CATHETER ASSOCIATED URINARY TRACT INFECTION (CAUTI) PREVENTION
Translating Evidence Based Strategies Into Practice
Mission/Vision Statement

- To extend equally to all New Yorkers, regardless of their ability to pay, comprehensive health services of the highest quality in an atmosphere of humane care, dignity and respect.

- To promote and protect, as both innovator and advocate, the health, welfare and safety of the people of the City of New York

- To join with other health workers and with communities in a partnership which will enable each of our institutions to promote and protect health in its fullest sense – the total physical, mental and social well-being of the people.
NYC Health + Hospitals' Guiding Principles reinforce six essential features of our daily work: a patient-centered approach, safety, excellence, cost savings and resource management, teamwork, and employee development. Our Guiding Principles provide a foundation to achieve the “Triple Aim” of better health, better care, and better value.
Hospital Demographics

- 299 bed full service hospital
- 16 bed ICU, 7 bed Step Down Unit, 131 medical surgical beds
- 10 Acute Rehab beds
- 105,000 visits annually to the Emergency Department
- Medical/surgical, specialty and diagnostic inpatient and outpatient services and programs
- Located in Jamaica, Queens County
- An affiliate of the Icahn School of Medicine at Mount Sinai
CAUTI Team

Abbi-Gail Baboolal, RN, MSN, FNP
Associate Director of Nursing
Tresa Mary Abraham, BSN, RN, CIC
Head Nurse/Infection Preventionist
Maria Leah Cervantes MS, NP-BC, CCRN,
Associate Director Critical Care Nursing
Carolyn Harvey, DNP, APRN-BC
Senior Associate Executive Director
Behavioral Health/Med/Surg Nursing
Jincy Joseph, RN, MA, CCRN, NEA-BC
Associate Director Staff Development
George T. Martin MD, FACP
Director
Department of Medicine
The Dreadful Truth Behind UTI & CAUTI

- Each year, more than 13,000 deaths are associated with UTI’s.
- More than 30 million Urinary catheters are inserted annually in the USA which probably contributes to 1 million CAUTI’s.
- Secondary Bacteremia causes to Sepsis and Acute Pyelonephritis etc.
- According to Pennsylvania Healthcare cost council, patients with CAUTI were charged $117,253 compared to 33,260 for patients without CAUTI.
ICU CAUTI Data

![Graph showing ICU CAUTI data over years.]
Stepdown CAUTI Data
Medical / Surgical CAUTI Data
Our Process

- Identify Current Practices
- Review Evidence Based and Best Practice
- Identify Gaps
- Review Metrics
- Data Sharing
Identification of Current Practice Issues

- Root Cause Analysis (RCA) of every CAUTI
  - Multiple practice issues related to Foley insertion and maintenance
- Direct Observation of Catheterization
  - Many inconsistencies in practice
  - Breaks in aseptic techniques
<table>
<thead>
<tr>
<th>Activity</th>
<th>% Met</th>
<th>% Not Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washes hands</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Dons clean gloves</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>Aseptically opens outer CSR wrap</td>
<td>27%</td>
<td>73%</td>
</tr>
<tr>
<td>Places under pad shiny side down</td>
<td>27%</td>
<td>73%</td>
</tr>
<tr>
<td>Completes Peri-care using provided castile soap wipes</td>
<td>9%</td>
<td>91%</td>
</tr>
<tr>
<td>Removes Soiled Gloves</td>
<td>27%</td>
<td>73%</td>
</tr>
<tr>
<td>Completes hand hygiene with provided hand sanitizer gel</td>
<td>18%</td>
<td>82%</td>
</tr>
<tr>
<td>Dons sterile gloves maintaining aseptic technique</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Places fenestrated drape while maintaining aseptic technique</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>Removes top tray and place next to bottom tray (keeping on CSR)</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Cleanses with PVI circle for male, downward strokes for female</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Inserts Foley Aseptically</td>
<td>27%</td>
<td>73%</td>
</tr>
<tr>
<td>Overall Aseptic Insertion</td>
<td>18%</td>
<td>82%</td>
</tr>
</tbody>
</table>
Action Plan for CAUTI Reduction

- Daily White Board Rounds
- Education and training
- Competency for nurses
- CAUTI Champions
- Catheter Insertion Kit
- Bladder scanning
Indications for Foley Catheter

- Acute urinary retention or bladder outlet obstruction
- Accurately monitor urinary output in critically ill patients
- Perioperative use for selected surgical procedures
- Prolonged effect of epidural anesthesia
- To assist in healing of open sacral or perineal wound
- Surgical patients requiring prolonged immobilization
- Patient/family request for terminally ill patients (Comfort/Palliative) care
Use of Foley Insertion Bundle

- Two RNs at bedside (1st RN inserts catheter, 2nd RN observe practice)
- Insert catheter only for appropriate indications
- Only trained staff will insert and/or maintain catheter
- Insert catheter using insertion kit
- Maintain a closed drainage system
- Prevent obstruction of urine flow
- Practice hand hygiene and standard precautions (CDC HICPAC guidelines)
Maintenance Bundle

- Daily justification at White Board Rounds for prompt removal.
- Use stat lock to secure catheter to prevent irritation of the urethra.
- Maintain an unobstructed flow
- Maintain the drainage bag below the level of the bladder and off the floor
- Perform hand hygiene before and after each patient contact
- Provide individual labeled collection container at the bedside
Framework based on “SMART” Tools

S = Specific goals
M = Measurable goals
A = Achievable goals
R = Realistic goals
T = Trending goals

Tools = Foley Insertion Checklist, Maintenance Bundle Checklist, Record of Devices
Additional Prevention Strategies

- Discourage catheter use for Intake and Output outside the Intensive Care Unit
- Use of alternatives to indwelling catheter
  - Daily weights
  - Condom catheters for male patients
  - Implementation of bladder scan algorithm*
  - Intermittent catheterization

*2015 Diane Newman; Adapted from Algorithm, Hospital of the University of Pennsylvania, Philadelphia, Pa.
Catheter Removal

- Bladder Catheter Policy guides timely removal
  - Orders automatically expire after 48 hours
  - Post-operative cases which expire after 24 hours
Best Practice

- **Active Surveillance**
- **The Indications for the catheter is reviewed every shift**
  - RN handoff report include indication, justification and insertion date/time
  - Interdisciplinary team review during daily rounds
    - Is this Foley necessary?
    - Does it meet the required indicator?
    - Was it inserted by Queens Hospital?
      - If not, was it replaced?
    - Unit Manager reviews on a daily basis

*Continuous surveillance and open discussions about indwelling catheters with a TEAM approach.*
CAUTI Prevention Strategy in the ED

- Interdisciplinary education
- ED champions
- Routine surveillance
- Our ED motto: “JUST SAY NO TO FOLEY” except
  - Retention
  - I & O for critical patients
THANK YOU