

Medi Quest BRS Hospital

A monthly News letter from BRS Hospital

CATHETER ASSOCIATED URINARY TRACT INFECTIONS (CAUTI)

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WHAT IS THE IMPORTANCE OF CAUTI?

Of all the hospital-acquired bacteremias 20 percentage are due urinary catheter associated infections. About 10 percentage of patients with this condition die .

WHEN DO YOU TREAT PATIENTS WITH CAUTI?

Symptomatic CAUTI requires appropriate treatment. It is characterized by urine culture growth of $\geq 10^3$ cfu/mL of pathogenic bacteria associated with symptoms or signs compatible with UTI : fever, suprapubic or costovertebral angle tenderness, and otherwise unexplained systemic

symptoms such as altered mental status, hypotension in a patient with indwelling urethral, indwelling suprapubic, or intermittent catheterization.

On the other hand even if a patient has a urine culture growth of $\geq 10^5$ cfu/mL of pathogenic bacteria in the absence of symptoms compatible with UTI in a patient with indwelling urethral, indwelling suprapubic, or intermittent catheterization it is considered as Asymptomatic bacteriuria which does not need aggressive treatment .

Patients who are no longer catheterized but had urethral, suprapubic, or condom catheters within the past 48 hours are also considered to have CAUTI or asymptomatic bacteriuria if they meet the above criteria.

HOW TO COLLECT URINE SPECIMEN IN A PATIENT WITH INDWELLING FOLEYS CATHETER?

Removing the indwelling catheter and obtaining a midstream specimen is considered the ideal way . But most patients need ongoing catheterization . In this scenario wear sterile gloves , clamp the catheter downstream of the sampling port and once enough urine has collected in the sampling port area swab it with antiseptic , aspirate urine with syringe through the sampling port and

transfer to the container . If the above approaches are not possible, the culture should be obtained by separating the catheter from the drainage system. This approach is associated with some risk of introducing microbes into the closed system.

Culture results from urine collected from the drainage bag cannot be used to guide treatment.

WHAT ARE THE COMMON PATHOGENS ASSOCIATED WITH CA-UTI? ONCE CA-UTI IS DIAGNOSED WHAT TO DO WITH THE URINARY CATHETER ?

Patients who no longer require catheterization should have the catheter removed and receive appropriate antimicrobial therapy . Patients who require extended catheterization should be managed with intermittent catheterization, if possible. If long term catheterization is needed and intermittent catheterization is not feasible, the catheter should be replaced at the initiation of antimicrobial therapy. Catheter replacement is associated with fewer and later relapses than retaining the original catheter, as biofilm penetration of most antimicrobials is poor

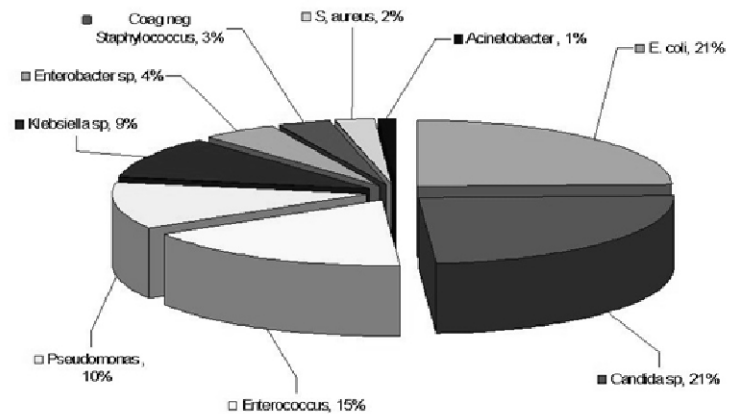
INAPPROPRIATE CONDITIONS TO USE URINARY CATHETERS :

1. catheters for urinary incontinence – short term nursing benefit is outweighed by risk of CAUTI.
2. To obtain urine for testing in individuals who are capable of voiding spontaneously
3. To monitor urine output in those who can reliably collect urine .
4. To measure residual urinary bladder volume in hospitalized patients - prefer the use of a portable ultrasound unit .

CONDOM CATHETERS :

They are an effective mode of bladder drainage in

CA-UTI Pathogens NHSN 2006-2007



Infect Control Hosp Epidemiol 2008;29:996-1011

men who do not have evidence for urinary retention or urinary obstruction. Contraindications to their use include the presence of penile ulceration or perineal dermatitis. Advantages of condom catheters are minimization of urethral trauma and improved comfort and mobility compared with indwelling catheters .

INTERMITTENT CATHETERIZATION :

It is the removal of the catheter immediately after bladder decompression with recatheterization on a scheduled basis. It must be performed at regular intervals to prevent bladder overdistention . Intermittent urethral catheterization can be used for either short- or long-term management of urinary retention or neurogenic bladder dysfunction (eg, patients with spinal cord dysfunction, myelomeningocele, Neurogenic bladder , bladder atonia) . Despite its advantages it is not commonly used for short-term catheterization . Intermittent catheterization may not be possible in urinary obstruction (eg, enlarged prostate, urethral stricture) .

HOW TO PREVENT CA-UTI?

STRATEGIES TO REDUCE THE RISK OF CA-UTI

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| 1. Use of urinary catheters only when necessary. |
| 2. Considering alternatives to indwelling urethral catheters – Condom catheter drainage or intermittent catheterisation. |
| 3 Removal of catheters when no longer indicated |
| 4. Provision of adequate training to medical staff, patients, and other caregivers on catheter placement and management. |
| 5. Allow only trained health personnel to insert catheters |
| 6. Using a continuously closed drainage system |
| 7. Not routinely irrigating catheters |
| 8. Not routinely replacing urethral catheters at fixed intervals . Catheters with mechanical problems (poor drainage, encrusted) need to be replaced. |
| 9. Securing catheters after insertion to prevent movement and urethral traction . |
| 11. Maintaining unobstructed urine flow |

WHEN SHOULD SILICONE CATHETERS BE CONSIDERED ?

Catheters are manufactured from latex or silicone. Latex catheters are inexpensive and the most commonly used. However, latex is associated with urethral inflammation which may be due encrustation on the surface of the catheter. Chronic inflammation from prolonged catheter use can lead to urethral stricture. For this reason silicone catheters may be preferable when more prolonged catheterization is required .

IS ANTIBIOTIC PROPHYLAXIS HELPFUL TO PREVENT CA-UTI?

Systemic antimicrobial agents should not be administered to patients who do not have a proven urinary tract infection in either a short- or long-term catheterization setting . Antimicrobial therapy promotes the development of resistant bacterial strains.



BRS Hospital Offers an Attractive Package of PreEmployment Health Check - up



Republic day Function 2017 at BRS hospital



CME Programme for the Nursing staff was conducted on 16.02.2017
at BRS Hospital.

Topic: Prevention of HAPU (Hospital Acquired Pressure Ulcer)
The programme was co ordinate by Arjo Huntleigh Healthcare.