



National generic paediatric critical care (PCC) transport passport

The term 'PCC transport' is used in this document to refer to the emergency transfer of critically ill children or neonates by specialist teams (as defined in the national service specifications for transport in United Kingdom).

PICS-ATG has developed this passport for use by all members of the multi-disciplinary teams involved in PCC transport, and therefore the majority of the document should not be altered without agreement of PICS ATG. Some elements in this passport document are service specific and therefore require editing to clarify experience gained by any team member, and these sections only are available in editable form (highlighted in main document in blue type).

INTRODUCTION

Description of individual PCC transport service (to be completed by individual services)

To include:

1. Aims and objectives of service
2. Integrated vs independent service (define/state)
3. Base location and geography
4. Population and area covered
5. Age range of children transferred
6. No of referral calls and PCC transfers per year
7. National performance indicators for service
8. Data collection and governance
9. Staff composition
10. Description of ambulance service delivery
11. Expectations for staff
 - Behaviour including dress code
 - Performance
 - Attendance at teaching
 - Educational commitment
 - Professional development
 - Completion of PCC transport documentation for personal development
 - Rota and working patterns, detailed training requirements and support

PCC Transport Service competence progress report

1. Personal profile
2. Self-assessment
3. PCC transport training induction record
4. Record of professional development
5. PCC transport competencies
6. Assessments
 - 6.1. Assessment of clinical PCC transport
 - 6.2. Procedural PCC transport review
 - 6.3. General PCC transport competencies
 - 6.4. PCC Transport Logbook
 - 6.5. [360° feedback/ appraisal](#)

APPENDIX

APPENDIX 1:

1. PCC Transport competency supporting documents
2. [PCC transport Team Training](#)
3. Assessment of PCC transport competence
4. [Return to practice](#)

APPENDIX 2: [Example of method to assess procedural competence](#)

ABC PCC TRANSPORT SERVICE COMPETENCE PORTFOLIO

1. Personal profile

Summary document

NAME OF TRAINEE		
GMC / NMC number		
Previous transport experience & date		
Previous number of independent transfers (neonate, paed, adult) including level eg intubated, inotropes		
APLS/EPLS/NLS & Date Or appropriate equivalent		
APLS Instructor Or appropriate equivalent		
DATE STARTED POST		
EXPECTED END DATE		
DATE OF TRUST INDUCTION		
DATE OF PCC TRANSPORT INDUCTION		
DATES OF MANDATORY UPDATE		
DATES OF APPRAISAL MEETINGS	INITIAL	
	INTERIM	
	FINAL	
EDUCATIONAL SUPERVISOR		
CLINICAL SUPERVISOR/MENTOR		

2. Self-assessment

Date:

PCC transport training self-assessment should be completed at commencement of training for **all** staff (using 1- 5 performance evaluation table rating below). Self assessment should be completed by trainee and reviewed by supervisor at initial training meeting. Please use grading system below (either numeric or descriptor).

Performance evaluation table

Numeric level	Descriptor	Skills	Knowledge	Overall competence
1	Novice	No experience	None	Not competent
2	Advanced beginner	Performs with close support	Basic knowledge	Observation and assistance
3	Competent	Performs with distant* supervision	Good working knowledge	Distant* supervision
4	Proficient	Performs independently	Competently applies theory to practice	Unsupervised
5	Expert	Performs consistently to a high standard	Consistently applies theory to practice	Teaches/ instructs others

Novice to Expert: Excellence and Power in Clinical Nursing Practice by **Patricia Benner** RN Ph.D. (ISBN: 9780130325228)

***Distant supervision or support refers to telephonic advice/support from a senior transport competent practitioner**

2.1 Self-assessment of procedural competencies

Procedure / Skill Competency	Perform (P) or assist (A) or both (PA)	Degree of competency	Initials (Trainee & supervisor)
Airway assessment			
Endotracheal intubation in neonates/infants			
Endotracheal intubation in older children			
RSI/modified rapid sequence induction (paediatrics)			
Difficult airway management			
Laryngeal mask airway usage			
Needle cricothyroidotomy & ventilation			
Change of tracheostomy tube			
Use of appropriate anaesthetic bagging circuit ie Ayres T piece, Mapleson C etc			
Use of non-invasive ventilation			
Chest drain insertion			
Arterial line placement			
Central venous access			
Intra-osseous needle insertion			
Urinary catheterisation (indicate if male/female or both)			

