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CANADA
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Clean Intermittent Urethral Catheterization in Adults: Canadian Recommendations for Nurses

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NSWOCC 39th National Conference
39e Congrès national des ISPSCC

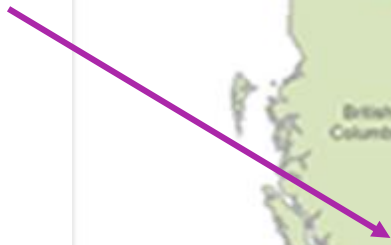


Conflicts of Interest

- Laura Robbs has no conflicts of interest to declare.
- Laureen Sommerey is employed by a medical supply retailer.



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Objectives

- Provide an overview of the development process
- Provide an overview of the document, recommendations and available resources
- Outline the dissemination strategy



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(Education/Best Practice Recommendations)

Acknowledgements

Educational Grants

Gold: Coloplast

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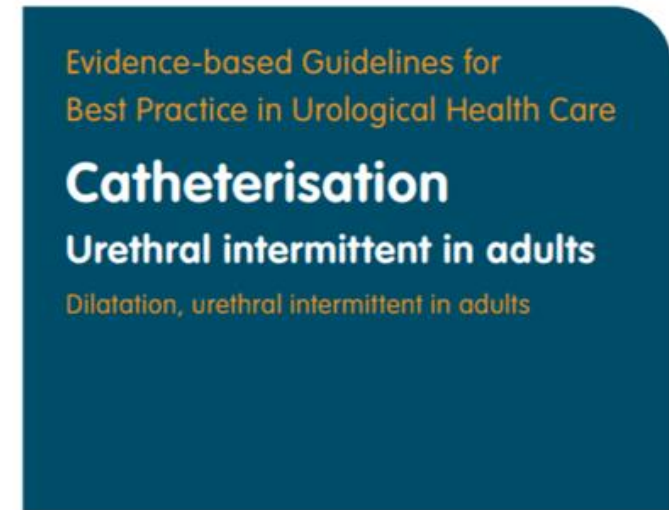


Acknowledgements

European Association of Urology Nurses
(EAUN)

Catheterisation: Urethral intermittent in
adults. Dilatation, urethral intermittent in
adults. (2013)

Edited summary in 2016



2013



Task Force Members

NSWOCC: Debbie Cutting, Laura Robbs, Lauren Sommerey,
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Development Process



Collaborating Associations



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UNC
Urology Nurses of Canada



Educational Grants

Gold



Bronze



Plus support from 3M

Methodology

- Reviewed existing guidelines – EAUN
 - AGREE II Evaluation Tool (Brouwers, 2010)
- Literature search (2010-2018)
 - Research question – *What is the evidence that supports nursing practice to use and teach the use of clean intermittent urethral catheterization?*
 - Initial search – 1449 studies – reviewed abstracts
 - Full review by 2 reviewers – 93 studies
 - Included – 54 studies
- Additional literature



Literature Review

Topic Groups

- *Compliance* included the type of catheters used, the procedure used and any complications which resulted.
- *Promotion* included the success of teaching intermittent self-catheterization.
- *Quality of Life* included the impact on the individual performing intermittent self-catheterization

Levels of Evidence

- Oxford Centre for Evidence-based Medicine 2011 Levels of Evidence
- Final Grade Recommendations
 - **Grade A** – based on clinical studies of good quality and consistency addressing the specific recommendation and including at least one randomized trial
 - **Grade B** – based on well-conducted clinical studies but without randomized trials
 - **Grade C** – made despite the absence of directly applicable clinical studies of good quality

