



PAEDIATRIC CRITICAL CARE

National Competency Framework for Registered Nurses in Paediatric Critical Care

TRAUMA

Specialty Competencies



NATIONAL MAJOR TRAUMA NURSING GROUP (NMTNG)

IN COLOBORATION WITH PAEDIATRIC INTENSIVE CARE SOCIETY EDUCATORS

GROUP





PAEDIATRIC CRITICAL CARE TRAUMA COMPETENCIES

Foreword

The Paediatric Intensive Care Society Nurse Educators group are currently developing a National Paediatric Critical Care Competency framework. The long term aim is that the trauma competencies will be included in this framework; therefore this document is intended to be an interim speciality document whilst the framework documents are developed.

The adult Critical Care Network's specialist trauma competencies have been used as a template to formulate these competencies with permission. They include some of the topics and themes identified by Whiting and Cole (2016) in their work on developing a trauma care syllabus for adult intensive care nurses in the United Kingdom.

These competencies are intended for use by all paediatric critical care facilities that receive trauma patients whether from a Trauma Unit or Major Trauma Centre.

There are areas of Paediatric Trauma Critical Care which have deliberately not been included in these competencies as they are already covered in-depth in existing Paediatric Critical Care competency documents. E.g. Tracheostomies, pressure area care, Safeguarding and Psychological support.

There will be variance between different paediatric critical care facilities managing trauma patients and therefore each individual facility should identify those competencies that are relevant (and thus achievable) with those competencies identified as not relevant being marked 'Not Applicable' or being 'greyed out'. Each unit should also identify the required Taxonomy level that its nurses are expected to achieve for each competency. It is recognised that some of the areas highlighted are rarely seen so may need to be assessed using simulations or discussions.

Reference:

Photo on the front cover is Seb Rundle who was a Paediatric major trauma patient, used with kind permission from Seb and his family.

Whiting. D, Cole E. Developing a trauma care syllabus for intensive care nurses in the United Kingdom: A Delphi study. Intensive and Critical Care Nursing. (2016), <u>http://dx.doi.org/10.1016/j.iccn.2016.03.006</u>





Contents

Learning Contract	Page 3
Paediatric Intensive Care's Taxonomy of Learning Assessment Standard	Page 4
T1 Patient Assessment	Page 5
T2 Chest Injury	Page 5 & 6
T3 Cardiothoracic Trauma	Page 6
T4 Major Haemorrhage	Page 6 & 7
T5 Traumatic Brain Injury	Page 7 & 8
T5b Spinal Injuries	Page 8 & 9
T6 Abdominal Injury	Page 9
T7 Musculoskeletal Injuries	Page 10
T8 Burns and Smoke Inhalation	Page 10 & 11
T9 Damage Control Surgery	Page 11
T10 General Trauma Nursing Care and Management	Page 11
T11 Organisational and Managerial Concepts	Page 12
Assessment & Development Plan Records	Page 13
Initial Assessment & Development Plan	Page 14
Ongoing Assessment & Development Plan	Page 14
Additional Action Planning	Page 15
Final Competency assessment	Page 16
Annual Competency Review	Page 17
Abbreviations	Page 18
Bibliography	Page 19 -21
Acknowledgements	Page 21 & 22





Learning Contract

The following Learning Contract applies to the Individual Learner, Lead Assessor and Unit Manager and should be completed before embarking on this competency development programme. It will provide the foundations for:

- Individual commitment to learning
- Commitment to continuing supervision and support
- Provision of time and opportunities to learn

LEARNERS RESPONSIBILITIES

As a Learner, I intend to:

- Take responsibility for my own development
- Form a productive working relationship with mentors and assessors
- Listen to colleagues, mentors and assessor's advice and utilise coaching opportunities
- Use constructive criticism positively to inform my learning
- Meet with my Lead Assessor at least 3 monthly
- Adopt a number of learning strategies to assist in my development
- Put myself forward for learning opportunities as they arise
- Complete these competencies in the recommended 24 month time frame
- Use this competency development programme to inform my annual appraisal and development needs
- Report lack of supervision or support directly to unit manager at the first opportunity

Signature..... Date.....

ASSESSOR RESPONSIBILITIES

- Meet the standards of regulatory bodies (NMC 2015)
- Demonstrate on-going professional development/competence within critical care
- Promote a positive learning environment
- Support the learner to expand their knowledge and understanding
- Highlight learning opportunities
- Set realistic and achievable action plans
- Complete assessments within the recommended timeframe
- Bring to the attention of the HEI, Education Lead and/or Manager concerns related to individual nurses learning and development
- Provide feedback about the effectiveness of learning and assessment in practice

Signature..... Date.....

