

because breakthrough infections can occur despite CAP.

Surgical management of VUR corrects the anatomy at the insertion of the refluxing ureter into the bladder and consists of open or laparoscopic and robotic techniques or endoscopic correction. Surgical intervention is indicated in patients who are unlikely to resolve their VUR and are at risk for renal scarring; including those with Grade V reflux with scarring, Grade V reflux over 6 years of age, and children who fail medical therapy.

Prognosis

With prompt and adequate treatment at the time of diagnosis, the long-term prognosis for UTI is usually excellent. However, the risk of progressive renal injury due to scarring from a first UTI has been found to be highest in children with an abnormal renal bladder ultrasound or with a combination of high fever ($\geq 39^{\circ}$) and an etiologic organism other than *E. coli* (Shaikh, Craig, Rovers, et al, 2014). The presence of VUR, particularly high grade (IV to V) is an important risk factor for the development of renal scarring.

Quality Patient Outcomes: Urinary Tract Infections

- Treatment based on culture and sensitivity
- Renal function maintained
- Appropriate diagnosis of renal abnormalities

Nursing Care Management

Nurses should instruct parents to observe for signs and symptoms suggestive of UTI. These are not always obvious, particularly in an infant, young child, or developmentally delayed child. A high fever without obvious cause should be a signal to check the urine. Because infants and young children often are unable to express their feelings and sensations verbally, it is difficult to detect discomfort they may be experiencing from dysuria. A careful history regarding voiding habits, stooling pattern, feeding tolerance, and episodes of unexplained irritability may assist in