Writing

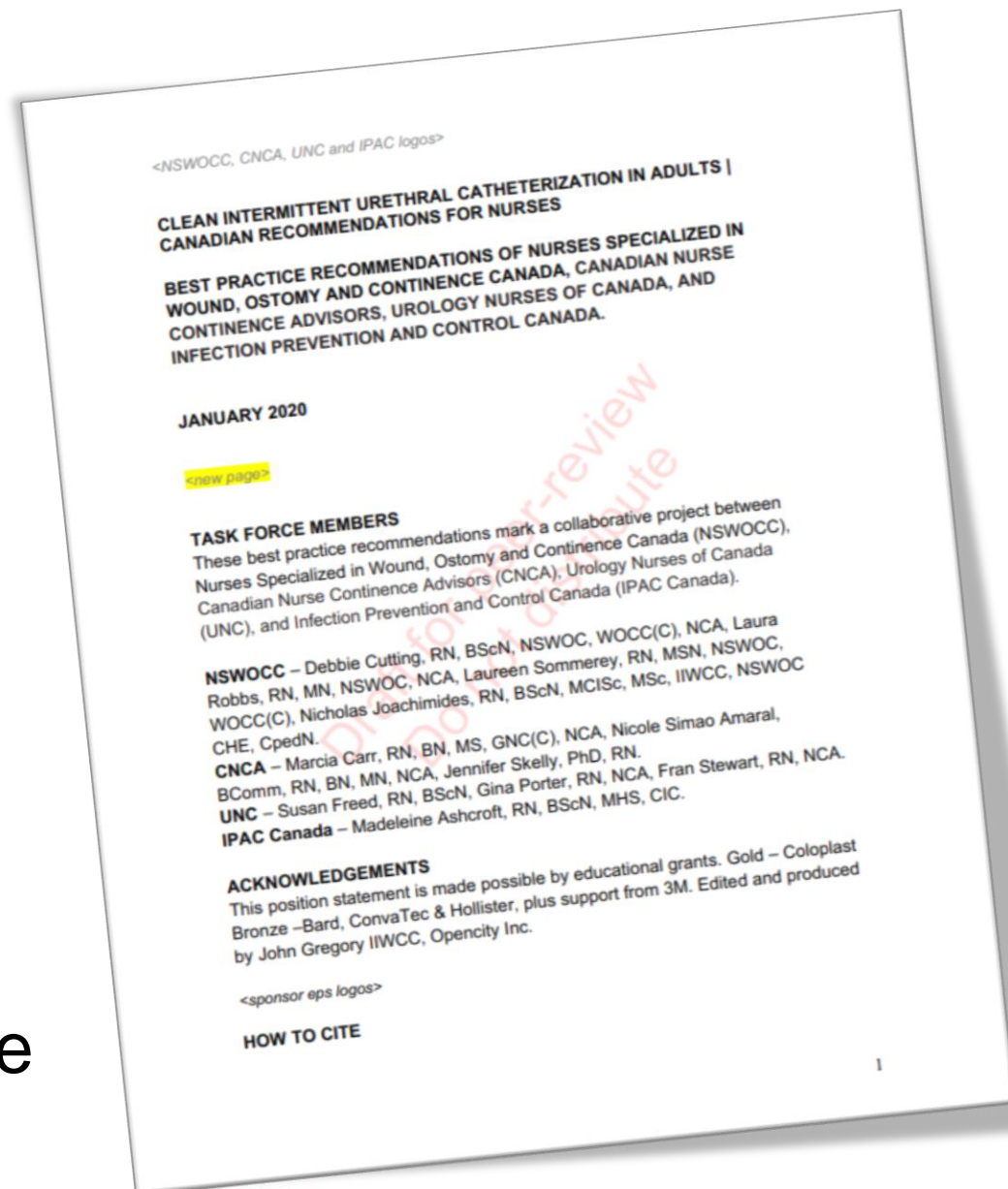
- Groups (2-3 people) per chapter
- Group review
- Questions addressed
- Edited by John Gregory



(Retrieved from <https://ninaamir.com/high-performance-writer-group-coaching/>)

Stakeholder Review

- Peer reviewers
 - Participating organizations
 - Nurses
 - Physicians
 - Patients
 - Other organizations (e.g. EAUN)
- Read draft document
- On-line survey questionnaire
- Feedback reviewed – revisions made



