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Clinical software packages can be improved to help general practitioners to increase provision of preventive care

Australian Journal of Primary Health, 2022; OnlinePubl: 1-5

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31 January 2022

<http://hdl.handle.net/2440/134212>

Paper title

Clinical software packages can be improved to help general practitioners to increase provision of preventive care

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Ethics approval

Not required

Conflicts of interest

PenCS invited me to address its National PHN Conference in Sydney in November 2017 and paid my travel and accommodation expenses. I have collaborated informally for several years with the author of the Doctors' Control Panel software, which I have used in a number of research projects. I have no financial interest in the Doctors' Control Panel software and have not received any payment from Doctors' Control Panel Pty Ltd. I am paid by MedicalDirector to serve on its Clinical Advisory Panel.

Declaration of funding

This research did not receive any specific funding.

Acknowledgements

None

Abstract

Despite the importance of prevention in general practice, electronic clinical record systems used in Australian general practice do not present a comprehensive overview of each patient's preventive care status to general practitioners or to patients. Data relevant to prevention is scattered between different parts of the patient's record. On-screen reminders to general practitioners are simplistic and easily overlooked and no reminders are sent automatically to patients. There is no structured means to note a patient's refusal of or ineligibility for a particular preventive activity. Electronic clinical record systems should be enhanced to allow patients to be invited automatically at appropriate times to review and respond to comprehensive information and advice about

preventive care that is recommended for them. Users of electronic clinical record systems will need to lobby their software vendors to have the proposed enhancements made.

Main document

Educating patients about preventive care that is recommended for them and offering and providing or arranging that care is one of the most important tasks and roles for general practitioners (GPs) (Royal Australian College of General Practitioners 2021, Royal Australian College of General Practitioners 2021). Patients expect and welcome advice from their GPs about preventive care (Frank, Stocks et al. 2011, Mazza, Shand et al. 2011, Frank, Aylward et al. 2014), but “rated their general practitioners as poor at delivering prevention” (Mazza, Shand et al. 2011).

Routine preventive care aimed at primary prevention and at early detection of disease should be able to be provided reliably, consistently and thoroughly, because the evidence-based guidelines published by the Royal Australian College of General Practitioners (Royal Australian College of General Practitioners 2021) advise how often the different activities should be performed for which kinds of patients, making the due date for each activity that is recommended for each patient predictable. The RACGP’s guidelines cover a wide range of primary preventive activities (for example, vaccination and advice not to start smoking) and activities to detect disease early, including history (for example, family history and smoking history), examination (for example, waist circumference and blood pressure) and investigations (for example, serum lipids and screening for colorectal cancer). The comments and proposals in this article are relevant to all of these types of preventive activities.

Challenges for GPs in providing recommended preventive care reliably, consistently and thoroughly include:

- differing combinations of preventive activities are recommended for patients of differing ages, sexes, family history and personal health history, and the combination for each patient changes as the patient ages and their family and personal health history changes
- recommendations for preventive activities change frequently
- patients’ attitudes towards different preventive activities vary and change
- GP are busy dealing with patients’ life and health events, including acute illness and chronic conditions

Most electronic clinical record software packages marketed for use in Australian general practices provide automated on-screen reminders about a range of preventive activities. Limitations of these reminders include:

- There are no reminders about some national priority and other important some health problems, including screening for bowel cancer, screening for osteoporosis, educating 45 year old women about possibly imminent peri-menopause, and reminders based on recorded family history
- The reminders are usually simple “X is due now” text and usually provide no details of previous performances of the activity
- The reminders are presented automatically only to GPs and practice nurses and not to patients, who have the greatest interest
- The reminders are not prominent on the GP’s computer screen and can easily be overlooked.

Some software packages described as ‘third party’ or ‘partners’ by the vendors of ‘comprehensive’ clinical software packages offer more sophisticated reminders for a wider range of preventive activities displayed more effectively, and are beginning to send reminders to patients automatically (PenCS, Knieriemen 2021).

There is no structured means in any software package to record a patient’s refusal for one or more preventive activities, the reason for that refusal and whether that refusal is temporary or permanent, or the GP’s assessment that a preventive activity is not indicated for a patient, the reason and whether the patient’s ineligibility is temporary or permanent. This is important for quality care and to protect the GP if a patient has an adverse outcome resulting from not having received a relevant preventive activity. For example, a patient who is found to have bowel cancer and who has not been screened for it could claim that their GP was negligent in not advising them to be screened or in following up until it was done.

