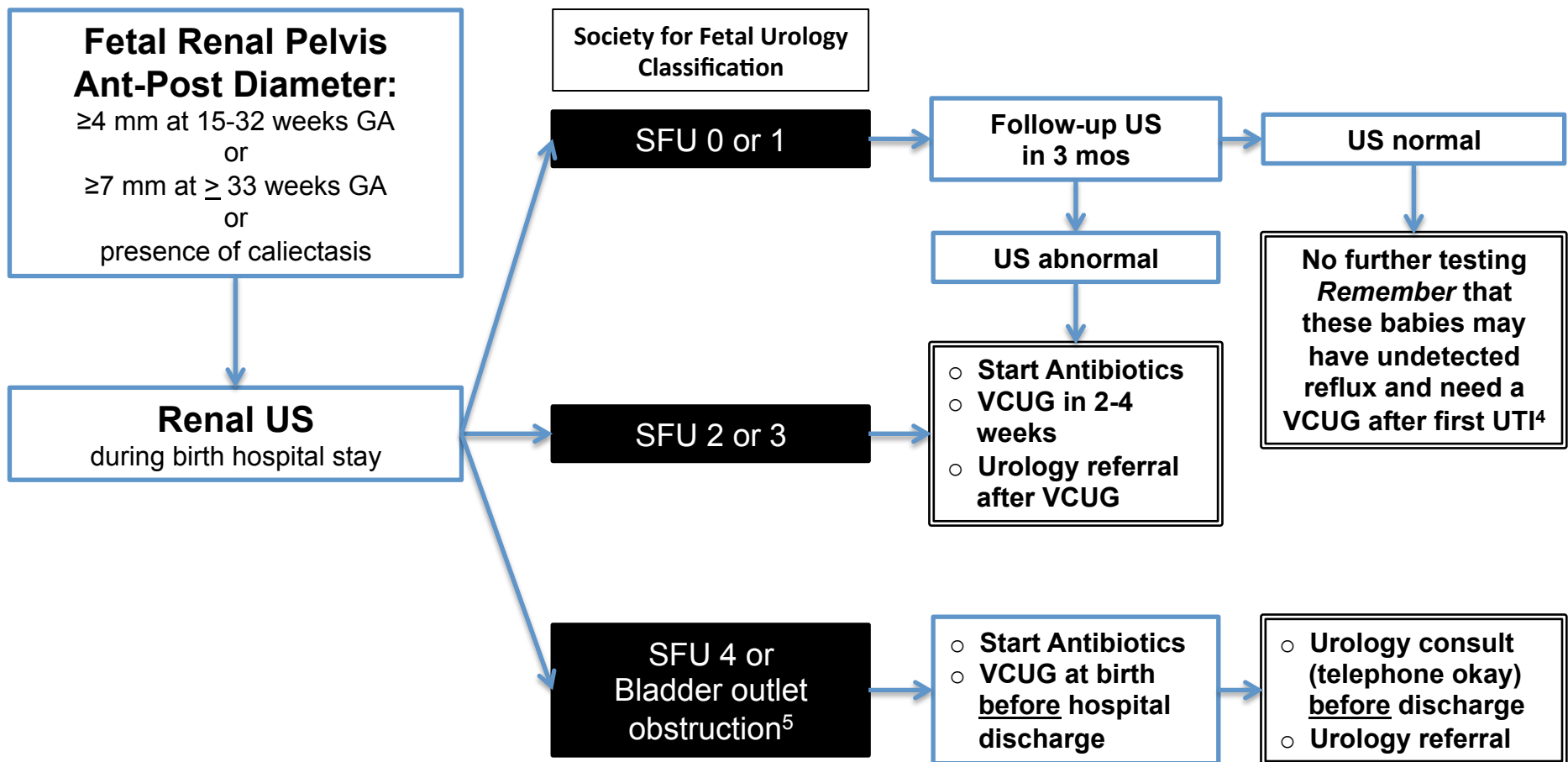


Algorithm for Evaluation of the Newborn with Antenatal Hydronephrosis



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Antibiotic for UTI Prophylaxis choice:

- Initial newborn antibiotic choice: cefdinir 4-5 mg/kg or cefixime 5-7 mg/kg once daily
- Infants older than 2 months option also TMP/SMX 2 mg/kg or Nitrofurantoin 2 mg/kg once daily

Additional information:

1. Missed renal pathology may lead to hypertension, renal failure or need for transplantation
2. Young infants with UTI are at higher risk for renal scarring because their kidneys are immature
3. SFU (Society for Fetal Urology) staging is commonly used after birth to rate the degree of hydronephrosis:
SFU 0: no renal pelvis splitting, SFU 1: urine barely splits pelvis, SFU 2 urine fills intrarenal pelvis +/- major calyces dilated, SFU 3: SFU 2 + major and minor calyces dilated and parenchyma preserved, SFU 4: SFU 3+ parenchyma thin
4. Remember that a normal US does not exclude the presence of reflux and one must keep a high index of suspicion for UTI in this group of children
5. Infants with high grade obstruction or reflux, bilateral hydroureters, or bladder outlet obstruction are at high risk of infection or renal failure and PCP is recommended to call/consult urology **before** discharge to discuss management
6. If postnatal US confirms solitary or malpositioned kidney, and there is hydronephrosis, infant should have a VCUg to protect what might be their only good kidney.
7. The Urology team is concerned about high grade obstruction in SFU 3&4 babies and may elect to do a Mag 3 scan in the future
8. Please ask parents to bring a CD of images to Urology visit (not just the report)!

References:

- Nguyen HT et al. The society of fetal urology consensus statement on the evaluation and management of antenatal hydronephrosis. J Pediatr Urol. 2010;6(3):212-31
- Barbosa JA et al. Postnatal longitudinal evaluation of children diagnosed with prenatal hydronephrosis: insights in natural history and referral pattern. Prenat Diagn. 2012;32(13):1242-9
- Yamacake KG, Nguyen HT. Current management of antenatal hydronephrosis. Pediatr Nephrol. 2013;28(2):237-43

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