The Recommendations



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(Education/Best Practice Recommendations)

Indications, Contraindications & Complications



Indications

- Residual volume of urine causing symptoms or complications

Contraindications

- Urethral rupture
- High intravesical pressure

Complications

- Infection
- Trauma
- Miscellaneous

Infection Prevention & Control

Recommendations for Infection Management



- A single use, pre-lubricated catheter should be recommended for patients, especially those with repeated, symptomatic UTIs. (2-A)
- In a patient performing IC, only symptomatic UTI should be treated.
- Epididymo-orchitis in a patient performing IC should be treated with antibiotic therapy, choice and duration based on local policy.
- Prostatitis in a patient performing IC should be treated with antibiotic therapy: choice and duration based on local policy.

Skin Care & Preparation

Recommendations:

- Follow hand hygiene protocols before gathering materials and immediately before and after catheterization.
- Educate patient/caregiver in techniques of hand hygiene before discharge from hospital.
- Maintain good genital/perineal hygiene, washing with soap and water from front to back at least daily and when necessary.
- Cleansing the area around the urethral meatus with tap or sterile water, soap and water, or antiseptics like chlorhexidine (based on institutional/local policy) will reduce the risk of catheter contamination.

Fluid Intake

Recommendations:

- Encourage patients to drink sufficient fluid to maintain a urine output of at least 1200 ml per day.
- Patients should consume sufficient fluid based on their weight (25-35 ml/kg/day).



(Retrieved from <https://fateclick.com/dream/dreaming-of-drinking-water>)

Urinalysis

Recommendations:

- Avoid the routine use of dipsticks to diagnose UTIs as they may provide misleading information.
- Taking a midstream or catheter specimen of urine for culture only if a patient has symptoms suggesting a UTI.



(Retrieved from <https://www.ucsfhealth.org/medical-tests/urinalysis>)

Cranberries

Recommendation:

Do not routinely recommend cranberry supplements to prevent or treat UTI.



(Retrieved from <https://www.medicalnewstoday.com/articles/306498>)

Impact of IC: Patient Quality of Life

Recommendations for Quality of Life

- Discuss cost and financial limitations as part of patient assessment and consider these when recommending the type of catheter for the patient. (5-C)
- Professional support is highly recommended to increase compliance and QoL. (1-B)



Sexuality & Body Image

Recommendation:

Discuss sexuality and impact of IC as a part of the patient assessment; if necessary, refer to a psychologist/sexologist.



(Retrieved from <https://theyogatherapyinstitute.org/modules-and-courses/yoga-therapy-for-cardiovascular-and-respiratory-health-issues/attachment/hands-making-heart-shape-2/>)

Catheter Materials & Types of Catheters



Recommendations on Catheter Diameter

- Choose a catheter size large enough to allow free drainage yet small enough to reduce the risk of trauma.

Recommendations on Catheter Length

- Choose a catheter length that the patient prefers to facilitate complete bladder emptying and ease drainage into a receptacle. (2-B)

Management of Intermittent Catheterization

Recommendations for Management of IC

- Observe local policy before starting catheterization.
- Assess the individual and the circumstance for IC before choosing the type of catheter and aids.
- Be aware that the individual's privacy is paramount. (4-C)
- Perform IC after micturition in a patient who can void.



Tracking Urine Volume

Recommendation:

Consider using a portable ultrasound device to assess urine volume in patients undergoing intermittent catheterization to determine urine volume and reduce unnecessary catheter insertions.



