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Prospective evaluation strategy for implementation of a web-based care planning and communication system in general practice

Introduction

♦ Global burden of chronic disease is increasing rapidly and is projected to account for 75% of all deaths by 2020 (World Health Organization 2004).

♦ Effective prevention and management of chronic disease is a key policy objective of the Australian health system. It relies on coordinated care from a multidisciplinary team [1].

♦ A personalized care plan which outlines goals, treatment services and care to achieve those goals make it easier for General Practitioners (GPs) to manage the care for patients with chronic medical conditions, including patients needing multidisciplinary care [2].

♦ E-health technologies and systems and a change in traditional business processes can play an active role to benefit health care providers and patients.

Introduction (2)

♦ Health*Connect* is a national strategy to improve safety and quality in health care by establishing a range of standardised electronic health information products and services for health service providers and consumers.

♦ Health*Connect* South Australia is conducting a 12 month trial of a web-based care planning and communication system for primary health care management of patients with chronic conditions.

♦ Department of General Practice at Flinders University is conducting a formal, independent evaluation on the trial to determine aspects that affect the implementation and uptake of such an innovative system in primary health care.

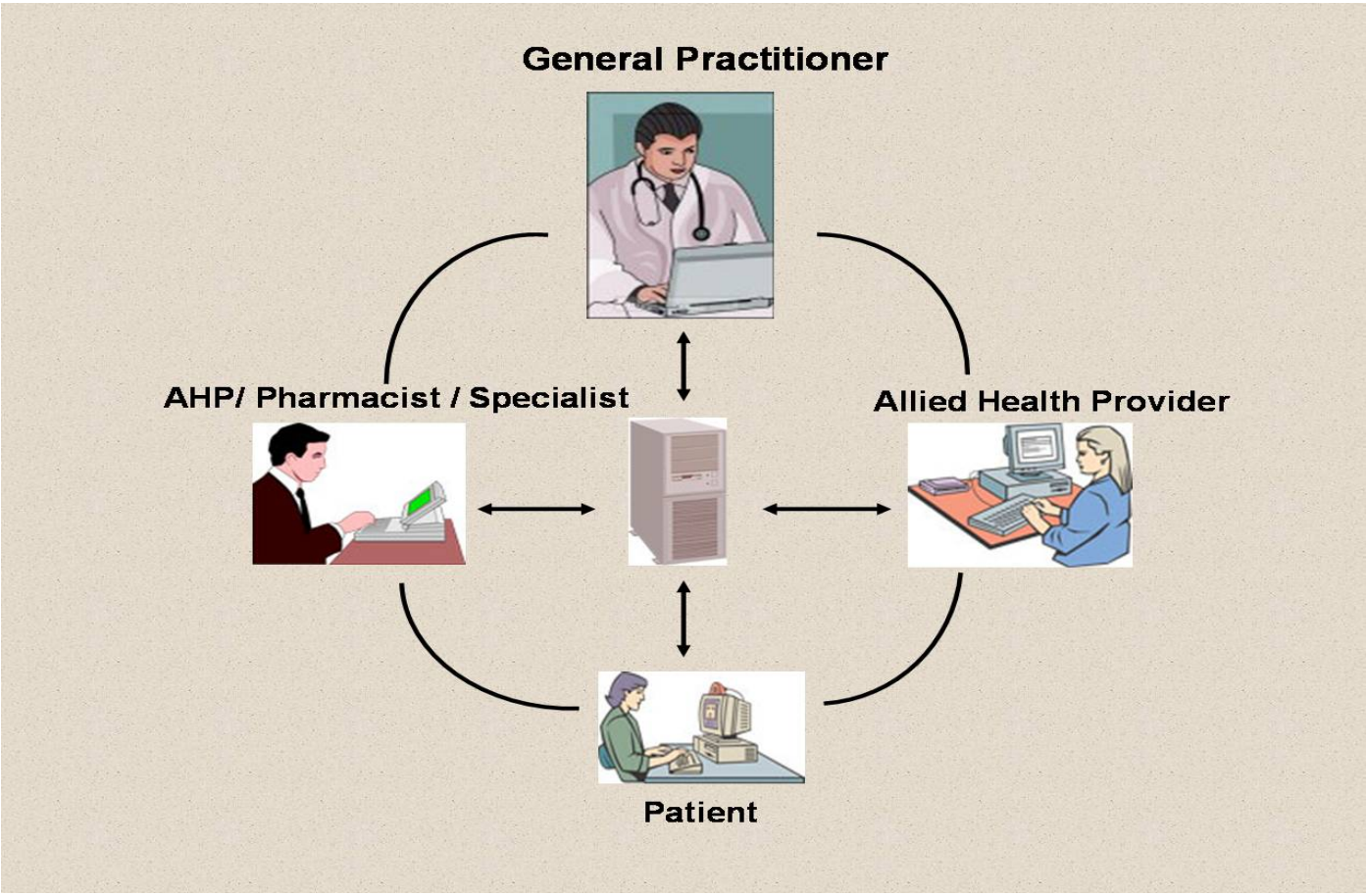
Innovative health systems

A critical factor for adoption of an innovative electronic system into clinical practice is to have a clear and unambiguous advantage for the users [3,4].

Issues such as timing of events, acquisition and delivery of resources, and development of human resource support structures [5] must be addressed to implement such as system.

The trialled web-based system (OzDocsOnline) enables health providers to work together to improve the management of chronic conditions. It is a tool enabling health care providers to create, share and store care plans (GPMPs and TCAs) on a secure server. Patients are able to access their care plans securely via the Internet.

The care planning system



Web-based care planning and communication system

Evaluation Methods

A prospective, formative evaluation methodology using mixed qualitative and quantitative techniques is designed to:

- determine the factors that influence the diffusion of an innovative system for electronic care planning in primary health care
- meet the information needs of Health*Connect* SA for implementation of a state-wide care planning system at the end of the trial (what makes an electronic care planning system effective for management of chronic conditions?)

