

Table I. Selected Conditions that Potentially Complicate the Management of UTI in the ICU*

1. Obstruction or other structural factor
 - a. Urolithiasis
 - b. Malignancy
 - c. Ureteral or urethral stricture
 - d. Bladder diverticulum
 - e. Renal cyst, fistula, ileal conduit, other urinary diversion
2. Functional abnormality
 - a. Neurogenic bladder
 - b. Vesicoureteral reflux
3. Foreign body
 - a. Indwelling catheter
 - b. Ureteral stent
 - c. Nephrostomy tube
4. Metabolic or physiologic condition
 - a. Diabetes mellitus
 - b. Pregnancy
 - c. Renal failure
 - d. Immunosuppression
5. Other condition
 - a. Male sex (prostatitis)
 - b. Renal transplantation
 - c. Uropathogen resistant to broad-spectrum antimicrobials

*UTIs associated with these conditions are usually successfully treated with antimicrobials to which the infecting uropathogens are susceptible. However, UTIs associated with these conditions warrant consideration for early urologic consultation and imaging studies, broader spectrum antimicrobials for empiric treatment, longer durations of treatment, and/or possible urologic intervention. Some of these conditions may occasionally be associated with life-threatening infections, such as UTI in association with an obstructed collecting system. Some UTIs cannot be cleared unless a foreign body, such as a ureteral stent, is removed. Many serious episodes of complicated pyelonephritis are found predominantly in diabetics. Some of these conditions are considered complicating factors because they increase the risk of recurrence or are associated with higher likelihood of drug resistance, such as indwelling urethral catheterization.