Are pharmacy-based minor ailment schemes a substitute for other service providers? A systematic review
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CRD summary
This review concluded that there was limited evidence suggesting that pharmacy-based minor ailment schemes were a suitable alternative to general practice consultations for symptom resolution rates, re-consultation rates, and costs, but the extent to which demand was diverted from high-cost settings was not determined. These cautious conclusions are likely to be reliable.

Authors' objectives
To explore the effect of pharmacy-based minor ailment schemes on patient health and cost outcomes and their impact on general practice.

Searching
Nine databases, including MEDLINE, EMBASE, and DARE, were searched from 2001 to 2011, without publication or language restrictions. Google and Google Scholar were used to search the Internet; Scopus was used for a citation search. The Royal Pharmaceutical Conference abstracts and the International Journal of Pharmacy Practice were searched by hand. Contacts at relevant organisations were asked to identify studies.

Study selection
Any study of a scheme in a community pharmacy, including those comparing the scheme with general practice, for the management of two or more minor ailments, was eligible. Studies had to report a health, cost or resource outcome, as described in the paper.

All the included studies were performed in the UK (all but three were in England). Most schemes covered a wide range of conditions, and most were of patients who were exempt from prescription charges. The most frequent conditions were head lice, diarrhoea, constipation, vaginal thrush, temperature, sore throat, indigestion, and hay fever. Initial comparison periods ranged from three to six months, where reported.

Two authors independently selected the studies, with disagreements resolved by discussion.

Assessment of study quality
Study quality was assessed using the criteria of the Cochrane risk of bias tool, the Critical Appraisal Skills Programme (CASP), or the Review Body for Interventional Procedures (ReBiP).

Two reviewers assessed study quality.

Data extraction
Two reviewers independently extracted the data, with disagreements resolved by discussion.

Methods of synthesis
A narrative synthesis was presented, with studies grouped by type of outcome.

Results of the review
Thirty-one studies were included: one randomised trial, six before-and-after studies, and 24 evaluations of a service. The reporting in the studies was described as often being poor, making bias assessments difficult. Further information was available from the authors on request.

The percentage of patients reporting the resolution of minor ailments after their index consultation ranged from 68 to 94 (four studies). The rate of consultation with a general practitioner (GP) after the index consultation (re-consultation) ranged from 2% to 23% (13 studies). Earache, cough, perceived severity of symptoms and patient dissatisfaction with
the perceived shorter treatment were the most frequent reasons for re-consultation (three studies).

Eight of the 10 studies that reported the number of medicines supplied by general practitioners showed a decline in prescribing volume, compared with baseline. Ten studies of preferences found that between 47% and 92% of patients would have seen their GP if no pharmacy scheme was available; buying an over-the-counter medicine was the second most popular choice. In 13 out of 17 studies of satisfaction, over 90% of users were willing to re-use the scheme and were satisfied with their overall experience. Both GPs and pharmacists generally expressed positive attitudes to the schemes (details were reported).

**Cost information**
The mean cost per pharmacy-based minor ailment consultation ranged from £1.44 (in 1999 to 2000) to £15.90 (in 2005). The pharmacy fee for a consultation ranged from £1.50 (1999 to 2000) to £7.85 (2009). One evaluation estimated that the savings to the NHS for England with pharmacy-based minor ailment schemes could be £112 million (in 2008 to 2009).

**Authors’ conclusions**
The symptom resolution rates, re-consultation rates, and costs suggested that pharmacy-based minor ailment schemes provided a suitable alternative to general practice consultations. The extent to which the schemes shifted demand away from high-cost settings was not determined.

**CRD commentary**
The review addressed a clear question, supported by reproducible eligibility criteria. Attempts were made to identify all the relevant studies in any language, by searching electronic databases and using other sources. Independent duplicate processes were used to reduce the risks of reviewer error and bias throughout the review. Study quality was assessed, with the authors advising caution when interpreting the review evidence, due to the poor reporting of the methods in the primary studies. A narrative synthesis appears to have been appropriate.

The authors’ conclusions were suitably cautious in reflecting the limited evidence, and they are likely to be reliable.

**Implications of the review for practice and research**
**Practice:** The authors stated that their results should help to reassure GPs that patients who sought treatment for their minor ailments in community pharmacies were likely to benefit with symptom resolution and low re-consultation rates.

**Research:** The authors stated that long-term randomised trials or cohort studies should assess and report patient outcomes, including health status, resolution of symptoms, and health-related quality of life. Full economic analyses were needed, and emergency departments, out-of-hours NHS services, and nurse-led minor ailments clinics should be assessed.

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contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on
the reliability of the review and the conclusions drawn.