

It is now generally accepted that computers are an integral tool used by general practitioners during the consultation. The computer has many **different applications**:

- Allows access to health registers
- Provides access to images, audio and animation which can be used for detailed patient explanations and education
- Allows large documents to be stored and transferred rapidly
- Individual patient electronic health records can be easily retrieved
- Provides access to databases that contain information about prognosis
- Prescription writing is standardised
- Provides fast access to patient results
- Allows for reminders and recalls to be noted
- Allows case notes to be recorded immediately
- Provides for greater efficiency in practice organization and management eg. billing, appointments and recalls
- Provides templates for referrals and certificates

While the use of computers by doctors can improve aspects of clinical performance it has also been **criticised** as a deterrent in the establishment of good patient-doctor communication.

Liaw and Marty (*Medical Education, 2001*) summarised some of the arguments as follows:

- Computer use dehumanises the consultation as the doctor is restricted by limitations of software and hardware
- Use of computers may increase the length of the consultation
- Doctor-initiated content may be increased at the expense of patient-initiated social content
- When working with computers doctors tend to shift from a conversational style to a “chunked” style where the consultation is divided into blocks punctuated by computer usage
- Doctors use more closed questions and give less verbal information to their patients when using computers
- Doctors use the computer as a “time out” device to change the subject
- Doctors use the computer as a “magic box” which adds authority to the doctor
- Doctors with computers tend to spend less time talking to their patients and more time taking notes
- Doctors responses tend to be minimized and utterances delayed
- Confidentiality and security could be compromised
- Lack of skill in the use of the keyboard and the system reduces patient confidence

However, other studies (Greatbatch et al, 1995; Riddsdale and Hudd , 1997) found that there was very little difference in patient satisfaction between doctors who typed up notes and those who wrote up notes by hand. One patient commented that it was actually easier to interrupt when the doctor was typing rather than writing. Sullivan and Wyatt (BMJ, 2005) found that despite the computer screen requiring more attention than paper notes and that clinicians spend less time interacting with the patient when they use information resources during the consultation, it was viewed favourably by patients.

Computer use was regarded as satisfactory by patients due to the following reasons: *Liaw and Marty, 2001; Sullivan and Wyatt, 2005*

- Many patients view 'e-health' as a natural part of a computerised society
- It is viewed as up-to-date thereby inspiring confidence in the doctor
- Although eye contact, listening and attention are possible concerns, they have not been found to be a problem
- Integrating multimedia information into the consultation educates and empowers both the patient and the doctor
- Allows the patient to participate in decision making
- Encourages the patient to learn from the doctor's expertise in interpreting and critically appraising information, rather than depend on the doctor's memory and recall

The University of Melbourne Department of General Practice, in 2001, realised the importance of training medical graduates in Australia to feel confident in information management skills and use of technology. They devised several workshops designed to equip graduates with skills to access the most recent and best evidence and use it critically to support decision-making, to learn, to do research, to keep up-to-date, to be reliable sources of information for their patients and communities, and to provide optimal high quality care for patients and their families. The skills incorporated into their training programme are skills which all general practitioners should possess in order to use the computer effectively in general practice.

### How to use the computer effectively in the consultation:

(based on : *The Computer in the Consultation*. [www.skillscascade.com](http://www.skillscascade.com))

#### Initiating the session:

- Computers should rarely be used, because rapport, attentive listening, observing non-verbal communication is very important
- Glance at the name on the screen before the patient starts talking
- Check for reminders and recalls for the purpose of agenda setting

#### Gathering Information:

- Need to acknowledge the use of the computer with the patient
- Signpost (for politeness) that you intend to use the computer eg. "I'm just going to check a few details on the computer"
- Assure confidentiality
- Make sure that it doesn't interfere with dialogue or rapport

#### Explanation and Planning:

- Need to determine the way in which patients want to receive information e.g. "I thought we could look at this information on the computer, if that's ok with you."
- Give information in chunks. Show the information on the screen and explain medical terms in simple language. Be aware of using closed questions.
- Show a hospital letter. Explain terms and check details
- Show a sequence of blood results. Explain to the patient the meaning of the results, compare with the "norm".
- Show what you have written. Don't sacrifice eye contact and focus all your attention on typing.
- Use visual methods, diagrams, models. Make sure patient can see the screen and hear clearly. Invite questions. "Let's look at this explanation on the computer and we can talk about it together." "Can you see OK?"
- Provide printed handouts. "I'll just print out some information that you can take home with you."
- Safety netting to record follow up, explain a review (recall) date and record information on the computer. "Just give me a moment and I'll check your records on the computer."
- Check drug information and explain to patient about drug reactions. "I'm pretty sure that this won't affect the other tablets you're taking, but I'll just quickly check on the computer to make sure."
- Write prescription. "I'm just going to use the computer to print out your prescription".
- Write sickness certificate

**Concluding the Consultation:**

- “background” the computer and focus on the patient
- Write up notes
- Send information for billing to the reception

**Tips to remember:**

- Ensure you have efficient keyboard skills
- Understand how the computer system operates
- Don't get preoccupied with the computer
- Don't let the computer dominate the consultation
- Don't use the computer as a barrier between doctor and patient
- Make sure the patient can see the computer screen clearly when looking at information
- Allow time for the patient to read information and to ask questions