Sharing Visions, Creating Missions: A Convergence of Global Perspectives in Critical Care. Abstracts of the 3rd Congress of the World Federation of Critical Care Nurses and International Meeting of the Asia Pacific Federation of Critical Care Nurses. Manila, Philippines, 26-28 February 2006

PLENARY SESSION: The Future Direction of Critical Care Nursing

The future direction of critical care nursing

Ged Williams
Australia

Our world is a fragile and delicate place. Recent major events and activities in the world have provided imminent threats to our social, political, cultural, religious, economic, natural and ecological safety and sustainability. We see devastation and despair most days in the news and on television. Every major story has a hidden story – the contribution of critical care nurses in the face of overwhelming challenges and adversity.

Critical care nursing is a complex specialty developed to serve the delicate health care needs of patients (and families) with actual or potential life threatening conditions (1). Planning and leading a critical care service must also take into consideration the world-view as well as the local-view. Both are important and necessary considerations in our planning.

Governments, hospital boards and professional bodies that inform and support the provision of critical care services must recognise the vital importance of providing adequately skilled, educated and available critical care nurses, doctors and other support staff to assure the health and safety of some of the most vulnerable patients in the health system. Who then should inform such decisions, and how?

This presentation refers to a number of experiences and examples of how small groups of critical care nurses can have a significant influence and contribution to the way in which critical care services are delivered in their community, country and world. Critical care nursing leaders do not have to be victims of change.
Critical care nursing leaders in fact have a responsibility to be positive and effective managers of change.

(1) WFCCN 2003. Declaration of Sydney: Constitution of the World Federation of Critical Care Nurses. www.wfccn.org

PLENARY SESSION: Worldwide Innovative Approaches

What in the world are we doing?

Paul Fulbrook
Australia

In the last decade, critical care nursing has seen a major leap forward in terms of international collaboration. Prior to 1996 there were no multi-national critical care nursing organisations. In 1997, the European Federation of Critical Care Nursing Organisations held its inaugural meeting in Stockholm, Sweden. It now boasts a membership of over 20 European associations. In 2000, in Sydney, Australia the World Federation of Critical Care Nurses was formed. It too, has over 20 member organizations. Since 2000, the Asia Pacific Federation of Critical Care Nurses has been established, and more recently, at the World Congress in Buenos Aires, Argentina a commitment was made to start a South American federation.

The purpose of this paper is to identify some of the historical landmarks in critical care nursing, and some of the international research that has been undertaken in the field. This will serve as a basis for a discussion on the current issues facing critical care nurses world wide, and suggestions for ways forward in terms of organization, policy, research and priorities.

The development of a workforce position statement

Denise Harris
Australia

In response to the shortage of nurses within Australia some sections of the nursing and political fraternity have proposed that enrolled nurses be employed to meet the shortfall of registered nurses within the critical care environment. The Australian College of Critical Care Nurses have developed two workforce position statements to date, on Intensive Care Staffing Guidelines, and the use of non-registered nurses and unlicensed assistive personnel in Intensive Care, in an effort to set and maintain the standard and

quality of patient care within this critical care environment. This presentation will discuss the second of these position statements, and will include the process employed to research, develop and endorse and implement it.

Integrated patient care plans

Esther Wong
Hong Kong

We have been using Care Track or Integrated Patient Care Plan (IPCP) or Outcomes Management model to manage patients for over a decade. The multi-disciplinary team approach demonstrates the combined efforts of all parties concerned. The new approach puts emphasis on the disease-base. It is patient-centred and it focuses on multi-disciplinary, multi sector and multi staging care. It does not only serve as a "Point-of-Service" reminder to increase adherence to treatment policy and facilitate the "Evaluation" of care identified through variance tracking, but also improves patient satisfaction and enhances quality of life by involving patients and their families in the care plan and patient empowerment programs.

As nurses, we map out nursing interventions in the care tracks or IPCP and we believe the tasks can depict patient empowerment in which patient's self-management capability is stressed. Through IPCP, our goals of patient empowerment can be achieved, thus allowing our patients and their families to become active partners of healthcare professionals in their own cares and to be able to make informed choice about the treatment they receive.

Patient empowerment can be extensively rolled out in the management of chronic diseases, but in critical care settings, we can also practice it in selected patient groups such as patients with acute myocardial infarction, cancer of the oesophagus, acute stroke and motor neurone diseases requiring long term assisted ventilation. Critical care is expensive but good bio-psycho-social coping ability does alleviate anxieties, reduce complications as well as hasten recovery process.

It is expected that through the patient empowerment model, the functional capacities & physical performance, +/- changes in health status of the patient would be maximized; patients' suffering, distress & worries about their health problems would be reduced; patients would be better prepared for informed decision for procedures and operation they received; hospitalization would be minimized; acute morbidity after discharge would be reduced. Hence, health care costs would be cut and the utilization could be rationalized. Ultimately, patients would become confident because they could be in control of their illness.

PLENARY SESSION: Improving Critical Care Nursing through Evidence-Based Practice

Evidence-based practice: the way forward for critical care nursing?

Paul Fulbrook
Australia

Knowledge and evidence are not the same. The traditional view of evidence-based practice was given to us by Sackett et al. in 1996: ". . . the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients . . . evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research." Although this definition has been applied widely in clinical practice, there remains a dominant school of thought that sits experimental research evidence above all other forms of evidence, and this is illustrated by the use of hierarchies of research that place qualitative studies at the lower end. In the real world of practice though, "It resides within the domain of each nurse to make a clinical decision based on her own estimation of probability after she has weighed up all the evidence available to her, including her particular knowledge of her patient" (Fulbrook, 2003). This illustrates the tension, which has been described by Polkinghorne as the technical-practice judgement controversy. Traditionally, evaluation of knowledge is based on principles of scrutiny and independently observable and verifiable evidence, however in the 'moment' of practice, when a nurse makes a clinically-based judgement about a certain course of action it is arguable that she will, more often than not, base her decision on knowledge derived from experience.

So, what is the way forward for critical care nursing? For me, it is pragmatism. More often than not, I would argue, the practitioner is confronted with a unique patient in a unique context. Thus, clinical decisions about what is best for this patient in this situation require an approach to the valuing of knowledge that is based neither on generalisation nor on traditional approaches to evidence. Rather, decisions should be made about what should be done in the real world of practice by posing the question, "What knowledge is appropriate for this situation?"

Arguably, the driving force behind our quest for knowledge is the belief that a deeper understanding empowers us to improve the care of the people we serve. For me, this then determines the value of knowledge. By posing another question, "Can I use this knowledge to improve my practice?" my answer enables me to assign a value to it.

PLENARY SESSION: Advanced Nursing Practice: Certification of Critical Care Nurses

Advanced Nurse Practitioners – agents in error and risk management

Ged Williams
Australia

Medical error and iatrogenic injury in hospital are the sixth leading cause of death in those countries that have attempted to measure this phenomenon. Notwithstanding our best efforts and elaborate quality programs, ICU's manage increasing risks of legal and ethical liability associated with error and risk. Litigation against hospitals and individual practitioners is well known in the United States but is now becoming familiar to many other industrialised countries.

The advanced nurse practitioner (however described) is an essential agent in the prevention and management of error and harm in the ICU. In addition to preventing clinical error, the ANP is often first on the scene when the patient/family interface with "the system" and where the employee interfaces with "the system" and have a perceived negative outcome. Both events have similar issues and approaches and both require skilled, diplomatic and experienced intervention to avoid unnecessary harm and litigation.

Some countries are beginning to explore the conceptual and

practical benefits of open disclosure, i.e. openly expressing acknowledgment of errors when they occur and actively involving the victim and family in the recovery process and decision making, this process must often start immediately and the ANP is critical to this process.

Unfortunately many skilled and experienced nurses are leaving the critical care environment and feel undervalued for the contribution they make. The advanced nurse practitioner models are designed to essentially encourage and retain expert nurses in the clinical setting. There is growing evidence that larger numbers of highly skilled critical care nurses will reduce risk and improve clinical outcomes. It is therefore important that the profession encourage the development of such positions if we are to reduce the negative effects of error and risk in clinical practice.

Certfication of advanced practice

Remedios L Fernandez
Philippines

Certification fro Advance Practice Nurse id very new in the Philippines. While it is growing rapidly in the world, APN follows a unique development and implementation pathway. It's development was influenced by the growing acceptance of APN in developed countries especially in the US.

The presentation will provide a background on the country's development on certification, the level of specialization and the qualification and requirements for certification. After the discussion on the roles of APN, the identified domains and competencies of APN will be presented. The presentation include a discussion on the issues and challenges of certification for APN in the Philippines.

PLENARY SESSION: Emerging Roles and Nursing Image in the 21st Century

Managing change in a changing world – leadership in critical care nursing

Ged Williams
Australia

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PLENARY SESSION: Role Development in Critical Care

Advanced practice and the development of the Critical Care Liaison Nurse

Denise Harris
Australia

Many factors have led to the continued development of advanced practice nursing roles within the critical care environment, the development of the critical care liaison nurse role has varied, dependent upon the surrounding within which it is set. This presentation will examine some of the literature surrounding and supporting the development of this role and will examine three different models of implementation, and will discuss the contribution that these roles play in the advancement of critical care nursing.

