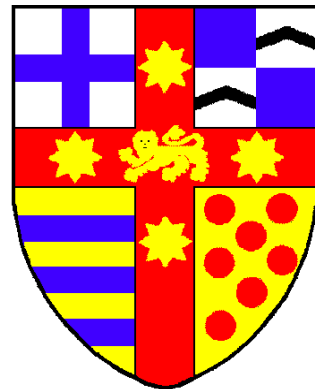


Nursing Orientation Manual

**Westmead Hospital
Intensive Care Unit**



**ESSENTIAL
READING**

June 2015



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Introduction

In Australia, the development of intensive care has recognised the value of aggregating patients with comparable levels of severity of illness, regardless of the underlying pathology. Hence during your time here you will manage patients with a diverse range of primary illnesses. Intensive care medicine has 'come of age'. Regardless of concerns about its costs or efficiency it is a fact that the techniques and capabilities found in modern intensive care units are able to save lives. As a result of these achievements the therapies offered in an intensive care unit have come to be expected by our colleagues in other branches of medicine and by the public in general.

It is important to keep our feet on the ground. If misused the intensive care unit is capable of prolonging pain and suffering, and on occasion denying a dignified death to those who have reached the end of their lives. Alternatively, misuse of complex equipment and the use of a multitude of drugs have the capacity to put at risk the lives of patients who are expected to survive. It is essential that dedicated Specialist Intensivists manage a 'closed-unit' policy for the safe and prudent provision of intensive care services. This is to ensure that scarce and valuable intensive care resources are not abused in a manner that is detrimental to patients.

The best safeguard to ensure the finest delivery of patient care is for all concerned to be involved in a continuing education program. This should aim to develop a sound knowledge base upon which other skills can develop. The policies and protocols that are present in the intensive care unit, together with the level of medical and nursing staff per patient, are there to ensure patient safety and minimise complications.

During your time in Westmead ICU, you will manage patients with a wide variety of medical and surgical conditions. As a nurse new to the ICU environment this clinical experience will form the cornerstone of training in the specialty. This coupled with numerous learning opportunities will foster the professional growth needed for the practise of Intensive Care in the future.

To all our new nursing staff we are sure you will find various aspects of your work challenging, but we are also certain you will gain a great deal of knowledge and experience whilst you work in our unit, caring for the critically ill.

Westmead Intensive Care Unit

Welcome to the Westmead Hospital Intensive Care Unit (ICU). Westmead Hospital has a Multidisciplinary ICU located in 'E' block on Level 3. The Critical Care Zone (CCZ) is comprised of three wards - E3a, E3b and E3c (zones A, B and C respectively), each having 13 individual patient rooms. The Intensive Care Unit occupies and governs E3a and E3b. At present E3c is occupied by the Neurosurgery and Trauma High Dependency Units. A separate Cardiothoracic Intensive Care Unit is located in ward C3c and admits patients following elective and emergency cardiac surgery. Other high dependency units are located throughout the hospital. Medical High Dependency is in B5b, Surgical High Dependency in A3c, and Coronary Care in A5b and Renal High Dependency in A6.

Physical space exists for 26 beds in E3a and E3b but current funding for the ICU only allows for 23 beds to operate. There is the ability to temporarily open additional 'flex-beds' in times of crisis. In reality the actual number of patients admitted to the ICU will depend upon demand, the availability of equipment and adequate staffing levels to ensure patient safety. Practically, room 4 is currently available for highly infectious patients (for example cases of ebola) and room 5 is dedicated for simulation education.

The 'Westmead ICU Nursing Orientation Manual' is provided to allow you to work efficiently and competently as soon as you arrive. ***It is essential reading.*** Other resources that are available to you include the Local Health Network Intranet, material from the Westmead Hospital Orientation program

We expect you to have read the relevant sections and be able to refer to them when required.

Intensive Care Senior Staff

The senior nursing staff of the ICU includes:

Nurse Unit Managers	.....	Giok Anderson and Tracey Osling
Clinical Nurse Consultant	.....	Angela Berry
Clinical Nurse Consultant		
Organ and Tissue Donation	.....	Nicola Dykes and Monica Walker
Nurse Educator	.....	Kylie Hume
Clinical Nurse Educators	.....	Ann Duffey, Millet Viola-Moll,
	.....	Bijimol Augustine, Roger Colussi,
	.....	and Aaron Chan.
Clinical Nurse Specialist		
Equipment	.....	Daniel Williams
Research Coordinator	.....	Jing Kong

It is of value for you to get to know these individuals and respect their essential positions in the ICU.