CRITICAL CARE LEAD NURSE/MANAGER

- Support and facilitate the learner's development and achievement of the core/essential competency requirements
- Regulate and quality assure systems for mentorship and standardisation of assessment to ensure validity and transferability of the nurses' competence





Paediatric Intensive Care's Taxonomy of Learning Assessment Standard

At all times the practitioner has a responsibility to recognise limitations in their own practice, as stated in the NMC's code of conduct, and seek appropriate support and advice.

Stage 1

This stage applies to the newly qualified practitioner or the practitioner who has no PICU experience post qualification. It may also apply to the practitioner who has not been exposed to specific procedures, technology or equipment. This stage is mainly observational with practice performed under direct supervision.

Stage 2

At this stage the practitioner can demonstrate acceptable skills in practice. Practice is supported and guided under direct or indirect supervision. The practitioner has enough knowledge, experience and exposure to recognise some priorities in patient care.

Stage 3

The practitioner can demonstrate the skills and knowledge necessary to practice without supervision. At this stage the practitioner can demonstrate some knowledge and understanding of the rationale for their practice and should be able to provide some evidence to support their practice.

Stage 4

The practitioner can demonstrate knowledge, skills and understanding to others through multi-professional discussion and nursing evaluation of care interventions. S/he is a proficient performer with experience of a variety of critical care situations. S/he can give a full evidence based rationale for nursing actions. The practitioner has the skills for effective dissemination of information to other professionals and colleagues.

Stage 5

The practitioner has an increased level of experience within the critical care setting. S/he demonstrates all the knowledge, skills and understanding of the previous stage and in addition can manage complex care situations. S/he is able to assess the type and depth of knowledge required to perform practice at determined levels, giving support and feed back to enhance learning and develop the practice of others. At this level the practitioner can reflect on, analyse, and justify their practice and that of others.





T1. Pat	ent Assessment			
You mu knowle	ist be able to demonstrate through discussion essential dge of (and its application to your practice):	Taxonomy Level Achieved	Achieved Date/Sign	Agreed Action Plan
			2	Date/Sign
1.	Rationale for a system's based approach to patient			
	assessment: e.g. <c>ABCDE</c>			
2.	Identifies the differences between Primary, Secondary and			
	Tertiary Surveys of the Child			
3.	The relevance of the Mechanism of Injury (MoI) when assessing patients			
4.	The relevance of patient diversity and demographics for			
	those who have been injured, e.g. the neonate, the infant,			
	the adolescent, obese patient, pregnant patient, the patient			
	with learning disabilities, and those with co morbidities			
5.	The relevance of family diversity and demographics for			
	those who have been injured, what adult family members			
	were involved			
6.	The concept of Missed Injuries and identify the most			
	commonly missed injuries			
7.	Awareness Injury Scoring Tools e.g. Injury Severity Score			
	(ISS) (TARN) (STAG)			
You mu	ist be able to undertake in a safe and professional manner:	1		1
8.	Able to perform a full patient assessment using a system's			
	based approach to patient assessment: e.g. <c>ABCDE</c>			
9.	Assist with Primary, Secondary and Tertiary surveys			
	demonstrating a systematic and thorough approach and			
	ensuring documentation is contemporaneous and complete			

T2. Che	st Injury (Respiratory System)			
You mu	st be able to demonstrate through discussion essential	Taxonomy	Achieved	Agreed Action
knowle	dge of (and its application to your practice):	Level Achieved	Date/Sign	Plan
				Date/Sign
1.	The anatomy and physiology of the respiratory system as related to chest trauma			
2.	Potentially life threatening thoracic injuries; how each would present and the principle concepts in their management: A) Airway obstruction			
	B) Haemothorax			
	C) Open chest wound			
	D) Flail chest			
	E) Tension pneumothorax			
3.	Awareness of Blast Lung			
4.	Facial fractures and the challenges these present when managing respiratory support			
5.	Airway management, potential for aspiration and increased risk of Ventilator Acquired Pneumonia (VAP) in trauma patients			
6.	The concepts of Acute Respiratory Distress Syndrome (ARDS), Acute Lung Injury (ALI) and Transfusion Related Acute Lung Injury (TRALI) in relation to the poly trauma patient			





T2. Chest Injury (I	lespiratory System)		
You must be able	to undertake in a safe and professional manner:		
7. Care and	management of the patient with lung contusions,		
optimisir	g lung protective strategies		
8. Care and	management of a patient with rib fractures		
including	the challenges of pain management		

T3. Care	T3. Cardiothoracic Trauma (Cardiovascular System)			
You mu	st be able to demonstrate through discussion essential	Taxonomy	Achieved	Agreed Action Plan
knowle	dge of (and its application to your practice):	Level	Date/Sign	Date/Sign
		Achieved		
1.	The anatomy and physiology of the cardiovascular system as			
	related to cardiovascular trauma			
2.	The concepts relating to hypovolaemic shock			
3.	The concepts of cardiogenic shock in relation to the trauma			
	patient			
4.	The concepts relating to septic shock			
5.	Potentially life threatening cardiac injuries; how each would			
	present and the principle concepts in their management:			
	A) Cardiac tamponade			
	B) Myocardial contusions			
	C) Aortic dissection			
You mu	st be able to undertake in a safe and professional manner:			
6.	Care and management of the patient following clamshell			
	thoracotomy/thoracostomies			
7.	Care and management of the patient following surgery for			
	vascular trauma including checking pulses and using the			
	Doppler			
8.	Care and management of the patient who is bleeding e.g.			
	compression dressings, haemostatic dressings			

