Appendix 1J:
Unit Orientation
(Paediatric Intensive Care Unit)
The Royal Children's Hospital (RCH) Nursing Competency Workbook is a dynamic document that will provide you with direction and assist you in your professional development as a nurse working at the RCH. The workbook also provides a record of your orientation and competency obtainment.

Chapter 1
- Includes resources for nurses and is complemented by the Royal Children’s Hospital (RCH) New Starter Pack, Hospital Orientation and Nursing Orientation day, to provide an introduction to nursing at the RCH.

Chapter 2
- Generic Nursing Competency Assessment Forms

Chapter 3
- Specialist Nursing Competency Assessment Forms

Appendix 1
- Unit / Department Nursing Orientation

Appendix 2
- Index of ALL Specialist Nursing Competency Assessment Forms

Appendix 3
- Graduate Nurse Program Workbook

All chapters and appendices are downloadable as pdfs from the Mackinnon Nursing Education and Development Centre Website


The RCH Nursing Competency Workbook developed by the Mackinnon Nursing Education and Development Team with input from specialist nurses at the RCH

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Unit Profile

The RCH Paediatric Intensive Care Service provides intensive care for approximately 1400 critically ill newborns, infants, and older children each year. With 17 patient beds, care in the RCH PICU is provided by the intensive care team which consists of the duty consultants, registrars, nurse consultants, paediatric critical care clinical nurse specialist, technologists and clinical support services. RCH ICU attracts medical and nursing staff from all around Australia, and from a large number of major international paediatric centres.

RCH PICU is the home of the Victorian Paediatric Emergency Transport Service (PETS). This 24-hour service, staffed by PICU medical and nursing staff, provides consultation and emergency air and road retrieval to RCH of 300 critically unwell children and young adults annually, from hospitals in Victoria, Tasmania and southern New South Wales. RCH is the Victorian centre for paediatric trauma, burns, cardiac surgery and liver transplantation; and a national centre for cardiac transplantation, and intestinal transplantation. The hospital Medical Emergency Team is also staffed from PICU, with colleagues from the Emergency department.

Unit Philosophy

The PICU team aims to provide the best care possible for the seriously ill child and their family from pre-admission, admission through to transfer to the ward environment. The unit strives to improve knowledge and provide best practice in the care of critically ill children through medical and nursing research, unit based educational programs, and advocacy for patients.

Patient Groups

The patient profile ranges from infants to adolescents with a significant number of children with cardiac conditions from Victoria, interstate and overseas. Patients are also admitted with respiratory, neurological and other complex needs including some children preparing for home ventilation and others who are being cared for following heart, liver or bowel transplantation.

Critically ill infants and children
Approximately 10-20% of our admissions each year are children with respiratory disease and 10% with neurological disease. In addition, <10% of admissions are children and young adults with injury or severe trauma, for example after motor vehicle accidents or burns.

Cardiac
Approximately 45 – 55% of our patients are admitted to RCH PICU after cardiac surgery. These include newborns, and older infants and children requiring corrective, or palliative cardiac surgery, and heart transplantation. RCH has the largest cardiac surgical programme in Australia, and performs many complex operations.

Extracorporeal Life Support (ECLS)
RCH PICU houses the Extra Corporeal Life Support (ECLS) service. ECLS provides cardiac and respiratory support for 30-40 children each year from all over Australia. ECLS is provided to children after cardiac surgery, to newborns with severe respiratory problems, and to children with life-threatening cardiac or respiratory disease. The National Ventricular Assist Device (VAD) service provides mechanical support for children with severe, end-stage heart failure, while they are awaiting heart transplantation.
The Nursing Team

Nursing care is provided with a child and family centred focus by a team of motivated and enthusiastic nurses who usually provide care on a one to one basis. The unit has approximately 130 nursing staff with many holding, or working towards a postgraduate qualification in paediatric intensive care nursing. Clinical nurses are well supported with a dedicated team of managers, educators and facilitators.

Advanced nursing roles which exist for nurses to progress their career toward include the Liaison Nurse, Care Manager, the ECMO Nurse specialist and the PETS Nurse.

In PICU there are 4 nursing teams (RED, BLUE, YELLOW, GREEN). Belonging to a team enables nurses to work together more effectively to achieve common goals in caring for patients. Each team is led by an Associate Unit Manager, and all team members participate in 2 allocated group Study Days each year. The nurses continued development is overseen within this allocated team.

Unit Management team leaders

Unit Manager: Mr Adrian Hutchinson

Associate Unit Managers: Katrina Burke
Michelle Dalton
Vanessa Long
Cecelia White
Leanne Flack
Clancy Ramsdale
Jackie Williams

Unit Education team leaders

Nurse Educators: Dianne McKinley
Gabrielle Carroll

Nurse Facilitators: Grace Larson
Jess Cooper
Joanne McKittrick
Jenny Lewis
Kim Morris

Orientation Process

Nurses commence with a supernumerary period of time and a competency framework to complete. Alternatively some nurses commence within a formal program such as the Postgraduate Diploma in Nursing Practice (Paediatric Critical Care) conducted in conjunction with the University of Melbourne.

On commencing in PICU nurses are allocated to their team which provides preceptorship and orientation of new nurses to the unit. The negotiated learning between the preceptors and the new staff member will depend on the previous experience of the preceptee. By 10 weeks the nurse will have completed the required mandatory hospital competencies and will be progressing through the PICU competencies.
Objectives for the Preceptorship Period

At the completion of the period of preceptorship, the new staff member will:

- Know the layout of the unit, and most of the staff and personal working in the unit.
- Know who, what, when and where to seek resources if necessary.
- Provide safe and appropriate nursing care to patients in an organised manner
- Demonstrate ability to recognise and react appropriately in patient’s changing conditions
- Have a good understanding of the monitoring and other equipment.
- Have a basic understanding of ventilators used in this unit.
- Complete own objectives, and required hospital and PICU competencies
- Demonstrate effective communication skills with staff, patients and their families.
- Demonstrate the ability to work in a team.

The rights and responsibilities of the Preceptee:

- Communicate existing experiences, knowledge and skills. Negotiate with the preceptors to identify learning needs, and set objectives which are realistic and beneficial to his/her professional development and clinical practice in the PICU environment.
- Undertake self evaluation at regular interval with the preceptors to work up strategies for further development.
- Be responsible for rostering the same shifts with the preceptors and negotiate with the preceptors for alternative arrangement if required.
- Provide feedback to the preceptors on the preceptorship process, including support given and teaching methods.
- Be responsible for completion of the required competencies. These competencies will be considered when the clinical appraisal is completed.
- With the help of preceptors, identify and utilise other resource to provide safe nursing care.

The rights and responsibilities of the Preceptor

Preceptors have an important role in supporting and facilitating new staff into the environment. They act as a role model and provide resources to enable new staff to develop the required skills and knowledge.

