

Name: DOB: Gender: Facility: Provider:

Panel: Urine
Sample ID:
Collection Date:
Reported Date:

Allergies/Notes:

DETECTED PATHOGENS

Klebsiella pneumoniae Detected - High >10° copies/mL | Gram-negative organism(s), may be responsible for urinary tract infection.

DETECTED RESISTANCE GENES

Sull Detected Confers resistance to TMP/SMX. Expressed only by gram-negative organisms.

PHARMD TREATMENT CONSIDERATIONS

Regimens based on organisms most likely to be pathogenic. Microbial load considered when available.

Medication	Dose/Duration	Renal Adjustment	Considerations
Nitrofurantoin (Macrobid)	Cystitis: 100 mg PO BID x 5 d (7 d for complicated cystitis) Pyelonephritis: Avoid use	Avoid use in pts with CrCl < 30 mL/min	Coverage for: Klebsiella pneumoniae • \$16-21 for 7 day course (coupon pricing)
OR			
Fosfomycin (Monurol)	Cystitis: 3 g PO x 1 dose (x 3 doses every 48-72 hrs for complicated cystitis) Pyelonephritis: Avoid use	None	Coverage for: Klebsiella pneumoniae • \$31-51 for treatment course (coupon pricing) • May repeat dosing every 48-72 hrs up to a total of 1-3 doses
OR			
Cefdinir (Omnicef)	Cystitis: 300 mg PO BID x 5 d (7 d for complicated cystitis) Pyelonephritis: 300 mg PO BID x 10-14 d (following Ceftriaxone 1 g IV/IM once)	CrCl < 30 mL/min: 300 mg PO daily	Coverage for: Klebsiella pneumoniae • \$17-26 for 7 day course (coupon pricing) • Safe to use in most PCN allergies (~5-10% general cross-reactivity), avoid with hx of anaphylaxis to PCN
OR			
Ciprofloxacin (Cipro)	Cystitis: 500 mg PO BID x 3 d (5-7 d for complicated cystitis) Pyelonephritis: 500 mg PO BID x 7-10 d	CrCl 30-50 mL/min: 250-500 mg PO every 12 hrs Crcl 5-29 mL/min: 250-500 mg PO every 18-24 hrs	Coverage for: Klebsiella pneumoniae • \$13-18 for 5 day course (coupon pricing) • FQ class-wide warnings include: CNS toxicity, peripheral neuropathy, myasthenia gravis, aortic dissection, tendinopathy, QT interval prolongation, C.difficile colitis

Additional Considerations

Complicating factors include: Male patients, pregnant women, obstruction, immunosuppression, renal failure, renal transplantation, urinary retention from neurologic disease, uncontrolled diabetes, and individuals with risk factors that predispose to persistent or relapsing infection (e.g., calculi, indwelling catheters or other drainage devices). For males in which acute prostatitis is suspected, fluoroquinolones and TMP/SMX are preferred due to reliable penetration of prostatic tissue.

Reviewed by: Max Dudenkov, PharmD Date: 10/16/2024 (PS57804)

The following regimen(s) are based on generally accepted and peer-reviewed antimicrobial activity of specific agents against defected pathogens, resistance genes, and presumed diagnosis based on specimen source and resulting pathogens. Antimicrobial activity and efficacy of agents for treatment of detected pathogens is not guaranteed. Medication selection, dosages, durations, and considerations are in congruence with clinical practice guidelines (IDSA, CDC, AAP, etc), when guidance is available. Additional patient factors including but not limited to HPI, comorbidities, concomitant medications, etc. should be carefully evaluated in conjunction with listed treatment considerations. Clinics correlation and appropriate medical judament is warranted prior to prescribing a course of treatment.



Have a question about a report? Scan the QR code to chat with a pharmacist or call 904-618-3554.





Urine Panel Collection: Urine Vacutainer

Signs/Symptoms

Fever/Chills Malaise

Urinary frequency Malaise
Urinary urgency Nausea/Vomiting
Suprapubic pain Altered mental
Hematuria status

Urinary discharge Costovertebral angle Flank pain tenderness

Dysuria

Cystitis
Complicated cystitis
Pyelonephritis
Prostatitis
Urethritis

Epididymitis

Endometritis Salpingitis

Diagnoses

R39 0 B37.31 N39.0 R35.0 R30.0 R53.83 R31.9 R31.0 L29.2 R39.15 Z87.440 Z11.2 R82.90 Z12.6 R39 12 Z16.24

Common ICD-10 codes

Tested Pathogens:

Core Pathogens

Bacterial:

Citrobacter freundii
Enterobacter aerogenes
Enterobacter cloacae
Enterococcus faecalis
Escherichia coli
Klebsiella oxytoca
Klebsiella pneumoniae
Morganella morganii

Proteus mirabilis

Providencia stuartii Pseudomonas aeruginosa Serratia marcescens Staphylococcus aureus

Staphylococcus saprophyticus Streptococcus agalactiae (Group B)

Fungal:

Candida albicans

Moraxella catarrhalis

Additional Pathogens

Bacterial:

Acinetobacter baumannii
Actinobaculum schaalii
Aerococcus urinae
Alloscardovia omnicolens
Bacteroides Fragilis
Citrobacter koseri
Clostridium perfringens
Coag-negative staphylococcus
Corynebacterium riegelii
Enterococcus faecium
Fusobacterium Nucleatum,
Necrophorum

Mycoplasma genitalium
Mycoplasma hominis
Pantoea agglomerans
Peptostreptococcus anaerobius
Prevotella Bivia, Loescheii
Proteus vulgaris
Staphylococcus epidermidis
Stenotrophomonas Maltophilia
Streptococcus dysgalactiae (Group G)

Streptococcus pneumoniae
Streptococcus pyogenes (Group A)

Ureaplasma parvum Ureaplasma urealyticum Viridans Group Strep

Fungal:

Candida auris Candida glabrata Candida krusei Candida parapsilosis Candida tropicalis

Defined as pathogens most commonly detected and most likely to be clinically significant for panel type.

Medical literature (IDSA, Johns Hopkins Abx guide, CDC) along with clinical discretion was utilized to determine core pathogen lists.