UCSF Health

NEONATAL PEDIATRIC NURSING PROCEDURE

CATHETERIZATION, CLEAN INTERMITTENT

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Critical Points

1. A provider's order is necessary to perform clean intermittent catheterization (CIC).
2. Use only non-latex supplies.
3. A catheter that is too small may not empty the bladder adequately.
4. Report signs and symptoms of urinary tract infection to the provider, including abdominal pain, tenderness in the lower back, dysuria, frequency, urgency, hematuria, foul-smelling or cloudy urine, and/or fever.
5. Babies less than 36 weeks gestation need an evaluation by pediatric urology service prior to performing the first CIC.

Supplies

- Catheter
- Water soluble lubricating jelly
- Urine collection container(s)
- Clean gloves, if RN performing CIC (Note: this is a clean procedure, therefore patients and family members generally do not wear gloves)
- Soap and water or cleansing wipe (i.e., baby wipe)

Procedure

CIC: PERFORMED BY RN

1. Review order. Consult with provider regarding catheter size if needed.
2. Verify frequency prescribed; typically every 3 hours when awake.
   a. Children who sleep through the night (therefore not taking in any liquids) usually do not need to be catheterized overnight.
   b. Attempt to arrange a catheterization frequency to fit the feeding schedule of young infants.
3. Use a new catheter each time during hospitalization. (Home regimen may be to reuse catheter).

CATHERTERIZATION, CLEAN INTERMITENT *(continued)*

4. Explain procedure to patient/family, including rationale, frequency and technique.
    a. Consider a Child Life consult to assist in procedural preparation before bringing supplies into room. (Also see patient/family instructions in Education section)
5. Gather supplies. Select appropriate sized catheter for patient.
6. Identify patient using two patient identifiers.
7. Ensure patient's comfort and privacy.
8. Perform hand hygiene and don clean gloves.
9. Lubricate catheter tip with lubricating jelly, and place open end into urine container or cup.
10. Cleanse the urethral orifice using mild soap and water or cleansing wipe. (Betadine is very irritating to the perineal area and it is not recommended for frequent catheterization.)
    - ***For females:*** cleanse from front to back. Hold labia separated until catheter is inserted.
    - ***For uncircumcised male:*** gently retract foreskin prior to cleansing.
11. Insert catheter:
    - ***Females:*** hold labia apart and insert catheter through the urethral meatus until urine begins to flow, then advance about 1 cm and hold tube in place until urine stops flowing.
    - ***Males:*** hold penis firmly and direct straight away from the body. Insert catheter through the meatus, keeping penis straight. Advance until urine flows.
        - Slight resistance may be felt just before the tip enters the bladder (as it passes through the external sphincter and prostate). To help relax the sphincter, have patient deep breathe or bear-down as if trying to void. Use firm gentle pressure rather than "back and forth" motion. If unsuccessful in passing catheter, notify provider.
12. Allow urine to flow into urine container.
13. After urine stops flowing, withdraw catheter slowly. If urine begins to flow again, pause until urine stops draining to ensure bladder is completely empty.
    - Ensure foreskin, if present, is returned to cover the glans.
14. Measure and discard urine.
    - *Note:* slight bleeding may occur with catheterization, but excessive bleeding is not typical and should be reported to provider.

DOCUMENTATION

1. Document each catheterization in the medical record.
2. Record amount, clarity, odor, and color of urine.

EDUCATION: INSTRUCTING PATIENT & FAMILY IN CIC

1. Begin education as soon as patient and family are assessed as ready to learn.
    a. In general, if the patient is 5 years old or older, both child and caregiver should learn to CIC. If patient is younger than 5 years, the caregiver should learn initially, with the expectation that child will learn prior to grade school (assuming normal age-appropriate development).

CATHERTERIZATION, CLEAN INTERMITENT *(continued)*

b. Try to make the initial experience positive. Creativity may be needed in motivating a young child to learn this procedure. Provide plenty of practice play and exploration with guidance.
c. Explain procedure and rationale for CIC.
d. Provide written material explaining the technique and showing diagram of anatomy of the urinary tract system.
e. When patient and family are assessed as ready to move to catheterizing patient, schedule educational sessions at regular catheterization times.

