

The Australian Centre for Health Innovation (CHI) provides health technology evaluation, innovation and simulation education services that enhance patient safety and quality of care. CHI plays a key role in providing health services with access to innovative technology and education services. Over 7,500 clinicians, managers and technology developers from across Australia used CHI services in 2010.

Key Findings

Reducing Patient Harm from Blood Transfusion – Wrong Blood in Tube (WBIT)

A report prepared for the Victorian Managed Insurance Authority (Jeffcott S, Steele C, Cameron P)

The potential for serious problems in blood labelling exists at each step of the transfusion process. The most common error is known as 'wrong blood in tube' (WBIT), where the patient identification information belongs to one person but the blood belongs to another. The Victorian Managed Insurance Authority (VMIA) sponsored an observational study of existing strategies to combat WBIT across three public hospitals in Victoria. The human factors involved in WBIT incidents were examined through direct observations, interviews and identification of where and how processes might fail. The development of recommendations for reducing patient harm from blood sample collection and a toolkit for hospitals to evaluate their safety systems are the key outcomes from this work.

Radiofrequency Identification (RFID) Scanning of Implants: Improving Logistics and Efficiency

CHI worked with Stryker and Magellan to demonstrate a proof of concept for RFID enabled tracking of orthopaedic implant equipment on consignment to a hospital. The RFID tunnel developed by Magellan can accurately read multiple passive RFID tags in three dimensions within each stock container to enable staff to track stock in seconds rather than hours using the current manual recording systems. As a result, three Victorian hospitals commenced trials of the equipment in 2010.

Clinical Requirements for Videoconferencing and Clinical Communications

A series of evaluation workshops was held for clinicians and their information and communication technology colleagues from across Australia to determine the functional requirements for clinical videoconferencing. This project was commissioned by a group of

national health chief information officers to better inform their decision making about videoconferencing technologies for clinical consultation.

Simulation Education

New courses at CHI included:

- Patient safety for fifth year medical students from Monash University, Malaysia
- Introduction to trauma care: interdisciplinary simulation course

Current Projects

- The use of sensors to protect privacy and security in patient bedrooms
- Collaboration tools for palliative care and degenerative neurological conditions
- Development of further trauma courses with The Alfred Trauma Unit and NTRI
- A comparison of tablet functionality for use in health services
- Advising on information and communications technology developments for digital hospital design
- Models of cloud services for healthcare
- Rapid roaming authenticated desktop access for clinicians

Medical simulations at the Australian Centre for Health Innovation.