PLENARY SESSION: Avian Flu: Is the Scare Real?

Avian flu: is the scare real?

Violeta Lopez
Australia

Avian flu (H5N1) is a type of influenza A that mainly infects birds. The risk of avian flu in poultry and migratory birds remain high but occasionally also affects humans. It can be transmitted from live birds to humans, although transmission between humans is still questionable. It is a disease first identified in Italy in 1878 with a 100% mortality. It was first identified in Hong Kong in humans in 1997 where there were 18 cases.

Avian flu has killed 78 people across Asia, including mainland China, Vietnam, Thailand, since late 2003. The latest outbreak is in Turkey where three people have died. Most human cases reported were the result of contact with infected poultry or contaminated surfaces. Avian influenza in humans causes a wide range of flu-like symptoms with or without diarrhoea which may progress rapidly to respiratory failure, multi-organ failure and even death. New outbreaks in birds and human cases continue to be reported in Turkey and China. There are three additional cases of confirmed human H5N1, two in Turkey and one in Sichuan, China. Poultry outbreaks of highly pathogenic H5N1 have been confirmed in 12 countries' 81 provinces. The number of reported Avian Flu human cases in China has recently been increased to 8 cases, with five deaths. The human cases in South East Asia are also increasing, with one death in Indonesia. There are 15 reported human cases with three deaths in Turkey up to 10 January 2006. 306,000 birds were being slaughtered to halt its advance.

The continuously reported human cases in Turkey create threat to nearby nations in Europe. A team of experts from the World Health Organization arrived in Turkey to look for any signs of human to human transmission of the virus. More than 30,000 fowl have been killed.

In January 18, 120 countries with 700 delegates and international groups participated in a conference in Beijing on Prevention of Bird Flu. A Beijing Declaration was endorsed to take further coordinated actions to strengthen surveillance and diagnostics and develop more capacity in human and veterinary health systems. Participating countries including US, European Union, Japan and China have agreed to contribute millions of grants to combat the disease and to address social and economic impacts.

Avian flu is a major public health concern. Experts cautioned the possibility of another influenza pandemic in humans as this could be the outcome of a simultaneous infection of human and avian influenza viruses that could give rise to an exchange of genes in the virus. Yes, the scare Avian flu is definitely real! In this paper, recent outbreaks of Avian flu and public health measures to prevent its spread will be presented.

Avian and pandemic influenza preparedness

Luningning Villa
Philippines

The H5N1 continues to spread across other countries bringing about more poultry deaths, illness and death among the exposed persons. The virus poses a threat not only to the economic security but to human health as well. As the avian influenza remains in birds and other animals, the risk to human health continues. Widespread epidemics in birds increase opportunities for human exposure with a possible exchange of avian and human genetic material may produce a new virus which may be capable of spreading easily from person to person, leading to an influenza pandemic . To date, there are still no reported cases of influenza brought about by a new influenza virus subtype anywhere in the world.

The unpredictability of the influenza virus and the serious consequences that may occur in a pandemic warrant constant vigilance and good planning in order to reduce the impact of a possible pandemic.

The strategic approaches in the prevention and control of avian influenza and on the mitigation of the public health, social and economic impact of pandemic influenza are focused on the following:

1. Prevention of entry of the virus: ban on importation of poultry and poultry products from countries affected with avian influenza, border control, ban on sale, keeping in captivity of wild birds
2. Prevention of spread from birds-to birds: early recognition and reporting, mass culling, quarantine of affected area
3. Prevention of spread from birds to humans: human protection through proper handling of infected birds, use of protective gear by residents, poultry handlers, and response teams
4. Management of avian and pandemic influenza cases: isolation and management of cases, judicious use of antiviral agents, infection control, quarantine of contacts
5. Slowing of spread from humans to humans in an influenza pandemic: entry and exit management of passengers, border control, quarantine of contacts, isolation and management of the sick, social distancing, personal hygiene
6. Management of explosive spread: social distancing, personal hygiene, efforts shifted to maintenance of essential services
7. Management of public anxiety: public advisories and information dissemination, regular updates and briefing of media
8. Mitigating the socio-economic impact of avian and pandemic influenza: networking with other agencies, non-health sectors

The pandemic clock is ticking. It cannot be predicted when the pandemic will occur but it is best to be prepared all the time.

SYMPOSIUM: Safety Issues

Safety issues in Japan

Yuko Ikematsu
Japan

Public awareness of medical safety has been increasing in Japan. Malpractice law suites have tripled in recent three decades. The Japanese Society of Intensive Care Medicine conducted a survey to explore the status of patient safety in ICUs. The survey questions included the frequencies of each level and type of the error, occurrence time of the error in a day, and characteristics of the ICUs. The results revealed that a) a majority of incidents were reported by nurses, b) high level incidents (i.e. more likely to harm patients) tended to occur in night time, c) incidents related to medication/infusion were more frequent than other incidents, and d) accidental termination of artificial ventilation and rupture of intra-aortic balloon catheter were rare but occurred in some ICUs within 5 months. These results along with the governmental actions will be presented in the symposium.

Needle stick injury: the Philippine perspective

Ruth R Padilla
Philippines

The number of needle stick injury incidences increases in the workplace. This increase is both cause for concern and occasion to evaluate the overall health and safety program in the Philippine setting and may necessitate the use of work-related injury information to quantify the problem.

In its latest survey on needle stick injury incidents in the Philippines, the Philippine Hospital Infection Control Nurses Association reported about 404 cases in the past. However, there is no exact figure as to how many of these cases involved nurses, doctors or other health care workers. However, the causes were related following:

- Carelessness in handling needles and caps
- Recapping of needles
- Nurses/caregivers are not given individual preference/choice in the type of tools used
- Nurses/caregivers' unfamiliarity with work
- Work area is unsafe or not conducive to quality care

This issue on needle stick injury is a global concern of health care practitioners and has been recognized by the International Council of Nurses to be among the priority program particularly in the Asia Pacific region.

During one of the meetings of the ICN Asian Workforce, the

Philippines was identified as the lead country to look into this concern in order to come up with a model to address issue.

This paper will present the Philippine perspective of regarding needle stick injury and the development of the model that will serve as the infrastructure in advocating safety amongst the care providers.

SYMPOSIUM: Cardiac Issues

Cardiovascular nursing: the Philippine perspective

Celedonia Bienes
Philippines

Cardiovascular diseases remain to be the number one cause of mortality and morbidity in the Philippines. Statistics from the Department of Health will prove that there should be more initiative to be exerted to lower this incidence. This is an opportunity for the cardiovascular nurses to play an important role in the prevention and treatment of cardiovascular illnesses.

This paper will discuss on the contributions that the cardiovascular nurse practitioners have made over the last few years. It will focus on the evolution and development of the cardiovascular nursing specialization in the Philippines and as offshoot how these budding clinicians have moved to address the issues related to cardiovascular illnesses.

Cardiac issues

Violeta Lopez
Australia

Approximately 1.5 million Americans suffer from myocardial infarction each year and 500,000 of these are fatal. The number of sudden deaths in the United State in the 15-34 age group has been increasing from 2724 in 1989 to 3000 in 1996, an increase of 10%. It is suggested that some of the increase may be related to the increased prevalence of cardiovascular risk factors and heart disease accounts for about US$274 billion in direct health costs and indirect costs annually (AHA, 1998). In England, the prevalence of the disease is high, with more than 110,000 deaths each year (Mayor, 2000). As a proportion of total deaths from all-causes, cardiovascular diseases in the Asia-Pacific regions range from less than 20% in countries such as Thailand, Philippines and Indonesia to 20% - 30% in urban China, Hong Kong, Japan, Korea and Malaysia. Countries such as New Zealand, Australia and Singapore have relatively high rates that exceed 30% - 35% (Khor, 2001). The mortality of cardiovascular diseases in China is increasing. In 1998, the figures for the cardiovascular diseases proportion of total deaths in urban China were 37% for men and 41% for women (WHO, 1998).

In Hong Kong (HK), coronary heart diseases (CHD) have accounted for the second commonest cause of death since the 1960s'. The prevalence of CHD was on the increase: 38.6% in 1972, 55.1% in 1982 and 59.4% in 1992 (Department of Health, Hong Kong, 1994). The crude death rate of CHD nearly doubled over years from 28.4 in 1972 to 53.8 per 100,000 populations in 1994 (DOH, Hong Kong, 1994). In 1994, heart diseases causing 4909 people death, CHD accounted for 66.5% of the total deaths from heart diseases, with10.4% of all male deaths and 11.4% of all female deaths (DOH, Hong Kong, 1994/95). Moreover, the total deaths from heart diseases have been increasing from 5220 in 1999 to 5537 in 2000. In addition, the proportion of population aged 65 or above is increasing from 3.3% in 1963 to 9.2% in 1992 and has reached to 11.3% in 2003. As the risk of CHD increases with age, it is expected to have more elderly suffering from coronary heart disease. In addition, advances in medical technology and treatment for heart disease prevent people's death in the acute stage of the disease. However, the issues pertaining changes in people's health beliefs and attitudes, as well as adjustments in lifestyle modifications towards heart disease are the imposing problems to the society. Having people to be aware of the disease and its risk factors is essential.

