

# Providing "Just-in-Time" Preventive Care Advice

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## THE INNOVATION

The problem that we are trying to solve is the low uptake of preventive care advice. Unfortunately, many opportunities for family physicians and practice nurses to provide preventive care are missed,<sup>1</sup> and reminders that are e-mailed or texted to patients, advertised on posters, or presented to clinicians on screen are often ineffective. Patients have the strongest interest in receiving preventive care but may not know what preventive care they need, when and if such care was last performed, what the result was, or when it is due next.<sup>2</sup>

Our innovation provides individualized preventive care information to patients when they are waiting to see their health professional so they can act upon it there and then. It uses information about patients' risk factors, medical history, and past preventive care to prioritize what they should receive now or in the near future.

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## WHO & WHERE

Our innovation is in place for patients attending family medicine practices in Australia. While the software that we have developed is usable only with clinical records used in most Australian family medicine practices, software that performs the same functions could be developed in other countries.

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## HOW

A.K. had developed Doctor's Control Panel (DCP),<sup>3</sup> add-on software that works during visits to compare authoritative guidelines for preventive care<sup>4</sup> with data in the patient's electronic clinical record to generate an on-screen prevention summary for the family physician or nurse, highlighting preventive and other care that is due.

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*Conflict of interest:* Anton Knieriemen is the proprietor of Doctors Control Panel Services and author of the Doctors Control Panel software. Oliver Frank and Nigel Stocks have conducted research studies using the software. The studies were funded by competitive grants awarded by research foundations.

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O.F. suggested that giving this information to patients could enable them to become more active in their own care. The two worked together to enhance the DCP software so that when patients arrive for a visit at their family practice, the software automatically generates and prints this information for patients in language that they can understand (Supplemental Appendix 1). The receptionist hands the sheet to the patient to read while waiting and encourages the patient to discuss the recommendations with his or her health professional during the visit.

The software can suppress generation of the sheets in specified circumstances, including when the patient is "new" (has had fewer than x visits to the practice); when the patient is not seeing his or her usual family physician (defined as the one seen for more than 50% of visits during the preceding 12 months); when a sheet was printed for the patient less than x months ago; and when the appointment is for one of a range of practice-specified purposes, such as wound dressing. Most patients show the sheet to the family physician or nurse. They discuss the information and advice and take whatever action they agree on.

We have also used the software to recruit patients for clinical trials, matching the inclusion and exclusion criteria of the trials with the patient's demographics and recorded health history and status. We believe it could also be used to improve patients' understanding and care of their chronic condition and to educate parents about childhood milestones or immunizations for their children.

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## LEARNING

From our pilot studies<sup>5,6</sup> we have learned that our intervention is feasible, acceptable to patients and to practices, and sustainable, with most patients reporting that they addressed some or all of the preventive care listed on the sheets that they received. We are conducting further trials to assess the effect of this intervention on the performance of various elements of preventive care and care of chronic conditions. We are exploring strategies that might make our intervention more effective, such as prioritizing particular preventive care or other services to be listed on the sheets or modifying the text.

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**Key words:** reminder systems; preventive care; patient self-efficacy; health care quality assurance

**Author affiliations, references, and the supplemental appendix are available at <http://www.AnnFamMed.org/content/15/3/276/suppl/DC1/>.**