

I. Equipment

- ✓ Sterile towels
- ✓ Cotton balls
- ✓ KY gel (not lidocaine gel)
- ✓ Soap (Hibiclens)
- ✓ Catheter adapter (REF 2219) *(small blue tree)*
- ✓ 5F feeding tube (boys under 1 month), 8F feeding tube (boys and girls older than 1 month)
 Example: Argyle Feeding Tube (REF 460802)
- ✓ Plastic tape
- ✓ Urinal for males, bedpan for females
- ✓ Spot light
- ✓ Urologic contrast bottle w/ extension tubing

II. Personnel

- a. Pediatric radiologist/RA
 - i. Responsible for imaging
- b. Technologist at head
 - i. Responsible for holding patients hands above the abdomen
 - ii. Parent may substitute
- c. Technologist at feet
 - i. Responsible for holding legs of patient
 - ii. Turns contrast on and off
 - iii. Removes tape and catheter when told by the person performing the study

III. Procedure

- a. Patient supine on table
- b. Scrub genital region x3
- c. Insert catheter and affix with single piece of tape (continue to insert even after urine flows; tape onto labia/penis)
- d. Attach contrast tubing to urethral catheter
- e. Run contrast in under gravity drip
- f. Take appropriate images
- g. When patient is uncomfortable full, place in urinating position
 - i. Females on bedpan if old enough
 - ii. Males rotated to left with urinal if old enough
- h. Loosen tape to prepare for catheter removal- remove catheter when told by radiologist/RA

IV. Required Images

- a. Scout of abdomen with pubic symphysis visible at bottom of image/ up to 12th rib
- b. AP early bladder filling
- c. Full bladder- The patient must be filled to their Estimated Bladder Capacity, to ensure they are assessed adequately for reflux, using the following formulas:
 - i. If less than 1 year old = 7 x weight in kg
 - ii. If greater than 1 year old = (age in years +2) x 30
- d. Right and left obliques of bladder including bladder base and proximal urethral region
- e. Voiding with contrast filled urethra
- f. Images with maximum reflux (oblique to show vesicoureteral junction) (kidneys w/ max reflux)
- g. Post void of bladder and kidneys (bladder does not need to completely empty)

V. Special considerations

- a. Infants younger than 12 months of age REQUIRE 2-3 cycles of voiding
- b. Young females with fused labia may require steroid cream to open.
- c. Uncircumcised age 5 and younger, do not pull back or force the foreskin. You can pull a little to try to expose the opening and then go "fishing" with the catheter. Per Dr. Casanova. (Pediatric Urologist)
- d. DO NOT HAND INJECT CONTRAST

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