The use of computers to support improvements in the safety and quality of general practice

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- *George Pompidou*
- *Once President of France*

- "There are three roads to ruin; women, gambling and technicians.
- "The most pleasant is with women, the quickest is with gambling…
- but the surest is with technicians."

Do you use a computer in your practice while you see your patients?

- 1 / A – YES

- 2 / B – NO

Would you like to use a computer while you see your patients?

- 1 / A – YES

- 2 / B – NO

A computer can be a useful tool in general practice and can support the quality and safety of the care we provide as GPs

But as GPs we need to be able to see the benefits before we will start to use computers

Support for the use of computers

- I want to provide the best quality care I can
- I need to have access to the latest evidence to support clinical care
- I need to have access to all important information so as to provide the best advice and care to my patients
- I need to be confident in my safe use of medicines, treatments and investigations

Computerisation of Australian General Practice

- 90% of Australia's GPs use a clinical software package. Of these GPs:

- 98% e-prescribing

- 88% check drug-drug interactions

- 85% order pathology tests

- 78% patient recall for follow up and continuing care

- 64% record progress notes

- <20% access computerised information on the internet during consultations

- **Ref: DK McInnes, DC Saltman, MR Kidd. GPs' use of computers for prescribing and electronic health records. MJA 2006;185:88-91**

- Australian general practice has achieved near universal clinical computerisation.
- Electronic prescribing alone has improved efficiency and quality of care, and reduced medication errors.
- Increasing the use of other functions, such as accessing online decision support and maintaining registries of patients, will lead to further health gains, especially in managing chronic conditions.

How did we computerise Australian general practice?

- 4 key steps

- GPs could see a benefit – electronic prescribing
- Government provided financial incentives
- Affordable prescribing software was available
- The profession led the computerisation process, with the support of patient groups, government and software industry all working together – the General Practice Computing Group

Identify the key application for your professional group

Prescribing support for GPs

Dispensing support for pharmacists

Voice recognition and digitisation of images by radiologists

Telehealth adoption by rural clinicians

- **The importance of a national ehealth strategy**
- *Health Online* **- A Health Information Action Plan for Australia**

- **Mission:**
- "To improve the delivery of health care and achieve better quality of care and health outcomes through effective and innovative use of health information".

  http://www.health.gov.au/healthonline

Rule of 5's for computer applications

- Canadian Centre for Health Evidence

- 5 seconds or less to come up
- 5 clicks or less to get the information required
- 5 minutes or less to learn to use application
- User should need to use the application at least 5 times per week

Three key ways to improve the quality of clinical practice using IT today

Electronic medication management

Prompts from computerised decision support systems to support the care we provide

Communication between health care workers

Electronic medication management and prescribing

- Information on Medications
- Alerts about possible contraindications
- Alerts about possible adverse reactions and allergy alerts
- Legibility, accuracy, audit
- Computer generated drug information for patients
- Electronic transmission to the pharmacy

Computerised Clinical Decision Support Systems

- Identify new concerns or health risks
- Prompting about preventive measures
- Guideline availability to assist diagnosis and management
- Finally allow Evidence-Based Medicine to be put into practice

Improve communication between Health Care Workers

"Our patients are most at risk when they cross the boundaries in our health care system"

Practical initiatives

- Electronic advice to GPs on the admission, discharge or death of their patients
- Electronic summaries from inpatient, outpatient and casualty attendances
- Rapid access to lists of current and past medications
- Rapid access to pathology and radiology test results at all times

Practical initiatives

- Electronic notification of adverse drug events
- Electronic notification of notifiable diseases
- Advice on when a critical incident has arisen as a result of your care
- Give advice when detect a critical incident as a result of another's care
- Access to on-line waiting lists, wound infection rates, readmission rates, deaths

Continuing Medical Education

gplearning is an international standard medical education website, of the RACGP, which offers GPs:

- over 150 interactive activities
- case-based learning content on many topics from Asthma to Women's Health
- multiple choice questions with instant feedback and resource links
- online medical educator support
- sharing of knowledge and learning experiences with other learners in moderated discussions
- easy communication with distant colleagues

The role of the Internet

Cyberconsultations

A challenge to our traditional method of clinical care delivery

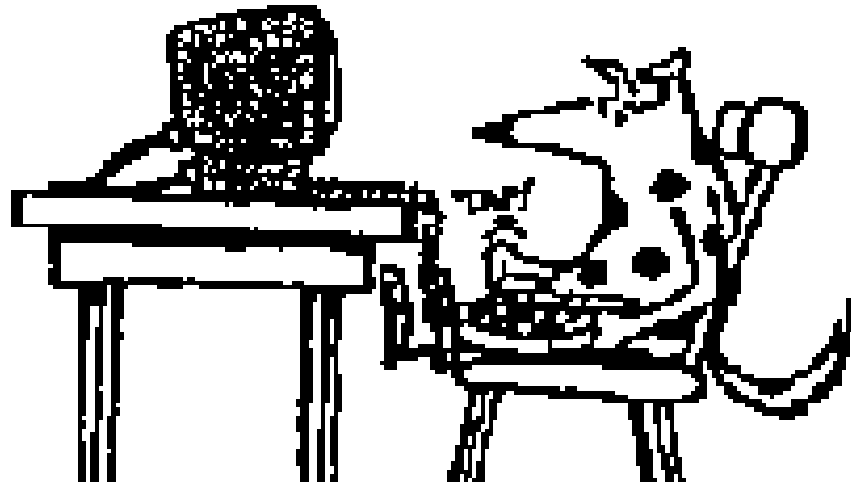Many people would like to communicate with their own doctor/s online

Email for pathology and radiology test results

Email follow up questions after a consultation

Email requests for repeat prescriptions and referrals

"Cyberquacks"

"On the Internet, no-one need know you're a dog"

Cyberchondria

- Patients diagnosing and treating themselves through the use of the internet

Information Access by Patients

"Do we attempt to retain control and keep ahead of our patients?

Or do we assist our patients interpret what they find and are told

… as we always have."

Have you changed your mind?

Would you like to use a computer while you see your patients?

- 1 / A – YES

- 2 / B – NO

Many challenges remain

Our greatest challenge is to determine how we will use this technology, together with our patients, to provide better health care outcomes for the people who trust us for their health care advice and management