



To De-escalate or To Discontinue? Ceftriaxone at Day 3 for Cystitis

Intravenous (IV) ceftriaxone is commonly prescribed empirically for cystitis in hospitalized patients. Duration of therapy with ceftriaxone in cystitis is not well defined. The 2010 Infectious Diseases Society of America guidelines recommends 3 – 7 days for β -lactams, but this duration is based on evidence in outpatients treated with oral β -lactams.¹ Day 3 of admission is often when urine culture identification and susceptibilities are resulted. After 3 days of IV ceftriaxone, should antibiotics be de-escalated based on cultures or discontinued altogether?

Is 3 days of ceftriaxone enough?

In one retrospective study, 51 patients receiving IV ceftriaxone for 3 days were compared with 49 patients receiving longer durations of therapy (median 6 days IQR, 5 – 7) with any antimicrobial agent for uncomplicated urinary tract infections (UTI). All patients in both groups achieved clinical cure defined as resolution of symptoms at 24 hours after therapy completion. No differences were seen in hospital length of stay or 30-day return visit for UTI.²

In another study, a single 500 mg dose of ceftriaxone administered intramuscularly (IM) was compared to 7 days or oral trimethoprim-sulfamethoxazole 1 double-strength tablet every 12 hours in college-aged women with cystitis. Cure at 1 week occurred in 92% (23/25) and 93% (27/29) of women receiving ceftriaxone and TMP-SMX, respectively. Cure at 4 weeks was 80% (20/25) and 87% (25/29) in women receiving ceftriaxone and TMP-SMX, respectively.³ IM and IV ceftriaxone urine concentrations are [similar over a 24-hour period](#).⁴

Key Takeaway: Inpatients with uncomplicated cystitis should have ceftriaxone discontinued after 3 days of total therapy if genitourinary symptoms have resolved.

References:

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