

# PCCM Competencies:

Number	Learning Outcome	Competence Statement	Demonstration
1.	Resuscitation & initial management of the acutely ill paediatric patient.	Resuscitates and stabilises critically ill children, performing the clinical and technical skills and procedures necessary to carry out this.	<ul style="list-style-type: none"> <li>• Adopts a structured and timely approach to the recognition, assessment and stabilisation of the acutely ill paediatric patient with disordered physiology.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages cardiopulmonary resuscitation.</li> </ul>
			<ul style="list-style-type: none"> <li>• Recognises a child requiring airway intervention.</li> </ul>
			<ul style="list-style-type: none"> <li>• Hand ventilates a child and young person with severe respiratory compromise.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs intubation safely with appropriate use of anaesthetic agents, sedatives, analgesics and muscle relaxants.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs intubation in the collapsed patient.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the unanticipated difficult airway safely until help arrives.</li> </ul>
			<ul style="list-style-type: none"> <li>• Applies the principles of temporary pacing and the different modes used.</li> </ul>
			<ul style="list-style-type: none"> <li>• Recognises and manages the various cardiac rhythms.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the patient post-resuscitation.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
1. cont'd			<ul style="list-style-type: none"> <li>• <b>Triaged and prioritises patients appropriately, including timely admission to PICU.</b></li> </ul>
			<ul style="list-style-type: none"> <li>• <b>Assesses and provides initial management of the trauma patient.</b></li> </ul>
			<ul style="list-style-type: none"> <li>• <b>Priorities and manages time critical injuries.</b></li> </ul>
			<ul style="list-style-type: none"> <li>• <b>Assesses and provides initial management of the patient with burns.</b></li> </ul>
			<ul style="list-style-type: none"> <li>• <b>Describes the management of mass casualties.</b></li> </ul>
			<ul style="list-style-type: none"> <li>• <b>NON ANAESTHESIA trainees- complete a minimum 6 month post in Anaesthesiology.</b></li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
2.	Diagnosis: Assessment, investigation, monitoring and data interpretation.	Assessment, investigation, monitoring and data interpretation.	<ul style="list-style-type: none"> <li>Obtains a history and performs an accurate clinical examination.</li> </ul>
			<ul style="list-style-type: none"> <li>Undertakes timely and appropriate investigations.</li> </ul>
			<ul style="list-style-type: none"> <li>Performs electrocardiography (ECG) and interprets the results.</li> </ul>
			<ul style="list-style-type: none"> <li>Interprets +/- performs focused critical care transthoracic echocardiography.</li> </ul>
			<ul style="list-style-type: none"> <li>Interprets general critical care ultrasonography (thoracic, abdominal, cranial, vascular) and liaises with radiology colleagues.</li> </ul>
			<ul style="list-style-type: none"> <li>Obtains appropriate microbiological samples and interprets results.</li> </ul>
			<ul style="list-style-type: none"> <li>Obtains and interprets the results from blood gas samples.</li> </ul>
			<ul style="list-style-type: none"> <li>Interprets chest x-rays.</li> </ul>
			<ul style="list-style-type: none"> <li>Liaises with radiologists to organise and interpret clinical imaging.</li> </ul>
			<ul style="list-style-type: none"> <li>Monitors and responds to trends in physiological variables.</li> </ul>
			<ul style="list-style-type: none"> <li>Integrates clinical findings with laboratory investigations to form a differential diagnosis.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
3.	Disease Management	Manages critically ill children with the full range of paediatric conditions	<i>PICU management of:</i>
		including pre and post-operative patients (e.g. neonatal surgery, cardiothoracic surgery, neurosurgery and spinal surgery),	<ul style="list-style-type: none"> <li>All aspects of upper airway obstruction</li> </ul>
		critically ill cardiac patients	<ul style="list-style-type: none"> <li>Upper and lower respiratory tract infections (RTIs)</li> </ul>
		and both accidental and non-accidental trauma patients with particular consideration of safeguarding issues.	<ul style="list-style-type: none"> <li>Respiratory failure including asthma and acute chest crisis in patients with sickle cell disease.</li> </ul>