(Retrieved from <https://www.medicalexpo.com/prod/verathon-medical-europe/product-70452-530569.html>)

Frequency of Catheterization

Recommendations:

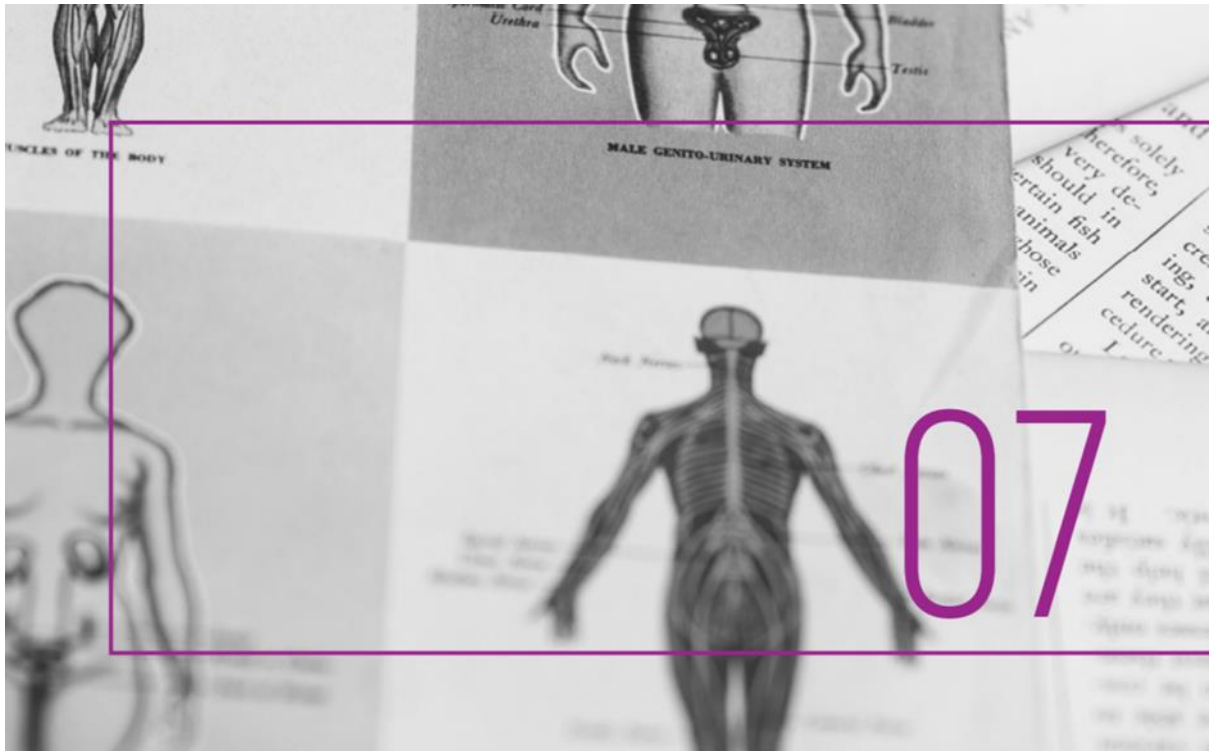
- Use a record chart or voiding diary to track the fluid intake and output in the patient prior to and during IC.
- Offer patients an individualized care plan based on the above criteria, bearing in mind the patient and caregiver's lifestyles and the impact this will have on the patient's QoL.
- Assess the fluid intake of the patient if the urine output is >3L/day or there is a need to catheterize >6 times/day.
- If intermittent catheterization is used, perform it at regular intervals to prevent bladder over-distention.
- Assess the fluid intake of the patient if the urine output is > 500 ml per catheterization.
- Assess the frequency if the urine output is > 500 ml per catheterization.
- Re-assess status if catheterized volumes vary widely. (expert opinion of authors)
- Consider discontinuing IC if catheterized volume is <100 ml x 3. (expert opinion of authors)
- Reassess status if urinary leakage occurs between catheterizations. (expert opinion of authors)
- IC before bedtime is recommended to help reduce nocturia.