T4. Maj	or Haemorrhage and Fluid Therapy			
You mu	st be able to demonstrate through discussion essential	Taxonomy Level	Achieved	Agreed Action
knowle	dge of (and its application to your practice):	Achieved	Date/Sign	Plan
				Date/Sign
1.	Physiology as related to haemorrhage, hypovolaemia and			
	fluids and electrolytes as related to trauma			
2.	Rationale for Intraosseous (IO) access and delivery of fluids			
3.	Targeted fluid therapy and rationale for avoidance of over			
	infusing trauma patients (10mls/kg boluses)			
4.	Choice of fluids for trauma patients and the use of fluid warmers			
5.	The concept of major haemorrhage and identification of			
	local trust guidelines for the activation of the Major			
	Haemorrhage Protocol			
6.	Define shock and the symptoms displayed in the child with			
	hypovolaemic shock due to haemorrhage			
7.	Rationale for the administration of blood, Fresh Frozen			
	Plasma (FFP) and clotting products to the patient who is			
	haemorrhaging			
8.	Potential complications associated with massive blood			
	transfusion			
9.	Impact of hypocalcaemia, hypothermia and acidosis on			
	patient's ability to clot			
10.	Explain how normal coagulation is maintained and identify			





T4. Major Haemorrhage and Fluid Therapy			
You must be able to demonstrate through discussion essential	Taxonomy Level	Achieved	Agreed Action
knowledge of (and its application to your practice):	Achieved	Date/Sign	Plan
			Date/Sign
strategies to prevent coagulopathies			
11. Define disseminated intravascular coagulopathy (DIC) and			
discuss the principles of management in relation to the			
polytrauma patient			
12. Awareness of Interventional Radiology (IR) for patients who			
are bleeding (Paediatric Patients will likely be transferred to			
an Adult environment to facilitate this).			
13. Use of viscoelastic monitoring to guide therapies e.g.			
Thromboelastography (TEG), Rotational			
Thromboelastometry (ROTEM)			
You must be able to undertake in a safe and professional manner:			
14. Administration of blood and blood products in accordance			
with Trust Policy and procedures utilising fluid warmers			
15. Administration of antifibrinolytic drugs in accordance with			
Trust Policy (TXA)			
16. Monitoring of coagulopathic patients (including laboratory			
and point of care testing such as temperature, Calcium			
(Ca2+) and blood pH			
17. Care and management for the patient with IO access			
(including removal)			

T5 S. Tr	aumatic Brain Injury (Neurological System)			
You mu	ist be able to demonstrate through discussion essential	Taxonomy	Achieved	Agreed Action Plan
knowle	dge of (and its application to your practice):	Level Achieved	Date/Sign	Date/Sign
1.	Awareness of the NICE Clinical guideline for head injury: assessment and early management			
2.	The anatomy and physiology of the brain as related to			
	Traumatic Brain Injury (TBI) and treatment implication. To include:			
	A) Fontanelle presence in infants			
	B) Extradural haematoma			
	C) Subdural haematoma			
	D) Traumatic subarachnoid haemorrhage			
	E) Intracerebral haematoma			
	F) Cerebral contusions			
	G) Diffuse brain injury			
	H) Diffuse axonal injury			
	I) Concussion			
	J) Basal skull fractures			
	K) Cerebral herniation			
	L) Brain stem death			
3.	The anatomy and physiology of the brain as related to			
	Primary and Secondary brain injury			
4.	The concepts relating to neurogenic shock			
5.	Monroe Kellie Hypothesis			
6.	Knowledge of Intracranial pressure the relevance of cerebral			
	perfusion pressure in raised ICP			
7.	Awareness of how Surgical interventions/ procedures can			
	affect ICP (Bone flaps, EVD's, LP, Evacuation of Haematoma,			
	elevation of Depressed skull fracture)			
8.	Rationale and evidence base for pharmacological choices for			
	the TBI patient regarding: analgesia, sedation, muscle			





