WFCCN/ACCCN World Congress, Brisbane Australia, April 2016: abstracts

World Federation of Critical Care Nurses
Australian College of Critical Care Nurses

Key words: abstracts ❖ conference ❖ congress ❖ critical care ❖ nursing ❖

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SUMMARY

- The WFCCN/ACCCN World Congress was held in Brisbane Australia, 21-23 April 2016.
- All free papers were peer-reviewed.
- All authors are responsible for the content and accuracy of their abstract.

INVITED SPEAKER ABSTRACTS

Interprofessional education rounds - a tool for learning

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Aim

The objectives of these interprofessional rounds was to enhance the students learning and it is designed to increase their skills, competencies, clinical experience, and also enable students to consider ethical perspectives of the intensive care patient.

Summary

Background: The intensive care unit (ICU) at Danderyd´s University Hospital Stockholm has approximately 70 students each semester, doing their clinical work placement on the ward. All students have different educational background and study in various health care programs, from undergraduate nursing students, specialist students to junior doctors and doctors doing their residency. Three years ago all students and some of the staff participated in an evaluation of possible areas of improvement on the ward. One of the subjects they mentioned was the round situation. There was very little participation and learning, mostly only prescriptions from doctor to nurse without dialog and reflection. This was the starting point to begin with a new learning activity. Since then, we have had an Inter- professional program, where we once a week have performed a sitting round with learning as the main focus. We have used an admitted ICU critical ill patient and have done a regular round together but have been able to dig in deeper into to some areas of interest in the patient's condition. We had the responsible team, doctor, specialist nurse and auxiliary nurse present, but with the intention to have a reflective dialog with the students concerning the patient's needs and treatment and nursing care. The objective of these interprofessional rounds was to enhance the students learning and it is designed to increase their skills, competencies, clinical experience, and also enable students to consider ethical perspectives of the intensive care patient. Method: The students and the staff present at the round have filled in an evaluation of the IPE. With objectives of how they experienced the round. Results: The result shows that the students and staff have a greater understanding of the different professional roles and agree with the importance of collaboration within the team. They also got a better understanding of how the treatment and nursing care was given by the patient´s professional team. 99% of the participants would recommend others to participate in the seminar. The benefit for the staff has been better adaption to standards and guidelines. Conclusion: The IPE round is a "learning space" you can use for learning. It is cost effective and gives the student and staff an enhancement in the students' knowledge after participating in the round. The seminar is designed to fill its purpose to improve knowledge and collaboration, communication and teamwork. "To learn with, from and about each other to improve collaboration and the quality care CAIPE 2002".

Implications and recommendations for nursing practice

- Tool for training new nurses
- Tool for training collaboration and teamwork with other health care professions
- Increase adaption to standards and guidelines.

Further reading

Bluteau P, Jackson A (2009). Interprofessional Education: Making It Happen. Basingstoke, Palgrave Macmillan.

Pronovost P et al. (2003). Improving communication in the ICU using daily goals. Journal of Critical Care 18(2): 71-75.

Wheelan SA (2013). Creating Effective Teams: A Guide for Members and Leaders. Sage Publications.

Meeting KDIGO AKI therapy standards using regional citrate anticoagulation and the MultiFiltrate Pro

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Aim

To introduce participants to the use of the newly launched MultiFiltrate Pro in order to provide best practice CRRT as outlined in the KDIGO AKI guidelines through the optional provision of regional citrate anticoagulation.

Summary

During this 1 hour 15 minute session, participants will move through a series of 3 stations each with a focus related to the main topic. Station 1: Using the Multifiltrate Pro – Demonstration (20 minute)

Section 2: Fluids used for CRRT – New from Fresenius Medical Care (20 minutes). Station 3: Citrate Regional Anticoagulation – The Berlin Protocol (20 minutes) Fresenius Medical Care has always focused on services for people. We consider the needs of both the patient and staff when developing systems of therapy. Our new Multifiltrate Pro consumable and fluid range will provide a comprehensive product range for acute renal replacement and plasma therapy with an option for integrated regional citrate anticoagulation. The advantages of citrate anticoagulation are said to include:

- Preferred anticoagulation in CRRT in accordance with the KDIGO Clinical Practice Guideline for Acute Kidney Injury
- Prolonged filter patency compared with heparin anticoagulation
- Reduced bleeding risk due to regional anticoagulation
- Omission of heparin possible, as mandatory with HIT
- Acid-base status adjustable

The advantages of Ci-Ca® therapy with integrated Ci-Ca® module are:

- Reconnected citrate and calcium tubing's clearly assigned on the cassette • Colour coding for intuitive setup
- Different connectors for citrate and calcium to avoid mix-up of bags
- Citrate and calcium flow coupled with blood and filtrate flows
- Well suited set of disposables and solutions

Further reading

Kidney Disease: Improving Global Outcomes (KDIGO) Acute Kidney Injury Work Group (2012). KDIGO Clinical Practice Guideline for Acute Kidney Injury. Kidney International 2 (Suppl.1): 1-138.

Morgera S et al. (2009). A safe citrate anticoagulation protocol with variable treatment efficacy and excellent control of the acid-base status. Critical Care Medicine 37(6): 2018-2024.

Zhang Z, Hongying N (2012). Efficacy and safety of regional citrate anticoagulation in critically ill patients undergoing continuous renal replacement therapy. Intensive Care Medicine 38(1): 20-28.

How can we use systematic reviews to inform clinical practice?

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Aim

Systematic reviews provide the highest quality evidence and inform clinical practice. For patient benefit, it is imperative that nurses keep abreast of evidence-based practice. This presentation highlights where to find systematic reviews and how the information presented can be used to inform care.

Summary

Clinical research is increasing at an incredible rate. In the clinical trials database alone, more than 2000 new studies are registered/month (1) and this does not include qualitative studies that do not require registration. Keeping abreast of current evidence can not only be a time consuming process, but can be problematic when studies produce conflicting results. Systematic reviews can be useful for summarizing the increasing amount of knowledge that is gained from scientific papers. In addition, combining individual studies in a meta-analysis increases statistical power, resulting in more precise effect estimates (2). This presentation draws upon a few systematic reviews relevant to ICU nursing practice, highlights their findings and demonstrates how the information can be used to inform translation of evidence into practice. Additionally, although these reviews include steps to minimize bias, nurses should be aware of some of the biases that may reduce confidence in the findings.

Implications and recommendations for nursing practice

- Systematic reviews can be useful tools for informing evidence based practice, however (1) knowing where to find systematic reviews is key to keeping up to date; and (2) knowing how to interpret review findings is necessary for understanding their relevance to local practice.

References

(1) Clinicaltrials.gov (2016). Trends, charts and maps. [Online] Available at: https://clinicaltrials.gov/ct2/resources/trends

(2) Higgins JPT, Green S (Eds) (2011). Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0 [updated March 2011]. The Cochrane Collaboration. [Online] Available at: www.cochrane-handbook.org

Using protocols in ICU practice: engaging staff

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Aim

Protocols are evidenced-based structured guides for directing care to achieve improvements. But translating that evidence into practice is a major challenge. It is not acceptable to simply introduce the protocol and expect it to be adopted and lead to change in practice. Implementation requires effective leadership, management and engagement of staff. This presentation describes a strategy for implementation that should promote successful adoption and lead to practice change.

Summary

There are many social and behavioural change models to assist and guide practice change. Choosing a model to guide implementation is important for providing a framework for action. The change process requires careful thought, from the protocol itself to the policies and politics within the ICU (1). In this presentation, I discuss a useful pragmatic guide called the 6SQuID (6 Steps in Quality Intervention Development) (2). This was initially designed for public health interventions, but the model has wider applicability and has similarities with other change process models. Steps requiring consideration include examining the purpose and the need for change; the staff that will be affected and the impact on their workload; and the evidence base supporting the protocol. Subsequent steps in the process that the ICU manager should consider are the change mechanism (widespread multi-disciplinary consultation; adapting the protocol to the local ICU); and identifying how to deliver the change mechanism (educational workshops and preparing staff for the changes are imperative). Recognising the barriers to implementation and change and addressing these locally is also important. Once the protocol has been implemented, there is generally a learning curve before it becomes embedded in practice. Audit and feedback on adherence are useful strategies to monitor and sustain the changes. Managing change successfully will promote a positive experience for staff. In turn, this will encourage a culture of enthusiasm for translating evidence into practice.

Implications and recommendations for nursing practice

- Pre-implementation, engagement of all staff is key to change management
- Implementation requires careful planning using a framework as a guide
- Audit and feedback are important to minitor and evaluate practice change.

References

(1) Castiglione SA, Ritchie JA (2012). Moving into action: We know what practices we want to change, now what? An implementation guide for health care practitioners. [Online] Available at http://www.cihr-irsc. gc.ca/e/45669.html

(2) Wight D et al. (2015). Six steps in quality intervention development (6SQuID). Journal of Epidemiology and Community Health. [Epub ahead of print]. Published Online First: 16 November 2015 doi: 10.1135/jech-2015205952

Weaning from ventilation

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Aim

Getting off the ventilator is an important patient-centred outcome for patients with acute respiratory failure. It signifies an improvement in the patient's condition, enables easier communication, reduces fear and anxiety and consequently a reduced requirement for sedatives. Weaning from ventilation therefore is a core ICU nursing task that is addressed in this presentation.

Summary

There are different schools of thought on when ventilator weaning begins including: (a) from intubation with titration of support; and (b) only when the patient's condition improves. There are also different schools of thought on how to wean including gradual reductions in ventilator support to: (a) a low level consistent with extubation; or (b) to a level to attempt a spontaneous breathing trial followed by extubation if successful (1). Regardless of the approach, what is patient-relevant is the need to determine early when the patient may be 'ready' to discontinue ventilation. This time point can be assessed using simple criteria and should involve all ICU staff to the level of their experience. This presentation challenges the notion that only senior nurses or nurses with a 'weaning course' should be involved in the weaning process and proposes opportunities for engaging nurses with all levels of experience (2)].

Implications and recommendations for nursing practice

- Weaning patients from ventilation is everybody's responsibility
- An ICU nursing taskforce that is focused and engaged in determining patient readiness for weaning can make a strong contribution to patient-relevant outcomes.

References

(1) Blackwood B et al. (2014). Protocolized versus non-protocolized weaning for reducing the duration of mechanical ventilation in critically ill adult patients (Updated Review). Cochrane Database of Systematic Reviews 2014 Issue 11. DOI: 10.1002/14651858.CD006904.pub3

(2) Blackwood B, Tume L (2015). The implausibility of 'usual care' in an open system: sedation and weaning practices in paediatric intensive care units (PICUs) in the United Kingdom (UK). Trials 16:325 DOI: 10.11186/s13063-0150846-3 http://www.trialsjournal.com/content/16/1/325

Retrievals through natural disasters

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Aim

This presentation describes how a paediatric retrieval team provided ICU care to their patient in a natural disaster outside a hospital setting.

Summary

A paediatric retrieval team was tasked to undertake a retrieval with an impending weather event. The Lady Cilento Children's Hospital had only recently opened. The team became flood-bound with the patient and carer on board. Nobody had oversight of this. An interplay of services and hospitals results in the safe transfer of the patient, carer, team and Queensland Ambulance Service ICPs.

Implications and recommendations for nursing practice

- Services need to have oversight of their teams - where they are if they work externally. Communication is key.

Cultural care in critical care: open discussion

Brisbane Declaration Working Group: Friganovic, Adriano (Croatia); Lopez, Violeta (Singapore); Williams, Ged (UAE); Bloomer, Melissa (Australia); Northam, Holly (Australia)

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Aim

The aim of these two discussion sessions is to consider all aspects of critical care nursing that are relevant to the development of a World Federation of Critical Care Nurses (WFCCN) position statement (Declaration) on cultural critical care practice.

Summary

The working group will facilitate an open discussion. All interested nurses are invited to participate.

Implications and recommendations for nursing practice

- It is anticipated that a short WFCCN statement will be developed that will be presented during the conference. This statement will form the basis of a more detailed Declaration that will be published by WFCCN at a later date.

The what, why and how of ECMO

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Aim

This presentation aims to provide an overview of ECMO and the implications of caring for a patient through a case study.

Summary

ECMO is a treatment used to provide respiratory and cardiac support in patients who have not responded to maximal conventional therapies. It may be used as a bridge to recovery, a mechanical cardiac support device or bridge to transplantation. It is a therapy that continues to evolve and as such the success of the treatment is reliant on appropriate patient selection and perfusion strategy. Provision of an ECMO program and care of an ECMO patient is all about collaboration and communication. It is a complex multidisciplinary therapy. The ICU nurse's responsibilities are to provide patient care, ongoing routine monitoring and initiation of immediate emergency response procedures. When a patient is placed on ECMO it is not just the respiratory and/or cardiac systems

that are affected. Complexities arise from the extended interactions of blood and the extracorporeal system, the need for anticoagulation, the derangement of pharmacokinetics and the inability to perform standard nursing care.

Implications and recommendations for nursing practice

- To raise awareness of the importance of a collabortative approach within a multidisciplinary team
- In an increasingly technical environment it is easy for clinicians to focus on the technology rather than the patient.

Further reading

Shekar K et al. (2014). Extracorporeal life support devices and strategies for management of acute cardiorespiratory failure in adult patients: a comprehensive review. Critical Care 18(3): 219. [Online] Available at: http:// ccforum.biomedcentral.com/articles/10.1186/cc13865

The difficult wean

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Aim

The aim of this presentation is to provide an overview of the key strategies that can be used to assist in the management of the patient who is experiencing difficulty in weaning from invasive mechanical ventilatory support.

Summary

For most critically ill patients liberation from a mechanical ventilator and removal of an artificial airway occurs in a timely fashion without major incident. For some patients: pulmonary, cardiac or neurological dysfunction; ventilator acquired complications; sedatives; muscle weakness; and/or mechanical ventilator dysynchrony complicate mechanical ventilation making the process protracted with an increased morbidity and mortality. Although there is a strong evidence based framework to support several elements of the management approach for these patients there remains a great deal of uncertainty regarding the optimal management pathway. Despite the gaps in evidence there is a great deal of nursing activities that can improve the care of the difficult to wean patient. A multifaceted approach focusing on daily assessment, optimal sedation practices, positioning, mobility, prevention of complications and improved patient ventilator synchrony can improve patient outcomes.

Implications and recommendations for nursing practice

- Key nursing strategies such as: optimising sedation, positioning and mobility; monitoring and preventing complications; and fine tuning the ventilator to optimise patient ventilator synchrony can dramatically improve the care of the difficult to wean patient.

Further reading

Murias G et al. (2016). Patient-ventilator asynchrony. Current Opinion in Critical Care 21(1): 53-59.

Peñuelas Ó et al. (2015). Discontinuation of ventilatory support: new solutions to old dilemmas. Current Opinion in Critical Care 21(1): 74-81.

Holistic critical care nursing: caring for the patient and the nurse

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Aim

To describe holistic nursing care and provide strategies to promote it.

Summary

Ever since Florence Nightingale wrote her famous text, Notes on Nursing, nursing has been recognised as both an art and a science. The focus of this presentation is on the art of nursing and specifically on holistic nursing care. Holism focuses on the state of harmony between the mind, body, emotions and spirit. This presentation will first describe holistic nursing practice and then focus on some core concepts required to ensure nurses can develop a holistic, therapeutic relationship with the patient.

Implications and recommendations for nursing practice

- Three strategies to promote holistic nursing care, person centred care, spiritual care and mindfulness will be explored in this presentation
- Implications of holistic nursing care for critical care nursing practice will also be discussed.

Chest pain perception in Chinese women with acute myocardial infarction

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Aim

Acute myocardial infarction (AMI) is a leading cause of morbidity and mortality worldwide. Early recognition of AMI symptoms could significantly reduce the morbidity and mortality. Understanding the chest pain perception is the key for early recognition of AMI, and timely management is the critical for treating AMI.

Summary

The diagnosis of AMI is made based on the clinical history, ECG (ST elevation and non-ST elevation), and blood test results (creatinine kinaseMB, troponin I and T). Chest pain is the principle clinical presentation of AMI. However, the perceptions of chest pain vary between genders. Compared with men, women patients report lower prevalence of chest pain (67.19% vs 84.37%, $p < 0.05$), less right sided chest pain (20.93% vs 40.74%, $p = 0.038$), and more atypical chest pain (9.3% v.s. 0%). Women also experience more radiation and lower intensity of the pain, which may result in the delay in seeking medical treatment. Coronary revascularization and reperfusion is the most desirable goal of treatment through percutaneous coronary intervention, thrombolytic therapy, and coronary artery bypass grafting. To improve the survival and quality of care for AMI, the door-to-needle and door-to-balloon time should be optimized within 30 and 90 minutes.

Implications and recommendations for nursing practice

- The initial nursing management on AMI patients is critical including oxygen therapy, establishing intravenous access and medications (morphine, nitroglycerine, and aspirin). These measures will increase supply of oxygen to ischemic tissues, increase venous dilation and decrease pain and platelet aggregation.
- Obtaining 12-lead ECG, checking cardiac bio-markers, and collecting information for possible thrombolytic therapy are also crucial in the initial phase of management. During this critical moment, patient with AMI should be closely monitored for possible deterioration and cardiopulmonary resuscitation together with defibrillation may be carried out once the patient develops cardiac arrest.

Further reading

American Heart Association (2015). ACLS Provider Manual. Dallas:

AHA. Khan JJB et al. (2010). Gender differences on chest pain perception associated with acute myocardial infarction in Chinese patients: a questionnaire survey. Journal of Clinical Nursing 17: 2720-2729.

Quality of life of patients with implantable cardioverter defibrillator

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Aim

With the technological advancement, the number of implantable cardioverter defibrillator (ICD) therapy has increased exponentially. Understanding the quality of life (QoL) of patients with ICD and the programming information of the device is helpful for nurses to plan care.

Summary

Sudden cardiac death (SCD), an unexpected death caused by cardiac problems, occurs within one hour of symptom onset. Fatal arrhythmia, including ventricular tachycardia (VT) and ventricular fibrillation (VF), is the most common immediate cause of SCD. ICD is an optimal rescue treatment to prevent SCD caused by fatal arrhythmias. The ICD system includes a pulse generator and defibrillation lead electrodes implanted transvenously in the left pectoral region normally. Other than monitoring the heart rhythm continuously, ICD is able to terminate the fatal rhythm and restore normal rhythm by delivering a life-saving shock and/or a burst of rapid pacing. With the technology advancement, ICD therapy could be used for primary prevention for patients who are at risk of fatal arrhythmias or SCD, or secondary prevention for patients already experienced VT or VF, or for patients with reduced left ventricular ejection function. Despite its effectiveness in life saving, ICD therapy affected patients' QoL (PCS = 41.7, MCS = 46.6), and patients experiencing higher ICD shock anxiety would have lower QoL and ICD acceptance.

Implications and recommendations for nursing practice

- Education is needed to better prepare patients for this invasive treatment. Physically, other than site pain and wound care, limitation on affected arm mobility should be expected after implantation
- Psycho-social preparation on shock experience, fear of death, importance of taking the identification card, physical activity, avoiding magnetic fields, and sexual intimacy should also be instructed.

Further reading

Chair SY et al. (2011). Quality of life outcomes in Chinese patients with implantable cardioverter defibrillators. Pacing and Clinical Electrophysiology 34(7): 858-67.

Lactate clearance in septic shock

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Aim

This presentation will focus on "lactate clearance" as a measure of stress and metabolic response and consider nursing interventions that promote optimum lactate levels in patients with septic shock.

Summary

It is widely believed that in critically ill patients when oxygen delivery fails to meet oxygen demand an oxygen debt with global tissue hypoxia ensues. This results in anaerobic metabolism and increased lactate production. An increased blood lactate concentration is therefore regarded as evidence of anaerobic metabolism and tissue hypoxia. It follows from this reasoning that patients with an elevated blood lactate should be treated by increasing oxygen delivery. In 2004 Nguyen and colleagues (1) reported that "lactate clearance", defined as the percentage decrease in lactate from emergency department presentation to 6 h, was an independent predictor of mortality. They concluded that "lactate clearance in the early hospital course may indicate a resolution of global tissue hypoxia and that this is associated with decreased mortality rates." This study popularized the concept of "lactate clearance" and has led to a number of studies which have used "lactate clearance" as the major end-point of haemodynamic resuscitation in critically in patients with septic shock. These arguments are contentious and that in most situations lactate is produced aerobically as part of the stress response—hence the term stress hyperlactaemia. Based on this argument it would be illogical to attempt to increase oxygen delivery in patients with an increased lactate concentration in order to treat a non- existent oxygen debt. Indeed, such an approach may be harmful. During septic shock the heart and brain and other organs undergo a major shift in substrate utilisation such that they oxidise lactate for the majority of its energy needs. In the new "The Third International Consensus Definitions for Sepsis and Septic Shock, 2016",(2) lactate levels are still an indicator of illness severity and mortality. A falling arterial lactate concentration is a sign that the patient is responding to therapy (attenuation of the stress response), but titrating therapy to a lactate concentration is devoid of scientific evidence.

Implications and recommendations for nursing practice

- During septic shock the heart and brain undergo a major shift in substrate utilisation such that they oxidise lactate for the majority of its energy needs.
- Attempting to increase oxygen delivery in patients with an increased lactate concentration in order to treat a non- existent oxygen debt may do harm.
- Optimising lactate delivery to the brain, heart and organs for mitochondrial fuel is the main objective in lactate clearance.

References

(1) Nguyen H et al. (2004). Early lactate clearance is associated with improved outcome in severe sepsis and septic shock. Critical Care Medicine 32: 1637–42.

(2) Singer M et al. (2016). The third international consensus definitions for sepsis and septic shock (Sepsis-3). JAMA 315(8): 801-10.

Ventilator-associated pneumonia: nursing interventions

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Aim

To raise awareness of ventilator-associated pneumonia (VAP) prevention in mechanically ventilated children.

Summary

Ventilator-associated pneumonia (VAP) is one of the most common hospital acquired infections in mechanically ventilated children. There remains much controversy in the literature over the definition, treatment and prevention of VAP, therefore the incidence can be variable, affecting up to 12% of ventilated children. Ventilation

care bundles have been studied and are suggested to be effective in the prevention and reduction of the incidence of VAP in adult populations. Common interventions used in the paediatric setting are discussed and include vigorous hand hygiene, mouth care with antiseptic solution, head elevation, use of non-invasive ventilation strategies, aseptic technique when performing endotracheal tube (ETT) suctioning, maintenance of ETT cuff pressures and early enteral nutrition. Furthermore, the compliance and adherence to the VAP bundle by clinicians is instrumental in contributing to a decrease in VAP incidence.

Implications and recommendations for nursing practice

- Increasing the awareness of VAP
- Recognising the vital role of utilising grouped preventative strategies in the form of a "bundle" to prevent VAP
- Reduction of iatrogenic nosocomial infection through adhering to a VAP prevention bundle.

Further reading

Brierley J et al. (2012). Reducing VAP by instituting a care bundle using improvement methodology in a UK Paediatric Intensive Care Unit. European Journal of Pediatrics, 171(2): 323-330.

Centers for Disease Control and Prevention (2012). Ventilator-associated pneumonia (VAP) Event. [Online] Available at: http://www.cdc.gov/nhsn/ PDFs/pscManual/6pscVAPcurrent.pdf

Chang I, Schibler A (2015). Ventilator associated pneumonia in children. Paediatric Respiratory Reviews. [Epub ahead of print]. doi: 10.1016/j. prrv.2015.09.005

Chlorhexidine: connecting research, clinical practice and outcomes in vascular access

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Summary

This clinical intensive will focus on the use of chlorhexidine in the clinical environment and the impact that it has on the management strategies implemented to optimise vascular access outcomes in at risk patient groups. The speaker will discuss and review how the use of chlorhexidine has become common place and permeated into all aspects of vascular access devices, dressings and adjunct products, skin preparations and bathing products.

Organ and tissue donation - essential communications with families Coco, Tina DonateLife Queensland, Princess Alexandra Hospital, Brisbane, Australia Email: tina.coco@health.qld.gov.au

Aim

To inform ICU nurses of the importance of communication when families are making decisions about end of life care and organ and tissue donation.

Summary

Death, grief and the donation process are anything but orderly and predictable. The needs of families are dynamic and ever-changing as they move through the donation experience. The role of the ICU nurse at the bedside is integral to the family. The ICU environment can be disempowering for families - they expect guidance, information and support through this experience. For those of us who work alongside bereaved families will know, there is a myriad of variables that influence the way a person responds to the death of a loved one - relating to the cause of death, family dynamics and religious and cultural beliefs. This paper will address the issues, both positive and negative for the family in the ICU and for the staff when organ and tissue donation becomes an opportunity as part of end of life care. It will also discuss the national programs of training dedicated to ICU health professionals (1) through the Organ and Tissue Authority and the evidence to support these strategies (2) to ensure the family experience of end of life care and donation are in keeping with their beliefs, values and expectations. The donation conversation contributes to only a small part of the family's grief experience in the hospital and the memories of that interaction can have a long-lasting impact – good or bad. Effective communication requires thoughtful planning and a team approach in sharing information. An ICU community culture of respect for donation is built by the way conversations are conducted, and not by the outcome.

Implications and recommendations for nursing practice

- To understand the issues faced by families in the context of sudden death and organ and tissue donation
- To identify the role of the ICU nurse in end of life communication and the team approach to best practice for organ donation conversations
- To recommend that ICU nurses attend training and education sessions provided nationally through the Organ and Tissue Authority for critical care staff involved in care and communication with families where organ donation is being considered.

References

(1) Organ and Tissue Authority (online) available at: http://www.donatelife. gov.au/professional-education-package

(2) Organ and Tissue Authority (online) available at: http://www.donatelife. gov.au/national-wave-1-donor-family-study

The use of evidence based handover tools to improve communication during nursing handover

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Aim

This presentation discusses the research methods employed to develop evidence-based handover tools for nursing bedside and team leader handovers in the intensive care unit (ICU) and the impact these tools have upon communication during handover.

Summary

Adverse patient incidents associated with miscommunication during clinical handover remains a national and global healthcare issue. In Australia, clinical handover is listed as a priority area for patient safety improvement, and has led to the roll out of the National Safety Quality Health Service Standard 6 - Clinical handover. Despite increasing demand for structured handover processes to guide clinical handover, handover resources are limited in the ICU. Prior to examining handover practices and developing evidence-based handover tools, nurses used up to four different paper handover tools and multiple templates within the ICU electronic computer information system (up to 20) to conduct handover. Our study findings showed limited structure and much variation in the content discussed between nurses during beside and team leader handovers. Also, large discrepancies were identified between the actual content of nursing handovers and what key components nurses proposed to include in a handover tool. These findings informed the development and implementation of evidencedbased handover tools for nursing bedside and team leader handovers in the ICU. Prior to implementation, barriers and facilitators to nurses' uptake of the handover tools were identified and informed the implementation strategies employed to introduce the handover tools into ICU. Overall, the evidence-based handover tools improved the structure and communication of handover content with increased adherence to key principles of the National Safety

and Quality Health Service Standard. These handover tools assist clinicians to deliver structured, informative handovers.

Implications and recommendations for nursing practice

- Despite clinician engagement with the development of handover tools, requirements of the National Safety Quality Health Service Standard 6 and hospital guidelines need to also be incorporated into these tools to maintain patient safety and quality care.
- There are many handover resources available to clinicians to assist with structuring patient information to deliver informative, succinct handovers that promote continuity of care and patient safety.
- It is important that tools used to conduct clinical handover are tailored to the clinical context, meet the needs of the user and are flexible to cater for differing patient needs.
- Further work is required to examine whether handover tools reduce adverse patient events associated with miscommunication during handover.

Pressure injuries in critically ill patients - a never ending story?

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Aim

The aim of this session is to 1) overview skin integrity threats that critically ill patients in the intensive care unit (ICU) may experience; and 2) explore sustainable strategies for pressure injury (PI) prevention in the ICU context.

Summary

Despite a multitude of pressure injury prevention strategies, technological advancements, research and allocated funding, PIs endure as a cause of significant patient distress and suffering. Further, burdensome financial costs in terms of increased patient length of admission, cost of treatment and even institutional financial penalties for PI development have created a problem now enormous in scope (1). Intensive care patients are a unique population due to their severity of illness. Further, the pathophysiological, biophysical, and pharmacological threats often seen in critically ill patients contribute to a significant increase in the risk of skin integrity disruption (2,3). Intensive care patients often have restrictions on movement either chemically or physically induced, numerous in situ medical devices, and undergo a multitude of life-saving procedures and interventions in the course of their admission. Skin integrity monitoring must account for these circumstances. However, we have an imperative to address the increased risk of PI development by implementing context specific sustainable evidence-based strategies (2).

Implications and recommendations for nursing practice

- The majority of ICU hospital-acquired PIs are preventable
- Intensive care staff must implement and evaluate evidence-based PI prevention strategies specific to their practice context.

References

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(2) Coyer F et al. (2015). Reducing pressure injuries in critically ill patients by using a patient skin integrity care bundle (InSPiRE). American Journal of Critical Care 24(3): 199-209.

(3) Tayyib N et al. (2013). Pressure ulcers in the adult intensive care unit: a literature review of patient risk factors and risk assessment scales. Journal of Nursing Education and Practice 3(11): 28-42.

Treating snake and spider bites – what do we need to know?

