**Paediatric Critical Care Nursing Passport**

*Critical Care Skills for Children’s Nurses working in*

*Level 1 and Level 2 Paediatric Critical Care Units*

**Name: …………………………………………………………………………………….. NMC Number: ............................…………………….…**

**Professional Qualification: …………...........……......................................................................................................**

**Workplace: ………………….................……..............................................................................................................**

**Key Mentor/Supervisor: ……..…………………………….….………………… NMC Number: …..........................……………...……….**



**TRAINING & COMPLIANCE**

|  |  |  |
| --- | --- | --- |
| **Course/Study Day**  | **Date Complete & Name of Institute** | **Next Update Due** |
| Basic Life Support |  |  |
| PILS |  |  |
| APLS/EPALS |  |  |
| PEWS |  |  |
| Escalation |  |  |
| Health London Partnership Paediatric Critical Care in Practice online training |  |  |
| Care of the Child Requiring Critical Care, Level 1 & 2 Study Day |  |  |
| Care of the Child Requiring Critical Care, Level 1 & 2 OCSE |  |  |

**Introduction**

The Children’s Critical Care Passport is a list of clinical skills considered essential for nurses working in Level 1 and Level 2 critical care units where critically ill or injured children are cared for, who meet the criteria of the Paediatric Critical Care Healthcare Resource Groups (HRGs) (Information Standards Board 2007) see Appendix 1 for a list of all 7 HRG categories.

Skill acquisition should be supported by the appropriate education, training and self-directed learning, so that individuals have the essential physiological knowledge to underpin the necessary skills.

This document has been adapted from the RCPCH ‘High Dependency Care for Children – Time to Move on’ appendices to meet the local needs of the North West London region in association with the Paediatric Intensive Care Society (PICS) Quality Standards for the Care of Critically Ill Children (2015).

All Level 1 skills are required to work within a Level 2 area.

All nurses registered on part one (sub part children) of the Nursing and Midwifery Council will hold basic skills in caring for ill children. This document is a record of skills which are additional to the basic nursing skill set, which are necessary to care for a critical ill or injured child meeting basic and intermediate critical care (level 1 and 2).

This RCPCH skills passport was initially been written under the umbrella of the Paediatric Intensive Care Society (PICS), the Royal College of Nursing and the Royal College of Paediatrics and Child Health (RCPCH) and has been developed by an experienced working party.

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| **Defining Paediatric Critical Care – HRG Coding** |
| **New Terminology** | **Previous Terminology** | **HRG and Definitions** | **Description** |
| Basic Critical Care - Level 1 Paediatric Critical Care Unit (PCCU) | Standard High Dependency Unit (HDU) - Ward level. | Children requiring monitoring or interventions defined by PCC HRG 07Z (HRG definition basic CC) | Used to describe activities which must be delivered in any hospital which admits acutely ill children and will focus on the common acute presentations and clinical scenarios that require an enhanced level of observation, monitoring and intervention than can be safely delivered on a normal ward. |
| Intermediate Critical Care - Level 2 Paediatric Critical Care Unit (PCCU) in a DGH setting (LTV) | No standard current terminology in use. Advanced HDU or Level 2 HDU used in some instances | Children requiring monitoring or interventions defined by PCC HRG 06Z (HRG definition intermediate CC) | Used to describe more complex activities and interventions which are undertaken less frequently, for children with a higher level of critical illness, and demand the supervision by competent medical and nursing staff who have undergone additional training.Where this care is not co-located with a Level 3 PCCU these services will be restricted to conditions which can be managed without the onsite, or immediate support of an onsite Level 3 PCCU. In practice this will relate to LTV at present but other conditions might be suitable in the future. |
| Intermediate Critical Care - Level 2 Paediatric Critical Care Unit (PCCU) in a Tertiary setting | No standard current terminology in use. Advanced HDU or Level 2 HDU used in some instances | Children requiring monitoring or interventions defined by PCC HRG 06Z (HRG definition intermediate CC) | Used to describe more complex activities and interventions which are undertaken less frequently, for children with a higher level of critical illness, and demand the supervision by competent medical and nursing staff who have undergone additional training.The expectation is that this will only be delivered within a Level 3 PCCU (same site). |
| Advanced Critical Care - Level 3 Paediatric Critical Care Unit (PCCU) | Paediatric Intensive Care Unit (PICU) | Children requiring ventilatory support or support of two or more organs systems. Children at Level 3 are usually intubated to assist breathing. PCC HRG 05Z/04ZChildren undergoing complex monitoring and/or therapeutic procedures, including advanced respiratory support. HRG 03Z/02Z (HRG definition Advanced CC) | Used to describe a service for patients with potentially recoverable, life-threatening conditions who can benefit from more detailed observation, treatment and technological support than is available in general wards and departments or high dependency facilities. It is also recognised that end of life management, including potential organ donation and skills in family bereavement care are integral to caring for critically ill children. |