- The introduction of new registered nurses to other members of the staff.
- Planning of learning with the new nurse based on their previous experience.
- Facilitating learning and the acquisition of new skills and knowledge.
- Providing ongoing verbal evaluation and feedback.
- Providing opportunities to discuss strategies for future development.
- Liaise with the roster committee member to:

Performance Evaluation

All staff are required to initiate their own performance appraisal. Performance appraisals are required at 3 months and thereafter annually. You should plan with your team AUM issues relating to your professional development and annual performance appraisal. The 3 month appraisal should be completed by the Facilitator / Educator and team AUM.
Nursing Education in PICU

The aim of nursing education in the PICU is to promote and support nurses in providing excellence in their nursing care. ICU Nursing education is aimed at staff development and updating knowledge and skills to influence and improve our clinical practice in the unit. Unit based educational activities are displayed on the Calender Educational Planner in the seminar room. Up to five-paid study days are available per year on consultation with the Unit Manager.

Ongoing Education in PICU

The ongoing professional development of the PICU nurses is supported with a variety of opportunities.

Team study days

The PICU Nursing group is made up of 4 teams. Each nurse belongs to one of these teams and attends 2 Team Study Days over the year. The team plans this day according to their learning needs, and facilitates the completion of annual requirements and competencies (eg. CPR, Drug Calculations, Appraisals etc) on this day.

This day is co-ordinated by an AUM and other team members. An educator or facilitator-belongs to the team as a participant and to contribute educational principles. There are opportunities to complete compulsory competencies such as On-line emergency procedures, wash up, and pain competencies.

In-service sessions

The unit has a monthly education theme and conducts 4 x week in-service on Tuesday and Thursday at 1430hrs, Friday 2110 and Saturday at 1430hr. The same session is repeated over the week to enable maximum attendance. These in-services include sessions with scenario training, updates on new technology, nursing care guidelines, and clinical tutorials.

Specialist Study days

Study days with a specialist topic are conducted throughout the year. Examples include Haemofiltration, Paediatric Retrieval Nursing (PETS), Aeromedical, External Ventricular Assist Devices, and Extracorporeal Membrane Oxygenation (ECMO). These programs are completed in preparation for becoming a specialist in Emergency Retrieval or Extracorporeal Membrane Oxygenation for example, which are advanced practice roles.

Conference Participation

The PICU Nursing team also encourages active participation in the Child Health (ACPCHN) and the Australian Collage of Critical Care nurses (ACCCN) professional organizations. Participating nurses are supported to attend and present at these annual national conferences.

Other Education opportunities at RCH

In the hospital and through the MacKinnon Nursing Education and Development Centre (MNEDC) on the 7th floor in the South East Building (SEB) there are various programs PICU nurses have access to including Preceptorship. An introduction to paediatrics is also available in the Paediatric Foundation Program and the Unwell Child Workshop.
Available on the hospital website is specific department learning packages and useful information to help with your ongoing education. During your orientation ask a CNF to spend some time on the computer. Most relevant to PICU are:

- Anaesthesia and pain team service
- McKinnon Hospital Nursing Education Calendar
- Cardiology home page
- Clinical practice guidelines

**Professional Practice Portfolios**

All nurses are required to have an individual Professional Practice Portfolio (PPP). PPP’s enable the nurse to provide formal evidence of ongoing professional development and promote accountability in nursing practice. The PPP is an appropriate tool to develop learning goals and provide tangible evidence of learning. The performance appraisal process in the PICU is linked to the nurse providing a PPP, and should be presented with your annual appraisal.

PPP also assist the nurse to be well placed to meet the registration procedures with the National Registration Board, which requires nurses to provide evidence of their Continued Professional Development.

It is recommended that a PPP be compiled in a folder and can contain sections which have evidence of your learning and professional development. For examples of the evidence you may use, and to further assist you in constructing your portfolio, the Professional Practice Portfolio Guidelines Version 2 can be downloaded from the RCH Nursing Website: [http://www.rch.org.au/nursing/](http://www.rch.org.au/nursing/)

**Unit Policies**

**Drug administration**

- All IV drugs are double-checked by two RNs
- Single checking of oral drugs is allowed according to hospital policy, but nurses may still double check oral drugs if preferred

**Intravenous Infusions**

- All drug syringes are changed every 24 hours, except for pressure line syringes which are changed every 72 hours.
- All lines are changed every 72 hours
- Changing of inotropic syringes. Most patients are stable enough to have a direct swapping to the new syringe performed quickly and with care not to bolus the infusion
- In haemodynamically unstable patients, the new syringe is prepared, loaded in the pump and set to infuse at the same rate as the original infusion for 30min to one hour before connecting to the patient. This is connected proximally on the patient IV line via a 3 way tap and then the new infusion is turned on. Shortly after the existing infusion is turned off.
Medical Round
The PICU has two Consultant Teams on for the unit each day. One team is for the General Patients and the other is for the Cardiac Patients. Therefore there are two consultants on during the day and one overnight. The registrars are also allocated to either team and then allocated to the appropriate patients for the shift. Their names are on the room/patient allocation board opposite the central desk.

In the mornings the Hospital Cardiac Round comes to PICU at 0815. Subsequently the 2 PICU teams conduct Medical Rounds simultaneously commencing at 0830. The Ward Clerk will announce that parents should leave 8.15-9.30 during Medical Rounds. The nurse caring for the patient is present when that patient is discussed, so tea breaks are timed to enable this. The nurse presents the patient to the Medical Round and has the opportunity to raise relevant issues in the patient care which require discussion.

On Monday’s and Friday’s the Medical Round is conducted in the Seminar Room and the nurse does not present the patient. The evening Medical Round is held at 2000 which also does not require the nurse to present the patient, but is an opportunity to discuss the patient with the team. After the Medical Rounds are completed registrars then commence working with the patients. The General Consultant is responsible overall for the co-ordination of admissions, transfers, PETS referrals and MET calls.

Nurse Presentation of Patient at Medical Round
This presentation is to be brief. An overview of the patient is provided and then any relevant issues are raised. This information transfer format is:

1. Patient diagnosis and relevant history
2. Patient condition what has happened overnight
3. Where we are up to with weaning, feeding, progress etc
4. Relevant issues needing highlighting, including social issues

Prompts of Potential Issues to Raise

Haemodynamic Stability
Rhythm & Pacing
Filling pressures
Volume
Temperature

Ventilation & Gasses
Mode
FiO2
ETT position / CXray
Family issues

Sedation & Pain Management
Infusions
Pupils

Nutrition – Feeding
Nursing Handover

Nurses arriving on duty go to the Seminar Room to receive their patient allocation. Patients are preallocated by the AUM on the preceding shift. The nurse can negotiate patient allocations in advance with the AUM team.

The nursing team on for the shift receives an overview of the unit status and a Trendcare Handover sheet. The nurses then proceed to the allocated room and a group handover occurs where each bedside nurse briefly presents her patient to all the team in the room that day.