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Aim

The aim of this presentation is to provide an overview of snake and spider envenomation, how people may present clinically, what their sequela may be and what role you can play in the management of their condition.

Summary

Australia has more poisonous creatures than any other nation both on land and in the sea. Around 3,000 snake bite cases are reported annually in Australia (1). Envenomation is rare, but life threatening. Signs and symptoms of envenomation can vary depending on when the bite occurred and type of snake and may include paralysis, mylosis, necrosis, cardiotoxicity, nephrotoxicity, and coagulopathy. First aid, the use of snake venom detection kit, antivenom, other medications and supportive therapies (2) can positively impact patient outcomes. Spider bite envenomation is different to snakes and patient will present with different signs and symptoms that may include pain at the site, nausea, vomiting and abdominal pain. Treatment options vary but may consist of first aid, analgesia and antivenom.

Implications and recommendations for nursing practice

- It is recommended that health care professionals working in critical care areas be familiar with first aid practices, signs and symptoms of envenomation, clinical sequela and treatment modalities for patient's envenomated by a snake or spider.

References

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(2) Isbister GK (2006). Snake bite: a current approach to management. Australian Prescriber 29(5): 125-129.

Clinical considerations and ECG management of implantable defibrillators and cardiac resynchronisation therapy devices in patients with severe heart failure

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Aim

To provide the key ECG features of successful and unsuccessful cardiac resynchronisation therapy, so that clinicians can recognise the need for device interventions in the patient with a need for haemodynamic improvement. Also assessment and management of the patient receiving device therapy for VT and VF.

Summary

Severe heart failure accompanies ischaemic and dilated cardiomyopathies and is progressive, carrying a 5 year mortality of over 50 per cent. Heart failure can be expected to worsen, with death most commonly due to end stage or decompensated heart failure, or ventricular arrhythmias. The contractile dysfunction of these cardiomyopathies is worsened by the development of Left Bundle Branch Block (LBBB), which adds an additional dimension to the contractile problems. The conduction delay of LBBB causes

dysynchrony in contraction of left ventricular walls, with the septum contracting before rather than at the same time as the postero-lateral walls. The same is true of relaxation, so that both diastolic and systolic dysfunction develops or is worsened by LBBB. Such patients become candidates for cardiac resynchronization therapy (CRT) in which pacing independently at the septum and the postero-lateral walls brings these contractile units back into synchrony. When effective it improves symptoms, functional class, ejection fraction and end systolic volumes. But up to 30 per cent of patients do not respond to therapy and patients may re-present with worsening failure. The haemodynamic contribution of a CRT pacemaker or defibrillator is heavily programming-dependant, and reprogramming should be considered for all patients in whom an acute or chronic improvement in haemodynamics is necessary. 'Optimisation' of device programming historically occurred under echocardiographic guidance but this is rarely undertaken because of time, cost and resource availability, meaning that clinicians lack bedside markers to recognize whether a CRT device is providing any benefit achieving anything or not. Evidence-based ECG features associated with best CRT performance and ventricular resynchronization are now available. These include the following: narrower QRS complexes than previous LBBB or Right Ventricular paced ECG; right axis deviation; lead V1: predominantly positive complexes (Rs complex or pure R wave); and /or lead I: predominantly negative complexes (Qr complex or pure Q wave / S wave). The genesis and recognition of these morphologies and their relationship to left ventricular improvement and prognosis is the main subject of this session, along with understandings of VT and VF therapies of these CRT implantable cardioverter defibrillators.

Implications and recommendations for nursing practice

- If these straightforward features can be evaluated, nurses can identify patients in whom devices are operating poorly, or in whom improvement in programming can be predicted to be beneficial to haemodynamics
- Recognise the key contributors to declining device performance from the ECG Recognise and manage issues related to implantable cardioverter defibrillator function, including the patient with an ICD who is receiving emergency therapies.

Further reading

Bode WD et al. (2015). Prominent R wave in ECG lead V1 predicts improvement of left ventricular ejection fraction after cardiac resynchronisation therapy in patients with and without left bundle branch block. Heart Rhythm 12(10): 2141-2147.

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Sweeney MO et al. (2014). QRS fusion complex analysis using wave interference to predict reverse remodeling after cardiac resynchronisation therapy. Heart Rhythm (11(5): 806-813.

Improving communication for better patient outcomes

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Aim

To discuss the impact healthcare communication has on patient outcomes.

Summary

Research and regulatory bodies have long confirmed that poor communication in healthcare is harmful at best and deadly at worst. Summary of literature will be discussed demonstrating how systematic communication between health care providers, patients and their families results in improved patient care, reduced hospital stay, improved patient safety and patient/family satisfaction (1,2). Clinical example of introducing lean communication strategies through huddle implementation will be presented. The aim of huddle communication being to improve efficiency, situational awareness, increase reliability and to foster a culture of safety (3).

Implications and recommendations for nursing practice

- Through effective communication and huddle implementation it is possible to improve efficiencies and quality of information sharing, increasing levels of accountability and empowerment. Together this can create a culture of collaboration, safety and collegiality that enhances staff's situational awareness and capacity for eliminating harm.

References

(1) Cornell P et al. (2014). Improving situation awareness and patient outcomes through interdisciplinary rounding and structured communication. Journal of Nursing Administration 44(3): 164-169.

(2) Iedema R, Manidis M (2013). Patient-Clinician Communication: An Overview of Relevant Research and Policy Literatures. Sydney: Australian Commission on Safety.

(3) Leonard M (2015). Patient safety and quality improvement: reducing risk of harm. Pediatrics in Review 36(10): 448-458.

The fundamentals of ECG interpretation

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Aim

The aim of this presentation is to review the fundamental principles of ECG interpretation.

Summary

Cardiac assessment skills are important for critical care nurses to master when caring for critically ill patients. The challenges we encounter in clinical practice is that patients' ECGs are often non-typical or classic therefore it can be confusing to interpret. In this presentation, we will cover the basic concepts and principles that you should understand and follow when interpreting ECGs. A number of examples will be used to demonstrate how to interpret patients' ECGs related to a number of cardiac conditions.

Implications and recommendations for nursing practice

- ECG interpretation forms part of cardiac assessment.
- Patients' other presenting signs and symptoms must be considered when interpreting ECGs.

Mechanical assist devices

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Aim

The aim of this paper is to present importance of nursing education in care for patient with mechanical assist device.

Summary

Mechanical circulatory support is used as a form of treatment of patients with advanced heart failure. The mechanical pump is surgically connected to the native heart. The pumps can be implanted in the body (implantable) or just implanted tubes that connect the pump to the native heart. Mechanical pumps complement insufficient function of the native heart and depending on the construction of the

device can produce pulsatile or non-pulsatile flow. In addition to the generated flow profile, mechanical circulatory support can be divided according to the length of the short-term or longterm mechanical circulatory support. The most important thing in postoperative care is to have well-trained staff doctors and nurses who can be able to respond to all the challenges of caring for these patients. For the purpose of providing best nursing care for the patients with mechanical assist devices we have established ECLS (extra corporeal life support) team with special education. Nursing care is essential for successful recovery of patient. In this paper we will present our experiences on patients with mechanical assist devices at University Hospital Centre Zagreb.

Implications and recommendations for nursing practice

- Education for treatment of patient with mechanical devices
- Infection prevention techniques; quality improvement in nursing care.

Quality improvement in infection control

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Aim

The aim of this presentation is to present nurses with practical possibilities in improving the quality of nursing care and infection prevention.

Summary

Quality improvement is a process by which entities review the quality of all factors involved in provided services, in this case nursing care especially in critical care units. The basic goal of quality control is to ensure that certain services meet specific requirements. Quality indicators represent working tools that assure measurement of nursing care provided. Indicators of quality are used to identify problems or improvements from standard care. Infections in intensive care units are great problem for hospitals and health care systems and all efforts are directed towards reducing the incidence. Nurses, represent the largest number of health care workers, but also they spend most of their time with patients. Intensive care units admit high risk patients with increased probability of infection due to their underlying medical condition. In this paper will be present apply of some indicators in critical care unit and report our experiences in infection control.

Implications and recommendations for nursing practice

- The role of the managers in health care institutions is to implement and maintain systems, resources, education and training to ensure that clinicians deliver safe, effective and reliable health care.
- Nurse managers should implement quality control systems and appraise personnel and procedures.

Fostering competence and competence in critical care nurses through the use of simulation

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Aim

The aim of this presentation is to present findings of research among critical care nurses relating to the impact of simulation in building confidence and competence in caring for critical care patients.

Summary

Professional development has been found to be a key motivator for intent to stay among critical care nurses. In this presentation, the results of a quasiexperimental study among Canadian critical care nurses will be discussed. As part of the intervention, simulation was utilized to build confidence and confidence among nurses transitioning into ICU. The methods, results and implications for this study will be discussed. In addition, current research relating to the use of simulation among critical care nurses will be explored.

Implications and recommendations for nursing practice

- This research has implications for: critical care nurse retention; critical care nurse transition into the ICU/orientation; increasing competency in critical care for new and experienced ICU nurses.

Further reading

Goldsworthy S, Graham L (2013). Simulation Simplified: A Practical Handbook For Nurse Educators. Lippincott, Philadelphia, PA.

Goldsworthy S (2015). The mechanisms by which professional development may contribute to critical care nurses' intent to stay. Doctoral dissertation, University of British Columbia, Vancouver, Canada.

Haemodynamic profile analysis: making sense of the numbers

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Aim

The purpose of this presentation is to provide a systematic approach to interpreting hemodynamic profiles in critically ill patients.

Summary

Management of hemodynamic monitoring in critically ill patients is a foundational competency for critical care nurses. Since pulmonary artery catheters are not commonly seen in current practice, the management of these lines is considered a high risk/low frequency skill. This presentation will provide a practical step-by-step approach to analyzing and understanding the numbers in a hemodynamic profile. Cardiac output determinants preload, afterload, contractility and heart rate will be illustrated using a systematic approach applied to case based scenarios.

Implications and recommendations for nursing practice

- This presentation will assist nurses in bedside practice to: have increased confidence in interpreting hemodynamic profiles; have increased competence in interpreting hemodynamic profiles; enable critical care nurses to provide safer care to their critically ill patients.

Further reading

Goldsworthy S (2012). Coronary Care 2 Handbook, Durham College, Oshawa, Canada.

Regional paediatric high observation model of care

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Aim

To inform the audience regarding a new model of care in pilot Level 4 hospitals in Regional Queensland which provides an intermediate level of care for children in order to optimise family centred care.

Summary

A Paediatric High Observation Model of Care has been developed and trialled in select Level 4 regional centres across Queensland.

The model supports the care of children who require an intermediate level of clinical management in the inpatient unit. Four pilot regional hospitals and diagnosis related groups were chosen for participation following a review of Queensland paediatric admission data; retrieval data; level of engagement; and request from regional Paediatric team themselves. Specific regional clinical pathways for some key patient cohorts (diabetic ketoacidosis, asthma, seizures) have been developed to increase reliability of care. The nursing clinical pathways incorporate education checklists and parent factsheets. The model is supported by the Children's Advice and Transport Coordination Hub (CATCH) who facilitate tele-health reviews as well as provide advice and support to regional paediatric clinicians. Through this model of care regional clinicians are now able to access support and advice not just from medical teams but from allied health and nursing colleagues. The Simulation Training On Resuscitation for Kids (STORK) is another statewide service which provides training on the recognition of the deteriorating paediatric patient. STORK have collaborated with this project to incorporate further simulation training focussed on the specific patient cohorts; the use of clinical pathways; implementation of the model of care; and escalation of care. The modified model of care implemented includes the ability to provide 1:1 nursing, use of physiologic monitoring, use of specific treatments or therapies. The model of care has been recommended to the Statewide Child Youth Clinical Network and for inclusion into the Clinical Services Capability Framework in Queensland.

Implications and recommendations for nursing practice

- High Observation Care can be performed with resources, support and education in key regional sites for specific patient cohorts.
- High Observation Care may be performed even within quarternary level hospital in the ward environment.
- Advice and support via telehealth and education programmes should be provided by a central service using a formalised process and the data collected for audit and review of services.

Further reading

Morris et al. (2014) Defining criteria and resource use for high dependency care in children: an observational economic study. Archives of Disease in Children 99: 652-658.

Royal College of Paediatrics and Child Health (2014). High Dependency Care for Children - Time To Move On. www.rcpch.ac.uk/sites/default/files/ page/HDC%20for%20web.pdf

Rushforth et al (2012). Quantifying high dependency care: a prospective cohort study in Yorkshire (UK). European Journal of Pediatrics 171: 77-85.

Using simulation based training within the PICU to close the competency gap for nursing graduates

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Aim

To demonstrate how simulation can be used within the PICU to help prepare nursing graduates to competently care for PICU patients.

Summary

Simulation based training is used at Lady Cilento Children's Hospital PICU to help new nursing graduates transition from novice to competent clinicians. Simulation based training is used to train graduates in basic to advanced clinical skills, patient assessment, critical thinking, effective communication and effective team behaviours. The presentation will outline how simulation is integrated into the education and training of new nurse graduates employed to work at the PICU.

Implications and recommendations for nursing practice

- Simulation based training is an effective way of helping new graduates to become 'work ready' in the PICU.

Implementing an ICU outreach service in a regional hospital: an innovative exemplar

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Aim

To discuss how to implement an outreach service in a regional hospital and highlight the differences between a regional and metropolitan outreach service.

Summary

In most metropolitan hospital through-out the world, an ICU Outreach service exists. However, an ICU outreach service is lacking in most regional hospitals. I will provide an insight into the recent experience of Implementing an ICU Outreach service in Toowoomba hospital, and how being innovative and persistent can have a positive effect, in terms of both safety and quality healthcare delivery and effective use of financial resources. Implementing a metropolitan ICU solution into a regional hospital doesn't work without planning and identifying how the concept can be manipulated to provide a service that adds value to a regional facility. Discussion will include but not limited to, the importance of collaboration, integration of the silos that exist amongst healthcare professions/departments and what's best for the patient. The fundamentals skills of an ICU nurse are excellent patient assessment and equipment set-up and troubleshooting skills. Which raises the question: why can't the skills of an ICU nurse be utilised beyond the walls of the ICU?

Implications and recommendations for nursing practice

- Abolish current silos so all areas can work collaboratively to provide the best patient care possible
- Greater awareness of the deteriorating patient
- Increased bed capacity in the ICU.

Prepare and support: the development of interventions based on the experience of nurses and doctors who care for children who have an acute life threatening event in hospital

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Aim

Caring for a child who has a code blue or an acute life threatening event (ALTE), for example a cardiac or respiratory arrest, has the potential for significant psychological impact on staff. The aim of the project was to describe the experience of staff that care for a child who has an ALTE in hospital. The objective was to develop interventions to prepare and support staff for these events.

Summary

Methods: A pragmatic, mixed-design approach was used including: interviews with staff using Interpretative Phenomenological Analysis; systematic literature review and international survey of practice. The PREPARE and SUPPORT interventions were developed and refined during a feasibility study. Results: Themes from the interviews included: personhood of the patient; significance of role during resuscitation; clinical confidence and competence; misinterpretation of the stress response and sense-making and

reflection. The systematic literature review and international survey identified clinically focused preparatory interventions and debriefing. During September 2012 - April 2013 forty seven staff participated in a feasibility study of the interventions.

Conclusions

This was the first known report of what the experience of caring for a child who has an ALTE is like for staff. These insights provided the evidence-base for the PREPARE and SUPPORT interventions. Through a feasibility study the most appropriate outcome measures to evaluate effectiveness were identified and will be explored in a future trial.

Implications and recommendations for nursing practice

- Two interventions have been developed to prepare and support staff for the potential psychological impact of caring for a child who has an ALTE. These interventions are ready for evaluation for effectiveness within healthcare.
- The Medical Research Council's framework for developing complex interventions within healthcare provide a template to bring together evidence, theory and modelling processes and outcomes.
- This project demonstrates how to use a pragmatic mixed-design approach to develop complex interventions within healthcare.

Further reading

Craig P et al. (2008). Developing and Evaluating Complex Interventions: New Guidance. Medical Research Council. [Online] Available at: https:// www.mrc.ac.uk/documents/pdf/complex-interventions-guidance/

Hudson AP (2014). Exploring the experiences of nurses who care for children who have an Acute Life Threatening Event (ALTE) in hospital. Doctoral thesis, Aston University, Birmingham, United Kingdom. [Online] Available at: http://eprints.aston.ac.uk/22689/1/Studentthesis-2014.pdf

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Educating the 21st Century PICU nurse: bridging the gap using electronic resources

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Aim

The goal of this session is to highlight the use of electronic resources to enhance education efforts and meet diverse adult learning styles for PICU nurses.

Summary

Advances in understanding of illness and injury, changes in health care delivery and the use of sophisticated technology require educators to adjust pedagogy to meet the learning needs and styles of a diverse population of nurses in preparation to efficiently and knowledgeably function in the high-paced paediatric intensive care unit (PICU) environment. Advances in PICU care require nursing practice to continuously develop and refine the knowledge and skills necessary to "keep up" with patient needs. In particular, nurses in the PICU need to be well-versed in navigation through and use of multiple and varied electronic resources to facilitate the primary and ongoing education necessary to provide high quality care to patients and families. The array of electronic resources available can address a wide range of learning principles and be used as creative tools for both nurse and patient education. In addition, use of electronic resources allows delivery of a broad range of topics through a multitude of venues to enhance nursing practice and foster collaboration and communication with patients, families and colleagues.

Implications and recommendations for nursing practice

- Electronic resources allow access to a wide range of topics to facilitate patient care
- Nursing education using electronic resources can meet a wide range of learning styles
- Patient education can be readily completed due to the accessibility of resources via electronic venues.

Further reading

Beers G et al. (2015). Traditional versus electronic resources for students in clinical nursing courses: a pilot study. Online Journal of Nursing Informatics 19(1): 1-10.

Lee P (2015). Using e-learning to enhance nurse education. Nursing Times 111(43): 18-19.

Using practice change to spark institutional culture change

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Aim

The goal of this session is to describe the process used to institute organizational culture change related to enteral tube placement and location verification, its impact and the ongoing evaluation of nursing practice related to this change, all of which sparked an institutional culture change.

Summary

The culture within an organization effects workflow, productivity, employee morale and overall success. In the hospital environment, organizational culture also includes procedures, specifically nursing procedures. As nurses we are often still using 'history and tradition' for many procedures despite evidence which may directly contradict a long-standing practice. The utilization of evidence grounded in scientific data has pushed out much of the 'that's the way we do it', however there remain a few aspects of nursing care that continue, 'just because'. Culture change in most healthcare institutions can be an overwhelmingly, daunting task. Nursing practice and many associated procedures are often embedded within the organizational culture of an institution. A change in nursing practice that affects a longstanding nursing procedure can be the catalyst to culture change in the larger organization. Institutional culture change is a complicated, multilayered process and requires interplay of key stakeholders and a clear understanding of the widespread impact that will ensue. Revision of the institutional procedure and policies for enteral feeding tube placement and location verification is a prime example of practice change becoming the impetus for culture change within an institution.

Implications and recommendations for nursing practice

- A particular aspect of nursing practice can be the impetus for a change in organizational culture
- Nurses can have a key role in organizational culture change as a key stakeholder.

Further reading

Makic M et al. (2014). Examining the evidence to guide practice: challenging practice habits. Critical Care Nurse 34(2): 28-45.

Tho P et al. (2011). Implementation of the evidence review on best practice for confirming the correct placement of nasogastric tube in patients in an acute care hospital. Evidence Based Healthcare 9(1): 51-60.

What is emotional intelligence and does it affect icu nurses?

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Aim

The goal of this presentation is to explore the associations between Emotional Intelligence, nursing education and nursing practice and the effect it can have on the development of relationships with colleagues, patients, and families, thereby impacting patient care.

Summary

The idiom Emotional Intelligence has become widespread. It is a concept used by large companies and corporations to evaluate candidates for hire, promotion and employee development. But what is Emotional Intelligence and how does it apply to ICU nursing practice? Described as self-awareness, self-management and an ability to deal effectively with the feelings of others, Emotional Intelligence is very applicable to ICU nursing. Necessary for critical thinking and problem-solving – two important skills for every ICU nurse, Emotional Intelligence is emerging as an important aspect of nursing education and ongoing practice. Recognizing the influence Emotional Intelligence can have on the nurses' ability to deliver care, it should to be explored and developed throughout one's career.

Implications and recommendations for nursing practice

- Emotional Intelligence can be key to the nurse in provision of patient care, through self-awareness and effectively dealing with the feelings of others.

Further reading

Gerardi D (2015). Conflict engagement: emotional and social intelligence. American Journal of Nursing 115(8): 60-65.

Shanta L, Gargiulo L (2014). A study of the influence of nursing education on development of emotional intelligence. Journal of Professional Nursing 30(6): 511-520.

Mechanical ventilation strategies in paediatrics and adults

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Aim

To review the physiology of respiration; to describe common modes and settings in both invasive and non-invasive ventilation; and to develop an understanding of ventilation plans and their importance in the clinical setting.

Summary

Mechanical ventilation is commonly perceived as the defining therapy that dictates severity of illness. From humble beginnings to the sophisticated technology that is currently used in the clinical setting, ventilation has undergone tremendous change. Our understanding of the fragility of lungs has also grown exponentially and is concomitant with an increased understanding of how the lungs respond to mechanical ventilation and subsequently contribute to multi organ dysfunction. This session will present the range of invasive and non-invasive ventilation that is commonly used both in paediatrics and adult populations. We will review the physiology behind respiration and discuss the sequelae of applying positive pressure ventilation. Various modes of ventilation and innovative measures will be discussed within the paradigm of lung protective ventilation strategies. This ventilation intensive will also provide the delegate with the opportunity to devise ventilation plans across a range of scenarios and will draw upon current research findings to ensure that our practice is evidence based.

Implications and recommendations for nursing practice

- To develop a greater understanding of the physiology underpinning respiration and the impact of positive pressure ventilation
- To learn how to apply evidence based ventilation strategies to optimise patient outcomes
- To learn how to develop ventilation strategies tailored to individual patient needs.

Further reading

Cairo J, Pilbeam S (2012). Pilbeams Mechanical Ventilation: Physiological and Clinical Applications. Elsevier, St Louis.

Rimensberger P (2015). Paediatric & Neonatal Ventilation: From Basics to Clinical Practice. Springer, Berlin.

Disaster preparedness – how well is your unit prepared?

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Aim

We live in a world that is faced with disaster, both natural and man made. Where there is disaster there can be mass casualty. Hospitals can quickly become overwhelmed and resources stretch beyond capability. The aim of this presentation is to highlight the importance of tailoring a plan for disaster preparedness within a hospital setting.

Summary

In reviewing current practice we identified a number of problems: 1. Previous hospital disaster plans have been developed in isolation with limited knowledge of capabilities; 2. Plans lack detail and direction; therefore it would have been difficult for staff to access information and resources; 3. No definitive plan on what roles people would play in times of disaster and mass casualty. What we did to address these 3 key problems? Focus group discussions were commenced between intensive care unit, emergency department and perioperative services to determine how we could improve resources and provide structure to the disaster plans. Simulation based EMERGO testing sessions were conducted to gauge knowledge and deficits. The results of the discussions and EMERGO testing provided the basis for the revised disaster plan.

Implications and recommendations for nursing practice

- The outcome was an ICU disaster plan that is scalable
- It is designed to work in conjunction with the Emergency department and Perioperative services
- The ICU has set roles for staff, which is now clear and easy to understand
- The preparedness of ICU and the ventilated bed capacity in times of mass casualty has been increased significantly
- Yearly training has also been implemented.

East meets West: cultural considerations for critical care in Turkey

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Aim

To present an overview of cultural consideration for critical care in Turkey.

Summary

The values, attitudes and behaviours of people have changed over the years as well as their healthcare needs as a result of globalization. The meaning of health and illness differs from culture to culture and between generations. While delivering healthcare service in developed countries, income, educational level, profession and societal aspects are considered. The increasing number of patients coming to Turkey for healthcare services brings different cultural values, beliefs, customs, behaviours and attitudes that can greatly differ from their healthcare givers. In Turkey the majority of healthcare professionals are Muslim and not native English speakers. For intensive care nurses, it is very important to recognize the cultural considerations which lie underneath health and disease behaviours in order to ensure the desired care of patients. Cultural norms can be easily misunderstood in a multicultural environment such as in Turkey. When cultural characteristics of both east and west meet in critical care units, critical care nurses may not have the ability to collect enough data about cultural characteristics. Related researches have indicated that the nurses and midwives have some difficulties while taking care of their patients whose form of communication, religious beliefs and lifestyles differ than their own. Cultural and language difficulties between healthcare professionals and patients and their families have a negative effect on nurses' competency to maintain holistic care. Interpreters have been recruited in many hospitals to avoid miscommunication between patients and their families and healthcare professionals. They are helpful for the language barrier with the exception of cultural considerations, especially for patients who are not Muslim. Even though the nurses use their knowledge and skills and possess more comprehensive insights regarding the feelings, thoughts and wills of the patient and the family to understand cultural characteristics, they do not have guidelines to evaluate their patients systematically.

Implications and recommendations for nursing practice

- There is a need for structured checklists and guidelines to assess cultural differences
- Forthcoming studies should focus on developing guidelines for nurses; nurses should respect the diversity of the patient, including their values and beliefs.

Further reading

Badir A et al. (2015). Turkish critical care nurses' views on end-of-life decision making and practices. Nursing in Critical Care. doi: 10.1111/nicc.12157. [Epub ahead of print].

Papadopoulos I, Shelley L (2003). Developing culturally competent researchers. Journal of Advanced Nursing 37(3): 258-264.

Global challenges in critical care nursing

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Aim

This session will review potential solutions for addressing the global challenges in critical care nursing including implications for critical care nursing practice, policy and research.

Summary

It is well acknowledged that the global burden of critical illness is high. Efforts to improve the care of the critically ill is occurring worldwide, often as the result of the need for expansion of critical care to manage an aging population, natural disasters, and high acuity among a growing number of persons with multiple comorbidities and inadequate primary and preventive care. Opportunities for critical care nurses are also expanding worldwide due to the need for expert nursing care to assist in the management of acute and critically ill patients. While growth in the role is occurring, monitoring trends, changes, and challenges in critical care nursing is required in order to support and promote the advancement of global critical care nursing. Reports from critical care nurses in various practice settings identify similar role challenges, including adequate staffing, access to supplies and equipment, and ongoing educational needs. Addressing these challenges is an ongoing need in order to ensure that optimal nursing care is provided to promote best outcomes for critical care patients. The World Federation of Critical Care Nurses (WFCCN), an international organization with more than 40 country members, represents over 600,000 critical care nurses worldwide. WFCCN has conducted an international survey every 4 years for the past 16 years to examine the activities and concerns of critical care nurses and professional critical care nursing organizations around the world, and to identify expectations held of nursing leaders and policy makers to help address the concerns.

Implications and recommendations for nursing practice

- The WFCCN 4th international survey, published in 2015, continues to highlight priority areas for critical care nursing globally including staffing levels, working conditions, access to quality education programs, wages, and the need for practice guidelines and competencies.

Sepsis management

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Aim

This session will present an overview on updates in sepsis management, highlighting implications for critical care nursing.

Summary

Sepsis is the body's systemic response to infection, and is a serious healthcare condition with high mortality rates and significant costs of care worldwide. Sepsis is associated with a significant mortality rate as it can progress to septic shock, which occurs when perfusion to organs is compromised. Early recognition of sepsis is important and influences survival, but the clinical signs of sepsis can be difficult to identify. Signs of sepsis include changes in vital signs (blood pressure, heart rate, respiratory rate, temperature), along with signs of altered perfusion to vital organs (e.g., decreasing urine output from the development of acute renal failure). The Surviving Sepsis Campaign Guidelines provide strategies for targeting treatment

of patients at risk of developing severe sepsis and septic shock. Essential treatment goals include early recognition, antibiotic therapy, supportive treatment with oxygenation and ventilation, and circulatory support with fluid and inotropic administration. As with other forms of shock, initial management includes not only acting to correct physiological deterioration by initiating fluid management and frequent observation and assessment, but also addressing the underlying cause of sepsis through source (of infection) control.

Implications and recommendations for nursing practice

- As critical care nurses are involved in the continuous bedside care of acutely ill patients, they have an important role in assessing and managing patients with shock and sepsis
- Key areas include monitoring patients for evidence of developing shock and organ dysfunction, identifying patients at risk for shock and sepsis, promoting early identification and instituting treatment measures.

Recognising delirium in critically ill children

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Aim

To discuss the benefits of and difficulties in diagnosing delirium in critically ill children.

Summary

Delirium is described as an acute brain dysfunction secondary to a medical condition or as a product of its treatment. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), delirium is characterised by four main features: i) a disturbance awareness and attention, ii) an acute onset and fluctuating course, iii) a disturbance in cognition, and iv) arising from multiple aetiologies. Common features of the syndrome include disorientation, reduced awareness to the environment, impaired attention, problems with short-term memory, language and information processing, and the experience of hallucinations or delusions. Diagnosing delirium in children is can be problematic due to the availability of validated assessment tools, developmental milestones and regression, and behaviour. Diagnosis can also be complicated by the presence of anxiety, pain, fatigue, changes in attachment behaviour and sedation, and the varying abilities for the patient to articulate their experiences of these factors. Furthermore, fluctuations in these factors may occur as a result of the burden of the critical illness, not delirium, requiring that clinicians carefully consider their role in the paediatric patient's presentation.

