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The forensic nurse examiner in a rural emergency department: A new role for emergency nursing

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In 2006 the Victorian State Government, in response to a Victorian Law Reform Commissions' report, announced a broad range of initiatives to reform the response to managing victims of sexual assault.

Among these recommendations the report highlighted the lack of forensic medical services in metropolitan and country Victoria.

As a response to this, the Government announced the formation of a Forensic Nursing Network. The development of this network has been auspiced by the Victorian Institute of Forensic Medicine (VIFM).

As a component of developing this network VIFM offered scholarships for nurses to undertake the Graduate Certificate of Nursing (Forensics) through Monash University which is a mandatory requirement to practice as a Forensic Nurse Examiner (FNE) in Victoria.

The first cohort of these nurses commenced at the beginning of 2007, and while they come from a variety of clinical backgrounds, a significant number are emergency nurses.

VIFM will continue to mentor the FNE's ensuring and facilitating continuing education and clinical practice. VIFM are also working collaboratively with health services to develop the processes to underpin and direct practice in each hospital.

The author who is an emergency nurse practitioner was one of the successful applicants, and has completed the Graduate Certificate of Nursing (Forensics).

This paper will outline the development and implementation of the role of the FNE in the ED at Southwest Healthcare Warrnambool including:

- benefits of the role;
- clinical practice and education;
- personal challenges;
- barriers to implementation;
- the broader implementation of the role in emergency nursing clinical practice; and
- a case study will also be presented.

Exhaled versus arterial carbon dioxide levels: Improving the identification of hypercapnia

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Hypercapnia is an often insidious complication of patients with respiratory dysfunction. Although arterial blood gas (ABG) analysis is often used for carbon dioxide monitoring, arterial blood sampling is painful, invasive, and carries inherent risk of trauma. The invasive nature of ABGs may also contribute to suboptimal carbon dioxide monitoring. Non-invasive methods of carbon dioxide monitoring are available; however, there is little evidence to support their accuracy in the detection of hypercapnia.

A prospective correlational study is currently being conducted in the Emergency and Critical Care Departments at Northern Health, Melbourne, Australia. Participants are spontaneously breathing adult patients who require arterial blood gas sampling as part of their clinical care and the projected sample size is 100 patients. End-tidal carbon dioxide (ETCO2) levels will be compared with arterial carbon dioxide (PaCO2) levels obtained by ABGs and the relationship between ETCO2 and PaCO2 will be examined using Pearson's r. Ethics approval for this study was granted by the hospital and University Human Research and Ethics Committees.

Preliminary analysis of data from the first 13 participants showed a correlation coefficient of r=+0.938 (p<0.001). These preliminary findings suggest that non-invasive monitoring of ETCO2 may be a feasible and safe alternative for carbon dioxide monitoring in spontaneously breathing adult patients in the ED. In particular, ETCO2 may reduce the need for arterial blood sampling and enable emergency nurses to continuously monitor carbon dioxide levels. Data collection will be completed in mid 2009 and the final results will be presented in this paper.