Delayed prescription reduced antibiotic use in the common cold

Arroll B, Kenealy T, Kerse N. **Do delayed prescriptions reduce the use of antibiotics for the common cold? A single-blind controlled trial.** J Fam Pract. 2002 Apr;51:324-8.

QUESTION

In patients with upper respiratory tract infections (common cold), does delaying prescription reduce the use of antibiotics?

DESIGN

Randomized {allocation concealed*}†, blinded (patients),* controlled trial with 10-day follow-up.

SETTING

A family practice with 15 physicians in Auckland, New Zealand.

PATIENTS

129 patients (mean age 25 y, 63% women) presenting with a new cold in which the patient requested or the physician thought the patient wanted antibiotics. Exclusion criteria were suspected tonsillitis, sinusitis, bronchitis, or pneumonia; lower respiratory signs; indication for an x-ray; history of rheumatic fever; serious illness; or antibiotic treatment in the previous 2 weeks. 95% completed the trial.

INTERVENTION

67 patients received a prescription for antibiotics with instructions to fill it after 3 days if symptoms failed to improve, and 62 patients received a prescription with instructions to start taking the antibiotic immediately. Patients in both groups were advised to return to their physician if symptoms worsened.

MAIN OUTCOME MEASURES

Antibiotic use (taking ≥ 1 dose), symptoms scores, and satisfaction.

MAIN RESULTS

Patients in the delayed-prescription group (27 of 56) were less likely to use antibiotics than were those instructed to take antibiotics immediately (54 of 61) (Table). A general linear model for repeated measures showed a higher mean temperature (0.2 °C) in the immediate-antibiotic group over the 10-day follow-up period (P = 0.04). No difference existed between the groups for satisfaction with the consultation or for symptoms when an intention-to-treat analysis with last outcomes carried forward was used or when only collected data were analyzed.

CONCLUSION

In patients presenting with the common cold, delayed prescriptions reduced antibiotic use.

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*See Glossary.

†Information provided by author.

Delayed vs immediate prescription for the common cold at day 10‡

Outcome	Delayed	Immediate	RRR (95% CI)	NNT (CI)
Antibiotic use	48%	89%	46% (29 to 60)	3 (2 to 5)

‡Abbreviations defined in Glossary; RRR, NNT, and CI calculated from data in article.

COMMENTARY

Overuse of antibiotics for acute respiratory infections wastes resources (both for the unnecessary drugs themselves and the subsequent visits [1]) and increases resistance. Shorter courses of antibiotics and patient education (2) are effective, as is offering a prescription but asking the patient not to use it for 3 days. The doctor's declaration of trust in the patient feels good, and patients like it (3).

But wait. Is this really honest? Implicit in this strategy is the message, "If you do not get better quickly, then starting antibiotics late will avoid some adverse outcome" (a more sinister complication or a prolonged illness, for example). However, such advice has no evidence to support it. And a moment's thought will suggest the opposite: Treatments are more effective when introduced early rather than late for spontaneously remitting illnesses (4). Is it impossible to change the attitudes of the community by carefully explaining the modest reduction of symptoms from antibiotics (none in the case of the common cold)? The delayed-prescription strategy reinforces the notion that antibiotics are effective, especially if they are used (late). We are undoing education! Perhaps we would be better pointing out the equally—if not more—effective benefits of other types of management for acute respiratory infections (5).

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