The senior medical staff of the ICU includes the following staff specialists and visiting medical officers:

Staff Specialists

Dr Edward Stachowski
 Dr John Gallagher
 A/Prof Yugan Mudaliar
 Dr Vineet Nayyar
 Dr Peter Clark
 Dr Ashoke Banerjee
 Dr Martin Cullen
 Dr Dani Goh

VMOs

Dr Ivana Kliman
 Dr Tom Solano
 Dr Sundaram Rachakonda
 Dr Yung Tran
 Dr Kush Deshpande
 Dr Simon Hockley

Intensive Care Team

The ICU consists of a multi-disciplinary team which includes:

- Medical and Nursing staff provide 24 hour care, with a nurse to patient ratio of 1:1 for ventilated patients.
- Wardsmen to assist nursing staff with pressure area care and hygiene. Turning patients every few hours aids in preventing bed sores.
- Equipment and sterilisation staff who work tirelessly in maintaining stock, and ensuring we have all equipment clean and available.
- Unit clerical staff are available to assist with your enquiries.
- Radiographers take X-rays as required.
- Ultrasonographers perform ultrasounds.
- Physiotherapists see patients as required.
- Pharmacists monitor medication use.
- A Social Worker is available Monday-Friday 9am-5pm. An after-hours service is also available.
- Other allied health services (such as occupational therapist and speech pathology) can be contacted as needed.
- Clergy of various denominations are available on request.
- An Interpreter Service is available as required.
- When appropriate organ and tissue donation CNCs are available.

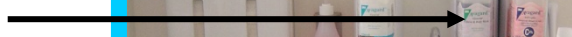
INFECTION CONTROL POLICY

This is extremely important, because ICU patients are very vulnerable to infections, as their immune systems may not be functioning properly. Washing hands reduces the transmission of infections. Not only does hand washing protect the patient but it protects you from infections you may carry home. All staff are required to comply with this policy.

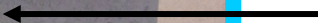
- All notes stay outside the room.
- Please encourage all visiting medical teams to comply with our infection control procedures
- Please also be responsible for educating your patient's family on their compliance with infection control procedures
- Gloves must be changed and hand hygiene performed between every procedure



Hand wash



Sensor
Wave your hand
in front to
activate water.



The Procedure for entering or leaving the patient room is as follows:

- 1. Pink hands upon entering the room**
- 2. Don Gown**
- 3. Don Gloves**
- 4. Carry out your task(s) in the room**
- 5. Change gloves and hand hygiene between cares as necessary**
- 6. Remove Gloves & Wash Hands**
- 7. Remove Gown & Wash/Pink Hands**
- 8. Pink hands upon exiting the room**

For a more detailed explanation of the don and doffing procedure for PPE please refer to the following tables.

Sequence for Donning PPE

<p>Step 1. Hand Hygiene</p> <p>Perform hand hygiene before putting on Personal Protective Equipment</p>	
<p>Step 2. Gown/Apron</p> <p>Fully cover torso from neck to knee, arms to end of wrist, and wrap around the back.</p> <p>Fasten in back at neck and waist.</p>	
<p>Step 3. Mask or Respirator</p> <p>Secure ties or elastic bands at middle of head and neck</p> <p>Fit flexible band to nose bridge</p> <p>Fit snug to face and below chin</p> <p>Fit check mask/respirator</p>	
<p>Step 4. Protective Eyewear</p> <p>Place goggles or face shield over face and eyes and adjust to fit</p>	
<p>Step 5. Gloves</p> <p>Extend to cover wrist of gown</p>	

