

Optimizing Duration of Therapy: Is Shorter Smarter?



Antibiotic treatments have traditionally been prescribed for recommended durations (e.g. 7, 10 or 14 days). The problem with these recommended durations, however, is that they are often arbitrarily defined and not supported by evidence. As more studies examining duration of therapy emerge, it is becoming evident that shorter durations of therapy are effective and reduce the risk of antibiotic-associated harm.

MYTH	FACT	TAKE AWAY
"You should always complete your course of antibiotics, even if you feel better"	This common misconception is linked to the unsupported belief that shorter courses of therapy are more likely to lead to resistance. Mounting evidence has in fact shown that the opposite is true. Longer durations of therapy drive resistance by increasing selection pressure.	Help fight antimicrobial resistance by dispelling this myth. Engage in discussions with prescribers and patients about the benefits of using a shorter-course of antibiotic therapy.
"There is no harm in taking an antimicrobial agent for a longer period of time"	Longer durations of therapy are associated with increased risk of side effects, resistance, secondary infections (<i>C. difficile</i> or fungal) and a greater cost.	Remember that each additional day of antimicrobial therapy carries a risk, when a shorter duration is possible, consider it.
"It is alright to share my antibiotic with the people I know"	Taking an antibiotic that is unnecessary or taking the wrong dose/drug fuels resistance and could lead to serious patient harm (i.e. if drug is given to a child and the prescribed dose was for an adult).	Talk to patients about proper medication disposal and the importance of not saving or sharing unused antibiotics.

Evidence has demonstrated that a shorter duration therapy is effective in the treatment of the following common conditions:¹



Urinary Tract

- Uncomplicated cystitis can be treated in 1 to 5 day(s), depending on the antibiotic.
- For acute pyelonephritis, 7 to 10 days of therapy is associated with similar clinical and microbiological outcomes to longer therapy (14 days) in patients without urogenital abnormalities.



Respiratory Tract

- For pneumonia, there is no difference in clinical cure rates between shorter (≤ 7 days) and longer (> 7 days) durations of therapy in outpatients. Durations of 5 days are appropriate for uncomplicated community-acquired pneumonia (CAP).



Skin and Soft Tissues

- For uncomplicated cellulitis, 5 days of therapy is as effective as 10 days in achieving clinical improvement.

1. This list is composed of select common community conditions for which a shorter duration of therapy has been demonstrated to be effective; evidence is available for other infectious conditions not included here.



References

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