

# THE PAEDIATRIC INTENSIVE CARE SOCIETY



## Standards for the Care of Critically Ill Children

4<sup>th</sup> Edition

VERSION 2

Drawn up by a Multidisciplinary Working Group  
June 2010

The Paediatric Intensive Care Society  
21, Portland Place  
LONDON  
W1B 1PY

*These Standards are dedicated to the memory of the late Pat Moseley (1927 to 2009) in recognition of her tireless work to improve health services for sick children, young people and their families.*

© June 2010 Paediatric Intensive Care Society

These Standards may be reproduced and used for the purpose of improving the care of critically ill children in the United Kingdom. Other organisations and individuals wishing to reproduce any part of the Standards should contact the Paediatric Intensive Care Society.

Whilst the Paediatric Intensive Care Society has taken reasonable steps to ensure that these Standards are fit for purpose, this is not warranted and the Paediatric Intensive Care Society will not have any liability to service providers, service commissioner or any other person in the event that the Standards are not fit for purpose. The provision of services in accordance with these Standards does not guarantee that the service provider will comply with its legal obligations to any third party, including the proper discharge of any duty of care, in providing these services.

Review by: June 2015 at the latest

# CONTENTS

List of Appendices .....	2
Standards Working Group Membership .....	6
Definitions & Abbreviations .....	7
Structure of the Standards.....	10
A Hospital-wide Standards.....	13
B Emergency Departments, Children’s Assessment Services and In-patient Children’s Services.....	18
B1 Core Standards for each Area .....	19
B2 Reception of Critically Ill Children .....	25
B3 In-patient Care of Children (including High Dependency Care) .....	26
C Anaesthesia and General Intensive Care for Children .....	29
D Retrieval and Transfer of the most Critically Ill Children .....	34
E Paediatric Intensive Care.....	41

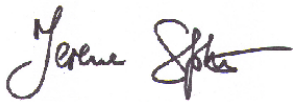
# LIST OF APPENDICES

**Appendices are in a separate volume.**

1. Levels of Care & Patient Dependency
2. Regional Audit Data Collection (includes Paediatric Critical Care Minimum Dataset – High Dependency Care & Intensive Care)
3. Drugs and equipment for resuscitation and stabilisation areas
4. Knowledge & Skills requirements for Nurses caring for Children in DGH HDU & ICU environments
5. Paediatric Resuscitation Training & Updating
6. Guidelines on Referral to a PICU
7. Retrieval: Example of essential referral information
8. Retrieval and Transfer: Safety protocol
9. Facilities and support for families of Critically Ill Children
10. Provision of play for Children in Hospital
11. Design of Paediatric Intensive Care Units
12. PICU Medical Workforce Planning
13. PICU Nurse Workforce Planning
14. PICS Recommendations for PIC Nurse Education Programmes
15. PICS Recommendations for Practical Assessment in PIC Nurse Educational Programmes
16. Pharmacy Guidelines for Paediatric HDU, General ICU and PICU
17. Required PICU Bed Numbers
18. Bibliography and General Guidance on Children's Services

# FOREWORD

We are delighted to welcome and support this third revision of the Paediatric Intensive Care Society *Standards for the Care of Critically Ill Children* which provide a valuable update of the 2001 Standards. We are particularly pleased that this revised version has standards for the care of critically ill children in all hospital settings and covers the whole patient pathway, including transfer. We commend these standards to all Hospitals providing services for children and believe that their implementation will improve the quality of services that we are able to offer to critically ill children and their families.



Professor Terence Stephenson  
President,  
Royal College of Paediatrics &  
Child Health



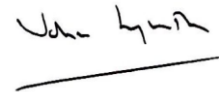
Dr. Peter Carter  
Chief Executive & General  
Secretary,  
Royal College of Nursing



Dr. Peter Nightingale  
President,  
Royal College of Anaesthetists



Dr. Bob Winter  
President,  
Intensive Care Society



Mr. John Heyworth  
President,  
College of Emergency Medicine

June 2010

# INTRODUCTION

## **Background**

This is the fourth edition of the Standards for Paediatric Intensive Care first published by the Paediatric Intensive Care Society in 1987 and last updated in 2001.

These Standards, in conjunction with the 'Framework for the Future' document published by the Department of Health (England) in 1997, have formed the basis for developing and structuring Paediatric Intensive Care Services across the UK.

The Paediatric Intensive Care Society (PICS) is a multi-professional group with over 700 members who work within or in association with Paediatric Intensive Care in the United Kingdom. The Standards documents have reflected the belief that critically ill children and their families have specific medical, nursing, technical and emotional needs that are best provided by Paediatric Intensive Care specialists, comprising of medical, nursing and allied professions, such as physiotherapists, dieticians, pharmacists and psychologists. These individuals should deliver care within Paediatric Intensive Care Units that conform to agreed guidelines and standards.