Implications and recommendations for nursing practice

- Regular screening of delirium, using validated assessment tools, should be undertaken on critically ill children
- Careful consideration needs to be made around developmental milestones and behaviours to ensure accurate diagnosis.

Further reading

Smith HA et al. (2011). Delirium: an emerging frontier in the management of critically ill children. Anesthesiology Clinics 29(4): 729-750.

Six habits to enhance MET performance under stress

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Aim

This presentation proposes a novel framework designed to enhanced team performance under stress.

Summary

Effective team decision making has potential to improve the quality of health care outcomes. Medical Emergency Teams (METs), a specific type of team led by either critical care nurses or physicians, must respond to and improve the outcomes of deteriorating patients. METs routinely make decisions under conditions of uncertainty and suboptimal care outcomes still occur. It is suggested the use of Shared Mental Models (SMMs), can promote higher team performance under stress.

Implications and recommendations for nursing practice

- The six habits proposed in this presentation could assist in testing the efficacy of role play and guided discussion interventions within specified frameworks of action learning. The model and related propositions should be tested in a variety of organizational contexts and under a range of teambased conditions such as various levels of commitment, turnover intentions, and job satisfaction
- We suggest that the habits advanced in this paper can promote better implementation of group-influenced decisions in METs.
- We encourage researchers to use this model and its related propositions for developing METs in the rapidly changing contexts of Australian health organizations.

Further reading

Andersen PO et al. (2010). Identifying nontechnical skills and barriers for improvement of teamwork in cardiac arrest teams. Resuscitation 81(6): 695702.

Lim BC et al. (2006). Team mental models and team performance: a field study of the effects of team mental model similarity and accuracy. Journal of Organizational Behavior 27(4): 403-418.

Massey D et al. (2014). Nurses' perceptions of accessing a Medical Emergency Team: a qualitative study. Australian Critical Care 27(3):133-138.

How nurses can optimise nutrition delivery

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Aim

The aim of this presentation is to provide evidence-based strategies that can be used by nurses to optimise nutrition intake of critically ill patients.

Summary

Malnutrition is a common problem in hospitals with up to half of patients affected. Critically ill patients are at increased risk of malnutrition because of increased nutritional requirements that occur alongside suboptimal prescription and/or delivery. Malnutrition in this patient group contributes to higher rates of infection as well as increased length of stay and hospital costs. Identifying patients at highest risk of malnutrition is essential to optimising nutrition intake for those most likely to benefit. Nurses play a pivotal role in ensuring optimal nutrition intake during and following recovery from critical

illness. Using technology to monitor energy expenditure can assist with accurate caloric prescription and is preferred over estimating energy expenditure using predictive equations. An awareness of the importance of protein intake in critical illness is also important and needs to be considered alongside caloric requirements. Delivery of prescribed nutrition can be challenging with enteral nutrition in particular often hampered by gastrointestinal dysfunction, frequent interruptions and variations in clinical practice. Optimising protein and energy intake after extubation and during recovery from critical illness is needed for restoration of lean body mass. During recovery nutritional needs may still be high while intake is substantially reduced because of dysphagia or odynophagia, and anorexia. Environmental factors, such as fasting for procedures, food choice and ability to independently manage oral intake may contribute to suboptimal nutritional intake following ICU discharge. As the one health care professional who is with the patient throughout hospitalisation, nurses are in a privileged position to ensure optimal nutrition intake of patients who are at increased nutrition risk.

Implications and recommendations for nursing practice

- Nurses can optimise nutrition intake of critically ill patients by: 1) Consider nutrition as a key part of nutrition assessment, working with families to identify risk factors such as recent weight loss and loss of appetite; 2) Implement strategies to monitor energy expenditure and nutrition needs in the ICU; 3) Work with patients, their families and the health care team to identify strategies to optimise nutrition intake.

Further reading

Heyland DK et al. (2011). Identifying critically ill patients who benefit the most from nutrition therapy: the development and initial validation of a novel risk assessment tool. Critical Care 14: R268.

Marshall AP et al. A multi-faceted, family-centred nutrition intervention to optimise nutrition intake of critically ill patients: The OPTICS feasibility study DOI 10.1016/j.aucc.2015.10.001

Ridley E, Gantner D, Pellegrino V. (2015). Nutrition therapy in critically ill patients - a review of current evidence for clinicians. Clinical Nutrition 34: 565-571.

Critical care in a disaster zone

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Aim

This presentation will explore the unique experiences of the nursing team working in the AusMAT field hospital in Tacloban following Typhoon Haiyan to illustrate the challenges of delivering acute care nursing in austere disaster environment, and highlight areas for consideration in the development of a skilled and prepared nursing workforce for future disaster responses. The Australian Medical Assistance Team (AUSMAT) program is funded by Australia's Department of Health through the National Critical Care & Trauma Response Centre (NCCTRC) to maintain and deploy an acute care medical capability to sudden onset disasters and medical emergencies. In the past 10 years AUSMATs have deployed in response across a diverse range of disaster settings, demonstrating a distinctly unique and adaptable capability throughout the region.

Summary

The 60 bed Australian surgical field hospital deployed in response to Typhoon Haiyan comprised a 26 bed Emergency / Primary care outpatient facility and 34 bed Inpatient surgical facility with 2 operating tables. The Field Hospital was operational for a period of 21 days, during which a total of 2738 presentations, 238 theatre cases and 541 occupied bed days of nursing care were provided. Nursing leadership was pivotal in ensuring effective and efficient running of the surgical field hospital with limited resources in an austere and environmentally challenging setting. In the ever increasing age of technology in healthcare, a return to the foundation principles of nursing care and application of 'clinical medicine' was imperative in the absence of many modern diagnostic tools. Specific field case studies from the field will be presented to explore to challenges encountered.

Implications and recommendations for nursing practice

- The absence of high tech modern diagnostic tools in the disaster setting necessitates a return to the core clinical assessment skills as foundation principles of care; skills which are the primary domain of the widely acknowledged ageing generation of nurses.

Rising to the challenge - developing an acute care disaster nursing workforce

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Aim

This presentation will discuss current issues facing nurse leadership and clinical workforce in disaster settings; exploring current staffing models and future directions towards developing and sustaining nursing workforce at national and international levels.

Summary

The Australian Medical Assistance Team (AUSMAT) program is funded by Australia's Department of Health through the National Critical Care and Trauma Response Centre (NCCTRC) to maintain and deploy an acute care medical capability to sudden onset disasters and medical emergencies. In the past 10 years AUSMATs have deployed in response across a diverse range of disaster settings, demonstrating a distinctly unique and adaptable capability throughout the region. Delivery of care in an austere disaster environment creates many unique nursing challenges; operating in a resource limited multidisciplinary team, identifying relevant scopes of practice, specialised skill sets and currency requirements, competency and skill mix considerations, human resource management and patient flow.

Implications and recommendations for nursing practice

- In the context of overwhelming demand, limited resources and a low-tech environment, there is a requirement for a flexible, adaptable, multi-skilled nursing workforce
- Strong nursing leadership is pivotal in ensuring an effective and optimal ability to meet the needs of the population at risk.

Taming the Territory... an innovative approach to delivery of remote care

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Aim

The Northern Territory faces many unique health system challenges contributing towards a diversity of case mix combined with geographical isolation, widespread low density population and limited health resources in an environmentally challenging environment.

Summary

Royal Darwin Hospital is the sole Tertiary referral facility located in Darwin, Northern Territory, with a catchment area spanning over 650 000kms encompassing the vast Australian outback and southern

east Asia. The Northern Territory represents the youngest population Australia and significantly, a road trauma death rate three times the national average. More than half of the population lives in rural and remote areas with an average pre-hospital transport time of 6.5hrs to Royal Darwin Hospital. Indigenous people comprise 32.5% of the overall population, with more than two thirds of which live in traditional communities geographically spread over 650 remote locations.

Implications and recommendations for nursing practice

- Flexibility, adaptability, innovation and a nurse-led workforce are integral to meeting the unique demands of rural and remote communities.

Indigenous cardiac patients and their families

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Aim

This presentation will focus on strategies that Clinicians can implement both at individual and unit level to facilitate positive health care encounters for Indigenous people.

Summary

Clinicians play a major role in what happens to patients and how they experience their hospital stay or health care encounters. Clinicians hold the power to alleviate, explain, guide, observe, provide information, support, and develop positive therapeutic relationships with patients and their families. Of all hospital departments/ units intensive care environments provide an opportunity for that closeness to both patients and their families. It is the clinicians who translate policies and procedures into action. The role of a clinician is, therefore, vital in enabling improved patient care and experience that could lead to improved health outcome for Indigenous Australians.

Implications and recommendations for nursing practice

- Be interested in learning about Indigenous people in general
- Practice patient-centred care
- Acknowledge and respect the difference that exists between patients and our own beliefs
- Practice positive and effective communication
- Develop therapeutic relationships.

Further reading

Stewart J et al. (2011). Effective Practices for Service Delivery Coordination in Indigenous Communities. Resource sheet 8. Produced for the Closing the Gap Clearinghouse. Canberra, ACT: Australian Institute of Health and Welfare, and Melbourne, Vic: Australian Institute of Family Studies.

Taylor KP et al. (2009). Exploring the impact of an Aboriginal Health Worker on hospitalised Aboriginal experiences: lessons from cardiology. Australian Health Review 33: 549-557.

Vos T et al. (2009). Burden of disease and injury in Aboriginal and Torres Strait Islander peoples: the Indigenous health gap. International Journal of Epidemiology 38: 470-477.

The use of extra corporeal carbon dioxide removal (ECCOR) in an adult ICU

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Aim

This presentation aims to share the experience of using ECCOR in an adult ICU.

Summary

Extracorporeal carbon dioxide removal (ECCOR) is designed to remove carbon dioxide (CO2) and, unlike extracorporeal membrane oxygen (ECMO), does not provide significant oxygenation. The technology was pioneered four decades ago but only recently become readily accessible through commercialisation of several novel devices (1). The device in use at Gold Coast University Hospital ICU is the Hemolung® Respiratory Assist System (RAS). The Hemolung® is a simple, veno-venous extracorporeal carbon dioxide removal device which may be used for partial extracorporeal respiratory support in the treatment of acute hypercapnic respiratory failure. We report on the use of the device in three patients. Indications included: 1. Severe hypercapnic respiratory failure and on non-invasive mechanical ventilation for at least one hour and not responsive to noninvasive mechanical ventilation as defined by pH < 7.25 and pCO2 > 55 and /or have a high likelihood of requiring invasive mechanical ventilation, 2. Patients on invasive mechanical ventilation but cannot be ventilated with lung protective ventilation (tidal volumes </= 6 ml/kg of ideal body weight) due to hypercapnic respiratory failure (pH < 7.2) The discussion will include nursing implications for management of the ICU patient receiving therapy with the Hemolung device.

Implications and recommendations for nursing practice

- The ECCOR technology is relatively safe and simple to use and may be more widely adopted in the future in Adult ICUs to allow lung protective ventilation
- A large multi-centre trial is recommended to provide further evidence of improvement in outcomes (e.g. length/avoidance of intubation).

Reference

(1) Cove ME, et al. (2012). Bench to bedside review: Extracorporeal carbon dioxide removal, past present and future. Critical Care 16: 232.

Cuff pressure management and VAP: Malaysian nurses' perspectives

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Aim

To share our local practice with others.

Summary

Management of cuff pressure is a pivotal element in a caring for intubated patients in critical care settings. The role is a fundamental for nurses and respiratory therapist to the prevention of oropharyngeal and/ gastric secretions aspiration and tracheal damage, in which predispose to ventilator associated pneumonia (VAP). The variation of practices may subject to countries and individual settings' policies. These are based on evidences published in numerous research articles. Malaysia is a developing country that also acknowledges the importance of the prevention of VAP and place a full commitment and consistent surveillance with the aim to reduce the incidence of VAP. Most of Malaysian hospitals are using cuff pressure measurement (CPM) and at per shift basis and interestingly, it is included in ventilator care bundle. The crucial time will be post- intubation and upon arrival to ICU. The range is between 25-30 cmH20 and documented in ICU chart. Nevertheless, with the experience of our nurses in clinical practice, the range may be slightly different based on the individual patient's condition. Nurses are empowered to be responsible to inflate and deflate the cuff whenever needed. Reliable

submission of VAP surveillance in hospitals centred in national database allowing close monitoring the incidence of VAP.

Implications and recommendations for nursing practice

- Nurses must keep updated for the knowledge and practices available and shall propose for change whenever proven is the best for practice
- Consistencies documentation of cuff pressure shall be standardized
- Challenges in practices, for instance new method of measurement and changes of cuff pressure with different modes of ventilation and nursing procedures warrant study from nursing practitioners.

High flow nasal oxygen therapy to reduce intubations in paediatrics and to support post exubation

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Aim

The aim of this presentation is to promote the research currently being undertaken to collect the evidence on high flow therapy contributing to the reduction in intubation rates in Australia and the further investigation into high flow nasal oxygen therapy as a non-invasive support mode, post extubation.

Summary

The uptake of HFNC therapy in Paediatric respiratory support in hospitals throughout Australia has increased with greater staff education provided both from hospital educators and industry educators. The simplicity of this type of respiratory support has contributed to the popularity of its use, in combination with the effectiveness and recognition of improved outcomes within 90 minutes of its application to some particular patient groups. Because of this increasing trend for both hospital emergency departments to initiate HF therapy for paediatrics in respiratory distress, it is believed the pathway for potential patient deterioration with progression of illness is being bypassed. It has also been identified through analysis of statistics of intubation rates via the ANZPIC Registry, that rates of intubation of paediatric patients are continuing to decrease, the more that HFNC therapy is being initiated and managed in both emergency departments and paediatric wards of metropolitan and regional centres. For paediatric patients who are intubated and mechanically ventilated, the trend to provide a continued level of respiratory support post extubation, is increasing in some tertiary centres also, as the identification of continued form of CPAP, as evidenced with high flow therapy, benefits the patients in their recovery phase in PICU.

Implications and recommendations for nursing practice

- Increased knowledge, skills and understanding of the simplicity and patient safety for high flow oxygen therapy in the non-critical care settings of hospitals in metropolitan and regional areas
- Identification and recognition of the improved patient outcomes with high flow oxygen therapy as the first interface in respiratory support of paediatric patients and its contribution to reducing the need for intubation
- The application to clinical practice for high flow therapy as a routine mode of non-invasive CPAP support, post extubation in paediatric patients.

Further reading

Mayfield S et al. (2014). High flow nasal cannula oxygen therapy for infants with bronchiolitis: pilot study. Journal of Paediatrics and Child Health 50(5): 373-378.

Pham T et al. (2015). The effect of high flow nasal cannula therapy on the work of breathing in infants with bronchiolitis. Paediatric Pulmonology 50(7): 713-720.

Schibler A et al. (2011). Reduced intubation rates for infants after introduction of high-flow nasal prong oxygen delivery. Intensive Care Medicine 37(5): 847-852.

Discussion group: Integrating complementary and alternative therapies in critical care practice

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Aim

To explore: a) views regarding potential efficacy of complementary/alternative therapy (CAM) approaches in critical care, b) importance of implementation, c) barriers and opportunities of implementation, d) potential strategies to overcome barriers, and e) group's views regarding appropriateness and feasibility of a pilot WFCCN questionnaire.

Summary

Approach: Semi-structured group discussion preceded by a short introductory presentation. Background: Patients in intensive care experience multiple, often overwhelming and recurring stressors. The cellular response to stress may contribute to systemic inflammation and to a progressive organ systems deterioration (MODS), which accounts for high morbidity and mortality. Recently, characterization of the anti-inflammatory properties of the parasympathetic system has fueled optimism for new therapeutic approaches. Enhanced parasympathetic activity suppresses systemic inflammation and improves survival. Some CAM approaches have the ability to increase parasympathetic tone (1). Evidence shows that relaxation techniques can account for improvements in patients' outcomes, including decreased length of stay and duration of mechanical ventilation, improved sleep and favourable hemodynamic effects (2). Therefore, implementing such approaches in critical care can be a low cost, safe and patient-centred alternative to improve patients' outcomes. Moreover, such interventions have the potential to improve patients' experience of critical care, to promote their well-being and to enhance coping, as well as psychological outcomes. Critical care practitioners' views on such interventions are central in formulating strategies of implementation. Two surveys in the USA and Australia identified that critically ill patients and/or their families may request a range of integrative therapy (IT) approaches (3). However, low awareness, lack of knowledge and non-positive clinicians' attitudes may act as barriers.

Implications and recommendations for nursing practice

- Despite evidence supporting the effectiveness of CAM in critical care, the momentum for incorporating existing evidence in practice guidelines appears to be weak, thus depriving critically ill individuals of potentially effective measures to alleviate their stress and suffering and to improve their physiological and psychological outcomes
- The results of this discussion group will provide valuable insight on barriers, opportunities and potential strategies, which can inform attempts to transform critical care by integrating relaxation-inducing patient-centred interventions.

References

(1) Oke SL, Tracey KJ (2009). The inflammatory reflex and the role of complementary and alternative medical therapies. Annals of the New York Academy of Sciences 1172: 172-180.

(2) Casida J, Lemanski S (2010). An evidence-based review on guided imagery utilization in adult cardiac surgery. Clinical Scholars Review 3(1): 22-30.

(3) Cooke M, et al. (2012). Complementary and alternative medicine and critical care nurses: a survey of knowledge and practices in Australia. Australian Critical Care 25(4): 213-223.

Reporting and publishing research evidence

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Aim

To provide an overview of skills and knowledge required for successful writing and publishing of: a) research reports, b) reports of interventional studies, c) case studies, and c) reviews of evidence.

Summary

Approach: Combination of lecture and workshop. Discussion: Strategies for effective writing of the research abstract, introduction, background, methodology, results, discussion and conclusions will be discussed. Emphasis will be put on the principles of presentation and organization, building of arguments, avoidance of redundancy, citation style, visual representations (tables, graphs), accurate and detailed reporting of statistical analyses and results. Also, writing style including use of active voice, connection of statements and avoidance of redundancy will be discussed. Reporting guidelines including the STROBE, CARE, SRQR, CONSORT and PRISMA statements will be described and their implications discussed. Both quantitative and qualitative papers will be addressed.

Implications and recommendations for nursing practice

- Sound reporting and publishing skills and compliance to standards of reporting are essential for expanding the evidence base of critical care nursing internationally.

Systematic pain assessment in critical care

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Aim

To enhance knowledge on the use of pain assessment tools for verbal and non-verbal critically ill patients and to increase awareness on the clinical significance of systematic pain assessment.

Summary

Background: The majority of critically ill patients cared for in intensive care units (ICUs) experience moderate to severe pain. Pain may also persist after ICU discharge and shift to chronic pain. ICU pain is also implicated in the post-intensive care syndrome which encompasses impairments in physical, cognitive or mental health persisting after ICU discharge. Despite guidelines for pain assessment, implementation and use of validated tools to assess pain in verbal and non-verbal patients in routine clinical practice appears to be inconsistent or even scarce. Approach: Interactive lecture aiming: a) to discuss and compare pain assessment tools validated for adult critically ill patients; b) to discuss barriers and implementation strategies; c) to present evidence on the impact of systematic pain assessment. Under-diagnosed and unrelieved pain in critical illness associates with compromised physiological and psychological patients' outcomes, including increased dependency on mechanical ventilation, nosocomial infections, hemodynamic instability and delirium. Unrelieved pain can also compromise immune responses. Effective pain management depends on the systematic and comprehensive assessment of pain to guide decision-making regarding titration of analgesia and administration of 'as needed' medications. When systematically implemented, systematic pain assessment by validated tools has favourable effects on pain intensity, duration of mechanical ventilation, length of ICU stay, mortality, adverse events and complications.

Implications and recommendations for nursing practice

- Efforts to increase critical care nurses awareness on the effect of systematic pain assessment and on the attributes and correct use of pain assessment tools are needed.

Therapeutic touch in critical care

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Aim

To enhance understanding on the role, effect, potential mechanisms of action and methods of contact and non-contact therapeutic touch in critical care. This workshop will explore: a) methods of purposeful intentional contact and non-contact therapeutic touch in critical care, b) similarities and differences between them, c) evidence on effectiveness and mechanisms of action.

Summary

Approach: Combination of lecture and experiential workshop. Background: Touch is one of the most prominent approaches implemented by nurses to alleviate stress. Although most of nursing procedures involve touching, touch can also be used expressively as a means of communication, as well as to convey presence, empathy and to alleviate suffering. Several forms of touch are employed by nurses, including contact and non-contact methods; however, use of systematic touch approaches in critical care is limited. Discussion: The sense of touch is a powerful channel of eliciting and modulating human emotion, and interpersonal touch has been shown to play an important role in emotional well-being, and to elicit specific physiological responses including neuroendocrine effects, vagal stimulation, reduction of stress, pain and depression and enhancement of immunity. Different types and pressure of contact touch will be discussed and explored experientially. Physiological and psychological effects of noncontact therapeutic touch, including neuroendocrine and cellular effect, as well as impact on pain and a number of psychological outcomes will be discussed. Presence, mindfulness, therapeutic intention and the role of the autonomic nervous system, neuropeptides and cytokines will be discussed as the common basis of touch approaches in critical care.

Implications and recommendations for nursing practice

- Increasing critical care nurses' awareness and skills on therapeutic touch and focus on pertinent patient- and family-centred interventions has the potential of enhancing patients' well-being and their physiological and psychological outcomes.

Essential elements of Paediatric BASIC

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Aim

Provision of a basic paediatric critical care short course to improve knowledge and skills of medical and nursing staff with limited critical care training .

Summary

The Paediatric BASIC Course is a two day course taught by a faculty of paediatric intensive care specialists. This course was initially established to assist medical staff and critical care nurses with minimal experience in paediatric intensive care who are considering working in this area or who are required to manage critically ill patients in regional areas. It has now been embraced internationally, especially in developing nations where access to nursing and medical education is limited. Paediatric Basic utilises a practical approach in the management of critically ill children and consists of lectures, skill stations, simulated cases and tutorials. Assessments are included in the course.

Implications and recommendations for nursing practice

- Contributes toward patient safety by assisting nursing and medical staff to identify and manage critically ill patients in a variety of settings including regional Australia and in developing nations
- Facilitates team work and communication in difficult and crisis situations through simulation
- Provides skill stations/scenarios to enhance skills and performance in critical care settings.

Further reading

Ballangrud R et al. (2014). Intensive care unit nurses' evaluation of simulation used for team training. Nursing in Critical Care 19(4): 175-184.

Perkins GD et al. (2005). The Acute Care Undergraduate Teaching (ACUTE) Initiative: consensus development of core competencies in acute care for undergraduates in the United Kingdom. Intensive Care Medicine 31(12): 1627-1633.

Smith CM et al. (2007) Undergraduate training in the care of the acutely ill patient: a literature review. Intensive Care Medicine 33(5): 901-907.

Advanced therapy modules on Prismaflex. TPE, HP and X-MARS: using and troubleshooting

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Aim

To provide attendees with information on the use of the advanced treatment modalities on the Prismaflex platform. From a brief introduction to the why and how of TPE, HP and X-MARS; to an overview of potential issues that may be seen when using.

Summary

Topics covered: For each therapy: What are the indications; how are they managed on Prismaflex; what are some of the potential issues to look out for and how to deal with them. The session will be part presentation and part demonstration with a Prismaflex running in TPE mode. The Prismaflex screen will be projected to ensure all can see. There will be plenty of opportunity for group interaction and discussion.

Implications and recommendations for nursing practice

- The ability of a CRRT monitor to also perform other extracorporeal therapies increases its flexibility and usefulness.
- The clinical use of these extra modalities is mostly sporadic and therefore prone to user apprehension as knowledge and skills become rusty.
- This session aims at giving an overview of the 3 therapies, their primary indications for their use; specifics related to their set up and some common troubleshooting issues.

Further reading

Gambro (2012). Prismaflex Operator's manual. Software version 7.

Citrate anticoagulation in continuous renal replacement therapy: its use on Prismaflex and troubleshooting

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Aim

To provide attendees with information on the use of the citrate module on the Prismaflex platform. From a brief introduction to the why and how of citrate; to an overview of potential issues that may be seen when using citrate continuous renal replacement therapy (CRRT).

Summary

Topics covered: How citrate works; what does the evidence show; how is citrate managed on Prismaflex; what are some of the potential issues to look out for and how to deal with them. Examples of some of the issues to be covered include: citrate toxicity, calcium reinfusion, blood sampling, unexpected restrictions of machine settings. The session will be part presentation and part demonstration with a running Prismaflex. The Prismaflex screen will be projected to ensure all can see. There will be plenty of opportunity for group interaction and discussion.

Implications and recommendations for nursing practice

- Citrate anticoagulation for CRRT is rapidly becoming a part of many ICU's repertoire of treatment options.
- As more ICUs use citrate, it is clear that there must be adequate education for users. This will help ensure that an effective and safe citrate CRRT program can be commenced and/or maintained in an ICU.
- This session will assist users understand some of the potential issues seen with the use of citrate.

Further reading

KDIGO Clinical Practice Guidelines for Acute Kidney Injury. Kidney International 2 (Suppl. 1): 1-128.

Schilder L et al. (2014). Citrate anticoagulation versus systemic heparinisation in continuous venovenous hemofiltration in critically ill patients with acute kidney injury: a multi-center randomized clinical trial. Critical Care 18(4): 472-476.

Wu MY et al. (2012). Regional citrate versus heparin anticoagulation for continuous renal replacement therapy: a meta-analysis of randomized controlled trials. American Journal of Kidney Diseases 59(6): 810-818.

Cross cultural collaboration in peripheral intravenous catheter care: The One Million Global catheter study

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Aim

To describe the process and experience in conducting a worldwide prevalence study investigating what is happening with peripheral IV catheters in practice to identify the reasons for the high complication and failure rate.

Summary

This presentation describes the rationale for the OMG PIVC study and the processes and clinician experience of participating. Over one billion peripheral intravenous catheters are inserted annually. Despite catheter guidelines and recent innovations in dressings and securement, the complication and failure rate remains around 40%. We undertook a worldwide prevalence study investigating what is happening with peripheral IV catheters in practice to identify the reasons for the high complication and failure rate. On a given day decided by each organisation, consenting hospital patients permitted the details of their IV catheters to be collected. No identifying patient data was collected. 415 hospitals in 51 countries and 15 languages collected data. Over 80,000 patients were screened and 40,000 peripheral intravenous catheters were assessed. The study received much positive feedback and interest from international hospitals, demonstrating that clinicians ranging from nurse researchers and educators, medical staff, infection control and vascular access clinicians, to nurse unit managers and bedside nurses are keen to participate in research with defined clinical benefits.

Implications and recommendations for nursing practice

- Participating hospitals reported study benefits included conducting a practice audit and benchmarking results with other hospitals
- This study has led to the creation of global research partnerships. With networks now established, the doors are open to further collaborative research studies
- The enthusiastic response to this study demonstrates clinicians are keen to become involved in simple bedside research projects with defined clinical benefits for patients.

Further reading

Alexandrou E, Ray-Barruel G, et al. (2015). International prevalence of the use of peripheral intravenous catheters. J Hosp Med 10: 530-533.

Vascular access device complications and failure: accepted but unacceptable

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Aim

To highlight the common problem of vascular access device complications and failure; outline the significant patient, health system costs, and nurse workload impact of such failure; and identify areas where critical care nurses can prevent these complications arising globally.

Summary

Critically ill patients worldwide rely on vascular access devices such as central venous, peripherally inserted central venous, umbilical, and arterial catheters. These are used to infuse therapeutic treatment, maintain life, and monitor cardiovascular function. As many as one in three vascular access devices develop mechanical, vascular, or infectious complications. These prevent or delay therapy, and may cause the catheter to fail, requiring its removal. Such complications have significant negative consequences for patients, healthcare costs, and nursing workloads. Some improvements have been made, particularly in catheter associated bloodstream infections. Yet data highlights that complications remain common - perhaps wrongly 'accepted' as unavoidable. Critical care nurses are vital for safe insertion, use, and removal of vascular access devices. When we globally unite to state that vascular access device complications are 'unacceptable', we may have a chance of eradication.

Implications and recommendations for nursing practice

- Understand that vascular access device complications are important safety hazards for patients, and that these are generally avoidable
- Recognise the important, major role for critical care nurses to prevent these complications
- Increase efforts globally to eradicate vascular access device failure as a nursing quality and research focus.

Further reading

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Ullman AJ et al. (2015). Complications of central venous access devices: a systematic review. Pediatrics 136(5): e1331-1344.

Intrahospital transport of critically ill patients – a Swedish perspective

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Aim

The aim was to investigate Critical Care Nurses (CCN) perceptions of problems and managing problems for the critically ill patent during IHT, based on professional competence and how a high level of patient safety was maintained.