Adapted from CDC's Sequence for Donning PPE. <http://www.cdc.gov/>

Sequence for Removing PPE	
<p>Step 1. Gloves</p> <p>Outside of gloves is contaminated</p> <p>Grasp outside of glove with opposite gloved hand; peel off</p> <p>Hold removed glove in gloved hand</p> <p>Slide fingers of un-gloved hand under remaining glove at wrist</p> <p>Peel glove off over first glove</p> <p>Discard gloves in waste</p>	
<p>Step 2. Hand Hygiene</p> <p>Perform hand hygiene following removal of gloves</p> <p>The use of a water-free skin cleanser is appropriate</p>	
<p>Step 3. Protective Eyewear</p> <p>Outside of goggles or face shield is contaminated</p> <p>To remove, handle by head band or ear pieces</p> <p>Place reusable eyewear in designated receptacle for cleaning or discard disposable eyewear into waste container for disposal</p>	
<p>Step 4. Gown</p> <p>Gown front and sleeves are contaminated</p> <p>Unfasten ties</p> <p>Pull away from neck or shoulders, touching inside of gown only</p> <p>Turn gown inside out</p> <p>Fold or roll slowly into a bundle and discard into designated waste container</p>	
<p>Step 5. Mask or Respirator</p> <p>Front of mask/respirator is contaminated</p> <p>Remove by touching tapes or ties only</p> <p>Discard in designated waste container</p>	
<p>Step 6. Hand Hygiene</p> <p>Perform hand hygiene following removal of all Personal Protective Equipment</p>	

Adapted from CDC's Sequence for Removing PPE. <http://www.cdc.gov>

P2 MASK (respiratory precautions) should be removed outside the room after the door has been closed. Ensure that hand hygiene facilities or alcohol hand rub are available at point of need. Do not touch the front of the mask when removing.

Administration Information

As listed earlier there are two NUMs in the ICU that both cover all aspects of the role. As such you can approach either of them about any specific issues you may have.

Roster codes and Hours of Duty

The following is a list of the rostering codes you will see on the roster. In brackets is the equivalent code you will see whilst you are supernumerary.

M (I4)	0700-1530hrs	Breaks 1x20mins + 1x30min
A (K4)	1330-2200hrs	Breaks 1x20mins + 1x30min
N	2130-0730hrs	Breaks 1x20mins + 1x30min
Mx	0700-1930hrs (Not available to new RN1s)	Breaks 1x20mins + 2x30min
Nq	1900-0730hrs (Not available to new RN1s)	Breaks 1x20mins + 2x30min

Sick Leave

Needs to be notified through the Nursing Clinical Resource Unit (NCRU) 24/7 on 98456474 or 98456475. If you are unable to speak to someone after hours, contact the hospital switchboard 98455555 and asked to be put through to the After Hours Nurse Manager.

Annual Leave

Is applied for through the NUMs.

Daily Staff Allocation

There is a folder located in the tea room at the start of each shift where the staff for the day are allocated to a bed space. The team leader will have written down a list of bed numbers and patient names and in the next column to the right you will find your name written. Proceed to this bed space for handover, we do not do a group handover.

ICU Schedule

0700-0730	Nursing Bedside Handover
0800-0900	Medical handover round to day staff done at the 'bedside'
0900-1130	Medical Ward round. All nurses are to participate in the medical review of the patient they are looking after.
1130-1230	Medical X-ray meeting with Radiologist.
1230-1600	Medical Ward round continues. Many investigations and patient transfers to scan happen through this time period. This is also the ideal time for patients to be discharged from the unit.
1330-1530	Nursing handover for 8-hour afternoon shift staff. Some hospital and unit in-services are held in this two hour 'overlap' period.
1600-1800	Afternoon Medical round with Consultant or Fellow/Senior Registrar.
1900-1930	Nursing handover for 12-hour shift staff
2030-2100	Medical handover round to night staff done at the 'bedside'.
2130-2200	Nursing handover for 8-hour night shift staff.
0400	Blood collection and dispatch to lab.
0600-0700	X-ray round

Leaving the Bed Area: There are times when you, or the nurse working next to you, will need to leave the bed area, leaving one nurse responsible for two patients. If you are this nurse it is important that you have an understanding of the 'other' patient (their condition, current management, and potential issues) as well as your own. During the time you are by yourself, you should be outside of both rooms to be available to attend alarms etc. Therefore do not undertake dressings, patient sponges, or any other activity that defers your attention from both patients unless of course there is an emergency. By extension of this, if you are in the middle of something and the nurse next door comes in to announce they are going to leave you alone, you need to ask them to wait until you have finished what it is you are doing. If you are leaving the bed area and letting the nurse next door know be mindful that they too are available for both patients and ensure you have an appropriate amount of infusions left to cover the period you will be away. **Do not leave a medical officer responsible for your patient** as they may be called elsewhere, and do not have the same understanding of equipment used in the rooms.

