ADULTS-CLINICAL PROTOCOL – MUHC

(PROTOCOLE CLINIQUE - CUSM)

☐ Medication included ☐ No Medication included

☐ MCH ☐ MGH ☒ RVH ☐ MNH ☐ MCI ☐ LACHINE

THIS IS NOT A MEDICAL ORDER

Title:	Bladder Management in the Intrapartum and Postpartum Period (Postpartum Urinary Retention Protocol)
This document is attached to:	Care of the Adult Patient with Indwelling Urinary Catheter – Insertion and Management Patient Double Identification Policy MUHC Hand Hygiene Policy Retrograde Bladder Filling for Gynecology, Gyne-Oncology, and Uro-Gynecology Adult Patients Undergoing a Trial of Void

1. PURPOSE

Postpartum Urinary Retention (PUR) is a common condition that is poorly understood. Pregnancy changes such as increased progesterone; intrapartum variables such as nerve injury during delivery, pelvic floor and bladder trauma (instrumental vaginal delivery), labor duration, and regional anesthesia; periurethral or vulvar edema; and pain, are all thought to contribute to PUR. Early and timely interventions help to decrease, long-term consequences, prolonged voiding dysfunction, urinary infection, bladder damage and rupture as well as unanticipated stress to the new parent.

All postpartum patients, including those who had a cesarean section, should be monitored closely to ensure normal bladder function after their delivery.

The purpose of this protocol is to provide guidance for the prevention and management of urinary retention in postpartum patients.

Definitions

Overt urinary retention: inability to void spontaneously within 6 hours of vaginal delivery or removal of catheter.

Covert urinary retention: a post-void residual volume (PVR) of more than 150 mL after the first spontaneous void or removal of an indwelling catheter (IDC). The PVR is measured by ultrasound or by catheterization.

Persistent urinary retention: Urinary retention lasting more than 3 days postpartum that requires an IDC.

Post void residual (PVR): The amount of urine remaining in the bladder after voiding.

Risk factors for PUR include:

- Primigravida
- Prolonged labour (more than 11 hours)
- Prolonged second stage (more than 3 hours of pushing for nullipara or more than 2 hours of pushing for a multipara)
- Epidural analgesia
- Instrumental delivery
- Caesarean birth (particularly if preceded by an obstructed labour)
- Perineal laceration or hematoma
- Perineal pain and edema
- Fetal macrosomia (more than 4 kg)

2. PROFESSIONALS

Obstetricians, residents, nurses, licensed practical nurses within the scope of their practice, candidates to the profession of nursing, and nursing externs on D6 and C6.

Professionals are responsible to know the limits and extent of their practice as related to the particular protocol.

3. PATIENT POPULATION

Patients who give birth at the MUHC.

4. ELEMENTS OF CLINICAL ACTIVITY

Signs of acute postpartum urinary retention

- No urge to void
- Unable to void even though urge to void is present
- Voiding small amounts (less than 150mL)
- Overflow incontinence
- Palpable bladder
- Lower abdominal pain or tenderness
- Deviated fundus or boggy uterus
- Increased lochia
- Sense of incomplete bladder emptying
- Sensation of bladder fullness
- Dysuria
- Urinary frequency

Equipment needed:

- Bladder scanner
- Non-sterile gloves
- Catheterization kit
- 12 FR Indwelling Catheter
- Drainage bag
- Leg drainage bag (as needed)
- Urinary catheter stabilization device (Flexi track)

Procedure

4.1. Intrapartum

1) Vaginal birth

The goal of bladder management during labor is to prevent bladder overdistention.

a. First stage of labour: Dilation

- If patient has no epidural, encourage voiding every 2 hours
- If patient has an epidural:
    i. Insert indwelling catheter (IDC) within 2 hours of epidural insertion
    Or
    ii. If patient refuses catheterization, encourage voiding every 2 hours on bedpan
    If no void after 4 hours or voided less than 150 mL in 4h, insert an IDC.
- Document patient's intake and output.

b. Second stage of labour: Pushing

- If IDC in place, deflate the catheter balloon prior to pushing to reduce the risk of urethral trauma.
- If patient does not have an epidural:
    i. Encourage voiding prior to pushing (when possible).
    ii. Perform intermittent catheterization if patient has a prolonged second stage, and before any instrumental delivery
- Consider inserting IDC immediately post birth if:
    i. Patient has significant perineal swelling, a 3rd/4th degree perineal or urethral tear.
    ii. The IDC should be kept in for 24 hours or as per physician orders.