**Defining Paediatric Critical Care Interventions**

**Paediatric Critical Care (PCC) -** Paediatric critical care describes the care of children who need an enhanced level of observation, monitoring or intervention which cannot safely be delivered in general wards. ‘*Time to Move On’* (RCPCH, 2014) defines three levels of paediatric critical care, based on the Paediatric Critical Care Minimum Dataset (PCCMDS) and Paediatric Critical Care Healthcare Resource Groups.

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| Paediatric Critical Care Level 1  | Paediatric Critical Care Level 2 |
| Airway: * Upper airway obstruction requiring nebulised adrenaline

Breathing: • Apnoea – recurrent • Oxygen therapy plus continuous pulse oximetry plus ECG monitoring • Nasal high flow therapy Circulation: • Arrhythmia requiring IV anti-arrhythmic therapy Diagnosis: • Severe asthma (IV bronchodilator / continuous nebulisers) • Diabetic ketoacidosis requiring continuous insulin infusion Other: • Reduced level of consciousness (GCS 12 or below) and hourly (or more frequent) GCS monitoring  | **Airway:** • Nasopharyngeal airway • Care of tracheostomy (first seven days of episode only) **Breathing:** • Non-invasive ventilation (including CPAP and BiPAP) • Long-term ventilation via a tracheostomy **Circulation:** • >80 ml/kg volume boluses • Vasoactive infusion (including inotropes and prostaglandin) • Temporary external pacing • Cardiopulmonary resuscitation in the last 24 hours **Diagnosis:** • Acute renal failure requiring dialysis or haemofiltration • Status epilepticus requiring treatment with continuous IV infusion **Monitoring:** • Invasive arterial monitoring • Central venous pressure monitoring • Intracranial monitoring / external ventricular drain **Other:** • Exchange transfusion • Intravenous thrombolysis • Extracorporeal liver support (MARS) • Plasmafiltration • Epidural infusion  |

**Recommended Standard for Nursing Staff**

Nursing and non-registered health care staffing levels should be appropriate for the number, dependency and case-mix of children normally cared for by the service and the lay-out of the unit. An escalation policy should show how staffing levels will respond to fluctuations in the number and dependency of patients. If staffing levels are achieved through flexible use of staff (rather than rostering), achievement of expected staffing levels should have been audited. Before starting work in the service, local induction and a review of competence for their expected role should be completed for all agency, bank and locum staff.

**Staffing Levels: Bedside Care for Level 1 Patients:**

The following minimum nurse staffing levels should be achieved:

a. At least one nurse with up to date advanced paediatric resuscitation and life support competences on each shift

b. At least two registered children’s nurses on duty at all times in each area

c. At least one nurse per shift with appropriate level competences in paediatric critical care

d. One nurse with appropriate level competences in paediatric critical care for every two children needing Level 1 critical care

**Staffing Levels: Bedside Care for Level 2 Patients:**

The following minimum nurse staffing levels should be achieved:

a. At least one nurse with up to date advanced paediatric resuscitation and life support competences on each shift

b. At least two registered children’s nurses on duty at all times in each area

c. At least one nurse per shift with appropriate level competences in paediatric critical care

d. One nurse with appropriate level competences in paediatric critical care for every two children needing Level 1 or Level 2 critical care

e. At least one nurse per shift with competences in care of children with tracheostomies and those requiring non-invasive or tracheostomy ventilation