Lubrication

Recommendations:

- Use a sterile, single use packet of lubricant jelly for catheter insertions.
- Routine use of antiseptic lubricants is not necessary.
- Instillation of lubricant into the urethra (10mL for males, 6mL for females) provides a continuous film most effective in reducing urethral pain and trauma.
- Avoid the use of local anesthetic gel in the presence of damaged or bleeding urethral membranes due to an increased risk of systemic absorption.
- Check for lidocaine sensitivity if using a lubricant containing lidocaine.
- Use of an anesthetic lubricant is indicated for individuals experiencing anticipated or actual discomfort with catheter insertion (expert opinion of authors)

Patient Education



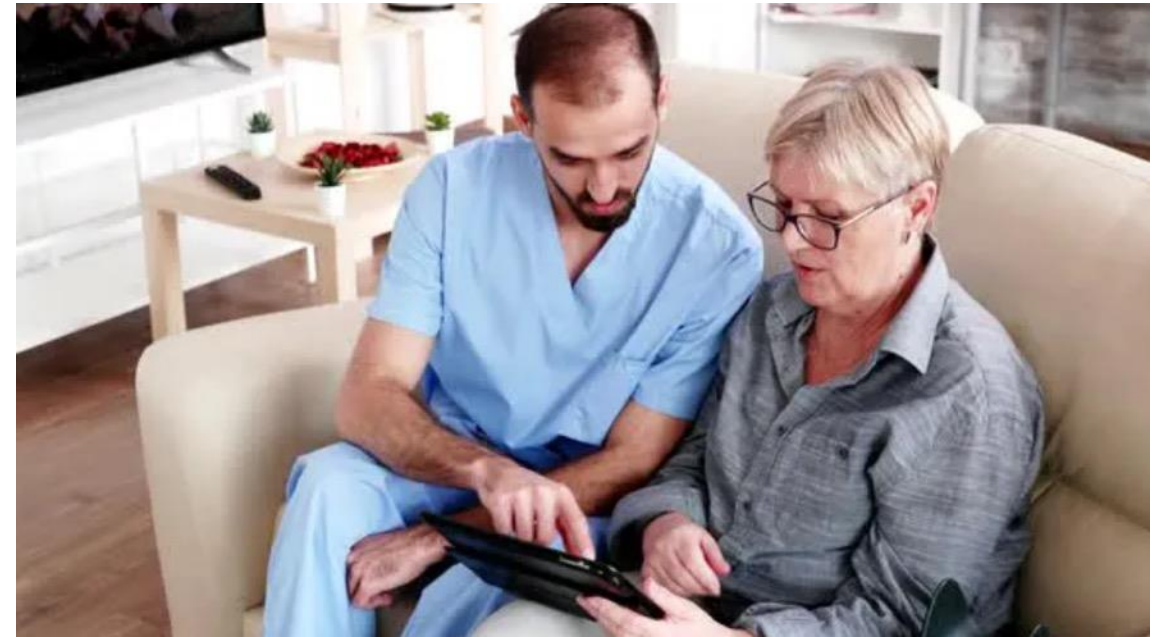
Recommendations:

- Provide every patient deemed appropriate for IC with an opportunity to learn the procedure. (3-B)
- A nurse specialized in continence care or urology nursing should provide IC education. (3-B)
- Extended appointment times are required for IC. (3-B)
- Provide IC education in the clinic, hospital or home setting.(5-C)
- Include caregivers or family members in IC education. (3-B)
- Provide IC information before the initial education session. (3-B)

Patient Education

Recommendations:

- IC education includes:
 - Physiology and pathophysiology,
 - Indications and benefits of IC,
 - Catheters/equipment,
 - IC procedure,
 - Incorporating IC into daily life, and
 - Potential complications. (3-B)
- Teach IC using written, verbal, audio-visual resources, demonstration, and return demonstration. (3-B)
- Provide ongoing support and follow-up. (3-B)



(Retrieved from <https://elements.envato.com/male-nurse-teaching-elderly-old-woman-how-to-use-h-EM9TG8D>)

Resources



www.nswoc.ca

(Education/Best Practice Recommendations)