*NB please state not applicable (N/A) if not relevant to your role

2.2 Self-assessment of PCC transport competencies

PCC Transport Competencies	Degree of competency	Initials (Trainee & supervisor)
Understand need for inter hospital transfer		
Capable of organising logistics of PCC transport from referral call to admission to critical care		
Triage and priorities calls		
Communicate effectively with referring and receiving clinical teams		
Recognise and minimise potential risk associated with transport		
Be able to lead the PCC transport team in assessment, stabilisation and transfer of the critically ill or injured child from one location to another		
Consider a wide differential diagnosis		
Understand medico-legal importance of clear, concise and comprehensive documentation		
Monitor and respond to physiological changes during stabilisation and transfer		
Be able to plan ahead for likely events during transfer		
Troubleshoot equipment failure		
Recognise limitations of experience and risks associated with working in new team and new environment		
Call for help appropriately		
Recognise and understand the need for stabilisation before transfer		
Recognise child/neonate who requires rapid transfer for time critical specialist intervention eg neurosurgical emergency, acute abdomen etc		
Understand the physiological and emotional impact of critical illness and transfer on child and family		
Reduce parental anxiety by appropriate behaviour		
Knowledge of safety aspects of vehicles		
Understand physiological challenges of transport including both road and air transport		
Understand equipment required and logistical challenges of PCC transport including both road and air transfers.		

2.3 Transport medicine exposure (including any courses) and experience to date

Date	Time period	Course/ experience description	Course/Service lead
eg 1/1/2000	5 days	Air transport course	
eg 12/1/2000	6 months	Transport fellow Orange critical care transport service, Canada	Dr P. Lakes

3. PCC Transport Training Induction Record

Topic	Date completed	Initials (Supervisor)
Introduction to the service and team		
Overview of PCC transport process		
PCC transport documentation		
Information resources available Guidelines, SOPs & Website		
Equipment Ventilators, monitoring, pumps, gas cylinders and NO Ultrasound, Difficult airway equipment EZ-IO, iSTAT, Non-invasive ventilation Temperature control measures		
Ambulance familiarisation Safety policy including use of lights and sirens Trolley Harness Vac mattress & scoop		
Clinical Governance Team & personal safety during transport Adverse incident reporting mechanism Transportation and use of blood products during transports		
Communication and IT systems Telephone console, Database		
Education and Training Appraisal 360 feedback Training and competency record Case reports		
Rota Late return from transfers Swaps for leave Recognition and management of fatigue		
Aeromedical transfers Flight lecture Aircraft familiarisation/ Simulation		
Referral taking Conference into referral or mock referral		
Photograph for team notice board		

4. Record of professional development

4.1 Educational meetings attended (any that are related to PICM or transport during placement)

Include M&M, Research, Journal Club, Core PICM Curriculum, Simulation/human factors training sessions & any other

DATE	MEETING TYPE	TOPIC	PRESENTER

4.2 Presentations

Include M&M, Research, Journal Club, Core PICM Curriculum & any other

DATE	MEETING TYPE	TOPIC/DESCRIPTION

4.3 Courses attended and study leave

DATES	COURSE DETAILS	VENUE	CPD POINTS

4.4 PCC Transport Update days

DATE	UPDATE TYPE	DETAILS

4.5 Audits and projects

TITLE	PRESENTED AT	DATE

4.6 Reflective case summary

DATE	CASE	BRIEF DETAILS

5. PCC Transport Competencies

The following competencies are applicable to all multi-disciplinary PCC transport providers, including nurses, advanced nurse practitioners and medical trainees or consultants.

Assessments of procedural competency can be made in various settings including during a transport episode, in a paediatric intensive care unit, in theatre, on a ward or in A&E, as long as the assessment is made by a qualified assessor.

Some assessments, mainly of knowledge, may be determined in a one to one evaluation or simulation setting

The lists and details of competencies are not exhaustive, and individual services may require more detailed demonstration of competence.