**Children’s Critical Care Skills Passport for Nurses**

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|  | **Level 1 Unit** | **Level 2 Unit** |
| **Essential Skills** | **Sign - Learner & Mentor** | **Date** | **Sign - Learner & Mentor** | **Date** |
| Bedside safety checks and preparation of bed space |  |  |  |
| Appropriate and correct use of monitoring equipment |  |  |
| All equipment checks appropriate for level of critical care e.g. tracheostomy, chest drain |  |  |
| Complete PEWS and Escalation procedure training |  |  |
| Able to escalate concerns using communication tool SBAR |  |  |
| Accurately assess & recognise changes in child’s condition |  |  |
| Correct completion of appropriate nursing documentation for child and clinical area |  |  |
| Resuscitation Training |
| Current Basic Life Support Training |  |  |  |
| Successful completion of resuscitation course e.g. PILS |  |  |
| Successful completion of recognised advanced resuscitation course e.g. APLS/EPALS |  |  |
| Airway & Breathing – Clinical Skill |
| Assess airway patency and position – open airway and consider airway manoeuvres  |  |  |  |
| Acknowledge implications of:  |
| Noise/grunting |  |  |  |
| Vocalising |  |  |
| Respiratory rate |  |  |
| Airway & Breathing – Assessment & Management |
| Effort of breathing |  |  |  |
| Efficiency of breathing |  |  |
| Chest Expansion |  |  |
| Auscultation – Basic air entry & wheeze identity |  |  |
| SpO2 interpretation |  |  |
| Skin colour |  |  |
| Conscious level - AVPU |  |  |
| Size & insert oropharygeal airway |  |  |
| Suction clearance of oropharyngeal secretions  |  |  |
| Perform effective auscultation of the chest |  |  |
| Identify air entry and added sounds |  |  |
| Appropriate size facemask for ventilation  |  |  |
| Perform effective use of face mask bag ventilation (ambubag) |  |  |
| Perform effective use of Ayres T-piece for tracheostomy ventilation |  |  |  |
| Upper Airway Obstruction  |
| Recognise a partially obstructed and obstructed airway and take appropriate action |  |  |  |
| Discuss problems associated with noise and stridor and undertake severity assessment |  |  |
| Discuss need for effective positioning with minimal handling and distress avoidance |  |  |
| Discuss use of nebulised adrenaline, budesonide and steroids and identify changes in condition associated with their use  |  |  |
| Care of Child Nasopharyngeal Airway |
| Prepare Equipment |  |  |  |
| Indicate the child likely to benefit from an NP airway |  |  |
| Effective size and insert NP airway |  |  |
| Perform suction of NP airway |  |  |
| Effective position the child |  |  |
| Provide skin and nostril care |  |  |
| Recognise blocked and /or dislodged NP airway and manage appropriately |  |  |
| Suctioning |
| Effective perform oral suction |  |  |  |
| Use of appropriately sized suction catheter |  |  |
| Perform nasopharygeal aspiration (NPA) for air clearance and sampling |  |  |
| Assess secretions, type and frequency |  |  |
| Perform tracheostomy care including suction (acute care, first 7 days) |  |  |  |
| Perform tracheostomy care including suction (established > 8 days) |  |  |  |
| Correct sizing of catheter |  |  |
| Correct depth of suction |  |  |
| Assess secretions and humidification requirement |  |  |
| Recognise requirement for emergency tracheostomy tube change |  |  |
| Complete emergency and non-emergency tracheostomy tube change |  |  |
| Explain need for spare tubes and emergency equipment |  |  |
| Discuss importance of stay sutures and their use in emergency tracheostomy change < 7 days |  |  |  |
| Physiotherapy |
| Identify requirement for chest physiotherapy & support in secretion clearance |  |  |  |
| Demonstrate appropriate chest physiotherapy techniques/equipment |  |  |
| Intubation |
| Demonstrate awareness of drugs used and location of intubation drugs |  |  |  |
| Demonstrate knowledge of equipment to be used and where it is located |  |  |
| Determine successful tube placement (etCO2, chest movement, auscultation, inspection) |  |  |  |
| Determine unsuccessful tube placement (DOPES) |  |  |
| Demonstrate ETT fixation techniques |  |  |
| Pulse Oximetry |
| Demonstrate awareness of probe positioning in SpO2 monitoring |  |  |  |
| Demonstrate awareness of limitation on SpO2 monitoring |  |  |
| Discuss reasons for site rotation |  |  |