Collecting a Mid-Stream Urine

Public Health Ontario | Santé publique Ontario

Collecting Mid-Stream Urine Specimen

-  Use an **approved** empty sterile container.
-  Label the container with the following:
 - Patient's full name
 - Patient's date of birth
 - Date and time of collection
 - Patient's unit or ward and room number
-  Complete the requisition according to the laboratory protocol and insert the requisition in the outside pouch of a clear plastic transport bag.
-  Perform **hand hygiene** and put on gloves.
-  Remove the lid from the empty container and **carefully** set the lid **upside down**, making sure not to touch the inner surface of the lid.
-  Instruct the patient to pass a small amount of urine into the toilet (*this initial stream of urine may be contaminated with skin and urethral bacteria*). Then, **collect urine** from the stream into the container. Fill the container $\frac{1}{2}$ to $\frac{3}{4}$ full—**do not overfill**. This is a mid-stream urine specimen.
-  Put the lid on the container and **secure** it tightly.
-  Place the specimen container in the **sealable** pouch of the clear plastic transport bag.
-  Remove gloves and **perform** hand hygiene.
-  Place **immediately** in specimen refrigerator. Keep the urine sample **refrigerated** and submit it to the laboratory **within 24 hours** of collection.

This resource is part of Public Health Ontario's UTI Program.
For more information please visit www.publichealthontario.ca/UTI
or email UTI@oahpp.ca



Patient Leaflet

CLEAN INTERMITTENT URETHRAL CATHETERIZATION IN ADULTS

P A T I E N T L E A F L E T

Intermittent self-catheterization helps maintain a healthy bladder. It is done when you cannot fully empty your bladder on your own. Your nurse can teach you. It takes practice.

WHAT IS INTERMITTENT SELF-CATHETERIZATION?

Self-catheterization means you put a small tube called a catheter into your bladder one or more times every day to drain your urine, often right into the toilet. The catheter passes through the urethra into the bladder until urine starts flowing out the catheter to drain the bladder. Once the urine stops coming, you take the catheter out.

Try to pass urine first. Then use a catheter to drain urine left in the bladder. Intermittent catheterization can stop problems with your bladder and kidneys and prevent leakage of urine. Intermittent self-catheterization means you do not have a catheter and drainage bag at all times.

FREQUENCY OF CATHETERIZATION

You should keep a diary to record:

- How much fluid you drink,
- What time you used the catheter,
- How much urine drained with the catheter.

This diary will help you and your nurse decide how many times you should self-catheterize in a day. This may range from needing to self-catheterize once per day to every 4-6 hours. A goal is to keep the urine drained with the catheter to less than 500 ml.

WHO REQUIRES INTERMITTENT SELF-CATHETERIZATION?

Self-catheterization is for people with impaired bladder emptying. This may be related to:

- Atonic (lazy) bladder;
- A neurologic disease, e.g., Multiple Sclerosis, Parkinson's disease or a spinal cord injury;
- A narrowing or obstruction

between the bladder and the opening of the urethra from urethral stricture disease, bladder neck contracture or Benign Prostatic Hypertrophy (BPH);

- Urinary retention after bladder Botox treatment, which is temporary lasting between 4 to 9 months.

TYPES OF INTERMITTENT CATHETERS

There are many different types of catheters available that you can use. Your nurse will help you pick the one that is best for you. Two special types of catheters are:

- **Hydrophilic Catheters** come already lubricated or wet. They are used once and then thrown away. Studies suggest they help reduce the risk of urethral damage from repeated catheterization. They also help reduce the risk of recurrent urinary tract infections.
- **Coude Tip Catheters** are for men. They have a special shape at the end to help pass through the prostate and into the bladder, avoiding urethral damage. Buy Coude catheters as either re-usable or hydrophilic catheters. Some men prefer Coude tip over a straight tip catheter.

Re-using catheters is not recommended. Catheter re-use is a contentious and evolving subject. If you keep getting a urinary tract infection, you should definitely use a new catheter each time and not re-use your catheters.

You can buy intermittent catheters at homecare supply stores. Some

provinces have a medical health coverage program. Check with your nurse.

