

Delayed antibiotic prescriptions for URTIs

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Clinical question

What are the advantages and limitations of delayed prescriptions for upper respiratory tract infections?

Evidence

A delayed antibiotic prescription involves advice to fill the prescription only if necessary.

- In a Cochrane systematic review,¹ 9 RCTs compared delayed and immediate antibiotic prescription.
 - Filled antibiotic prescriptions: 32% in delayed versus 93% in immediate groups.
 - Outcomes for delayed versus immediate groups (statistically significant differences reported)
 - bronchitis or common cold: no difference;
 - pharyngitis: 2 studies found fever severity at day 3 worse with delayed prescription, but other outcomes were not different;
 - otitis media: 1 study found pain severity and malaise at day 3 were worse with delayed prescription, but other outcomes were not different;
 - delayed prescription slightly reduces patient satisfaction (87% vs 92%; OR 0.52, 95% CI 0.35 to 0.76).
 - In 1 study, the reconsultation rate was lower with delayed prescriptions.
 - Adverse events: 2 studies found reduced diarrhea in delayed groups; other studies showed no differences.
- New RCT: In patients with past visits for cough who received antibiotics, delayed prescriptions significantly reduced reconsultation rates ($P < .001$).²

Context

- Earlier systematic review (4 RCTs) had similar findings.³
- Concerns with antibiotics include promoting resistant bacteria in the user and in the population,^{4,5} and frequent side effects (eg, rash, diarrhea).⁶
- Three RCTs compared delayed and no prescription¹:
 - 14% in the no-antibiotic group filled antibiotic prescriptions versus 32% in the delayed group.
- Delayed prescriptions are inappropriate when patients
 - present with worse symptoms⁷ (eg, in children with acute otitis media, those with fever or vomiting did worse with delayed antibiotics⁸),
 - have important comorbidities (eg, congestive heart failure),⁷ or
 - have barriers to accessing follow-up care.

Bottom line

Delayed prescriptions substantially reduce antibiotic use but might slightly worsen some symptoms compared with immediate prescriptions. Delayed

prescriptions might also reduce reconsultation rates. For mild upper respiratory tract infections they are not associated with important negative consequences.

Implementation

Various approaches have been tested to reduce inappropriate antibiotic prescribing while avoiding effects on patient satisfaction.^{9,10} This has been achieved through delayed prescription coupled with informative patient handouts and advice about pain and fever management.^{11,12} Patient information can be acquired from existing resources¹¹ (eg, the Centres for Disease Control¹³) or designed in-house.¹² The effect of handouts with delayed prescriptions to reduce antibiotics is sustainable in the long term.¹⁴

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