The prevalence of CHD is high in many countries including the United States, England, Australia and Singapore. The disease is a major concern for health care and health care delivery, however, research about people's health beliefs, attitudes and behaviors show inconsistent findings. Inadequate knowledge and misconceptions about CHD has been reported in spite of continuing health care efforts. There is also no clearly defined concept of CHD awareness with respect to the cultural and gender issues. An enquiry using qualitative approach is a method recommended in order to identify the critical dimensions of the concept of awareness. In addition, disease-specific instruments are needed to address several research questions relating to cardiovascular prevention, management and treatment outcomes. This paper aims to address these issues.

SYMPOSIUM: Critical Care Education

Critical care education: a perspective of the South African problem

Shelley Schmollgruber
South Africa

World Federation of Critical Care Nurses (WFCCN) is of the opinion that critically ill patients have special needs and must be cared for by nurses with specialised skills, knowledge and attributes. To this end, WFCCN has drafted a position statement, based on convergence of a global consensus perspective in critical care education to assist critical care nursing organisations, health care providers and educational facilities in the development and provision of critical care nursing education (WFCCN 2005).

As a member organisation of WFCCN, the Critical Care Society of Southern Africa supports the principles of the position statement, reflected in a recent publication in the South African Journal of Critical Care (SAJCC 2005:66).

While, South Africa spans a proud heritage of more than 40 years of critical care nursing (Scribante et al., 2004), the containment of the WFCCN position statement principles are not without challenge to nurse educators in the South African setting.

Amidst a number of interrelated factors including an acute shortage of experienced nurses, difficulties in recruitment and significant cost constraint this presentation will attempt to outline a perspective of the problem for critical care education in the South African setting, suggestions for the way forward will be discussed as many of these problems are not unique to South Africa.

SYMPOSIUM: Neurological Monitoring

Creation of a hospital –based community stroke care service: the Lucena United Doctors Hospital experience

Vivian Dedace
Philippines

Here we describe the creation of a hospital-based community stroke center service in Lucena United Doctors Hospital following a modified stroke pathway and protocol creation for the hospital personnel with the objective of rendering quality care giving emphasis on the access time to neurological assessment and treatment using all possible and available resources in the area.

We also describe the experience on stroke information awareness and education of the medical, paramedical (nurses, midwives, nursing aides, laboratory, and x-ray technicians, dietary service personnel) and hospital support personnel (security guard, orderlies and administrative staff) with extension of educational services to the nursing schools in the locality.

SYMPOSIUM: Family Centered Care

Family centered care

Carmencita Lingan
Philippines

Family-centred Care is a philosophy approach for providing care to patients and their families. The basic premise of this philosophy is that patients are part of a larger "whole" of which we must be aware of we are to provide the best possible care.

Family-cantered is care that demands a collaborative approach to care in which all members of the team support and values this philosophy. Providing care that is family centered means that we recognize our responsibility to help the family and the patient survive the crisis of illness. It means that as care provider, we have a moral obligation to meet the three basic needs of the family such as: the need for information, reassurance/support and the need to be near the patient.

Family-centered care is not a new concept, it has long been well established and being practiced in abroad, however, locally only few hospitals support and implement this concept probably due to multi-factoral reasons. It is not difficult but rather it requires a thoughtful and caring appreciation of needs of patients and their families.

A family assessment/information checklist may be used to identify the patient family needs in order to effectively implement this program.

The relationship between critical care nurses and relatives of critically ill patients

Drago Satosek
Slovenia

In our contribution we would like to present new guideline which lead us to necessary actions for achievement of our goal, which is good and beneficial relations with relatives of critically ill patients. As well we would like to show how to improve, deepen and direct those actions toward better state of health of our patients and their fast recovery. Our ability to achieve goals can be estimated and measured. However the approach to each patient and his relatives must be individual, integrated and focused.

The patient must be included into relation between relatives and nurse. When capable, the patient should decide which information will be passed to his/her relatives by the nurse. In certain circumstances, like committing a suicide or some intoxication, in the eyes of patient relatives could be blamed for the resulted situation and their appearance could harm patient's fast recovery. On the other hand there are some situations where the treatment and nursing care would not be successful without a support of relatives, parents or partner. Nurses are the most important link that enables quality, correct and professional bond between patient and relatives. Nevertheless, a nurse must represent patient's interests. Because some relatives see themselves as patient's representatives, this could lead to conflict of interests. Therefore the nurse must act professionally and in benefit of patient's health.

Patients' relatives are most frequently anxious for information about disease, prognosis, nursing care plan and plans of further treatment. Up to date information about patient should be available to the relatives, even on the phone. But for passing such information to relatives, previous authorization should be given by the patient. The nurse who gives information should be aware of providing information about nursing care and interventions. Relation between a nurse and relatives must be professional, responsible and empathized. From time to time a nurse – relative relation could be very personal because of continual struggle for patient's life. Increased personal relation might also be good, because it helps supporting patient's condition. Sometimes psycho-physical support is needed for relatives as well. At the time of patient's death a nurse is mostly oriented towards the relatives, a nurse supports them in hardest moments.

Nurses, who work with critically ill patients and their relatives, need to show high respect for ethical principles, quality work, high professionalism and education. There are some situations in which ethical principles for cooperation with patient's relatives do not give us a uniform answer to questions such as: Should we allow family's presence during reanimation or major intervention? How long a relative can stay with critical ill patient? Should family members have a right to be present when a patient is dying?

Besides showing the current situation in Slovenia in field of critical care nursing and patient - nurse - relative relation, in this contribution we would also like to show a draft of nursing documentation. This documentation is the instrument that helps nurses while working with relatives and it will help by further research. All nurse's interventions are oriented towards quality nursing for patients and integrating relatives into medical treatment of critical ill patients.

SYMPOSIUM: Pulmonary Management

Pulmonary nursing care: beat the threat of ARDS

Cecilia Pena
Philippines

Nurses are constantly present at the patient's bedside, so they are the primary health care professional responsible for monitoring the patient's respiratory status. They are expected to keep an eye on any equipment required by the patient, including ventilators and monitoring equipment, and to respond to monitor alarms.

The nurse is also responsible for notifying the respiratory therapist when mechanical problems occur with the ventilator, and when there are new physician orders that call for changes in the settings or the alarm parameters.

Acute respiratory distress syndrome (ARDS) is the rapid onset of respiratory failure (ability to adequately oxygenate the blood) that can occur in critically ill persons of any age over 1 year. The condition can be life threatening and occurs when the lungs cannot perform normal gas exchange due to severe fluid build-up in both lungs.

ARDS may have persistent functional disability one year after discharge from the intensive care unit, most commonly muscle wasting and weakness. These patients are usually treated in the intensive or critical care unit of a hospital. Treatment consists of mechanical ventilation along with careful attention to fluid balance and a supportive breathing technique called positive end expiratory pressure (PEEP). These are combined with continuing treatment of the precipitating illness or injury.

In a condition like this, the nurse is responsible for documenting frequent respiratory assessments. This usually means documenting ventilator settings and spontaneous respiratory parameters every hour, with a full respiratory assessment, including lung sounds, at least every four hours. The nurse also performs suctioning and provides oral and site care around the artificial airway. There is often a great deal of teaching and reassuring that must be done, both for the patient (if alert) and family; the nurse is in a prime position to address those needs.

Evidence-based nursing practice in pulmonary management

Kyung Ja Song
Korea

Most critically ill patients experience serious episode due to compromised respiratory function. Various medical and nursing interventions to promote gas exchange are implemented to overcome acute exacerbations. Critical care nurses accept respiratory cares as a major area and spend most of their time in delivering direct pulmonary management activities.

Critical care nursing, as a unique field of nursing profession, should take responsibilities on advancing nursing practice. Critical care nurses should not rely solely on intuition, tradition or experience but integrate experience into practice. The concept of evidence-based nursing practice is now widely accepted as a useful strategy for advancing nursing.

Evidence-based nursing practice comes from evidence from research, patient preference, clinical expertise and existing resources. The steps for evidence-based nursing practice are assessing need for change in practice, synthesizing best evidence, designing practice change, implementing & evaluating change in practice and integrating & maintaining change in practice.

Many nurse faculties and clinicians publish academic papers about clinical nursing practice each year. But very little papers are connected to changes in practice. Oral care of intubated patients, chest physiotherapy, suctioning method, weaning method, position change, skin care, and infection control in critical care unit. These are frequently encountered topics in the nursing journal. But these research outcomes are not a great influence on the state of arts of the critical care nursing activities.

Nursing is a practice discipline. The customized routine practices are deeply seeded in the critical nursing care field. With the development of relevant discipline and technology and increased emphasis on quality assurance and cost effectiveness, routine nursing cares need to be re-evaluated. Critical care nurses can play an important role in advancing clinical nursing cares through integration of evidence with nursing expertise and patient, family and community value.

SYMPOSIUM: End-of-Life Issues

End of life issues in intensive care: a literature review

Shelley Schmollgruber
South Africa

Numerous studies have shown that most ICU deaths are preceded by withholding or withdrawing life support. Therefore, the ICU represents a setting is which death is frequently managed and negotiated between clinicians and family members. However, there is evidence to suggest that patients are dying in the ICU with significant pain and other symptoms and without adequate communication between families and clinicians. Inadequate communication has the potential to leave the family with a burden of guilt that will aggravate the trauma of their loss and considerable nurse frustration with end of life practices.