T5 S. Tr	aumatic Brain Injury (Neurological System)			
You mu	st be able to demonstrate through discussion essential	Taxonomy	Achieved	Agreed Action Plan
knowle	dge of (and its application to your practice):	Level	Date/Sign	Date/Sign
		Achieved		
	relaxants, anti-epileptics and hyperosmolar solutions			
9.	Rationale for neurological assessment for: the awake			
	patient, the sedated patient, and the sedated and muscle			
	relaxed patient			
10.	Rationale for undertaking an assessment of whether the			
	child has a safe swallow prior to permitting oral drinks and			
	diet.			
You mu	st be able to undertake in a safe and professional manner:	r		
11.	Demonstrate a neurological assessment for: the awake			
	patient, the sedated patient, and the sedated and muscle			
	relaxed patient			
12.	Can recognise signs of deterioration and respond			
	appropriately to escalate care			
13.	Recognise raised ICP			
14.	Demonstrate interventions to reduce ICP and maximise CPP			
	(know how it is calculated)			
15.	Care and management of the patient with Intra Cranial			
	Pressure (ICP) monitoring and demonstrate sound rationale			
	for troubleshooting potential clinical scenarios using local			
	guidelines			
16.	Care and management of the patient with an Extra			
	Ventricular Drain (EVD) and demonstrate sound rationale for			
	troubleshooting potential clinical scenarios			
17.	Care and management of the patient requiring Cerebral			
	function analysis monitoring (CFAM) or			
	electroencephalogram (EEG) monitoring			
18.	Care and management of the patient with TBI including:			
	 A) Ventilatory management including maintenance of 			
	Carbon Dioxide (PaCO2) and Oxygen (PaO2) levels			
	C) Glucose control			
	D) Endotracheal Tube Securing (ETT)			
	E) Positioning (midline, 30° tilt)			
	F) Nursing care (pressure area management, suction, eye			
	care etc.)			
	G) Mean Arterial Pressure (MAP)/ Cerebral Perfusion			
	Pressure (CPP)			
	H) Temperature			
	I) Sodium (Na+) targets			
	J) Monitoring urine output with awareness of Cerebral Salt			
	Wasting (CSW)/ Diabetes Insipidus (DI)			

T5b. Sp	T5b. Spinal Injuries			
You must be able to demonstrate through discussion essential knowledge of (and its application to your practice):		Taxonomy Level Achieved	Achieved Date/Sign	Agreed Action Plan Date/Sign
1.	Anatomy and physiology of the paediatric spine in relation to trauma			
2.	The concepts relating to spinal shock			
3.	Discuss Spinal cord injury without radiological abnormality (SCIWORA)			
4.	Spinal and neurogenic shock and identify potential complications			
5.	The concepts involved in the American Spinal Injury			





T5b. Sp	inal Injuries			
You mu	ist be able to demonstrate through discussion essential	Taxonomy Level	Achieved	Agreed Action
knowle	dge of (and its application to your practice):	Achieved	Date/Sign	Plan Date/Sign
	Association (ASIA) score			
6.	Knowledge of the Spinal Cord Injury Database			
7.	Potential complications of spinal injury and immobility			
8.	Local spinal cord management guidelines and how to			
	access specialist spinal nurse support			
9.	Spinal centre referral process			
You mu	ist be able to undertake in a safe and professional manner:			
10.	Assisted movement (log rolling) of a patient with a			
	(suspected or actual) spinal injury following APLS and local			
	trust guidelines			
11.	Demonstrate inline immobilisation of the child's (Cervical)			
	Spine utilising Collars, Blocks, Tapes			
12.	Awareness of assessment, selection, sizing and			
	placing/fitting of neck collars (demonstrate this in practice			
	if supported by local policy)			
13.	Care and management of the patient with a collar and			
	neck/spinal immobilisation including awareness of safety			
	issues e.g. not securing this to a trolley or bed, and			
	pressure area care			
14.	Management of a patient with a (suspected or actual)			
	spinal injury regarding bowel management in accordance			
	with neurogenic bowel management guidelines			
15.	Observation for complications such as autonomic			
	dysreflexia (and take appropriate steps to avoid this)			
16.	Timely spinal clearance (as per Trust Policy) and act as			
	patient advocate in preventing delayed spinal clearance			
17.	Accurately complete documentation regarding spinal			
	clearance			

T6. Abdominal Injury				
You mu	ist be able to demonstrate through discussion essential	Taxonomy Level	Achieved	Agreed Action
knowle	knowledge of (and its application to your practice):		Date/Sign	Plan
				Date/Sign
1.	The anatomy and physiology of the abdomen as related to			
	abdominal trauma.			
2.	Potentially life threatening abdominal injuries; how each			
	would present and the principle concepts in their			
	management: ruptured/lacerated spleen,			
	ruptured/lacerated liver, ruptured/lacerated kidney,			
	diaphragmatic rupture, and 'Blast Abdomen'			
3.	The impact of blunt and penetrating force to the			
	abdominal organs			
4.	The concepts involved in Intra-abdominal hypertension and			
	abdominal compartment syndrome and the potential			
	complications			
5.	The different mechanisms for abdominal wall closure			
	following abdominal decompression			
6.	The escalation process and point of contact if			
	complications arise			
7.	Awareness of how to measure intra-abdominal pressures			
You mu	ist be able to undertake in a safe and professional manner:	1		1
8.	Care and management of the patient following abdominal			
	trauma			





