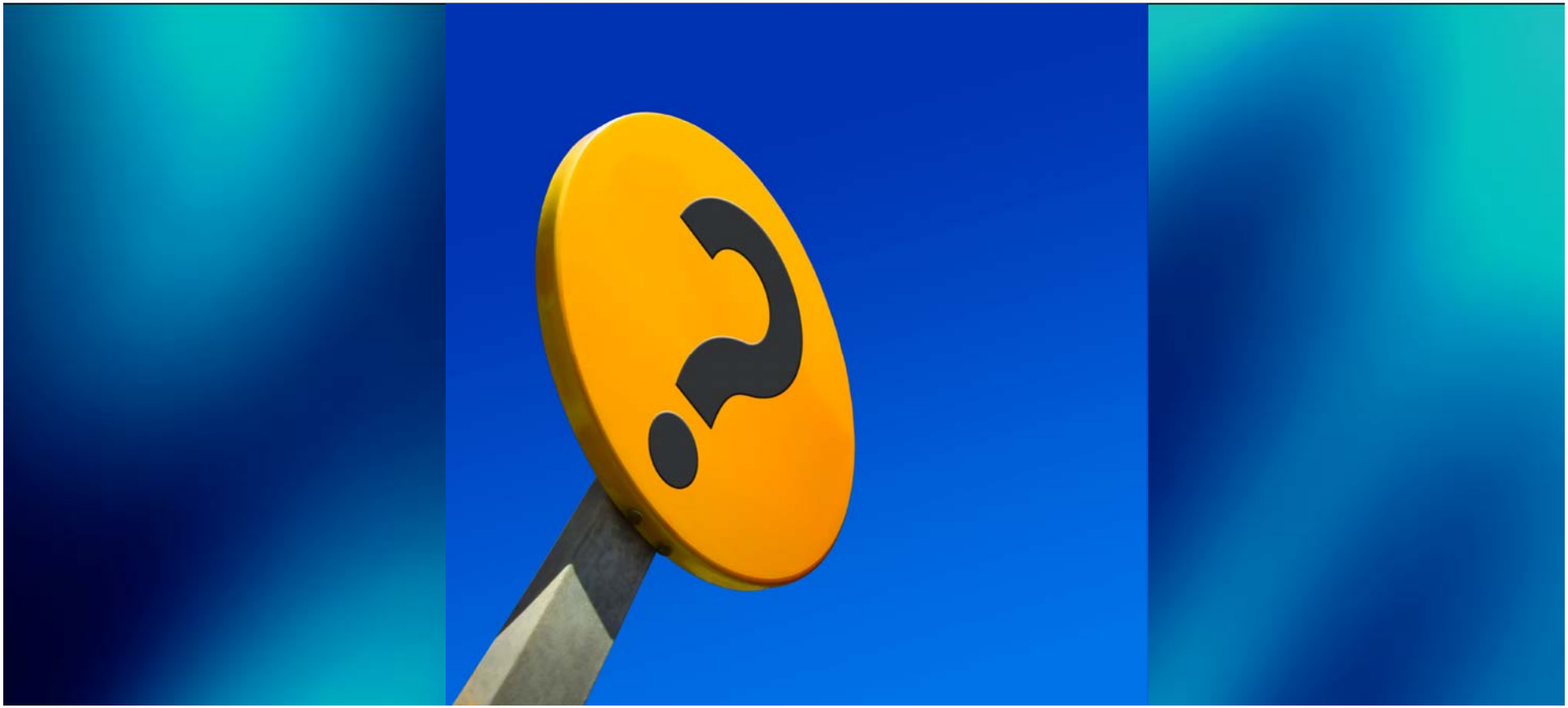
# Planning for the Implementation Period

- Site Visit:
  - Review Preassessment
  - Devise a tailored plan to in-service staff
- In-servicing staff on the following:
  - New Urinary Catheter and Infection Control Policies/Protocols
  - CAUTI Prevention Strategies and Insertion Criteria
    - Webinar or live presentation for bedside staff
    - Webinar for physician education planned for August 2012
  - Proper Insertion, Care, and Removal of Urinary Catheters

# Questions or Comments?

**E-mail: HAI_Program@doh.state.fl.us**

**HAI Program Website:**
**http://www.doh.state.fl.us/disease_ctrl/epi/HAI/HAI.html**