## **Revising the Standards**

These revised Standards differ from earlier versions in several ways. Firstly, they have been updated to reflect the most recent guidance and evidence base. As importantly, they have been expanded to cover the care of critically ill and critically injured children within general hospital services and to include Retrieval Services. For children who do need critical care services, we need to ensure that the whole patient pathway is addressed and managed as effectively as possible. For this reason, a section on paediatric anaesthesia and care of children in general intensive care units has been added. Paediatric Intensive Care should be provided in Paediatric Intensive Care Units. We recognise, however, that some children will need to spend time in general intensive care units while waiting for the Retrieval Service to arrive or because their condition is expected to improve quickly and transfer to a PICU is not considered necessary.

Recognising the expanded scope of the Standards, the Membership of the Standards Working Group was also expanded to include multidisciplinary and multi-professional representatives from other hospital services that treat critically ill children.

As far as possible, the Standards are drawn from published guidance and a full bibliography is given in Appendix 18. The Standards have been made consistent with 'Getting the right start: National Service Framework for Children – Standard for Hospital Services' and the equivalent documents for Wales and Scotland. The Standards also drawn heavily on the work carried out by the Specialised Commissioning Team (West Midlands) and West Midlands Quality Review Service and their document 'Standards for the Care of Critically Ill & Critically Injured Children in the West Midlands Version 3' (2010).

It must be recognised, however, that for many recommendations, research evidence is not available. In this case, recommendations are written following the consensus view of the Working Group aiming for a reasonable level of care or clinical practice but also making reasonable aspirations. Additionally, views from the wider membership of PICS have also been invited.

Accordingly the philosophy of the document is one that expresses levels of care, which the Working Group believes all institutions caring for acutely ill children should aim to achieve. It is also clear that,

currently, the Standards will not be met in their entirety by all institutions undertaking acute care of children. They are intended as a benchmark towards which services should be working and which are achievable by all hospitals in due course.

We acknowledge that primary care services make an essential contribution to the care of critically ill children. For the sake of clarity and conciseness, it has not been possible to include these primary care services within the scope of these Standards.

### **Patient Pathway**

The Standards cover the pathway for a critically ill or critically injured child from arrival at a Minor Injuries Unit, Walk-in Centre or Emergency Department. They include care within General Hospitals, the Retrieval Service and Paediatric Intensive Care Units. Crucially, they recognise that General Hospital services must be prepared to transfer a child to a Paediatric Intensive Care Unit when, because of the urgency of the situation, waiting for the Retrieval Service to arrive would introduce potentially dangerous delay. Such transfers must be carried out by appropriately trained and equipped staff.

The Standards describe the staffing and training needed to provide these services and the facilities and equipment which should be available. The guidelines, policies and procedures which should support the patient pathway are covered. Data collection and audit form an essential part of service planning, quality assurance and informing research and are therefore included in the Standards.

The Standards are written in a way which is appropriate for use in self-assessment or peer review.

### **Acknowledgements**

We would like to acknowledge the work previously done by the Specialised Commissioning Team (West Midlands) and the West Midlands Quality Review Service, on which this new-look Revision of the PICS Standards has been based and owes much. Dr Charles Ralston, Chair of that Group, has very kindly given permission on behalf of the West Midlands Critically Ill Children Standards and Peer Review Steering Group for us to make full use of their work. We would also like to thank Fiona Smith, Adviser for Children and Young People at the Royal College of Nursing for her valuable contributions and the HDU Education Working Group in the SW of England, chaired by Caroline Haines, for the use of their material in Appendix 16.

### **Conclusion**

The Working Party has attempted to be as objective as possible about the minimum Standards which should be applied to the delivery of acute care of children. The underlying purpose of the Standards is to ensure safe and effective services and to help improve the quality of care. The Working Group believes that these Standards are a valuable aid to improving care and we hope they can form the basis for a realistic assessment of service need, a means of monitoring progress and a stimulus to service development.

**Dr Ian A Jenkins**

**Chair of Working Group**

**President of Council, Paediatric Intensive Care Society**

**June 2010**

# STANDARDS WORKING GROUP MEMBERSHIP

## ***Alphabetical Order:***

Dr. John Alexander	Vice-Chair, West Midlands Critically Ill Children Standards and Peer Review Steering Group
William Booth	Chair, PICU Nurse Managers Group, Royal College of Nursing
Beverley Boyd	Chair, Children's Leadership & Management Forum, Royal College of Nursing
Miss Sarah Cheslyn-Curtis	The Royal College of Surgeons
Dr. Anthony Chisakuta	Association of Paediatric Anaesthetists of GB & Ireland
Jane Eminson	West Midlands Quality Review Service
Edith Gracie	PICS, Nurse Member, Glasgow
Dr. Christopher PH Heneghan	Royal College of Anaesthetists
Dr. Susan Hobbins	Hon. Treasurer, Royal College of Paediatrics & Child Health
Dr. Ian A Jenkins (Chair)	President, PICS Council; Medical Member, Bristol
Dr. Daniel Lutman	PICS & Medical Member, PICS Retrieval Group
Lisa Marriott	Specialised Services Commissioning, Leeds
Michelle Milner	Hon. Treasurer, PICS & Leeds PCT (now Liverpool PCT)
The Late Mrs Pat Moseley	Action for Sick Children
Liz Murch	PICS, Nurse Member, Sheffield
Dr. Lisa Niklaus	College of Emergency Medicine
Dr. Roddy O'Donnell	Hon. Sec., PICS; Medical Member, Cambridge
Mary Parfitt	British Association of Critical Care Nurses, Ipswich
Carol Purcell	PICS, Nurse Member, Southampton
Dr. John Sinclair	PICS, Medical Member, Glasgow
Dr. Bruce Taylor	Hon Sec., Intensive Care Society
Mrs. Madeleine Wang	Parent Representative
Dr. Ted Wozniak	Professional Adviser for Paediatrics, Department of Health, England.