Self-catheterization needs good hygiene. Always begin with washing your hands. Wash around your urethra opening and vagina or penis with warm water and a gentle, unscented, cleansing soap before using the catheter.

There are many benefits to intermittent self-catheterization. These include improved sleep, fewer washroom visits and a reduced risk of urinary tract infection.

WHEN TO VISIT YOUR HEALTHCARE PROVIDER?

There are some possible side effects that may happen with intermittent self-catheterization. Visit or call your healthcare provider if you develop signs of infection, have unusual bleeding, or have difficulty passing the catheter into the bladder.

WHAT ARE THE SIGNS OF A URINARY TRACT INFECTION (UTI)?

- Fever or chills with an increase in body temperature;
- Visible blood in the urine;
- A burning sensation while voiding;
- A higher frequency of voiding,
- or more urine leakages;
- Pelvic or back pain;
- Urine may also be cloudy or foul-smelling, but this on its own does not mean you have a UTI.

Drink water as this helps flush the bladder and works to help prevent these symptoms. If your urine looks dark yellow or cloudy, drink more water until it appears lighter in colour and clearer.

Appendix from Clean Intermittent Urethral Catheterization in Adults – Canadian Recommendations for Nurses.
Best Practice Recommendation of NSWOCC, CNCA, URC, IPAC Canada

Checklist for Patient Information

This checklist is intended to assist healthcare professionals to check whether all the information that patients need to know about IC has been provided.

PATIENTS NEED TO KNOW

- Why IC is necessary
- Basic anatomical knowledge about the urogenital tract
- How to perform the IC procedure
- The number of times to perform IC
- Which difficulties may occur during or after the catheterization procedure
- Name, size, and length of catheter
- How to store the catheters correctly
- To check the expiry date of the material before use
- How to prepare the catheter for use
- How to dispose of the catheters safely
- How to obtain supplies of the catheter
- That the technique of IC may vary in different settings (e.g., hospital, outpatient clinic, and home)
- Importance of fluid intake
- Importance of a healthy diet to avoid constipation
- Importance of good hygiene, especially hand hygiene
- How to avoid UTI
- How to recognise symptoms or the common signs of UTI
 - burning on urination
 - frequency or urgency
 - pain
 - feeling tired or shaky
 - fever or chills
 - hematuria
 - swelling/inflammation
- Availability of appropriate aids to help with catheterization such as mirrors, hand grips, leg abductors, integrated drainage bags, and travel kits
- What to do when travelling abroad
- When to contact a healthcare professional in case of
 - pain during or after catheterization becoming more difficult
 - hematuria
 - fever
 - problems in bowel movement
 - lower back pain
 - discoloured or malodorous urine if with the above symptoms.

Teaching IC

TEACHING POINTS

- Teach the patient their basic anatomy while reviewing the distinguishing features between female and male peritoneal orifices.
- Help the patient gain a better understanding as to the underlying etiology that led them to require intermittent self-catheterization.
- Teach the patient how to apply a step-by-step process to perform intermittent self-catheterization.
- Advise the patient as to the frequency of intermittent self-catheterization.
- Discuss catheter types and sizes with the patient.
- Teach the patient infection control measures, especially good hand hygiene for at least 15 seconds.
- Advise the patient on keeping a record of their fluid intake and fluid output.
- Review the signs and symptoms of a urinary tract infection and what to do about it.
- Review with the patient where to obtain and how to look after the supplies required for intermittent self-catheterization.

Teaching Intermittent Self-Catheterization Procedure

- | | |
|--------|---|
| Step 1 | If possible, have the patient void spontaneously and record the volume voided. Then have them wash their hands with soap and water, drying them with a clean towel. |
| Step 2 | Gather supplies needed for intermittent self-catheterization and place on clean space on which to work. This will include catheter of choice (uncoated or hydrophilic), lubrication if required, and container to measure post-void residual volume. |
| Step 3 | Remove catheter from packaging: squeeze some lubrication on to a clean towel placed on the working space and then roll the end of the catheter (the end that is to be inserted into the urethral meatus) through the lubricant, approximately two to three inches from the tip. |
| Step 4 | Have male patients position themselves either sitting on a toilet or facing the toilet, whichever they prefer.