2. Gather supplies
3. Teach patient/family
   a. Begin each educational session by asking if there are any questions up to this point. Use the teach-back method to allow learner to describe technique so clarification can be provided as needed during session.
   b. Identify who will be doing the catheterization.
   c. Provide privacy.
   d. Set patient up in a self-catheterizing position.
   e. Mirrors are not recommended because they take up one hand which makes it difficult to catheterize. Children learn by practice and feel rather than by actually "seeing" the urethra.
   f. Girls may learn better sitting on toilet, while boys may prefer to stand at the toilet.
   g. Consult with CNS and/or Child Life as appropriate.
   h. Review technique, if needed.
   i. Encourage patient or caregiver to perform CIC.
   j. Observe and assess CIC return demonstration by patient or family member, as well as their care of equipment.
   k. Ask learner to review (using teach back) and prompt for questions. Answer questions.

FAQs

i. **Catheter changing frequency at home**
   - Consult with discharge coordinator or Pediatric Urology NP.

ii. **Equipment and urine storage when patient away from bathroom facilities - patient/family should:**
   - Perform catheterization even if unable to wash their hands.
   - Clean supplies at next available opportunity.
   - When away from home for an extended period (e.g., school), it may be helpful to bring more than one catheter, with 2 zip-lock bags labeled clean and dirty. The catheters can be washed at home rather than at school.

a. Record assessment of patient's or family member's ability to perform CIC on the teaching record. When independently performing CIC, indicate this on teaching record.

CATHERTERIZATION, CLEAN INTERMITENT *(continued)*

HOME DISCHARGE NEEDS – PERFORMED BY DISCHARGE COORDINATOR

1. Order supplies needed for discharge:
   - 5 clean intermittent catheters of appropriate size
   - Water soluble lubricating jelly
   - 2 zip lock bags (for storing catheters when away from home)
2. Provide family with information on how and where to reorder supplies. Provide written name of supply company and phone number.
3. Provide family with information on who provides orders for their supplies, i.e., primary physician or through a specialty clinic.
4. Discharge planning may include a home care referral for nursing visits. This should include specific instructions for the CIC technique to home care company for teaching reinforcement.

Troubleshooting

Problem	Suspected issue	Action
Resistance when removing catheter, catheter should slide out easily, do not use force to pull out catheter**.**	• Very long thin catheters can kink or knot in the bladder	• Avoid using feeding tubes or too small of a catheter. If you meet resistance, leave the catheter in place, as the bladder fills with urine, the catheter may untangle. If catheter remains difficult to remove, consult Urology. An ultrasound of the bladder may assist in identifying problem.
Foreskin too tight to retract over glans.	• If foreskin cannot be pulled back, it may be difficult to correctly identify the urethral opening in a male patient.	• Discuss with Urologist, do not blindly place catheter as you may develop a false track

CATHERTERIZATION, CLEAN INTERMITENT *(continued)*

References

Level of Evidence (FAME*)	Level*	Reference
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	E4	Couloures, K. G., Anderson, M., Machiorlatti, M., Marsenic, O., & Opas, L. (2016). Discontinuation of Antimicrobial Prophylaxis (AP) in Children With Spina Bifida: A Case Series Analysis. *Nephro-Urology Monthly, 8*(5). Retrieved December 12, 2019 from https://www.ncbi.nlm.nih.gov/pubmed/27878110.
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	E4	Joseph, D.B., Baillie, S., Baum, M.A., Frimberger, D.C., et al. (2018). Urology. *Guidelines for the Care of People with Spina Bifida, An Initiative of the Spina Bifida Association*; 162-175. Retrieved December 12, 2019 from https://www.spinabifidaassociation.org/app/uploads/Guidelines-for-the-Care-of-People-with-Spina-Bifida-2018.pdf
	E2	Snow-Lisy, DC, Yerkes, E, & Cheng, E. (2015). Update on urological management of spina bifida from prenatal diagnosis to adulthood. J Urol.,*194*(2):288-96. doi: 10.1016/j.juro.2015.03.107.

* FAME Scale details: See nursing policy *Policy, Procedure, & Competency Development, Review, & Approval*

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