| Care of the Child requiring oxygen therapy |
| Identify appropriate delivery device in context of clinical assessment |  |  |  |
| Demonstrate correct use of face mask with reservoir |  |  |
| Demonstrate correct choice and application of facemask/tracheostomy mask |  |  |
| Identify requirement for high flow humidified oxygen therapy e.g. Optiflow/airvo |  |  |
| Demonstrate correct set up and management of high flow oxygen therapy (airvo/optiflow) |  |  |
| Care of the Child with Apnoea |
| Discuss underlying causes of apnoea and investigations required |  |  |  |
| Discuss treatment for recurrent apnoea’s |  |  |
| Care of child with non-invasive ventilation e.g. CPAP/BiPAP and child ventilated via tracheostomy |
| Demonstrate knowledge of CPAP & BiPAP ventilation support. Discuss their application and use in acute and chronic situations |  |  |  |
| Discuss differences in ventilation circuits and select appropriate circuits for child’s requirement/device |  |  |  |
| Demonstrate correct set up of circuit for facemask NIV and tracheostomy ventilation |  |  |
| Demonstrate setting up and altering mode and setting of ventilator interface |  |  |
| Discuss humidification requirements and demonstrate correct humidification delivery |  |  |
| Assess and care for skin integrity |  |  |
| Assess child’s response to ventilation with multi-disciplinary team |  |  |
| Discuss appropriate weaning/escalation of ventilation |  |  |
| Demonstrate indications for and set up of nasal CPAP/SiPAP for infants |  |  |
| Acute Asthma |
| Demonstrate knowledge of and application of severity assessment |  |  |  |
| Demonstrate knowledge of guidelines and pathways |  |  |
| Monitor observations and discuss use and side effects of intravenous Salbutamol, Aminophylline & Magnesium  |  |  |
| Blood Gases |
| Discuss & identify requirement for blood gas sampling |  |  |  |
| Demonstrate capillary/venous blood gas sampling |  |  |
| Identify normal values |  |  |
| Interpret values and refer for escalation |  |  |
| Chest Drain Care  |
| Identify & discuss requirements for chest drain insertion |  |  |  |
| Set up and care for an underwater seal drainage system  |  |  |
| Set up and care of suction on chest drain  |  |  |
| Demonstrate documentation of observations and monitoring of a child with a chest drain. Observe and manage chest drain insertion site  |  |  |
| How to identify and troubleshoot chest drain related patient deterioration and emergencies  |  |  |
| How to identify and troubleshoot chest drain unit malfunctions  |  |  |
| Identify when to use chest drain clamps  |  |  |
| Demonstrate changing the underwater seal bottle  |  |  |
| Provide safe transfer of a child with a chest drain e.g. x-ray  |  |  |
| Demonstrate correct technique for removal of chest drain and discuss post removal observations  |  |  |
| Cardiovascular  |
| Accurately assess heart rate and pulses |  |  |  |
| Accurately assess capillary refill time, perfusion, colour, blood pressure & temperature |  |  |
| Demonstrate correct blood pressure measurement (manual/electronic) |  |  |
| Demonstrate correct placement of ECG leads |  |  |
| Recognise sinus rhythm |  |  |
| Recognise an abnormal ECG rhythm and actions to take |  |  |
| Demonstrate how to record a 12 lead ECG |  |  |  |
| Recognise life threatening rhythms and calculate dosage, IV anti-arrhythmic, IV inotropic and vasopressor support and prostaglandin |  |  |  |
| Demonstrate knowledge & understanding of common cardiac anomalies |  |  |
| Defibrillator  |
| Locate nearest device & demonstrate operational & safety checks |  |  |  |
| Demonstrate correct positioning of pads and connect leads |  |  |
| Demonstrate how to use defibrillator in monitor only mode |  |  |
| Demonstrate awareness of shockable rhythm algorithm |  |  |
| Demonstrate awareness of cardioversion algorithm |  |  |
| Demonstrate safe delivery of DC shock |  |  |
| Temperature Monitoring |
| Identify appropriate clinical application of continuous core temperature monitoring  |  |  |  |
| Identify appropriate technique for temperature control (to include safe patient warming & cooling) |  |  |  |
| Blood Sampling/Transfusion |
| Demonstrate safe care of a peripheral line including accurate PEP scoring |  |  |  |
| Demonstrate correct blood sampling procedures for peripheral lines & central line |  |  |
| Demonstrate correct blood sampling procedures for arterial lines |  |  |  |