# DEFINITIONS & ABBREVIATIONS

**Approved Training in Paediatric Intensive Care** for doctors means training that has satisfied the requirements of the Intercollegiate Committee for Training in Paediatric Intensive Care Medicine ('ICTPICM'). This currently means that appointment to a consultant post with a full time commitment to paediatric intensive care requires satisfactory completion of a minimum of two years higher training (at specialist registrar level) in training posts approved by the ICTPICM on behalf of the Royal Colleges. This also currently means that appointment to a consultant post with a part time or sessional commitment to Paediatric Intensive Care requires satisfactory completion of a year of higher training (at specialist registrar level) in training posts approved by the ICTPICM on behalf of the Royal Colleges. ICTPICM does not review or comment upon the training of Consultants appointed prior to January 1999.

## **Children**

These standards refer to the care of critically ill or critically injured children. The term 'children' refers to those aged 0 to 18 years. Young people aged 16 to 18 may sometimes be cared for in adult facilities for particular reasons, including their own preference. The special needs of these young people are not specifically mentioned in the standards but should be borne in mind.

## **Children's Hospital**

A hospital caring only for children.

**Children's Nurse** is a registered nurse who has successfully completed a Registered Sick Children's Nurse (RSCN) or Registered Nurse (Child) programme which is recorded on the NMC register.

## **Critically ill and critically injured**

The care of both critically ill and critically injured is covered by these standards. For simplicity, 'critically ill' is used throughout to refer to 'critically ill or critically injured'. These are children requiring, or potentially requiring, high dependency or intensive care whether medically, surgically or trauma-related.

**Dedicated** in the context of this document means individuals with no other medical or nursing commitments other than those relating to the care of critically ill children.

## **Guidelines, Policies, Procedures and Protocols**

The Standards use the words policy, protocol, guideline and procedure based on the following definitions:

- Policy:** A course or general plan adopted by a Hospital, which sets out the overall aims and objectives in a particular area.
- Protocol:** A document that sets out in precise detail the tests/steps that must be performed.
- Guidelines:** Principles which help determine a course of action. They assist the practitioner to decide on a course of action but do not need to be automatically applied. Clinical guidelines do not replace professional judgement and discretion.
- Procedure:** A procedure is a method of conducting business or performing a task, which sets out a series of actions or steps to be taken.

For simplicity, some standards use the term 'policies and procedures' which should be taken as referring to policies, protocols, guidelines and procedures.

Local guidelines, policies and procedures should be based on appropriate national standards and guidance but should include consideration of implementation within the local situation. Where guidelines, policies and procedures impact on more than one service, for example, imaging, anaesthesia or Emergency Department, they should have been agreed by all the services involved.

### **In-patient care of children (in-patient paediatrics)**

Medical and/or surgical care of children led by consultants qualified in paediatrics or paediatric intensive care, and with facilities for overnight stays. Where children are undergoing surgical care they should be under the care of a consultant paediatrician as well as consultant surgeon.

**Intensive care** is a service for patients with potentially recoverable, life-threatening conditions who can benefit from more detailed observation, treatment and technological support than is available in general wards and departments or high dependency facilities. It is also recognised that end of life management, including potential organ donation and skills in family bereavement care are integral to caring for critically ill children.

**Lead PICU** is the Paediatric Intensive Care Unit which is referring hospitals' normal first choice of PICU for their population.

**Paediatric Intensive Care Consultant** is an individual who has successfully completed approved higher training (a minimum of one year at specialist registrar level) in paediatric intensive care, who is working on the PICU and who has control over the management, admission and discharge of patients to and from the PICU. Paediatric Intensive Care consultants may not be full time and may have sessions in other specialties.

**Paediatric Intensivist** is a consultant who has successfully completed approved higher training (a minimum of two years at specialist registrar level) in paediatric intensive care, who works exclusively in Paediatric Intensive Care and who has control over the management, admission and discharge of patients to and from the PICU. An intensivist's non-clinical (administrative, education and research) time is also devoted to the PICU. This definition identifies individuals whose input into patient care is focussed on a specific period of the hospital stay and whose responsibility for further follow-up is minimal.

