Wireless devices just what doctors ordered

By Nathan Cochrane
January 18, 2005
The Australian

It has been a common refrain when explaining the backward state of IT in much of Australia's health system that medicos are wary of technology. That is why handwritten notes are still scrawled on paper files and why, until recently, X-rays were usually printed on film and then viewed through light boxes.

But the fault lies not with a technological aversion but with funding, says Jenny O'Brien, chief information officer for St Vincent's Hospital in Melbourne. St Vincent's was awarded a $100,000 grant from a Microsoft fund established with the Victorian Government, which it used to investigate the use of mobile wireless devices in the hospital.

With tablet PCs and a security server supplied on loan by Hewlett-Packard, clinicians securely accessed medical records from a central database wirelessly while still at patients' bedsides, reducing the number of transcription errors.

"You would be horrified if you went to a bank and the teller was still writing your transactions in a book and calculating on an abacus," O'Brien says, "but in health care there's a failure at a funding level.

Clinical project manager Meaghan Willis says the driving reason for the trial was that "medical staff were pushing for this technology".

"A significant number of our medical staff have Palm Pilots and had downloaded applications such as MIMs (drugs database) to help them on their ward rounds," Willis says.

Traditionally, clinicians would log on to a PC about 30 minutes before their wards round, noting down on paper the relevant details of the patients they were to see. And although there are PCs stationed throughout the hospital, accessing them meant leaving the patients' bedside.

So they were used less often than the tablet PCs they carried with them throughout the trial in the general medical ward.

Pathology and radiology results were the prime targets transferred to the devices, but O'Brien says many of the doctors immediately began seeing other uses. The 802.11 wireless network built with HP Procurve equipment allowed them to access a range of
information on the net such as the Cochrane medical database and the hospital's intranet portal.

"We gave them the tech and they ran with it," says Willis.

St Vincent's found the number of "breakouts" - times clinicians left the bed to access reports - fell by 46 per cent, and transcription time reduced by 13.6 minutes a day.

The duration of the ward rounds was not reduced, however.

Results from tests were also more accessible, so they were much more likely to be viewed.

Willis says the hospital has funding to deploy a wireless network in the intensive care unit and emergency department, and is looking further to expand it to the surgical ward. There are further plans to add voice over IP functions to the tablets, encouraging doctors to answer more of their pagers, says O'Brien.

She says doctors were keen to get their hands on the technology, and found broad uses for it as soon as they were given it.