T7. Musculoskeletal Injuries and Compartment Syndrome				
You must be able to demonstrate through discussion essential		Taxonomy Level	Achieved	Agreed Action
knowledge of (and its application to your practice):		Achieved	Date/Sign	Plan Date/Sign
1.	The anatomy and physiology of the musculoskeletal system as related to trauma			
2.	The impact of trauma relating to the musculoskeletal system			
3.	, he concept of rhabdomyolysis in relation to the poly			
	for complications including Acute Kidney Injury (AKI)			
4.	Different types of fractures and mechanisms for their management			
5.	The concepts involved in Compartment Syndrome			
	including the relevant patient monitoring (neurovascular observations)			
6.	The concepts involved in Fat Embolism Syndrome			
7.	Pelvic Injuries, their presentation and potential			
	complications			
You mu	st be able to undertake in a safe and professional manner:			
8.	Care and management of the patient with skin and/or skeletal traction			
9.	Care and management of the patient with external fixation			
	including pin site care and documentation			
10.	Care, management and removal of a pelvic binder			
	(application and skin care), the patient with a Plaster of			
	Paris (POP) or Splints e.g. Thomas Splints, Kendrick Splints			
11.	Care and management of the patient with fasciotomies			

T8. Burns and Smoke Inhalation			
You must be able to demonstrate through discussion essentia	al Taxonomy Level	Achieved	Agreed Action
knowledge of (and its application to your practice):	Achieved	Date/Sign	Plan Date/Sign
1. Anatomy and physiology of the skin in the context of	burns		
Anatomy and physiology of the respiratory system in context of smoke inhalation	the		
 Awareness of mechanism of injury in burns and need assess for other injuries e.g. House fire, NAI, terrorist 	to act		
 Knowledge of the different types of burn injuries e.g. scalds, chemical burns, flame burns 			
 Principles involved in Total Body Surface Area (TBSA) assessment knowledge of available assessment tools, and Browder Chart, rule of 9's (adolescent), 1% child palm, Mersey burns app 	Lund s		
Fluid management for the patient with burns and knowledge of the Parkland calculations formula			
Discuss treatment options for smoke inhalation and c monoxide poisoning and their potential complication	arbon s		
8. Systemic effects of a burn injury >20%			
 Potential complications associated with burns and th management e.g. infection, hypermetabolic response issues with thermoregulation 	eir 2,		
10. Nutritional requirements of the burns patient			





T8. Burns and Smoke Inhalation	
You must be able to undertake in a safe and professional manner:	
 Accurate assessment and calculation of % burns (and document these on relevant charts) Care and management of complex wounds caused by burns (including the management of blisters, debridement strategies and burns/plastics network referrals) 	

T9. Dan	nage Control Surgery			
You must be able to demonstrate through discussion essential knowledge of (and its application to your practice):		Taxonomy Level Achieved	Achieved Date/Sign	Agreed Action Plan Date/Sign
1.	Basic definition and rationale for Damage Control Surgery (DCS)			
2.	Basic understanding of complications of DCS i.e. the 'Lethal			
	Triad' of coagulopathy, metabolic acidosis and hypothermia			
You must be able to undertake/ discuss in a safe and professional manner:				
3.	Care and management for the patient following DCS			

T10. General Trauma Nursing Care and Management				
You must be able to demonstrate through discussion essential		Taxonomy Level	Achieved	Agreed Action
knowledge of (and its application to your practice):		Achieved	Date/Sign	Plan Date/Sign
1.	Pain management strategies such as;			
	A) Regional nerve blocks			
	B) Thoracic epidurals			
	C) PCAs			
	D) Entonox			
	E) Topical analgesia			
2.	Concepts relating to neuropathic pain			
3.	The link between inadequate pain management and Post			
	Traumatic Stress Disorder (PTSD)			
4.	Principles of trauma wound management including:			
	A) de -gloving injuries			
	B) pin sites			
	C) haematoma management			
	D) muscle/skin flaps			
5.	Nutritional assessment and challenges for the trauma			
	patient – minimising muscle wasting			
6.	Principles of the psychological impact of trauma including			
	possible near death experience, body image changes, PTSD			
	on the patient and families			
7.	Resources available for family support following trauma			
8.	Knowledge of Post Traumatic Amnesia (PTA) and how to			
	reduce the effects of amnesia and when to refer to			
	Neuropsychology			





