Nursing central line service prevents catheter related infections

BY EVAN ALEXANDROU, TIM SPENCER AND PATRICIA DAVIDSON

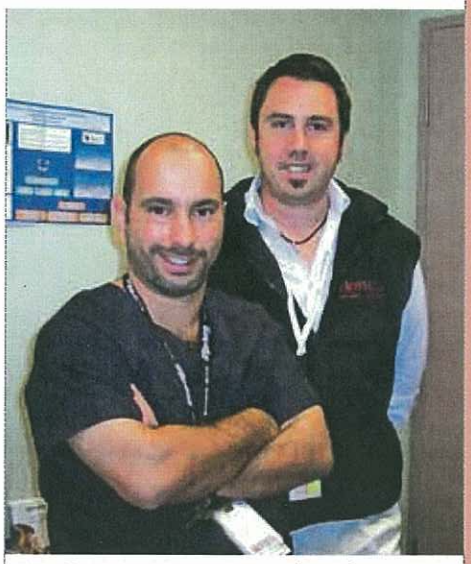
Bacteraemia associated with central venous catheter (CVC) usage in acutely ill patients has been shown to increase mortality and morbidity. Acutely ill patients are at a greater risk of infection, underscoring the importance of effective care models.

The reporting of the prevalence of catheter related blood stream infections varies widely in the literature with on average five infections per 1,000 catheter days reported. In Australia it is reported that over 3,500 CVC infections occur annually, many of which are preventable. These infections are associated with an annual mortality rate of 12% and an increase in the average length of stay of greater than seven days. Every year approximately 34 patients die in intensive care units (ICUs) in Australia of CVC associated infections and the cost is estimated to be as high as $8.2 million (Victorian National Nosocomial Infection Surveillance System (VICNISS, 2005).

Strategies to decrease CVC infections include adhering to strict hand washing protocols, aseptic technique on insertion and on accessing the catheter and use of chlorhexidine skin antiseptics. The choice of catheter site placement and regular surveillance of inserted central lines are also important factors in optimal catheter outcomes. (NSW Department of Health Central Line Associated Bacteraemia in Intensive Care Units project).

Having a dedicated central venous access service can also assist in the reduction of CVC infections through increased specialisation and implementation of best practice recommendations. The Central Venous Access Service (CVAS) based in the intensive care unit at Liverpool Hospital, NSW, is coordinated by two advanced practice nurses whose role it is to not only insert CVCs throughout the hospital but also actively engage in the setting and monitoring of clinical practice standards. In this model of care, increased access to expert clinical assessment and specialist care means that vascular access is tailored to specific patient needs and as a consequence patient outcomes are improved.

The CVAS plays an important education and training role through performing routine inservice sessions and educational programs for nursing and medical staff on CVC management and handling. One of the most important education roles the service undertakes is the training and accreditation of medical staff in central venous access: yes, nurses teaching doctors! In these sessions apart from the emphasis on technical skills, significant emphasis is put on the use of aseptic principles even in the setting of resuscitation. The CVAS is an example of how a nurse coordinated model of care using best practice standards can improve patient outcomes through reducing infection.



Evan Alexandrou and Tim Spencer (L to R)

PHOTO COURTESY TIM SPENCER

ONE OF THE MOST IMPORTANT EDUCATION ROLES THE SERVICE UNDERTAKES IS THE TRAINING AND ACCREDITATION OF MEDICAL STAFF IN CENTRAL VENOUS ACCESS: YES, NURSES TEACHING DOCTORS!

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IN BRIEF

Online flu survey

An online survey that tracks data on influenza infection to alert health professionals to large outbreaks of the virus has been launched nationally. Flutracking.net is an initiative of researchers from Hunter New England Health and the University of Newcastle and aims to recruit at least 2,000 people across Australia to complete the 15 second weekly survey on flu-like symptoms. Anyone with regular access to email and the internet is encouraged to take part in the weekly survey throughout the flu season. http://www.flutracking.net

Cheap masks stop flu spreading

Normal surgical masks may be as effective as more expensive face masks in preventing the spread of influenza, Australian researchers have found. In a real-life situation rather than laboratory testing, routine surgical masks were found to be as effective in containing the influenza virus as N95 masks made from finer material. No influenza virus droplets were detected by Melbourne's Austin Hospital researchers when people who wore either of the masks coughed, but influenza was detected when masks were not worn. The findings were presented at the Australasian Society for Infectious Diseases annual scientific meeting recently.

End private cleaning in hospitals

UK nurses have called for hospital cleaning to be brought back in-house to reduce rising infection rates. Nurses at the Royal College of Nursing conference in the UK overwhelmingly voted for a motion proposing an end to contracting out cleaning to private firms last month. Cleaning contracts have been outsourced since the 1980s and about 40% of UK hospitals now use the private sector. Nurses said this had led to a drop in standards and a rise in infections.
– with BBC online

Japan first to vaccinate health care workers against bird flu

Japan is set to become the first country in the world to vaccinate health care workers against bird flu despite no human cases of the avian influenza infection in the country. More than 6,000 staff will initially be vaccinated and the program possibly extended to cover millions more. Japan has stockpiled 20 million doses of the so-called "pre-pandemic" avian influenza vaccine, made of the H5N1 strain collected in Indonesia and Vietnam, the countries worst hit by the virus.