WOCN® Wound, Ostomy, and Continence Nurses Society®

CATHETERIZATION OF AN ILEAL OR COLON CONDUIT STOMA

BEST PRACTICE FOR CLINICIANS

Contents

Acknowledgments

Catheterization of an Ileal or Colon Conduit Stoma: Best Practice for Clinicians

This is an update to the 2012 document Procedure for Obtaining a Urine Sample from a Urostomy, Ileal Conduit, and Colon Conduit: Best Practice for Clinicians, originally developed by the WOCN Society's Clinical Practice Ostomy Committee. Updates to this document were done in 2018. Date Submitted for Initial Review: June 2018.

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Introduction

The number of people in America with a urostomy is not clearly known; reports estimate the range from 150,000 to 250,000 (Turnbull, 2003). One of the most common complications following a radical cystectomy is urinary tract infection (UTI; Kim et al, 2016). According to Mano et al. (2018), the median time for patients with ileoconduits to develop UTI after initial surgery is 11 months. Due to the small number of people with a urostomy, clinicians may not be familiar with the correct technique to obtain a urine sample from a stoma to test for a UTI. Incorrect sampling techniques may lead to inaccurate culture results, and lead to inappropriate diagnosis and treatment. This document provides a quick and easy resource for correct technique with and without use of a catheter.

Purpose

To obtain an uncontaminated urinary specimen from the stoma for laboratory analysis:

- A clean uncontaminated specimen is necessary for accurate laboratory analysis (urine culture; Faller & Lawrence, 1994; Hampton & Bryant, 1992).

Management

- Specimens from the urostomy sample often have bacteria. Ensure that the specimen obtained is not contaminated during the collection of the sample.
- The sample collection will take several minutes because the ileoconduit serves only as a passageway for the urine, not a reservoir.
- Specimens for culture should never be obtained directly from an existing urostomy pouch or bedside drainage bag (Pagana & Pagana, 2007).
- One small random controlled trial indicated no significant difference between samples obtained directly from the stoma via clean catheterization, obtained by allowing urine to drip into a sterile specimen cup, or obtained from a clean urostomy pouch (Vaarala, 2018).
- Expert opinion is that the best method to obtain the urine specimen from the urostomy is sterile catheterization or clean catch drip collection method.

Pouch Considerations

- Patient with one-piece pouching system: The urostomy pouch system is completely removed, the specimen collected, and a new pouching system is placed.
- Patient with two-piece pouch systems. One of the following options may be chosen:
    - The urostomy pouch is removed from the skin barrier flange (wafer), the specimen collected, and the pouch replaced.
    - The urostomy pouching system is completely removed, the specimen collected, and a new pouching system is placed.

Procedure When Catheter Is Available

Supplies

- Cleansing solution. Follow institution policy. Further research is needed on the use of antiseptic solutions vs. sterile water or saline for cleaning prior to catheter insertion. Some of the solutions recommended are: betadine, chlorhexidine, soap and water (Gould, Umscheid, Agarwal, Kuntz, & Pegues, 2009; Unlu, Sardan, & Ulker, 2007).

- Sterile 4 x 4 gauze.
- Straight catheter for drainage. Faller and Lawrence (1994) suggest the use of a 16Fr. catheter to allow for mucous drainage.
- Water soluble lubricant.
- Sterile specimen container with lid, label, and laboratory specimen bag.
- Sterile and clean gloves.
- New pouch or pouching system.
- Soft paper towels and/or wash cloths for cleaning prior to replacing pouch.

Procedure

1. Explain procedure to patient.
2. Wash hands and use standard precautions.
3. Don clean gloves.
4. Drape a towel or absorbent pad under the stoma for privacy and absorption if needed.
5. Open the supplies, maintain sterility.
6. Remove pouch or pouching system and dispose per institutional policy.
7. Wash hands.
8. Don sterile gloves.
9. Use sterile technique.
10. Cleanse the stoma with cleansing solution, using a circular motion from stoma opening outward (Faller & Lawrence, 1994).
11. Blot the stoma with sterile gauze.
12. Place the open end of catheter into the specimen container.
13. Lubricate the catheter with a small amount of water soluble lubricant. Gently insert the catheter tip no more than 2–3 inches (5.0–7.5 cm) into the stoma (never force – if resistance is detected, rotate catheter until it slides in; Faller & Lawrence, 1994; Hampton & Bryant, 1992).
14. Hold catheter in position until urine begins to drip. Collect approximately 5–10 mls. of urine before removing catheter. Collecting a sufficient amount of urine may take 5–15 minutes.
15. Clean and dry the stoma and peristomal skin.
16. Apply pouching system.
17. Discard supplies according to institution policy.