**Paediatric Life Support Training / Advanced Paediatric Life Support Training** is mentioned extensively in these standards. Appendix 5 gives more detail of the minimum standards of knowledge and skills that are expected for each type of training.

### **Parents**

The term 'parents' is used to include mothers, fathers, carers and other adults with responsibility for caring for a child or young person.

**Referring hospitals** are District General Hospitals within the normal catchment population of the Retrieval Service or Paediatric Intensive Care Unit. Normal catchment populations are defined in Standards 98 and 132.

**The following abbreviations are used within the remainder of the text:**

<b>AHP</b>	Allied Health Professional
<b>APLS</b>	Advanced Paediatric Life Support
<b>CPAP</b>	Continuous Positive Airway Pressure
<b>CPD</b>	Continuing Professional Development
<b>CT</b>	Computerised Tomography
<b>ECMO</b>	Extra-Corporeal Membrane Oxygenation
<b>ED</b>	Emergency Department
<b>EPLS</b>	European Paediatric Life Support
<b>EWTD</b>	European Working Time Directive (see WTR)
<b>HDU</b>	High Dependency Unit
<b>HFOV</b>	High Frequency Oscillatory Ventilation
<b>ICTPICM</b>	Intercollegiate Committee for Training in Paediatric Intensive Care Medicine
<b>ICU/GICU</b>	Intensive Care Unit/General Intensive Care Unit
<b>MRI</b>	Magnetic Resonance Imaging
<b>NMC</b>	Nursing & Midwifery Council
<b>ODP</b>	Operating Department Practitioner
<b>PIC</b>	Paediatric Intensive Care
<b>PICS</b>	Paediatric Intensive Care Society
<b>PICU</b>	Paediatric Intensive Care Unit
<b>RCoA</b>	Royal College of Anaesthetists
<b>RCN</b>	Royal College of Nursing
<b>RCPCH</b>	Royal College of Paediatrics and Child Health
<b>RSCN/RN(Child)</b>	Registered Children's Nurse
<b>WTR</b>	Working Time Regulations

# STRUCTURE OF THE STANDARDS

## **A Hospital-wide Standards**

These standards apply to all Hospitals that provide care for critically ill children, including those providing retrieval services or intensive care. They also apply to Hospitals with an Emergency Department which are signposted for all ages but which are by-passed by ambulances carrying children. In self-assessment or peer review, these standards should be reviewed only once but reviewers should ensure that they are met in all services for critically ill children provided by the Hospital.

## **B Emergency Departments, Children's Assessment Services and In-patient Children's Services**

These standards are additional to the Hospital-wide standards in section A and apply to each Emergency Department (including those aiming to treat adults only), children's assessment service and service providing day case or in-patient care for children. They also apply to wards within children's hospitals. They do not apply to general (adult) intensive care units, retrieval services or Paediatric Intensive Care Units. When used for self-assessment or peer review, the standards in section B should be reviewed separately for each area that is separately managed or staffed. These standards fall into three sections:

### **B1 Core standards for each area**

These standards apply to each Emergency Department, children's assessment service and unit providing day case or in-patient care for children. These services may need to provide short-term intensive care until the Retrieval Service arrives. They may also have to transfer a child to an intensive care unit when, because of the urgency of the situation, waiting for the Retrieval Service to arrive would introduce potentially dangerous delay.

### **B2 Reception of critically ill children**

These standards apply to Emergency Departments, children's assessment services and general children's wards that accept emergency admissions.

### **B3 In-Patient Care of Children (Including High Dependency Care)**

All hospitals providing in-patient care of children should be prepared to care for children who are, or who become, critically ill and should be able to provide short-term paediatric high dependency care. Short-term is not strictly defined but, in the context of these Standards, can be taken as up to 48 hours. Some hospitals will have the staffing and facilities, usually in 'high dependency units', to provide high dependency care for longer periods. High dependency care is defined in more detail in Appendix 1.

### C Anaesthesia and General Intensive Care for Children

These standards are additional to the Hospital-wide standards in section A and apply to all services providing anaesthesia for children and to general (mainly adult) Intensive Care Units into which children may be transferred for short periods until their condition improves or the Retrieval Service arrives. Children’s hospitals are expected to meet the paediatric anaesthesia standards but not the standards for general Intensive Care Units.

### D Retrieval Services

These standards are additional to the Hospital-wide standards in section A and apply to services that undertake retrieval and transfer of the most critically ill children. Retrieval services may be managed separately from PICU or may be integrated with PICU.

### E Paediatric Intensive Care Units

These standards are additional to the Hospital-wide standards in section A and apply to units providing paediatric intensive care. These units may also provide a Retrieval Service.

The applicable standards therefore depend on the local configuration of services. Figure 1 illustrates the standards applicable to different settings.