			<ul style="list-style-type: none"> <li>Cardiovascular collapse and the benefits of applying ventilation in these scenarios.</li> </ul>
			<ul style="list-style-type: none"> <li>Hypotension and heart failure.</li> </ul>
			<ul style="list-style-type: none"> <li>Shock with appropriate use of vasoactive medications.</li> </ul>
			<ul style="list-style-type: none"> <li>Anaphylaxis.</li> </ul>
			<ul style="list-style-type: none"> <li>Multi-organ dysfunction, with knowledge of the risks and outcomes.</li> </ul>
			<ul style="list-style-type: none"> <li>Systemic inflammatory response.</li> </ul>
			<ul style="list-style-type: none"> <li>Acute infections, including meningitis.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
3. cont'd			<ul style="list-style-type: none"> <li>• Acute respiratory distress syndrome.</li> </ul>
			<ul style="list-style-type: none"> <li>• Occult infection.</li> </ul>
			<ul style="list-style-type: none"> <li>• Hypoglycaemia, including quantifying the glucose requirement.</li> </ul>
			<ul style="list-style-type: none"> <li>• Hyperglycaemia, safety and effectively.</li> </ul>
			<ul style="list-style-type: none"> <li>• Hyperthermia and rhabdomyolysis.</li> </ul>
			<ul style="list-style-type: none"> <li>• Hyperkalaemia , including the underlying causes and risks.</li> </ul>
			<ul style="list-style-type: none"> <li>• Raised ammonia, recognising an inborn error of metabolism.</li> </ul>
			<ul style="list-style-type: none"> <li>• Metabolic disease.</li> </ul>
			<ul style="list-style-type: none"> <li>• Liver failure, recognising the indications for liver transplantation.</li> </ul>
			<ul style="list-style-type: none"> <li>• An extremely high white cell count and tumour lysis syndrome.</li> </ul>
			<ul style="list-style-type: none"> <li>• Ontological conditions presenting to the PCCU.</li> </ul>
			<ul style="list-style-type: none"> <li>• Immunodeficiency states.</li> </ul>
			<ul style="list-style-type: none"> <li>• Haematological disorders e.g. sickle cell.</li> </ul>
			<ul style="list-style-type: none"> <li>• Obesity in the PCCU.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
3. cont'd			<ul style="list-style-type: none"> <li>• Neuromuscular problems, including diagnosis, treatment and support.</li> </ul>
			<ul style="list-style-type: none"> <li>• Peripheral weakness after critical illness.</li> </ul>
			<ul style="list-style-type: none"> <li>• Obesity and its impact on the critically ill patient.</li> </ul>
			<ul style="list-style-type: none"> <li>• Reduced level of consciousness.</li> </ul>
			<ul style="list-style-type: none"> <li>• Acute neurological emergencies, including status epileptics.</li> </ul>
			<ul style="list-style-type: none"> <li>• Diabetic ketoacidosis(DKA) and associated cerebral oedema.</li> </ul>
			<ul style="list-style-type: none"> <li>• Acute hydrocephalus.</li> </ul>
			<ul style="list-style-type: none"> <li>• Endocrine abnormalities.</li> </ul>
			<ul style="list-style-type: none"> <li>• Hepato-renal syndrome.</li> </ul>
			<ul style="list-style-type: none"> <li>• Major post-operative conditions (e.g. spinal, airway, neonatal and cardiac).</li> </ul>
			<ul style="list-style-type: none"> <li>• Major post-operative risks.</li> </ul>
			<ul style="list-style-type: none"> <li>• Neurosurgical patient.</li> </ul>
			<ul style="list-style-type: none"> <li>• Necrotising enterocolitis (NEC), tracheoesophageal fistula (TOF) and congenital diaphragmatic hernia (CDH).</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
3. cont'd			<ul style="list-style-type: none"> <li>• Serious occult injury in any child with suggestive history.</li> </ul>
			<ul style="list-style-type: none"> <li>• A child with traumatic and non-traumatic head injury.</li> </ul>
			<ul style="list-style-type: none"> <li>• A child with poly trauma, including primary and secondary surveys.</li> </ul>
			<ul style="list-style-type: none"> <li>• Most commonly injected or ingested poisons.</li> </ul>
			<ul style="list-style-type: none"> <li>• Pressure wounds.</li> </ul>
			<ul style="list-style-type: none"> <li>• The “blue baby”. Including advising on the need for prostin.</li> </ul>
			<ul style="list-style-type: none"> <li>• Congenital heart disease.</li> </ul>
			<ul style="list-style-type: none"> <li>• Post cardiac bypass/hypothermia/circulatory arrest.</li> </ul>
			<ul style="list-style-type: none"> <li>• Myocarditis.</li> </ul>
			<ul style="list-style-type: none"> <li>• Suspected poisoning and investigation of same.</li> </ul>
			<ul style="list-style-type: none"> <li>• Non traumatic physical injuries and investigation of same.</li> </ul>
			<ul style="list-style-type: none"> <li>• All aspects of upper airway obstruction.</li> </ul>