Educational Sessions

Various educational and audit meetings are held either on a weekly or monthly basis. These are usually scheduled in the middle of the day, hence try to get your work done so you can attend. Notification of such sessions can be found on the staffing allocation page for that day. They include the following:

1. TTP in-service in the education block – weekly on Wednesday at 1430, duration approximately 1 hour
2. Formal ICU nursing teaching session – weekly on Friday at 1430, duration approximately 1 hour
3. IIMS meeting – monthly on Wednesday at 1415 hours; duration approximately 45-60 minutes
4. Clinical Case Conference – weekly on Friday at 1300 hours, duration approximately 45-60 minutes
5. Ward Meeting – Fortnightly on Thursdays at 1400, duration approximately 45-60 minutes.

Learning Objectives

All nurses are provided the support to acquire knowledge, problem solving abilities, practical skills and attitudes essential for the safe and effective practice of intensive care medicine. This extends to and covers patient care, ICU equipment and the critical care environment.

Nurses should:

1. Develop the ability to recognise and respond rapidly to life threatening problems and events.
2. Become safe and competent in the delivery of care to acutely ill patients including those requiring life support in the ICU.
2. Acquire knowledge in those aspects of Nursing, Medicine, and Allied Health that are relevant to the practice of Intensive care.
3. Be able to act as part of a multidisciplinary team to co-ordinate the care of a critically ill patient.
4. Be able to critically appraise clinical and scientific information, and apply and/or discuss it with other relevant members of the ICU team with relevance to the ICU patient, bearing in mind the available resources.

5. Develop an attitude of caring towards the patient and an ethic that places the welfare of a patient above all other nursing, medical and political considerations.
6. Learn to identify and modify those stresses, which an ICU environment places upon the patient, their relatives and hospital staff.
7. Participate in the process of clinical audit and quality improvement activities that in turn, help in recognition of those practices needing modification and improvement.
8. Develop a process of self-appraisal so that limitations can be identified and deficiencies related to intensive care practice corrected.
9. Be aware of policies and guidelines relevant to the specialty and professional issues that influence the practice of ICU Nursing.
10. Never shy away from asking ANY questions. The only stupid question is the question not asked, so use the wisdom of more senior colleagues and learn from them.
11. **Most importantly**, develop an understanding of yourself and how you are coping in this highly stressful environment. Speak with senior staff, your peers, your friends and family outside of work to express the challenges you are working through. All of us have faced the same fears and frustrations, and are willing to assist you with yours. **You are not alone.**

Learning Packages & Competencies

There are stringent timeframes provided for the completion of learning packages, for all new staff to the ICU environment. This is to ensure you are safe to manage patients independently as soon as practicable. Having this fundamental knowledge provides new staff with more confidence in looking after the high acuity of patients in this environment.

Please refer to the separate ICU Learning Packages booklet for details.

There is also a separate ICU Competencies booklet that will be tailored to the needs of the staff member. The completion of these allows the individual to work unsupervised for the specific skills and therefore competencies again are encouraged to be completed as soon as practicable.

Finally, there is a fundamental skills section at the end of this booklet that will assist the new starter and their mentor to develop the necessary knowledge and skills. These skills form the basis of the competency assessments.

Tips for New Starters

- You need to complete clinical competencies in the New Starter Competencies Handbook, during the supernumerary period with mentors. Mentors, T/L, CNS, CNE, CNC, NE, NUM may assess you.
- Completion of learning packages will provide you with the basis for everything you do in the ICU.
- Assessment of Physical Assessment Competency during week 2.
- Ask for assistance from the mentor and other mentorees to complete learning packages (bring them with you every shift).
- Support each other, it may be helpful to form study groups to share ideas and resources.
- Network with other staff who have recently finished their programs, they will have completed their packages also!
- Keep a professional reflective diary, to note down any significant events, or new skills you have learned. You will be able to more easily see your progress.
- You may find it helpful to keep a small spiral bound notebook (keep with you at the bedside) for jotting in useful reference info such as drug doses and calculations.
- **Most importantly, if in doubt ask, and if you're still unsure ask again!!**



Westmead Hospital

Intensive Care Unit

RN1 & Mentor Program



Fundamental Skills

These skills define a 'safe novice' as a person who has the knowledge and psychomotor skill to perform certain tasks or look after certain treatment modalities within the critical care environment. An 'advanced beginner' is a clinician who can vary their practice to individual situations using these skills and knowledge.

