

Opportunistic reminders
and other influences
on the performance of preventive activities
in consultations in general practice

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4 Abstract

Introduction

Eighty five per cent of Australians visit a GP each year, but do not receive all of the preventive care which is indicated for them. There have been no controlled trials of the effects of on-screen preventive care reminders in Australian general practice, and there is little published research examining characteristics of patients, doctors and consultations associated with the performance of preventive services in general practice. This study aimed to measure the effects of opportunistic reminders and to explore previously unexamined patient, GP and consultation factors associated with performance of preventive activities. The hypotheses were: a) that general practitioners who were using a computer medical record system would take at least fifteen per cent more of opportunities to perform preventive care activities if they were reminded; b) that this would occur without any significant increase in the number of consultations or in patient billings; and c) that every characteristic of patients, GPs, consultations and preventive opportunities would be significantly associated with the performance of the preventive activities.

Method

All patients who attended a ten GP fully computerised practice during one year were enrolled and randomised either to an intervention group, for whom the GPs received opportunistic on-screen reminders about eleven preventive activities, or to a 'usual care' control group. Performance by the GPs of the preventive activities was recorded automatically and correlated with routinely-collected demographic and clinical information about the patients and billing data.

Results

For the intervention group compared to the control group, the GPs took thirty two per cent more of the preventive opportunities without any increase in numbers of services or in patient billings. Every characteristic of patients, GPs, consultations and preventive opportunities was independently associated with the performance of at least two of the preventive activities.

Discussion

This trial has shown that a low cost minimally-intrusive intervention in the form of automated opportunistic reminder messages can significantly improve GPs' performance of preventive care activities. The findings of this trial may help to improve the design and effectiveness of opportunistic reminders in clinical software, and provide direction about possible changes to the health system which may foster increased provision of preventive care.

5 Statement of original work

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

I give consent to this copy of my thesis, when deposited in the University Library, being available for loan and photocopying.

Oliver Frank

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7 Glossary

Abbreviations and acronyms for preventive activities discussed

ALLE	Recording of patient's allergies
BP	Recording of patient's blood pressure, as screening for hypertension
DIAB	Recording of patient's serum glucose, as screening for diabetes mellitus
FLU	Administration of influenza vaccine
LIPI	Recording of patient's cholesterol level, as screening for hyperlipidaemia
MMR	Administration of measles, mumps and rubella vaccine
PAP	Cervical smear (Papanicolaou) test
PNEU	Prescribing of pneumococcal vaccine
SMOK	Recording of patient's smoking status
TET	Administration of tetanus vaccine
WT	Recording of patient's weight

Experimental groups

The expression 'experimental groups' throughout refers to both of the groups (intervention and 'usual care' control groups) to which patients were randomised for the study described in this thesis.

Statistical presentation

All confidence intervals shown are 95% unless otherwise stated.