**Figure 1 Applicable standards**

Applicable standards		Emergency Department	Children’s Assessment Unit	In-patient Children’s Ward	In-patient Children’s Ward (elective admissions only)	Anaesthesia service & general ICU	Retrieval Service	PICU
<b>A</b>	<b>Hospital-wide core standards*</b>	√	√	√	√	√	√	√
<b>B</b>	<b>Emergency Departments, Children’s Assessment Units, In-patient Children’s Services</b>							
<b>B1</b>	Core standards for each area	√	√	√	√			
<b>B2</b>	Reception of Critically Ill Children	√	√	√				
<b>B3</b>	In-Patient Care of Children			√	√			
<b>C</b>	<b>Anaesthesia &amp; General Intensive Care for Children</b>					√		
<b>D</b>	<b>Retrieval Service</b>						√	
<b>E</b>	<b>Paediatric Intensive Care</b>							√

\* Hospital-wide core standards are reviewed once for each Hospital.

Each section of the standards starts with a set of Objectives. These indicate the intentions behind the detail of the Standards. They also provide guidance in the event of any doubt about the interpretation of the Standards.

Each standard has three sections. The first is a reference number. The second is the wording of the standard that should be achieved. The third section, 'demonstration of compliance', indicates how achievement of the standard may be demonstrated. Where written guidelines or protocols are mentioned, these should be available. They may cover more than one standard and the format and content of guidelines should be as each Hospital sees fit. They should show that the standard has been met. Some standards do not mention written information as necessary for compliance. In these cases, information can be gathered as part of a review process, for example, from viewing facilities and equipment.

# A

## HOSPITAL-WIDE STANDARDS

### Objectives

- All NHS Hospitals should be clear of their role in the care of critically ill children and of the other units that will normally be expected to provide other elements of this care.
- All NHS Hospitals should comply with published guidance on health services for children, in particular, the *National Service Framework for Children — Standard for Hospital Services* and equivalent documents for Wales, Scotland and Northern Ireland.
- Walk-in Centres, Urgent Care Centres and hospitals with Minor Injury Units should receive only children with minor clinical conditions and have in place a protocol for use in the event of a critically ill child, or potentially critically ill child, presenting.
- All NHS Hospitals should ensure that staff caring for critically ill children have the competences needed for the roles they will be undertaking and appropriate arrangements for maintaining these competences.

Responsibility for these standards lies with the Hospital’s Board Director for Children’s Services (standard 4).

Ref.	Standard	Demonstration of compliance
CONFIGURATION OF SERVICES		
1.	<p>The Hospital Board/Trust should be clear whether it provides the following services and the hospital site or sites on which each service is available:</p> <ul style="list-style-type: none"> <li>• Minor Injury Unit, Walk-in Centre or Urgent Care Centre</li> <li>• Emergency Department for adults only</li> <li>• Emergency Department for children</li> <li>• Children’s assessment service</li> <li>• In-patient children’s service</li> <li>• Children’s day surgery service</li> <li>• Paediatric Intensive Care retrieval and transfer service</li> <li>• Paediatric intensive care.</li> </ul>	<p>Written description of services consistent with other publicly available material about the Hospital.</p>

Ref.	Standard	Demonstration of compliance
2.	If the Hospital provides a children's assessment service, this should be sited alongside either an Emergency Department or an in-patient children's service.	Written description of services.
MINOR INJURIES UNITS ONLY		
3.	If the Hospital's services (standard 1) include a Minor Injuries Unit, Walk-in Centre or Urgent Care Centre, this Unit should have a protocol in use in the event of a critically ill child, or potentially critically ill child, presenting. This protocol should include transfer to an appropriate paediatric unit.	Written protocol.  <i>Notes:</i> <i>1 This standard only applies to Minor Injuries Units, Walk-in Centres and Urgent Care Centres.</i> <i>2 If these are the only services for critically ill children provided by the Hospital then no other standards are applicable.</i>
ORGANISATION OF SERVICES		
4.	A Board level lead for children's services should be identified.	Named Director.
5.	The Board level lead for children's services should ensure that the following leads for the care of children have been identified : <ul style="list-style-type: none"> <li>• nominated lead surgeon (standard 17)</li> <li>• nominated lead consultants and nurses for each of the areas where children may be critically ill (standards 32 and 36)</li> <li>• nominated lead anaesthetist (standard 79) and lead ICU consultant (standard 80)</li> <li>• nominated lead consultant and lead nurse for the Retrieval Service (standard 101 and 105), if applicable</li> <li>• nominated lead consultant and lead nurse for PICU (standard 154 and 163), if applicable.</li> </ul>	Names of nominated leads.
6.	Hospitals providing services for children should have a single group responsible for the coordination and development of care of critically ill / injured children. The membership of this group should include all nominated leads (standard 5) and the Resuscitation Officer with lead responsibility for children.  The accountability of the group should include the Hospital Board / Trust Director with responsibility for children's services (standard 4). The relationship of this group to the Hospital's mechanisms for safeguarding children (standard 9) and clinical governance issues relating to children (standard 10) should be clear.	Terms of reference, membership and accountability of the group.  <i>Note: This group may have other functions so long as the standard is met in relation to terms of reference, membership and accountability.</i>



