

Short Course Therapy for Community-acquired Pneumonia (CAP)

BOTTOM LINE: CAP can be safely and effectively treated with a 5 day course of antibiotic therapy.

- Current guidelines from the Infectious Diseases Society of America (IDSA) recommend that adult patients with community-acquired pneumonia (CAP) be treated for a minimum of 5 days (level I evidence), should be afebrile for 48–72 hours, and should have no more than one CAP-associated sign of clinical instability (Table 1) (level II evidence).¹
- There is no need to treat CAP until radiologic resolution; only to clinical improvement.
- Two meta-analyses found no difference in clinical and microbiological efficacy, relapses, or mortality between short- (less than or equal to 7 days) and long-course (greater than 7 days) antibiotic regimens in adult and pediatric patients with mild to moderate CAP.^{2,3}

NB: Exceptions: patients with bacteremic *S. aureus* pneumonia, necrotizing pneumonia, empyema, or lung abscess need longer than 5 days of therapy.⁴

Shorter durations of therapy (reduced overall antibiotic exposure) have the following benefits:^{2,4-6}

- reduces the selective pressure on bacterial flora thereby reducing the prevalence of antimicrobial resistance
- decreases collateral damage of antibiotic therapy:
 - o adverse events
 - o *C. difficile* infection
- better patient adherence
- decreased costs.

Did you know...?

Reducing the duration of antibiotic therapy is the antimicrobial stewardship strategy most likely to be effective in reducing antibiotic resistance.⁴

Table 1. Criteria for clinical stability in adult patients ¹	
Temperature	less than or equal to 37.8°C
Heart rate	less than or equal to 100 beats/min
Respiratory rate	less than or equal to 24 breaths/min
Systolic blood pressure	greater than or equal to 90 mm Hg
Arterial O ₂ saturation	greater than or equal to 90% or greater than or equal to 60 mm Hg on room air

Treat only for as long as is required to cure the infection.

References

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4. Hayashi Y, Paterson DL. Strategies for reduction in duration of antibiotic use in hospitalized patients. Clin Infect Dis 2011;52(10):1232-40.
5. File TM. Clinical efficacy of newer agents in short-duration therapy for community-acquired pneumonia. Clin Infect Dis 2004;39(suppl 3):S159-64.
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