Have female patients position themselves sitting on the toilet with their knees bent and legs spread apart or on a chair close to and facing the toilet. Some females may find using a mirror to be helpful, so placing one in between their legs, either on a chair or floor, may be useful. |

IC Procedure

Intermittent Catheterization (Male Procedure)

- | | |
|---------|---|
| Step 1 | If possible, void spontaneously into the toilet. |
| Step 2 | Wash hands with soap and water and dry them with a clean towel. |
| Step 3 | Gather supplies needed and place them on a clean workspace.
*Supplies include catheter, lubrication, and container to measure what you drain with the catheter. |
| Step 4 | Remove catheter from packaging. Squeeze some lubrication on to a clean towel and then roll the end of the catheter that is to be inserted into the urethral meatus (hole from where you pass urine at the tip of the penis) through the lubricant, approximately two to three inches from the tip. |
| Step 5 | Position yourself either sitting on a toilet or facing the toilet, whichever they prefer. |
| Step 6 | If you are uncircumcised, pull back your foreskin. Then wash the end of your penis with a clean cloth, soap, and warm water, cleaning in a circular motion, starting at the tip of the penis and moving away from it. |
| Step 7 | After washing hands with soap and water, hold your penis straight up with one hand, keeping your dominant hand for use to gently insert the lubricated catheter into the urethra, through the urethral meatus. Continue to slowly advance the catheter until you meet the sphincter muscle, which is when you will feel some resistance. Hold the catheter and stop once resistance is met to allow relaxation of the sphincter muscle. After a few seconds, then take a deep breath and exhale while slowly advancing the catheter through this part of the urethra and into the bladder until urine is seen draining from the catheter end into your measuring container or toilet. |
| Step 8 | Allow time for urine to completely drain from the catheter into a measuring container or toilet. Continue to hold the catheter in place until the bladder is completely empty and urine stops draining. |
| Step 9 | Once urine has stopped draining from the catheter end, slowly remove the catheter, stopping briefly anytime more urine begins to drain from the catheter end in order to drain the bladder fully. |
| Step 10 | If you are uncircumcised, it is essential to replace the foreskin over the head of the penis, once the catheter has been removed. |
| Step 11 | Measure and record the amount of urine drained with the catheter. |
| Step 12 | After catheterization is complete, discard the catheter and its packaging into a garbage can or safe bin. Clean yourself up and wash your hands. |

Note: A good goal is to keep post-void residual volumes to less than 500 ml with each catheterization. If you are finding that you are draining less than 100 ml consecutively three times in a row, then decreasing the number of times you catheterize or stopping altogether may be appropriate. In this case, speak to your healthcare provider.

Dissemination Strategy

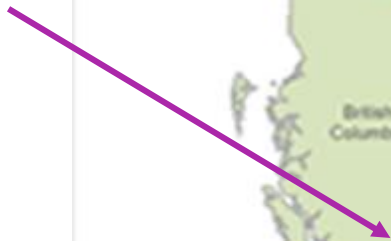


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Questions??



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References

Brouwers MC1, Kho ME, Browman GP, Burgers JS, Cluzeau F, Feder G, Fervers B et al. AGREE Next Steps Consortium. AGREE II: advancing guideline development, reporting, and evaluation in health care. *Prev Med*. 2010;51(5):421-4. doi: 10.1016/j.ypmed.2010.08.005.

NSWOCC, CNCA, UNC, IPAC. (2020). Clean Intermittent Urethral Catheterization in Adults – Canadian Recommendations for Nurses. Best Practice Recommendations of Nurses Specialized in Wound, Ostomy and Continence Canada, Canadian Nurse Continence Advisors, Urology Nurses of Canada, and Infection Prevention and Control. 1st Ed.

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