The identified action plan at the end of each set of competencies is to be completed by supervisor/mentor. This should state whether an individual is competent, and if any action is required to maintain competencies.

If an individual is deemed not competent the action plan should, define any areas requiring further specific training (state what) and timing of reassessment (type and date).

It is highly recommended that at least part of the assessment is done using work based assessment tools, especially for PICM grid medical trainees and advanced nurse practitioners.

5.1 Specific PCC Transport competencies

Resuscitation	Y	N	NA
Understands and can demonstrate effective advanced life support in paediatric, neonatal and trauma settings			
Understands when further resuscitation is futile and should be discontinued			
Can facilitate termination of resuscitation attempts and withdrawal of intensive care			
Understands the paediatric considerations for organ donation			
Understands the regulations and guidance around an unexpected death during the transport process			
Understands the normal emotional and behavioural responses of bereaved parents and siblings			
Understands the emotional impact of a death during stabilisation or transfer on both the referring/receiving team and transport team.			
Understands the importance of debrief after a significant untoward event or death during transfer			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature		Date

Airway Competencies		Y	N	NA
Know the indications for intubation (including when not to) and preparation including any special precautions required (personnel/kit)				
Understand the risks of transferring a child with an inadequate airway (intubated or not)				
Be able to elicit the most likely diagnosis from the referral call				
Be able to manage the child with upper airway obstruction				
Be able to seek specialist help where necessary				
Knowledge of difficult airway/failed intubation drill				
Knowledge of appropriate use of laryngeal mask airway				
Management of tracheostomy				
Knowledge of cricothyroidotomy and how to ventilate				
Identified action plan				
Competencies signed off by PRINT NAME & DESIGNATION		Signature Date		

Respiratory		Y	N	NA
Understands and can use different ventilatory strategies for common paediatric respiratory disorders				
Knowledge of gas flow rates used by ventilator & able to calculate gas requirement for transfer				
Can identify & trouble shoot ventilator malfunction including ventilator alarms				
Able to manage an infant/child on non-invasive ventilation or on high flow humidified oxygen during transfer				
Maintains tracheal tube patency with an understanding of principles of safe suctioning techniques				
Identification and management of children with pleural collections				
Understands role and risk of nitric oxide, and understands drug delivery during transport				
Able to identify potential ECMO cases				
Identified action plan				
Competencies signed off by PRINT NAME & DESIGNATION		Signature Date		

Circulation and cardiac conditions	Y	N	NA
Be able to elicit signs of shock over the phone and give appropriate advice			
Understands the need for early intervention in the shocked child to improve outcome			
Understand the importance of appropriate, aggressive fluid resuscitation and evaluation of response			
Understands the principles of use and appropriate doses of vasoactive drugs			
Understand the effect of positive pressure ventilation in a child with shock			
Be able to deal with fluid and inotrope resistant shock			
Recognise the particular risks associated with anaesthetising the child with cardiac disease and take steps to minimise these			
Is able to gain central access in the shocked child (+/- ultrasound guidance)			
Be able to consider the most likely underlying cause of shock and treat accordingly			
Be able to recognise shock syndromes which require time critical interventions eg haemorrhagic shock, necrotising fasciitis etc			
Be able to differentiate between cardiac and non-cardiac causes of cyanosis			
Be able to recognise the sick neonate with a potential duct dependent lesion			
Be able to manage a child with undiagnosed structural congenital heart disease			
Know the indications for prostaglandin E2 infusion, dose range and side-effects			
Be able to recognise and manage pulmonary hypertension, including pulmonary hypertensive crises			
Be able to recognise and treat common arrhythmias on ECG			
Be able to perform emergency cardioversion (pharmacological & electrical) and defibrillation			
Know the principles of ECMO and other forms of mechanical support and can identify potential ECMO cases			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature Date		

Non-traumatic brain injury and raised intracranial pressure	Y	N	NA
Understands the management of the child with seizures including evaluation of safety to extubate after prolonged seizures (including being able to facilitate safe extubation by the referring team using telephone advice only)			
Be able to elicit an accurate assessment of level of consciousness and other signs of raised intracranial pressure over the phone			
Recognise signs of raised intracranial pressure and institute strategy and/or give advice on measures to control this			
Able to risk assess the safety and triage the need for neuro-imaging			
Recognise time critical lesion from referral call and assist in logistics of a time critical transfer			
Be able to recognise and manage the child with neuromuscular weakness			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature Date		