			<ul style="list-style-type: none"> <li>• A child and young person with fluid and inotrope resistant shock.</li> </ul>
			<ul style="list-style-type: none"> <li>• Institution of cervical spine immobilisation in any at risk child.</li> </ul>



Number	Learning Outcome	Competence Statement	Demonstration
3. cont'd			<ul style="list-style-type: none"> <li>• Acute burn injury and complications.</li> </ul>
			<ul style="list-style-type: none"> <li>• Acute drowning and complications.</li> </ul>
			<ul style="list-style-type: none"> <li>• Hanging injury and resultant cerebral oedema.</li> </ul>
			<ul style="list-style-type: none"> <li>• Acute spinal injury.</li> </ul>
			<ul style="list-style-type: none"> <li>• Appropriately identifies and manages diabetes insipidus.</li> </ul>
			<ul style="list-style-type: none"> <li>• Longer term complications of severe trauma.</li> </ul>
			<ul style="list-style-type: none"> <li>• Acute and chronic pulmonary hypertension.</li> </ul>
			<ul style="list-style-type: none"> <li>• Applies knowledge of the coagulation profile and manages appropriately.</li> </ul>
			<ul style="list-style-type: none"> <li>• Coordinates a multidisciplinary team to investigate a safe guarding issue.</li> </ul>
			<ul style="list-style-type: none"> <li>• Acute kidney injury and conditions associated with same and the application and management of haemofiltration/ dialysis in the PCCU.</li> </ul>
			<ul style="list-style-type: none"> <li>• Applies the principles of cardiac transplantation, understanding the outcomes.</li> </ul>
			<ul style="list-style-type: none"> <li>• Applies knowledge of the principles and application of extracorporeal life support (ECLS).</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
4.	Therapeutic interventions/organ system support in single or multi-organ failure	Effectively prescribes and adjusts medication, blood products and organ support in altered metabolism, organ failures and disease progression.	<ul style="list-style-type: none"> <li>• Prescribes drugs and therapies safely.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages antimicrobial therapy.</li> </ul>
			<ul style="list-style-type: none"> <li>• Administers blood and blood products safely.</li> </ul>
			<ul style="list-style-type: none"> <li>• Uses fluids and vasoactive/inotropic drugs to support the circulation.</li> </ul>
			<ul style="list-style-type: none"> <li>• Describes the use of devices to support the cardiopulmonary system.</li> </ul>
			<ul style="list-style-type: none"> <li>• Initiates, manages, and weans patients from invasive and non-invasive ventilatory support.</li> </ul>
			<ul style="list-style-type: none"> <li>• Recognises and manages electrolyte, glucose and acid-base disturbances.</li> </ul>
			<ul style="list-style-type: none"> <li>• Co-ordinates and provides nutritional assessment and support.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
5.	Practical procedures	Performs high-level technical skills and procedures using appropriate medications necessary for managing critically ill children, troubleshooting appropriately.	<ul style="list-style-type: none"> <li>Proficient in the use of different anaesthetic agents, sedatives, muscle relaxants and analgesia.</li> </ul>
			<ul style="list-style-type: none"> <li>Administers oxygen using a variety of administration devices.</li> </ul>
			<ul style="list-style-type: none"> <li>Safely gives general anaesthesia to Anaesthetic Assessment of Competence (ASA) 1-2 patients with spontaneous respiration's for uncomplicated procedures in the supine position.</li> </ul>
			<ul style="list-style-type: none"> <li>Performs a rapid sequence induction for ASA1-2 patients and failed intubation.</li> </ul>
			<ul style="list-style-type: none"> <li>Monitors a child for level of anaesthesia and degree of muscle relaxation.</li> </ul>
			<ul style="list-style-type: none"> <li>Applies the principles and manages regional anaesthesia.</li> </ul>
			<ul style="list-style-type: none"> <li>Intubates with c-spine control.</li> </ul>
			<ul style="list-style-type: none"> <li>Manages the unanticipated difficult airway safely until help arrives.</li> </ul>
			<ul style="list-style-type: none"> <li>Safely employs sedation for procedures during which a child is stable and awake.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
5. cont'd			<ul style="list-style-type: none"> <li>• Non – anaesthesia trainees complete basic anaesthesiology training - a minimum 6 month post in Anaesthesiology.                             <ul style="list-style-type: none"> <li>○ For pre training scheme applicants, the PICM trainee must achieve 100 intubations. Of these 100 intubations at least 25 must be undertaken in emergency circumstances(emergency department, cardiopulmonary resuscitation, PCCU patients).</li> </ul> </li> </ul>