Your Mentor will be able to assess you in each of these skills, where **you** must demonstrate the knowledge and skills required to have the relevant section signed off, it is not signed off when your mentor has discussed it with you. **Remember we only expect you initially to be at the level of novice.**

Further explanation of novice and advanced beginner skills for the competencies are detailed in the **Skills Trees** in the following section.

Work on these competencies as soon as you start working with your mentor and ensure you get them signed off as you demonstrate ability.

All shaded boxes in the fundamental skills table must be completed by the completion of your supernumerary period. The remainder can be completed through the following months.

Once you have completed your assessment and are working independently you can have any competencies signed off by senior members of staff i.e. Team Leaders, CNSs, CNEs, NE, CNC, NUM.

Primary Assessment:

Knowledge	Psychomotor Skills	Clinical Decision Making	Novice	Advanced Beginner
Prioritising: Airway Breathing Circulation Disability Exposure	Assess ABC Identifies presence of any neurological disability. Removes sheets and exposes patient for full assessment while still maintaining patient privacy. Assess ventilation, infusions, zeros transducers, and sets alarm limits.	Predicts appropriate action- ABC, cardiac rhythm. Ventilator mode, airway pressures, tidal volumes. Correct alarm limits Infusion access, content and dose. Sets correct parameters for alarms.		

Secondary Assessment:

Knowledge	Psychomotor Skill	Clinical Decision Making	Novice	Advanced Beginner
<u>Respiratory:</u> Position of lung zones Normal breathing sounds Normal oxygen saturation	<u>Assess:</u> Colour / Perfusion Work of breathing Oxygen saturation / EtCO ₂ Mode of ventilation.	Prioritises care Interprets results Acts on assessment result Assess adequacy of ventilation mode.		
<u>Cardiac:</u> Normal / Abnormal values Ways to assess cardiac function Rhythm interpretation Normal ECG complex	Assess cardiac function by: Heart rate / rhythm, blood pressure, peripheral perfusion and pulses. Fluid status Presence of oedema.	Acts on assessment result. Identifies need for fluid replacement.		

Secondary Physical assessment cont'd.

Knowledge	Psychomotor Skills	Clinical Decision Making	Novice	Advanced Beginner
<p><u>Neurological</u> Presenting and past medical history. Effect of patient's medication on level of consciousness, motor response and pupillary response. GCS assessment tool Normal / abnormal responses.</p>	<p>Assess patient's response with a logical approach: Visual observation, verbal response, physical response. Accurate interpretation of response. Makes assessment based on patients' trend and history. Identifies cause of pupillary response based on medication and patient's condition.</p>	<p>Identifies need for further investigation. Accurate decision made for assessing motor response relative to interventions in place.</p> <p>Identifies importance of pupillary response</p>		
<p><u>Gastro-intestinal</u> Considers patient history. Normal anatomical positions NGT / OGT placement. Normal bowel sounds Nutritional replacement.</p>	<p>Understands importance of abdominal assessment order: Inspection, auscultation, percussion and palpation. Assess for presence of abdominal distension. Identifies the need for a gastric tube and correct gastric tube placement.</p>	<p>Aware of the significance of abdominal distension and pain. Identifies the need for bowel sounds. Takes action when appropriate. Inserts or repositions gastric tube when necessary. Interprets gastric pH.</p>		
<p><u>Genito-urinary</u> Normal renal output and urinalysis. Normal genital appearance.</p>	<p>Identify the need for a urinalysis. Assess causes of concentrated urine. Identifies genital abnormalities i.e. urethral / vaginal discharge, odour, swelling.</p>	<p>Takes appropriate action when urine output declines i.e. ↑ fluid input, diuretics, irrigates catheter. Communicates and documents findings appropriately.</p>		

Secondary Physical Assessment cont'd.

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
<p><u>Skin</u> Importance of promoting skin integrity, repositioning patient, documentation. The need for adequate cardiac output, oxygenation and nutrition to promote healing and skin integrity. Burns: Wounds, grafts, donor sites.</p>	<p>Repositions patient 2/24 and protects bony prominences. Accurately assess skin for infection, perfusion, potential breakdown.</p>	<p>Reports and documents change in patient's skin. Manages changes in wound status appropriately.</p>		
<p><u>Alarms</u> Identifies all alarms to be set according to the ICU Alarm limit policy Sets all alarms according to ICU policy. Understanding for the rationale of the ICU limits policy. Identifies alarms which are never to be turned off.</p> <p>Identifies the following alarms to be set on the ventilator:</p> <ul style="list-style-type: none"> • Peak Airway Pressure • Minute Volume • Positive End Expiratory Pressure • Respiratory Rate • Apnoea • Sound volume. 	<p>Demonstrates identification of all alarms on the monitor. Demonstrates how to adjust alarm limits on the monitor.</p> <p>Demonstrates identification of all alarms on the ventilator. Demonstrates how to adjust alarm limits on the ventilator</p>	<p>Sets alarms appropriately according to patient status in line with the policy. Identifies what alarms maybe switched off or silenced, in discussion with medical staff, and provides rational for same.</p> <p>Sets alarms appropriately according to patient status.</p>		