This 2 minute handover states the patient diagnosis, current stability status and current main issue. Subsequently the nurse caring for the patient that day receives a detailed patient handover from the nurse who has cared for the patient.

Team work

Teamwork is imperative for the well being of the child and family and the nursing staff in the unit. Please plan your day of work and breaks according to the needs of your patient and considering the work load in your room, and the unit single rooms. Plan your day early in the shift in consultation with all the other nurses you are working with for the day.

Resource Persons for Support

Each shift has various support persons available to assist nurses providing clinical care. Each room will have an experienced nurse as a resource person. The Team Support Nurse and Clinical Nurse Facilitator are also available. Additionally on day shift (0800-2200) a clinical technologist is on duty. During office hours the Unit Manager and Clinical Educator are on duty and can be contacted to assist with Management and Education.

Team Support Nurse

To provide clinical support and leadership, the unit has a Team Support Nurse (TSN) on every shift who is available to assist individual nurses in caring for patients. The TSN is also available for communicating any significant changes in the patient’s condition. The AUM and TSM expect to be kept up to date with the patient status. This will enable the leadership team on for the shift to assess the situation, and balance the support resources available in the unit. The TSN is also responsible to assist in resuscitation and PETS trips.
Clinical Nurse Facilitator

The nurses’ learning and development is supported on most day shifts (0700-2200) by a Clinical Nurse Facilitator (CNF). The name of the CNF available for the shift and the page number are on the whiteboard at the Central Desk. The nurse can seek the CNF’s guidance and support in clinical care at the bedside. In negotiation with the nurse, the CNF will facilitate opportunities for individual clinical development and advancing nursing practice within the unit.

Patient Nursing Notes Record

At the completion of each shift nursing notes are written in the patient history. The nursing admission sheet is updated each shift with information such as line changes, line removal, line insertion and significant events or procedures.

Ventilation Practices

The medical staff are responsible for ventilation settings and ventilation changes are made in consultation based on their orders. Contingency orders are written daily to set the appropriate ranges that ventilation changes can be made within by the nurse caring for the patient.

Ventilation and alarm settings are checked at the start of every shift and adjusted as clinically indicated. The required alarm settings are:

<table>
<thead>
<tr>
<th>Ventilation Alarm</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Minute Volume alarm</td>
<td>20% below the patients current level</td>
</tr>
<tr>
<td>High Tidal Volume alarm</td>
<td>no greater than 2 x the patients current level</td>
</tr>
<tr>
<td>Low Peak Pressure alarm</td>
<td>2 - 3cmH2O below required Peak Inspiratory Pressure</td>
</tr>
<tr>
<td>High Peak Pressure alarm</td>
<td>10cmH2O above the required Peak Inspiratory Pressure</td>
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Ventilator circuits, hand ventilation circuits and suction units are changed every 7 days by nursing staff and are labelled with the date and time.
Physiotherapy Practices

The nurse stays with the patient at all times during physiotherapy. This ensures that the child is adequately ventilated, oxygenated, haemodynamically stable and all invasive lines and tubes are intact during physiotherapy.

Physiotherapy or suctioning procedures should be ceased immediately if the child desaturates or is haemodynamically unstable. The procedure should only be resumed if the child recovers quickly. Please consult the registrar, consultant or the AUM if you are concerned.

Clinical Incidents

VHIMS is the hospital incident reporting system which is used to capture potential and actual incidents with staff and patients. VHIMS forms can be filled in on line by going to the RCH homepage and clicking on VHIMS. On line (http://riskman) reporting through VHIMS is to review our work practices and work environment so that optimal care is provided. The intention with managing clinical incidents is not to proportion blame. The VHIMS system allows staff to fulfil their responsibility to prevent, report and enable management of clinical risks.

Assisting Breastfeeding Mothers in PICU

The RCH is committed to supporting and encouraging breast feeding. The benefits of breastfeeding and providing the sick infant with expressed breast milk (EBM) are well known. PICU staff are expected to support the mother of an infant to establish and maintain her breast milk supply. There are lots of supports in place within PICU and the hospital itself to achieve this.

PICU provides a breast feeding room available for mothers to retreat to. There are 2 breast feeding pumps available. On admission, as the bedside nurse it is your responsibility to provide the mother with 2 non-disposable breast shields. These can be obtained through the TSN, AUM or ward clerk.

When you give the mother the breast shields, please also provide a copy of the information pamphlet and written information re. Expressing and Care of Breast Milk and the Shields.

Please ensure you know how to use the breast pumps in order to orientate new mothers.

Supports available for breast feeding mothers:

- Lunch and dinner is provided for all breastfeeding mothers of infants under the age of 2 yrs.
- Assistance from RCH midwife (Angela Power: postnatal mother’s unit)
- The formula room is on the first floor of the hospital. Staff here will store frozen breast milk for mother’s (up to 10 bottles)
On admission of a new patient who is breastfeeding:
- Ask TSN or TSN to allocate 2 breast shields
- The shields are engraved with a number
- Give shields with expressing information to mother
- Discuss expressing and care of the breast shield with mother

Expressed Breast Milk (EBM) is always checked by two nurses prior to used

Expressing
- Express 6 – 8 times a day
- Express no longer than 5 hours apart
- Express about 10-15 mins on each breast

Labelling Breast milk
- Express into green capped bottles only
- Use chinagraph pencil to write surname directly onto bottle
- Place UR sticker on back of label
- Fill in green EBM label provided on bottles
  - Full name
  - PICU
  - Date expressing
  - Time of first expression

The same bottle can be used for multiple expressions provided it is on the same day.

Storage of breast milk
- Due to frequent access of the PICU fridge EBM can be kept for only 48hrs
- EBM can be kept for 48 - 72hrs in own fridge at home
- Mothers should be responsible for ensuring milk is delivered to formula room before it expires. if out of hours, milk can be put into freezer until formula room can be accessed.
- Thawed milk will last for 24 hrs from the time it is removed from the freezer provided it is thawed in the fridge
- Thawed milk in hot water can be used for immediate feed only

Care of breast shield
- Care of shield info stapled inside expressing pamphlet and written info
- Mothers continue to use same number shields for whole admission
- Shields must be washed and dried after each use
  - Rinse in cold water
  - Wash in hot soapy water
  - Allow to dry
  - Place back in plastic bag provided

- Shields must be sterilised once every 24 hours
  - Rinse after use
  - Place in pedal bin next to fridge
  - Psa’s will sterilise and put into a clean labelled bag for mother to pick up from the blue box
  - Encourage mothers to sterilise each shield on alternate days so that they always have one to use
Basic help for mothers

- For decreased supply encourage mothers to spend time with their baby before expressing, think about their baby or look at photo of baby while expressing. And express 3 hrly.
- When milk “comes in” and breasts are full and sore, use warm pack on breast or shower 10 mins before to help express milk. Gently massage out lumps while expressing. Apply cold pack or face washers on breast 5 – 10 mins after expressing for comfort.