			<ul style="list-style-type: none"> <li>• Performs video-laryngoscopy.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs endotracheal all suction.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs BAL in the intubated patient.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs thoracocentesis via a chest drain.</li> </ul>
			<ul style="list-style-type: none"> <li>• Applies the principles of wide-bore vascular access for rapid fluid resuscitation.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs peripheral venous catheterisation.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs central venous catheterisation.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs arterial catheterisation</li> </ul>
			<ul style="list-style-type: none"> <li>• Applies the principles of cardiac monitoring.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs defibrillation and cardio version.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs cardiac pacing (transthoracic or epicardial).</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
5. cont'd			<ul style="list-style-type: none"> <li>• Describes how to perform pericardiocentesis.</li> </ul>
			<ul style="list-style-type: none"> <li>• Describes a method for measuring cardiac output and derived haemodynamic variables.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs lumbar puncture.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the administration of analgesia via an epidural catheter.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs nasogastric and nasojejunal tube placement.</li> </ul>
			<ul style="list-style-type: none"> <li>• Describes how to perform abdominal paracentesis.</li> </ul>
			<ul style="list-style-type: none"> <li>• Describes and or performs Sengstaken tube (or equivalent) placement.</li> </ul>
			<ul style="list-style-type: none"> <li>• Describes indications for, and safe conduct of gastroscopy.</li> </ul>
			<ul style="list-style-type: none"> <li>• Performs urinary catheterisation.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
6.	Peri-operative care	Manages critically ill children with the full range of paediatric conditions in the pre- and post-operative phase (e.g. neonatal surgery, cardiothoracic surgery, neurosurgery and spinal surgery).	<ul style="list-style-type: none"> <li>• Manages the pre- and post-operative care of the high risk surgical patient.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the care of the patient following cardiac surgery.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the care of the patient following craniotomy.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the care of the patient following solid organ transplantation.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the pre and post-operative care of the trauma patient.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
7.	Comfort & Recovery	Applies knowledge, understanding and skills in the management of pain, symptoms and secondary clinical problems due to disease, applying the wide range of therapeutic options available for use.	<ul style="list-style-type: none"> <li>• Identifies and attempts to minimise the physical and psychosocial consequences of critical illness for patients and family.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the assessment, prevention and treatment of pain and delirium.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages sedation and neuromuscular blockade.</li> </ul>
			<ul style="list-style-type: none"> <li>• Communicates the continuing care requirements of patients at PCCU discharge to healthcare professionals and families.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the safe and timely discharge of patients from PCCU.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
8.	End of life care	Proficient in managing children with life limiting conditions and demonstrates a holistic approach to the care of all patients.	<ul style="list-style-type: none"> <li>• Considers and uses support mechanisms for difficult end-of-life decisions in critically ill children (e.g. ethics, second opinions, mediation and the law).</li> </ul>
			<ul style="list-style-type: none"> <li>• Institutes a holistic approach to planning for children with life-limiting illness.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the different cultural and religious influences on the dying child and their family.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the process of withholding or withdrawing of ICU support in a child.</li> </ul>