2) Cesarean birth

a. Indwelling catheter is usually inserted in the operating room.

b. It is to be kept to straight drainage for 6-8 hours post last regional anesthetic dose and then removed. Before removing catheter, verify that patient is able to mobilize independently.

	**Catheters are to be removed around the clock.** **The longer they stay in, the more complications can ensue.**

4.2. Postpartum

a. First 6 hours after vaginal delivery

- Encourage patient to void within 2 hours of delivery. Document time and volume of first 2 voids post-delivery.
- If patient complains of perineal pain, apply an ice pack for 20-30 min every 2-3 hours as needed and give oral analgesia as per medical orders.
- Help patient ambulate to bathroom and provide privacy.
- If unable to void, consider the following tricks: rinse the perineum with warm water while taking a shower or use a peri bottle on the toilet, place hands in warm or cold water, listen to running water, ambulate, use relaxation techniques such as closing eyes and deep breathing to relax muscles.

	**Ensure hydration to thirst.** **Encouraging the patient to drink large volumes of water can lead to bladder over-distention and injury.**

b. Ongoing postpartum

Measure and document every patient's first 2 voids post-delivery and/or IDC removal.

- Overt PUR: If the patient has not voided after 6 hours postpartum or post IDC removal perform a bladder scan. If it shows 300mL or more, it is overt PUR. See algorithm in Appendix 1.
- Covert PUR: If patient voided within 6 hours postpartum or IDC removal but has signs and symptoms of PUR or inadequate voiding, perform a bladder scan. If it is 150 mL or more it is covert PUR. Follow the algorithm in Appendix 1.

c. Post PUR IDC removal: Follow the algorithm in Appendix 1

	**The practice of clamping the urinary catheter for passive bladder retraining is discouraged due to the risk of over distending the bladder and causing further injury.**

Discharge planning for bladder retention only

Send patient home with a leg bag if:

- Catheterized for more than 1000mL
- If patient requires a second catheterization

If patient is sent home with an IDC:

- Inform Liaison Nurse at extension 43564
- Physician writes:
  - Prescription for catheter care for the CLSC (see Appendix 2)
  - Consult for pelvic floor physiotherapy
  - Consult request for Gynecology clinic
- Fax Medical consultation (DM-3451) with Retrograde bladder filling orders to the GYNE clinic (514) 843-1540 (See Appendix 3)
- Give patient care instruction information sheet (See Appendix 4)
- Make sure patient has urinary drainage bag for nighttime and a leg bag for daytime
- Make sure catheter is secured with urinary catheter stabilization device (can be found with leg bags)

	**Prophylactic use of antibiotics is not indicated for this population, however practice varies amongst physicians.**

5. DOCUMENTATION:

Urine volumes and nursing interventions are documented:

- C6: in Centricity
- D6: in patient's chart on ''In and Out'' sheet DM-3192

6. SPECIAL CONSIDERATIONS IN CASE OF A NICKED BLADDER OR BLADDER INJURY:

- The indwelling catheter stays in situ for 10 days.
- Patient will require a CT cystogram as an outpatient before removal of IDC.

- To be seen in gynecology clinic for removal of IDC.
- If the catheter is blocked or falls out before the scheduled appointment the patient should present to Birthing Centre Triage.
- **No flushing of IDC or retrograde bladder filling**.

Discharge planning for bladder injury

- Physician is to:
  - Order CT cystogram
  - Write
    - Exit prescription for catheter care (see Appendix 2)
    - Exit prescription of antibiotics
    - Consult request for Gynecology clinic
    - Retrograde bladder filling orders
- Fax Medical consultation (DM-3451) with Retrograde bladder filling orders to the GYNE clinic (514) 843-1540 (See Appendix 3)
- Give patient care instruction information sheet (See Appendix 4)
- Make sure patient has urinary drainage bag for nighttime and a leg bag for daytime
- Make sure catheter is secured with urinary catheter stabilization device (can be found with leg bags)
- Make sure patient knows to come to triage for ANY problems with the catheter.