Procedure for Clean Catch Drip Collection Method

Supplies

- Cleansing solution. Follow institution policy. Further research is needed on the use of antiseptic solutions vs. sterile water or saline for cleaning prior to catheter insertion. Some of the solutions recommended are: betadine, chlorhexidine, soap and water (Gould et al., 2009; Unlu et al., 2007).
- Sterile 4 x 4 gauze.
- Sterile specimen container with lid, label, and laboratory specimen bag.
- Sterile and clean gloves.
- Soft paper towels and/or wash cloths for cleaning prior to replacing pouch.
- New pouching system.

Procedure

1. Explain procedure to patient.
2. Wash hands and use standard precautions.
3. Don clean gloves.
4. Drape a towel or absorbent pad under the stoma for privacy and absorption if needed.
5. Open the supplies, maintain sterility.
6. Remove pouch and dispose per institutional policy.
7. Wash hands.
8. Don sterile gloves.
9. Use sterile technique.
10. Cleanse the stoma with cleansing solution, using a circular motion from stoma opening outward (Faller & Lawrence, 1994).
11. Blot the stoma with sterile gauze.
12. Discard the first few drops of urine by allowing urine to drip onto sterile gauze.
13. Hold the sterile specimen cup under the stoma. Collect approximately 5–10 mls. of urine. Collecting a sufficient amount of urine may take 5–15 minutes.
14. Clean and dry the stoma and peristomal skin.
15. Apply new pouching system.
16. Discard supplies according to institutional policy.

Procedure if Stents are Present in the Urostomy Stoma**

- Cleansing solution: Follow institution policy. Further research is needed on the use of antiseptic solutions vs. sterile water or saline for cleaning prior to catheter insertion. Some of the solutions recommended are: betadine, chlorhexidine, soap and water (Gould et al., 2009; Unlu et al., 2007).
- Sterile 4 x 4 gauze.
- Sterile specimen container with lid, label, and laboratory specimen bag.
- Sterile and clean gloves.
- Soft paper towels and/or wash cloths for cleaning prior to replacing pouch.
- New pouching system.

Procedure

1. Explain procedure to patient.
2. Wash hands and use standard precautions.
3. Don clean gloves.
4. Drape a towel or absorbent pad under the stoma for privacy and absorption if needed.
5. Open the supplies, maintain sterility.
6. Remove pouch and dispose per institutional policy. There may be a collection of mucous where the stents exit the stoma. Use a piece of dry gauze to gently remove the mucous without dislodging the stents.
7. Wash hands.
8. Don sterile gloves.
9. Use sterile technique.
10. Cleanse the outside ends of the stents with cleansing solution.
11. Blot the stents with sterile gauze.
12. Discard the first few drops of urine by allowing urine to drip onto sterile gauze.

13. Hold the sterile specimen cup under the stents. Collect approximately 5–10 mls. of urine. Collecting a sufficient amount of urine may take 5–15 minutes.

Do not insert a Catheter to obtain specimen when stents are present.

14. Clean and dry the stoma and peristomal skin.
15. Apply the pouching system.
16. Discard supplies according to institutional policy.

Aftercare

- Place lid on specimen container. Apply patient identification label on container with a note that the specimen is from a urostomy stoma and put in a laboratory specimen bag for transport to the laboratory.
- Transport specimen to lab within 1 hour. In the home care setting, if unable to transport specimen in 1 hour, refrigerate the specimen and transport within 24 hours.
- Document in patient's record:
    - Procedure and observations.
    - Instructions given to patient/caregiver.

Antibiotic Therapy Considerations

- Use caution when considering antibiotics to treat urinary infection for patients with a urostomy: "Patients should only commence antibiotic therapy if they are symptomatic" (Spraggon, 2008, p. 26).
- Asymptomatic bacteriuria should not be treated, unless history of recurrent pyelonephritis. Patients with a history of recurrent pyelonephritis may warrant prophylactic antibiotic treatment (Falagas & Vergidis, 2005).
- "In the case of ileal conduit or continent urinary diversion, bacteriuria is practically always present, and measurements taken to eradicate the bacterial carriage are fruitless" (Wullt, Agace, & Mansson, 2004, p. 192).
- "The detection of urinary infection in these patients is difficult because the ileal loops are almost always colonized. Asymptomatic bacteriuria in the presence of a ureteroileal conduit should not be treated and prophylactic antibiotics are not recommended. Positive urine cultures associated with physical findings of fever, chills, and flank pain should prompt initiation of appropriate bactericidal antibiotics" (Schrier, 2007, p. 884).

Recommendations for Future Research

- Further research is needed on the use of antiseptic solutions vs. sterile water or saline for cleaning of the stoma prior to catheterization of the urinary stoma.
- Replication of the small randomized controlled trial comparing the three urinary collection methods (Vaarala, 2018) using a larger sample and more robust crossover methodology.

Summary

- The recommended method for collecting a urine specimen from the urinary ostomy is via sterile catheterization.
- If sterile catheterization cannot be accomplished, the secondary method for obtaining a urine specimen from the urinary ostomy is via clean catch drip collection method using a sterile urine collection container.