Refer to postnatal mothers unit midwife for further help: Angela Power pager no # 6659

When you discharge your patient please ask mother for shields back

- Mothers will be allocated a new shield on the ward
- Check the shields off with ward clerk
- Place in the pedal bin to be sterilised

Neonatal Screening

All newborn infants are screened for Congenital Hypothyroidism, Cystic Fibrosis and Phenylketonuria.

Special Considerations:

Timing:
  a) For all infants a sample should be taken between 48-120 hours of age.
  b) If a baby is discharged prior to 48 hours of age, then take a sample, then arrange to have a second sample collected in about 2 weeks.
  c) ELBW/premature infants should also have a second sample taken at 4 weeks.
  d) Exchange transfusions and top up transfusions will invalidate the screening test, so either collect a sample prior to transfusion or take a sample at around 2 weeks after.

Things that do not affect test results:

- Nil by mouth
- Antibiotics
- Jaundice

Things that do affect test results:

- Exchange transfusions/transfusions
- TPN
- Faecal contamination
- Using blood that has been in contact with blood tubes containing EDTA or citrate

Collect sample, air dry without the use of heat, place in a hospital envelope and send to the 10th floor screening laboratory at RCH. Record sample date in Child health record book and Medical records.
Facilities for Families

Interpreter Services
The Interpreter & NESB Services Department provides the patients and families of non-English speaking background (NESB) with interpreting services so that the same quality of service is afforded to these families as to all other patients and their families. The nurse caring for the patient has a responsibility to initiate the use of an interpreter when ever a family requires communication. Other families and staff should not be used as interpreters.

All enquires and requests for an interpreter should be directed to the interpreter service, extension 5026 or 5998.

830 am - 5.00 pm  Monday - Friday
9.30 am - 6.00 pm  Saturday
10.00 am - 7.00 pm  Sunday

Outside of the above mentioned hours all requests should go to the Switchboard. Switchboard staff will make arrangements if an interpreter is required on the phone. If an interpreter is required to attend in person, they will contact the Director of the services, who will be responsible for authorising the service and making the appropriate arrangements.

All interpreters attending the hospital must wear an identification badge. In the cases where a badge is not being worn, they should be asked to produce it or to page the Director of Interpreting to identify them. This practice is very important to control the comings and goings of outsiders, in regards to confidentiality and security.
See online site: http://www.rch.org.au/interpreter/index

Meeting room
The meeting rooms in the unit are used for discussions with the parents, and at times are used for the families of a dying child or an emergency admission.

Parent Accommodation
The hospital has some parent accommodation facilities. There are 15 rooms on the fifth floor at the Front Entry Building (FEB), and 18 rooms each at Grace Cumming house and Ronald McDonald House across the road in Gatehouse St.

Priority is given to the breast-feeding mothers whose babies are 3 months old or less and families from the country. The AUM will arrange the parent’s accommodation. During office hours the social worker may also arrange accommodation for parents. There is a charge for the hospital accommodation.

PICU has 2 double bedrooms for parents of children admitted as an emergency overnight. The AUM is responsible for allocating this accommodation once the clinical nurse has advised of the parents need for accommodation.

Also available on the unit for the PICU families are the large lounge, kitchen and laundry facility.
**Post Natal Mothers Unit (PMU)**
The postnatal mothers unit is located on the third floor at the front building and has the capacity to accommodate 4 couples. Most admissions are arranged between the referring unit and the NNU AUM. On occasions where it is not pre-arranged the bedside nurse can arrange this through the AUM and the NNU AUM.

Patients of the PMU will be mothers of babies admitted to the NNU or ICU in the first seven days of life. The mother must be ambulant without pre-existing complications. They must be independent of constant medical and nursing care and be discharged from the referring hospital. The partner or a member of the family will need to stay with the mother if she requires wheel chair transport. There is a RCH midwife employed Monday to Friday in the PNMU.

**Sibling Care**
The hospital has limited facilities for sibling care. The sibling crèche is located on the first floor. Siblings can be placed in the sibling care crèche between:

**0900-1500 Monday - Friday**

Please ask the ward clerk to arrange for the care if required
The RCH School with teachers and the Starlight Express room is also available for siblings.

**Family Resource Centre**
The Family Resource Centre is a non-clinical area of the hospital (on the 1st floor) provided for families and caregivers of inpatients and outpatients. It provides a quiet, friendly, relaxing area for families within the hospital, but away from the busy noise and stress of the hospital environment. At the Family Resource Centre parents and caregivers can prepare a snack, have a cuppa, access computer and audiovisual resources and information, or just go in and enjoy some time out.

**Visiting hours for Families**

It is preferable that there be no more than 2 visitors at any time. There are no restrictions on visiting hours, except during medical rounds, major surgical procedures (eg chest opening), admission of a trauma, or an emergency resuscitation. Please use your own discretion regarding the number of visitors, which safely can be accommodated at the bedside. Relatives and friends can visit with parent permission, and this is best done when parents are present. No information is given out to any one except parents.

Visitors and parents must ring the doorbell prior to entering ICU, in case a procedure is taking place in the room. Visitors and parents are discouraged from using the phone at the central desk to ensure patient confidentiality and to free up the phones for clinical use. The ICU direct telephone numbers are given to the parents only. Please ensure parents are given the handout “Information for Parents of Children in the Paediatric ICU” which is available at the central desk.

Parents are encouraged to take breaks for meals and sleep, to support their wellbeing. Ensure you have a contact number for the parents when they are not in the unit.
Communication

The following is a guideline to some of the more formal avenues of communication within the unit.

Communication Book
This is kept at the central desk and is used for relaying general messages and significant information to all nursing staff. It is each staff member’s responsibility to ensure that they read the book and keep up to date with activities and changes. Often changes to the technology and procedures in the unit are posted in this book.

Personal Mail
Any personal mail is posted in the alphabetical shelves outside staff tearoom. Personal messages are displayed on the corkboard in the tearoom.

Email Communication
Please provide the UM with your email address, if you would like to have updates in the unit. This is another means of communication. You can apply via the intranet for a hospital Email by going to the ITC Department and applying for an email account online.