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9. APPROVAL PROCESS

Institutional and professional approval

Committees	**Date approved** [yyyy-mm-dd]
☒ Adult Clinical Practice Review Committee (CPRC) (if applicable)	2023/01/16

10. REVIEW DATE

To be updated in maximum of 4 years or sooner if presence of new evidence or need for practice change.

11. REFERENCES

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Version	**Description**	**Author/responsable**	**Date**
No 1	Description (Creation, Approval)	Sophia Kapellas, RN, MSc(A), Advanced Practice Nurse, Obstetrics, MUHC	2023/01/12

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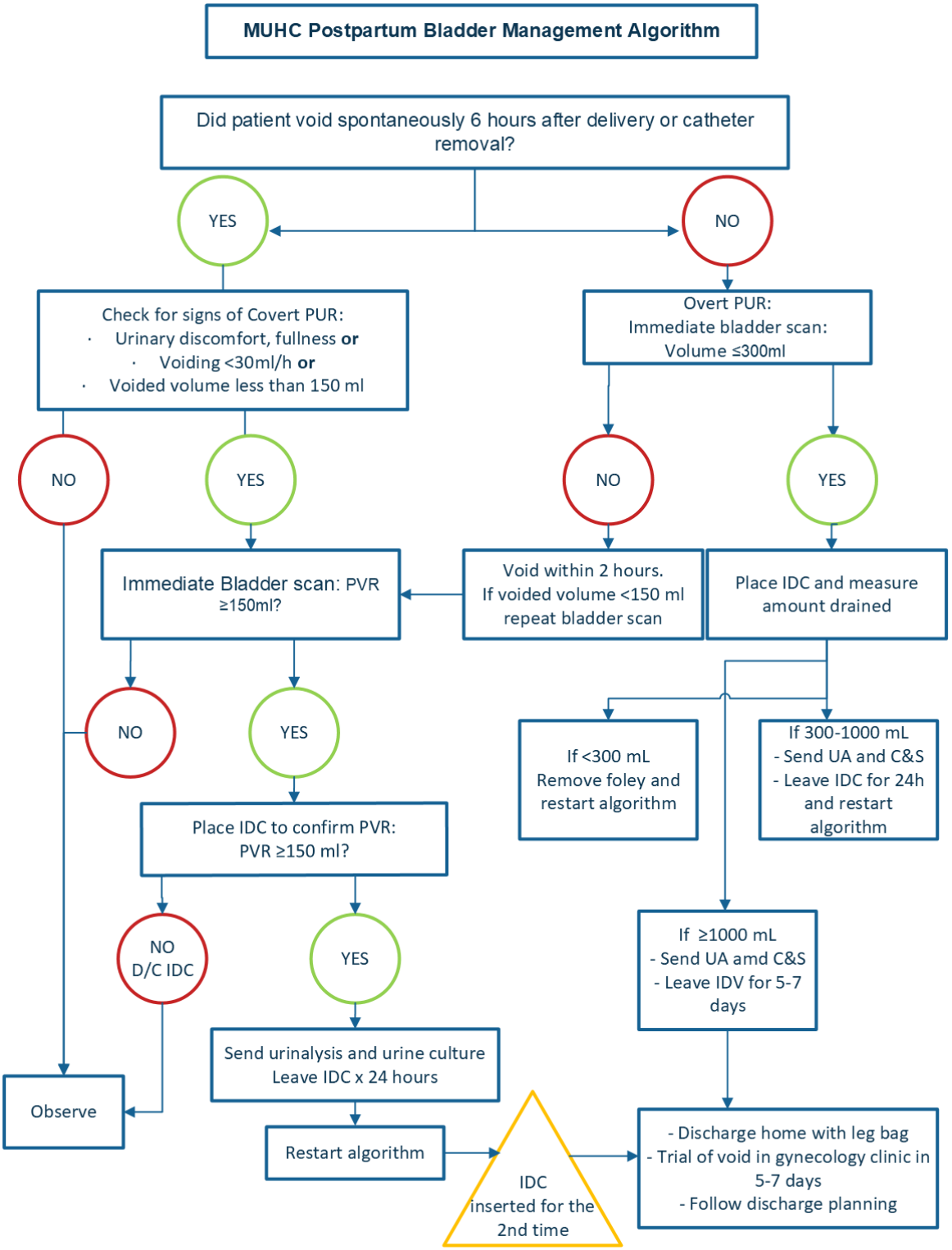