| Demonstrate safe administration of blood products as per trust policy and guidelines |  |  |  |
| Care of the Child with Invasive Pressure Monitoring e.g. CVP/Arterial (specialist Centres ONLY) |
| Identify clinical indication for invasive monitoring within PHDU |  |  |  |
| Demonstrate how to transduce & monitor a central venous line |  |  |
| Demonstrate safe management of an Arterial line & identify risk factors |  |  |
| Demonstrate safe removal of arterial lines |  |  |
| Demonstrate safe management of central venous lines |  |  |
| Demonstrate safe removal of central venous lines |  |  |
| Demonstrate safe Arterial, CVP blood gas sampling with correct adherence to ANTT |  |  |
| Care of the child requiring fluids & renal monitoring |
| Demonstrate knowledge of fluid and electrolyte balance e.g. importance of drain/NG losses and replacement fluids |  |  |  |
| Demonstrate safe administration of IV fluids containing potassium |  |  |
| Demonstrate accurate calculation of child’s fluid requirements |  |  |
| Demonstrate accurate & timely fluid balance calculations & documentation |  |  |
| Recognise the need for urinary catheter, collect & prepare equipment |  |  |
| Demonstrate safe insertions procedure for urethral catheterisation in females |  |  |
| Demonstrate safe insertions procedure for urethral catheterisation in males |  |  |  |
| Demonstrate urine sampling using correct ANTT |  |  |  |
| Demonstrate indications & correct procedure to flush a urinary catheter |  |  |
| Demonstrate correct procedure for removal of urethral catheter |  |  |
| Demonstrate correct procedure when performing urethral catheter care |  |  |
| Discuss indications & contraindications of urinary catheter placement in a child |  |  |
| Gastrointestinal |
| Demonstrate correct procedure for placement of a nasogastric tube |  |  |  |
| Confirm correct placement of NG/NJ tube as per trust guidelines |  |  |
| Discuss risk associated with NG & NJ tube placement |  |  |
| Demonstrate correct procedure of NG/NJ tube feeding |  |  |
| Demonstrate correct use and care of gastrostomy/jejunostomy |  |  |
| Demonstrate safe administration of TPN via central line as per Trust guideline |  |  |
| Recognise the need for and demonstrate correct technique for rectal washouts |  |  |
| Pain & Sedation  |
| Demonstrating appropriate monitoring and care required for a child receiving a continuous IV opioid infusion |  |  |  |
| Identify and discuss side effects and risks associated with continuous opioid infusion |  |  |
| Demonstrate appropriate documentation & management of a child receiving pain relief via Patient Controlled Analgesia (PCA) |  |  |
| Demonstrate appropriate use of pain tools and observation scores. |  |  |
| Recognition of child with symptoms of withdrawal from analgesia/sedation and appropriate management |  |  |
| Neurological Care (Including DKA) |
| Assess, interpret and act on AVPU score |  |  |  |
| Assess, document, interpret and act on GCS score |  |  |
| Demonstrate ability to identify and take appropriate action when conscious level alters |  |  |
| Demonstrate ability to identify and take appropriate action during seizure activity according to individual seizure plan |  |  |
| Discuss actions and side effects of common anti-convulsant medications |  |  |
| Administer buccal, PR and IV anti-convulsants as per individual seizure plan. |  |  |
| Administer continuous IV anti-convulsant or benzodiazepine in status epilepticus as per trust policy |  |  |
| Discuss side effects of continuous IV anti-convulsant or benzodiazepine infusion |  |  |
| Demonstrate knowledge of DKA protocol and its clinical indication for use |  |  |
| Demonstrate safe management of the child with Diabetic Ketoacidosis (DKA) requiring continuous IV insulin infusion  |  |  |
| Perform, record and interpret blood glucose measurements using appropriate monitoring device  |  |  |
| Demonstrate appropriate interpretation and appropriate management of the child with altered GCS/ raised ICP |  |  |
| Care of child post-Surgical Procedure |
| Demonstrate appropriate management for a child following orthopaedic/spinal surgery |  |  |  |
| Demonstrate appropriate management for a child following general surgery |  |  |
| Demonstrate appropriate management for a child following ENT surgery |  |  |
| Acknowledge indications for DVT and gastric ulcer |  |  |
