# Preventing Hospital-Acquired UTI's:

*"Can we take it out now?"*

*"Okay, how about now?"*

## Factors Contributing to Development of Hospital-Acquired UTI's

- Overutilization of catheters in general
- Underutilization of silver nitrate catheters vs. regular latex catheters
- Inadequate patient peri-care
- Inadequate caregiver handwashing
- Unsanitary bag-emptying technique

## About UTIs

- Have become an expected outcome in catheterized patients
- Most frequent cause of sepsis
- 2%-4% of UTIs progress to bacteremia
- Mortality of patients with bacteriuria is nearly 3x higher than for non-bacteriuric patients
- 2%-3% of acute care admissions will be impacted by UTI

## So, what's the big deal?

- All patients get them sometime or other
- UTI's respond to antibiotics, right?
- We—I mean, the **patient** *needs* the catheter!

## The Big Deal:

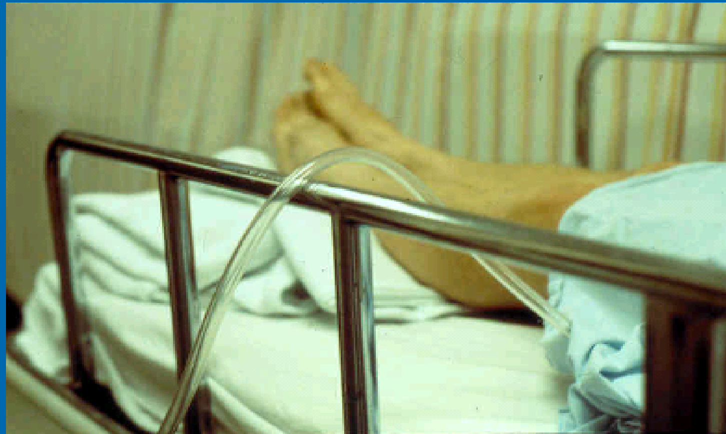
- Pyelonephritis
- Urosepsis
- Increased mortality
- As of mid-2008, Medicare will no longer reimburse if there is a nosocomial UTI; DRMC pays the whole bill!
- Present on Admission (POA)

## Consequences of UTIs

- Pain and discomfort
- Acute renal failure
- Death (<1%)
- Prolonged hospitalization
- Additional exposure to antibiotics
- Additional Hospital expenditures

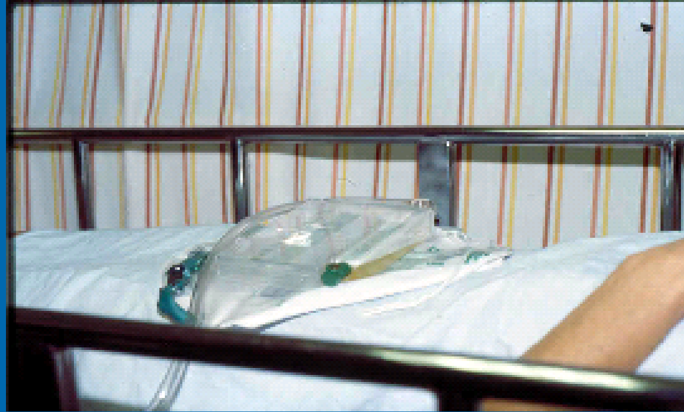
## The Focus of our Efforts:

- Reduce number of catheterizations
- Reduce catheter indwelling time
- Reduce flow of pathogens from bedside bag back into bladder
- Reduce pathogens introduced by careless technique
- Increase effective peri care
- Addition to physician rounds reports for notification of “how many days” the foley has been in



**No! NO!**

Catheters are gravity flow, so the bag and tubing must be kept flowing in a constant downward direction and never ever raised above the level of the bladder.



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# Reduce Number of Catheterizations

- Question the need for catheter
- Added to meditech screen
  - Necessity of foley catheter
  - How many days the foley has been in
- If catheterization is necessary, consider silver-impregnated catheter

## Indications for Indwelling Catheter

- Need for hourly monitoring, especially in cardiac/CHF and renal patients, as determined by the doctor
- Patient is in immediate post-op (24-48hr) period
- Patient requires large-dose diuretics
- Patient requires use of paralytics, IV sedation and/or analgesics

## Indications for Indwelling Catheter

- Terminally ill patient requires cath as comfort care measure
- Patient requires cath to manage bladder outlet obstruction or incontinence, at patient request
- Incontinent patient with perineal/sacral skin breakdown

## Folks who don't need silver-impregnated catheters:

- Outpatients
- Patients who come pre-Foley'ed
- Patients with evidence of community-acquired UTI
- Patients undergoing urological procedures/patients with 3-way Foleys
- OB patients
- Any patient whose catheterization will be of short duration

## Reduce Catheter Indwelling Time

- The number one modifiable risk factor for catheter-induced UTI is length of time > 6 days *Source: CDC.gov*
- Always be asking, "Can we take it out now?"

## Reduce Pathogen Backflow

- *Always* keep collection bag below level of bladder
- Use catheter stabilization device to eliminate tension and “catheter migration”
- If bag must be elevated, clamp off tubing first

## Ports of entry for Pathogens

Catheter/Meatal Junction

# Ports of entry for Pathogens

- Catheter/Tubing Junction

# Ports of entry for Pathogens

- Outlet Tube

## Improve Technique

- Good handwashing/use of alcohol-based hand antiseptic and gloves
- Aseptic insertion technique—use drape and all five cotton balls!
- Minimal, if any, interruption of urine path—do not separate catheter and tubing if not absolutely necessary

## Bedside Bag Technique

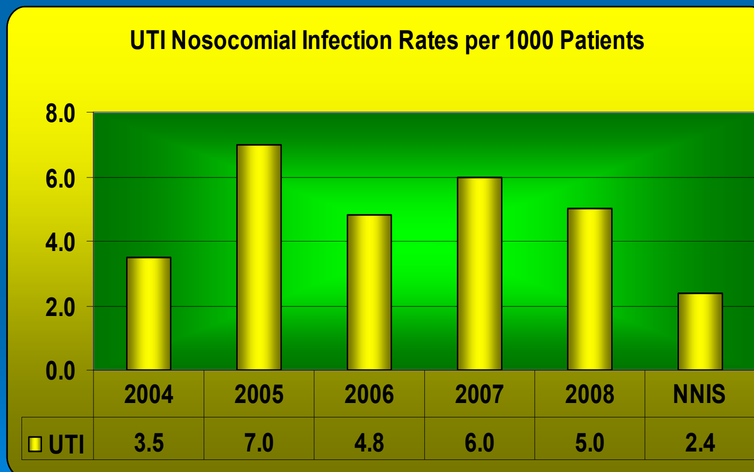
- Treat drain like it's connected directly to the patient—it is
- Good handwashing, gloves, aseptic technique
- Drain bag only when necessary, and dispose of container afterward
- Do not use same measuring container for >1 patient

# General Precautions

- Use catheters only when justified; not for incontinence
- Remove the catheter as soon as possible
- Encourage fluids

# Meditech Screen Additions

# UTIs in the ICU




# Conclusions

- Catheter related UTIs are important
- Catheter related UTIs have serious consequences
- Actions can be taken to reduce UTIs

- So can we take it out now?