Insight into end of life practices in ICU and experiences of families and clinicians is an initial and necessary consideration in providing appropriate care for the critically ill patient in ICU.

A literature review was conducted in order to understand the complexity of end of life practices in ICU using Medline, CINAHL and Cochrane databases. Key words used to conduct the search were intensive care, ethics, decision-making, and end of life care, communication barriers, physician -family relationships, and physician-nurse relationships. The papers reviewed were research papers that demonstrated the relationship between end of life practices and experiences of patient, families and clinicians. Key findings and recommendations will be described.

A further understanding of end-of-life practice could inform hospital and unit policies and may lead to more detailed information been given to family members to solicit their participation in and understanding of patient care.

SYMPOSIUM: Writing for Publication

Writing for publication: the writing and publishing process

Paul Fulbrook
Australia

The purpose of this paper is to discuss the key elements of writing for publication. It is suggested that by taking a step-by-step approach to writing, and paying close attention to the specific requirements of the target journal, nurses can significantly increase their chances of getting published.

Dissemination of the findings of research is arguably more important than doing the research itself. The best sort of research is that which influences changes in practice. However, many nurses who undertake research are not 'career' researchers and, for them, the challenge of writing for publication can seem very daunting. Just as important as the dissemination of research findings is the dissemination of practice. Many developments that occur in prac-

tice are not directly as a result of research, often they come about through innovative thinking, and sometimes by trial and error. What is important is that others are able to learn from all types of development, so that they then have the chance to benefit by developing their own practice in the light of new knowledge.
Developing a paper for publication can be demanding and challenging, but it is also very rewarding. There are many academics who can help, and sometimes team writing is an effective strategy.

SYMPOSIUM : World wide overview of critical care nursing organisations

A worldwide perspective on critical care nursing organisations

Ged Williams
Australia

Critical care has been a nursing specialty for over 50 years, with many countries forming professional associations to represent these nursing specialists. In 2005 a study was undertaken to profile the issues and activities of as many critical care nursing organisations or countries of the world as possible via a simple survey tool. An earlier attempt by the same team identified 44 possible countries representatives with 23 responding to the survey over a two-year timeframe.

This current attempt identified 80 possible representatives in 80 countries with 51 (64%) completing the survey tool in less than 6 months.

Common issues or priorities for critical care nurses were identified including staffing levels and teamwork as the most important issues for critical care nurses. Other important issues included wages, working conditions and access to quality educational programs. The respondents perceived national conferences, professional representation, standards for educational courses, provision of a website and educational workshops and forums as the five most important activities provided by National Critical Care Nursing Organisations for critical care nurses in their countries.
The establishment of the World Federation of Critical Care Nurses (WFCCN) and multinational regional subgroups of critical care nursing federations appears to have assisted in the communication, collaboration and cooperation amongst critical care nursing leaders of the world and this structure is recommended to continue to address the many issues facing critical care nurses and their patients globally.

Pan American overview of critical care nursing

Laura Alberto
Argentina

This paper describes the previous background to support the launching of an International Critical Care Nursing Organization in the Americas Region, its future aims, philosophies and activities. A brief description about the known Critical Care Nursing Organizations will also be presented.

In 2003 South American critical care nurses first contacted Ged Williams (Foundation Chair of World Federation of Critical Care Nurses), on the occasion of organising the 9th Congress of the World Federation of Societies of Intensive and Critical Care Medicine (WFSICCM). Since then, a series of events have led to the actual possibilities of launching an unprecedented International Critical Care Nursing Organization in Pan America.

Whilst contact with WFCCN were strengthening, active communication strategies by phone and e-mail were done to identify South and Central American Critical Care Nursing Leaders (SACCNL), which then has been invited to Buenos Aires Congress, August 2005. Simultaneously, WFCCN Buenos Aires Congress was also promoted.

In September 2004, South American Critical Care Nurses participated in the 1st Congress of the WFCCN and the 2nd British Association of Critical Care Nurses (BACCN) International Conference in Cambridge, UK; which became the first opportunity to know WFCCN representatives, their growing issues and activities and to consolidate the linkage and collaboration.
In April 2004, Santos Brazil, South American Critical Care Nurses Leaders met Ged Williams, they discussed possibilities to establish a formal and lasting communication, beyond Buenos Aires Congress.

Between April 2005 and August 2005, South American Critical Care Nursing Leaders participated in the 2nd Survey of International Critical Care Nursing Organizations that helped to identify organizations and to promote the meeting in Buenos Aires and also, to invite them to join WFCCN.

In August 2005, during the 9th Congress of WFSICCM, a historic meeting of worldwide Critical Care Nursing Leaders (WFCCN Council and representatives of most of South American countries) took place. WFCCN agreed to support SACCNL in developing an international organization in the region; in this context, the idea of a Pan American Federation of Critical Care Nurses arose and a future discussion was supported. SACCN has already joined this worldwide critical care network and agreed on working together in the future.

Moving to the future, in June 2007, SACCNL and WFCCN representatives will meet again with the purpose of launching a new Critical Care Nurses Federation in the Americas region by October 2007; both meetings will take place in Venezuela.

The development of the Asia Pacific Federation of Critical Care Nurses

Isabelita C Rogado
Philippines

The concept of the formation of the Asia Pacific Federation for Critical Care Nurses (APFCCN) started during the 12th Congress of the WPACCM held last August 2002 in Bali, Indonesia. An informal breakfast meeting was held to discuss the possibility of coming up with a regional critical care organization that would focus on the needs of the critical care nurses in this particular region.
On March 1, 2003, the Critical Care Nurses Association of the Philippines hosted the launching and inaugural meeting of the APFCCN in Manila. Representatives from the critical care organizations of Australia, Korea, Japan, Hong Kong and the Philippines attended this meeting.

The discussion of this topic will focus on the presentations of the overview of the critical care organization of various countries that participated during the launching. Information regarding the current state of critical care organization and their nurses will be provided.

Perspectives on Critical Care Nursing: South Africa

Shelley Schmollgruber
South Africa

South Africa has a proud history of critical care nursing. The Critical Care Society of Southern Africa (CCSSA) has inspired critical care nursing leadership and development, by offering them a home within one of the largest medical organizations. The CCSSA continues to strive to enhance the development of critical care and through their collective responses critical care nurses have gained strength and knowledge and skills in caring for patients.
The first critical care units in South Africa were established in the early 1960s. Under jurisdiction of both departments of education and health, critical care nursing education is provided on two levels, as post registration diploma and as a post graduate Master's degree. South African critical care nurses are independent accountable practitioners who function within a professional ethical framework that is regulated by the South African Nursing Council. Currently there is an acute shortage of critical care nurses and only around 26 % of nurses working in critical care are suitably trained. South African critical care nurses describe the experience of working in critical care as a 'passionate nightmare'.
This presentation incorporates an overview of critical care nursing in South Africa which includes historical background and development within critical care nursing as a discrete speciality, as well as perspectives of nurses working in the critical care units.

SYMPOSIUM: Nutrition Support Issues

Nutritional support in intensive care: lessons from Europe

Paul Fulbrook[1], Anke Bongers[2], John Albarran[3], Zandrie Hofman[2]
[1]Australia, [2]The Netherlands, [3]UK

This paper will present initially the findings of a 20 country European survey of enteral nutrition feeding practices. Data from the survey revealed that although most intensive care units using feeding protocols, there were many units employing outdated procedures with respect to enteral feeding. A minority of intensive care units were supported by nutritional support teams. However, in these units it was more likely that the patient's nutritional risk would be assessed, and that nutritional requirements would be assessed on a daily basis. The findings from this survey will be used as a basis to raise nutritional practice issues that should be addressed within intensive care settings.

Nutrition support issues

Ana Merly Migo
Philippines

The critically ill represent a diverse group of patients from the very young to the very old, male and female, severely malnourished to extremely obese. Their reason for admission to a specialized critical care unit also greatly varies, from major trauma to organ failure and even to severely septic. In addition, they may complicate their illness with a litany of additional co-morbidities. That is why, it is necessary for us to individualize the nutritional approach for a specific patient types and understand not only the basics of nutrition but also the impact and considerations for determining the appropriate interventions.

One of the most important and fundamental factor in determining patient outcomes in the Critical Care Units is the provision of optimal nutrition support to prevent, minimize and correct malnutrition throughout the continuum of care together with other intensive care measures. However, nutritional assessment, therapy and monitoring are often the lowest on the priority of the critical care teams, possibly because malnutrition is not a life threatening emergency demanding their immediate concern and focused responsiveness.

Nutrition support has an important role in the management of nutritional deficiencies in critically ill patients. A full nutritional assessment must be done which includes the calculation of appropriate feeding goals, the route of feeding whether enteral or parenteral and the specific roles of carbohydrates, fats and protein are needed to be considered in order to prevent either under or overfeeding and other complications. The efficacy of enteral and parenteral formulae including careful cost benefit analysis are nutrition support issues that needs to be resolved in the critical care areas.

With the goals to 1) provide nutrition support consistent with the patient's medical condition and the available route of nutrient administration 2) prevent and treat macronutrient and micronutrient deficiencies 3) provide doses of nutrients compatible with the patient metabolism 4) avoid complications related to the technique of dietary delivery and 5) improve patient outcomes, poses great challenges to our profession as a critical care nurse and as a member of the nutrition support team.