Legend: C&S-culture and Sensitivity; IDC-Indwelling catheter, PUR-postpartum urinary retention; PVR-postvoid residual; UA-urinalysis

Authors: Haas, Sabrina & Kapellas, Sophia, February 2023

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☐ HME ☑ HGM ☑ HRV
☑ HNM ☑ ITM ☑ CL

* F M U – O O O O *

Soins de la sonde urinaire - Ordonnances externes

Postpartum

Date _____ **Service**_____

(AAAA/MM/JJ)

Téléphone/Telephone: Hôpital Royal Victoria (514) 934-1934 post 34779 No. du télécopieur du service / Service's fax number (514) 843-1412

Poids / Weight _____(kg) **Allergies**_____ **Indice de masse corporelle /** BMI _____

ORDONNANCE DU MÉDECIN / PHYSICIAN'S ORDERS

Raison de la sonde urinaire : ☐ Rétention Urinaire Postpartum ☐ Blessure à la vessie

Date d'insertion de la sonde urinaire : __AAAA__ / __MM__ / __JJ__

Ce patient à une sonde urinaire de grandeur ☐ 12 FR ☐ 14 FR, avec 5-10 mL d'eau stérile dans le ballonnet, et un sac de drainage urinaire

Renforcez l'enseignement de soins de sonde: importance de l'hygiène quotidienne, changement du sac de drainage à cuisse pour le sac de nuit, l'importance d'attacher la sonde à la cuisse et les signes et symptômes d'infection.

	Rétention	Blessure
Si la sonde urinaire est bloquée	☐ Irriguez avec 50-60 mL de solution saline normale stérile à 0,9%. Si vous ne pouvez pas débloquer la sonde urinaire, veuillez la remplacer par une sonde de grandeur 12 FR, avec 5-10 mL d'eau stérile dans le ballonnet	☐ NE PAS irriguer la sonde urinaire si elle est bloquée et diriger la patiente r au centre de naissance du CUSM
Si la sonde urinaire est retirée par accident	☐ Veuillez remplacer la sonde urinaire par une grandeur 12 FR, avec 5-10 mL d'eau stérile dans le ballonnet	☐ NE PAS réinsérer la sonde urinaire si elle a été retirée par accident et diriger la patiente au centre de naissance du CUSM
Cette patiente aura un essai de sevrage de sonde dans	☐ 5-7 jours à la clinique de gynécologie du CUSM	☐ 10 jours à la clinique de gynécologie du CUSM

RAPPEL : Le médecin doit remplir l'ordonnance de consultation à la clinique de gynécologie du CUSM et la prescription pour le remplissage de la vessie par voie rétrograde (au besoin)

Clinique : C06.4152 Numéro de téléphone :514-934-1934 poste. 34719 Numéro de télécopieur: 514-843-1540

_____ _____ _____

Signature du médecin / Physician's signature **Nom en lettres moulées /** Print name **N° permis**/ License N

Commentaires/Comments_____

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☐ HME ☑ HGM ☑ HRV
☑ HNM ☑ ITM ☑ CL

Urinary catheter care - External Orders

Postpartum

Date _____ **Service**_____

(YYYY/MM/DD)

Téléphone/Telephone: Hôpital Royal Victoria (514) 934-1934 post 34779 No. du télécopieur du service / Service's fax number (514) 843-1412

Poids / Weight _____(kg) **Allergies**_____ **Indice de masse corporelle /** BMI _____

ORDONNANCE DU MÉDECIN / PHYSICIAN'S ORDERS

Reason for the urinary catheter: ☐Postpartum Urinary Retention ☐ Bladder Injury

Date urinary catheter was inserted: __YYYY__ / __MM__ / __DD__

This patient has a urinary catheter size ☐ #12FR ☐ #14 ☐☐, with 5-10mL of sterile water in the balloon, with a Foley bag

Reinforce teaching of catheter care: importance of daily hygiene, changing from leg bag to night bag, importance of securing the catheter to the thigh and signs of infection.