Summary

Background: Intrahospital transports (IHT) are a potential risk for patients. Alarmingly, between 30-70% of IHTs are associated with some form of adverse events (AE) (1, 2). Literature review (3) recommend the use of guidelines and protocols for IHT, competent staff participating and optimal equipment in order to minimize risk during transport. The aim was to investigate Critical Care Nurses (CCN) perceptions of problems and managing problems for the critically ill patent during IHT, based on professional competence and how a high level of patient safety was maintained. Methods: This prospective survey was conducted in three medical and surgical intensive care units (ICU). The questionnaire included 55 structured and one open ended question. It was developed based on a previous pilot study and the current literature on patient transport and safety culture. Items covered potential problems and the CCN possibility to solve these problems. All items were responded with a numeric scale 1-10 (low to high). Results: Most participants performed one to four IHT/ month with patients back and forth to ICU. Of the 86 responders 98% had a diploma degree in critical care nursing, and a mean work experience of 12 years. The response indicated that one third of the

responders had no knowledge about written transport guidelines, very few knew about any special transport team and more than half of all transports were performed without any physician present. Circulation failure was the most common AE, followed by decreased consciousness. The average score of CCNs' perceived ability to respond appropriately to a problem during IHT was 6.0±1.5. From the open ended question of how IHT influenced the ordinary work in ICU, the overall interpretation theme of how CCNs experienced the IHT was described as "It is like a marathon race". The similarity with the marathon was the experience of a long event not necessary in time but in mind and a feeling like a racing challenge requiring the CCN to have endurance. The underlying categories highlights that CCNs felt stressed when caring for the patient outside the ICU and that IHT was a demanding task. The IHT also created a shortage of staff in the ICU especially during the afternoon and nights.

Conclusions

Experienced CCNs perform IHT with critically ill patients frequently without physicians. CCN seem to manage the problems reasonably well during IHT despite the stress that they experienced. During IHT, the workload of the staff remaining in the ICU increases, which potentially compromises patient safety. These findings support further interventions to optimize safety during IHT.

Implications and recommendations for nursing practice

- Develop IHT teams
- Improve guidelines for IHT
- Pay attention to that IHT imply extra workload for staff.

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(3) Jarden RJ & Quirke S (2010) Improving safety and documentation in intrahospital transport: development of an intrahospital transport tool for critically ill patients. Intensive & Critical Care Nursing 26(2): 101-107.

Monitoring nurse sensitive indicators through a statewide electronic system in Queensland, Australia: supporting accountability and transparency in health care governance

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Aim

Evaluating the usefulness and relevance of state-wide electronic nurse sensitive indicator (NSI) ward reports within the state of Queensland, Australia. Understanding how nurses can measure patient care and nursing workforce outcomes to provide quality care.

Summary

Accountability and transparency are fundamental components of health care governance. Internationally, monitoring and benchmarking patient care outcomes is an increasing focus to support provision of safe, effective, efficient and equitable quality care to our patients (1). NSIs have been identified worldwide as integral to measuring nurses' contributions to patient care outcomes and service delivery (2). NSIs are widely adopted to evaluate clinical practice, nursing performance and to inform quality improvements. In Queensland, Australia, a joint initiative between the Office of the Chief Nursing and Midwifery Officer and the Princess Alexandra Hospital saw the development of state-wide fully automated and standardised ward reports for adult acute inpatient wards. Understanding the relevance and usefulness of supportive quality reporting tools was integral in the report development. Evaluations undertaken by registered nurses across the state, provided further recommendations for report development.

Implications and recommendations for nursing practice

- Registered nurses across Queensland evaluated the NSI reports and provided recommendations on how to add value
- Recommendations included investigating pertinent NSIs for specialty areas including the critical care environment and other clinical contexts including: paediatrics, ambulatory care, residential aged care, mental health, and maternity
- Providing benchmarking at the ward level has been recommended as a means to support quality improvement discussion and implementation of evidenced based initiatives to improve patient care outcomes
- The implications of accessing timely and relevant NSI data include: ability to determine associations between patient and nursing workforce outcomes; support for quality improvement initiatives; improved understanding of resources and processes needed to provide optimal patient care; and evidence to influence health care policy (3).

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Assessment of the paediatric patient

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Aim

The purpose of this presentation is to provide practical information regarding the initial and ongoing assessment of critically ill paediatric patients.

Summary

The assessment of a critically ill infant or child can be stressful, especially for critical care nurses infrequently caring for children. This presentation will focus on the assessment of the critically ill infant/child and highlight the transferability of general critical care assessment skills to the paediatric context. In addition specific paediatric considerations will be discussed and related to the relevant developmental anatomy and physiology. The presentation will concentrate on the assessment of the intubated and ventilated infant/child and will review assessment of fluid, sedation, analgesia as well as respiratory and cardiovascular assessments.

Implications and recommendations for nursing practice

- Understanding the relevant paediatric differences supports effective paediatric assessment
- Many general critical care assessment skills can be readily adapted to facilitate a paediatric assessment.

Management of paediatric head injuries

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Aim

The aim of this presentation is to review current practice for the management of paediatric head injuries and to describe the use of a Traumatic Brain Injury Checklist Tool in the Paediatric Intensive Care Unit (PICU).

Summary

In this presentation, an overview of current evidence for managing paediatric head injuries will be presented. The risk of secondary brain injury is high if the appropriate cerebral perfusion and oxygenation targets are not maintained. Therefore, it is essential that clinicians ensure that all the key elements of the traumatic brain injury management protocol are delivered reliably and consistently. An inter-disciplinary paediatric intensive care unit (PICU) traumatic brain injury (TBI) checklist tool has been developed and implemented to provide clinicians with a quick and structured method for evaluating the patient's current treatment against the agreed standards for paediatric TBI management. Completion of the TBI checklist is repeated throughout the acute phase of the child's admission. Using the checklist assists clinicians to ensure that all components of the required management are delivered reliably and consistently to every patient.

Implications and recommendations for nursing practice

- The importance of maintaining strict regulation on all critical parameters which can impact upon cerebral perfusion and oxygenation
- Checklists can assist clinicians to consistently deliver best practice.

African and Western medicine interface

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Aim

The aim of this presentation is to provide insight into African techniques to better understand the interface between African and Western medicine.

Summary

There is growing interest in African medicine since the government approved structures to recognise African Traditional Medicine in South Africa. The aim of this presentation is to provide insight into African techniques to better understand the interface between African and Western medicine. African medicine is known as traditional healing. This refers to the application of knowledge, skills and practices based on experiences indigenous to different cultures. These services are directed towards the maintenance of health, prevention and treatment of physical and mental illness. It is estimated that there are as many as 200,000 indigenous traditional healers in South Africa compared to 25,000 Western-trained doctors. Traditional healers are consulted by approximately 60% of the South African population, usually in conjunction with western medicine. There are two main types of traditional healers within the societies of South Africa: the diviner (sangoma) and the herbalist (inyanga). These healers are revered and highly respected in a society where illness is thought to be caused by witchcraft, contact with impure objects or events, or through neglect of the ancestors. Traditional healers will give their patients medications (muti) made from plant, animal and minerals – imbued with spiritual significance. The formal health care sector has shown interest in the role of sangomas in the efficacy of herbal remedies. Well-known contributions from South African herbal remedies include aloe, buchu and devil's claw. Public health service uses sangomas in the fight to stop the spread of HIV/AIDS, diarrhoea and pneumonia, which are the main causes of death in rural areas. At the same time, there is substantial evidence that non-standard provision of traditional herbal medicine has many negative implications. For example cases of acute poisoning due to traditional medicines are not uncommon. Mortality is estimated to be as high as 10,000 to 20,000 per annum. Forensic evidence suggests traditional remedies of plant origin were responsible for 43% of poisoning cases. In the acute state, these patients will be referred to hospital, receive treatment in intensive care, and on discharge, they will return to the sangoma for healing. It can be concluded that traditional belief systems in South Africa are not incompatible, but complementary.

Implications and recommendations for nursing practice

- Critical care nurses are providing health care for an increasingly multicultural population
- The ever increasing diversity of cultures and traditional belief systems present a challenge to nurses who want to provide holistic care
- Knowledge of these differences in traditional belief practices is fundamental if critical care nurses wish to provide appropriate culturally competent information regarding health care decisions.

Communication strategies with ventilated patients' families

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Aim

The purpose of this presentation is to review the issue of communication in ICU, highlight strategies that may improve communication, and further stimulate the discussion about integrating palliative care strategies that can be used to improve communication with ventilated patient's families.

Summary

Good communication is identified by patients, families and healthcare professionals as a critical component of quality care in the intensive care unit (ICU). It is also pre-requisite in patient-centred care that warrants deliberate and continuous communication. Frequently, the critically ill patient requires ventilator support that renders patients unable to express their needs or make decisions about the care. Families often find themselves as surrogates for communication when the patient is unable to participate. For many family members' decision making can be fraught with anxiety and negative emotions especially if the family members do not know what the patient's wishes are for treatment interventions. A selective review of relevant literature in critical care and palliative care nursing was using CINAHL and MEDLINE databases was conducted to elicit specific activities of critical care nurses in improving communication. The search was conducted over a period of 10 years and included both quantitative and qualitative studies that focused on nurse's role in communication with ventilated patient's families. Interventions for improving communication with ventilated patient's families will be discussed.

Implications and recommendations for nursing practice

- Awareness of communication skills can help nurses to facilitate communication and interaction in supportive ways to alleviate anxiety and distress experienced by families of the ventilated patient in the intensive care units

- Communication strategies can help critical care nurses to develop communication interventions that are tailored to families' experiences as a surrogate decision making, and to the level of understanding of the patient's preferences.

Moral distress in end of life care

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Aim

The aim of this study was to explore and describe nurses' experiences of situations that involve end-of-life care and evoke moral distress in the intensive care units of two public sector hospitals in South Africa, the personal consequences of these situations and the means employed to manage their distress.

Summary

Nurses are intimately involved in end of life (EOL) care and their experience is intensified by their intimate and sometimes intense interactions with both patient and family members. End of life care has the propensity to engender moral distress. Emotional, social, physical and professional consequences are likely. South Africa's health system is complex displaying diverse disease patterns: acute and infectious diseases, high maternal and child mortality, non-communicable diseases and violence and injuries often exacerbated by patients' HIV status. Causes of and responses to the moral distress of nurses caring for critically ill and dying patients have not been sufficiently explored in the South African intensive care arena. The purpose of this study was to elicit the nurses' perspective of the clinical situations in the ICU evoking moral distress; the consequences and means they employed to manage their distress. A short survey/interview guide, derived from Corley et al.'s (1) extensively used and validated "Moral Distress Scale", requiring narrative descriptions and explanations were distributed to registered nurses (n = 100; n = 100) in trauma, general medical and surgical and cardiothoracic ICUs in tertiary, academic hospitals in Johannesburg. Data were triangulated by augmenting the information recorded from focus group discussions. Experiences of the situations, many engendered by perceived morality of the treatment and decisions made, as well as participants' reactions and subsequent actions are described. The study found that nurses experienced considerable moral distress. This is compounded by an environment where professional and social status may inhibit the nurses' assertiveness.

Implications and recommendations for nursing practice

- Support needs to be offered on a regular basis to nurses practising in intensive care units. This should be done on a 'story-telling' format and allow for debriefing in a safe group context
- Nurse's assertiveness education and training can be addressed in workshops, supervision meetings with individual staff members, and continuing professional development (CPD) programs, and staff meetings
- Encouraging a change in attitudes and behaviour affords a space to try out and deconstruct the norm-instituting social and professional development.

Reference

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Establishing a research nurse position in a regional hospital

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Aim

To Inform and encourage research in areas that may not have a research infrastructure.

Summary

Research in a regional intensive care unit has some unique challenges and rewards. For this reason research is often thought to be "just for the big ICUs". The implementation and evolution of the research nurse position in Toowoomba was not always smooth or planned, however it has been a successful journey. The commitment of the ICU team is highlighted by the successful participation in several large, multicentre, multinational, randomised controlled trials (RCTs). The ability of regional ICUs to contribute to research should not be underestimated. This presentation will share with you the trials and triumphs. Explore strategies for success and share insights gained from failures.

Implications and recommendations for nursing practice

- A research nurse position can be a valuable contribution to a regional hospital.

Critical care in the air - principles of aeromedical retrieval in a fixed wing transport environment

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Aim

To provide an awareness of the preparation for transferring the critically ill patient in a fixed wing aeromedical environment with the unique challenges that this presents.

Summary

The lack of critical care services and specialty services in rural and remote Australia combined with the distances required to access appropriate care, makes communities throughout Australia reliant upon aeromedical retrieval services. The Royal Flying Doctor Service is the largest aeromedical transport provider in Australia. In Queensland, RFDS has seven aeromedical bases across the State that provide access to appropriate care for these communities - 24 hours a day, 7 days a week. The aeromedical environment is unique, at times confronting, and presents its own challenges. This presentation gives an overview of the principles of aeromedical retrieval and discusses the unique challenges with a focus on critical care from the perspective of a Flight Nurse working in a fixed wing transport environment.

Implications and recommendations for nursing practice

- The aeromedical setting is an isolated environment and flight crew must be prepared for any situation
- Having a thorough knowledge of the effects of altitude on patients and equipment, together with detailed preparation, planning and communication are the keys to providing a safe patient transfer.

Further reading

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Milligan JE et al. (2011). The principles of aeromedical retrieval of the critically ill. Trends in Anaesthesia and Critical Care 1: 22-26.

"Compassion Café" – an intervention to manage compassion fatigue and burnout in critical care nurses

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Aim

This presentation will explore the barriers and enables to compassion in the workplace and the feedback from this new professional development opportunity.

Summary

Compassion is an essential aspect of nursing. How then do critical care nurses maintain compassion when exposed to traumatic events over a prolonged period? Compassion fatigue (CF) is a workplace hazard for critical care nurses that can affect the organisation, patient safety and importantly the nurses personally. A professional development program was presented to 180 staff in a 'compassion café' format. The café explored workplace and personal triggers for CF; ways to increase compassion in the workplace and help staff reconnect to shared values. A compassion café format was evaluated for effectiveness as an intervention to manage compassion fatigue in the ICU.

Implications and recommendations for nursing practice

- Highlight the importance of developing workplaces that recognise the risk of compassion fatigue as a workplace hazard
- The need to develop strategies to best manage this risk factor for all staff.

Further reading

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Shoorideh FA et al. (2015). Relationship between ICU nurses' moral distress with burnout and anticipated turnover. Nursing Ethics 22(1): 64-76.

Winch S et al. (2014) Understanding compassion literacy in nursing through a clinical compassion cafe. Journal of Continuing Education in Nursing 45(11): 484-486.

Family centred care in the critical care space - welcome to ICU please request permission to enter

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Aim

The aim of this presentation is to define the concept of family centred care whilst examining the critical care setting and the challenges staff face to its successful implementation. This presentation identifies strategies that can assist staff to maximise the benefits of FCC in the critical care environment.

Summary

Children's Health Queensland is committed to the family centred care (FCC) model in its delivery of paediatric health services. Family-centred care (FCC) is an approach to the planning, delivery, and evaluation of health care services that is based on a strong, effective, and respectful partnership between the family and the provider (National Centre for Family Professional Partnerships website). There is much literature to support FCC and strategies have been adopted by paediatric facilities all over the world to move away from paternalistic physician/family interactions that are outdated and replaced by partnership. The foundation of FCC is based on the following four key principles: respect and dignity; information sharing; participation; and collaboration. The basis of this philosophy is that families are central to a child's well-being and as such should be included as equal members of the child's health care team. Although in principle FCC is agreed upon by paediatric health facilities to be best practice, there is a body of literature that highlights barriers to effective implementation of family centred care in an intensive care unit environment. Some studies suggest that due to the nature of critical care FCC may be challenging to implement. Issues such as risk of infection, confidentiality, crowd control, time constraints and parental stress are described as contributing to the challenges of implementing this model of care effectively. Although there is an abundance of literature and evidence to support FCC and its benefits to patients, their families and health care workers further research is needed focussing on improvement, development and evaluation of FCC strategies that specifically address the barriers faced in the PICU environment. This presentation explores the FCC philosophy, the barriers faced by health care workers in the critical care environment and strategies that could assist with effective implementation in the face of such challenges.

Implications and recommendations for nursing practice

- Gain an understanding of the philosophy of FCC and the components that familes describe as being most important; understand the barriers and challenges critical care health workers face in daily practice
- Explore strategies to assist with implementing FCC in a critical care environment.

Ravenshoe: mass burns casualties

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Aim

Review strategies utilised in the care of mass burns casualties.

Summary

Ravenshoe is a small town in the tablelands 123km south west of Cairns with a population of less then 1000 .On the 9th of June 2015 a utility truck crashed into the back of a local café and caused gas cylinders to explode. This incident produced blast and burn injuries to 20 people, the majority of whom sustained multiple life threatening injuries. Major burn injuries require highly specialised treatment including specialised resuscitation and ongoing medical and nursing support in a purpose built clinical area as well as multiple surgical procedures, dressings and rehabilitation. The Royal Brisbane and Women's Hospital (RBWH) is the only specialised burns unit in Queensland. Therefore the most critical of these patients from this incident were stabilised and transferred there. A total of nine patients from the disaster were transferred to the intensive care unit (ICU) at the RBWH. There were already three major burns patients in the ICU, thus taking the total number of burns patients to 12. The RBWH ICU has eight isolation bed areas, four of which have the heating/cooling capabilities needed for major burns having repeat surgery. Issues arising from this incident for the RBWH ICU included dressing stock, theatre access, medications, appropriate space to nurse these patients, patient transport , infection control, patient confidentiality, and staffing and staff fatigue. This presentation will provide insight into how these issues were addressed and what lessons were learnt for the future.

Implications and recommendations for nursing practice

- Importance of strict infection control in high risk patients
- Cohorting of patients for effective use of material and human resources
- Utilising all resources available for best patient outcome.

ARDS survival: building a roadmap to achieve successful short and long term outcomes

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Aim

The critical care nurse is able to incorporate in a user-friendly structure the latest evidence-based care approach for the ARDS patient into their bedside practice to improve both short and long term outcomes.

Summary

With the ARDS definition changing, clinicians are able to design and use research studies specifically based on the severity of lung injury. Results of these trails on ventilator modalities, fluid management, prone positioning and pharmacological treatment provide the nurse with targeted care practices to positively impact mortality and functional outcomes. The session begins by outlining the new definition and exploration of the pathophysiologic processes seen in ARDS. An critical analysis of multidisciplinary evidence-based supportive treatments is organized and discussed using a structured technique of the seven P's; prevention, PEEP, pipes and pump, paralysis, positioning and protein which covers the major supportive management strategies. The ARDS patient is complicated and nurses need to understand the new evidence and be able to readily move it into practice to ensure the ARDS patient not only survives but is able to return to a meaningful life as soon as possible. Currently, we have no magic bullet that will reduce the mortality rate of the ARDS patients. It is the early and consistent applications of evidence-based supportive therapies that will result in improve short and long-term outcomes for the ARDS patient. Understanding the new consensus definition that now differentiates ARDS based on severity of hypoxemia to be mild, moderate or severe, will help the nurse target the correct supportive care. Our knowledge of the diffuse injury to the alveoli and capillary membranes caused by inflammatory mediators and ventilator-induced injury helps for greater understanding of the clinical signs and symptoms and why certain therapies are better at supporting the ARDS patient. Due to the complexity of the patient, it is critical that the frontline nurse have a user-friendly structure (7 P's) to trigger implementation of evidence based care practices in managing the ARDS patients. The goal is to PREVENT further injury through reducing ventilator-associated events and physical and cognitive decline. The team must utilize evidence based ventilator strategies (PEEP) while ensuring adequate volume for the heart to work at maximum efficiency (PUMPS & PIPES) to help deliver oxygen to the tissue. The critical care nurse plays a key role in minimizing oxygen demand and balancing brain recovery through appropriate use of sedation (PARALYSIS) and spacing care activities to allow for maximal rest and recovery. The selection & implementation of early progressive mobility and use of the prone position (POSITIONING) to optimize oxygenation goals, reduced lung injury, reduce mortality as well as improve long-term functional ability is critical to outcomes. Appropriate nutrition (PROTEIN) to promote healing and reduce inflammation is an essential component of the care plan. It takes all our knowledge and skill to ensure the ARDS patient not only survives but is able to return to a meaningful life as soon as possible.

Implications and recommendations for nursing practice

- Implement low tidal volume ventilation on patients with ARDS in the mild, moderate or severe form.
- Incorporate prone positioning into the care of the ARDS patient when they meet criteria for severe hypoxemia.
- Incorporate the new recommendations for management of pain, anxiety and delirium into your management of the ARDS patient.

Further reading

Bos LD et al. (2015). External validation confirms the legitimacy of a new clinical classification of ARDS for predicting outcome. Intensive Care Medicine 41(11): 2004-2005.

Guérin C et al. (2013). Prone positioning in severe acute respiratory distress syndrome. New England Journal of Medicine 368(23): 2159-2168.

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Multidisciplinary implementation of the ABCDE bundle: reducing patient harm

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Aim

To ensure the participant is aware of the latest research in caring for critically ill patients to maximize outcomes. The care practices included how we assess and management pain, agitation and delirium and readiness for mobility with the goal of reducing short and long term negative outcomes of cognitive dysfunction, physical deconditioning and potential readmission

Summary

In ICUs across the world, clinicians are working diligently to ensure the A, B, C, D, E's of evidence-based practice are fully integrated into daily care. Over the last decade, concentrated effort has occurred to Awaken patients through use of sedation protocols, facilitating ventilator liberation through spontaneous Breathing trials, Coordination of complex interdisciplinary care, evaluating and managing Delirium in order to foster successful progressive early mobilization. Without successful bundling of the interventions, the ability to integrate early mobilization is challenging. A growing body of evidence suggests that early mobilization is associated with important short and long-term patient outcomes. Short-term benefits include; improved gas exchange, reduced ventilator-associated pneumonia (VAP), less days spent on mechanical ventilation, fewer pressure ulcers and shorter ICU and hospital lengths of stay. Patients treated with early mobilization are more likely to return to independent functional status at hospital discharge and experience shorter duration of delirium and coma, which may ultimately improve their long-term physical and cognitive ability. This session will provide an overview of early mobility in the context of the ABCDE bundle. Strategies to assess adaptation and facilitate a progressive mobility program within your hospital will be outlined. Challenges to initiating and sustaining the ABCDE program will be discussed.

Implications and recommendations for nursing practice

- Implement the evidence supporting reliable and valid assessment tools for pain, agitation and delirium
- Revise any policy or protocols regarding pharmacological and non-pharmacological management of pain, agitation and delirium
- Be aware of the major challenges to implementation of an early mobility protocol and pinpoint workable solutions in overcoming

barriers to sustain integration of an early mobility program within the culture.

Further reading

Balas MC et al. (2013). Implementing the Awakening and Breathing Coordination, Delirium Monitoring/Management, and Early Exercise/ Mobility Bundle into Everyday Care: Opportunities, Challenges, and lessons learned for implementing the ICU Pain, Agitation, and Delirium Guidelines. Critical Care Medicine 41: S116–S127.

Barr J et al. (2013). American College of Critical Care Medicine: Clinical practice guidelines for the management of pain, agitation, and delirium in adult patients in the intensive care unit. Critical Care Medicine 41: 263–306.

Bassett RD et al. (2012). Integrating a multidisciplinary mobility programme into intensive care practice (IMMPTP): a multicenter collaborative. Intensive & Critical Care Nursing 28(2): 88-97.

Targeted coagulation therapy

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Aim

The aim of this session is to describe the implementation of rotational thromboelastometry (ROTEM®), a targeted, point-of-care coagulation management strategy, and implications for clinical practice.

Summary

The use of ROTEM® can optimise the use of blood products in in critical bleeding and reduce transfusion-related side effects. In our facility, implementation of ROTEM® required a change in clinical practice where coagulation assessment was traditionally done through standard laboratory tests. Theory-informed implementation (1) resulted in an approach that was interdisciplinary, inter-department and inter-professional where collaboration and teamwork were essential. Dedicated training sessions, a protocol and decision algorithm enhanced capability. Opportunity was enhanced through the availability of two devices in two locations. Clear processes ensured other hospital areas had access to the technology. Motivation was addressed by ensuring relevant clinical areas had strong clinical champions. Clinical successes with using ROTEM® were widely communicated to the clinical community. Ongoing barriers assessment refined implementation strategies.

Implications and recommendations for nursing practice

- Compliance with the protocol increased over time
- Successful implementation of ROTEM® was achieved with interdisciplinary and interprofessional teamwork. Ongoing assessment of implementation success allowed us to be responsive to issues and optimise the use of the new technology
- Our clinical experience with ROTEM has been positive and we are undertaking research to evaluate patient outcomes.

Reference

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Expanding your scope of practice to include insertion of central venous catheters in the ICU

Webb, Sarah

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Summary

Join us for a lively breakfast session which will explore the enabling of nurses to expand their scope of practice to include insertion of Central Venous Catheters. Confidence, competence and sound evidence based critical thinking skills are the key to executing the safest practice, inserting the most appropriate device and measuring your performance. The speaker will discuss their experience and success in implementing CVCs insertion services at a major tertiary referral hospital, the collecting of data and sustaining of the service.

- Reviewing of the journey of the expansion of practice
- Description of educational and supportive resources utilised and developed to support the expanded practice model.
- Review the data collection process required to sustain the expanded scope of practice.

Saving face: strategies to reduce skin breakdown during non-invasive ventilation

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Aim

To explore strategies to avoid mask-related non-invasive ventilation (NIV) complications and the cost association with hospital acquired pressure injuries.

Summary

This clinical intensive will identify key factors that can lead to mask-related NIV complications and define ways to manage and reduce the potential of skin breakdown during NIV. The speaker will discuss best practices for initial patient assessment and documentation while offering strategies for providing better patient comfort.

Clinical leadership at the bedside

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Aim

This workshop style session will explore the key attributes of someone in this complex leadership role and then explore a new method of how to recruit to this role to ensure the right person is selected.

Summary

Clinical leadership at the bedside is a vital ingredient to the success of any Intensive Care Unit. It goes beyond just the clinical expert that can care for the most complex critical care patient. It requires diverse leadership skills to co-ordinate and supports the team on a clinical shift as well as support management to achieve the unit's long term strategic goals.

Implications and recommendations for nursing practice

- Focus on the importance of leadership at the beside not just at the management level
- How managers can best recruit for these key attributes.

Further reading

Mitchell M et al. (2013). Right person, right skills, right job: the contribution of objective structured clinical examinations in advancing staff nurse experts. Journal of Nursing Administration 43(10): 543-548.

Arabian Nights – establishing after hours rapid response systems in the UAE

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Aim

Describe the elements necessary to implement of a nurse led rapid response system across 4 teaching hospitals concurrently.

Summary

The combination of a Modified Early Warning Score (MEWS) system (1) and a critical care outreach response (2) are key elements to ensure deteriorating patients are identified and responded to promptly and appropriately. The Abu Dhabi Health Service (SEHA) has implemented a fully integrated electronic medical record system (Cerner) and concurrently developed an online MEWS with automated alert system to prompt nurses to respond consistently to patient deterioration. In a survey of 129 ward nurses, 92% preferred the electronic MEWS system and 85% felt more empowered to follow the electronic cascade warning and guidelines (3), however the efferent arm of the rapid response has been inadequate. In 2016, SEHA established a designated after hours Intensive Care Outreach Nurse (ICON) role to enhance the rapid response to early warning calls from ward staff across 4 major teaching hospitals simultaneously. Important elements to enhancing the rapid response system were careful identification of the 16 appointed ICONs, a skills and attributes gap analysis of the ICONs and an orientation, induction and skills upgrade program for all 16 ICONs to establish a consistent standard of practice across the health system.

Implications and recommendations for nursing practice

- Early results show that ICONs have slightly higher confidence in their skills and abilities than do their managers, however the ICONs have been able to learn and master the necessary skills and abilities for the role through a structured induction program provided by senior critical care staff and external experts in areas such as communications, pain management and bedside teaching
- Careful and collaborative planning including many stakeholders and experts is necessary to implement a rapid response system, especially after earlier attempts have been less successful
- Standardised skills and attributes training by content experts is key to ICON readiness and confidence.

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(3) Cerner (2015). Automated early warning scoring system and alerts. Abu Dhabi Health Services Company. [Online] Available at: https://www.cerner. com/uploadedFiles/Content/About_Cerner/SEHA_Introduction_Automated_ Early_Warning_Scoring_Systems_Alerts_FINAL.pdf.

Turning good clinical managers into great leaders

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Aim

This presentation provides practical personal experiences to help participants consider ways to more effectively lead and manage people in the unit/hospital setting.

Summary

Content: Exploring the similarities and differences between management and leadership and how they apply to the operational setting; Examine the roles and behaviour of teams and how leaders can manage and lead group performance effectively; Use the example of regular performance measurement to drive excellence in the hospital environment and discuss how these achievements can be obtained; Create a greater appreciation and understanding of the impact of culture and how to develop a more progressive and enthusiastic culture within the workplace; Examine the important role of followership, most managers are only as effective as their followers will allow them to be!

Implications and recommendations for nursing practice

- Mantra 1: Good reputation leads to recruitment of good staff. Good relationships leads to retention of good staff
- Mantra 2: It is sad when people resign and leave, it is sadder when people resign and stay!
- Mantra 3: Power is like being a lady... if you have to tell people you are, you aren't!.... Same applies to leadership! Leadership and management learning never stops. Once we know the technical, we must continually strive to perfect execution and style.

Further reading

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Williams G, Harris D (2015). Chapter 2: Resource Management in Aitken L, Marshall A & Chaboyer W (Eds.). Critical Care Nursing Textbook. 3rd Edition. Elsevier. Australia.

Williams G, Scarlett K (2009). Chapter 39: Goal Setting in Rollins-Ganz, N. 101 Global Leadership Lessons for Nurses. Signma Theta Tau International, USA.

