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REVIEW ARTICLE

Cochrane review summary: interventions to increase influenza vaccination rates of those 60 years and older in the community

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Review question

Which interventions are effective in increasing vaccination rates for influenza in community-dwelling people aged 60 and older?

Relevance to primary care and nursing

Primary health care professionals including nurses are involved in delivering vaccination and immunisation services to prevent influenza in older people aged 65 and older, children and other eligible adults in clinical risk groups (Department of Health, 2014).

Characteristics of the evidence

This Cochrane review contained 57 randomised controlled trials (RCTs) targeting people aged 60 and older in the community, of which 25 were cluster RCTs. They were based in the United States (34), Canada (seven), Australia (four), United Kingdom (four), Spain (three) and one each from Denmark, Germany, Israel, New Zealand and Puerto Rico (Thomas and Lorenzetti, 2014). Included studies had to evaluate any intervention to increase rates of influenza vaccination in older people compared with another intervention or no intervention, and recording influenza vaccination status either through clinic records, billing data or local/national vaccination registers. Excluded studies were those without a case definition or studies comparing different types of vaccines, different schedules or doses without a control group, studies reporting only serological outcomes (without intervention to increase vaccination rates or actual vaccination rates) or self-report outcomes. The interventions were delivered by various health care professionals.

Summary of key evidence

Less than half the studies overall were of good quality. Owing to considerable heterogeneity, meta-analysis was limited to those trials where exposure, populations and outcomes were homogeneous. Odds ratio (OR) and 95% confidence intervals (CIs), and number of studies and participants are shown in parentheses where appropriate. Significance is shown as 95% CI >1.0.

The primary outcome was rate of vaccination against influenza according to types of interventions.

Interventions to increase community demand

Reminders to participants

A total of 16 RCTs (n = 592 165) evaluated reminders to patients, of which six reported 95% CI >1.0. Of 16 RCTs (n = 388 164), testing a personalised reminder, seven trials reported 95% CI >1.0. Three trials (n = 64 200) of letter plus

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leaflet were more effective than letter (OR 1.11, 95% CI 1.07–1.15), a small trial of a phone call from a senior ($n = 193$, OR 3.33, 95% CI 1.79–6.22) and a telephone intervention versus drop-in clinic were effective ($n = 243$, OR 2.72, 95% CI 1.55–4.76).

Educating and vaccinating patients

Two trials ($n = 614$) of nurses/pharmacists educating plus vaccinating patients versus no intervention were effective (OR 3.29, 95% CI 1.91–5.66).

Interventions to increase access

Group visits by patients to health care professionals

One RCT ($n = 321$) was effective (OR 24.85, 95% CI 1.45–425.32), but the CI is wide.

Home visits with an encouragement to receive influenza vaccination

Two RCTs ($n = 2112$) of home visits versus an invitation to attend a clinic increased uptake (OR 1.30, 95% CI 1.05–1.61). One trial ($n = 1927$) of a nurse home visit or group sessions plus a care plan developed with a physician to no intervention was effective (OR 1.68, 95% CI 1.37–2.07).

Offer of free influenza vaccination

Two studies ($n = 2250$) showed evidence of effectiveness (OR 2.36, 95% CI 1.98–2.82).

Provider- or system-based interventions

Reminders to physicians

Of four RCTs ($n = 202\,264$), one small study ($n = 316$) reported increased rates from reminding physicians of all patients versus half the patients (OR 2.47, 95% CI 1.53–3.99). Another study ($n = 8376$) of displaying posters in offices was effective compared with no intervention (OR 2.03, 95% CI 1.86–2.22), but not compared with posters in clinics.

Facilitators working with physicians and other health care workers in practices

Of four RCTs ($n = 3583$), one study was effective (OR 2.11, 95% CI 1.27–3.49).

Education and feedback to physicians

Of three RCTs, one study ($n = 1360$) that evaluated chart review and feedback plus benchmarking was effective (OR 3.43, 95% CI 2.37–4.97) and another trial of outreach and feedback versus written feedback ($n = 27\,580$) decreased rates (OR 0.77, 95% CI 0.72–0.81).

Financial incentives to physicians for increasing influenza vaccination uptake

Two RCTs of paying physicians versus no intervention ($n = 2815$) reported a significant effect (OR 2.22, 95% CI 1.77–2.77).

Interventions on the societal level

There were no RCTs at the societal level, although these interventions (eg, government policies) are correlated with increase in influenza vaccination rates.

Implications for practice

Personalised and tailored reminders to participants, for example, postcards or phone calls are effective, and home visits, and facilitators, may be effective. Reminders to physicians are not, although the overall quality of the studies was mixed. There is a lack of good evidence for other interventions.

Implications for research

High-quality studies are required to identify how to maximise vaccination uptake, to compare home visits that encourage vaccination to other outreach programmes providing vaccinations. Research on reminders linked to guidelines may be of value to physicians. Cost-effectiveness of interventions, for example, facilitators in practices and identifying the most effective models of learning are needed. Validation of vaccination history may improve the completeness and accuracy of outcome data.

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Conflicts of Interest

None.

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