SYMPOSIUM: Gate Keeping and Triage in Critical Care

Gate keeping and triaging in critical care

Rusty Francisco
Philippines

The profession of nursing in today's complex and competitive world is undoubtedly experiencing varied, multiple and diversified changes. The multiplicity of nurses' role, variations in the complexity of technological sophistication and the diversification of highly acute client's care demand the acquisition of updated knowledge, integration of hands-on skills and careful application of critical thinking. More than any other clinical areas in any health care settings even nationally and more so globally, the critical care units and critical care nurses are the ones mostly affected by the plethora of continuous and many times extremely demanding responsibilities and adjustments. Adjustments brought about by the astringent policies, third party payment systems, cutthroat competition, legal and ethical issues and consumerisms.

Critical care nurses to be effective are demanded to consistently play multitasking role and sensitively apply quick thinking as a progressive step in underpinning the hallmark of ICU nurses and ICU settings truly reflective of the current multi-faceted practice.

In addition, to meet the continuous challenges in the critical care areas, there is a dire need to intensify the last decade's focal point of providing safer and more efficient care primarily due to the increase cases of litigation process. Furthermore, to be attuned to the current ICU protocol, there is an increasing awareness to apply evidence-based practice, build additional critical care specialization and the awareness and readiness to care for the biggest cohort of older and sicker clients.

With continuous and multitude of concerns in the Critical Care Units,

ICU nurses in particular have no other choice but to assume the expanded and vital role of being the "GATEKEEPERS" and the

"TRIAGE STAFF" for the patients well being in the intensive care areas. Critical nurses ought to possess the educational qualifications, credentialing requirements and technical savvy to efficiently address/meet the present and intricate needs of the ICU patients.

Critical care outreach: gate keeping

Denise Harris
Australia

The critical care outreach team and ICU liaison nurse concepts have emerged in order to manage an increasingly acute patient population within our healthcare system. These roles have been developed to facilitate the level of care and early assessment of patients outside the usual physical boundaries of the intensive care unit. Gate keeping is a term that usually refers to a process employed to ration access to the available critical care service provision within a health facility. With the provision of such services the potential exists to expand the critical care patient population beyond the walls of the intensive care unit. With these roles still being relatively new to the critical care arsenal their impact on the ability to provide comprehensive critical care is still to be evaluated with regard to their efficacy and outcomes at a time of limited resources.

SYMPOSIUM: Quality Indicators for Acute Care Settings

Quality Indicators in Acute Care Settings

Joey Dee
USA

The achievement of optimum clinical outcomes in acute care settings specifically in critical care units is paramount in every levels of the organization charged with the care of the critically ill clients. Numerous monitoring tools and processes are continuously being developed to achieve this goal.

Monitoring quality control indicators in critical care is one of the emphasis in continuous quality improvement (CQI) approaches that is used to identify and correct clinical practice problems and to focus the health care team on refinements in clinical practice. This CQI in critical care follows the 10-steps process advocated by the Joint Commission on the Accreditation of Healthcare Organization (JCAHO). The primary focus of which should be on patient and family outcomes rather than process of care. Quality indicators are indispensable tool when monitoring indicates a less than acceptable level in patient outcomes.

Quality indicators for the acute setting

Annabelle Borromeo
Philippines

Quality or performance improvement in the Philippines is a growing concern. The main goal is the stabilization of health care and delivery processes. An integral part of the quality or performance improvement process is the formulation of indicators for areas of concern.

The four basic uses of indicators are:

1. As baseline and benchmark data
2. For formulating targets
3. For planning quality improvement programs and projects
4. For formulating policy thrusts and targets

In the acute care setting, the quality indicators are focused on three areas:

1. Clinical Indicators
2. Critical Care Experience/ Satisfaction Indicators
3. Administrative/Productivity Indicators which include resource and flow indicators

This presentation will include a discussion of the processes involved in the development, prioritization, measuring, monitoring, reporting, and analysis of the findings from these indicators.

FREE PAPERS

Profile and factors that influenced the choice a of nursing career among entrants of the College of Nursing and School of Midwifery

Alvin C Ogalesco
Philippines

Objective: This study determined the profile and the factors that influence the choice of nursing career among entrants of the College of Nursing of the Catanduanes State Colleges. It specifically looked into the profile of nursing students; the factors that influence their choice of career; and the relationship between profile and the factors that influence the choice of their career. The respondents included were freshmen students of the College of Nursing and School of Midwifery taking up Bachelor of Science in Nursing (BSN) and Associate in Health Science Education (AHSE) totalling to 183.

The study found that nursing students are mostly female, with a high average grade in high school and with varied subject area excelled in high school. The parents of nursing students have income above the poverty threshold of P13,916 per month.

They are college graduates had varied occupation and with 5 children. The study also found that employment opportunities for nurses, income of nurses and financial capacity of parents were considered as prime factors that influenced nursing students from taking the course. Factors like availability of nursing course anywhere in the country, interesting subjects, competence of faculty members and proximity of school from home were also considered as non-personal factors that influenced nursing students from taking the course. Personal factors in choosing a course are influenced by subject area excelled in high school, father's occupation and mother's educational attainment. Non-personal factors in choosing a course are influenced by average grade obtained in high school and number of children in the family.

Based on the findings and conclusions, the following recommendations are offered.

1. Since this study found that there are many nursing students whose income of parents fall below poverty threshold, it is recommended that scholarship programs be made available to poor but deserving students. Through this, the students will be given a chance to continue their studies despite the very limited resources the poor students have.
2. Although results of the study showed that the main reason that influenced the nursing students to take nursing as a career is their possible employment/ placement abroad, nevertheless, the college should vigorously sell their graduates through putting up a workable placement office.
3. The school should try to upgrade the knowledge and skills of nursing students to cope up with changes in the nursing profession to make these graduate globally

competitive.

4. A further study could be conducted along this topic in other schools/college.

Factors that facilitate and hinder the utilisation of the medical emergency team: a nursing perspective

Ann Morgan, Nancy Santiano
Australia.

Objective: To explore factors that facilitate and prevent the optimal utilisation of the Medical Emergency Team System (MET) in an acute hospital.

Significance: The MET replaced the cardiac arrest team in six hospitals within the Sydney South West Area Health Service (SSWAHS) in the late 1990's. An increased awareness of patient safety has led to MET and similar rapid response teams being introduced to increasing numbers of hospitals in Australia, the United Kingdom and the United States. This project enabled the development and implementation of strategies to optimise the utilisation of the MET.

Study Design: Qualitative

Setting: An acute 250 - bed hospital • Study population: Nursing staff

Methods: Four focus groups (FC) and 4 key informant interviews (KII) were conducted. A grounded theory approach was used for the analysis.

Results: Factors that facilitated MET utilisation were: recognised advantages for patient care and safety, and supportive supervisors and peers. Factors that prevented the optimal utilisation of the MET included: a lack of resources to support the implementation of the MET, variability in support for the MET amongst medical staff, criticism directed towards nursing and medical staff from the MET team and, a lack of communication and documentation of modified MET calling criteria where appropriate.

Conclusion: FC and KII were useful in exploring factors that facilitated and hindered optimal utilisation of the MET Results and associated recommendations were presented to the MET stakeholders. Improvement strategies have since been developed and implemented.

Support to critical care nursing personnel

Elizabe Nel
South Africa

One of the most important conclusions of a research study conducted by the Human Sciences Research Council in the late 1980s was that junior intensive care unit (ICU) nurses bear a heavy burden as a result of staff shortages in the ICU and do not receive sufficient support from nursing service managers. Today, ICU nurses regularly present with work related problems such as lack of motivation and frustration due to inadequate equipment, and staff turnover is high. Are ICU nurses unhappy because they do not receive enough support? The question arises, 'How do nurses experience the support they receive in the ICU?'

The purpose of this study was to describe and explore the support received by ICU nurses in private hospitals in Gauteng. To answer the research question, a qualitative, descriptive, explorative and contextual research design was followed. The target population was qualified ICU nurses working in private hospitals in Gauteng. A purposeful convenience sampling was done. The sample consisted of 6 nurses working in five different ICUs in private hospitals in the Gauteng area. The research question put forward to the group was 'Tell me about support in the ICU'. Trustworthiness was ensured and the data obtained from the interview were divided into four categories, namely stress and conflict, debriefing, interpersonal skills and communication, and demotivation. From these categories, guidelines were developed to help support ICU nurses better.

Identifying barriers to end-of-life communications by ICU nurses

Lim Voon Ping, Yu Liang, Foong Mei Fern
Singapore

Objectives: l. Explore ICU nurses' perception towards EOL care. 2. Determine the importance and identify barriers to EOL communications in ICU.

Significance: Nurses' understanding and improving EOL communication is an important focus for improving the quality of care in the ICU. With an understanding of nurses' perception on EOL care, it provides a closer picture of the scope of problem and facilitates adoption of proactive measures to promote good communications about EOL care.

Study design: A self-answered structure questionnaire was used as a survey tool.