Paging System
To call switchboard Dial 91

Paging Doctors, and other hospital staff - Check page number through computer

There are 3 methods to page personnel:
• Contact switch on 91 and ask the person to be paged
• If the person you want to be paged does not have a beeper, a voice page can be made
• Phone page dial 80 and follow the prompts
  – Dial 80 prefix, wait and when instructed dial the page number.
  – Wait until an engaged tone is heard and put down receiver.
  – Write your name and the name of person you have paged on Board (outside room 3).
  – Wait for call to be answered.
• Computer page through the Lanpage on all desktops (preferred message, can leave a text message)

Duty Hours

Full time employees doing 8-hour shifts & 10-hour nights:
07:00 – 15:30  13:30 – 22:00  21:00 – 07:30

Employees doing 12-hour shifts:
07:00 – 19:30  19:00 – 07:00
Meal Breaks

There are 3 meal breaks for a 12-hour shift. Eight hour shifts have 2 breaks, 15 minutes for coffee/tea and 30 minutes for lunch or dinner. There are 2 30-minute breaks for the 10 hour night shift. When leaving for breaks the allocated patient is briefly handed over to another nurse in the room and the patient is observed at all times. Ensure all alarms are set appropriately at all times.

Rostering

The roster is completed 8 week blocks and will be posted at the 6 week mark of the present roster; therefore all roster requests need to be emailed to the PICU roster requests email by the end of week 4 of each current roster.

The email for roster requests is picturequests@rch.org.au

Please email your roster preferences. Include fixed commitments, study commitments and job share arrangements. Roster requests also are appropriate for other needs such as sporting and lifestyle events. The roster team will endeavour to meet your fixed commitments on every roster but please understand that on occasions not every request can be granted. If we cannot meet your requests please swap your shift with a colleague within the same skill category.

If you have an issue with your newly posted roster or if a request was unable to be granted the following process should be undertaken in a professionally manner.

- Speak to or email Jackie (2011 roster co-ordinator) who have produced the roster to see if there is a possible solution. An oversight or transcription error may have occurred
- Please see the Unit Manage to assist with meeting your roster needs. Often a solution is possible
- Try a direct swap of the shift
- Speak with your duty AUM who may also see a solution in the roster

It is the expectation that all staff will participate in night duty, otherwise some carry the load for others.

Full Time 12 Hour Staff

There are three options:
1) Work one month of days followed by one month of nights
2) Work two weeks of days followed by two weeks of nights
3) Work a combination of days and nights in a fortnight

Alternate ADO’s and 8-hour shifts will be allocated according to the particularly fortnight. ADO’s must be taken they cannot be accrued.
**Full Time 8 Hour Staff**

Staff work a 10-week rotation of 7 weeks days and 3 weeks of nights. An ADO is allocated.

<table>
<thead>
<tr>
<th>If you work these hours <strong>Per Fortnight</strong></th>
<th>You must work these hours <strong>Per 3 Week</strong> night duty rotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>76 hours or 8 shifts</td>
<td>114 hours or 12 shifts</td>
</tr>
<tr>
<td>68.4 hours or 9 shifts</td>
<td>1104.5 or 11 shifts</td>
</tr>
<tr>
<td>60.8 hours or 8 shifts</td>
<td>95 hours or 10 shifts</td>
</tr>
<tr>
<td>53.2 hours or 7 shifts</td>
<td>85.8 hours or 9 shifts</td>
</tr>
<tr>
<td>45.6 hours or 6 shifts</td>
<td>76 hours or 8 shifts</td>
</tr>
<tr>
<td>38 hours or 5 shifts</td>
<td>66.5 hours or 7 shifts</td>
</tr>
<tr>
<td>30.4 hours or 4 shifts</td>
<td>47.5 hours or 5 shifts</td>
</tr>
</tbody>
</table>

**Part time Staff (both 12 Hour and 8 Hour)**

The same rotation or combination applies as the full time staff however less hours are worked.

**Calling in the Cardiac Team to PICU for Chest Opening or Arrest**

**In-hours (0800-1800 Mon-Fri)**

Notify Cardiac Surgery staff directly via the intercom at ICU desk
- Press 077
- You can then talk to Cardiac Theatre “Cardiac Arrest, ICU, Room ….”
- Press X to finish the announcement

**After hours and weekends**

1) Call switchboard by dialling **777**
2) State Cardiac Arrest in PICU room, Cardiac surgical team required
3) Switchboards will page:
   i. Cardiac Surgeon Consultant
   ii. Cardiac Surgery Fellow
   iii. Perfusionist – 1st on call
   iv. Cardiac Surgery Nurse – 1st on call
   v. ICU consultant

Switchboard will page all the above people (NB an overhead voice announcement will not take place). The cardiac call out team is expected to phone back on the red emergency phone (6555). The AUM will stay by the phone and fill in a form when each person responds to the page.

If no response from a Team Member/s, ask switch to phone them and repage. Consider paging a Cardiac Anesthetist if requiring Theatre or if ICU Consultant requests.
Medical Emergency Team (MET)

For Medical or Surgical Emergency throughout the hospital
Switchboard will announce on the overhead where the MET call is:
Stating, "MET ward_ ... room …"

A follow up announcement will be made 1 min after the first call.
The above procedure will take place regardless of time of day.

The switchboard also phones ICU directly

Some areas in the hospital have a direct buzzer system, which activates an alarm in PICU.

On the wall above the registrar computers at the central desk is a visual board which flashes and sounds an audible emergency alarm.

The areas displayed are:
- CAS A Casualty Rm A
- CAS B Casualty Rm B
- X-ray Sp Special theatre (cardiac catheter lab)
- W Th Sp West Theatre sub panel.
- P.O.H. Pre Op Hold
- Rec Recovery
- RAD Radiology
- F.E.B. Front Entry Building, ie. Day Procedure centre
- Eme Emergency

The MET team consist of the ICU registrar or consultant and ICU nurse, an Emergency department registrar or consultant and nurse, and the specialties medical registrar.

PYXIS MedStation in ICU

The Pyxis MedStation is an advanced system that automates the distribution, management and control of medications. The system includes a network of secure storage units. Each unit is controlled by its own microprocessor and functions much like a bank’s automated teller machine. Each computerised secure storage unit communicates with the Central Console in the Pharmacy Department.

By entering a password and an identification number or fingerprint at the MedStation, authorised users obtain medications from the MedStation. Additionally, at the time of access, all transaction information (including patient name, description and quantity of medications) is automatically recorded for restacking and accounting purposes.

You will be able to gain access to Pyxis when you start working in ICU. A member of the PICU Education team will facilitate your access to Pyxis.
Identification (ID)/Password Requirements:

Identification
The standard employee ID for staff is used for the identification (ID) on the MedStation.

Password
Passwords are user defined and must be maintained in strict confidence as a unique identifier (electronic signature) for each individual. If an individual allows their password security to be breached, then they will be held responsible for any transactions taking place under their ID. The fingerprint sensor instead of the password reduces the risk of a security breach.

First Login
When you sign on to the MedStation for the first time using your valid ID (employee number), use the word ‘password’ as your initial password. You will then be prompted to change your old password (‘password’) to a new personalised password. If fingerprint password (bio i.d.) is activated, you will then be asked to place your finger over the sensor and allow the machine to capture your fingerprint. These fingerprints are then reconfigured into an algorithm that the Pyxis MedStation identifies as being you. According to the manufacturer of Pyxis, your fingerprint is not stored in the machine once the algorithm has been generated. At no time can the algorithm be altered back into the form of a fingerprint.