Multi-trauma including head injury	Y	N	NA
Understands team and service interactions for poly-trauma			
Understand the need to identify all sources of cardio-respiratory compromise prior to transfer			
Understand which head injuries are time critical			
Understand that cardiovascular instability may be the direct result of a severe head injury but that other causes should be considered			
Ensure all major injuries are temporised prior to transfer			
Ensure spinal immobilisation in any child at risk of spinal trauma			
Recognise & manage the referral call of a child with time critical head injury or other major trauma			
Able to assist with logistics of head injury or other major trauma transfer & able to give advice to the referring team to ensure that a patient is transferred safely but quickly to a children's major trauma centre within 3-4 hours of injury			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature Date		

Burns, including major skin loss disorders	Y	N	NA
Evaluates and manages a child with major burns as polytrauma			
Knowledge of resuscitation and stabilisation of burned child			
Knowledge of appropriate skin covering for burns			
Knowledge of Burns referral network and how to access			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature Date		

Metabolic/Endocrine	Y	N	NA
Able to recognise and manage potential undiagnosed metabolic disorders			
Ability to recognise and facilitate a time critical transfer of hyperammonaemic patient			
Understands management of diabetic ketoacidosis			
Ability to recognise and manage child with a potential undiagnosed endocrine disorder			
Able to recognise and manage common electrolyte disturbances associated with critically ill children			
Able to give advice on instituting emergency management of metabolic crisis in a child with a known metabolic disorder			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature Date		

General Surgical	Y	N	NA
Knowledge of management of neonatal and paediatric surgical presentations			
Be able to elicit an accurate assessment of patient and determine if time critical lesion over the phone			
Recognise child/neonate who requires a time critical transfer for emergency surgical/radiological intervention at a tertiary centre or the need for emergency surgery before transfer at referring unit			
Ability to facilitate transfer of time critical surgical patient			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature Date		

Safeguarding	Y	N	NA
Ability to recognise potential non-accidental injury including factitious illness			
Understands importance of clear documentation and investigation of probable safeguarding cases			
Communicates safe-guarding concerns effectively to relevant agencies			
Able to recognise and manage potential accidental or non-accidental ingestion			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature Date		

Communication	Y	N	NA
Understands principles of crew resource management and human factors			
Is able to take a focused emergency history, and offer clear and concise appropriate advice on clinical management of the remote patient to the referring multi-disciplinary team			
Is able to formulate a diagnosis and management plan for an acute referral and discuss with the PCC transport team			
Can collaborate with relevant specialist services during the referral process			
Is able to take handover at referral hospital			
Is able to recognise and utilise the experience and skills in both the referring and transport team during the stabilisation process			
Is able to communicate effectively with child and family where appropriate			
Is able to give a clear and concise verbal and written handover at the receiving unit			
Understands risk of loss of crucial information at handovers and how to mitigate these risks with clear, concise written documentation			
Identified action plan			
Competencies signed off by PRINT NAME and DESIGNATION	Signature Date		

Mode of transfer	Y	N	NA
Understands the factors that determine the choice between road, fixed wing or rotary wing transfer.			
Is able to anticipate and manage the physiological impact of transfer, including acceleration/deceleration and cornering			
Aware of transport team policy for use of blue lights and sirens			
Understands the risks and limitations of working in isolated environment whether road or air transfer			
Understands the complexities of the logistics to facilitate a flight transfer including essential communication required with different parties (eg flight provider, landing sites and organisation of road transfer if required)			
Understands the physiological impact of altitude			
Can collaborate and communicate with air crew effectively			
Understands the rules and principles of aircraft safety on the ground			
Understands the importance of emergency drills			
Aware of the specific equipment requirements for road, rotary and fixed wing transfers			
Aware of the physiological impact of transfer (road or air) on transport team			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature Date		