Neurocritical care nurse practitioner: a day in the life

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Aim

Review the role and educational standards for United States acute care nurse practitioners (ACNPs) - overview an example of an ACNP staffing model - describe a typical day for a neurocritical care ACNP.

Summary

Changes in societal environments and access to care challenges have forced the nursing profession to creatively evolve. Among other things, this evolution resulted in the creation of a variety of advanced practice nurse roles including the nurse practitioner. Successful integration of the nurse practitioner role begins in the ambulatory settings in the 1960's. As time progressed, however, additional factors influenced the scope of nurse practitioner practice. In the early 1990's, factors such as escalating healthcare costs, healthcare

reform, and resident work hour restrictions lead to the need to re-operationalize models of practice. These national and legislative changes translated to a void in hospital based, healthcare delivery. A solution, created in the early 1990's, to fill this void was the evolution of a master's or doctoral level prepared acute care nurse practitioner (ACNP). Since that time, studies have been conducted and have demonstrated the ability of ACNPs to provide high quality, efficient care to patients in a variety of settings. Currently 10,000 advanced practice nurses in the United States are ACNPs with approximately 4000 working in the critical care setting. The purpose of this session is to outline national educational standards, and implementation and evaluation strategies used to create a neurocritical care nurse practitioner practice model in an academic medical centre in Columbus, Ohio USA. Review of daily workflow, procedural care, and documentation and billing practices will be given.

Implications and recommendations for nursing practice

- As global healthcare continues to evolve, the creation and integration of novel practice models will be required to support a multidisciplinary approach to critical care
- The utilization of acute care nurse practitioners within a neurocritical care is one example of how care voids and advanced practice nursing care can be utilized to support the ever growing complexity of critical care patient and family needs.

Traumatic brain injury care - what every critical care nurse needs to know

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Aim

The aim of this presentation is: 1) to familiarize participants with types of Primary Brain Injury utilizing commonly available imaging techniques, 2) to review the causes and sequelae of secondary brain injury, 3) to utilize the latest practice guidelines to provide intervention for severe brain injury.

Summary

Severe traumatic brain injury (TBI), defined as a Glasgow Coma Scale score of less than 9, constitutes a major health and socioeconomic problem worldwide. It is the leading cause of mortality and disability among young individuals in high-income countries, with global increases currently being realized in low and middle income countries. According to the Centers for Disease Control and Prevention, the annual incidence of hospital admissions for TBI is 85 per 100,000 in the United States. While scarce, epidemiological data from the European Union indicate an annual aggregate of TBI hospitalizations and fatalities to be 235 per 100,000 which is similar to Australian numbers. Because TBI is more common in young men, in addition to the initial cost associated with hospitalization, sequelae from these injuries translates into high lifetime costs to individuals, families, and societies. To minimize the negative health and socioeconomic impacts of TBI, timely, focused, and high quality critical care nursing is imperative. During this session, mechanism of injury and radiologic review of primary brain trauma pathology will occur. Initial stabilization techniques will be discussed followed by an overview of the pathophysiology of secondary brain injury. Focusing on guideline driven intervention, this session will then seek to assist participates with the rapid identification and critical care management of severe brain trauma to minimize secondary injury to optimize outcomes.

Implications and recommendations for nursing practice

- Knowledge of typical traumatic brain trauma will help familiarise participants with expected diagnostic and treatment options so rapid identification and critical care management of severe brain trauma can occur to minimize secondary injury to optimize outcomes.

Further reading

Brain Trauma Foundation (2007). Guidelines for the management of severe traumatic brain injury 3rd ed. Journal of Neurotrauma 24(Suppl. 1): 1-116.

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Le Roux P et al. (2014). Consensus summary statement of the International Multidisciplinary Consensus Conference on Multimodality Monitoring in Neurocritical Care: a statement for healthcare professionals from the Neurocritical Care Society and the European Society of Intensive Care Medicine. Neurocritical Care 21(Suppl. 2): S1-S26.

FREE PAPERS - ORAL ABSTRACTS

Oral care competency and practices among critical care nurses for mechanically ventilated patients

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Aim

This study was conducted to assess the critical care nurses' competency pre, intra and post endotracheal tube and oral care practices for mechanically ventilated patients.

Description

A cross-sectional study was conducted on 150 intensive care nurses working in CCU, CSICU, and ICU of a specialized governmental hospital. A questionnaire was distributed and three weeks was given for papers collection. Three parts questionnaires were developed based on literature and an existing hospital policy and procedure. The first part contained questions about demographics including gender, age, years of working in critical care unit, qualification, and marital status. Second part contained a 12 items to test the nurses attitude toward mouth care practices for intubated patients by using 5-point Likert scale ranging from strongly agree (5) to strongly disagree (1). Part three contained a checklist to assess oral care competency by using a 5-point Likert scale ranging from strongly agree (5) to strongly disagree (1). All nurses participated voluntarily and were assured of confidentiality. Statistical Package for the Social Scientists (SPSS, version17) software was used for analysis.

Outcomes

A total of 131 nurses out of 150 completed the questioners, 100% were females, 86% of nurses are baccalaureate degree, 93% with 7-9 years' experience in critical care units, 80% of nurses have adequate time to provide oral care at least once a day, 20.4% only of the nurses are using a toothbrush with 2% chlorhexidine solution every 2 to 4 hours for oral care at least once a day,75.8% of nurses prefer to use oral swab with 2% chlorhexidine solution q 2 to 4 hours, 98% has positive attitude toward mouth care practice.

Conclusions

The survey provided useful information on the oral care knowledge and practices of nurses caring for mechanically ventilated patients. Almost all the nurses perceived oral care to be a high priority. Very low number of nurses are using the toothbrush with 2% chlorhexidine solution every 2 to 4 hours, this figure must be studied for further

action. The majority of nurses had had some formal training in oral care, but would appreciate an opportunity to improve their knowledge and skills.

Implications for nursing practice

- Oral care for mechanically ventilated patients must be taken as high priority by critical care nurses
- Oral care for mechanically ventilated patients is a prevention measure to reduce the risk of ventilator-associated pneumonia
- Critical care nurses must use the evidence-based oral cleansing protocol and recommendation for patients receiving mechanical ventilation.

References

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The Ghanaian perspective of critical care nursing

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Aim

To elaborate on how Ghanaians perceive critical care nursing.

Description

Critical care nursing started in the early 90's in Ghana, and more than four hundred nurses had been trained but the specialty is yet to be understood by most of the health care providers. In Ghana a newly trained critical care nurses are asked to manage the operating room whilst some are posted from the emergency area to a general ward to manage. The trained professional in the ICU or the post anaesthesia unit is not provided with the necessary equipment and the logistics to work, because the policy makers are yet to understand the area, and what the units really need. Critical care nursing had been practice in Ghana for over two decades, in parts of Ghana but most of the hospitals; especially those outside the capital are yet to see the importance or use of critical care nursing. The critical care nurses group was inaugurated in 2013 to bring together the over four hundred nurses to help educate the other categories of nurses and the policy makers.

Outcomes

Nurse mangers, administrators of health facilities, policy makers and stakeholders of intensive care units in Ghana need to understand what critical care nursing means and the role of the critical care nurse. The critical care nurses group had started the awareness, although we have not been able to achieve our aim, we have been able to educate some nurses and heads of institutions in Ghana.

Conclusions

Critical care nursing is a specialized area in nursing, dedicated to the care of the acutely ill patients. The care is provided in specialized unit by specialized nurses everywhere and it must be recognize by the Ghanaian nurses and the other care providers.

Implications for nursing practice

- A trained critical care nurse must work in places that critically ill patients are found
- Policy makers must release the need for intensive care unit.

The process of the establishment of the Latin American Federation of Intensive Care Nurses

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Aim

To help a critical care nursing organization to consolidate itself as representative regional critical care nursing organization.

Description

Latin America consists of predominantly Spanish-speaking people of low to middle income compared to the rest of the developed world. Critical care nursing leaders in this region have been on a 10-year journey to form a sustainable network and strategy to improve conditions for critical care nurses and patients. This presentation tells the story associated with the formation and development of a multi-national critical care nursing organisation in the Latin America region now known as FLECI, Federación Latinoamericana de Enfermería en Cuidado Intensivo (FLECI) or the Latin American Federation of Intensive Care Nurses.

Outcomes

Latin American Federation of Intensive Care Nurses is actively working to represent Latin American nurses to have a voice in the world of critical care.

Conclusions

The challenges and learning lessons from this endeavour can inspire others to follow a similar journey for their region.

Implications for nursing practice

International cooperation and collaboration can help nurses to improve nursing practice in their local settings.

Development of the postoperative registry at Oslo University Hospital, Norway

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Aim

The purposes of developing the postoperative (PO) registry were to improve patients care and safety.

Description

During the last decade, leaders and staff at the PO care unit have identified that the scoring system in use (NAF-reg) did not adequately document the nurse workload. A through literature review indicated that a nurse workload instrument, the PACU patient classification system (Kaiser Permanente, USA) (1) seemed to provide insight into which areas of care that increased workload. One limitation could be that nurse workload only reflected patients' length of stay. Therefore, we added objective discharge criteria (Danish Society of Anaesthesia and Intensive Care Medicine) (2). A pilot study indicated

that these instruments would be feasible to measure workload and optimize PO patients discharge.

Outcomes

As many as 13,318 patients were recruited from 2010-2013, and 50 % were women. Mean age were 53 years (SD 17), mean length of stay were 2.8 hours (SD 3.15 hours) and the most common type of anaesthesia was general anaesthesia (total intravenous) given to 9132 patients. Our main findings were that: 1. Ongoing medication reflected increased nurse workload. 2. On admission 30 % of the patients had moderate to severe pain. 3. Two comparable neck surgical procedures were related to remarkably differences in length of stay.

Conclusions

We are in the process of further investigating and improve pain management. Types of anaesthesia given under a specific type of neck surgery have been changed and will be evaluated. One master student is analyzing data from this internal register focusing on nurse workload. We have developed an interdisciplinary steering committee that administers the postoperative register.

Implications for nursing practice

- Continuous investigation based on the registry is helpful aiming at improved quality PO care.

References

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TBI and platelet dysfunction: analyzing the impact with TEG/platelet mapping

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Aim

To describe the use of thromboelastography with platelet mapping for measuring coagulation dysfunction in severe TBI and to determine transfusion algorithms/protocols to normalize coagulation parameters when platelet dysfunction is present.

Description

Patients sustaining TBI are at risk for bleeding and hemorrhagic contusions. Platelet dysfunction in TBI has been identified in studies as a major contributor to the increased bleeding risk in TBI. Practitioners are challenged to provide appropriate treatment in limiting the hemorrhage and replacing critical blood products. This project focused on developing a protocol using thromboelastrography (TEG) with platelet mapping in patients with TBI. The neuro ICU CNS led a team of physicians/nurses in developing the protocol and tracking the presence of platelet dysfunction in TBI.

Outcomes

TEG was used in 20 patients with TBI. Platelet dysfunction related to the ADP receptor was identified in the majority of the cases. Treatment with DDAVP and Platelet transfusions improved platelet function by decreasing platelet inhibition. This session will introduce the TEG technology, propose the treatment algorithm based on TEG parameters for treating platelet dysfunction, and summarize its impact using case studies in brain injury.

Conclusions

Platelet dysfunction related to the ADP receptor was identified in the TBI patient population. Reversing the inhibition of the platelet dysfunction could potentially limit the amount of hematoma growth or contusion expansion in the TBI patient population.

Implications for nursing practice

- Critical care nurses must recognize platelet dysfunction as a factor in the worsening of TBI
- Critical care nurses identify critical values on serial TEG results for potential treatment options
- Critical care nurses use DDAVP and platelet transfusion to reverse platelet dysfunction in TBI.

Reference

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Family perceptions of communication and provision of information audit (CIA study)

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Aim

Informational support to family members reduces psychological distress. In our ICU, we rely on verbal communication to provide information to family. To optimise current communication strategies we conducted this descriptive, self-report, survey-based project to assess family perceptions of the adequacy of information provision.

Description

All families of patients who were discharged alive from ICU during a 6 month period over 2014/2015 were invited to fill out a slightly modified, previously published questionnaire: The 'critical care family needs inventory'. Families of patients who died in ICU were excluded to protect them from potentially stressful triggers and because their experience with communication was thought unlikely to be unrepresentative of the general ICU population. Questionnaires were mailed to family member/s with a participant information sheet and reply envelope within 1 week of discharge from the ICU. Anonymous questionnaires were returned via mail and the data collated and analysed.

Outcomes

490 questionnaires were mailed out to the families of 420 patients and 111 (23%) were returned. The majority of participants reported that explanations were understandable, that they knew what to expect and that their questions were answered honestly. Perceived issues identified included delays in answering the intercom, limited information provision over the phone, lack of ability to visit outside prescribed visiting hours (10002000) and knowledge of patient's whereabouts. Only 8 of the respondents reported receiving written information about the ICU. Approximately 50% of respondents supported being contacted by email and 70% would have like to have been provided with internet links to reliable information regarding conditions and their treatment.

Conclusions

Whilst the project had some limitations, including a low return rate and responder bias, it did provide valuable insight into areas that can be improved upon. Change to current practice to improve information provision and promote digital information options, prior to repeating the survey to assess impact, is the next step in this project.

Implications for nursing practice

- Using the critical care family needs inventory to assessing family perceptions of the adequacy of information provision provides insight into potential areas of practice improvement
- Whilst good verbal communication is positively perceived by families, the use of supplementary written and digital information sources is supported
- Enabling critical review of current practices by partnering with consumers provides valuable information to improve practice.

The influence of using a closed suction system and prevention of ventilator associated pneumonia

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Aim

Mechanical ventilation is a procedure that is used during surgery and in intensive care units. Infections that affect the respiratory system are associated with mechanical ventilation and maintenance of the respiratory tract of unobstructed excess secretions. Continuous aspiration of airway cleaning is necessary to prevent obstruction of the endotracheal tube. Ventilator associated pneumonia (VAP) is pneumonia that occurs in patients who are intubated and on mechanical ventilation 48 hours or longer. Ventilator associated pneumonia is the cause of 47% of all infections in patients in intensive care units. Open suction technique has been used for long period of time, but in the last decade closed suction has become the most used technique aimed to reduce bacterial contamination and to decrease ventilator associated pneumonia. Aim of the survey was to explore differences between number and type of bacteria revealed microbiology analysis in patient with closed suction system comparing to open suction technique.

Description

This survey includes patients who were on mechanical ventilation longer than 96 hours. Retrospective analysis was conducted for period of one year in Department of anesthesiology, reanimatology and intensive care University Hospital Centre Zagreb.

Outcomes

Microbiological analysis tracheal aspirates taken 96 hours after intubation was detected the presence of bacteria in 42 (57%) patients with aspiration performed an open system, and in 6 (8%) patients used a closed system. The most common bacteria found was Pseudomonas aeruginosa, which is found in 27 (18%) patients, of which in 23 (31%) of patients who used the system open aspirations, and in 4 (5%) patients with a system of closed aspirations.

Conclusions

The use of the closed system reduces the possibility of VAP's. The advantages of a closed system before the open are: single use for one patient, enabling continuous mechanical ventilation without loss of pressure in the airway and oxygenation changes, reduced the risk of infection to staff and reduced contamination of the patient environment.

Implications for nursing practice

- Use of closed suction systems prevents ventilator associated pneumonia
- It is safe for nurses.

Transition of thinking in the intensive care unit: a clinician's perspective of end-of-life care

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Aim

The aim of the study was to explore the perspectives and experiences of nurses and physicians providing end-of-life care in the ICU. In particular, perceived barriers, enablers and challenges to providing end-of-life care were explored.

Description

Patients admitted to Australian intensive care unit's (ICUs) are often critically unwell, and present the challenge of increasing mortality due to an ageing population in Australia. Several of these patients have terminal conditions, requiring withdrawal of active treatment and commencement of end-of-life care. An interpretative, qualitative inquiry was selected as the methodological approach, with focus groups as the data collection method. The study was conducted in a 24-bed ICU located in Melbourne, Australia. Following ethics approval, intensive care physicians and nurses were recruited to participate in the study. Focus group discussions were discipline specific. All focus groups were audio-recorded then transcribed for thematic data analysis.

Outcomes

Five focus groups were conducted with 11 physicians and 17 nurses participating. Four major themes were identified, including transition of thinking, the difficulties of translating end-of-life care plans into practice, communication challenges and obstacles to achieving optimal end-of-life care. The theme of transition of thinking emphasized in this study included the need for a unified culture, medical leadership, open disclosure and simulation and training.

Conclusions

This study showed the need for a transition of thinking, focussed on collaboration and unity, open disclosure, medical leadership, and education. Greater use of collaborative discussions between ICU clinicians are important in facilitating improved decisions about end-of-life care in the ICU. Such collaborative discussions can help to prepare patients and their families when transitioning from active treatment to initiation end-of-life care in the ICU.

Implications for nursing practice

- The need for a transition of thinking, focussed on collaboration and unity, open disclosure, medical leadership, and education
- Greater use of collaborative discussions between ICU clinicians are important in facilitating improved decisions about end-of-life care in the ICU.

Implementing skin integrity rounds in the intensive care unit

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Aim

Pressure injuries (PIs) are often viewed as a measure of quality nursing care. Yet in the intensive care unit (ICU) this indicator may be superseded by life-saving medical priorities. The aim of this project was to implement and evaluate a new initiative, ICU nursing rounds with a skin integrity focus.

Description

We implemented a quality improvement project, skin integrity rounds, in the ICU to improve patient assessment and educate staff on PI prevention strategies. Weekly skin integrity multidisciplinary rounds are conducted where a bedside registered nurse (RN) is invited to present their patient to other ICU and skin integrity service RNs along with relevant allied health members i.e. physiotherapy, occupational therapy, dietetics. We evaluated the project by gathering staff perceptions through focus group discussions which were transcribed voice-totext using a court reporter. Review of discussion transcripts revealed similarities in RNs perceptions and experiences of the rounds.

Outcomes

Evaluation of the initiative highlighted that RNs perceived value in the skin integrity rounds. This was evidenced by RNs acknowledgement of increased skills, awareness of the different types of skin injury and differentiation of PIs compared to incontinence-associated dermatitis. RNs noted increased diligence in routine patient skin assessment and reporting of skin injuries and a raised awareness of resources available within the hospital e.g. skin integrity team, medical photography services, and the contribution of occupational therapy and physiotherapy to PI prevention.

Conclusions

This initiative demonstrates a novel approach, to assist RNS to refocus their attention to the need for prioritising skin care in the challenging ICU environment. Skin integrity rounds are beneficial in raising awareness of evidence-based best practice and were shown to be an excellent vehicle for education and professional development, enhancing a collaborative multidisciplinary team approach to patient care.

Implications for nursing practice

- Skin integrity focussed rounds are a valuable addition to the clinical environment
- Skin integrity focused rounds should be widely embraced.

Evaluation of ICU rostering practices in a tertiary Australian ICU

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Aim

Providing an efficient and fair rostering system is challenging. The objective of this project was to explore the perceptions of nurses in a tertiary Australian ICU regarding benefits and disadvantages of current rostering practices that incorporate a local electronic rostering and request system and associated clear rostering guidelines.

Description

Data were collected using a purposefully designed survey distributed via Survey Monkey and in hardcopy to nurses working in an ICU clinical role. A total of 156 surveys were returned representing a 67% response rate. Concepts examined included current work practices, satisfaction with rostering practices, perceived well-being, future work intentions, and perceived strategies to improve rostering practices. Ethics approval was received from relevant human research ethics committees and consent was implied by return of survey.

Outcomes

Respondents were female (79%), in a relationship (73%), worked ≥0.7 FTE (83%) and worked 12-hour shifts (n=75%). Less than half the respondents had children (43%), with 37% requiring childcare to enable work. Positive perceptions to the current rostering system included the presence of clear guidelines, a fair, supportive, flexible, system that facilitated work-life balance, family commitment and health and fatigue management. Negative views included award restrictions, limited ability to swap shifts, and conflicting views on whether the system was accommodating for parents.

Conclusions

Transparency and flexibility in the rostering system were considered important, with access to varied shifts (e.g. 8 hour, 12 hour or a combination) also considered important. The extent to which the system was family friendly varied, with some believing it was not sufficiently supportive while others believed there was too much bias towards those with families. This information can be used to inform future policies and systems to improve rostering practices in ICUs.

Implications for nursing practice

- The availability of a rostering system that is available externally considering technology advances
- Implementation of a fair rostering system requires available, transparent and updated guidelines which incorporate Award conditions and local staff input
- Consideration must be given to the impacts that 12 and 8 hour shifts have on staff.

A journey to better fluid balance control in CRRT

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Aim

To implement regular patient weight as part of fluid balance assessment for AKI patients requiring CRRT.

Description

Critically ill patient outcomes are adversely affected when fluid overload occurs. Severe acute kidney injury (AKI) impairs physiological fluid and electrolyte balance to the extent where continuous renal replacement therapy (CRRT) maybe required. In order to accurately assess fluid balance control regular body weight measurement has been recommended. As part of a wider review of fluid balance clinical practice, we introduced changes to improve how ICU patients were weighed. The intervention consisted of a plan-do-study-act improvement model. Standard practice for weighing patients was every second day and at different times using electronic bed scales. Plan of changes were targeted to coordinate body weight measurements with calculation of daily fluid balance. Implementation was undertaken through a process of standardised weighing

protocol, targeted education, face-to-face education and individual case follow-up. Assessment of change was addressed each day by reviewing measurements recorded on patient observation charts. An audit of observation charts checked negative or positive fluid balance totals against losses or gains in body weight to evaluate trends in the estimation of body fluid status.

Outcomes

A prospective review of observation charts of 27 patients included 155 days where patients received CRRT. 106 body weights were recorded at midnight. This allowed progressive body weight to be compared with midnight fluid balance totals for 68% (106/155) of treatment days. No patient had a complete consecutive record of body weight for each treatment day they received CRRT. In 17 patients cumulative losses or gains from daily body weight measurements did not match negative and/or positive fluid balance calculations.

Conclusions

A method for monitoring daily trends in body weight was introduced to assist with estimating fluid balance status for patients requiring CRRT. The approach taken had limited success in implementing changes to clinical practice but its effectiveness for improving fluid balance control depends on regular daily measurements. The value of monitoring daily trends diminished when omission of body weight measurements occurred over several days and were not measured at the same time as fluid balance calculations. We also found losses or gains in body weight did not always reflect in a negative or positive fluid balance.

Implications for nursing practice

- The charting of inputs and outputs with daily body weight changes does not provide a full clinical picture when assessing fluid status and additional physical assessment is required.

Mind the gap: multidisciplinary innovation to improve transitions of care between ICU/HDU and ward areas

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Aim

To improve transitions of care between ICU/HDU and ward areas through innovative MDT discharge planning and handover processes.

Description

Approximately 550 patient transitions occur between Waitemata District Health Board ICU/HDU and ward areas each year, however up until early 2014 formal discharge planning processes were limited. As part of the wider ICU/HDU's patient experience project, a multidisciplinary subgroup was formed to examine and improve these transitions of care. A thorough literature review was performed. Current discharge planning processes were reviewed through surveys of critical care and ward staff, and collation of feedback from previous patients and family/whanau. ICU/HDU's around New Zealand were surveyed to compare discharge planning processes. The ICU/HDU's nursing and medical discharge documentation was also reviewed.

Outcomes

The MDT subgroup developed criteria to consistently identify long-term ICU/HDU patients. Weekly MDT meetings and pre-discharge visits by the critical care outreach team were implemented for this patient group, resulting in improved MDT communication and ownership of discharge planning. Social work and speech & language therapy referrals for critical care patients increased. The ICU/HDU nursing and medical discharge summary was combined into a concise 4 page document including a handover checklist.

Conclusions

The ICU/HDU MDT at Waitemata DHB have implemented a structured discharge planning process for long term patients through collaborative innovation. This process has been well received by wider stakeholders. Benefits to patient outcomes are yet to be assessed.

Implications for nursing practice

- The strength of the MDT working together - MDT meetings/ processes do not need to be medical or nurse-led - the strength of this project is how the MDT's professional opinions are considered and respected
- The importance of investigating whether your team is doing what you think they are doing - our ICU/HDU staff survey revealed wide differences in nursing practice regarding preparing patients for discharge, and many did not regard discharge planning as part of their role
- As a unit frustrated with exit block, examining and improving discharge planning processes has given the team a greater sense of ownership over discharges - a culture shift has occurred where the discharge process is viewed as important and something we can positively influence.

Parent roles in initiating escalation of care for the deteriorating child

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Aim

Recent cases where children have died in hospital have highlighted the role parents could take in helping staff identify clinical deterioration in children. We know that there are at times delays in recognising and responding to patient deterioration that is avoidable. There have been tragic cases where this lack of recognition has seen children die despite parents voicing their concerns to health professionals. In Australia and internationally many hospitals have introduced processes for parents to be involved in the early recognition of subtle changes in a child's health condition. As part of a larger mixed methods research project we sort to identify current practices and those advocated both locally and internationally for implementing parent initiation of care escalation for children.

Description

We undertook a systematic review of peer-reviewed publications 20052015. Ten descriptive studies (five in the paediatric setting) reported implementation and evaluation of response systems for patients and families to trigger an alert for help.

Outcomes

A variety of practice models and calling criteria were reported: five studies described a triaged response; five reported systems for families to directly activate the Rapid Response Team. The broader calling criteria and more comprehensive implementation strategies were associated with more calls. The basis of patient or family initiated calls stemmed from communication or systems breakdown. The large range in frequency of calls was associated with the process implemented, the strategies used and the calling criteria. Feedback from families was positive.

Conclusions

There is no systematically researched evidence to assess the value of family initiated calls for deteriorating patients. Nurses are often left to manage and promote these policies however we found poor

description and no evaluation of strategies that might assist with successful implementation.

Implications for nursing practice

- There is a need to evaluate parent involvement to identify the most effective practice models and the impact on patient outcomes.

Exploring learning of paediatric burn patients through storytelling

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Aim

The purpose of this study was to see if paediatric burn patients learned from a colouring/storybook I developed as part of a graduate project.

Description

After obtaining parental and patient (child) consent, I read this colouring/ storybook to the child. I asked them to colour a picture for me and then tell me about the drawing. Each child was given a colouring pad and markers to keep. Parents were allowed to stay if they or the child wanted them to. I audio recorded our conversation for later transcription. Some of the children drew pictures of what they had learned in the book, the children who did not were asked if they remembered anything about what we talked about today. Their responses were recorded. This was done at a level 1 adult and child trauma and burn center in Allentown, Pennsylvania. Twenty children (5-10 years old) with 2nd or 3rd degree burns were interviewed. Storytelling in a phenomenological hermeneutic approach was used in the analysis. Ten meaning units were identified; taking care of my body, what happened to my body, feelings- fear and anger, it hurt and was uncomfortable, trouble sleeping, what I like to eat, my body itches, thinking about outside, being upset with my parents, and experiences with colours/alphabet. Three main themes then emerged; feelings and experiences, adapting to my life now, relating in my world.

Outcomes

I achieved developing an education tool to help paediatric patients learn at an age & developmentally appropriate level. It was a different way to validate learning through the use of art and storytelling. It proved storytelling as a valid research methodology. It teaches nurses of a new way to communicate with children using pictures (art therapy). I took art therapy classes at a local university to enable me to better understand their drawings. It also proved that children do suffer from stress and trauma and need to talk to someone about their feelings. Not all in-patient facilities have paediatric psychiatric practitioners. It is my hope to publish and share this book with the world.

Conclusions

16 of the 20 children identified at least one point in the teaching book. Children want to learn and be included. Drawings provide insight into what children are thinking and feeling after suffering a burn trauma.

Implications for nursing practice

- Education initiatives with paediatric burn patients
- Practice development of how to communicate with children by utilizing colouring or art to communicate with children and gain trust
- Research translation project. More age-specific education materials need to be developed and shared
- Story telling is a valid research method.

References

This was a qualitative research study to obtain my PhD at Duquesne University in Pittsburgh, Pennsylvania. There are 179 references are available upon request.

"When your job nearly kills you". A survivor of a deadly viral haemorrhagic fever tells her story

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Aim

The purpose of the study was to describe the experience of a nurse who contracted a viral haemorrhagic fever (Lujo) from a patient and to explore management and environmental manipulation through each stage of her illness. This experience provides an evidence-base on which to base future recommendations and policies for use in outbreak management.

Description

Two patients with an unidentified disease were admitted to a hospital in Johannesburg. Four patients died before a diagnosis of Lujo virus was confirmed. The survivor, a nurse, shared her experiences of this journey. A case study was used to obtain the information. Data were obtained from interviews, analysis of case notes and the co-ordinator's diary. These interviews covered four time spans from admission of the original patient, outbreak monitoring, the survivor's own admission and recovery period. The interviews were analysed. Recounted experiences and treatment were reviewed in an attempt to identify a relationship between the experiences, medical management and the outbreak management.

Outcomes

Four main themes emerged with fifteen sub-themes. The study describes a patient's success of surviving a deadly disease in her role as a patient and a nurse. The findings were influenced by four time frames thus giving valuable information for future management of patients with VHF and the staff who look after them. There was no research describing the needs of patients or staff at the time of this study. This study gives insight into what both patients and staff experience. Valuable information was identified which will assist in planning for the possibility of future outbreaks.