Pyxis nursing responsibilities:

• Please return unused and unopened DDs to the Pyxis Machine, at the time it is determined that the drug will not be used.

• It is not possible to return a drug to Pyxis if the patient identity is unknown, as the drug must be logged against a specific patient.

• It isn’t acceptable to return a drug to a ‘retrieval patient’ if the identity of the original patient is unknown, as it not accurate.

• Therefore, it is SO important to return the unused/unopened drug ampoule to Pyxis as close to the removal time as possible. DO NOT LEAVE the drug unopened in the Patient’s trolley or sitting on the resus trolley.

• Please follow the instructions for returning drugs to Pyxis, either in the ‘Pyxis Quick Reference Guide’ at the machine, or on the poster on the wall by the Pyxis Machine.

• If you come across a DD ampoule of drug and you do not know the name of the patient who it was removed for, please put it in the wall DD safe, log it into the DD book and notify the AUM. An incident form then needs to be generated by yourself or the AUM.

• It is the responsibility of all Nursing (Medical and Pharmacy) staff to ensure the responsible handling of DDs in PICU.

• In addition: If a ‘discrepancy’ is ever generated during your use of the machine (i.e., the number of expected drugs does not match the actual number in the pocket), it is YOUR responsibility to follow up i.e., let the AUM know. You must then ‘document’ the reason for and the details of the discrepancy on the Pyxis Medstation with the AUM, before you leave work the same day.
• Please ask a colleague, TSN, PETS nurse, CNF/E, AUM or Pharmacist if you require assistance at any time.

We need to exercise extreme vigilance with handling DDs in PICU. The misappropriation of DD’s has legal and professional implications for an individual’s nursing registration.

Guardrails

Guardrails is a drug error reduction software system. It has been loaded onto each infusion pump (Volumetric and Syringe) within RCH. There are different drug user profiles on the pump i.e., PICU, NICU, Anaesthetics, Cardiology and Renal, etc. The pump profile should always agree with the unit in which the pump is being used eg a cardiac patient in ICU should be in ‘PICU’ profile, not ‘Cardiac/Renal’. Each profile has a customized library of drugs (dataset). Each drug has dosing limits applied to it based on the medication protocol of the particular area where the pump is being used. The Guardrails dataset has been created using the Frank Shann drug doses book, the RCH Pharmacopeia and the RCH IV Injectibles Guidelines.

Guardrails provides us with built-in safe guards at the point of care. It helps to prevent errors by incorporating dosage limits set by a doctor, nurse or pharmacist in each clinical area.

How to set up a Syringe pump with Guardrails:

Example of a Morphine infusion for a 5kg patient (ICU protocol 1mg/kg in 50 ml)

− Turn on pump
− Choose mode e.g: (PICU) and “confirm”
− Choose a letter then drug (morphine ,50kg) then “ok”
− Add mg of drug (5mg) then “ok”
− Choose volume of diluent (50ml) then “ok”
− Choose weight of patient (5kg). A default weight will appear and then change to applicable weight then “ok”.
− Confirm set-up

Continued morphine drug example: Pump functions:

− You will see “normal screen set-up” with the additional units expressed
− Push “?” and change from “set by doserate” to “set by ml/hr” (arrow will move from units to ml/hr.
− Observe the new default rate. Now change to applicable rate and corresponding applicable dose of drug (you can increase and decrease rate from the default rate)

Continued pump functions:

− Push green start button
− To change drug name or go to “ml/hr” mode, push stop.
− Push “?”; the “infusion set-up” then “ok”
− Choose “ml/hr” or another drug
− Follow steps as outlined above.
Fire and Emergency Information

- Emergency manuals are on the wall outside room 5
- WIP phone is on the wall outside room 5
- PICU Blue emergency manual is on the wall outside room 5

Please could you find these items so you know where to get information in an Emergency.

This unit, if necessary evacuates to the Recovery Area. Information about this is found in the Blue Folder. Each person in the unit at the time will be given a role. Please check what your role will be. If unsure please ask the AUM.

The Zone Warden during an Emergency is the AUM. Please follow directions from the zone warden.

Could you locate these in an emergency?
- Break glass alarm
- Fire hose
- Fire extinguisher
- WIP Phone
- Evacuation boxes
- Emergency oxygen and suction units
- Hazard box

In the blue folder is a work sheet which you should complete. It will give you some idea of what your role is, what to do and where to get information in an emergency.

Maureen Scoble (CNS) is the emergency/evacuation and code brown resource person. Maureen is very willing to help and answer questions regarding emergency procedures. It is a hospital requirement that all hospital personal must complete a yearly Emergency Procedures Quiz online ([http://www.rch.org.au/emerg_proc/index](http://www.rch.org.au/emerg_proc/index))

Must know information on hospital codes:
- AUM in charge of the shift is the ZONE WARDEN. Follow this person’s instruction if a code is called.
- Code information is kept on the wall outside Room 5.
- YOU can call a code, Dial 777 and report your code to switch (let zone warden know)
- Use the WIP phone (red) to report to the hospital control room.
- WIP phone and Break Glass Alarm are on the wall outside room 5
- The BLUE FOLDER is the PICU emergency folder with specific info about your role during various codes. You should look at it (it doesn't take long)
- Each year we have Mock Evacuations to test ourselves and our readiness. You may be asked to take part.
- Our first point of evacuation is the Theatre Recovery Room is possible.
Common Drugs Used in ICU

The following is a list of drugs that are commonly used in ICU. It is the responsibility of every nurse to become familiar with these drugs, i.e., mode of action, usual dosages, side effects and the nursing implications. Resources are readily available for information.

**Analgesic**
- Morphine
- Codeine
- Fentanyl

**Antiarrhythmics**
- Lignocaine
- Amiodarone
- Adenosine

**Anticoagulant**
- Aspirin
- Heparin

**Anticonvulsants**
- Clonazepam
- Diazepam
- Phenytoin
- Phenobarbitone
- Thiopentone (also anaesthetic)

**Antibiotics**
- Cephazolin (Kefzol)
- Gentamycin
- Penicillin
- Cefotaxime
- Vancomycin
- Acyclovir
- Metronidazole (Flagyl)
- Bactrim
- Flucloux
- Amoxil