Airway Hygiene

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
Position of lung zones	Auscultates and identifies air entry to different lobes.	Identifies when chest auscultation needs to be performed.		
Aware of types of airways and their use.	Identification of types of airways Checks cuff pressure	Recognises the difference/need for different kinds of airways Recognises the need for extra equipment at the bedside for patient with a tracheostomy tube. Can identify causes of leaking cuffs.		
How to Ambu bag safely.	Assemble Ambu bag Safely hand ventilate patient, maintaining adequate oxygenation.	Hand ventilates patient during acute respiratory distress and emergency situations.		
Principles of suctioning	Performs suctioning adhering to suction principles.	Modifies suction procedure for patients with ↑ ICP and patients on high FiO ₂ and PEEP.		
Principles of securing an airway.	Performs securing an airway adhering to identified principles	Describe how an airway should be secured if nasally intubated or on a burns patient.		

Mechanical Ventilation

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
<p>Set up of ventilator.</p> <p>How the following modes of ventilation work</p> <ul style="list-style-type: none"> - Volume control - Pressure control - Pressure support - SIMV + pressure support - PRVC - Volume Support - CPAP - BIPAP 	<p>Performs pre-user check. Assembles ventilator circuit with/without active humidification.</p> <p>Records appropriate observations for the following modes.</p> <ul style="list-style-type: none"> - Volume control - Pressure control - Pressure support - SIMV + pressure support - PRVC - VS - CPAP -BIPAP 	<p>Trouble shoots failed part of the test. Determines which ventilator circuit is appropriate.</p> <p>Determine appropriateness of ventilator mode and patient condition. Identifies patient's changing ventilatory requirements.</p>		

Mechanical Ventilator Alarms

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
<p>Meaning of the following alarms and measurements on the ventilator;</p> <ul style="list-style-type: none"> - Increased Peak Inspiratory Pressure (PIP) - Decreased PIP - Increased Minute Volume (MV) - Decreased MV - Loss of PEEP 	<p>Correctly identifies alarm and commences hand ventilation if patient's breathing is severely compromised, and calls Nurse Assist.</p> <p>Correctly identifies alarm and commences hand ventilation if patient's breathing is severely compromised, and calls Nurse Assist.</p> <p>Correctly identifies alarm and commences hand ventilation if patient's breathing is severely compromised, and calls Nurse Assist.</p> <p>Correctly identifies alarm and commences hand ventilation if patient's breathing is severely compromised, and calls Nurse Assist.</p> <p>Assess other ventilation parameters.</p>	<p>Determines cause of \uparrow PIP and outlines appropriate management for;</p> <ul style="list-style-type: none"> - Blocked ETT - Patient biting tube - Pneumothorax - Pulmonary oedema <p>Determines cause of \downarrow PIP and outlines appropriate management for;</p> <ul style="list-style-type: none"> - Patient disconnect - Leak in the circuit. - Leaking cuff <p>Determines cause of \uparrow MV and outlines appropriate management for;</p> <ul style="list-style-type: none"> - Patient ventilator malfunction - Patient hyperventilation <p>Determines cause of \downarrow MV and outlines appropriate management for;</p> <ul style="list-style-type: none"> - Patient disconnect - Leak in the circuit. - Patient drowsy - Patient tired <p>Determine need to perform pre-user check on ventilator with possibility to change expiratory cassette.</p>		

Assess and maintain patients with cardiovascular dysfunction and haemodynamic monitoring