T10. General Trauma Nursing Care and Management	
You must be able to undertake in a safe and professional manner:	
 Initiation of Paediatric Rehabilitation Pathways and prescription 	
 Systematic and appropriate pain assessment for the trauma patient e.g. using the appropriate paediatric pain scoring and accurate documentation of findings 	
 Care and management of negative pressure wound management systems 	
 Assessment of nutritional requirements (in conjunction with a dietician) ensuring timely delivery of nutritional support 	
 Recognition of Psychosocial care needs and appropriate involvement of other members of the MDT (Psychologist, Social Work, Chaplaincy) 	

T11. Organisational and Managerial Concepts				
You mu	ist be able to demonstrate through discussion essential	Taxonomy Level	Achieved	Agreed Action
knowle	dge of (and its application to your practice):	Achieved	Date/Sign	Plan
				Date/Sign
1.	Impact of land/ air transport on trauma patients (including			
	forces from acceleration/ deceleration			
2.	Concepts involved in preparing the intensive care unit to			
	receive patients involved in a Major Incident			
3.	Potential impact of environmental hazards such as			
	radioactive or chemical contamination on patient			
	management			
4.	Concepts involved in trauma rehabilitation – referral to			
	MDTs, patient support groups etc			
5.	Legal and forensic aspects to management of trauma			
	patients e.g. Police, Safeguarding, Health & Safety			
	Executive Liaison			
You mu	ist be able to undertake in a safe and professional manner:			
6.	Preparation of the trauma patient for transfer to CT Scan,			
	MRI, Angiography, and the Operating Theatre			
7.	Preparation of the trauma patient for inter-hospital			
	transfer e.g. Trauma Unit to Major Trauma Centre			
8.	Preparation of the trauma patient for repatriation			
9.	Locate the Trust Major Incident Policy and identify the role			
	of the local trust/hospital and ward/department in regard			
	to this			





Assessment & Development Plan Records

Trauma Competencies Tracker Sheet

NAME: -

The following table allows the tracking of the Trauma Competencies and should be completed by Mentors, Lead Assessors or Practice Educators (or equivalent) as the individual achieves each competency statement.

TRAUMA COMPETENCIES	Date Achieved	Mentor/Assessor Signature
T1. Patient Assessment		
T2. Chest Injury		
T3. Cardiothoracic Trauma		
T4. Major Haemorrhage and Fluid Therapy		
T5. Traumatic Brain Injury		
T5b. Spinal Injuries		
T6. Abdominal Surgery		
T7. Musculoskeletal Injuries and Compartment Syndrome		
T8. Burns and Smoke Inhalation		
T9. Damage Control Surgery		
T10. General Trauma Nursing Care and Management		
T11. Organisational and Managerial Concepts		

N.B there will be a variance between different Paediatric Critical Care facilities managing Trauma patients and therefore each individual facility should identify those competencies that are relevant - those competencies that are identified as not relevant can be 'greyed out' or not applicable noted beside them





Initial Assessment & Development Plan

Date:

This meeting between Learner and Lead Assessor should take place on commencement of these competencies. The learner will have worked within a Paediatric Critical Care Environment for 24 months before commencing these competencies.

CURRENT PAEDIATRIC CRITICAL CARE KNOWLEDGE, UNDERSTANDING AND SKILLS

COMPETENCIES TO BE ACHIEVED

SPECIFIC SUPPORTIVE STRATEGIES REQUIRED

LEARNERS Signature:

Lead Assessors / Practice Educators Signature:

NEXT AGREED MEETING DATE:





Ongoing Assessment & Development Plan

Date:

This meeting between Learner and Mentor is to identify the progress made by the nurse in achieving competence in practice against those competencies identified in the initial/previous meetings. It is here further objectives will be set. If the learner requires additional support a further action plan can be completed

REVIEW OF COMPETENCIES ACHIEVED

ON TARGET: YES / NO

IF NOT WHICH COMPETENCIES HAVE YET TO BE MET

REASONS FOR NOT ACHIEVING

SPECIFIC OBJECTIVES TO ACHIEVE COMPETENCE

KEY AREAS & ADDITIONAL COMPETENCIES TO BE ACHIEVED BEFORE NEXT MEETING

LEARNERS Signature:

Lead Assessors / Practice Educators Signature:

NEXT AGREED MEETING DATE:





Final Competency Assessment

Date:

This meeting is to identify that all the competencies have been achieved and that the nurse is considered a safe competent practitioner.

COMPETENCY STATEMENT

The nurse has been assessed against the competencies within this document and measured against the definition of competence below by paediatric critical care colleagues, mentors and assessors and is considered a competent safe practitioner within the critical care environment:

"The combination of skills, knowledge and attitudes, values and technical abilities that underpin safe and effective critical care nursing care and interventions".

As part of quality assurance, the nurse is expected to maintain a portfolio of practice as part of NMC regulations to support ongoing competence and declare any training development needs to their line manager or appropriated other.

Competency will be reviewed annually as part of staff personal development plans. Where necessary, objectives will be set to further develop any emerging competency required to work safely within the critical care environment.