**Antipyretics**
- Paracetamol

**Bronchodilator & Respiratory Stimulants**
- Aminophylline
- Theophylline
- Atrovent
- Ventolin

**Diuretic**
- Frusemide
- Aldactone
- Mannitol

**Immunosuppressants**
- Cyclosporin
- Azathioprine
- Methylprednisolone
- Hydrocortisone
- Tacrolimus

**Inotropes**
- Dopamine
- Dobutamine
- Adrenaline
- Nor-adrenaline
- Milrinone
- Calcium Gluconate
- Levosimendan

**Local vasoconstrictor**
- Nebulized adrenaline (eye Salbutamol drops)

**Muscle Relaxants**
- Pancuronium
- Vecuronium
- Suxamethonium

**Sedatives**
- Diazepam
- Choral Hydrate
- Midazolam

**Ulcer Prevention**
- Pantoprozole

**Vasodilators**
- Sodium nitroprusside
- Glycerin trinitrate
- Phenoxybenzamine
- Prostaglandin E₁

**Others**
- Potassium Chloride
- Magnesium Sulphate
Drug Indication, Action and Preparation

**Inotropes:**

**Dobutamine**
- Increases myocardial contractility and cardiac output
- It stimulates beta 1 receptors of the heart to increase contractility and stroke volume. Half life is 2 minutes.
- < 30 kg put 15mg/kg into a 50ml hep/saline 1u/ml (1ml/hr = 5mcg/kg/min)
- > 30 kg put 6mg/kg into 100ml bag hep/saline 1u/ml (1 ml/hr = 1mcg/kg min)
- Can go peripherally or centrally

**Dopamine**
- To increase cardiac output and improve perfusion to vital organs.
- Stimulates dopaminergic and alpha/beta adrenergic receptors of SNS
- Good for shock, poor myocardial function, and low heart rates.
- < 30 kg put 15mg/kg into a 50ml hep/dextrose 1u/ml (1ml/hr = 5mcg/kg/min)
- > 30 kg put 6mg/kg into 100ml bag hep/dextrose 1u/ml (1 ml/hr = 1mcg/kg min)
- Only give centrally

**Milrinone**
- Short term treatment of heart failure
- Produces Inotropic action and vasodilation by relaxing vascular smooth muscle.
- 1.5 mg/kg in 50 ml hep/dex 1u/ml (1ml hr = 0.5mcg/kg/min)

**Adrenaline**
- Alpha and beta -1 & 2 effects
- Good for patients with bradycardia, hypotension, severe shock or myocardial ischemic insult.
- > 3.5 kg put 0.15mg/kg in 50mls hep/dex 1u/ml (1ml hr = .05mcg/kg/min)
- < 3.5 kg put 0.3mg/kg in 50 ml hep/dex 1u/ml (1 ml/hr = 0.1mcg/kg/min)

**Nor-Adrenaline**
- Alpha and beta –1 effects
- Good for patients with profound shock.
- See adrenaline on how to make up

**Levosimendan**
- A cardiac inotrope and vasodilator used in the management of acute heart failure
- Improves myocardial contractility by increasing the sensitivity of the cardiac myofilament to calcium. Half life 70-80 hours.
- It is administered as a loading dose followed by a continuous infusion
- Loading dose – 6-12 mcg/kg over 10 mins intravenously.
- Continuous infusion – 0.1 –0.2 mcg/kg/min for 24 hours.
- Short term use is for 24 hours, on occasions it is continued for up to 48 hours.
- Can be administered peripherally or centrally.
- Dilution: Maximum concentration for infusion is 25-50 mcg/ml
- Dilute with 5% dextrose only.

**Prostaglandin (Pge)**
- Temporarily maintains patency of the ductus arteriosus.
- Relaxes smooth muscle of ductus arteriosus. Half life 5-10 minutes.
Dilators (Place on different line to inotropes):

SNP (Sodium Nitroprusside)
- Used in a hypertensive crisis and for the short-term therapy of cardiac failure.
- Relaxation of vascular smooth muscle and consequent dilatation of peripheral arteries and veins. Has a Half-life of 2 minutes.
- Can be administered peripherally or centrally.
- Use light protective tubing and cover syringe
- Put 3mg/kg into 50 mls hep-dex 1u/ml (1ml hr = 1mcg/kg/min)
- > 30kg add 3mg/kg to 100ml bag of hep/dex 1u/ml (1ml hr = 0.5 mcg/kg/min)

GTN (Glyceryl Trinitrate)
- A Nitrovasodilator used in the management of angina, heart failure and myocardial infarction
- Relaxes vascular smooth muscle and reduces cardiac oxygen demand by decreasing preload and afterload. Half-life 1-4 minutes.
- Put 3mg/kg into 50 mls hep/dex 1u/ml (1ml hr = 1 mcg/kg/min)
- > 30kg (Same as SNP)
- Use NON PVC tubing

Sedation:
Midazolam
- < 50kg put 1mg/kg into 50 mls hep/dex 1u/ml (1ml hr = 1mcg/kg/min)
- > 50kg put 50mg in 50mls labelled Midazolam 1mg/ml

Morphine (Icu Strength)
- < 50kg put 1mg/kg into 50 mls hep/dex 1u/ml (1ml hr = 20mcg/kg/hr)
- > 50kg put 50mg morphine in 50 mls hep/dex 1u/ml
- Ward strength and PCA is 0.5mg/kg/50ml

Fentanyl
- < 25kg put 100mcg/kg into 50ml hep/dex 1u/ml
- > 25kg put 50mcg/kg (NEAT)

Other Infusions:
Fruromide
- Diuretic therapy
- < 20kg put 25mg/kg in 50ml 0.9% saline (1ml hr = 0.5mg/kg/hr)

Heparin
- 500 units/kg in 50 ml 0.9% (1ml hr = 10u/kg/hr)
Tips of the day when commencing a shift

Identify the appropriate resource person on the shift, so that you know who to access when the need arises.

The resource person in the room
- Experienced ICU nurse (if you are not sure, ask the AUM in charge).
- Delegated ICU registrar for that room

The resource person outside the room
- Associate Unit Manager.
- Clinical nurse Facilitator
- Nurse Educator
- Team support nurse/ PETS
- Unit manager (0800 hour-1600 hour), Monday to Friday
- Technologists
- Ward Clerks
- PSA

- Always inform the AUM in charge of the shift if there is any adverse change of condition in your patient, so that they can channel appropriate resources to assist you.

- Always check Inotropic drugs, KCL infusion and any unfamiliar drugs with an experienced PICU nurse if you are not PICU trained, or unfamiliar with RCH ICU method.

