How Long Should Antibiotic Therapy Be Continued for an Uncomplicated, Symptomatic Lower UTI in an Elderly Woman?

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0.43–0.68). Nine studies (953 women) demonstrated a reduction in cesarean section rate (RR=0.52; 95% CI, 0.40–0.69). Amnioinfusion was also associated with a reduction of APGAR scores less than 7 at 5 minutes (7 studies, 828 women, RR=0.54; 95% CI, 0.30–0.97), low cord arterial pH (6 studies, 660 women, RR=0.45; 95% CI, 0.31–0.64), and postpartum endometritis (5 studies, 619 women, RR=0.45; 95% CI, 0.25–0.81). The authors noted that a major weakness of the review was that all studies were small and would not have detected any rare complications of amnioinfusion in the mother.

These findings are consistent with a 2000 meta-analysis that found intrapartum amnioinfusion for oligohydramnios was associated with fewer overall cesarean deliveries (13 studies, 1,487 patients; RR=0.40; 95% CI, 0.23–0.56; NNT=11) as well as improvements in other short-term measures of fetal outcome, including acidemia at birth, fetal heart rate abnormalities, and APGAR scores less than 7 at 5 minutes.

A 2009 RCT of 150 women with moderate-to-severe variable decelerations showed amnioinfusion was associated with significant relief of variable decelerations (absolute risk reduction [ARR]=74.6%; 95% CI, 64.4–84.8; NNT=1) as well as a decrease in the number of cesarean sections performed for nonreassuring fetal status (fetal distress) (ARR=12.0%; 95% CI, 0.019–0.259; NNT=7).

In a 2003 study of 160 women with intrapartum oligohydramnios confirmed by ultrasound with an amniotic fluid index less than 5, amnioinfusion was found to be associated with both a significant reduction in nonreassuring fetal heart tracing (ARR=23.8%; 95% CI, 0.094–0.382; NNT=4) and cesarean sections for fetal distress (ARR=15.0%; 95% CI, 0.046–0.254; NNT=7).

**How long should antibiotic therapy be continued for an uncomplicated, symptomatic lower UTI in an elderly woman?**

**Evidence-Based Answer**

Elderly women with symptomatic lower urinary tract infections (UTIs) should be treated for 3 to 6 days with oral antibiotics. This duration provides better short-term outcomes than 1-day therapy and has long-term outcomes equivalent to 7- to 14-day therapy. (SOR B, based on a systematic review of heterogeneous RCTs.)

A 2008 Cochrane meta-analysis of 15 RCTs with 1,644 women compared single-dose, short-course (3–6 days) and long-course (7–14 days) antibiotic treatment for uncomplicated symptomatic UTI in elderly women. Participants were >60 years with acute, uncomplicated lower UTI and a positive urine culture with >10^3 colony forming units and >5 leukocytes/mm³ in the urine. Studies including other patient populations (men, younger persons, individuals with asymptomatic bacteriuria) were included if they comprised <20% of all participants or if separate data were available for the elderly women.

The review cited 7 studies using the same antibiotic with differing duration and 8 studies that compared different antibiotics for different durations. Treatment regimens included sulfamethizole, trimethoprim, fosfomycin trometamol, cephalixin, and various fluoroquinolones. Six studies compared single-dose treatment with short-term (3–6 days) treatment, 3 studies compared single-dose with longer treatment durations (7–14 days) and 5 studies assessed short-term versus long-term treatment. The quality of the studies was highly variable. Nine of the studies were not blinded; the remaining 6 were either double- or single-blinded.

The findings were as follows:

**Single-dose vs short-course treatment:** The rate of persistent UTI at ≤2 weeks posttreatment was significantly higher for single-dose therapy compared with short-course treatment (RR=2.01; 95% CI, 1.05–3.84). At >2 weeks follow-up, the rate was similar in both groups (RR=1.18; 95% CI, 0.59–2.32). No significant effect was noted for clinical outcomes.

**Single-dose vs long-course treatment:** Persistent UTI decreased significantly for long-course treatment compared with single-dose therapy at short-term follow-up (≤2 weeks posttreatment) (RR=1.93, 95% CI, 1.01–3.70), but not at long-term follow-up (>2 weeks) (RR=1.28; 95% CI, 0.89–1.84).

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1. Hofmeyr GJ. Amnioinfusion for potential or suspected umbilical cord compression in labour. Cochrane Database Syst Rev. 2010; (4):CD000013. ([LOE 1a](#))


**What is the best way to manage asymptomatic Chlamydia infections found on screening nonpregnant women?**

**Evidence-Based Answer**

Nonpregnant women with *Chlamydia* should be treated with azithromycin or doxycycline. (SOR A, based on a meta-analysis.) Alternative therapies include erythromycin, levofloxacin, or ofloxacin, with preference for antibiotics being dispensed on site and directly observed. (SOR C, based on consensus guideline.) Further management should include patient-delivered partner therapy (SOR A, based on a meta-analysis) and abstinence until 7 days posttreatment for both patient and partners, and retesting at 3 to 12 months after therapy (SOR C, based on consensus guideline).

A meta-analysis identified 12 randomized English-language trials (N=1,543) comparing single-dose azithromycin with 7 days of doxycycline for the treatment of patients with genital *Chlamydia trachomatis* infection.1 The microbial cure rates at 2 to 5 weeks of follow-up were statistically equivalent: 96.5% for azithromycin and 97.9% for doxycycline. Subgroup analysis for multiple variables did not affect the results, publication bias was not evident.

The 2006 Centers for Disease Control and Prevention (CDC) guidelines recommend a single 1,000-mg oral dose of azithromycin or doxycycline 100 mg orally BID for 7 days as first-line therapies.2 Recommended alternatives include erythromycin base 500 mg 4 times a day for 7 days, erythromycin ethylsuccinate 800 mg 4 times a day for 7 days, ofloxacin 300 mg BID for 7 days, or levofloxacin 500 mg once a day for 7 days. This guideline was developed through a consensus conference of experts using a systematic review of the literature, but level of evidence and strength of recommendation indicators were not assigned.

Further CDC guidelines are not as closely linked to supporting evidence and appear to be based on opinion.2 To increase compliance, the CDC recommended that medications should be dispensed on site and the first dose should be directly observed. Patients should abstain from sexual intercourse until 7 days after a single-dose regimen or until completion of a 7-day regimen and until sexual partners have been treated.

Citing a high risk of recurrent infections during the next several months after resolution of a *Chlamydia* infection, the CDC recommends that women should be tested for recurrence in the next 3 to 12 months. Patients should refer all partners with whom they had sexual contact in the previous 60 days, or their most recent contact if their least sexual contact was more than 60 days ago. Patient-delivered partner antibiotic therapy is recommended as an option.2

A subsequent meta-analysis examined methods of partner notification for any sexually transmitted infection and further supports patient-delivered antibiotic therapy.3 A search of multiple databases without language restriction identified 6 studies (N=6,000) that compared simple patient referral of partners with patient-delivered partner therapy. All studies had weaknesses in randomization, allocation concealment, or number of dropouts. Compared with patients managed by simple patient referral, patients managed with patient-delivered partner therapy had lower rates of persistent or recurrent infection (summary risk ratio 0.73; 95% CI, 0.57–0.93).

Assuming a 10% incidence of persistent or recurrent infection in patients managed with simple patient referral, the number needed to treat with patient-delivered antibiotic therapy would be 27 to prevent 1 persistent or recurrent infection.3

**References**

