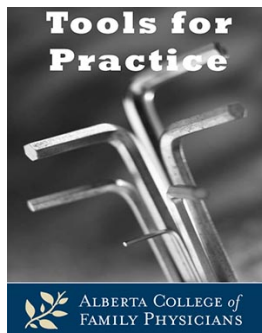


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**Reviewed: May 12, 2015**  
**Evidence Updated: RCT and systematic review added**  
**Bottom Line: Unchanged**  
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## **Advantages and limitations of 'delayed prescriptions' of antibiotics for upper respiratory tract infections (URTI)**

**Clinical Question: What are the advantages and limitations of 'delayed prescriptions' of antibiotics for upper respiratory tract infections (URTI)?**

**Bottom-line: Delayed antibiotic prescriptions substantially reduce antibiotic use but may slightly worsen some symptoms compared with immediate prescriptions. Delayed prescriptions may also reduce return to care rates and for mild URTI, are not associated with important negative consequences.**

### **Evidence:**

- A 'delayed antibiotic prescription' involves advice to fill prescription only if necessary.
  - Cochrane systematic review:<sup>1</sup>
    - Nine randomized controlled trials (RCTs) compared delayed to immediate antibiotic:
      - Filled antibiotic prescriptions: 32% in delayed group versus 93% in immediate.
      - Outcomes of delayed versus immediate (statistically significant differences reported):
        - Bronchitis or common cold: No difference.
        - Pharyngitis: Two studies found fever severity at day three worse with delayed but other outcomes not different.
        - Otitis media: One study found pain severity and malaise at day three worse with delayed but other outcomes not different.
        - Delayed slightly reduced patient satisfaction (87% versus 92%).
      - In one study, return-to-care rate lower with delayed.
      - Adverse events: Two studies found reduced diarrhea in delayed group; other studies showed no differences.
    - New RCTs:

- In patients previously prescribed antibiotics for cough, delayed prescriptions reduced return-to-care rates.<sup>2</sup>
- No difference among four different methods of delayed prescriptions in symptom severity, duration, return-to-care rates or patient satisfaction.<sup>3</sup>
  - Antibiotic use: 26% in no antibiotic group and 37% in delayed.

**Context:**

- Other systematic review had similar findings.<sup>4,5</sup>
- Concerns with antibiotics included:
  - May promote resistant bacteria in the user and in the population.<sup>6,7</sup>
  - Frequent side effects (e.g. rash, diarrhea).<sup>8</sup>
- Three RCTs compared delayed antibiotic to no antibiotic<sup>1</sup>
  - 14% in no-antibiotic group filled an antibiotic prescription versus 32% in delayed group.
- Delayed prescriptions are not appropriate when patients:
  - Present with worse symptoms<sup>9</sup> (for example, in children with otitis media, those with fever or vomiting did worse with delayed antibiotics).<sup>10</sup>
  - Have important comorbidities (e.g. heart failure).<sup>9</sup>
  - Have barriers to accessing follow up care.

**Original Authors:**

Noah Ivers MD CCFP, Bruce Arroll MBChB PhD FRNZCGP, G Michael Allan MD CCFP

**Updated:**

Adrienne J Lindblad BSP ACPR PharmD

**Reviewed:**

G Michael Allan MD CCFP

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