Ref.	Standard	Demonstration of compliance
7.	The mechanism for approval of policies, procedures, guidelines and protocols relating to the care of critically ill children should have been agreed by the Hospital-wide group (standard 6) or a sub-group thereof.	Mechanism for approval of policies and procedures, agreed by Hospital-wide group. Policies and procedures agreed in accordance with this mechanism.  <i>Note: The mechanism for approval may be through the group itself or through other structures within the Hospital.</i>
8.	All policies, procedures, guidelines and protocols relating to the care of critically ill children should comply with Hospital document control procedures.	Policies and procedures meeting reasonable document control standards of monitoring, review and version control.
9.	All staff involved with the care of children should: <ul style="list-style-type: none"> <li>• Have regular training in safeguarding children appropriate to their role</li> <li>• Be aware who to contact if they have concerns about safeguarding issues and</li> <li>• Should be working in accordance with latest national guidance on safeguarding children.</li> </ul>	Staff awareness of local policy and the appropriate person to contact with concerns.  <i>Note: This Standard is included to ensure that safeguarding is not forgotten. Detailed consideration of safeguarding arrangements is not expected.</i>
10.	Hospitals in England & Wales should have implemented all aspects of their respective National Service Frameworks for Children regarding clinical governance, including those relating to serious events and near misses.	Investigation and reporting arrangements. Evidence of multidisciplinary learning. Risk register.  <i>Note: Further details of the serious events and near miss requirements for Hospitals in England are given in the National Service Framework for Children (England) — Standard for Hospital Services paragraph 4.6.</i>
11.	The Hospital should have mechanisms for: <ul style="list-style-type: none"> <li>• Receiving feedback from children and families about the treatment and care they receive</li> <li>• Involving children and carers in decisions about the organisation of the services.</li> </ul>	Description of current arrangements. Examples of changes made as a result of feedback from children and families.  <i>Note: The arrangements for receiving feedback from patients and carers may involve surveys, focus groups and/or other arrangements. They may be part of Hospital-wide arrangements so long as issues relating to children's services can be identified.</i>
<b>HOSPITAL SITES WITH EMERGENCY SERVICES FOR ADULTS ONLY</b>		
12.	Hospitals without on-site assessment or in-patient services for children should: <ul style="list-style-type: none"> <li>• Indicate clearly to the public the nature of the service provided for children</li> <li>• Have agreed a protocol with the local ambulance service that children are not brought to the service by ambulance.</li> </ul>	Signage and details of public awareness work undertaken. Protocol agreed with ambulance service.  <i>Note: This standard does not apply to hospitals providing an Emergency Department for children, children's assessment services or in-patient children's services.</i>

Ref.	Standard	Demonstration of compliance
13.	Hospitals without on-site assessment or in-patient services for children should have guidelines for accessing paediatric medical advice agreed with a local paediatric medical unit and regularly reviewed.	<p>Written guidelines covering 24-hour advice available in all areas where children may be seen.</p> <p><i>Note: This standard does not apply to hospitals providing an Emergency Department for children, children's assessment services or in-patient children's services.</i></p>
<b>ALL HOSPITAL SITES</b>		
14.	On each hospital site there should be 24 hour cover by a consultant paediatrician who is able to attend within 30 minutes and does not have responsibilities to other hospital sites.	<p>Medical staff rotas.</p> <p><i>Notes:</i></p> <p>1 This standard is not applicable to hospital sites providing emergency services for adults and no other services for critically ill children.</p> <p>2 On hospital sites providing day surgery only, this standard applies to the time when children may be present.</p>
15.	On each hospital site there should be 24 hour cover by a consultant anaesthetist who is able to attend within 30 minutes and does not have responsibilities to other hospital sites.	Medical staff rotas.
16.	On each hospital site, a clinician with competences in resuscitation, stabilisation and intubation of children should be available on site at all times.	<p>Details of clinical staff available and training records</p> <p><i>Notes:</i></p> <p>1 On hospital sites providing day surgery only, this standard applies to the time when children may be present.</p> <p>2 The standard may be met by different staff who have competences in intubation of children of different ages so long as there are robust arrangements for intubation of children of all ages at all times.</p>
17.	There should be a nominated lead consultant surgeon responsible for policies and procedures relating to the management of emergency and elective paediatric surgery and trauma. This consultant should be regularly involved in the delivery of surgical services to children.	<p>Name of consultant surgeon.</p> <p>Details of involvement with the delivery of services to children.</p> <p><i>Note: The requirement for involvement in the delivery of surgical services for children does not apply to hospital sites providing emergency services for adults and no other services for critically ill children.</i></p>