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
<p>Normal conduction through the heart.</p> <p>Defines determinates of cardiac output (CO) and oxygen delivery (DO₂).</p> <p>Identifies actions of the following</p> <ul style="list-style-type: none"> - Dopamine - Dobutamine - Adrenaline - Noradrenaline - Vasopressin - Glyceryl trinitrate - Sodium Nitroprusside - Aramine <p>Unit policy on in-house emergency and CPR</p>	<p>Establishes normal 5 lead ECG monitoring</p> <p>Establish SaO₂, ABGs, and haemodynamic parameters</p> <p>Load an inotrope and vasodilator infusion. Allocates inotropes and vasodilators to appropriate lumen.</p> <p>Adheres to in-house policy and performs CPR in accordance with ARC guidelines.</p>	<p>Can differentiate between sinus rhythm, atrial fibrillation, ventricular fibrillation, ventricular tachycardia, ventricular ectopic beats, and atrial ectopic beats.</p> <p>Identifies factors that may impinge upon C.O./DO₂ and anticipates / implements subsequent management.</p> <p>Understands the parameters that need to be monitored when weaning the following;</p> <ul style="list-style-type: none"> - Dopamine - Dobutamine - Adrenaline - Noradrenaline - Vasopressin - Glyceryl trinitrate - Sodium Nitroprusside - Aramine <p>Titrate infusions to identified clinical endpoints.</p> <p>Can participate in the different roles of the CPR team; airway, cardiac compression, drug preparation / administration, record keeping.</p>		

ECG and CXR Interpretation

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
<p>Placement of ECG dots for a 12 lead ECG. Normal and abnormal ECG's</p> <p>Interpretation of a CXR.</p>	<p>Performs 12 lead ECG, and identifies a normal and abnormal ECG.</p> <p>Checks CXR for; * name/date/time * AP/PA * exposure * expansion * penetration</p> <p>Accurately identifies invasive devices placement.</p> <p>Informs medical team immediately of potential life-threatening abnormalities.</p>	<p>Recognises need for performing 12 lead. Takes further action when appropriate.</p> <p>Correlates patient clinical status with CXR findings.</p> <p>Identifies action required for incorrect tube or catheter placement.</p> <p>Establish priorities and anticipates nursing/medical management.</p>		

Assess and maintain fluid input and output

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
<p>Accurately assesses intravascular volume status.</p> <p>Factors that affect the accuracy of all fluid filled monitoring systems.</p> <p>Uses of invasive lines Complications of invasive lines</p>	<p>Performs an assessment including heart rate, blood pressure, CVP, urine output, peripheral perfusion and presence of peripheral oedema</p> <p>Calibrate and assess accuracy of all fluid filled monitoring system.</p> <p>Can identify the complications of invasive lines.</p>	<p>Can identify clinical parameters indicative of intravascular volume status.</p> <p>Can relate findings to pathological/physiological changes.</p> <p>Can identify the indications for early removal of invasive lines.</p>		

Neurological Assessment

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
Glasgow Coma Score	<p>Performs an accurate neurological assessment.</p> <p>Identifies appropriate assessment of neurological status for patients receiving.</p> <ul style="list-style-type: none"> * acute neuro impairment * NMBAs/Barbituates * anticoagulants in progress in unconscious patients 	<p>Identifies and analyses neuro findings.</p> <p>Recognises the need to document differences in what is objectively scored, using the GCS, against how the patient is observed.</p>		
<p>What are cerebral perfusion pressures</p> <p>Neurological monitoring devices/drains</p>	<p>Accurately calculates cerebral perfusion pressure.</p> <p>Accurately sets up the monitoring system.</p> <p>Accurately sets up the EVD.</p> <p>Correctly positions the transducer.</p> <p>Accurately measures ICP.</p> <p>Correctly obtains a CSF sample.</p>	<p>Identifies clinical endpoints and appropriate action.</p> <p>Evaluates ICP trace.</p> <p>Minimise pressure transmission errors.</p> <p>Identifies need for drain patency.</p> <p>Evaluates correct positioning for accurate reading.</p> <p>Can relate ICP measurement to patient's condition and management.</p> <p>Understands the principle of asepsis when obtaining a CSF sample.</p>		