	Retention	Injury
If the urinary catheter is blocked	☐ Irrigate with 50-60 mL of sterile Normal Saline 0.9%. If you are unable to unblock the urinary catheter, please replace the urinary catheter with a size 12FR, with 5-10mL of sterile water in the balloon	☐ DO NOT irrigate the urinary catheter if blocked and send patient to the birthing center
If the urinary catheter is pulled out by accident	☐ Please replace the urinary catheter with a size 12FR, with 5-10 mL of sterile water in the balloon	☐ DO NOT reinsert the urinary catheter if pulled out by accident and send patient to the birthing center
This patient will have a trial of void (TOV)	☐ 5-7 days at the MUHC gynecology clinic	☐ 10 days at the MUHC gynecology Clinic

REMINDER: The physician needs to fill out the consult to the MUHC gynecology clinic and retrograde bladder filing prescription (as needed).

Clinic: C06.4152 Telephone number :514-934-1934 ext. 34719 Fax number: 514-843-1540

_____ _____ _____

Signature du médecin / Physician's signature **Nom en lettres moulées /** Print name **N° permis**/ License N°

Commentaires/Comments_____

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DM- 6597 (REV 2022/07/20) Approbation CPRC (2022/06/02) CUSM repro MUHC

Appendix 3

Prescription for retrograde bladder filling for Gynecology clinic

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☐ HME MCH ☐ HGM MGH ☒ HRV RVH
☐ HNM MNH ☐ ITM MCI ☐ CL LC

A F M U – 8 6 3 2 A

Gynécologie, Gynéco-oncologie, et Uro-gynécologie
Remplissage de la vessie par voie rétrograde

Gynecology, Gyne-Oncology, and Uro-Gynecology
Retrograde bladder filling

ALLERGIES _____

Poids / Weight (kg) _____ **Taille** / Height (cm) _____ **Surface corporelle** / BSA (m^2) _____

Initiales du médecin pour chaque ordonnance Physician's initials for each order	ORDONNANCE DU MÉDECIN / PHYSICIAN'S ORDERS	Initiales de l'infirmier(ère) notées Nurse's initials noted

	• Retrograde bladder filling with 250 mL of normal saline or sterile water or until patient feels urge to void.
	• Remove indwelling catheter.
	• If voided volume greater or equal to 200 mL, discharge patient home.
	• If voided volume less than 200 mL, do post void residual (PVR) with bladder scan within 15 minutes of void.
	  ◦ If PVR less than 100 mL, discharge patient home.
	  ◦ If PVR is between 100 – 250 mL, repeat PVR after next void. If PVR remains between 100 – 250 mL reinsert indwelling catheter, send urine C&S, have patient return to clinic for trial of in void: _____days.
	  ◦ If PVR greater than 250 mL, reinsert indwelling catheter, send urine C&S, have patient return to clinic for trial of void in: _____days.
	• If patient doesn't void within _____ hours, reinsert indwelling catheter, send urine C&S, have patient return to clinic for trial of void in: _____days.
	• If patient fails trial of void repeat retrograde bladder filling as indicated above after _____days. If trial of void not successful notify physician.	

	Nom en lettres moulées Name in print	Signature	N° Permis License No.	Heure Time 00:00	Date AAYY/MM/JD
Médecin Physician					

	Nom en lettres moulées et/ou numéro de permis Name in print and/or license number	Initiales Initials	Heure Time 00:00	Date AAYY/MM/JD
Infirmier(ère) Nurse				
Pharmacien(ne) Pharmacist	NA			

Original-Pharmacie / Pharmacy **Copie jaune-Dossier médical** / Yellow copy-Medical Record

DM-5535 (REV 2016/10/17) CUSM repro MUHC

Appendix 4

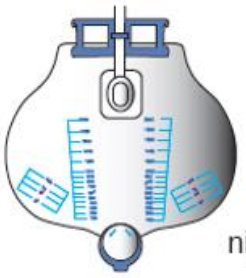
Patient teaching on leg bag

Your urine tube and bags

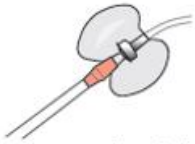
The tube in your bladder is also called a urinary catheter. You will go home with 2 urine bags and a urine tube stabilizer. The stabilizer holds the catheter in place and makes sure that the tube stays attached to your leg.