Safety and Governance during PCC Transport	Y	N	N/A
Understands the importance of PPE & is aware of local policies			
Aware of potential infection control risks during initial stabilisation of patients and is able to give advice on and take appropriate precautions to protect patient and staff			
Aware of local infection control policy including ANTT, hand hygiene, cleaning of equipment, trolley and ambulance			
Is able to communicate potential infection control risks to referring and receiving teams			
Is aware of local SOP regarding hazardous materials/waste management & decontamination of both staff and equipment (including ambulance)			
Aware of local SOP if PCC transport team involved in RTC or if team arrive at the scene of an RTC or other medical emergency before other emergency services			
Understands how adverse events are managed, including reporting and review procedures			
Understands local escalation plans in event of major incident or for management of times of peak demand			
Identified action plan			
Competencies signed off by PRINT NAME & DESIGNATION	Signature Date		

5.2 Core PCC Transport equipment competencies

This is service dependent – please add relevant documents

All services to detail essential equipment competencies and competence level required and record date achieved

For example:

Ventilators

Anaesthetic circuits

Monitors

Gas delivery systems

Infusion pumps

Securing devices

Manual handling devices

Transport kit

Chest drainage equipment

Etc.

Competence with specific equipment should include

1. Age appropriate choice of equipment
2. Understand limitations of equipment
3. Turn on and off
4. Connect to patient
5. Set appropriate alarms
6. Trouble shoot battery, connection, delivery problems
7. Secure safely at all times
8. Understand how and where to report a

6. Assessment of PCC transport

6.1 Assessment of clinical PCC transport

The supervisor (identified by service as competent supervisor) accompanying the trainee on transport should complete an assessment on return from each transport

*NB this should be done in the context of previous relevant transport experience

Date & log number	
Mode of Transport	
Diagnosis	
Age of patient	
Interventions performed	

Area Assessed	Satisfactory Performance	
	Yes	No
Communication		
- advice to referring hospital		
- discuss case with consultant		
- planning between transport team members		
- with referring team		
- with receiving team		
- with parents and family		
Kit		
- pre departure ventilator check		
- preparation of equipment required eg LMA, ETT, chest drains, oxygen calculation, appropriate lines		
- working knowledge of kit		
- ability to troubleshoot equipment		
- kit stowed safely in ambulance		

Area Assessed	Satisfactory Performance	
	Yes	No
Transfer		
- SAFE approach		
- rapid clinical assessment		
- identify location of additional O ₂ & suction sources		
- prioritises tasks & care		
- assessment of need for critical care		
- communication of concerns with team & consultant		
- stabilisation of patient		
- competent procedures performed		
- anticipation for return journey		
- completion of documentation		
- debrief with team on return		
- completion of log book		
- review of own performance		

Comments

Identified action required:

Signed – supervisor:

Signed – trainee:

6.2 Procedural/ PCC Transport review

This review form should be completed /updated at every mentor meeting

Date	Supervisor				
1. Review of transfers	No. performed:	Complexity : Inotropes Non-invasive or invasive vent		Outcome:	
2. Review no. of procedures performed	Intubation	CVL	Arterial	Chest drain	Intraosseous
	Restrapping ETT	Catheterisation	NGT placement	Assisting with CVL/ chest drain	
3. Review advice & management				Clarity Conciseness Appropriate Prioritised	
4. Review Transport documentation				Clearly written Complete	
5. Adverse incident review				Involvement Reporting Investigation Feedback	
6. Log book documentation	Complete	Incomplete		Absent	
7. Current competence level					
8. Proposed review date					
9. Action plan					
10. Supervisor signature					