Ref.	Standard	Demonstration of compliance
18.	On each hospital site providing services for children there should be 24-hour access to pharmacy, biochemistry, haematology, microbiology, pathology, imaging and physiotherapy services able to support the care of children, and weekday access to dietetic services.	Facilities available.  <i>Notes:</i> 1 This standard includes appropriate reporting arrangements. Services may be provided on site or through appropriate on call / network arrangements. 2 Hospital sites receiving acutely ill children should have CT scan and reporting available within one hour. 3 On hospital sites providing day surgery only, this standard applies to the time when children may be present. 4 This standard does not apply to hospitals providing an emergency service for adults and no other services for children.
19.	A Hospital bereavement policy should be in use which specifically covers the death of a child and bereavement of parents, carers and siblings. This policy should specify arrangements for obtaining consent for post-mortems.	Written policy  <i>Note: This standard does not apply to hospitals providing an emergency service for adults and no other services for children.</i>
20.	A Hospital policy on organ donation should be in use which is specific about organ donation in children and includes transplant coordinator contact details.	Written policy  <i>Note: This standard does not apply to hospitals providing an emergency service for adults and no other services for children.</i>
21.	A Hospital policy on staff acting outside their area of competence because this is in the best interest of the child should be in use covering: <ul style="list-style-type: none"> <li>• Exceptional circumstances when this may occur</li> <li>• Staff responsibilities</li> <li>• Reporting of event as an untoward clinical incident</li> <li>• Support for staff</li> </ul>	Written policy  <i>Note: This policy should be communicated to staff throughout children's services.</i>
22.	The unexpected death of a child while in hospital should undergo formal review. This review should be multi-professional and all reasonable steps should be taken to involve specialties who contributed to the child's care. Primary and community services should be involved where appropriate.	Examples of formal reviews, including learning outcomes.

# B

## EMERGENCY DEPARTMENTS, CHILDREN'S ASSESSMENT SERVICES AND IN-PATIENT CHILDREN'S SERVICES

### Objectives

- All services should comply with relevant national guidance on caring for children.
- Critically ill children should be cared for in an appropriate environment and, wherever possible, participate in decisions about their care.
- Families should be able to participate fully in decisions about the care of their child and in giving this care.
- Appropriate support services should be available to children and their families during the child's critical illness and, if necessary, through bereavement.
- Care should be provided by appropriately trained staff in appropriately equipped facilities.
- With the exception of elective day surgery, availability of services should not vary over a 24 hour period.
- All services should have a multi-disciplinary approach to care where the expertise of all members of the multi-disciplinary team is valued and utilised.
- All services should have robust arrangements for assessment, resuscitation, stabilisation and maintenance of critically ill children until their condition improves or the Retrieval Service arrives.
- All children needing intensive care should be transferred to a Paediatric Intensive Care service unless their condition is expected to improve quickly (i.e. with 12 - 24 hours).
- All services should have robust arrangements for transfer to a Paediatric Intensive Care service by the Retrieval Service covering the local population.
- All services should be prepared to transfer a child to a Paediatric Intensive Care service when, because of the urgency of the situation, waiting for the Retrieval Service to arrive would introduce potentially dangerous delay. Such transfers should be carried out by appropriately trained and equipped staff.
- All hospitals providing in-patient children's services should be prepared to care for children who are, or who become, critically ill and should be able to provide short-term paediatric high dependency care. Short-term is not strictly defined but, in the context of these Standards, can be taken as up to 48 hours. Some hospitals will have the staffing and facilities, usually in 'high dependency units', to provide high dependency care for longer periods.
- All services should have appropriate governance arrangements, including data collection and audit.

# B1 CORE STANDARDS FOR EACH AREA

These standards apply to each area of the hospital where a) critically ill children may arrive and/or b) where day case or in-patient care is given.

Support for children and their families is needed throughout a critical illness. Appendices 10 and 11 give further advice on facilities and support for families of critically ill children and on provision for play as part of the child's continued development.

Responsibility for these standards lies with the nominated lead consultant (standard 32) and nominated lead nurse (standard 36) for each area. Ensuring the appointment of a nominated lead consultant and nominated lead nurse for each area is the responsibility of the Lead Director for Children's Services (standard 4).

Ref.	Standard	Demonstration of compliance
SUPPORT FOR CRITICALLY ILL CHILDREN AND THEIR FAMILIES		
23.	There should be a child-friendly environment, including toys and books / magazines for children of all ages. There should be visual and, ideally, sound separation from adult patients.	Facilities available. <i>Note: This standard does not apply to areas used only for resuscitation of children.</i>
24.	There should be parental access to the child at all times except when this is not in the best interests of the child or the privacy and confidentiality of other children and their families.	Examples of information for children and parents. Results from feedback surveys of parents & carers. <i>Note: Information should be available in formats and languages appropriate to the needs of the patients and their families.</i>
25.	Children should be offered appropriate information to enable them to share in decisions about their care.	Examples of age-appropriate information. <i>Note: As standard 24.</i>
26.	Parents should have information, encouragement and support to enable them fully to participate in decisions about, and in the care of, their child.	Examples of information for parents. <i>Note: As standard 24.</i>
27.	Parents should be informed of the child's condition, care plan and retrieval (if necessary) and this information should be updated regularly.	Written guidelines on communication with parents. <i>Note: As standard 24.</i>
28.	Parents of children needing emergency transfer should be given all possible help regarding transport, hospital location, car parking and location of the unit to which their child is being transferred.	Examples of information for parents. Information should include at least a map, directions, car parking advice and contact numbers. <i>Notes:</i> <i>1 As standard 24.</i> <i>2 This information should be provided by Retrieval Services to which children are normally referred (standard 100).</i>