What to check when taking over a patient

- Receive the handover

- Introduce self to parents and child

- Do a full physical assessment of child and record findings on observation chart. Include skin and oral hygiene in initial checks

- Monitoring System
  - Ensure that the monitor alarm limits are set appropriate to the given age and condition of the child and that the audible alarm switch is on and is actually audible. Turn it up if not.
  - The ECG is printed and mounted for analysis

- Transducer
  - Calibrate and zero all transducers and ensure they are at the correct level. Check that there are no loose connections.
  - The transduced waveforms are checked, including the end-tidal CO2
  - For direct monitoring lines (LA, PA, and RA for patients with mixed circulations) the .22 micron filter is present and inserted between the syringe and transducer.
• **Maintenance fluids**
  - < 10kg use 10% dextrose + ½ saline (12 ml 20% saline) + 10mmols KCL/500ml
  - > 10kg use 5% dextrose + ½ saline + 20mmols KCL/L (Standard 1 litre bag pre-made)
  - Head injury patients receive normal saline 1 litre bag + 40mmols KCL added

• **Infusion line**
  - Ensure all fluids and drug infusions that are ordered by the Medical staff are being administered, and correspond to the medical order sheet. (Green sheet) Eg. Correct name, additives, dosage, rate, date and time.
  - Check that all infusion pumps (Volumetric and Syringe) are in Guardrails (see below for more information re. Guardrails). Check that the Guardrails on the pump corresponds with the infusion bag or syringe, which then matches the daily medical order on the Treatment sheet. Use a calculator and check the ordered dose is correct (ie a safe range according drug book) and that the amount been delivered is correct.
  - Drug infusion changed every 24 hours (except for some patients who are unstable on inotrops).
  - Check that the syringe is correctly positioned in the pump, and the line is hooked back into its holder on the syringe pumps
  - All three way taps are turned on (or off if the drug is discontinued), follow the line down to patient and ensure it has been labelled correctly.
  - Ensure that the infusions are on the appropriate lines. Eg If the patient has a double lumen CVAD , the distal lumen (brown colored- larger lumen size) is used for maintenance fluid and filling; and the other lumen is used for drugs infusion. It is important to ask the resource person if you are not sure which line to infuse a specific drug, as sudden flushing of certain drugs could have serious consequences.
  - For patients with mixed circulations check that the .22 micron filter is present and inserted proximal to the patient on all infusions, except for the volume line containing blood products (excluding albumin), the lipid line, and some drug lines eg Propofol, cyclosporine, Prostin, Amphitorcin, Octroetide cannot go through the filter.
  - Follow the line from the syringe to the patient to ensure compatibility of drugs running and to know what is running where. Check drugs interaction.
  - Check the IV site for phlebitis, pressure area, leakage and extravasation. Make sure that the strapping is secure. The cannula site should be clear of tape for observation.
  - Check CVC well secured and dressing intact
  - Check the IA site for discolouration, leakage or bleeding, make sure that the IA is well strapped. Make sure that there is a red tag on the short vigo closest to the patient.
  - Check the limb which has the IA line for warmth, colour, perfusion and present or absence of pulse. Please read the IA line policy for strapping and sampling blood.

• **Drug Chart - while the member of staff who handed over to you is still present check the drug chart to:**
  - See that all drugs have been double checked and signed for.
  - Note what drugs your patient is on and when they are due.
  - When giving drugs you are unfamiliar with, please check the dosage against the ICU Drug Dose book to ensure that the correct dosage has been prescribed.
  - Drug books on administration and interaction are available in each room on the Intranet.
**Ventilation**
- Ensure the ventilator settings correspond to those written on the respiratory sheet. If setting doesn’t match the order, do not change them, but inform the AUM or Registrar in the room.
- Ensure ventilator circuit is secure, positioned well and is patent
- Check humidifier water level and circuit.
- Listen to hear if the patient has a leak around the ETT, or detected by examining the ventilator Flow waveform
- If on the AVEA ventilator check that the ADVANCED SETTINGS are on and set appropriately
- If on the VIP Bird with the paediatric flow sensor, check that flow sensor 5L volume is compensated for on the machine. Do this by checking the Flow waveform and calculating the patients expected Tidal Volumes and comparing to machine TV
- If the patient has a cuffed ETT, check the cuff for a leak once per shift with an experienced PICU nurse. The patient must be free of oral secretions prior to the checking of cuff, so suction the oro-pharynx first. If unsure seek help from the resource person.
- Check the nostril for pressure area from ETT or naso gastric tube.
- Use bag or pin and elastic band to secure and position the tube. Ensure that the ETT is pointing 45o downward and out of the nostril, and is not kinked. If light weight tubing has been used, please make sure that the bag is not sitting on the light weight tubing. (See Care of the ventilated child). For older children with the adult circuits, use tubing holders to position the tube if is needed.
- Check the date the ventilator tubing is due for it’s 7th day replacement

**Oxygen**
- Ensure that there is an oxygen flow.
- Flow meter should be turned off in between use.

**Suction Equipment**
- Check that it is working (maximum suction pressure: 200 mmHg) and left on. Check that the tubing can fit onto Yankeur sucker.
- Do not leave suction catheter attached to the suction tubing when not in use. It is very hard to remove in an emergency.
- Correct size of Yankeur sucker and suction catheter (ETT and oral). Check that the plastic cups for suction are empty and labelled for oral and ETT use. The suction tray and catheters and water bottle are changed once daily. Check date and time.

**Hand ventilation**
- Ensure that a face mask of appropriate size is at the patient’s bedside. If intubated, on bench or on top of ventilator, if extubated, attached to bagging circuit.
- Correct size of bag for hand ventilation. (Children under 12 months - 500 mls bag, 12months – 8 years - 1 litre bag, over 8 year - 2 litre)
- Oxygen should be turned off in between suction

**Ensure that your patient is wearing two name bands.**

**Check that the bed is elevated 15 degrees, or 30 degrees if neuro patient**
Treasure Hunt

**Items (Tick When Found)**

- Chest opening trolley
- Emergency bells
- Procedure trolley
- Defibrillator
- Anaesthetic trolley
- Volumetric pumps
- IV solution trolley
- Syringe pumps
- Chest drain trolley
- Oxygen analysers
- Emergency trach set
- ECG cables & leads
- Procedure manuals
- Temp probes skin & core
- Stationery drawer
- LP bottles/needles
- Universal containers
- IV giving sets
- Urinary burettes
- Blood filters
- Urinary bags
- Sterile gowns
- Dextrostix
- Disposable face masks
- 3 way taps
- IV fluids
- Fire extinguishers
- Melonin
- Blankets/booties/hats
- Oxygen masks
- Resuscitation boards
- Nasal prongs
- Arm splints
- Disposable dressing packs
- Urine testing equip
- Chest drains
- Viggo ext sets long/short
- Spare suction bottles
- Camera
- Extra equipment
- Cooling blanket
- Laundry supplies
- Incontinent pads - bluies
- Skin protection (jelco’s)
- Neuro examination tray
- General information folder
- Eye protection glasses
- Plastic aprons
- Spare syringes
- Sterile swab sticks
- Blood culture bottles
- Helipad
- Foley’s catheters
- Mouth care tray
- Milk formulas
- Sterile gloves
- Spare oxygen cylinders
- Knitted babies articles
- Resuscitation drugs
- Oxygen cylinder
- Feeding tubes
- Propaq
- IV fluids
- Conc albumin
- Oxygen flow meter
- Oxygen flow tubing
- Oxygen humidifiers
- Misty nebulizers
- Arm restrainers
- Fire escape corridor
- Spare suction trays