

STANDARD OPERATING PROCEDURE- POLICY

USE OF ANTIBIOTIC PROPHYLAXIS FOR INDWELLING CATHETERS FOR >24 HOURS FOLLOWING PELVIC RECONSTRUCTIVE SURGERY

SCOPE/APPLICABILITY:

The need for urinary drainage with an indwelling catheter for greater than 24 hours following pelvic reconstructive surgery is common. Approximately 50% of women following reconstructive surgery are sent home with an indwelling catheter, particularly following anti-incontinence surgery.

PURPOSE:

The purpose of this policy is to address the use of antibiotic prophylaxis to prevent urinary tract infection in these patients and to describe the use of prophylactic antibiotics in women with indwelling catheters in place for >24 hours following pelvic reconstructive surgery.

EVIDENCE:

Prevention of urinary tract infections secondary to catheter use is a priority and a marker for quality care. Approximately 50% of women who undergo pelvic reconstructive surgery are unable to completely empty their bladder on postoperative day #1 and require bladder drainage. Every effort should be made to either not place a catheter or shorten the duration of use by teaching patients to perform intermittent self-catheterization, or discontinuing the catheter use as soon as the patient is able to spontaneously void. Many women are unable or unwilling to learn intermittent self-catheterization. For women with indwelling catheters, antibiotic prophylaxis has been shown to reduce the risk of urinary tract infection. A Cochrane review concluded that antibiotic prophylaxis "...reduced the rate of bacteriuria and other signs of infection, such as pyuria, febrile morbidity and gram-negative isolates in patients' urine, in surgical patients who undergo bladder drainage for at least 24 hours postoperatively."¹ A recent small RCT did not confirm these findings although all women in that study with indwelling catheters for greater than 7 days were given prophylaxis and the study population included women who were performed intermittent self-catheterization as well as women with indwelling catheters.² Our group previously published a multicenter trial that demonstrated reduction of symptomatic UTI in women with suprapubic catheterization.³

PROCEDURE:

- 1) Indwelling catheters should be discontinued as soon as possible following pelvic reconstructive surgery. Voiding trials typically occur on postoperative day #1 for inpatient surgery and in the recovery room for outpatient surgery.
- 2) Women who fail a voiding trial after pelvic reconstructive surgery may begin daily antibiotic prophylaxis with 100 mg nitrofurantoin on postoperative day #1. If nitrofurantoin is contraindicated, other appropriate antibiotic prophylaxis may be offered, such as trimethoprim sulfate or cephalexin.
- 3) After starting prophylaxis, women should be scheduled for a voiding trial as soon as possible following discharge, typically this is on postoperative day #3 or 4.


This information is a guideline and should not be considered as inclusive of all proper treatments or methods of care or as a statement of the standard of care.

- 4) Antibiotic prophylaxis should be reevaluated if the need for continued bladder drainage is required for greater than a two week period. Antibiotic prophylaxis for longer term bladder drainage is not proved to improve outcomes.

REFERENCES:

1. Lusardi G, Lipp A, Shaw C. Antibiotic prophylaxis for short-term catheter bladder drainage in adults. Cochrane Database of Systematic Reviews 2013, Issue 7. Art. No.: CD005428. DOI: 10.1002/14651858.CD005428.pub2.
2. Deiter AA et al. Oral antibiotics to prevent postoperative urinary tract infection, a randomized controlled trial. Obstet Gynecol 2014; 123(1): 96-103.
3. Rogers RG et al. A randomized, double-blind, placebo-controlled comparison of the effect of nitrofurantoin monohydrate macrocrystals on the development of urinary tract infections after surgery for pelvic organ prolapse and/or stress urinary incontinence with suprapubic catheterization. Am J Obstet Gynecol 2004;191:182-7.

APPROVALS:

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