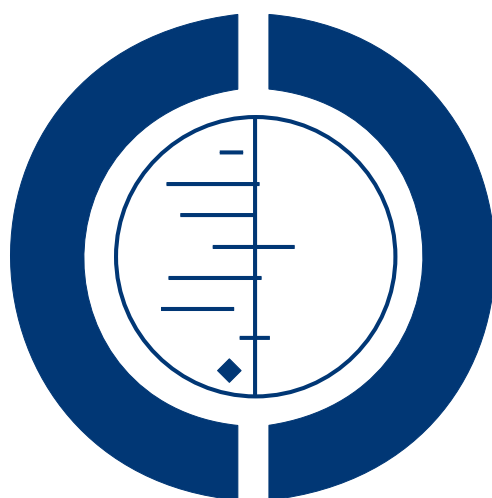


Use of electronic health records to support smoking cessation (Review)

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Use of electronic health records to support smoking cessation

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ABSTRACT

Background

Health information systems such as electronic health records (EHR), computerized decision support systems, and electronic prescribing are potentially valuable components to improve the quality and efficiency of clinical interventions for tobacco use.

Objectives

To assess the effectiveness of electronic health record-facilitated interventions on smoking cessation support actions by clinicians, clinics, and healthcare delivery systems and on patient smoking cessation outcomes.

Search methods

We searched the Cochrane Tobacco Addiction Group Specialised Register, CENTRAL, MEDLINE, EMBASE, PsycINFO, CINAHL, and reference lists and bibliographies of included studies. We searched for studies published between January 1990 and July 2014.

Selection criteria

We included both randomized studies and non-randomized studies that reported interventions targeting tobacco use through an EHR in healthcare settings. The intervention could include any use of an EHR to improve smoking status documentation or cessation assistance for patients who use tobacco, either by direct action or by feedback of clinical performance measures.

Data collection and analysis

Characteristics and content of the interventions, participants, outcomes and methods of the included studies were extracted by one author and checked by a second. Because of wide variation in measurement of outcomes, we were not able to conduct a meta-analysis.

Main results

We included six group randomized trials, one patient randomized study, and nine non-randomized observational studies of fair to good quality that tested the use of an existing EHR to improve documentation and/or treatment of tobacco use. None of the studies included a direct assessment of patient quit rates. Overall, these studies found only modest improvements in some of the recommended clinician actions on tobacco use.

Authors' conclusions

Documentation of tobacco status and referral to cessation counselling appears to increase following EHR modifications designed to prompt the recording and treating of tobacco use at healthcare visits. There is a need for additional research to enhance the potential of EHRs to prompt additional tobacco use treatment and cessation outcomes in healthcare settings.

PLAIN LANGUAGE SUMMARY

Does use of an electronic health record improve the delivery of stop smoking treatment to patients?

In many countries a large investment is being made in technology to computerize patient medical records. One potential of electronic health records (EHR) is that they could be used to remind doctors and other clinic staff to record tobacco use, to give brief advice to quit, to prescribe medications and to refer to stop smoking counselling. They could also help refer people to these services and be used to measure how well a clinic was doing. EHRs could also help make the delivery of tobacco use treatments standard practice by providing electronic referrals for additional treatment services (e.g., referral to a telephone tobacco quit line). We included 16 studies in this review, nine of which were observational studies so were lower quality than randomized controlled trials. Of the recommended actions for doctors with tobacco using patients we found only modest improvements associated with the EHR changes. Specifically, documentation of tobacco use and referral to cessation counselling appear to increase following EHR changes. However, these studies did not test for and/or demonstrate an increase in the number of people who quit smoking.