Conclusions

This study shows the necessity for attention to detail, particularly in patient assessment and history taking. It highlights the need for the nurse to take ownership of infection prevention. Detailed recommendations are given.

Implications for nursing practice

- Attention to detail in the history taking to prevent misdiagnoses thus placing the health care professionals at risk
- Availability and knowledge of the correct personal protective equipment in line with updated policies
- Tracing and monitoring of contacts up to a period of twenty one days post contact with a confirmed patient.

The use of simulation as a learning tool in the education of critical care nurses

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Aim

The education programme for master in intensive care nursing in Norway includes a combination of various learning methods to

achieve the learning objectives, including tutorials, clinical studies and simulation. The purpose of this project was to appraise the evidence and experience with simulation as a teaching method.

Description

The method used for preparing this oral presentation was a systematic literature review in combination with discussions and meetings with key persons involved in full-scale simulation training for both students and experienced health care workers (e.g., nurses, physicians and paramedics). The author of the abstract also has personal experience with facilitating simulation and clinical studies, and is involved as a supervisor in a research project investigating the use of simulation as an alternative to clinical studies in the bachelor programme for nursing.

Outcomes

The literature describes that the use of simulation has spread around the world in recent years, and that more disciplines and professions are engaging in education and training activities using simulation as an educational tool, still little empirical support for this teaching method exists. The literature describes that the key components of simulation-based learning in health care are the post-experience analysis. The post experience-analysis, also called debriefing, has been identified as the key component in terms of simulation, and that simulation in itself does not necessarily lead to learning. Therefore, the use of simulation is dependent on trained supervisors that can facilitate a process-oriented analysis of the current situation.

Conclusions

When using simulations as a supplement or alternative to clinical studies, including well-trained and prepared facilitators is mandatory. Further, the teaching objectives must be explicitly articulated and also well discussed, as only specific scenarios are suitable for simulations training.

Implications for nursing practice

- Debriefing is defined as the key component of simulation.

Driving up the quality of care in ICU in an austere environment

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Aim

The important mission of efficient, effective and quality patient care is dependent upon a strong clinical teamwork.

Description

In our austere environment, we made modifications in our practice, we were not hampered with the current structures we had, i. e. lack of equipment, lack of adequate skills and knowledge to perform some procedures; we evolved, became dynamic and change agents. I invited experts from various institutions from New York and London, U. K. to train my staff (drs and nurses), and build their capacity in their practice. I engaged the policy and decision makers of the hospital and they are committed to driving up the quality of care in my ICU, even under the economical and financial challenges being faced currently.

Outcomes

I was able to improve the care and practice in the paediatrics, with the clinicians who underwent the paediatrics fundamental critical care support (PFCCS) course driving the quality of care in the emergency paediatrics unit (EPU) and the special care baby unit (SCBU); the paediatrics critical care Medicine (PICU and NICU), is now born in my hospital. Maintenance of the minimum standard in my ICU - with infection control being the cornerstone. Educating the staff on the surviving sepsis campaign and best practices has improved patients' outcome in my hospital.

Conclusions

Quality care starts with optimal staffing. To deliver a high level of care, nurses must be informed and engaged and work in a safe environment. Safety is a shared responsibility between nurses and their organizations, and in a high-quality health care environment, both nurses and patients feel safe and nurses are better equipped to be engaged in patient care. In our austere environment, we need to make modifications, and not be hampered with the current structures, we should evolve, be dynamic and be change agents.

Implications for nursing practice

- Practice development is key to effective and efficient management in the ICU, therefore collaboration with experts in critical care field be made
- Policy and decision makers ought to support these quality initiatives to have best practices imbibed at whatever costs, to give the patients the 'Right Care, Right Now".

How to create educational development in intensive care in an arctic area, where the only possibility for transportation between the cities is by airplane

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Aim

The purpose of the project is to increase the number of special trained critical care nurses, who speaks Greenlandic and Danish. The importance of the language is crucial for the patients' safety. In 20 years Greenland has only educated four critical care nurses, who speak both languages.

Description

The project started by preparing an analysis of the Greenlandic needs, for special trained nurses. A written strategy that contained a structured and a concrete description of a long termed goal, was an approval of an educational institution of specialized nurses at the Queen Ingrids Hospital (2). The goal is to make Greenland self-sufficient of bilingual intensive care nurses by 2025 Relational coordination (1) and advertising was the main method of the project. Cooperation with the hospital director, internal partners, and close relationship across national borders has been essential for the success of the project.

Outcomes

Queen Ingrids Hospital has been approved as an educational institution of specialized nurses and the first nurse will start the education in intensive care by January 1, 2016. The training is cooperating with a Danish hospital in Viborg. After 2018, is it expected to educated two specialized nurse on an annual basis. As a context to the project there are elaborated plans for a 2 week educational period, for basic nurses at the outlying coast hospitals, in handling critically ill patients.

Conclusions

The main conclusion of the project is that leadership matters (2). We can also conclude that an analysis of the problem, a clear goal, and a written strategy combined with relational coordination, is crucial for the success of the project (3). Finally, the organization has to allocate resources to continuous follow-up, and focus on the strategy.

Implications for nursing practice

- Leadership
- Strategy and structure
- Relational coordination

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"Never the same again": a qualitative study of the experiences of partners of the critically ill patient

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Aim

Partners of the critically ill are an under- researched group who themselves may have un-met needs. The main aim of the study was to gain insight in to what effect the critical illness experience had on the partner and their ability to support the recovering patient.

Description

A phenomenological approach was used, using case studies and thematic analysis. 4 participants were recruited into the study over a 12 month period. Participants were recruited at the intensive care rehabilitation clinic, which they had attended with their partners who were recovering in the community, following discharge home after an admission to intensive care. In-depth interviews were audio taped and transcribed verbatim. The participants were asked to recount their experiences and encouraged to discuss the effect this had on their lives.

Outcomes

The participation in the study appeared to have had a profound effect on the participants; they had all recounted their experiences and had been given the opportunity to discuss their feelings without restraint, as they were free to discuss their experience in a confidential environment, without prejudice. None of the participants had discussed their experiences before and during the interviews they appeared to be realising the enormity and value of their stories. The impact on me personally has been that I now have a different view on the experience of carers and within my role will now understand more the complexities of caring for a partner and how it differs from caring for a relative in general.

Conclusions

Partners taking on the caring role felt ill prepared when caring for the patient once discharged home from hospital. They experienced difficulties associated with the lack of information and had very little support in the community. There is a lack of understanding of their unique needs in relation to caring for their partner. From the study it is evident that healthcare professionals need to be more aware of the challenges faced by partners caring for the patient in the community. More research is needed into services which may need to be accessed by the carers once the patient is discharged home. Psychological as well as practical support appears to be sadly lacking in the community.

Implications for nursing practice

- Increasing the awareness of healthcare professionals of the unique needs of this under researched group
- Improved information giving
- Improved discharge planning and carer assessment.

"She's never getting out of here!" Innovative multidisciplinary rehabilitation in intensive care - a complex case study

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Aim

To demonstrate that innovative multidisciplinary interventions facilitating a positive outcome for a patient with severe cardiac and respiratory co-morbidities predicted not to survive ICU are possible without utilising additional resources.

Description

A 67 year old female (APACHE II = 28) with a small bowel obstruction requiring a laparotomy was admitted to our tertiary ICU. She underwent prolonged mechanical ventilation and tracheostomy, continuous renal replacement and vasopressor support. Multidisciplinary interventions included weekly multidisciplinary meetings (from day 8); early ambulation and treadmill training with a portable ventilators; inspiratory muscle training; cuff deflations and speaking valve; early oral intake; transition to nocturnal non-invasive ventilation; and use of cough assist machine to facilitate decannulation. These interventions were achieved utilising established staffing levels and resources.

Outcomes

Total length of ICU stay was 112 days, with 105 days of mechanical ventilation. Physical function (acute care index of function) improved from 0.40 on admission to 1.00 (full independence) on ICU discharge. Patient was discharged home day 147, only 5 weeks following ICU discharge, with full independent mobility, no increase in home services and no readmissions.

Conclusions

Through multidisciplinary collaboration and innovative rehabilitation strategies, holistic rehabilitation is achievable for complex ICU patients without requiring additional resources or funding.

Implications for nursing practice

- Early mobilisation and rehabilitation is achievable with existing resources
- Multidisciplinary collaboration is essential in achieving good patient outcomes.

Nursing rounds as an innovative strategy for clinical education in a single room environment

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Aim

We evaluated the impact of involvement in regular weekly nursing rounds on the clinical education needs of intensive care nurses working in a single room environment.

Description

Nursing rounds, led by the clinical nurse consultant, were held twice weekly for 15-30 minutes. On each occasion, one patient was reviewed. Interdisciplinary participation was encouraged and the patient, family and other nursing experts were included in the discussion. The primary nurse presented the patient's history, presenting problem, and current condition. Challenges and desired goals were highlighted. Evidence-based strategies to optimise care/

outcomes were discussed and a team member identified to implement these changes. For some strategies, broader implementation was recommended.

Outcomes

Nursing rounds were conducted on 55 occasions with 566 participants. A total of 194 care decisions were actioned; an average of 3 for each patient reviewed. The nursing rounds promoted interaction and facilitated questions. There was a positive response to this education strategy with requests for continuation and escalation in frequency. Increasing opportunity for attendance was recommended, particularly for senior staff.

Conclusions

Nursing rounds are an effective strategy for implementing evidencebased patient care and education in a single room environment. Practice recommendations generated from nursing rounds were often applicable to the care of other patients resulting in impact beyond the patient discussed.

Implications for nursing practice

- Ensure equal opportunity for participation
- Care decisions must be evidence-based
- Ongoing evaluation is required to ensure educational needs of the staff are met.

The role of the critical care nurse in the wound care of the burns patient in Ghana

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Aim

The purpose is to improve wound care of burns patients in the burns ICU at the 37 Military Hospital with a three combination cream therapy.

Description

The critical care nurses combined Dermazine cream plus triple action cream and liquid paraffin.

Outcomes

The patient had partial thickness burns and the wounds started healing within 7 days. There was complete wound healing within a month without scars.

Conclusions

In conclusion, wound care is an integral part of burns patients with Total Body Surface area more than 50%. The earlier there is wound healing the better for patients to survive and less time spent in the hospital.

Implications for nursing practice

- Provided a cream produced locally for dressing wounds. materials for dressing less expensive and available
- Adopted protocol for wound care in burns patients.

Evaluation of an innovative simulation workshop in communication skills to lead the family donation conversation

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Aim

A new "designated requester" role for selected clinicians, including critical care nurses, leads the family donation conversation, aiming to improve the family experience and increase the organ donation consent rate in NSW. Preparation for this role includes national education and an innovative simulation workshop.

Description

A half-day accredited simulation workshop, developed in partnership with UTS, allows clinicians to rehearse the "balanced approach" to the donation conversation in the designated requester role in a protected learning environment. Professional actors play family members in simulated clinical settings using anonymised real scenarios of critically ill patients either unlikely to survive or certified dead by neurological criteria. Nurse/ intensivist pairs take a turn enacting the roles of requester and observer, then swap roles in a new scenario. Video-assisted reflective debriefing is used with feedback led by facilitators. Participants evaluate each program at conclusion of the workshop.

Outcomes

Twenty-five workshops were completed from January 2013 to July 2015, evaluated by 95.3% of participants, 45% (37/82) of whom were nurses. Nurses' evaluations were positive with the workshop overall rated a four (median) by 97% (35/36) (Likert scale 1=poor to 4=outstanding). Scenario fidelity, competence of the actors, opportunity to practice and receive feedback on performance, and feedback from actors, both in and out of character, were particularly valued. All nurse participants reported increased confidence in preparation for the designated requester role at their hospital.

Conclusions

Simulation workshops developed to rehearse leadership of the difficult family donation conversation using newly learnt communication skills and techniques were valued by nurses. Nurses reported participation in the simulation workshop was effective at increasing their confidence to raise the topic of donation. Evaluation of this practice change in the clinical setting is ongoing.

Implications for nursing practice

- Simulation to rehearse difficult family conversations in realistic scenarios has application in all clinical domains.

New focus on non-ventilated patients in the ICU: preventing the "other" pneumonia

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Aim

To determine the incidence of hospital-acquired pneumonia in the ICU not related to the ventilator and implement a program to prevent it.

Description

We determined the incidence of nonventilator hospital-acquired pneumonia (NV-HAP) in the ICU and put together a quality improvement team to prevent it. Literature revealed that one of the most modifiable risk factors for pneumonia is bacteria pathogens in the mouth which are then micro aspirated into the lungs of vulnerable patients. Since staff were already consistent in providing nursing prevention of aspiration, our team implemented a universal oral care protocol for all patients in the ICU, including those not on a ventilator.

Outcomes

We were able to educate nursing staff about the importance of oral care for all ICU patients and the connection of the bacteria in the mouth with pneumonia. We successfully increased oral care for non-ventilated patients in the ICU by 300% and decreased NV-HAP by 70% in 2014.

Conclusions

Prevention of hospital-acquired pneumonia (HAP) in the ICU can extend beyond the ventilated patient. Educating nurses on the importance of oral care for all patients can result in improved outcomes. By providing a universal oral care protocol to all patients in the ICU, nurses can prevent patient harm, saving lives and dollars.

Implications for nursing practice

- Educate nurses about the relationship between oral pathogens and pneumonia
- Implement a universal oral care protocol to all patients in the ICU, including non-ventilated patients.

Promoting clinical leadership and project development Sanderson,

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Aim

The aim of this project was to develop a supportive framework for staff in team leader and clinical nurse specialist positions.

Description

Promoting professional development is an important aspect to sustain career pathways and retention of staff in rural sites. Clinical nurse specialist (CNS) status is a sought after position for critical care nurses who are identified as leaders and are required to contribute to their own professional development as well innovative and quality improvement initiatives at unit level. In order to provide a supportive network for this group of health professionals in the intensive care unit a clinical leadership/ clinical nurse specialist group was established.

Outcomes

The leadership groups meet on a regular basis to support team leaders and clinical nurse specialists in their professional development as well as guiding their project development and evaluation. Staff found the forums beneficial to their roles which have fostered the opportunity for open discussion, networking and collaboration at unit level. In addition, the support provided has assisted in developing projects that add to the quality and safety of clinical practice in the unit.

Conclusions

This paper outlines the development of a team leader and clinical nurse specialist group and feedback from participants. In addition, the paper explores the outcomes of various clinical practice development projects staff completed to maintain their clinical nurse specialist status.

Implications for nursing practice

- Team leaders and clinical nurse specialists require support and professional development in their roles
- Clinical nurse specialists contribute to project development and innovation.

Long term and complex care in the paediatric intensive care unit at the Royal Children's Hospital, Melbourne: the role of the nurse coordinator

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Aim

Patients with a length of stay (LOS) of 21 days or longer, have increased over time in the paediatric intensive care unit (PICU). Combining LOS with often complex care needs means this group of patients takes up a high proportion of resources. To address the needs of long term patients within the PICU, it was necessary to explore an innovative model of care.

Description

In 2008, a nurse coordinator position was created. Initially a full time equivalent of 0.6 was allocated to the role. Patients were selected based on their LOS and complexity of care, previous admissions, or through referral. Services offered include coordination of multidisciplinary and family meetings, liaison, discharge planning and support to bedside nurses. This includes education on specific care, care planning, and bereavement support.

Outcomes

Bed occupancy for this group of patients has increased, up to 25% of total length of stay days for 2014. The nurse coordinator has made a positive contribution to care of this patient group. Families identify care is more consistent. Allied health staff state a single point of contact makes multidisciplinary involvement more effective. Nursing and medical staff, who rotate frequently and change allocations, assert patient updates are easily obtained. The positive difference for patients, families and staff, led to an increase in nurse coordinator full time equivalent to 1.2 by 2015.

Conclusions

The nurse coordinator has contributed to improving coordination of care and family satisfaction within PICU. Further comprehensive evaluation will enable development of the role locally and evidence for consideration of the role in other centres.

Implications for nursing practice

- Assist bedside nursing staff, allied health and medical staff with improved communication regarding long term patient care
- Improved discharge planning for long stay PICU patients. • Improved coordination of care.

The experience of Icelandic nurses working temporarily in Norway

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Aim

To explore why Icelandic nurses choose to work temporarily in Norway. To learn what are the main challenges of working as a nurse in another country.

Description

A mixed questionnaire with open and closed-ended questions was sent via email to 102 nurses who had worked as a substitute nurse for Sun Medical AS in Norway in 2011-2015.

Outcomes

The total of 78 nurses responded to the questionnaire (80%). The hypotheses are that working as a substitute nurse in Norway is mainly for the monetary reason due to the economic situation in Iceland 2008-2011. However working abroad may have other benefits like gaining new experience and change of scenery. The challenges may include another language, different culture, education or working conditions. The outcome of the questionnaire is in accordance with the hypotheses that the main reason for choosing to work as a substitute nurse in Norway was based on the economic situation, however, new experience and change of scenery was highly rated as being positive.

Conclusions

The monetary reason was estimated to be the main reason for choosing to work as a substitute nurse in Norway which is related to the economic situation in Iceland 2008-2011. Other benefits which are emphasized are new work experience and knowledge. Results also show that the majority of the nurses are positive to continue to work as substitute nurses in Norway.

Implications for nursing practice

- Job experiences in another country can be very rewarding and an eye opener to new experiences and knowledge to take home to be used for further development within the clinical practice.

ISBAR-ICU: Development and implementation of a standardised ICU clinical handover tool - nursing perceptions, barriers and challenges

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Aim

This project aimed to develop and implement an evidence-based clinical handover (CH) tool to guide inter-shift handover between ICU nursing staff and assess nursing perceptions to allow for evolving improvement and uptake.

Description

A literature review was conducted and the 'Implementation Toolkit' for health standards was accessed via the ACQSHC standards website. ISBARICU was developed and implemented in accordance with local needs. The letters of ISBAR-ICU represent: identify; situation; background; assessment; recommendation; IV lines/investigations; c-see (visually inspect the patient); u-you (ask the patient if they have a question & you the oncoming nurse are now responsible and accountable). A pre and post implementation survey was conducted to determine barriers, uptake and new challenges for ongoing improvements.

Outcomes

The adapted ISBAR-ICU tool may provide a structured guide for CH in the ICU setting, which has the potential to improve efficiency and reduce the patient risk associated with inadequate CH. Staff knowledge and awareness of the importance of evidence-based CH has greatly improved and, are more routinely assessing the patient together and inviting patient involvement. Conversely, uptake of ISBAR-ICU has varied with many challenges and competing demands at handover time continuing to be an issue.

Conclusions

Clinical handover (CH) is deemed a high risk activity, with potential for discontinuity of care and omission of vital information that may result in adverse events. ISBAR-ICU has received varied responses from staff however understanding of the importance of effective clinical handover has greatly improved. Changes to the culture of clinical handover require time and continued effort.

Implications for nursing practice

- Continued clinical handover improvement takes time and ongoing effort
- Providing education of the risks and benefits of CH improve understanding of why change is needed
- Minimise interruptions to allow nurses the exertion required to learn a new clinical handover tool.

New ideas for central venous access device securement in critical care: technologies to reduce all types of complications

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Aim

To identify, describe and evaluate the new technologies available to secure and dress central venous access devices (CVADs) within critical care to prevent CVAD failure and complications.

Description

A program of work including narrative and Cochrane systematic reviews, laboratory studies and clinical trials were undertaken in order to identify and trial new technologies to improve CVAD outcomes in the critical care setting. This included a focus on reducing all types of CVAD complications, including dislodgement, local infection, bloodstream infection and skin irritation. The results were then contextualised to take into consideration the diverse and complex critical care population which require CVAD.

Outcomes

The major mechanisms CVAD dressing and securement products prevent failure and complications are through providing a barrier to microbial contamination and motion reduction. They provide these functions using coating, adhesion, antimicrobial properties, absorbency and moisture vapour transmission. Chlorhexidine gluconate-impregnated dressings are significantly more effective than plain dressings to reduce the incidence of catheter-related bloodstream infections ($p=0.01$) and catheter tip colonisation ($p<0.001$). Many novel solutions for CVAD securement are available to reduce the need for suturing, including tissue adhesive, sutureless securement devices and integrated securement and dressing products, but greater evidence surrounding effectiveness is necessary. Many new and old CVAD securement products have limitations which make them inappropriate to some critical care populations.

Conclusions

CVAD securement and dressing products provide important, multi-faceted functions to prevent CVAD failure and complication. However, the complexity of patients requiring CVAD means that universal recommendations and broad generalisation of studies' results from single populations or devices are ill-advised.

Implications for nursing practice

- Use chlorhexidine gluconate-impregnated dressing products for CVADs in critical care: there is consistent, high quality evidence to support their use to reduce the incidence of central line associated bloodstream infection in critical care

- Consider using sutureless securement devices for CVADs in critical care: there are many new alternatives to sutures, which have potential in improving CVAD outcomes
- Think about CVAD security: bloodstream infection is not the only complication associated with CVAD.

POSTER ABSTRACTS

Activities undertaken by intensive care unit liaison nurses in Argentina

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Aim

To identify and describe the activities undertaken by Argentinean intensive care unit liaison nurses.

Description

Prospective, descriptive, single site study. The setting was an Argentinean metropolitan tertiary referral hospital. Adult patients under ICULN follow up were included in the sample. Data were collected in 2012 over 4 months.

Outcomes

Two hundred patients were reviewed by the intensive care unit liaison nurses during the study period. The mean age of patients was 52.5 years (SD17.7). Cardiovascular 104 (52%), respiratory 90 (45%) and diabetes 40 (20%) were the most common comorbidities. 110 (55%) patients had surgical procedures. The primary reasons for ICULN review were follow up visit post ICU discharge 138 (69%) and ward referral 46 (23%). In terms of ICULN visits, 136 (68%) patients received up to 3 reviews, the remaining 64 (32%) patients received ≥ 4 reviews. ICULNs initiated more non-medical treatments (100%), referred to escalate treatment and to a higher level of care (35% and 13.8% respectively) in those patients in need of ≥ 4 visits than in those who were visited up to 3 times.

Conclusions

These results provide a comprehensive understanding of an advanced practice nursing role emerging in a developing economy. The results reported may also facilitate future comparisons and inform the development of strategies that focus on improvements in transitional care and recovery of a critical illness in countries similar to Argentina.

Implications for nursing practice

- ICU liaison nurse role implementation is recommended as a safety mechanism in acute care hospitals wards
- ICU liaison nurses can contribute to improve transitional care and recovery of a critical illness
- Advanced practice nursing roles may have more impact in less resourced settings.

Student support group (SSG) aids with the transition of novice and experienced nursing staff during the expansion of a metropolitan intensive care service

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Aim

The pilot SSG project in 2014 promoted a supportive environment for novice nurses to begin their foray into the critical care setting. The objectives of the program were clinical support, education, and emotional counsel of students. In 2015, this grew to include aiding the complex transition across campus' for all staff during an ICU service expansion.

Description

In 2015 the Western Health ICU service expanded to a second campus at Sunshine Hospital, resulting in the recruitment of a new and untested team. Nurses were recruited both locally and internationally. As a result, a new leadership team was formed, adding to the unstable staffing environment. With the increased EFT this also allowed for a larger intake of student nurses. In consultation with the education team, the SSG were able to provide orientation, informal education sessions, and facilitate completion of clinical activities for the high volume of students. The SSG members also evolved to become an added support network for new and existing staff transitioning between campuses.

Outcomes

A new campus provided many challenges, such as adapting to a new environment, lack of orientation, the introduction of new equipment and new routines. The SSG assisted ICU leadership in managing the changing environments and staffing needs. Feedback indicated the SSG aided students and staff with these challenges, maintaining a consistency of support between units. Students rotated sites frequently and reported that staff attitudes influenced the satisfaction of their transition. The SSG were able to act as advocates to buffer negative experiences and promote a positive culture.

Conclusions

Entering a critical care setting can be challenging and overwhelming for novice nurses, especially considering the added commitment to their professional studies. The SSG assisted students by mentoring and emotionally supporting them during a stressful transition, to produce a >90% program completion rate. The SSG complimented the clinical support provided by educators and promoted a safe, efficient and positive workplace for all staff between the two campuses.

Implications for nursing practice

- A dedicated group of senior nurses can improve student satisfaction and retention in a critical care environment
- A dedicated group of senior nurses can assist the development of a changing workforce.

Applying Swanson's caring theory to manage spiritual distress and death anxiety in a patient suffering from frequent ventricular tachycardia undergo ICD shocks

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Aim

The aim of this case study was to describe applying Swanson's caring theory as a part of the care regimen to straighten out an old critical male patient's spiritual distress and death anxiety which resulted from severe ischemic heart disease with ventricular tachycardia and frequent ICD shocks.

Description

The nursing was provided from Feb.12th to 07th March, 2015. Data were collected and assessed through observation and conversation, Stoll's spiritual interrelatedness hypothesis, and Templer's death anxiety scale. Swanson caring theory was applied to manage his problems.

Outcomes

Through explicit assessment, some spiritual distress and death anxiety issues were revealed: (1). uncertain the meaning of his life,(2) couldn't receiving love from and giving love to significant others,(3) doubt and indignation to God, (4) dread of loss life in the next second. The five process of Swanson's caring theory such as "knowing","being with", "doing for", "enabling" and "maintaining belief" were applied to the patient. By means of daily physical care providing and accompanying, sympathy for his feelings with nonjudgemental attitude, and encouraging emotion expression with respect, the patient could take his ease to cry out and could recall old memories and good time with his families. Therefore, the nurse used his life album as the intervention enabling him to reconfirm his value and importance in the family, and to maintain his belief. Through dipped into the life album with him and his families, the relationships and disturbances between his families were restored. The patient confronted coming death peacefully and made living will, say goodbye to his beloved family, and finally he approached to good death.

Conclusions

By sharing this case experience, it is hoped and recommended that healthcare providers should be more sensitive to patient's spiritual needs, and Swanson caring theory can be applied to critical illness patient, including physical, mind and spiritual aspects.

Implications for nursing practice

- Healthcare providers should be more sensitive to critical patient's spiritual needs, especially on the issue of death anxiety
- Swanson caring theory can be applied to critical illness patients to manage their spiritual needs.

The implementation and evaluation of universal decolonisation in an Australian quaternary intensive care unit

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Aim

To implement and evaluate universal decolonisation for patients in an Australian quaternary intensive care unit (ICU) in an effort to reduce healthcare associated infections (HAIs), specifically blood stream infections (BSI) and methicillin resistant staphylococcus aureus (MRSA) acquisitions based on the study results by Huang et al (1).

Description

The ICU (32 ICU and 10 flexible ICU/HDU beds) admits medical, surgical, cardiothoracic, trauma, neurosurgical, spinal injury and burn injured patients. The ICU was experiencing stagnating healthcare associated BSI rates and upward trending multi-resistant organisms (MRO) acquisition rates despite the implementation of other quality improvement initiatives. All intensive care patients were washed with 2% chlorhexidine gluconate impregnated disposable washcloths once per day for the duration of their ICU stay, coupled with the application of 2% mupirocin intranasal antibiotic ointment twice daily for the first 5 days. The project outcome data was evaluated one year after implementation.

Outcomes

Universal decolonisation was effective in reducing rates of healthcare associated MRSA acquisitions by 68% and BSIs due to any pathogen by 41%; in particular staphylococcus aureus BSIs dropped by 81%. There was also a marked reduction in other MRO acquisitions. Vancomycin resistant enterococci (VRE) was reduced by 46% and multi-resistant gram negative organisms (MRGNs) by 29%. This equated to the prevention of 12 BSIs and 21 MRO acquisitions over the 12 month period following implementation.

Conclusions

The introduction of universal decolonisation in an Australian ICU produced a large reduction in healthcare associated BSI and MRO acquisition rates. The cost of the project was offset by a reduction in the associated costs of treating HAIs and managing patients with MRO colonisations. The prevention of HAIs and therefore saving people's lives was the primary achievement, with any cost savings being a secondary benefit.

Implications for nursing practice

- Implement universal decolonisation for the prevention and management of HAIs for intensive care patients
- Introduce universal decolonisation for high dependency patients in the ICU.

References

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Improving clinical practice through checklists and pathways

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Aim

The purpose of this project was to develop resources for staff to stream line processes within the intensive care unit promoting a structured approach to clinical procedures.

Description

The role of a clinical nurse specialist requires contribution to quality improvement initiatives and projects to enhance clinical practice. This paper explores three projects developed and implemented in a rural intensive care unit to improve clinical practice. The projects fostered a collaborative interprofessional approach, using project teams with various expertise within the ICU environment as well as professionals working in other areas.

Outcomes

The projects included the introduction of a palliative care/end of life pathway, an intra-hospital checklist and flip chart for transfer of patients to CT and an intubation checklist. All resources are used on

a regular basis as tools to assist and guide staff in maintaining quality and safety in their clinical practice.

Conclusions

The projects developed as a requirement of the clinical nurse specialist status are used on a regular basis in the unit. The feedback from staff using the tools has been positive in providing streamlined checklists and pathways to guide clinical practice. The paper will discuss the evaluation and future initiatives for the projects.

Implications for nursing practice

- Checklists and pathways guide and support staff in maintaining quality and safety in clinical practice
- End of life pathways in ICU provide staff, patients and family with a guideline in promoting care and compassion during end of life.

Development of nurse-led ventilation weaning in PICU: an exploratory study

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Aim

The aim of this project is to evaluate ventilation knowledge and attitudes of PICU nursing staff towards the proposed implementation of a nurse led ventilation weaning program.

