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Delayed prescriptions

Can reduce antibiotic use in acute respiratory infections

Although a reduction has occurred in the use of antibiotics for upper respiratory tract infections, international evidence indicates that they continue to be used for these conditions.¹ This is in spite of Cochrane reviews indicating minimal or no benefit from antibiotics for sore throat, acute bronchitis, the common cold, and otitis media. This situation of potentially inappropriate prescribing prompted one commentator to suggest the use of delayed prescriptions (also known as “back-pocket,” “back-up,” or “as needed” prescriptions).² These are prescriptions written with a proviso that they not be used immediately and only if symptoms do not improve.

The first randomised trial of delayed prescriptions for respiratory symptoms was undertaken by Little et al (1997), who gave antibiotics, with the prescription to be filled immediately or after three days, or no antibiotics for acute sore throat.³ The immediate group filled 99% of the antibiotic prescriptions whereas the delayed group filled only 31% with no apparent serious harms. In the group not given any antibiotics 13% ended up filling an antibiotic prescription after a return visit to the doctor. Critics of delayed prescriptions say that the strategy increases the use of antibiotics by comparing the 13% with the 31%. This is not how we see the use of delayed prescriptions. Their use should be restricted to those patients who request antibiotics or whom their doctor thinks they want an antibiotic yet does not think one is immediately indicated. However, only one of the randomised trials has examined such a specific group.⁴

Five controlled trials of delayed prescriptions have been published, conducted in patients with otitis media,^{5,6} sore throat,³ cough lasting seven days,⁷ and the common cold.⁴ In three trials the patients in the delayed prescription arm had more symptoms during the trial, which implies that patients are willing to tolerate some symptoms to avoid antibiotics.^{3,6,7} Ironically the study with the highest reduction in relative risk (75%) was the study in children with otitis media, in spite of the children having more symptoms.⁶ We speculate that parents may be more concerned about avoiding antibiotics in their children than in themselves—a view supported by a qualitative study of patients with sore throat.⁸

The largest reductions in antibiotic consumption occurred in the three studies which required patients to return to the surgery to collect the prescriptions.^{3,6,7} Although most of the studies had pick-up suggestions of three days or less, the study on acute cough, which suggested waiting seven days, still produced a

reduction in relative risk of 55%. An additional benefit of delayed prescriptions may be a reduction in repeat visits, at least for sore throat.⁹ The reduction in usage of antibiotics for infections of the upper respiratory tract through using delayed prescriptions is as effective as, and in many cases more effective than, educational projects.¹⁰⁻¹¹ However, no studies have directly compared delayed prescriptions with educational projects.

Some interesting insights have been obtained from qualitative work in patients and doctors on delayed prescriptions.¹² Not all general practitioners endorsed the use of delayed prescriptions—some had concerns that they may be missing or masking serious illness, with concomitant medicolegal issues. Some worried that their patients may consider them incompetent. General practitioners thought that the positive aspects of delayed prescriptions included avoiding side effects, reducing the drug bill, educating patients, and involving patients in decision making. Although reducing antibiotic resistance was a major issue for general practitioners it was not a concern for patients.¹² More education for patients around this issue may be warranted, and we suggest that the delayed prescription be used as a tool to help improve patients' knowledge about infectious disease and awareness of the need for monitoring their own progress.

Research is also needed on other methods of providing a barrier other than a patient's return to the practice if he or she is not getting better. Such barriers could be asking patients to wait seven days rather than three and post-dating prescriptions. If delayed prescriptions are to become routine then surgeries will need to have systems to hold the prescription at the front desk and to allow patients easy access for reassessment if concerned about their symptoms. They may also need to consider following up patients with delayed prescriptions to monitor adverse events.

In the qualitative research on delayed prescriptions several general practitioners no longer used this strategy, once their patients had become “trained” not to expect antibiotics. As prescribing becomes more rational the need for delayed prescriptions for respiratory tract infections may in time become redundant.

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Monitoring the medical education revolution

The impact of new training programmes must be evaluated

This is a time of great change in both undergraduate and postgraduate medical education. The General Medical Council's recommendations for *Tomorrow's Doctors*¹ have stimulated educational innovations and new curriculums in all British medical schools. Key changes include early patient contact from the beginning of the course; more emphasis on patient centred communication skills; an increased focus on ethics, culture, and ethnicity; and more training in the community. Different approaches to teaching are being introduced, such as special study modules to stimulate self directed learning,¹ problem based learning as a method of integrating different strands of the curriculum,² and shorter courses for graduates.³

At the same time postgraduate education is undergoing profound changes, with the "modernisation" of specialist training.⁴ The establishment of the Postgraduate Medical Education Training Board (PMETB, www.doh.gov.uk/medicaltrainingintheuk/pmetbord.htm), to set and maintain standards across all UK postgraduate medical training, will undoubtedly affect current practice. Moreover, with the introduction of appraisal and revalidation,⁵ the concepts of life long learning, portfolio careers, and accreditation for continuing medical education are here to stay.

Many of the educational initiatives that have been introduced both in and outside the UK seem logical, but educational policy is not necessarily being informed by evidence. Research in medical education is of value,⁶ but it is often ignored.⁷ Where is the clear evidence of effectiveness to argue for these changes?

The establishment of the Best Evidence Medical Education initiative (BEME, www.bemecollaboration.org), an international collaboration of medical educationalists who gather evidence to support educational interventions and make recommendations for good practice, has been a welcome advance. In 1999 the *BMJ* issued guidelines for evaluating papers on educational interventions.⁸ Medical education journals, including *Medical Education*⁹ and *Medical Teacher*¹⁰ have also asked for greater rigour in educational research.

Early last year the *BMJ* started a new section called Learning in Practice.¹¹ The section aims to break down

barriers between educationalists and clinicians, facilitate understanding of challenges in medical education, and stimulate those involved in teaching to think critically about how they do it.

Interesting and innovative educational initiatives are undoubtedly abundant, and we would like to encourage more submissions for the Learning in Practice section.⁸ To help further understanding of medical education and the many changes that are taking place, we are introducing a new page entitled "What the educators are saying" (p 1393). This will highlight important and interesting publications from the medical education literature. The aim is to ensure both an international perspective and to cover undergraduate and postgraduate issues.

Medical education is in the midst of a revolution and the pace is unlikely to slacken. There is an urgent need to monitor this new international culture in medical education, learn from each other's experiences, and establish evidence for best practice.

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