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REVIEW ARTICLE

Cochrane review summary: interventions to facilitate shared decision making to address antibiotic use for acute respiratory tract infections in primary care

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Review question

Does facilitated shared decision making increase or reduce antibiotic prescribing for acute respiratory tract infections (ARIs) in primary care?

Relevance to primary care and nursing

Primary health-care professionals, particularly general practitioners and nurses, have a key role in prescribing antibiotics in adults and children with ARIs (National Institute for Health and Clinical Excellence, 2008).

Characteristics of the evidence

This Cochrane review contained nine cluster randomised-controlled trials, and one was a follow-up study of the original trial. They involved over 1100 doctors and around 492 000 participants and targeted clinicians providing primary care and/or patients reporting any combination of symptoms of ARI (less than four weeks' duration or the parents of similarly affected children) (Coxeter *et al.*, 2015). Four studies were conducted in Europe, two in the United Kingdom, two in Canada and one multinational trial was conducted across six European countries. They covered various multi-component interventions that focussed on shared decision making about antibiotic prescribing for ARIs in primary care. These included education and communication skills training that aimed to improve clinicians' understanding of ARIs such as information on symptoms, natural course of disease, benefit/risk of antibiotics, communicating risk, obtaining patients' key concerns and developing joint management plans. Training was delivered through interactive workshops, online and face-to-face format, videos, booklets and decision aids. Patients received education materials (eg posters, interactive booklets, decision support tools). Interventions were typically delivered by trained peers or facilitators in usual primary care settings and were compared with usual care.

Summary of key evidence

Included studies were overall of moderate to low quality based on the Grades of Recommendation, Assessment, Development and Evaluation. Meta-analysis was conducted where appropriate.

Risk ratios (RR) are given with 95% confidence intervals (CI) for outcomes reporting significant effects. The number of studies and participants are shown in parentheses where appropriate and

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evidence is summarised according to outcomes measured at various follow-up periods from short term (index consultation to less than six weeks) to longer term (>=12 months).

Primary outcome

Prescription of antibiotics

There was a significant reduction in antibiotic use of 39% in the short term (eight studies, $n = 10\,172$; RR 0.61, 95% CI 0.55–0.68), favouring the intervention group. Few studies provided longer-term results and the trend favouring the intervention group was non-significant.

Secondary outcomes

There was no significant increase in patient-initiated re-consultations for unresolved ARI and no effect on patient satisfaction with the consultation. There were insufficient data to examine the effects of the intervention on adverse clinical outcomes (such as hospital admissions, incidence of pneumonia and mortality), or patient/caregiver involvement in shared decision making (such as satisfaction with the decision reached, decisional regret or conflict or compliance with treatment). No studies assessed antibiotic resistance in colonising or infective organisms.

Implications for practice

Facilitating shared decision making is effective in the short term and this review provides useful pointers on interventions and training components that could be developed or adapted in different clinical practice environments. However, more evidence is required on longer-term reduction in antibiotic use and its effect on adverse clinical outcomes.

Implications for research

Longer-term follow-up studies are required to examine the maintenance of intervention effects and the cost-effectiveness. Further research should explore which components of the interventions are effective and what adaptations might be needed for effective implementation in diverse settings. User involvement in intervention development is important in shared decision making.

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Conflicts of interest

None.

References

Coxeter, P., Del Mar, C.B., McGregor, L., Beller, E.M. and **Hoffmann, T.C.** 2015: Interventions to facilitate shared decision making to address antibiotic use for acute respiratory infections in primary care. *Cochrane Database of Systematic Reviews* Issue 11, Art. No. CD010907. doi: 10.1002/14651858.CD010907.pub2.

National Institute for Health and Clinical Excellence 2008: Prescribing of antibiotics for self-limiting respiratory tract infections in adults and children in primary care. Retrieved 7 April 2016 from https://www.nice.org.uk/guidance/cg69/evidence/full-guideline-196853293.