| Demonstrate appropriate wound care, including use of drains  |  |  |
| Demonstrate an awareness of post op recovery considerations e.g. early mobilisation, pain management, prevention of post atelectasis |  |  |
| Care of child following Trauma  |
| Demonstrate knowledge of primary & secondary survey and appropriate treatment pathways  |  |  |  |
| Demonstrate indications for C spine immobilisation & process for ongoing management  |  |  |
| Demonstrate relevance of mechanism of injury  |  |  |
| Discuss safeguarding considerations in the context of trauma  |  |  |
| Discuss escalation pathway related to safeguarding concerns in the context of trauma  |  |  |
| Demonstrate knowledge of observations and considerations in Traumatic Brain Injury (TBI) e.g. neuro observations, positioning, agitation, SALT, rehabilitation  |  |  |
| Care of child at End of Life  |
| Demonstrate knowledge of any individual advanced care plans (ACP)  |  |  |  |
| Demonstrate knowledge of processes and legal implications of sudden unexpected death  |  |  |
| Demonstrate knowledge of considerations for organ donation  |  |  |
| Appropriate care of child and family during the bereavement process  |  |  |
| Discuss support services available  |  |  |
| Discuss importance of care of self and colleagues  |  |  |
| Specific Cardiac Care (specialist Centres ONLY) |
| Demonstrate knowledge of all safety considerations when caring for a child receiving cardiac pacing via an external control device |  |  |  |
| Demonstrate how to change the battery in a pacing box |  |  |
| Demonstrate ability to recognise and record the pacing mode and settings |  |  |
| Demonstrate knowledge and understanding of common corrective cardiac surgical procedures |  |  |
| Demonstrate appropriate knowledge and skill when managing the care of the child post cardiac surgical procedure, post PICU admission |  |  |
| Discuss the indications, actions and side effects of the drugs commonly used in cardiac patients |  |  |
| Describe the action and side effects of vasoactive drugs (Infusions) |  |  |
| Demonstrate safe administration and changing of IV vasoactive drug infusions |  |  |
| Discuss the care and monitoring of a child receiving IV vasoactive drug infusion |  |  |
| Discuss the indications for and safe administer of IV heparin and other thrombolysis medication  |  |  |
| Care of child requiring Acute Renal Replacement Therapy (specialist Centres ONLY) |
| Demonstrate indications and monitoring required for the child receiving peritoneal dialysis (PD) e.g. homechoice  |  |  |  |
| Demonstrate care and monitoring of the child requiring acute haemodialysis |  |  |
| Demonstrate care and monitoring of the child requiring continuous renal replacement therapy (RRT) e.g. hemofiltration |  |  |
| Demonstrate care and monitoring of the child requiring plasma exchange |  |  |
| Specialist Neurological Care (specialist Centres ONLY) |
| Discuss the indications for External Ventricular Drainage (EVD) |  |  |  |
| Demonstrate correct positioning and monitoring required when using EVD.  |  |  |
| Demonstrate appropriate documentation of clinical observations and interventions when caring for the child with an EVD |  |  |
| Set up and care for a child requiring intra Cranial Pressure (ICP) monitoring showing appropriate documentation of observations |  |  |
| Care of the Child with an Epidural (specialist Centres ONLY) |
| Demonstrate appropriate documentation & management of a child receiving pain relief via an epidural infusion |  |  |  |
| Identify and discuss side effects and risks associated with epidural infusions |  |  |  |
| Chest Drain Care  |
| Set up and care for an underwater seal drainage system |  |  |  |
| Set up and care of suction on chest drain |  |  |
| Demonstrate documentation of observation and monitoring of a child with a chest drain |  |  |
| Observe and manage chest drain insertion site |  |  |
| How to identify and troubleshoot chest drain related patient deterioration and emergencies |  |  |
| How to identify and troubleshoot chest unit malfunctions |  |  |
| Identify when to use chest drain clamps |  |  |
| Demonstrate changing the underwater deal bottle |  |  |
| Provide safe transfer of a child with a chest drain |  |  |
| Demonstrate correct technique for removal of chest drain and discuss post removal observations  |  |  |