- If urinary stents are present in the urinary ostomy, the urine specimen should be collected via clean catch drip collection method using a sterile urine collection container.
- Urinary specimens should never be collected directly from an existing pouching system or the bedside drainage bag.
- Antibiotic therapy should be initiated with caution in patients with urinary ostomies and based on physical findings rather than asymptomatic bacteriuria.

Patient Education

- Educate patients regarding appropriate urine specimen collection methods from their urinary ostomy as they may need to advise health care providers on appropriate collection methods.

Glossary

Urostomy: an opening into the urinary system that can be constructed from the small or large intestine. The term urostomy describes that there is an opening that drains urine and the type of stoma will be an ileal or colon conduit, or an ureterostomy. An ileal or colon conduit uses the ileum or colon to make a passage for the urine to exit the body.

Colon Conduit: type of urinary diversion whereby ureters are implanted into a section of dissected colon (large intestine) that is sutured closed on one end, while the other end is brought through the abdominal wall to create a stoma.

Ileal Conduit: type of urinary diversion whereby ureters are implanted into a section of dissected ileum that is sutured closed on one end, while the other end is brought through the abdominal wall to create a stoma.

Stent: small tube inserted from the stoma into the kidney during surgery to allow drainage of the urine during healing of the ureters and conduit.

Bacteriuria: presence of bacteria in the urine (Carmel, Colwell, & Goldberg, 2015).

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Statement Acknowledging Content Validation

This document was reviewed in the consensus-building process of the Wound, Ostomy and Continence Nurses Society known as Content Validation.

Urostomy Urine Sample Collection Instruction Card

Urostomy
A urostomy (also known as ileoconduit or colon conduit) is a surgically created opening on the abdomen that drains urine. An ostomy pouch is used to collect the urine. During waking hours, the pouch is drained into the toilet. At nighttime, the pouch is connected to a larger collection system to allow for uninterrupted sleep and to prevent reflux into kidneys.

Urinary Tract Infection
Due to the changes in your body following surgery, there is higher risk for urinary tract infection (UTI). The signs and symptoms of UTI may be different than before surgery.

Signs and symptoms of UTI when you have a urostomy

- Cloudy urine
- Dark or bloody urine
- Urine with bad odor
- Extra mucus (it is normal for the urine from a urostomy to have small shreds of mucus)
- Fever
- Back pain/flank pain
- Abdominal pain
- Nausea or vomiting
- Diarrhea

Urine sample
A urine sample is needed to check for UTI. The sample should not be taken directly from the used urostomy pouch. The correct procedure should be followed to avoid contamination of the urine sample. Contamination can result in incorrect culture results and improper use of antibiotics.

Instructions
Please give these instructions to the person collecting the urine specimen.

Note
This entire procedure may take 20-30 minutes. Collecting a sufficient amount of urine may take 5–15 minutes.

Supplies

- Cleansing solution. Follow institution policy (e.g., betadine or soap/water)
- Sterile 4x4 gauze
- Sterile specimen container
- Sterile and clean gloves
- Soft paper towels

If available:

- *16 Fr catheter*
- *Water soluble lubricant*

- Pouch – may need new pouching system to replace if current pouch is not able to reuse.

Procedure

1. Explain procedure to patient.
2. Wash hands and use standard precautions.
3. Don clean gloves.
4. Drape a towel or absorbent pad under the stoma for privacy and absorption if needed.
5. Open the supplies, maintain sterility.
6. Remove pouch or pouching system and dispose per institutional policy.
7. Wash hands.
8. Don sterile gloves.
9. Use sterile technique.
10. Cleanse the stoma with cleansing solution, using a circular motion from stoma opening outward.
11. Blot the stoma with sterile gauze.
12. Place the open end of catheter into the specimen container.
13. Lubricate the catheter with a small amount of water soluble lubricant. Gently insert the catheter tip no more than 2–3 inches (5.0–7.5 cm) into the stoma (never force – if resistance is detected, rotate catheter until it slides in).
14. Hold catheter in position until urine begins to drip. Collect required amount of urine per institutional policy before removing catheter.
15. Clean and dry the stoma and peristomal skin.
16. Apply pouching system.
17. Discard supplies according to institution policy.

If catheter is not available, follow steps 1–11. Then complete the collection using these steps:

12. Discard the first few drops of urine by allowing urine to drip onto sterile gauze.
13. Hold the sterile specimen cup under the stoma. Collect required amount of urine per institutional policy.
14. Clean and dry the stoma and peristomal skin.
15. Apply new pouching system.
16. Discard supplies according to institutional policy.

Aftercare

Follow institutional policy for urine specimen collection labeling, ordering and transport.

For full citations and references, please refer to: Catheterization of an Ileal or Colon Conduit Stoma: Best Practice for Clinicians.