The smaller bag is for the day and the larger bag is for the night.

day bag

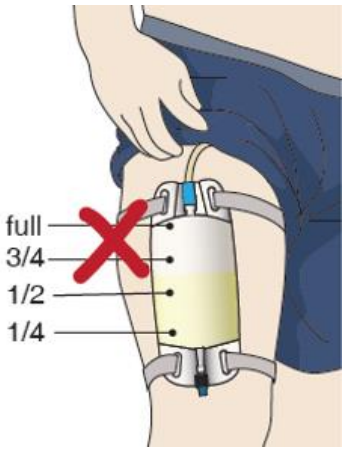


night bag

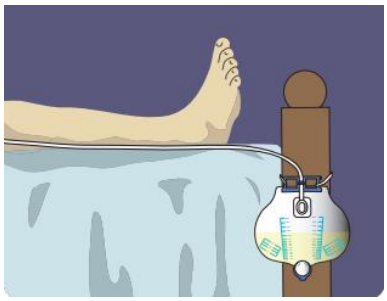


urine tube stabilizer

1. Wear the smaller bag during the day.
    - Attach it to your leg. Make sure it is not too tight
    - Make sure that the bag is low enough but remains above the knee. This will ensure the tube does not get kinked.
    - Empty the bag every 2-3 hours so it does not get too full.
    - Never let it get more than 3/4 full.



2. Wear the larger bag at night.
    - Make sure the urine drains into your bag by putting it lower than your body.



- Empty the bag in the toilet every morning.

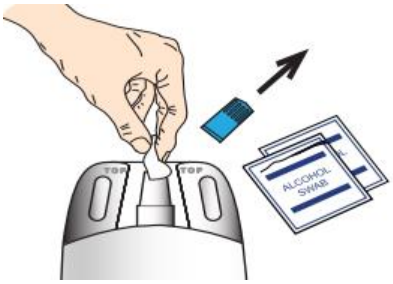
Your urine tube and bags *(continued)*

How to switch from one bag to another

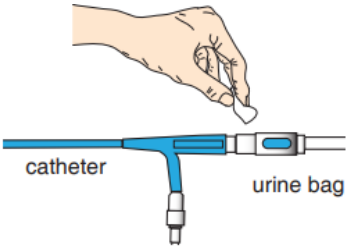
1. Empty the bag of urine in the toilet

2. Wash your hands

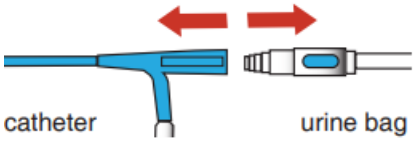
3. Uncap the new bag and clean the tip of the new bag with an alcohol swab for 15-30 seconds, and then keep it on a clean towel.



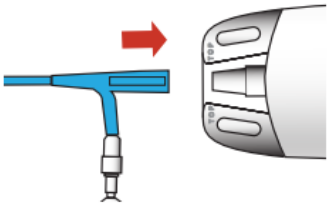
4. With a new alcohol swab, clean the connection between the urine bag and the catheter for 15-30 seconds before disconnecting it.



5. Disconnect the urine catheter from the bag

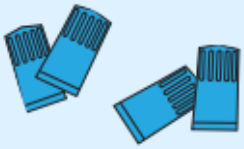


6. Connect the urine catheter to the new bag.



Always:

- Save the caps from the bags.
- Keep the caps clean.
- Cover the caps when not in use.
- Always keep a cap over the tip of the unused bag.



Your urine tube and bags *(continued)*

How to clean your bags

1. Wash your hands

2. Empty the bag and rinse with tap water (use a small funnel or plastic cup).

3. Mix 1 part vinegar with 3 parts water

Vinegar Water

4. Fill bag with mixture of vinegar solution

5. Gently shake the bag and let it hang for 30 minutes

6. Empty bag and air dry.
   Store in a clean dry place.