6.3 General PCC Transport competencies (Summative/final assessment)

General PCC Transport competencies	Y	N	NA
Understand why a child/neonate might require inter hospital transfer			
Be able to organise the logistics of a transport from referral call to return to critical care			
Be able to triage and prioritise referral calls ensuring that each child is ultimately cared for in the most appropriate environment			
Be able to communicate effectively with referring clinician and receiving critical care and/or other appropriate clinical team			
Recognise and minimise the potential risk involved in transfer to the patient and the team			
Be able to lead the PCC transport team in assessment, stabilisation and transfer of the critically sick or injured child from one location to another			
Understand the need to retain an open mind regarding diagnosis			
Understand the need for clear documentation			
Understand the medico legal implications of PCC transport			
Monitor and respond to changes in vital physiological functions during transfer			
Be able to plan ahead for likely events during transfer			
Be able to troubleshoot equipment failure			
Be able to recognise the limits of their own experience and expertise drawing on resources at the referring hospital if necessary			
Understand the need for stabilisation prior to transfer			
Recognise child/neonate who requires time critical transfer for urgent specialist intervention eg neurosurgical emergency, acute abdomen etc			
Understand the stressful nature of transfer on both the awake child and the family			
Take steps to reduce parental anxiety through clear communication, calm demeanour and minimising time spent parents separated from child			
Know about vehicle safety features			
Know about specific issues surrounding air transport			
Action plan			
Competencies signed off by PRINT NAME & DESIGNATION			Signature/Date

6.5 360° feedback/ appraisal (from team and users)

INSERT OWN TRUST 360° APPRAISAL PAPERWORK (this is an example)

Assessor name
 Training level and background
 Date

Attribute	Not satisfactory	Adequate	Good	Very good	Excellent
Theoretical knowledge					
Practical skills					
Clinical judgement					
Attendance					
Communication with colleagues (verbal/written)					
Communication with parents					
Enthusiasm/initiative					
Team working including leadership skills					
Reflective, learns from experience					
Presentation skills					
Research/audit					
Overall					
Additional comments					

Date:

Trainee discussion with mentor regarding 360° feed back

APPENDIX 1

1. Transport competency supporting documents

1.1 Transport Team

The purpose of training staff specifically for paediatric critical care transfers is to ensure a high standard of care and safety in what can often be an unfamiliar and changing environment.

Not all members of staff thrive in the transport environment and so all staff must have the support of their individual supervisor/mentor to begin transport training.

Specialist transport training is provided to enable all staff to be able to anticipate and plan for all eventualities when on transfer and when working as part of a small team.

The unique environment of transport medicine comes with potential dangers not encountered when on the critical care unit. Each team member must be aware of the increased risks and be able to ensure the environment is as safe as is possible (for both the patient and transport team) whatever the mode of transportation.

1.2 Training and maintenance of skills comprises:

1. Learning how to manage and co-ordinate transfer of critically ill children/neonates from referral call to safe admission to an appropriate higher level of care, and includes an introductory study day with a mixture of lectures and practical sessions.
2. Trainees who have not been out on transfers prior to the initial study day will have the opportunity to go out on an observed transfer to gain an understanding of the process.
3. Trainees who have successfully completed the initial study day will begin supervised transfers where they will be actively involved in the stabilisation and transfer process.
4. When not on for PCC transport team, trainees can practise their planning for transfer and organisational skills by performing internal transfers within their base units.
5. The trainee will undertake a series of assessed transfers before being assessed as competent.
6. Assessors must be independent transport practitioners (nursing or medical) of greater than six months independent experience and have been approved by the service as competent to assess transport medicine delivery
7. The final transport assessment must be assessed by one of the core PCC transport team members.
8. All team members are encouraged to be involved in organisational, governance and educational projects when with the PCC transport team
9. Team members are expected to maintain their personal educational and training record
10. All PCC transport team members must attend an annual multi-disciplinary transport update day and perform a minimum number of transfers ([as stipulated by the individual service and based on individual annual or end of post appraisal or personal development review specifically for transport](#))
11. Failure to meet minimum requirements as determined by an individual service, will result in the team member being unable to perform transfers until they have satisfied the service minimum requirements ([please include individual service requirements with this document](#))
12. Any team member returning from a break lasting longer than six months must be updated to any developments within the service, any new equipment and must be given the option of supervised transfer, if they so wish, before they transfer independently again.