Essential Patient Care

Knowledge	Psychomotor skill	Clinical decision making	Safe Signature/date	Competent Signature/date
<p>Can articulate the need for oral hygiene. Understands the distinct relationship of VAP and colonisation of dental plaque with respiratory pathogens.</p> <p>Identifies a toothbrush is the most effective method of plaque removal.</p>	<p>Perform oral assessment. Can perform oral care safely and efficiently. Documents clearly evaluation, findings and management.</p> <p>Safely performs oral care with a suitable toothbrush.</p>	<p>Modifies oral care dependent upon oral assessment.</p> <p>Determines the most effective method of oral care for an individual.</p>		
<p>Can articulate the need for eye hygiene. Identifies the risks factors contributing to corneal abrasions, infection and oedema.</p>	<p>Perform eye assessment. Performs eye care safely and efficiently. Documents clearly evaluation, findings and management.</p>	<p>Modifies eye care dependent upon eye assessment.</p>		
<p>Can articulate the need for pressure area care. Patient dependant, identifies restrictions to full patient movement. Identifies factors contributing to decubitus ulcer formation.</p>	<p>Appropriately coordinates equipment and personnel to provide efficient and safe patient turns.</p>	<p>Modifies patient turns relative to any pathology, e.g./ spinal turns or unstable fractured pelvis.</p>		
<p>Without ambiguity can articulate the strict adherence to unit specific infection control practice. Understands that 'Standard precautions' significantly reduce pathogen cross contamination.</p>	<p>Demonstrates within clinical practice the use of gowns, gloves and goggles. Demonstrates correct hand washing technique. Perpetuates this information with direction to new/transient staff.</p>	<p>Modifies practice in the event of an emergency.</p>		

Intubation

Knowledge	Psychomotor Skill	Clinical Decision Making	Novice	Advanced Beginner
Principles of intubation, and equipment required for intubation.	<p>Informs patient when possible about intubation procedure.</p> <p>Sets up equipment for intubation.</p> <p>Assists with intubation.</p> <p>Checks air- entry post intubation.</p> <p>Organises CXR post intubation.</p> <p>Takes ABG sample once patient established on ventilator.</p>	<p>Pre-oxygenates patient on 100% or 15 litres of oxygen.</p> <p>Identifies need for extra equipment for difficult intubations</p> <p>Prepares mechanical ventilator.</p> <p>Identifies ETT placement on CXR.</p> <p>Determines effectiveness of ventilation strategy.</p>		

Extubation

Knowledge	Psychomotor Skill	Clinical Decision Making	Novice	Advanced Beginner
Principles of extubation and equipment required.	<p>Pre-oxygenates patient and aspirates gastric tube prior to extubation.</p> <p>Informs patient about procedure.</p> <p>Informs T/L of decision to extubate.</p> <p>Collects and prepares equipment.</p> <p>Performs extubation according to unit principles.</p>	<p>Determine readiness of patient for extubation.</p> <p>Identifies abnormal airway sounds post extubation.</p> <p>Anticipates possible complication requiring nebulised adrenalin, NIV, or re-intubation.</p>		

Maintain a safe physical and psychological environment that promotes safety security and optimal health.

Demonstrated by: Setting up a bed area

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
Identifies equipment needed for a standard bed set up.	Locates equipment and tests function. Pre-user check of ventilator Zeroes Hill-Rom bed.	Determines equipment specific for particular patients: Eg Uncleared spine, MRO, Hyper/Hypothermic patients.		

Admitting a patient into the unit

Knowledge	Psychomotor skill	Clinical decision making	Novice	Advanced Beginner
Need to prioritise and assess Airway, Breathing & Circulation. Use of monitoring equipment.	Assess ABC, Connects patient to ventilator. Displays an ECG trace, blood pressure and O ₂ Sat trace.	Predicts appropriate action in the case of the patient; - Chest fails to move after connection to the ventilator. - Being in VT when connected to the monitor.		

Transferring patient to: Radiology, Theatre etc.

Knowledge	Psychomotor Skills	Clinical Decision Making	Novice	Advanced Beginner
Awareness of Unit Transport Policy.	Safely sets up and docks ventilator pendant on to the bed. Prepares all equipment and drugs necessary for patient transport.	Predicts appropriate action when patient's status changes. Anticipates drugs patients may require prior to their transfer.		

Transferring a patient to the ward.

Knowledge	Psychomotor Skill	Clinical Decision Making	Novice	Advanced Beginner
Patient's condition, medical history and treatment. Documentation (i.e. progress notes, x-rays, old notes) required for transfer. Staff and equipment required for patient transfer.	Informs patient, family, and ward of pending transfer. Collects patient's documentation, medications and belongings. Organises IV pole and monitoring required for patient appropriately. Forewarns ward of equipment that will be required by patient.	Assess patient for readiness of transfer. Informs medical staff and nursing team leader if concerned of any aspects regarding transfer.		