

Pyelonephritis



Emergency
Care Institute
NEW SOUTH WALES

Antibiotic therapy

For mild infection

First Line	Amoxycillin + Clavulanate 875+125 Twice daily for 10 days OR Cephalexin 500mg Four times a day (QID) for 10 days OR Trimethoprim 300mg Daily for 10 days
Alternative	<i>If proven resistance to above drugs or causative organism is <u>Pseudomonas aeruginosa</u> use:</i> Norfloxacin 400mg Twice daily for 10 days OR Ciprofloxacin 500mg Twice daily for 10 days

Note: the Australian Therapeutic Guidelines recognises the difference in prescribing policies between Australia and USA/Europe namely that USA/Europe recommends Fluroquinolones as first line agent. However, the expert group involved in the Therapeutic Guidelines believed that 'restrictions on quinolone use should remain' (Antibiotic 14 minutes) because the infections in question were mild, with many likely to be cystitis. Urine culture was recommended in all cases, and quinolones were recommended when the causative organism was resistant to first-line drugs. Thus the restriction of quinolone prescribing in pyelonephritis reflects concern about the perpetuation of antimicrobial resistance with broad-spectrum drugs.

For severe infection

Patients with sepsis or vomiting	Gentamicin 4 to 6 mg/kg (severe sepsis: 7mg/kg) IV for one dose, then determine dosing interval for a maximum or either 1 or 2 further doses based on renal function PLUS Amoxy/ampicillin 2g IV, 6-hourly
Patients hypersensitive to penicillin	Gentamicin 4 to 6 mg/kg (severe sepsis: 7mg/kg) IV for one dose, then determine dosing interval for a maximum or either 1 or 2 further doses based on renal function
If gentamicin is contraindicated as a single drug	Ceftriaxone 1g IV, daily OR Cefotaxime 1g IV, 8 hourly

Note: These regimes do not provide adequate cover for *P. aeruginosa* or enterocci.

Subsequent treatment should be guided by susceptibility results and clinical response.

Developed by the ECI based on the [Acute pyelonephritis, eTG complete](#) [Internet]. Melbourne: Therapeutic Guidelines Limited; 2013 March.

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