Settings: In 4 ICUs (Cardiology, Medical, Surgical and Neuroscience)

Study Population: All registered nurses working in the 4 ICUs. Methodology: The study adopted a descriptive approach. Questionnaires were distributed to 128 registered nurses working in the 4 ICUs. Of which 97(75.8%) nurses

Results: The study revealed 35.1% respondents perceived EOL in ICU as palliative care: providing comfort measures, pain relief and involving family in care. Several barriers to effective communication on EOL in ICU were identified. Majority of respondents (83.5%) had no formal education during nursing training on how to provide EOL care while 68% perceived EOL situations in ICU as not openly discussed in our local culture. 59.8% have difficulty communicating with family due to staffing issues or heavy workload. Nurses (59.8%) also believed inadequate documentation regarding EOL care lead to ambiguity in appropriate nursing care. 77.3% encountered difficulty in communication due to high levels of anxiety and strong emotions among family. 81.4% perceived communication as difficult because family has unrealistic expectations of medical treatment. • Conclusion: This study suggested that EOL communications should be an integral part of ICU nurses' training. With the implementation of EOL communication policy on care of dangerously and/or terminally ill patients across the hospital, this communication and care plan record sheet intend to serve as a guide for health care team to bridge the communication gap in discussion of patient and family-centred decision making.

A Comparison of three solutions for oral care in the ventilated adult

A Berry, Janet Masters, K Rolls
Australia

Significance: Ventilated associated pneumonia is a significant problem for the ventilated patient. A proposed cause is the aspiration of oral secretions which have become inoculated with abnormal flora. Effective methods of providing oral hygiene have not been identified in this population

Study design: Randomized control trial comparing the effects of different solutions on (1) oral assessment score (OAS) Beck's and (2) flora in the oral cavity of adult ventilated patients.

Setting: Tertiary referral centre.

Methods: Patients were randomized on admission into one of 3 treatment arms. All patients received 8 hourly oral care with a small, soft toothbrush and non-foaming toothpaste. Their oral cavities were rinsed with sterile water (A), sodium bicarbonate (B) or chlorhexidine (C). OAS was assessed on admission and daily to extubation. An OAS greater than 10 was classified as moderate to severe oral dysfunction. An oral swab was taken on day 1 and day 4 for semi-quantitative analysis.

Results: Of the 245 patients' enrolled 76 completed data sets for day 4 OAS. Moderate to severe oral dysfunction was evident in 37% (n=28) of patients on enrolment. There was an improvement in the OAS across all intervention groups (A - 12%, B - 33% and C - 32%). A subgroup of 50 had completed microbiological assessment. On day 1 eleven patients had abnormal flora across all groups. On day 4 there were a further 5 cases (A=3, C=2) identified.

Conclusion: This study demonstrates that ventilated patients have a significant oral dysfunction and abnormal flora on admission to ICU. These results suggest that the mechanical action of a toothbrush coupled with the mucolytic effects of sodium bicarbonate provides the better defence against the growth of abnormal flora, and a visual inspection of the oral cavity alone i.e. OAS can not reliably identify oral dysfunction. However the small sample limits the conclusions that can be drawn.

Drinking it in: liquid ventilation - past, present and future

Tina Kendrick
Australia

Unconventional ventilation strategies are those ventilatory strategies that we use in our patients when conventional ventilation fails. Many of these strategies that are used in ICUs today were primarily developed in neonatal and paediatric ICUs for infants and children experiencing acute respiratory failure associated with congenital problems such as diaphragmatic hernia and birth asphyxia or acute respiratory distress syndrome (ARDS) or those children who developed volutrauma or barotrauma.

Types of unconventional strategies include extra-corporeal membrane oxygenation (ECMO), high frequency ventilatory strategies and liquid ventilation. In liquid ventilation, a liquid is instilled directly into the lungs, so that gaseous exchange occurs through diffusion.

The use of liquid ventilation commenced during the First World War as a treatment for mustard gas inhalation. Initially saline was used, with studies undertaken well into the 1960s. Eventually saline was abandoned and work began to find alternatives.

Perfluorocarbon - a greenhouse gas in liquid form - has many of the properties needed for effective gaseous diffusion and is stable, inert and causes no harm to humans. Trials commenced in patients during the 1980s and 1990s, however when compared with HFOV and inspired nitric oxide, benefits were no greater, and the trials subsequently ceased.

Two modes of liquid ventilation have been developed. These are partial liquid ventilation and total or tidal liquid ventilation. Partial liquid ventilation has been used in infants, children and adults, however total or tidal liquid ventilation is still being developed for human trials, with only three infants ever being ventilated in this manner.

As conventional ventilation has seen few breakthroughs in - the past decade, liquid ventilation represents the next stride forward in ventilating patients. The problems to be overcome are associated with expiratory flow, carbon dioxide clearance, ' decreased cardiac output-and appropriate staffing levels.

Discharge planning for emergency patients in Taiwan: research in progress

Chin Yen Han, Alan Barnard, Heather McCosker-Howard
Australia/Taiwan

Objective: This research aims to identify and understand the qualitatively different ways in which emergency department (ED) nurses experience discharge planning for emergency patients in Taiwan.
Significance: During recent reforms to the Taiwanese health care system, discharge planning for hospital patients has become an issue of great concern as a result of shorter hospital stays, increased health care costs and a greater emphasis on community care. Discharge planning within the ED is a particularly important issue given the significant number of patients who attend ED services and that more than 85% of hospital patients are discharged from the ED. ED nurses are responsible for implementing effective discharge planning as part of their legal obligations. For ED nurses to function effectively in the role of discharge planner, it is important that they have a comprehensive understanding of their roles in discharge planning.

Study design, methods, setting and study population: Using the qualitative approach of phenomenography, 32 nurses from two EDs in Taiwan were interviewed to describe their experience and understanding of their role in relation to discharge planning.
Results: This paper will report on work completed to date and highlight key insights into the provision of discharge services both in Taiwan and world-wide. The paper will focus on expected advantages of completing the research and its implications for care provision within Emergency Departments in Taiwan.

Conclusion: The findings of this research will contribute to knowledge of ED nurses' experience of the discharge planning and will have implications for future research, workforce planning, education and health care policy development in Taiwan.

POSTER ABSTRACTS

Open and closed system endotracheal suctioning: a comparative analysis

Isabelita C Rogado
Philippines

Objective: This study compared the open and closed system techniques in terms of its effect on the Patient's physiological responses, nurses' perceived acceptability and cost.
Significance: This study will impact on patient outcome, Determine best practice and supplement information regarding respiratory care, suctioning in particular.

Study design: This study utilized the quasi-experimental design. Data generated were analysed using statistical treatment.

Setting: The study was done in the 4 intensive care units of a tertiary specialty hospital.

Study Population: Patients who are ventilated and have endotracheal tubes and are not undergoing weaning were included in the study. Those diagnosed to have chronic obstructive pulmonary disease were excluded.

Methods: Data were collected from 40 ventilated patients through block randomized design. There were 36 ICU nurses who performed the two types of suctioning techniques and answered the perceived acceptability questionnaires. Cost was computed based on supplies and equipment used.

Results: Both techniques have the same physiologic effects on the patients. The nurses perceived that the open system is very acceptable than the dosed system in suctioning the secretions. The cost of the open system is more acceptable than the dosed system.

Conclusion: Patent out should be the primary consideration in any practice. Perception can yield subjectivity despite parameters =t. Cost can be affected by economics, that is supply and demand. A comprehensive study including infection control can e considered in another study to firm up the impact of the open and closed system suctioning techniques in terms of patient outcome.

Knowledge and competences between in intensive care units from patients and nurses perspectives

Slavica Klancar, Drago Satosek
Slovenia

Institution: *Slovenia n association of emergency and critical care nursing, **Medical Emergency Department, University Medical Centre Ljubljana, Slovenia Critical Care Nursing is relatively young science in Slovenia. Nurses acquire all knowledge and recommendations for their work on bases of development of critical care nursing in Europe and the rest of the World. Since we are actively involved with international development of critical care, we conscientiously follow their directives.

Despite good basic nursing education that nurses acquire at the university, there is an obvious need for permanent additional education and a lot of additional practical skills. Much needed additional knowledge and skills for nurses is available at different congresses and seminars, organized by Associations that work in different fields of critical care.

For the performance of professional practice and acquiring of competences, is fundamental, that critical care nurse has a suitable education and that the nurse helps to fulfil the mission, the vision, to respect the values and quality, to respect ethical standards that are recorded in all educational standards for this profession, Practicing of holistic nursing care is basic term. Knowledge is doubtless most important in clinical practice.

In our presentation we would like to present some deviations of recommendations and practice (recommendations that for different reasons never occur in practice). We believe that that at the moment among the most important reasons in Slovenia for the lack of full implementation of recommendations is shortage of critical care nurses.

We are looking forward to Document that will regulate 'Division of work and competences of nurses", which for now is still in preparation phase. 'Division of works and competences of nurses" is one of the newest and most important documents in nursing care in Slovenia. This document is also a professional standard, which will lay down fundamental termination about competences, tasks, methods and division of work in nursing care. That is way a document will have an important impact on function, organization and working process of nursing care, as well as on nursing education.

The document is planned to set up criteria on how to:

1. Perform support for basic life function and fulfilment of needs of individual, his family and community
2. Understand the needed procedures and suitable levels of competency
3. Perform division of works in nursing team
4. Identify and organize competences of critical nursing care according to its functions and aims

In our paper we will present the results of questionnaire, by which we tried to discover, how Slovenian Critical care nurses perceive the separation (parting) of directions, competences, recommendations and clinical practice in critical care units. We tried to discover how recommendations are implemented in practice and what main reasons for deviation are.