Evaluation Methods (2)

Information sources	Purpose
Surveys of General Practices	Practice characteristics, expectations, attitudes
Interviews with Division liaison officers	Progress, implementation issues
Case studies	Effects in different contexts
Focus groups with health providers, consumers	Perception of system effects
Monitor Medicare item numbers, web based system	Extent of use

Participants

Current trial participants :

- Three divisions of General Practice in urban and rural South Australia
- 35 general practices
- 70 General Practitioners
- 200 allied health providers (dietitians, physiotherapists, podiatrists, psychologists, social workers, occupational therapists, etc)
- 15 specialists / pharmacists
- 45 patients with electronic care plans

Interim results at 6months

Factors which influence the adoption of an electronic care planning system in primary health care:

1. **Proper timing of events** – implementation at the right moment and proper scheduling of the implementation steps;
2. **Strong organizational structure** – strong personal relationships between the implementers and the adopters;
3. **Effective implementation activities** – effective promotion methods (existing networks, information evenings, newsletters), dissemination of adequate communication/promotion materials;
4. **Adequate resources** – proper IT equipment, secure broadband connection, prior computer knowledge, prior experience with EPC items, adequate training in the new system;

Interim results (2)

5. **Comprehensive and timely support** – central helpdesk support, email address for enquiries, phone/mobile phone support, user manuals for the system;
6. **Motivated adopters** – financial incentives in the training phase to encourage the uptake of the new system, broadband security grants;
7. **High-level system effectiveness – the system needs to be**
   - simple and fit with existing clinical systems (such as medical director) and processes,
   - easy to learn and use for all parties,
   - facilitate communication and collaboration in health care team,
   - accessible at point of care,
   - secure, protect medical information and patient privacy,
   - make a positive difference to time and revenue for health providers and to health outcomes for patients.

Discussion and Conclusions

Adequate evaluation of health informatics initiatives is essential for efficiency and effectiveness of future initiatives [6].

The proposed evaluation methodology identified seven factors which influence uptake and use of a secure web-based system.

Addressing these factors will enhance the likelihood of successful implementation and adoption of electronic care planning and communication in primary health care settings.

References

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