Description

Weaning of mechanical ventilation aims to safely and effectively transition patients from full mechanical ventilation to spontaneous ventilation via a clear method. Whilst in the paediatric intensive care unit (PICU) at the Royal Children's Hospital (RCH) medical staff lead ventilation weaning, nurses have demonstrated the skills and knowledge to perform ventilation weaning both safely and effectively. Data was collected from nurses via surveys and focus groups to ascertain their readiness for this change in practice.

Outcomes

The survey was completed by 82 nurses (41% of all nursing staff); 12 surveys were incomplete for the knowledge questions. Participants were positive towards nurse led ventilation weaning with 66 (81.4%) either agreeing or strongly agreeing to ventilation weaning being part of a nurse's role in PICU. Staff were generally positive about the unit's readiness for the program with 59 (72.9%) agreeing or strongly agreeing with this statement. Sixtyeight (97.1%) achieved >50% in the knowledge test. Key themes from the focus groups highlighted the need for: a clear guideline to determine scope of practice and weaning parameters; clinical support from both medical and nursing staff; and an education program that includes an assessment component.

Conclusions

Nursing staff are generally very positive about the implementation of nurse led weaning in PICU. The findings have highlighted key areas of ventilation education which will be incorporated into an education package. A clinical guideline will be developed and processes to ensure clinical support from medical and nursing staff will be established prior to implementing any practice change.

Implications for nursing practice

- Practice change can be a complex process requiring assessment of current evidence, the culture and environment in which the change is being made and the way in which the change is being facilitated
- With sufficient education and support, a nurse led ventilation weaning program can be successfully implemented in a tertiary PICU.

Nursing satisfaction with teamwork in a metropolitan intensive care unit

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Aim

To survey nursing staff about their perceptions of ICU teamwork to identify the strengths and weaknesses in our team. The survey had previously been developed and validated by Beatrice J. Kalisch and explores staff characteristics and work environment characteristics as they relate to the level of perceived teamwork (1).

Description

100 surveys were distributed and 45 were returned. The survey results showed that nursing role satisfaction in the unit was high as was satisfaction with the level of teamwork. Team members usually respond willingly to patients other than their own when other team members are busy and the participants reported satisfaction with the level of support provided by ANUMs and team leaders in balancing the workload within the team. The levels of respect within the team were high overall but there was a small number of staff (2) who did not feel respected. Problem behaviours were identified that are having a negative effect on the team, such as some staff taking longer tea breaks and defensive responses to suggestions for improvement.

Outcomes

The survey results have been shared with staff through short presentations illustrated with quotes from participants. The positive results have lifted morale and the words of the participants have been compelling and authentic for staff to read. Problem practices have been surfaced and are being addressed.

Conclusions

In conclusion the satisfaction with team work survey has had the effect of raising awareness about team behaviours that have a positive or negative effect on team performance and has been useful in supporting our team practices.

Implications for clinical practice

- Measuring nursing staff perceptions of team performance identifies strengths and weaknesses in team practice
- The team perceptions may provide potent information to drive improvements in team performance

References

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Novel integration of staff and consumer feedback improves the delivery of quality initiatives for tracheostomy care under the new tracheostomy management team at a tertiary hospital

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Aim

The tracheostomy management team (TMT) aims include promoting a patient centred approach to tracheostomy management, and improving and standardising tracheostomy management across the facility. Consumer interview and staff survey data will identify

tracheostomy management concerns and be used to develop, implement and prioritise subsequent quality initiatives.

Description

A novel pre-implementation approach was used when developing the TMT service focussed on strategic marketing, consumer engagement and multidisciplinary staff surveys. Consumer interview and staff survey data was analysed and aligned to the Picker Institute principles of patient centred care. This data allowed key tracheostomy management concerns to be identified whilst maintaining a patient centred focus on care. Quality initiatives developed in response to these concerns include: clinical handover, standardisation of dressings, access to emergency equipment and information provision to consumers. The need for increased access to training and resources was also identified in the data.

Outcomes

The TMT has successfully implemented quality initiatives reflecting staff and consumer feedback. A tracheostomy specific clinical handover process has improved information sharing and transition from ICU to the ward. Standardisation in tracheostomy dressings has been achieved across the facility. Information brochures have been developed to provide consumers easy access to basic tracheostomy information. Standardised emergency kits are accessible through a central repository. All initiatives were aligned with National Safety and Quality Health Service Standards.

Conclusions

Staff and consumer feedback analysis allowed the TMT to identify all tracheostomy care concerns and enabled prioritisation of quality improvement initiatives. The TMT has successfully implemented several quality activities to improve the management of patients with tracheostomies across our facility using this novel approach. Ongoing engagement with both groups will assist the TMT in developing an interdisciplinary education and training framework.

Implications for nursing practice

- Staff should not underestimate the importance of consumer engagement to improve service delivery. • Implementation of quality improvement initiatives should reflect staff and consumer feedback.

Preventing incontinence associated dermatitis in the ICU

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Aim

Incontinence associated dermatitis currently affects 36-50% of the ICU population, causes significant psychological impact on the critically ill and lengthens hospital stays (1). Drawing on a case study, this poster examines current evidence based practice to identify the best practice options for preventing IAD in vulnerable patients.

Description

This poster examines the case study of a patient who developed IAD in our ICU. Her care was reflected upon after she developed distressing IAD, and current practice within our ICU was evaluated in order to identify where prevention for IAD could be improved in a 48 year old woman in severe respiratory failure was admitted to ICU, intubated and ventilated. She has advanced metastatic ovarian cancer and therefore a predicted life expectancy of 18 months, and she has requested aggressive treatment and full resuscitation. Day 1 after ICU admission she develops severe diarrhoea. Her skin becomes excoriated around her perineal and perivaginal area and tears form in the folds around her groin. A faecal management system is inserted. After extubation, she suffers considerable pain and distress and is withdrawn and reluctant to engage in rehabilitation. This case raised questions about what critical care nurses can do to prevent incontinence IAD. A practice review within the ICU identified that many different products were being used based on personal preference. No evidence was guiding practice and no clinical policies were in place. The literature was reviewed and clinical guidelines identified.

Outcomes

The evidence base clearly highlighted a focus on 3 stages of IAD care: perineal cleansing, moisturising, and application of a barrier product (2). This recommendation is backed by multiple findings of benefits in large-scale clinical trials (3). 1. Cleansing: We identified that for cleansing the skin, pH balanced no-rinse and no-dry disposable wipes were most beneficial, and superior to performing a water-and-lotion bed bath. Our ICU stocks Oasis™ Bed Bath Wipes (Synergy Health), which also contains moisturisers. The research recommended that if a moisturiser is present in the cleansing wipes, separate moisturising is not required unless the skin appears dry and flaky after cleansing. 2. Moisturising: If the wipes used do not contain a moisturiser, or for especially dry skin, a separate moisturising agent with a high lipid content is recommended. This includes products containing lanolin, dimethicone, and the oils of some nuts and seeds, e.g. olive or coconut oil. Products from this category stocked by our ICU included Alpha Keri Bath and Body Oil (Mentholatum Company, Victoria, Australia), a lanolin based oil used as both an alternative to soap or as a moisturiser after cleaning. Another option is 5% dimethicone cream (healthE Company, Auckland, New Zealand), which also has some barrier protection properties. Petrolatum based moisturisers should be avoided as they easily transfer from the skin onto linen and absorbent liners, decreasing their ability to wick fluid from the skin, which can expose skin to increased contact with stool. Any moisturiser should be applied sparingly so barrier application can have sufficient adherence. 3. Protective barrier: The final step in IAD prevention was the application of a protective barrier layer. Trials overwhelmingly favoured polymer based sprays, such as 3M Cavilon No Sting Barrier Film, when compared to other barrier creams, such as zinc creams or dimethicone creams. Spray products are a clean application method, whereas tubs of cream easily become contaminated by dirty gloves. Polymer sprays act as a semi-permeable shield and remain intact for up to 72 hours on the skin, providing long lasting and more effective skin protection than other options despite frequent cleansing.

Conclusions

Nurses can work to improve patient outcomes and reduce the costs of caring for IADs by instituting the three step skin care regime described above, using evidence based products; cleansing with wipes, moisturising with an oil or dimethicone based product if skin is very dry, and applying a barrier film of protective polymer spray. By preventing IAD nursing time can be released to focus on other important aspects of care for the critically ill patient, and, more importantly, patients can be spared the distress of IAD.

Implications for nursing practice

- Due to the high incidence of IAD in the ICU population, IAD prevention should be used for every ventilated ICU patient and any patient with persistent diarrhoea
- The method and products used for preventing IAD should be universal and routine. The 3 step approach that research has recommended should be used: cleansing with wipes, moisturising with oil or dimethicone creams, and applying a protective barrier layer of protective polymer spray
- Clinical guidelines should be established to formalise this approach to IAD prevention and ensure that staff have a clear resource to refer to.

References

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ECMO Yes or No: Implementation of an extra-corporeal membrane oxygenation eligibility form, within a paediatric intensive care unit

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Aim

ECMO support may not be suitable for all patients. Lack of clarity around eligibility can lead to confusion, particular out of hours. The implementation of an ECMO eligibility form, aims to ensure ECMO eligibility discussions occur and treatment decisions are clearly documented. Improving communication amongst the entire clinical team and patient's family.

Description

In January 2015, an ECMO eligibility form was implementation into PICU, for all cardiac admissions. The form provides the opportunity for clear documentation of ECMO eligibility. Promoting discussion amongst clinicians and families, especially for patients who are not eligible for support. Ensuring the clinical team is aware of the decision. Decision making is intended to be a collaborative approach however, form completion requires PICU consultant authorisation. Technical information such as cannulation strategies and mode of support can be documented, assisting clinicians during E-CPR (ECMO for cardio-pulmonary resuscitation) or acute patient deterioration.

Outcomes

January-April 2015, 246 cardiac admissions. ECMO eligibility form present n=96(40%) ECMO eligibility form fully completed n=52(21%). May - July 2015, 180 cardiac admissions. ECMO eligibility form present n=138(76%) ECMO eligibility form fully completed n=59(33%). July – Dec 2015, 308 cardiac admissions. ECMO eligibility form present n=179(58%) ECMO eligibility form fully completed n=123(40%). January – December 2015, 734 cardiac admissions. ECMO eligibility form present n=413(56%) ECMO eligibility form fully completed n=234(32%).

Conclusions

Results demonstrated poor compliance. Ideally 100% of admissions will have a fully completed ECMO eligibility form. Education and promotion is ongoing. Including design modifications to enhance user friendliness, and identifying a dedicated location within patient folders. Increasing awareness around the form's key purpose and staff responsibilities to complete on admission, in collaboration with the introduction of an electronic record in 2016, also aims to improve compliance.

Implications for nursing practice

- Awareness of patient's ECMO eligibility and therefore, treatment plan in the event of a cardiac arrest
- Promotes nursing involvement in ward rounds and clinical management plans
- Provides clinical information to assist ECLS nurse specialists prepare ECMO equipment rapidly.

Evaluation of a nurse-led ECLS anticoagulation and blood product administration protocol: phase 2

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Aim

To review and evaluate extracorporeal life support (ECLS) patients' anticoagulation management, post implementation of a revised clinical practice protocol (Phase 2), utilised by ECLS nurse specialists. The protocol aims to provide a framework for decision making and consistent clinical management for this complex patient group.

Description

A nurse-led ECLS anticoagulation and blood administration protocol was developed and initially implemented in November 2011 (Phase 1). Phase 1 evaluation completed in 2013, influenced protocol updates in 2014. A Phase 2 retrospective "before' and 'after' review, was conducted in 2015. Two matched cohorts of ECLS paediatric cardiac surgery patients (post and pre revised protocol implementation) were included. Key variables compared between cohorts were unfractionated heparin (UFH) administration, chest drain losses (CDL), blood product administration and duration of ECLS.

Outcomes

Some key outcomes; 46 patients included (n23-Phase 1) (n23-Phase 2). Phase 1 demonstrated UFH highest mean dosing of 33.5units/kg.hr, slightly less then Phase 2 with 36.5units/kg/hr. Phase 2 demonstrated a greater delay in UFH infusion initiation, compared to Phase 1. Mean CDLs in first 24hr and for entire ECLS duration were similar in both groups. Blood product administration during first 24hrs was reduced in Phase 2 compared to Phase 1. Mean ECLS duration was similar in both cohorts, Phase 1 = 80 hrs, Phase 2= 81 hrs. Survival to hospital discharge was 78% in both cohorts.

Conclusions

A reduction in blood product usage in the phase 2 group, despite a similar level of CDLs and a greater mean highest UFH dosing, is encouraging for patient outcomes, due to associated exposure risks. Data between groups did not demonstrate wide variations, perhaps indicative of increased consistency in clinical management. Further qualitative analysis to ascertain the protocol's ability to empower nurse's decision making would be beneficial for further practice development.

Implications for nursing practice

- ECLS clinical management can be nurse-led successfully with clinical protocols as structure to support this
- Nurse-led anticoagulation requires a commitment to ensure a robust understanding of developmental haemostasis.

The dilemma of an ICU nurse: who is the critical care nurse?

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Aim

To create a healthy workplace environment to optimize the support given to the patients and their families during end of life care in the ICU.

Description

Seminars and workshops were held to train ICU nurses on end of life care. Themes of moral distress were identified, and strategies were offered to help clinicians manage such cases. Institutional resources such as ethics committees and palliative care teams were approached who gave helpful suggestions in dealing with moral distress/ burn out. We strengthened the unit's ethical climate and conducted inter-professional rounds. Social workers, psychologist and spiritualist were often invited to give their input to ease the atmosphere in the ICU. The department of nursing supported us, by doing rotational posting of those staff who had worked for more than five years to other acute areas, and incentives were given to them in terms of travelling outside for a 3-months observational training in Ghana.

Outcomes

One of the most important skills you are required to use for this profession is the ability to think quickly to get a grasp of the patient's critical needs, also provides medical care that involves having to monitor and safeguard the patient's health, often with the aid of complex medical aids. The critical care nurse also has another important function: that of helping the patient or designated decision maker make critical decisions about life and death. The ICU nurse is an integral member of the healthcare team, working with patients and their families to distinguish between what can be done and what should be done. Interacting with relatives can be a challenging task, and nurses play a leading role in integrating relatives in ICU. Little is known about how ICU-nurses cope with this part of nursing. The goals of treatment was switched to palliation and was incorporated into many plans of care earlier than it is but sometimes it was often difficult to accomplish in complex trajectories. Clear consistent communication with families and ensuring their partnership in decision making was achieved in such critical issues. All clinicians, regardless of specialty or setting, share in the desire to maximize quality outcomes, so it is a concern when goals of critical care and those of palliative care appear to conflict. Increasingly, palliative care is becoming integrated into ICU settings so that palliative care clinicians are members of the ICU team to ensure that suffering and symptoms are addressed along with life-preserving aggressive interventions.

Conclusions

Caring for dying patients involves high levels of emotional engagement and personal commitment (Meier and Beresford, 2006), and strong therapeutic bonds often develop between patients and staff over the course of time. Enabling patients to maintain a sense of composure in the face of death is stressful and emotionally draining, especially for nursing staff (Wakefield, 2000). Doing her best is not often enough, thus her dilemma; what else could she have done better than her best?

Implications for nursing practice

- Prioritize your strategies and be persistent in caring for the carers
- Build your staff integrity and preserve their authenticity. Also, affirm your responsibility to act and be committed.

Assessment of eating disorder patients in the accident and emergency department

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Aim

North Western Mental Health, based at the Royal Melbourne Hospital, Victoria, Australia have developed and one page tool for assessment of eating disorder patients presenting to accident and emergency department.

Description

This tool was developed by a committee consisting of the eating disorder service and accident and emergency department staff over a period of two years. The assessment is based on a 'traffic light system' (red, orange and green). It is easy to use and results in an accurate assessment of the patient experiencing an acute episode of an eating disorder that has resulted in admission to the accident and emergency department.

Outcomes

Eating disorder patients are usually complex in their presentation. The assessment tool is based on presenting signs and symptoms and is therefore clearer for an often busy accident and emergency department. The tool includes; tests required, how these tests need to be interpreted, what category in the 'traffic light' system is best to use and then what treatment is recommended for this category.

Conclusions

The death rate for this condition is higher than any other psychiatric illness, therefore, when patients present to accident and emergency, use of this tool allows prompt medical treatment to be administered and may prevent long term chronic illness from developing.

Implications for nursing practice

- Providing a prompt and accurate assessment of eating disorder patients presenting to A&E.

Collaboration, communication, competence: emergency re-sternotomy response

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Aim

Improve team response to emergency re-sternotomy in cardiac surgical patients.

Description

Identified local deficit in team response to cardiac surgical patients who require emergency re-sternotomy. Travelled to United Kingdom to undertake simulation training in rapid recognition and response to cardiothoracic surgical patient emergencies with specific focus on emergency re-sternotomy. Identified key issues with the application of the learnt emergency re-sternotomy procedure, in smaller centres within the Australian intensive care landscape. Undertook a three year process of adapting and refining the United Kingdom re-sternotomy procedure to develop a local resuscitation algorithm and training process for cardiac arrest post cardiac surgery.

Outcomes

We have developed a rapid response resuscitation algorithm for cardiac arrest in cardiac surgical patients, followed by a four key role resternotomy procedure in the event the resuscitation is unsuccessful. The algorithm is depicted in posters that are displayed

in clinical areas and in personal cue cards. We simulate cardiac arrest emergencies and train as a multidisciplinary team to respond to the emergencies including the activation and performance of the four key re-sternotomy roles.

Conclusions

This has been a very successful project. We have buy in from key stake holders; surgeons, intensive care medical and nursing staff and wider hospital community. We work better as a rapid response team and have reduced response times in activation and enacting the algorithm. The algorithm is taught in our intensive care unit induction programs and has been recognised as invaluable in training for a low frequency high stake emergency by rotating medical staff.

Implications for nursing practice

- This algorithm is suitable for implementation in other multidisciplinary intensive care teams
- Similar algorithms can be developed by nurses for other high risk low frequency responses such as ECMO emergencies.

Caring for the chronically critically ill: the experience of one tertiary trauma intensive care

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Aim

To describe the holistic and multidisciplinary (MDT) approach for caring for long stay intensive care patients in our tertiary intensive care unit.

Description

Our 31 bed intensive care unit cares for mixed surgical, medical, neurological and trauma patients, defining long stay patients as those that remain in our unit for >7days. In order to achieve our emphasis of early rehabilitation and holistic care we utilise structured weekly MDT meetings for long stay patients including medical, nursing, physiotherapy, speech pathology, nutrition, pharmacy, occupational therapy and psychology. Other strategies include: minimal sedation, early mobilisation and rehabilitation, balcony time, communication strategies, promoting personal belongings and clothing, encouraging engagement in activities, and structured day/night routines.

Outcomes

Through our approach to caring for the chronically critically ill, we achieve a holistic approach to long term ICU patient's care, facilitate a smooth transition to ward transfer and commence the rehabilitation process early to promote earlier reaching of mobility and self care milestones.

Conclusions

Structured multidisciplinary planning and collaboration improves patient care and contributes to better outcomes for long term and chronically critically ill intensive care patients.

Implications for nursing practice

- Engagement from the entire MDT is vital in achieving holistic care
- A structured MDT approach facilitates better outcomes for long term ICU patients
- A structured MDT approach can be achieved with existing resources.

Early active mobilisation in severe community acquired pneumonia hastens weaning from mechanical ventilation and decreases ICU length of stay: a case study

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Aim

To demonstrate that awake and alert patients with severe community acquired pneumonia can safely mobilise while intubated and mechanically ventilated without additional resources. To demonstrate that early mobilisation results in improved respiratory mechanics and facilitates weaning from mechanical ventilation.

Description

41 year old male with obstructive sleep apnoea was admitted to ICU (APACHE II = 28) with hypoxic respiratory failure from bilateral pneumonia requiring intubation and ventilation day 2 of admission. The patient was managed with low dose propofol and fentanyl to achieve Richmond Agitation and Sedation Score of +1. On day 3, the patient ambulated 80 meters on a portable ventilator with one nurse and two physiotherapists.

Outcomes

To mobilising, patient was ventilated with pressure support (PS) 14 and positive end expiratory pressure (PEEP) 14, fraction inspired oxygen (FiO2) 35% with partial pressure of oxygen (PaO2) 78. Post mobilisation, ventilation was rapidly weaned to PS 6 PEEP 6 FiO2 30% and PaO2 104, and successfully extubated 20 hours post intervention. Total ICU length of stay (LOS) was 6 days, with 3 days mechanically ventilated.

Conclusions

Patients with acute respiratory failure can be safely mobilised while intubated and ventilated decreasing total ventilation time and reducing ICU length of stay without the need additional resources.

Implications for nursing practice

- Patients who are mechanically ventilated can be managed with minimal sedation
- Patients who are mechanically ventilated can safely mobilise
- Mobilising patients with respiratory failure can improve respiratory function.

Ventilator hyperinflation – safety and feasibility of translating evidence into practice in ICU

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Aim

Despite the literature supporting ventilator hyperinflation (VHI) over manual hyperinflation (MHI), multiple barriers and limited implementation in Australia and New Zealand intensive care units (ICU) has been reported. Using a quality improvement approach, we investigated the feasibility and safety of introducing VHI at Canberra Hospital ICU.

Description

A prospective observational audit of MHI practices was conducted over three months. Following implementation of an evidence-based VHI guideline, a subsequent audit of VHI practices was conducted over three months. The frequency; prescription; contraindications; incidence of adverse outcomes, and assistance required by nursing staff to carry out the intervention was recorded for both interventions.

Outcomes

Following training of staff, VHI was feasible occurring on 109 occasions in the three month period, compared to 56 occasions of MHI in the previous period. VHI required less nursing assistance (26/56 MHI episodes versus 0/109 VHI; p<0.0001 Fisher's exact test) and VHI was safe with an adverse event rate of 3% compared to 11% for MHI, with patients treated with VHI being more unstable. All VHI treatments maintained peak airway pressures below 40cmH2O in accordance with safety guidelines.

Conclusions

VHI has been safely implemented in our tertiary ICU with lower requirements for nursing assistance than MHI.

Implications for nursing practice

- Ventilator hyperinflation is safe technique
- Ventilator hyperinflation is able to be utilised in more unstable patients
- A quality improvement process facilitates the translation of evidence into practice.

Improving the identification, assessment and cessation of smoking management of patients admitted to cardiothoracic surgical pod

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Aim

Our aim was to develop, implement and assess a smoking cessation clinical pathway for patients admitted to the cardiothoracic surgical pod (CTSP). The smoking cessation clinical pathway will help support the implementation of evidence based practice, optimize the cardiac surgical inpatient stay, and reduce inconsistency and duplication; by using a standardised approach to the identification, assessment and management of smokers admitted to the CTSP. A further aim was to develop an on-line learning package so that all nursing staff within the CTSP could gain access to knowledge which would enable them to develop the necessary skills to properly assess, advise and manage smokers admitted to the CTSP, this package will be accessible via the CTSP eMoodle port-hole.

Description

Tobacco smoking has been identified as a preventable contributor to repeated cardiac events, need for rehospitalisation and often contributes to the premature mortality of patients who have already undergone cardiac revascularisation or valve surgery. Therefore, the promotion and implementation of strategies which aid cessation of smoking in those recovering from cardiac surgery is vital to fortifying secondary event risk reduction and improving overall health outcomes. Admission to the cardiothoracic surgical pod is an opportune time to identify smokers and to proactively intervene by offering cessation of smoking interventions such as counselling and/or pharmacotherapy. CTSP nurses are uniquely placed to assess, advise and implement smoking cessation strategies and interventions to their patients. However, this opportune moment was being underutilized within the CTSP as there was no established clinical pathway or access to information or support to assist nurses with the identification, assessment and management of patients who smoke.

Outcomes

The effectiveness of the smoking cessation clinical pathway will be evaluated three months following its implementation. At this time nursing staff will also be consulted about their views and opinions regarding the new cessation of smoking clinical pathway and the on-line learning package. Information

collected at this time will be used, if needed, to amend and improve on any identified insufficiencies within both the pathway and or the learning package.

Conclusions

Admission the cardiothoracic surgical unit is a teachable moment which should be optimised to assist smokers to achieve cessation. Cardiothoracic critical care nurses have a unique opportunity to encourage cessation of smoking and improve the overall health outcomes of smokers following cardiac surgery. However, in order for nursing staff to provide this vital service effectively they must be provided with a clear pathway, and also armed with the knowledge and skill to do so.

Implications for nursing practice

- Taking advantage of the cardiac surgical inpatient stay by providing advice and or pharmacotherapy to assist patients achieve cessation of smoking is vital to improving overall health outcomes following cardiothoracic surgery
- Critical care nurses are at the coal face of clinical patient care and therefore have a unique opportunity to identify shortfalls in service delivery and proactively take steps to rectify these shortfalls, such as the inadequate management of inpatients who smoke
- Critical care units such as cardiothoracic surgery need to have an established and clear pathway in place to which assists in the management of patients who smoke. Nurses should also be provided with access to resources which will enable them to gain the appropriate knowledge and skills to provide this service.

Transformative performance ecology: shifting perspectives in critical care nursing

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Aim

This project sought to understand the care delivery processes of one Australian critical care unit that is experienced by critically ill cardiac surgical patients, their families and nurses on the unit as a unique approach that regardless of outcomes is an uplifting, emotional experience with lasting consequences.

Description

We held focus groups with nurses in our unit to discuss how we see, reflect on and respond to patients' needs. Transformative performance ecology: THE FiT SPeC AS VIP framework (1) was used to reflect on and examine the focus group findings. THE FiT SPeC AS VIP is an acronym for lenses used to plan learning activities to ensure multiple perspectives are presented. We used the framework differently; utilizing the lenses to help unpack the way in which we work.

Outcomes

The project resulted in the transformation in understanding of the way we deliver care in our unit. We found our care is inspired by transformational processes, intentional use of time and a collective consciousness. The three structures are interrelated and determine the experiences patients, their families and nurses encounter in our unit.

Conclusions

From the project emerged an understanding that structural processes of care impact on the lives of patients and the families who witness

the care. The care processes also influence the degree to which nurses see themselves as part of the group, where they take their cues from and their value orientation. As nurses begin to consider that which transpires in patients' personal illness time, many aspects of patients' critical care journeys begin to change for the better.

Implications for nursing practice

- Understanding workplace culture is vital as culture moulds the possibilities with which nurses serve the critically ill
- The findings have the potential to be instructive for others seeking new ways of working. • To benefit the critically ill it is imperative we consider that which transpires in patients' personal illness time.

Reference

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Health related quality of life, social support and social capital of mothers with children with cancer

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Aim

To investigate the health-related quality of life of Greek-Cypriot mothers of children with cancer and assess its association with perceived social support and social capital, as compared to mothers of healthy children (MHC).

Description

A descriptive comparative and correlational study of health-related quality of life (HRQoL) (SF-36 survey) with 52 mothers of children with cancer (MCC, 93% response) from the only paediatric oncology referral center on the island compared to 208 mothers of age/ gender-matched healthy children (MHC, 89% response). The magnitude of the association of HRQoL with social support (Medical Outcome Study – Social Support Survey) and social capital (New South Wales Social Capital Questionnaire) was assessed in each group and compared in linear regression models.

Outcomes

Significantly reduced scores on the SF-36 Mental Health Component and all four domains (effect sizes -0.4 to -0.7 SD, $p<0.01$) were observed among MCC. While social support was positively associated with mental health among MHC (1.62 95% CI=1.02, 2.23 per 10 unit increase in social support score), no similar association was observed in MCC (0.08 95% CI=-1.16, 1.32); p for effect modification=0.03. A similar picture emerged in terms of social capital. In contrast, there was a strong association of social support and social capital with Physical Health in both study groups, and somewhat stronger among MCC. In terms of sources of support, family was most frequently reported (81%), followed by other parents of children with cancer (50%), whereas only 17% of MCC identified health professionals as a source of support.

Conclusions

Whilst in the general population HRQoL is positively associated with social support and social capital, the potential protective effect among mothers of children with cancer appears to be restricted to the physical, and not mental health, which is particularly poor. There is need to design and evaluate psychosocial support programs targeted to the individual circumstances and needs of these families in an integrated framework which combines professional and informal support.

Implications for nursing practice

- Design, implement and evaluate psychosocial support programs where nurses should play a leading role for the provision of formal and informal support to the families of children suffering from cancer. Nurses should lead the support provided from the members of the multidisciplinary health care team, from other public services (i.e. ministry of education, or labour), non-governmental organizations or family or friends Recommendation
- Change of the current health- care services provided to families of children suffering from cancer into more individual centred. Structural changes in the clinical area (the current paediatric oncology centre) for the organization and implementation of family- centred services
- Organization and implementation of home nursing care of the children suffering from cancer (i.e. assessment of the condition of the child, care of the endocardial catheter – Hickman, blood tests, administration of medicines, health education, psychosocial support).

The efficacy of combined preventive measures on reducing nasal bridge pressure injuries in patients receiving non-invasive ventilation in a ward- based respiratory high dependency unit: retrospective 24 month observational study

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Aim

To assess the efficacy of a combination of preventative measures in reducing the incidence of nasal bridge pressure injuries in patients utilising non-invasive ventilation in a ward-based respiratory high dependency unit.