In Slovenia there are many elaborated instructions and standards in field of critical care nursing, but they are not preformed in unitary way. Their practical implication varies according to different development of critical care and number of trained specialists and staff support in units of critical care.

Nowadays it is easier to follow standards of education and nursing rights at critical care units, because WFCCN and EfCCNa have developed detailed standards and guidelines.

Slovenian nurses, who work on field of critical care nursing (Slovenian critical care nurses), are pleased to have an opportunity to contribute to development our profession together with colleagues from all over the World. We realized how to acquire the knowledge that is most important for competences in clinical practice.

Needle stick injury: Philippine perspective

Ruth Padilla, Isabelita C Rogado, Larry Tagalog
Phlippines

Objective: This study aims to have national perspective about the prevalence and causes of needle stick injury among health care workers.

Significance: This study will give the perspective regarding needle sick injury and information reflective of the awareness of this hazard, precautionary measures undertaken to future direc-

tions that can be undertaken to minimize if not to eliminate this health hazard.

Study design: This is a qualitative study describing the perspective of needle stick injury in the Philippines Setting: The study was conducted in various hospital in the Philippines with known infection control nurse.

Study Population: Infection control nurses were requested to participate in the study.

Methods: A survey tool was distributed to various hospitals through the infection control officer. The survey was based on the important considerations / data identified by the Center for Disease Control. The survey tools were faxed to the respective Director of the hospitals to get their approval for the release of data. The result was collated and presented for statistical treatment. The study was started in April 2005 with 89 survey forms distributed. Data collection took six months. Data were then analysed.

Results: The study showed that there was a very low turn over of data considering that most institution would not want to share their data. The data reflected that most hospitals do not have an accurate recording of injury related to needle stick; there were few institutions with infection control programs focusing on preventing needle stick injury; common causes of needle stick injuries are related to handling and recapping.

Conclusion: There is a need to pursue not just institutional programs but a country-wide program. There is a need to educate the public and lawmakers on the perils of unsafe needle devices by putting a face on the tragedy it brings.

Is the level of nursing complexity in terms of device and medication management associated with illness severity of emergency admitted patients?

Miyako Kuwahara
Japan

Objective: To identify if there is any association between illness severity of a patient admitted to emergency ICU and the level of complexity in terms of device and medication management.

Significance: Adequate nurse staffing is frequently challenging in ICU of Emergency Center given a wide range of illness severity, which may be associated with numbers of therapeutic devices and medications that a nurse handles.

Study design: Prospective surveillance of use/non-use of 13 selected intravenous medications and 16 selected therapeutic devices.

Setting: ICU of Emergency Center at acute care teaching hospital with 520-beds in Tokyo, Japan

Study Population: Adult patients of emergency admission. Diagnosis include resuscitated CPA of cardiogenic origin, CVA, ICH, SAH, multiple trauma, drug intoxication, and others.

Methods: Comparison of APACHE II score on admission in institutional database and the summed number of the devices and medication by descriptive approach.

Results: No association was appreciated between illness severity on admission and the total number of devices/ medication in respective patients.

Conclusion: Illness severity on admission as expressed by APACHE II score seemingly does not provide enough information for adequate nurse staffing. Further analyses and discussion is required to reveal the nursing-sensitive factors that could predict nursing complexity in ICU so that nurse staffing reasonable for patient safety be facilitated.

Role development of Respiratory Care Practitioner in a general hospital in Korea

Young Ae Cho, Chung Sook Kim, Jung Lim Lee
Korea

Introduction. With the mounting development in medicine and medical instruments, nurses are required to change their roles; more diversified and comprehensive with the expertise. Among critical care nurse specialists, needs of respiratory care practitioners (RCP) have increased more and more because specific respiratory cares in ICU need high skilled nursing practices and well-developed respiratory cares in general wards play an important role for preventing post-operative lung complications and helping patients' recovery. Also due to increasing severity of patients, nurses in wards also are confronted by difficult situations like ventilator care. But there was no RCP in charge of these specialized cares in Korea. Samsung Medical Center introduced RCP system in order to provide qualified respiratory cares and support medical personnel including nurses in 2003.

Method. 2 RCPs who had clinical experiences in ICU over 5 years and graduate degree after 8 weeks in respiratory care program in Pittzberg University in America. Provided respiratory cares for almost 2years were analysed and jobs were classified according to 5 roles of clinical nurse specialist in ANA.

Results. Respiratory cares provided for 2 years are divided into b categories; non-ICU mechanical ventilator care, bronchial hygiene care, airway management care, respiratory assessment and tests, oxygen and aerosol therapy, and special respiratory therapies. Bronchial hygiene therapy, including chest physiotherapy, pre and post operative breathing exercise, topped the list with 56.3%, followed by mechanical ventilator care in general wards and `

ER(27.5%), airway management(7.1 %), critical care such as NO therapy, TGI(5.8%), the others including oxygen and aerosol therapy(3.3%). Classification and distribution of jobs were as follows. Among the role of RCPs, clinical role such as making care _ plan, providing direct care, developing protocol was 64.5%. Educator role was constituted 17.8%. The educator role in 2"d year went up almost 2 times than that in 1 year because we need to improve the general nurses' competency of respiratory care. Thus 4 kinds of special lecture in combination of practice were performed; artificial airway management, oxygen and aerosol therapy, breathing exercise and mechanical ventilation. The consultant role was 5 to 10%. And researcher role made up only 2%.

Discussion. Unlike respiratory therapists in America have taken g charge of all kinds of respiratory cares, in Korea, nurses have provided as a part of nursing cares. Because we are in the beginning stage yet, it is very important task to establish a specially tailored role of RCP for Korean hospitals. Therefore, I propose that role of RCPs in Korea is not to concentrate on applying each basic breathing modality directly but to lead qualified respiratory treatments by standardizing of breathing modalities, educating medical staff and providing complicated patient cares. Hence, role has been focused in expert clinician until now and it is desirable for roles of educator and consultant to be extended step by step.

Is there any family nursing demanded on visitation at ED/ICU and HCU?

Chikage Kubota , Yoriko Yumuro, Chikako Nakamura, Yukiko Miyaji
Japan

Objective: This study was designed to find out needs of family members in ICU and HCU (High Care Unit as known as less acute level from ICU in Japan), and knowledge on family nursing of nurses.

Significance: Finding out a direction of nursing about family visitation.

Study design: Research on questionnaire. • Setting: from March to June 2004.

Study Population: 28 families on ICU, and 29 families on HCU and 40 RNs in Emergency department.

Methods: Questionnaires on information relation with approach to family under informed consent and anonymously collected.

Results: 78.6% of families on ICU wanted to confirm patient present status with their own eyes and 67.9% were concerned about future treatment. They wanted to talk to RNs more than doctors. Over 70% wished to talk with patients. Likewise, 72.4% of families on HCU wanted to confirm patient present status and wanted to touch to patients (about 60%). In contrast to ICU, need to talk to nurses decreased (27.2%) and satisfaction with environment of visitation increased (58.5%). Most of RNs had some difficulties about visitation.

Conclusion: Family nursing is demanded on visitation at ED/ICU and HCU. At visitation may be a good time for family nursing. Recognition of family needs is crucial role as a nurse. Education to nurses may be a first step for future progress.

The effects of preoperative information on the anxiety and knowledge in patients with liver transplantation

Sunhee Kim, Hakyeong Kim, Junghyun Kim, Hyojung Choi
Korea

Objective: This study was to investigate the effects of preoperative information on the anxiety and knowledge experienced by liver transplantation patients during their stay at the ICU.

Significance: Preoperative information was provided with structured booklet by ICU nurses.

Study design: This study was a non-equivalent control group quasiexperimental design.

Setting: Surgical intensive care unit in Asan Medical Center.

Study population: Data was collected from 26 patients hospitalised liver transplantation from July 28, 2005 to September 30, 2005.

Methods: The subjects consisted of two groups of liver transplantation patients: 13 patients in the experimental group have received detailed nursing information. Pre-operative information consisted of ICU environment and liver transplantation postoperative cares. 13 patients in the control group have received conventional nursing care only. The tool included a 10 items knowledge scale and Spielberger's State Trait anxiety Inventory. Data were analysed with Chi¬squre test and Mann-Whitney U test.

Result: The State Anxiety decreased in experimental groups more than control groups, butthere was no significant difference in anxiety between both groups (U=62.50, p=.27). Knowledge increased in two groups, but experimental group's knowledge increased significantly larger than control groups (U=37.00, p=.01).

Conclusion: The preoperative information was not significantly decreased in anxiety. The result indicates a need for individualized characteristics of information to provide a proper balance in information. But the preoperative information increased knowledge about liver transplantation postoperative cares and there is an effective nursing intervention in order to increase the knowledge in patients with liver transplantation.

Comparison of glucose level using glucometer according to sampling method in ICU

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Korea

Institution: Korea university Ansan hospital SICU', departments of anesthesiology2, neurosurgery3 *Purpose: When we check glucose level using glucometer, we almost mix peripheral, venous and arterial blood in use. But there are few studies or evaluations about these situations. So we achieved this study to suggest the need for education about blood sugar level test and to get basic data for development of a guideline to obtain value of blood sugar.