MENTORS COMMENTS

LEARNERS COMMENTS

LEARNERS Signature:

Mentors Signature:

NEXT AGREED MEETING DATE:





Annual Appraisal Competency Review

This page should be utilised following completion of this competency document annually at the nurse's appraisal to document retention of competency

Date:

This record is a statement between the nurse who has completed their Trauma competencies successfully and their Appraiser. It should be used and reviewed alongside local appraisal systems annually to ensure that the nurse continues to demonstrate themselves as a safe competent paediatric trauma critical care practitioner.

OVERALL COMPETENCY MAINTAINED: YES/NO

IF NOT WHAT COMPETENCIES REQUIRE FURTHER DEVELOPMENT

SPECIFIC OBJECTIVES TO ACHIEVE COMPETENCE

FURTHER COMMENTS

LEARNERS Signature:

Appraisers Signature:





Abbreviations

AIS	Abbreviated Injury Scale
AKI	Acute Kidney Injury
ALI	Acute Lung Injury
ARDS	Acute Respiratory Distress Syndrome
ASIA	American Spinal Injury Association
DCS	Damage Control Surgery
СРР	Cerebral Perfusion Pressure
CSW	Cerebral Salt Wasting
DI	Diabetes Insipidus
DIC	Disseminated Intravascular Coagulopathy
EoL	End of Life
EVD	Extra Ventricular Drain
FFP	Fresh Frozen Plasma
ICP	Intracranial Pressure
10	Intraosseous
IR	Interventional Radiology
ISS	Injury Severity Score
MODS	Multi Organ Dysfunction Syndrome
Mol	Mechanism of Injury
РоР	Plaster of Paris
PTSD	Post Traumatic Stress Disorder
ROTEM	Rotational Thromboelastometry
SCIWORA	Spinal Cord Injury without Radiological Abnormality
STAG	Scottish Audit Trauma Network
TARN	Trauma Audit Research Network
TBI	Traumatic Brain Injury
TBSA	Total Body Surface Area
TEG	Thromboelastography
TRALI	Transfusion Related Acute Lung Injury
VAP	Ventilator Acquired Pneumonia





Learning Resources

Bibliography

Barry, P., Morris, K., and Ali, T. (ed.) (2010) Paediatric Intensive Care. Oxford: Oxford University Press

Blaustein ME , Kinniburgh KM (2018) Treating Traumatic Stress in Children and Adolescents, How to Foster Resilience through Attachment, Self-Regulation, and Competency. Second Edition. Guilford Press

Carrion, VG (2018) Assessing and Treating Youth Exposed to Traumatic Stress. American Psychiatric Association Publishing

Davies F and Bruce C E (2017) Emergency Care of Minor Trauma in Children. 3 edition. CRC Press.

Davies, J.H., and Hassell, L.L. (2007) Children in Intensive Care: A Survival Guide (2nd Ed.). London: Elsevier Churchill Livingstone

Dixon, M., and Crawford, D. (ed.) (2012) Paediatric Intensive Care Nursing. Chichester: Wiley-Blackwell

Greaves I, Porter K, Garner J (2009) Trauma Care Manual. Second Edition. Hodder Arnold

Hazinski, M.F. (2013) Nursing Care of the Critically III Child (3rd Ed.). London: Elsevier Mosby

Macqueen, S., Bruce, A.B., and Gibson, F. (ed.) (2012) The Great Ormond Street Hospital Manual of Children's Nursing Practices. Wiley-Blackwell: Oxford

Murphy, P.J., Marriage, S.C., and Davis, P.J. (ed.) (2009) Case Studies in Pediatric Critical Care. Cambridge: Cambridge University Press

Pozzulo, J and Bennell, C (Eds.) Working with Trauma-Exposed Children and Adolescents: Evidence-Based and Age-Appropriate Practices. 1 edition. Routledge

Rossaint R et al, (2016) European Guideline on the Management of major bleeding and coagulopathy following trauma Fourth Edition. **Critical Care** .20:100

Samuels, M., and Wieteska, S. (ed.) (2016) Advanced Paediatric Life Support (6th Ed.). Oxford: Wiley-Blackwell

Sakthivel-Wainford, K (2016) Self-Assessment in Paediatric Musculoskeletal Trauma X-Rays (Self-Assessment in X-rays). 2nd Revised edition. M&K Publishing, an imprint of M&K Update Ltd

Tisherman S, Kellum J (2013) Trauma Intensive Care (Pittsburgh Critical Care Medicine)