Description

The respiratory care unit (RCU) is a four-bed unit within ward 5 South West (general medicine) at the Royal Melbourne Hospital, which specialises in managing in-patients with acute respiratory issues. The majority of patients are admitted to RCU from ICU, ED and post Met calls with Type I and Type II respiratory failure. Non-invasive ventilation (NIV) is the application of positive pressure via the upper respiratory tract using a nasal or facemask for the purpose of augmenting alveolar ventilation. Mask placement and fit is a key factor in the success of NIV. If the mask is too loose, air leak may result, thereby impacting on efficacy; if it is fitted too tightly, this may result in development of pressure ulcers, particularly over the nasal bridge where there is minimal subcutaneous tissue. A recent study has shown the incidence of nasal bridge pressure injuries remains high irrespective of mask type: ranging between 24% from full face mask and 87% from oronasal mask (1). To our knowledge the combination of nasal bridge hydrocolloid dressing application, regular breaks from NIV therapy and the addition of humidification to the circuit has not been previously described. Whether these measures will reduce pressure injuries, and therefore possibly impact the number of patients using NIV hours remains to be seen. This is a retrospective observational study following a change of practice within the RCU, based on the expected clinical benefits. All patients admitted to RCU received the following protective measures: nasal bridge hydro-colloid dressing application, regular breaks from NIV therapy, (10 to 15 minutes every three to four hours, with use of high flow nasal prongs (HFNP) oxygen during breaks for hypoxic patients) and the addition of humidification to the circuit. As it formed standard care within the RCU, consent was not sought. Inclusion criteria: all patients admitted to RCU requiring NIV. Exclusion Criteria: patients refusing NIV.

Outcomes

Over a 24 month period a total 694 patients were admitted to RCU, with 306 requiring NIV. The total number of NIV hours were 8221, mean usage of 26.8 hours per patient. Overall one patient developed a nasal bridge pressure injury (0.3%) compared to cohort in the literature (24% and 84%). This was felt to have occurred due to an anatomically protruding nasal bridge. Of 306 patients, 31 patients used >50 hours of NIV and 10 patients used > 100 hours, typically in the setting of severe respiratory failure. In these 10 patients, initial PH was (7.19±0.21) and initial PaCO2 was (63 ± 26mmHg). With NIV there was a significant improvement in ventilation parameters, base line PH increases of (0.12 ± 0.07) and PaCO2 decreases of (12 ± 26mmHg) ($p < 0.001$). Subsequently these 10 patients were diagnosed with obstructive sleep apnoea (OSA) and obesity hypo ventilation syndrome (OHS) and required long-term NIV. Of these patients, there were no cases of nasal bridge pressure injury despite prolonged use.

Conclusions

Protective measures comprising the nasal bridge hydro-colloid dressing application, regular breaks from NIV therapy, use of high flow nasal prongs oxygen during breaks for hypoxic patients and the addition of humidification to the circuit, improved not only patient comfort and reduced pressure injuries but also allowed increased duration of NIV use in a small subgroup of patients with out complication with resulting improvement in physiological parameters.

Implications for nursing practice

- To prevent pressure injuries on nasal bridge
- Application of hydrocolloid dressing
- Regular breaks from NIV therapy (10 to 15 minutes every three to four hours, with use of high flow nasal prongs (HFNP) oxygen during breaks for hypoxic patients).

Reference

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Manic mornings - change of wash times

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Aim

Green intensive care unit (GICU) at Royal Prince Alfred Hospital through essential of care (EOC) processes identified the need to enhance patients' experience in hygiene needs to improve sleep quality in our patients in the ICU. Research has suggested it is best practice to promote sleep and good hygiene in an already deprived inpatient.

Description

Green intensive care unit (GICU) at Royal Prince Alfred Hospital, New South Wales Australia is a general intensive care unit. We have 17 beds for intensive care and high dependency patients. GICU looks after a variety of patients that are critically unwell; liver transplants, patients on extracorporeal membrane oxygenation (ECMO), pelvic exenteration, patients that require continuous renal replacement therapy and general intensive care cover. GICU has a NUM, CNE and over 80 staff with a range of skill mix from clinical nurse specialist to new graduate nurses. GICU participates in the essentials of care (EOC) program. The EOC program is a framework to support the development and ongoing evaluation of nursing and midwifery practice and patient care. It is reinforced by the principles of transformational practice development. This approach to practice requires that all stakeholders ; patients, carers, staff and families have the opportunity to participate and are included in decisions about effective care using approaches that respect individual and collective values. Through patient stories and interviews, staff evaluation and incident investigation management system (IIMS) data the following issues were highlighted. Traditionally patients were woken at 2am-5am to be washed. Patient stories and interviews revealed 'staff were very busy' and patients 'hated being woken up early'. This indicated patients were not satisfied with the personal hygiene provided to them. Staff evaluation also indicated staff were very busy in the morning with multiple tasks such as providing care for patients, providing hygiene needs, preparing medication and documentation. Some staff comments were 'mornings are very busy'. IIMS data also indicated a higher incident rate during the morning. The three common incidents were medication, documentation and communication.

Outcomes

EOC facilitators collaborated and completed a literature review on appropriate wash times for patients in ICU. We also looked at policies regarding personal care for patients. Through surveys, staff negotiated an appropriate time. Consensus was to wash the patient between 8-10pm. We implemented the new wash time over four months and repeated the survey. Patient stories indicated patients were very satisfied with the hygiene care that was provided to them. Some patient comments were 'nurses had enough time for me' and 'the wash helped me to sleep'. Nursing staff survey results were also positive. Nurses revealed 'feel less rushed in the mornings'. IIMS data also showed a decrease in the three common incidents. Medication, documentation and communication incidents all decreased dramatically.

Conclusions

The positive results have increased satisfaction in both patients and staff. This has contributed towards staff motivation to enhance patient satisfaction and have led to staff feeling empowered. The change of wash times has motivated GICU to develop and enhance patient care and GICU have recently implemented the use of warm antiseptic body cleansing washcloths to prevent hospital acquired infection.

Implications for nursing practice

- Partnering with consumers
- Practice development projects
- Quality Improvement initiatives.

Pressure injury prediction in the intensive care unit: we can do better than Braden

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Aim

To develop a model to predict the risk of developing a stage II or greater pressure injury using routinely collected data and to compare to the performance of this prediction to an existing pressure injury score (Braden).

Description

Patient admission, diagnosis and discharge data and pressure injury reports were analysed retrospectively for 8196 admissions over 4 years from 20112014 in a Melbourne tertiary ICU. Multivariate

logistic regression analysis was performed to determine independent risk factors for developing pressure injuries during the period 2011 to 2013. The validity of these predictors was assessed in patients admitted to ICU in 2014 and compared to the Braden score. The analysis developed a new model for prediction for pressure injuries in the intensive care unit (PIPICU).

Outcomes

The predictive model was more discriminatory (Area under ROC = 0.76 [95%CI 0.71 -0.82]) than the Braden score (Area under the ROC = 0.66 [95%CI 0.59-0.72]). Independent risk factors for developing a pressure injury were APACHE III score, mechanical ventilation, trauma without head injury, male sex, ICU length of stay and body mass index greater than 40. Factors predicting lower risk were elective surgical admission and coronary artery bypass grafting.

Conclusions

Our model of pressure injury risk has high validity in the critical care population. Other advantages of our model are that it uses only objective data that is routinely collected, it requires no subjective assessments and, it could be calculated and reported automatically to give clinicians a dynamically predicted risk of pressure injury development.

Implications for nursing practice

- Provide a "current time predictor score for pressure development"
- Automatically trigger a predefined response, such as wound nurse review, revision of plan
- Target resources to the specific need.

References

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New ways of working: experiences of redevelopment

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Aim

The purpose of this project was to identify staff needs in order to prepare staff for a transition into new intensive care and coronary care units as part of a hospital wide redevelopment.

Description

A redevelopment provides exciting times to address the educational needs of staff in exploring new ways of working. Moving from an open planned joint unit to two new separate units required planning and strategies to assist staff during the transition phases. Using staff surveys, the redevelopment journey began to identify thoughts and concerns with moving from open spaces to single rooms, the use of new technology and equipment and new ways of working. Staff were prepared by using various educational strategies, including role play, simulation and mini group sessions to assist staff during the transition phases. In addition, staff were given the opportunity to visit the new units prior to commissioning providing staff with self- familiarisation.

Outcomes

Staff adapted to the new units with enthusiasm and motivation. The staff have willingly captured opportunities for learning new monitors, ventilators and technology. Staff openly contributed to the change while continuing to deliver a high level of care and support for patients and their families. Staff have transitioned into the new unit with minimal disruption and are constantly seeking new ways of working.

Conclusions

This paper explores the experience of redevelopment, preparation of staff from an educational prospective, addressing what worked well, what we would do differently and lessons learnt along the way. This paper will assist others who are preparing for redevelopment in sharing the experiences.

Implications for nursing practice

- Staff need to be prepared well for the transition into a new facility
- Staff concerns and issues need to be identified and addressed prior to and during the transition process
- Use various education delivery methods to assist staff in the change process.

Clinicians leading care - to improve the transition from ICU to the wards for long stay patients

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Aim

Our project is a quality assurance activity aimed at improving planning and communication around patients with prolonged ICU admission (>14 days) in the Royal Adelaide Hospital. The aim is to develop a clinical pathway utilising a standardised multidisciplinary handover tool (ISBAR) to promote forward planning and aid transition as patients move from ICU to the teams caring for them on the ward. We do not currently have a clinical pathway or multidisciplinary meetings for this patient group. We expect that this new process will improve communication within and between the teams involved in patient care, as well as between staff and families of long stay patients. Secondary aims include: To reduce ICU LOS in long stay patients. Streamline the process of tracheostomy insertion and reduce the associated fasting times. To reduce length of time to gastrostomy tube insertion. To establish baseline family satisfaction levels. To establish baseline staff perceptions of discharge practices. To evaluate family satisfaction levels following the introduction of the multi-disciplinary team meetings and the ISBAR tool (for patients presenting to the Royal Adelaide Hospital Intensive Care Unit). To evaluate staff perceptions of discharge practices following implementation of the uniform streamlined approach to managing long stay patients.

Description

We identified one case to use as a case study. This was a young multi trauma who had become a quadriplegic. We looked at some elements that slowed his progress, increasing his length of stay included having multiple cancellations for tracheostomy and PEG insertion, inconsistent planning with multiple layers of communication and barriers between ICU and outside clinics. A multi-disciplinary team was put together that included medical, nursing, our data manager, speech, pharmacy, dietetics, social work and physio. We looked at our data which showed that about 5% of our patients had a length of stay longer than 14 days. We discovered that >90% had a tracheostomy and the most common diagnosis was multi trauma +/- head trauma, sepsis or pneumonia. From here we looked at our daily patient bed lists and added length of stay so that this was visible next to the patients name each day. This gave everyone a visible reference as to length of stay for every patient in the unit. We then in conjunction with the ENT surgeons created two pre-set times for theatre, Tuesday and Thursday (0830) for tracheostomy, if

needed. Each week we know these times are available for us to use when needed. Also we developed a clinical pathway based around a standardised mnemonic, being ISBAR, to create a tool for handover to: improve communication between teams, standardise handover between ICU and wards, promote forward planning in ICU, promote better multidisciplinary planning and communication within ICU and improve communication between staff, patients and families. From here we created multi-disciplinary meetings for any patient who either has a tracheostomy or who has been in the unit longer than 14 days. As a group, using the ISBAR tool, we can have quick, concise meetings to discuss and plan the care of a patient to make sure that we are not missing anything in their care. It also allows us to get staff from the wards involved so that they are aware of the patient and their needs in the weeks before they are transferred to the ward.

Outcomes

Patients enter the long stay clinical pathway when ICU LOS reaches 14 days, a tracheostomy is inserted, or a previous long stay patient is readmitted to the unit. Referral to the multidisciplinary meeting will be at the discretion of the ICU Consultant overseeing the individual patient's care, as not all patients meeting inclusion criteria will be appropriate for discussion (e.g. if patient is for palliation). Meetings will take place weekly, at a designated time and place. Discussion within meetings can be led by any clinician present and will follow a structured ISBAR format prepopulated with questions relevant to the long stay population, including utilisation of validated assessment tools to identify areas of risk for each patient. After each patient is discussed a set of 'actions' will be documented in the casenotes along with the clinician(s) responsible for ensuring that each action is followed through. Once the patient is deemed likely to be discharged from ICU within the next week, the ISBAR plan for discharge will be followed which includes 7 action points for transition. These action points include: (1) feedback to the patient/family, (2) estimated date of discharge, (3) discharge destination, (4) ward staff to meet the patient/family, (5) meeting with the home team to review the multidisciplinary pathway, (6) status of outstanding consults/investigations, and (7) therapeutic limitations where appropriate. Project outcomes will be measured by (still to be completed): family satisfaction survey of long stay ICU survivors (3-4 months post ICU discharge); prospective survey of ICU survivors' next of kin. Patients' next of kin will receive questionnaires by post. In the first instance we hope to receive the paper questionnaires; provided no declination slip received will be contacted by phone to complete. Staff perceptions survey (12 months post intervention). Survey of staff caring for long stay ICU patients; identified staff will receive an email with Survey Monkey link and two week response date. Survey completion will imply optin consent. Data collection (12 months post intervention). Demographics (e.g. sex, age, severity of illness, diagnosis). Proportion of patients with ICU LOS ≥ 14 days, specifically between 14-27 days ICU LOS and ≥ 28 days ICU LOS. Frequencies (tracheostomy inserted, PEG); length of time to insertion and associated fasting times.

Conclusions

After a trial period, we now have twice weekly meeting with all staff described above to discuss the patients that fit into the long stay protocol. From a medical management perspective, our intensive care unit is divided into halves, so out of our 42 beds we would discuss anywhere between 2-4 patients per week. So far we have had good attendance from all team members and even a good turnout from the wards where the patients are planned to be transferred to. We are still reviewing our ISBAR tool and keeping an eye on the time to make sure that the meetings do not become too long. These multi-d meeting have only been running for a couple of months at this stage.

Implications for nursing practice

- A small percentage of our patients have an increased length of stay and nurses play a vital and key role in managing these highly complex patients.

Relationship between intra-organizational communication satisfaction and patient safety culture of ICU nurses

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Aim

To figure out the relationship between organizational communication satisfaction and patient safety culture and present the basic data for improving patient safety.

Description

Participants are MICU and SICU nurses in the general hospital located in Seoul. A total of 30 nurses responded by using a structured questionnaire. MICU 15 people, SICU 15 people were responded. From October 27 2014 to October 31 were performed data collection. Self-administered questionnaires were used to collect data from a convenience sample.

Outcomes

Intra-organizational communication, the lower region showed the highest satisfaction is horizontal communication, the lowest organizational climate. Perceived patient safety culture, the highest area is frequency of accidents reported, the lowest working environment of ward. Intra-organizational communication is satisfy with the more higher the age and career. There is statistically significant difference between intra-organizational communication satisfaction and patient safety culture awareness.

Conclusions

Among the lower area of intra-organizational communication satisfaction, horizontal communication is the most affected large variable. Patient safety culture awareness, the frequency of accidents reported were the highest area. Intra-organizational communication satisfaction and patient safety culture awareness show a statistically significant difference.

Implications for nursing practice

- To improve patient safety in the ICU, the nurses how you can improve your organization's communications needs satisfied
- Nursing colleagues to develop and activate a variety of programs to help employees to facilitate communication between
- It is necessary constantly in this free communication made to create an atmosphere.

Barriers to optimal end of life care in the intensive care unit from the critical care nursing perspective: a literature review

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Aim

This literature review aims to understand the barriers and supportive factors associated with end of life care (EOLC) in ICU so that critical care nurses are better equipped to provide optimal EOLC for dying patients and their families.

Description

In total, thirty-nine Australian and International articles were incorporated in the literature review. Although mostly smaller sized

qualitative studies were included, common themes and findings were consistent across designs. Identified themes included: professional stressors, organisational stressors, emotional stressors, and patient and family needs. Sub-themes were also outlined and discussed in detail.

Outcomes

The literature widely accepts that EOLC in ICU is challenging, confronting and complex. The obvious fact that every patient and their family have varying diagnoses, values, beliefs and expectations, ensures the multidisciplinary team must constantly adapt to the ever changing EOLC situations. Amongst the unknowns, the literature has revealed consistent barriers that ICU nurses face when caring for dying patients and their families in ICU. Without doubt, communication, withdrawing/ withholding treatment and inconsistent treatment plans were common themes extensively discussed in the literature. EOLC pathways remain contentious, whereas consensus surrounding ICU environments and accurate documentation has occurred. Consensus for resuscitation plans, advanced care plans and other patient and family needs also formed sound discussion. Above all, the major barrier ICU nurses face is coping with the burden, demand and distress that accompany caring intensely for critically ill patients and their families. Further support, education and training are recommended to assist ICU nurses care for themselves so they can care for others.

Conclusions

This literature review reinforced that ICU nurses are pivotal in addressing and understanding the needs and symptoms of dying patients and their families. However, the burden, stress and emotion can heavily influence their provision of care. Despite these challenges, critical care nurses agree that providing optimal EOLC is both a rewarding and privileged role. This literature review acknowledged and explored the barriers that ICU nurses face when caring for dying patients and their families. The review also highlighted supportive factors for providing optimal 'end of life care' in ICU. This literature review described key findings to assist and empower critical care nurses to provide dignified, individualised and optimal EOLC to patients and their families in ICU. Implications for nursing practice • There needs to be a greater understanding of the barriers and supportive factors associated with nurses providing EOLC to patients in critical care environments. • Further support, education and training are recommended to assist ICU nurses care for themselves so they can care for others. • Effective communication, consistent goals of care and involvement in the multidisciplinary team EOLC discussions is essential for ICU nurses caring for dying patients and their families.

Final year medical students 'buddy' with intensive care nurses at the bedside for a hands on experience

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Aim

I am a clinical nurse specialist in ICU at University Hospital Geelong and have worked in ICU for 25 years. I am also a clinical skills instructor at Deakin University for the clinical years of postgraduate medicine, in the School of Medicine. I set up a buddy system in ICU where each medical student in their final year during the anaesthetics and intensive care rotation at Geelong Clinical School get to spend a day at the bedside in ICU with an allocated ICU nurse. This has been in progress for the past 3 years. During this time the students can perform simple procedures under supervision and be involved in direct patient care. This incorporates both my roles, as clinician and educator and involves collaboration of many staff and organisations. I am the buddy nurse with the medical students on many occasions during my clinical rostered shifts. The first cohort of medical students in the Deakin University postgraduate medical course were placed in ICU to shadow residents and registrars in ICU during their intensive care rotation. Feedback was generally average, students felt they were not being involved, not sure what they were meant to be doing and didn't feeling like they were getting any hands on experience. The following cohort was my first year as a clinical skills instructor with the intensive care portfolio. As a result of this feedback, my initiative was to place medical students with ICU nursing staff at the bedside and 'buddy' them with an ICU nurse. This would enable the students to achieve 'hands on' interaction with a patient, practice some simple procedures under supervision and benefit from the knowledge and guidance of one to one education while working alongside an experienced ICU nurse in an unfamiliar and somewhat confronting environment.

Description

The ICU at University Hospital Geelong (UHG) is a well-supported, proactive and dynamic unit with leadership open to innovative change and supported trials, based on evidence based best practice. Managing the large numbers of medical students rotating through the ICU was the biggest concern, considering the ICU also has post graduate critical care nursing students, undergraduate nursing students, visiting students from other hospitals and health disciplines to supervise. In preparation of the initiative, I compiled a plan to roster each student to one nurse buddy shift during their rotation, devised learning objectives and created a list of skills the students were able to perform under supervision based on their logbook requirements. I then met with the rotation convenor from Geelong Clinical School (GCS), ICU nurse unit manager, associate nurse unit managers and clinical educators to discuss the plans, who were supportive of the initiative. Discussed were the types of patients suitable for the student allocation, priority of particular patients to postgraduate critical care nursing students, appropriate allocation of ICU nurses, prevention of educator fatigue and support from myself to both the students and the nursing staff in my dual role of clinical nurse specialist for UHG and as a clinical skills instructor (CSI) for GCS. I allocate students to nursing staff one week in advance of a 4 week rotation and add to nurses' roster; however this can be changed if necessary by the nurse in charge as required per shift. During the week prior to attending the ICU, the students receive an orientation to the rotation including an overview of their nurse buddy allocation. The students also attend clinical skills sessions in the simulation lab during this week, allowing for exposure and simulated practice of some clinical skills they may be able to perform under supervision during their rotation, therefore reducing the educational demands of the bedside nurse. The students are rostered for a minimum 4.5 hours and may request to stay longer at the discretion of the nurse in charge. I generally roster myself as the buddy nurse for one student each week during a clinical shift and attempt to visit the unit to support the nursing staff as often as I can on other days.

Outcomes

Student feedback comments are collected at the end of each rotation, collated and sent to the ICU NUM which are subsequently displayed on unit noticeboard for all staff to see. Currently, only informal feedback has been collected from discussions with the bedside nurses. The majority of nursing staff enjoy their interaction with the medical students and appreciate their current level of academic knowledge. Students' feedback is now extremely positive, with high admiration of the level of knowledge and experience of their buddy nurses and gratitude towards the nursing staff for their time, patience and opportunities for invaluable 'hands on' experience.

Conclusions

While this initiative was initially trialled for one year, 2016 will be the 4th year the program has been in place. During this time, the ICU at UHG has been relocated and some minor alterations and considerations of the student allocation was necessary. There has also been a significant increase in new nursing staff to the unit, which has required me to educate and support the new staff to their role of nurse 'buddy' to medical students at the bedside. I also intend to obtain more formal feedback from the nursing staff next year which will guide continual revision of the initiative. Overall the initiative has been extremely well received by students and nursing staff with positive feedback and the collaboration will continue. Implications for nursing practice • ICU nursing staff will continue to require support and education of the nurse buddy and medical student bedside shift to ensure the collaboration continues to be a positive and rewarding experience for both. The role of the clinical skills instructor is important to support nursing staff, oversee the collaborative relationship and collect feedback to review and act upon.

Modelling of best practice clinical handover by expert clinicians

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Aim

Clinical handover is an integral part of our nursing practice. Using a standard handover process would facilitate a seamless transition of care between health care team members. The aim was to enhance nursing staff handover and improve the sharing of accurate information.

Description

With assistance from key stakeholders of the clinical handover team the ISBAR charts that were developed in 2002 were updated to reflect the 8 key principles of clinical handover. Staff awareness using the ISBAR charts was commenced in 2015, this was done in the form of formal education session, ward meetings and weekly group presentations. The information included the 8 key principles as defined by the Australian Commission on Safety and Quality in Healthcare. Nursing staff were informed that the aim of this education was to provide a guide for timely, relevant and structured clinical handover that support safe patient care. Group handovers were conducted at the bedside for nurse to nurse handover, if relatives were present they were encouraged to stay and participate. The group was encouraged to ask questions, give suggestions for improvement in clinical handover and if they had any ideas to help with further education sessions.

Outcomes

With shareholder input the Clinical Handover Observation Audit Tool was developed and completed so it could be used throughout the hospital. Audits were and still are being conducted on clinical handover for patients being transferred into ICU from DEM, OT and nurse to nurse. The nurse who was audit was informed prior to handover that an audit would be occurring on their handover. Feedback was given on completion of handover and staff were asked of their opinion about using the ISBAR charts for handover.

Conclusions

Nursing staff initial response when asked to give handover was usually 'oh ok'. I am not sure what staff were thinking, but after the handover was completed I would ask how they now felt and the usual response I got was it was easier then they thought and felt very positive to try and perform future handovers in the same manner. We are developing a handover tool that will be accessible and easy to use throughout the unit.

Implications for nursing practice

- With continued use of ISBAR, clinical handover will be precise, timely and without interruptions.

Raising the rate of do not resuscitate signing in a respiratory care center

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Aim

Medical resource is limited. If patients with terminal disease sign DNR (Do not resuscitate), their pain is reduced, and they can walk to end of life with dignity. Medical resource which is in a such critical condition is also relieved. In the RCC unit, two patients with terminal disease still dead after resuscitating between November to December 2014. This paper investigates the root cause of the low percentage of signing DNR to improve the rate of signing DNR in RCC. Then quality of caring patients with terminal disease is enhanced, patients can rest in peace.

Description

1. Hold DNR and hospice palliative medical treatment education and training for medical staffs. 2. Doctors explain hospice palliative medical treatment in meeting with patients' families to provide families making decisions. 3. Establish the DNR signing process flow for patients in RCC. Make posters to introduce DNR.

Outcomes

After executing plan, the rate of signing DNR rises from 30.9%(2014) to 44.2%(Jan.~Sep.,2015). The improvement of the rate is over the target 38%. The rate of progress is 43%. The rate of target reaching is 187.3%.

Conclusions

This paper investigates the root cause of the low percentage of signing DNR and proposes reasonable measures to improve the rate of signing DNR. DNR signing process flow is established clearly. Medical staffs follow the DNR signing process flow to introduce DNR to patients and families, listen to families' request and propose caring plan to patients and families. Then families know patients with terminal disease can be cared by hospice palliative and thoughtful way. Medical staffs understand families' thinking and have a common consensus which patients' benefits are first with families. Then medical staffs can find good timing easily to sign DNR with families.

Implications for nursing practice

- Do not resuscitate, DNR
- Hospice palliative
- Patients with terminal disease.

The disease related cognitive needs in cerebral aneurysm patients' families during intensive care units

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Aim

The rare and fatal disease, ruptured cerebral aneurysm, of hemorrhagic stroke, was seen as one of the rare diseases in acute and critical illness in our country. In the clinical situation, it was found that the patient's family cannot understand the diagnosis from the meaning of pure text, which in turn leads to more medical care labour and time cost spent to repeat the explanation, to provide the disease

information before and after the surgery and to explain the cause for the occurrence of the complication to the patient's family later on. Therefore, to investigate the disease related cognitive needs in cerebral aneurysm patients' families during intensive care units.

Description

This study was a prospective cohort study based on purposive sampling method, and cases were taken at the intensive care units of neuro-critical care department at certain medical center in Taipei City. A total of 61 person-times patients' families were recruited. The questionnaires including the attributes of the families and the record of disease related cognitive needs were used to collect data from families of cerebral aneurysm patients during patient-visiting period. Data analysis methods included descriptive statistics, one way ANOVA (analysis of variance), Pearson productmoment correlation and multiple regression analysis. P<.05 was used as the statistically significant level.

Outcomes

1) In terms of attributes, genders, educational background and whether there were other family members or friends having experiences reside in the intensive care units showed significant difference to the total inquiry time for disease related cognitive needs; 2) The families of cerebral aneurysm patients in the intensive care unit showed different needs of 1~14 total question items in the disease related cognitive needs; more than half of the patients' families were not familiar with six question items of the formation and checking of cerebral aneurysm; moreover, in the inquiry of "others", six person-times showed concerns on how much time it took for the function of the limbs and body to recover. With regard to the total inquiry time aspect, each person-time, on the average, consumed about 18.9 minutes in getting information to satisfy disease cognitive needs; 3) The age of the families showed no correlation to total number of inquiry question item and total inquiry time in disease related cognitive needs; 4) Whether the family member or friend of the families had experience residing in the intensive care unit during the intensive care units period was proven to be an important factor to the total number of inquiry question item in family's disease related cognitive needs.

Conclusions

The result of this study showed the real and current situation of the content of disease related cognitive needs for the families of cerebral aneurysm patients. The findings not only could be used to shorten the cognitive difference between healthcare providers and patients' families, but also could help the families to make correct therapeutic decision. In advance, it could also be used as good reference for the development of education content and research instrument related to cerebral aneurysm disease.

Implications for nursing practice

- I hope to provide the first line of ICU clinical nurse into the regular health education project in families when a new admission or transfer
- Family therapists sophisticated consultative communication skills, sensitive observation, the home care needs and their families combined application of cognitive disorders, to patient-centered care of the familytype operation
- We recommend that in the future may be towards the patients and their families and all facets of clinical acute phase of rehabilitation and home care of a stage to explore deeper in nature, and even long-term care by measures to track interventional clinical condition of the patient and family care.

Development of a Korean patient classification system for critical care nurses

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Aim

This study was performed to develop a valid and reliable Korean patient classification system for critical care nurses (KPCSC).

Description

Tertiary and general hospitals with various levels of ICU nurse staffing were included. To verify inter-rater reliability, data collectors and staff nurses of 15 ICUs in 11 hospitals classified 262 patients. To verify construct validity, the staff nurses classified 457 patients according to KPCSC comparing difference by medical department and type of stay in ICU. For conversion index, 195 patients from 10 ICUs in 7 hospitals were classified and nursing time was measured by 174 nurses, 7 head nurses, 18 charge nurses, 37 nurse aids and 1 secretary.

Outcomes

The developed KPCSC has 11 categories, 82 nursing activities and 115 criteria. Reliability was found to have high agreement (r=.957). Construct validity was verified by comparing differences in medical department and type of stay in ICU. According to scores, four groups in the KPCSC were identified. One score on the KPCSC indicates 6.12 minutes of nursing time.

Conclusions

The findings show that the KPCSC can be used to measure new and complex nursing demands including rehabilitation and the safety of ICU patients.

Implications for nursing practice

- Estimate nursing workload
- Calculate nurse staffing
- Classify acuity of ICU patient.