

**PURPOSE:** To obtain a urine specimen from the tubing of a patient's urethral or suprapubic catheter

**Pathophysiology / EBP:** Patients who have indwelling urethral or suprapubic catheters have urine which is colonized after 48 to 72 hours with bacteria, often multiple types. The urethral catheter tubing and bag also becomes colonized by bacteria which is usually found in a biofilm which lines the surfaces of the tubing and bag. Patients with suspected UTI and a urinary catheter in place for longer than 2 weeks should have the catheter replaced prior to collecting urine for culture and antimicrobial treatment. Bacteria can grow very fast in urine (*E. coli* has a doubling time of 20 minutes) this means that bacteria present low amounts which would not ordinarily be considered significant enough for microbiologic work up can, within an hour or two, grow up to significant numbers ( $10^4$  to  $10^5$ ) which would merit work up and reporting. Suboptimal collection and transport of urine from patients with urinary catheters can lead to false positive urine culture, resulting in a misdiagnosis of urinary tract infection and unnecessary treatment with antibiotics.

**MAY BE IMPLEMENTED BY:** RN, LPN

**EQUIPMENT:**

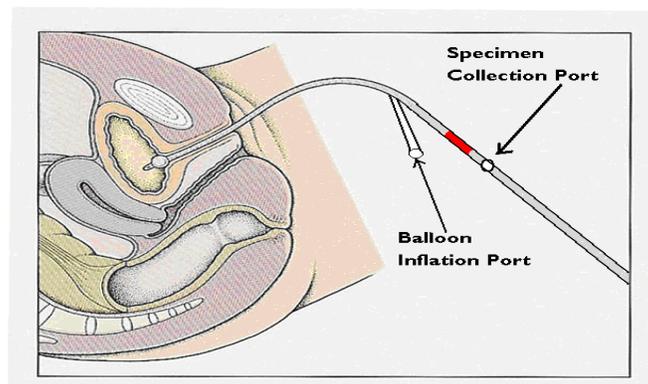
1. Alcohol wipes
2. Specimen container or sterile capped syringe (12 ml luer lock with tip cap)
3. Personal protective equipment (PPE) as appropriate

**PREPARATION AND INSTRUCTION:**

1. Obtain order to change urinary catheter from MD if catheter has been in place for > 2 weeks or if unknown.
2. Change Urinary catheter per nursing policy (if MD orders to do so)
3. Use Standard Precautions (see Infection Control manual)
4. Explain procedure to patient and/or family and wash hands.

**PROCEDURE:**

1. Wash hands.
2. Kink drainage tubing a minimum of 3 inches below the sampling port until urine is visible under the access site.
3. Cleanse sampling port with alcohol; scrub for 15 seconds.



4. Attach sterile syringe to sampling port. Press the syringe firmly and twist gently to lock the syringe onto the sampling port. \* Note: The *Bard E-Z Lock Sampling Port* accepts a luer-lock or slip-tip syringe.
5. Aspirate desired volume of urine: 3 ml for culture and 10 ml for UA.
6. Place sterile cap over syringe hub; unkink catheter tubing.
7. Label syringe with patient label, date/time of collection and method of collection (Foley cath or suprapubic cath)
8. Double bag specimen in Biohazard bags
9. Remove gloves and wash hands.
10. Send specimen to lab within 15 minutes of collecting

#### DOCUMENTATION:

1. Document specimen obtained in Cerner via PAL or the "Collect Urine Specimen" AdHoc form; specimen collected via foley cath or suprapubic cath; document if catheter was changed prior to collecting specimen
2. Emergency Department: Document "Cath UA" next to UA order on physician chart. Document how specimen collect: via foley cath or suprapubic and if catheter was changed prior to collecting specimen.

#### Reference:

Hooten, T., et al., (2010). Diagnosis, prevention, and treatment of catheter-associated urinary tract infection in adults: 2009 International Clinical Practice Guidelines from the Infectious Diseases Society of America.

Perry, A., and Potter, P.; *Clinical Nursing Skills and Techniques, 7<sup>th</sup> Edition*; St. Louis, 2010, Mosby.

*A Guide to Specimen Management in Clinical Microbiology, 2<sup>nd</sup> Edition*, 1999.

#### **Practice recommendation for RN to obtain order from MD to change urinary catheter prior to obtaining urine specimen approved by the following committees:**

Antibiotic Committee August 2010

Pharmacy and Therapeutics Committee September 2010

Medical Executive Committee October 2010

Methodist Hospital Pathology <http://www.thepathologycenter.org/Education.asp>