2. PCC Transport Team Training

2.1 Terminology

- Supervision refers to the situation where a trainee takes the lead but can call on supervisor (in attendance) for support on transport as required
- Transport trainee refers to the individual who is not yet qualified to undertake independent transfer
- Assessor refers to the individual supervising a transfer and who is qualified to undertake and teach PCC transport medicine
- Transport lead practitioner – refers to the individual, either medical or nursing, undertaking the medical lead role whilst on PCC transport

2.2. Minimum training requirements

2.2.1 Nurses

- Those undertaking independent transfers must have an intensive care course accreditation (paediatric, neonatal or adult)
- All nurses embarking on PCC transport training must have been previously assessed competent in the care of a level III intensive care patient

2.2.2 Doctors

- All doctors embarking on PCC transport training must have completed a minimum of 4 years' clinical experience post-qualification
- All doctors should either have a minimum of 3 months intensive care (paediatric, adult or neonatal) or other locally agreed experience (eg HEMS, pre-hospital medical team)

2.2.3 Advanced practice roles

- Trainee practitioners should have a minimum level of intensive care and PCC transport practice as per local policy

2.3 Mentorship

- All PCC transport trainees are allocated a competent transport mentor
- Mentors are identified by the transport service leads

2.4 PCC Transport training days

2.4.1 PCC Transport introduction day

– insert PCC transport team information on induction

2.4.2 Generic update training days

Training should ideally include all members of the PCC transport team including consultants, transport leads, transport nurses, transport trainees and ambulance personnel

Some examples of areas to be covered on training days may include

1. Common clinical emergencies encountered on transport
2. Trouble-shooting technical problems with equipment
3. Non-technical skills including communication and team management
4. Ambulance breakdown/ crash scenario with patient on board
5. Scenarios including road and air transport should be practiced

2.4.3 Air Transport training

Theory should aim to cover

1. International and national perspective on air transport
2. Physiology of flight
3. In-flight safety and monitoring
4. Logistics, rules and legalities around flight
5. Dealing with clinical emergencies in the air

Practical aspects of medical passenger training include

1. Safety on the tarmac/ around the aircraft
 2. Air ambulance orientation
 3. Loading and unloading
 4. Equipment storage & safety
 5. Communication
 6. Crew resource management
 7. Emergencies in the aircraft eg fire
- *NB this may be delivered by flight providers eg The Children's Air Ambulance

3. Assessment of PCC transport competence

3.1 Assessment

1. Formative assessment should be completed and documented for each supervised transfer the trainee performs
2. A number of competent transfers should be completed before an individual may undertake independent transfers with indirect supervision. (Indirect supervision refers to telephonic advice and support from a senior transport competent clinician)

3.2 Maintaining competence

1. PCC Transport nurses, nurse practitioners and doctors must complete a minimum number of inter-hospital PCC transfers per annum as per local agreement
2. Each PCC transport service, as well as the individual, is responsible for monitoring each team members' transport activity and competence.
3. All PCC transport service team members should undertake
 - a. Annual transport training update (eg simulation training)
 - b. Attend transport review meetings on a regular basis
 - c. For individuals performing invasive procedures on children/neonates during PCC transfers, ongoing regular exposure and competence for these procedures should be demonstrable via log book.
4. Individuals should be supported/ given opportunity to maintain procedural competence in a supervised environment eg PICU or theatre if necessary.
5. All staff involved in PCC transport, once deemed competent, should maintain an active role in the clinical delivery of PCC transport including teaching and training, transport review, setting and maintaining standards, developing standard operating procedures and clinical guidelines.
6. All PCC transport staff (nursing and medical) should keep a logbook of the transfers they undertake. This should be reviewed as part of their individual performance record (IPR) or annual appraisal.

4. Return to practice

- Please insert local return to practice policy

APPENDIX 2

Example of method to assess procedural competence

Task : TRACHEAL INTUBATION	Competence level	Comments
Defines indication (eg airway obstruction, respiratory failure)		
Patient risk assessment (eg anticipated difficulty, patient stability, empty stomach)		
Informs parents of above		
Prepares all appropriate equipment		
Defines plan B C D equipment & establishes presence of kit		
Ensures adequate monitoring for entire procedure incl. monitor on audio, ET CO ₂		
Defines roles of personnel involved		
Verbalises process to team		
Adequately pre-oxygenates patient		
Administers anaesthesia safely		
Performs laryngoscopy safely		
Intubates trachea within 30secs or 2 attempts without desaturation (fall sats <10%)		
States position of ETT at cords & lips/ nostril		
Confirms tracheal intubation by direct visualisation, ET CO ₂ trace, misting, & auscultation		
Secures ETT correctly		
Documents procedures correctly		
Informs parents		
Checks ETT position on CXR (T2 –T3)		
Observed intubation 1 (date : Observer)		
Observed intubation 2 (date : Observer)		
Observed intubation 3 (date : Observer)		
Observed intubation 4 (date : Observer)		
Observed intubation 5 (date : Observer)		