Despite the importance of prevention in general practice, Australian electronic clinical record systems do not provide any comprehensive overview of the patient’s preventive care status. This might be a legacy of the historical development of some of the most-widely used electronic clinical record systems, which initially provided only a means of generating prescriptions on paper, with various other functions being added piecemeal. Information about different preventive activities is scattered between the patient’s family history, diagnosis or problems list, tobacco smoking record, progress notes, observations, pathology reports, the list of recalls sent and a list of reminders. If an indicated preventive activity has not been performed for a patient, the record is usually silent about whether that activity has been offered to the patient. If it has been offered, any explanation of why it has not been performed is buried in the progress notes. A comprehensive overview would present details about all preventive activities that are indicated for the patient (Table 1). The most comprehensive currently available overview of a patient’s prevention is provided by the Doctors Control Panel software (Knieriemen 2021).

The patient should be invited automatically at appropriate times to view a comprehensive overview of her or his preventive care status. Appropriate times would include before a booked consultation, before the creation or review of a GP Management Plan or whenever a change to a guideline or authoritative recommendation for a preventive activity relevant to the patient requires action by the patient. The patient should be able to respond online indicating interest in and agreement or otherwise to having each of those preventive activities performed, or whether she or he wishes to discuss any of the activities with the GP or practice nurse. A note about any viewing of this information by the patient should be added automatically as a progress note to the patient’s electronic clinical record, as should any responses entered by the patient.

A full audit trail needs to be easily viewable. This should include a copy of the prevention status display that the patient saw when they viewed it on any date.

A smaller summary table should be on screen constantly during consultations and at any time that the patient’s record is accessed, showing activities that are due to be performed immediately or imminently, with clickable links to the full details in the comprehensive table.

Software vendors who are not practising GPs find it hard to know or to anticipate what new functions patients, GPs and practice nurses might find useful. GPs who want to have these functions in their clinical software should ask their vendor to implement them or might choose to change to using a package that provides these functions.

Table 1. Examples of data about preventive activities that could be displayed on screen in an attractive and easily-read format, in varying order for different people who are viewing it.

	Blood pressure	Screening for colorectal cancer
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GP's assessment of patient's eligibility for this activity	Assessed on 25/02/2019 by Dr. Fictitious Name as eligible	Assessed on 17/04/2020 by Dr. Fictitious Name as eligible
Patient's agreement for or refusal of this activity, or a notation that the patient seeks more information and discussion about it	Agreed on 02/03/2019	Refused on 17/04/2020
Details of previous performances of this activity: date, finding or result, planned date for the next performance	02/03/2019: 128/78: due 02/03/2021 15/11/2020: 116/62: due 15/11/2022	
Communications between practice and patient	11/09/2018 1231 hours SMS to 0444 444 444 Dear Susan, We want to help you to stay well. Important preventive care is due now for you. Please view [URL] and please ask me about this at our appointment at [time] on [date]. Regards, Dr. Fictitious Name. Response from patient: 11/09/2018 1546 hours Thanks	17/04/2020 1405 hours SMS to 0444 444 444 Dear Susan, We want to help you to stay well. Important preventive care is due now for you. Please view [URL] and please ask me about this at our appointment at [time] on [date]. Regards, Dr. Fictitious Name. Response from patient: 17/04/2020 1913 hours Not interested in this
Details of missed opportunities to perform the activity since it became due: date, name of GP, any recorded reason for non-performance	07/05/2018: Dr. Fictitious Name 21/08/2018: Dr. Also Fictitious: acute illness	
Indication and source of recommendation	BP should be measured in all adults from 18 years of age (A) at least every two years. https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/guidelines-for-preventive-activities-in-general-pr/prevention-of-vascular-and-metabolic-disease/blood-pressure	Organised screening by iFOBT is recommended for the asymptomatic (average risk) population from 50 years of age every two years (A) until 74 years of age with repeated negative findings. https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/guidelines-for-preventive-activities-in-general-pr/early-detection-of-cancers/colorectal-cancer
Plain English explanation of the preventive activity	https://www.heartfoundation.org.au/heart-health-education/blood-pressure-and-your-heart	https://www.cancer.org.au/cancer-information/types-of-cancer/bowel-cancer

[URL] is a link to the comprehensive listing of all preventive activities indicated for the patient, that highlights activities that are due now or imminently.

Data availability statement

No data was generated for this article.

Declarations

PenCS invited me to address its National PHN Conference in Sydney in November 2017 and paid my travel and accommodation expenses. I have collaborated informally for several years with the author of the Doctors' Control Panel software, which I have used in a number of research projects. I have no financial interest in the Doctors' Control Panel software and have not received any payment from Doctors' Control Panel Pty Ltd. I am paid by MedicalDirector to serve on its Clinical Advisory Panel.

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