			<ul style="list-style-type: none"> <li>• Assesses brain stem function, understanding the legal constraints.</li> </ul>
			<ul style="list-style-type: none"> <li>• Facilitates organ donation as a part of end-of-life care (i.e. referral to donation services) and manages donation after brain and circulatory death.</li> </ul>
			<ul style="list-style-type: none"> <li>• Supports a family during the death of their child and through bereavement.</li> </ul>
			<ul style="list-style-type: none"> <li>• Manages the gathering of pre- and post-mortem specimens for diagnosis.</li> </ul>



Number	Learning Outcome	Competence Statement	Demonstration
9.	Adult ICU	Proficient in the resuscitation, stabilisation and transportation of critically ill adult ( inter- and intra-hospital)	<ul style="list-style-type: none"> <li>Stabilises and transfers a critically ill adult within and between hospitals</li> </ul>
Number	Learning Outcome	Competence Statement	Demonstration
10.	Transport	Proficient in the resuscitation, stabilisation and transportation of critically ill children ( inter- and intra-hospital)	<ul style="list-style-type: none"> <li>Transfers a critically ill child safely within and between hospitals.</li> <li>Stabilises and appropriately transfers a child with poly trauma.</li> <li>Responds to changes in vital physiological functions during transfer.</li> <li>Stabilises all major injuries prior to transfer, troubleshoots transfer equipment failure.</li> <li>Recognises and minimises transport risks.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
12.	Patient safety and health systems management.	Proficient in the management of the Critical care team and Unit, working with this team in the management of all patients, including the complex, long-term patient.	<ul style="list-style-type: none"> <li>Engages with the multiple disciplinary team involved with clinical patient management and prioritises management goals for each patient.</li> </ul>
			<ul style="list-style-type: none"> <li>Complies with infection control measures.</li> </ul>
			<ul style="list-style-type: none"> <li>Identifies environmental hazards and promotes safety for patients and staff.</li> </ul>
			<ul style="list-style-type: none"> <li>Identifies and minimises risk of critical incidents and adverse events, including complications of critical illness.</li> </ul>
			<ul style="list-style-type: none"> <li>Critically appraises and applies guidelines, protocols and care bundles.</li> </ul>
			<ul style="list-style-type: none"> <li>Engages in and applies audit, quality improvement(QI) projects and research within the intensive care.</li> </ul>
			<ul style="list-style-type: none"> <li>Co-ordinates and leads care of the long-term/recurrent attender with multiple needs.</li> </ul>
			<ul style="list-style-type: none"> <li>Assists, troubleshoots and initialises long-term term ventilation management where appropriate.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
12. cont'd			<ul style="list-style-type: none"> <li>• Describes commonly used scoring systems for assessment of severity of illness, case mix and workload.</li> </ul>
			<ul style="list-style-type: none"> <li>• Recognises the impact of managing stressful and often complex situations, including multiple bereavements and the risk of burnout specific to paediatric critical care.</li> </ul>

Number	Learning Outcome	Competence Statement	Demonstration
13.	Professionalism	Demonstrates attributes of integrity, leadership and trust to manage complex human, legal and ethical factors relating to critical illness in children.	<ul style="list-style-type: none"> <li>Communicates effectively with patients and relatives.</li> </ul>
			<ul style="list-style-type: none"> <li>Communicates effectively with members of the health care team.</li> </ul>
			<ul style="list-style-type: none"> <li>Maintains accurate and legible records/documentation.</li> </ul>
			<ul style="list-style-type: none"> <li>Respects privacy, dignity, confidentiality and legal constraints on the use of patient data.</li> </ul>
			<ul style="list-style-type: none"> <li>Collaborates and consults; promotes team working.</li> </ul>
			<ul style="list-style-type: none"> <li>Ensures continuity of care through effective handover of clinical information.</li> </ul>
			<ul style="list-style-type: none"> <li>Supports clinical staff outside the PCCU to enable the delivery of effective care.</li> </ul>
			<ul style="list-style-type: none"> <li>Appropriately supervises, delegates to others, the delivery of patient care.</li> </ul>