Task : CENTRAL VENOUS LINE INSERTION	Competence level	Comments
Defines indication (eg cardiovascular support, specific drug administration)		
Patient risk assessment (eg anticipated difficulty, patient stability)		
Informs parents of above		
Prepares all appropriate equipment incl flushing and clamping all lines		
Checks vascular ultrasound equipment		
Ensures adequate monitoring for entire procedure incl. monitor on audio and ETCO2 (esp if face under drapes)		
Defines roles of personnel involved incl designated helper to watch for ectopics		
Verbalises process to team		
Administers anaesthesia safely including local anaesthesia to site (ensures ventilation mode appropriate for muscle relaxation)		
Adequately positions patient		
Cleans and drapes area to be accessed		
Locates vessel with ultrasound or landmark technique		
Ensures all equipment with easy reach		
Establishes vascular access within 2 attempts		
Ensures all lumens draw back, flush easily, are locked closed & kept sterile		
Follows correct procedure for seldinger technique with specific attention to wire		
Secures device correctly		
Covers site correctly		
Documents procedure correctly incl labelling type & date of line on line dressing		
Informs parents		
Checks CVL position on CXR (if upper body insertion site)		
Observed insertion 1 (date : Observer)		
Observed insertion 2 (date : Observer)		
Observed insertion 3 (date : Observer)		

Task : CHEST DRAIN INSERTION	Competence level	Comments
Defines indication (eg pleural effusion, pneumothorax)		
Patient risk assessment (eg anticipated difficulty, patient stability, need for speed)		
Informs parents		
Prepares all appropriate equipment		
Defines plan B equipment & establishes presence of kit (seldinger & blunt dissection both available)		
Ensures adequate monitoring for entire procedure incl. ET CO2, monitor on audio		
Defines roles of personnel involved		
Verbalises process to team		
Ensures appropriate ventilation prior to anaesthesia		
Administers anaesthesia safely including local anaesthesia to site		
Adequately positions patient		
Cleans and drapes area to be accessed		
Landmarks point on chest wall to be accessed		
Ensures all equipment with easy reach		
Chooses and uses technique correctly (seldinger or blunt dissection)		
Establishes intra-pleural access within 2 attempts		
Follows correct procedure for chosen technique with specific attention to wire (seldinger)		
Confirms pleural access by fluid or air in drain		
Attaches drain to water level drain bottle tubing correctly		
Secures drain correctly		
Covers site correctly		
Confirms chest drain position on CXR		
Observed insertion 1 (date : Observer)		
Observed insertion 2 (date : Observer)		
Observed insertion 3 (date : Observer)		

Task : ARTERIAL LINE INSERTION	Competence level	Comments
Defines indication (eg Cardiovascular monitoring, gas exchange)		
Patient risk assessment (eg anticipated difficulty, patient stability)		
Informs parents of above		
Prepares all appropriate equipment incl preparation of transducer		
Checks vascular ultrasound equipment		
Ensures adequate monitoring for entire procedure incl. monitor on audio		
Defines roles of personnel involved		
Verbalises process to team		
Administers anaesthesia safely including local anaesthesia to site (ensures ventilation mode appropriate for muscle relaxation)		
Adequately positions patient		
Cleans and drapes area to be accessed		
Locates vessel with ultrasound or landmark technique		
Ensures all equipment with easy reach		
Establishes arterial access within 2 attempts		
Ensures peripheral perfusion not compromised		
Follows correct procedure for seldinger technique with specific attention to wire		
Secures device correctly		
Covers site correctly		
Documents procedure correctly incl type & date of line on line dressing		
Informs parents		
Observed insertion 1 (date : Observer)		
Observed insertion 2 (date : Observer)		
Observed insertion 3 (date : Observer)		