Websites

- https://www.aagbi.org/sites/default/files/massive haemorrhage 2010 0.pdf
- https://adultburnsupportuk.org/hospital-region/midlands/
- https://bibic.org.uk
- https://www.boa.ac.uk/publications/boa-standards-trauma-boasts
- https://www.brainwave.org.uk
- https://braintrauma.org/guidelines/guidelines-for-the-management-of-severe-tbi-4th-ed#/
- https://www.britishburnassociation.org/
- https://b-s-h.org.uk/guidelines/guidelines/haematological-management-of-major-haemorrhage
- http://www.bts-org.co.uk
- https://www.cbtrust.org.uk
- https://childbraininjurytrust.org.uk
- https://www.cobis.scot.nhs.uk/#
- https://www.csodn.nhs.uk/major-trauma/
- https://www.csodn.nhs.uk/northern-burn-care/
- http://www.eoetraumanetwork.nhs.uk/
- https://www.headway.org.uk
- https://www.thechildrenstrust.org.uk
- https://www.england.nhs.uk
- http://www.lsebn.nhs.uk/
- http://www.mcns.scot.nhs.uk/types-of-network/national-networks-in-scotland/nmcns/traumanetwork/
- https://merseyburns.com/
- https://www.nbt.nhs.uk/severn-major-trauma
- https://www.nbt.nhs.uk/swuk-burns-network
- https://www.nhs.uk/conditions/post-traumatic-stress-disorder-ptsd/
- https://www.nice.org.uk/guidance/ng37
- https://www.nice.org.uk/guidance/ng38





https://www.nice.org.uk/guidance/ng39

- https://www.nice.org.uk/guidance/ng40
- https://www.nice.org.uk/guidance/ng41
- https://www.nice.org.uk/guidance/cg176
- https://cks.nice.org.uk/head-injury#!scenario
- http://www.nscisb.nhs.uk
- https://www.organdonation.nhs.uk
- http://www.peninsulatraumanetwork.nhs.uk/about-us
- http://picsociety.uk/
- http://www.resus.org.uk
- https://www.rcpch.ac.uk/
- http://www.sabin-dev.scot.nhs.uk/
- http://www.stag.scot.nhs.uk/
- https://www.swlandstn.com/
- https://www.transfusionguidelines.org/transfusion-handbook/7-effective-transfusion-in-surgery-andcritical-care/7-3-transfusion-management-of-major-haemorrhage
- https://www.tarn.ac.uk/
- http://www.trauma.org
- http://www.uhbristol.nhs.uk/patients-and-visitors/your-hospitals/bristol-royal-hospital-for-children/whatwe-do/the-south-west-uk-children's-burn-centre/

Acknowledgements

This framework has been developed in partnership with a wide range of stakeholders from practice and academia within the paediatric critical care community across England, Wales and Northern Ireland. Thanks, are extended to all contributors specifically the following:

NMTNG - Adult Critical Care sub-group – For giving their permission to use the National Competency Framework for Registered Nurses in Adult Critical Care, TRAUMA Specialty Competencies as a template to create the Paediatric Critical Care Trauma Competencies





Members of the Paediatric Critical Care Sub Group National Major Trauma Nursing Group:

For their contributions to the Paediatric Critical Care Trauma Competencies

Kimberley Hamilton Lecturer Practitioner, PICU Bristol Royal Hospital for Children, University Hospital Bristol NHS Trust

Jackie Fulton Deputy Sister, PICU, John Radcliffe Hospital, Oxford University Hospitals Foundation Trust

Angela Lee Education Development Practitioner, Paediatric Critical Care, Royal Manchester Children's Hospital, Manchester Foundation Trust

Usha Chandran Lecturer Practitioner, Paediatric Intensive Care Unit, St Georges University Hospitals NHS Foundation Trust

Kerry White PD Lead for Paediatric Critical care, Addenbrookes Cambridge University Hospitals NHS Foundation Trust

Andrew Bedford Senior Charge Nurse, Thomas Cook Children's Critical Care, Kings College Hospital NHS Foundation Trust

Aimee White Paediatric Major Trauma Rehabilitation Co-Ordinator & Highly Specialised Physiotherapist, University Hospital Bristol NHS Trust

Shirin Pomeroy Burns Team, Bristol Royal Hospital for Children, University Hospital Bristol NHS Trust

Chair Paediatric Sub Group of The National Major Trauma Nursing Group: Lorrie Lawton Consultant Nurse, Paediatric Emergency Medicine, Kings College Hospital, Kings College Hospital NHS Foundation Trust - For her support to the Members of the Paediatric Critical Care Sub Group and contributions to the Paediatric Critical Care Trauma Competencies

Paediatric Sub Group of The National Major Trauma Nursing Group: For their contributions to the Paediatric Critical Care Trauma Competencies

Paediatric Intensive Care Society Nurse Educators Sub Group (PICS-E) For their contributions to the Paediatric Critical Care Trauma Competencies

Chair of The National Major Trauma Nursing Group: Robert Pinate Consultant Nurse, Emergency Department, University College London Hospitals NHS Foundation Trust - For his support to the Members of the Paediatric Critical Care Sub Group

Seb Rundle and his Family for giving permission to use his photograph on the front cover.