Method: The subjects were 50 patients who admitted to ICU in Dec. from Sep. 2004. We measured each glucose levels of peripheral, venous and arterial blood using glucometer on same time. And investigated glucose, haemoglobin and haematocrit value of venous blood in laboratory. Data were analysed by paired t-test, Wilcoxon signed¬ rank test using SPSS 10.0, and p value less than 0.01 was considered as statically significant.

Results: As each of analysing result, t value (-9.664) and p value (0.000**) were significant between peripheral and arterial glucose level using glucometer. When the glucose levels were in normal range those of peripheral and arterial were not significant statistically, But when the glucose level were moderate higher (110- 130mg/dl) or in high (> 130mg/dl), arterial glucose level were measured lower significantly. Each different values are 8.85mg/dl (7.3%P) and 1 1.8mg/dl (7.04%P) (p<.O1). As a result from analysis between peripheral and venous glucose levels, even data of high blood sugar level, there was not significant difference (t-.643, p .522). In case of low haemoglobin (<8.0g/dl) in blood, it was significant different from peripheral and arterial glucose level using glucometer (9.64%P, p .000)(p<.O1). When hematocrit level was below 25%, p value was 0.005 and it was 0.001 when haematocrit was below 35%, between peripheral glucose level using glucometer and venous glucose level in laboratory.

Effect of nebulized bronchodilator in mechanically ventilated adult open heart surgery patients

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Korea

Objective: To analyze effect of nebulized bronchodilator on vital signs (especially heart rate) and pulmonary function (Pa02, SP02, peak airway pressure, lung compliance in mechanically ventilated adult open heart surgery patients.

Methods: The data was collected from 8 patients who were intubated and mechanically ventilated after CPB used open heart surgery, and ordered bronchodilator nebulizer therapy. We measured the heart rate, ABGA, SP02, peak airway pressure, lung compliance 4 times before intervention, after using nebulized bronchodilator 30minutes, 60minutes, 90 minutes in each patient.

This study adopted one-group pre-test – post-test design.

Results: 1. There were no differences in heart rate (P=.898), SPO2 (P=.1 41), peak airway pressure (P=.216), lung compliance(P=.503) by using nebulized bronchodilator.

2. There was difference in Pa02 by using nebulized bronchodilator (P=.008). Especially, there was significant difference in Pa02 after using nebulized bronchodilator (P=.003).

Conclusions: The finding of this study showed nebulized bronchodilator had therapeutic effect of increasing Pa02 in mechanically ventilated adult open heart surgery patients.

The effects of hyperventilation and hyperoxygenation techniques in mechanical ventilatory patients with closed suctioning system

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South Korea

Objective: The purpose of this study was to examine the effects of pre & post hyperventilation & hyperoxygenation in mechanical ventilatory patients with closed suctioning intervention.
Significance: To find the response of closed suctioning intervention with hyperventilation & hyperoxygenation in mechanical ventilatory patients.

Design: Four methods compared with group 1 (no hyperoxygenation & hyperventilation), group 2 (hyperventilation), group 3 (hyperoxygenation) & group 4 (hyperventilation combined with hyperoxygenation). Heart rate, mean blood pressure & Sp02 are evaluated in relation to pre & post closed suctioning.

Setting: This study was conducted over I week from 14th to 21st, September, 2005 in medical intensive care unit of Seoul National University hospital.

Population: The sample consisted of 20 patients with cuffed endotracheal tube or tracheal tube in place. Any patients with Sp02 < 70%, Peak inspiratory pressure > 50cmHz0, Fi02 > 100% was excluded from this study. Patients who have arrhythmia or unstable vital sign, changing ventilatory mode were also excluded. All participants were randomly assigned to one of four groups.
Results: The results indicate no differences in four techniques. There were no significant differences of HR, mean BP & Sp02 between four methods. It means closed suctioning is relatively safe methods without changing patient's condition.

Recommendation: We suggest providing hyperoxygenation combined with hyperoxygenation to increase SaO2 pre and post suctioning intervention in mechanically ventilated patients.

The role of CRRT Nurses in ICU

Min Jung Soe, Moung Kwun Koh, Young Ae Cho
Korea

Background/introduction: ICU commits highly trained medical personnel and sophisticated equipments for intensive medical treatments of patients in critical condition. As acutely ill patients increase, it often needs adequate and immediate interventions. Many patients with septicaemia or ARDS, shock, and multi organ failure and show dramatic decrease in blood pressure during dialysis needed continuous renal replacement therapy by HD nurses. As a comprehensive treatment strategy for the ICU patients, we run the ICU CRRT nurses to improve CRRT service. Newly CRRT nurses assigned to provide high-quality and specialized medical care and to meet the increasing demand for immediate treatment in ICU.

The role of CRRT nurses in Samsung Medical Center we started with 4 CRRT equipments and 2 nurses who have experienced in ICU over 5years and master degree in critical care for b ICU units. Patients were enrolled to them by nephrology physician. First of all, they checked the orders, Assess patient's fluid and electrolyte balance and overall condition. And also they were preparing and setting up, initiating the CRRT procedure. From the onset of CRRT nurses maintained patients and equipments through monitoring pressures and system for signs of clotting, infection, hypothermia, and other troubleshooting alarms. Also they terminate the CRRT when it is not useful to patients or the renal functions recovered. And finally they taught other nurses to maintain the CRRT process.

Status of operations 527 patients received CRRT during 2 years. Reasons of CRRT initiation were azotaemia, volume overload, metabolic abnormally, toxin removal, electrolyte imbalance, etc. It was available to apply the CRRT as soon as possible to the patients when they were ordered. And we checked the filter using hour to maintain the filter function and to avoid unnecessary filter change. Main reasons for filter changing were clotting, catheter malfunction and etc. By enhancing the quality, we must further define and expand the role of CRRT and emphasize the need for CRRT related clinical practice in ICU.

Conclusion: It is a good model of critical care specialist. CRRT nurses need full experience many knowledge with critical care. CRRT team is very useful and efficient to take care of critically ill patients in ICU.

A study of caring behaviors perception recommendations and clinical practice

Shu-Ching
Taiwan

This research used a cross-sectional survey design in which patients and nurses from two medical centres in southern Taiwan. The instrument was a caring behaviour assessment. The study conducted uses a convenient sampling and anonymous questionnaire; the following factors were measured using self-report questionnaire or interview from respondents of 100 patients and 99 nurses. The main purpose is to compare intensive care unit patient with the attitudes of the nursing staff. The result showed an average score of 276.13-_ 25.50 points for the ICU nursing staffs; which is higher than the patients' score of 267.84--44.31.

There are no significant differences between the two resulting scores. Base on a comparison of seven caring behaviour dimension, the study showed significant difference on the three caring behaviour dimension of "help-trust", "teaching-learning" and "human needs ". Patients value" human needs" as most important while nursing staffs value caring behaviour of "support, protective, corrective environment ". The score of human needs "expression of positive and negative feeling human needs "and "teaching¬ learning" correlate to the marriage status of the respondents. Patients that are married have a higher score than that of patients who are single or widowed. The score varies also with the duration of the patients' stay in the ICU.

Patients who stay longer than five days will generally have a higher score on "humanistic-altruistic, faith-hope, sensitivity". Base on the demographic of the nursing staffs, the study showed significant between "help-trust", "teaching-learning", " support,

protective, corrective environment" and "human needs". Nurses with junior college degree received higher scores than those with bachelor's degree. Marriage status plays an important role in "human needs" where married nurses have higher score than singled nurses.

The result of this study can be applied to clinical practice, management and education. This can reduce the difference of opinions between the patients and nurses; as a result, the patients' overall satisfaction will be increased.

Psychometric testing of the Chinese-Mandarin version of the Myocardial Infarction Dimensional Assessment Scale

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Objective: To evaluate the validity, reliability, and cultural relevance of the Chinese-Mandarin version of Myocardial Infarction Dimensional Assessment Scale (MIDAS) as a disease-specific quality of life measure.

Significance: Translation of the previously developed and validated instruments is a critical step to groups whose language is not English

Methods: The cultural relevance and content validity of the Chinese Mandarin-version of the MIDAS (CM-MIDAS) was evaluated by an expert panel. Measurement performance was tested on 180 randomly selected Chinese MI patents. Thirty participants from the primary group completed the CM-MIDAS for test-retest reliability after two weeks. Reliability, validity and discriminatory power of the CM-MIDAS were calculated.

Results: Two items were modified as suggested by the expert panel. The overall CM-MIDAS had acceptable internal consistency with Cronbach's a coefficient 0.93 for the scale and 0.71-0.94 for the seven domains. Test-retest reliability by intra-class correlations was 0.85 for the overall scale and 0.74-0.94 for the seven domains. There was acceptable concurrent validity with significant ($p<0.05$) correlations between the CM-MDAS and the Chinese Version of the Short Form 36. The principal components analysis extracted seven factors that explained 67.18% of the variance with high factor loading indicating good construct validity.

Conclusion: Empirical data support CM-MIDAS as a valid and reliable disease-specific quality of life measure for Chinese Mandarin speaking patients with myocardial infarction.