Ref.	Standard	Demonstration of compliance
29.	<p>The following support services should be available:</p> <ul style="list-style-type: none"> <li>• Interfaith and spiritual support</li> <li>• Social workers</li> <li>• Interpreters</li> <li>• Bereavement support</li> <li>• Patient Advice and Advocacy Services</li> </ul> <p>Information for parents about these services should also be available.</p>	<p>Support services and relevant information available.</p> <p><i>Notes:</i>  1 'Availability' of support services is not defined but should be appropriate to the case mix and needs of the patients.  2 As standard 24</p>
30.	<p>A policy on financial support for families of critically ill children should be developed and communicated to parents.</p>	<p>Information for parents covering, at least, costs of travel, car parking and, if applicable, overnight accommodation.</p> <p><i>Notes:</i>  1 This standard is not applicable to emergency services for adults only.  2 As standard 24.</p>
31.	<p>Appropriately qualified play specialists should be available 7 days a week.</p>	<p>Name/s of play specialists.</p> <p><i>Notes:</i>  1 At least one play specialist should have the Hospital Play Specialist qualification or equivalent.  2 This standard is not applicable to emergency services for adults only or Emergency Departments seeing less than 16,000 children per year. Emergency Departments seeing less than 16,000 children per year should however have regular advice and support from play specialists.</p>
<b>CLINICAL COMPETENCES</b>		
32.	<p>There should be a nominated consultant responsible for:</p> <ul style="list-style-type: none"> <li>• Protocols covering the assessment and management of the critically ill child</li> <li>• Ensuring training of relevant medical staff</li> <li>• Ensuring training of clinical staff undertaking the roles covered by standards 34 and 35.</li> </ul> <p>This consultant should undertake regular clinical work within the area for which s/he is responsible.</p>	<p>Name of consultant.</p>
33.	<p>The nominated consultant (standard 32) should ensure that all relevant medical staff and clinical staff (standard 34) have appropriate, up to date paediatric resuscitation training.</p>	<p>Training records.</p> <p><i>Note: The level of training and updating appropriate to different staff is shown in Appendix 5.</i></p>

Ref.	Standard	Demonstration of compliance
34.	A clinician with up to date advanced paediatric resuscitation training should be on duty at all times.	<p>Staff rotas and training records.</p> <p><i>Notes:</i></p> <p>1 In areas providing day surgery only, this standard applies to the time during which children may be present.</p> <p>2 The level of training and updating appropriate to different staff is shown in Appendix 5.</p>
35.	<p>There should be 24 hour resident cover by a clinician with competences, and at least 12 months experience, in:</p> <ul style="list-style-type: none"> <li>• Assessment of the ill child and recognition of serious illness and injury</li> <li>• Initiation of appropriate immediate treatment</li> <li>• Prescribing and administering resuscitation and other appropriate drugs</li> <li>• Provision of appropriate pain management</li> <li>• Effective communication with children and their families.</li> </ul> <p>The level of competence expected is equivalent to paediatric medicine (RCPCH) level 1 competences in these subjects.</p>	<p>Staff rotas. Details of training, competences and experience of staff.</p> <p><i>Notes:</i></p> <p>1 The clinician with these competences should be immediately available but may or may not be based within the area being reviewed.</p> <p>2 In areas providing day surgery only, this standard applies to the time during which children may be present.</p> <p>3. RCPCH competence frameworks are available at:  <a href="http://www.rcpch.ac.uk/Training/Competency-Frameworks">www.rcpch.ac.uk/Training/Competency-Frameworks</a></p>
36.	<p>There should be a nominated senior children's nurse with responsibility for:</p> <ul style="list-style-type: none"> <li>• Protocols covering the assessment and management of the critically ill child</li> <li>• Ensuring training of appropriate nursing staff.</li> </ul> <p>This nurse should undertake regular clinical work within the area for which s/he is responsible.</p>	Name of nurse.
37.	The nominated lead nurse (standard 36) should ensure that all relevant nursing staff have appropriate, up to date paediatric resuscitation training.	<p>Training records.</p> <p><i>Note:</i> As standard 33.</p>
38.	There should always be at least one nurse on duty with up to date paediatric resuscitation training.	<p>Nursing rotas and training records.</p> <p><i>Notes:</i> As standard 34.</p>
39.	Emergency Departments and day surgery services for children should have at least one registered children's nurse on duty at all times in each area. Children's assessment services and in-patient services for children should have at least two registered children's nurses on duty at all times in each area.	<p>Nursing rotas</p> <p><i>Notes:</i></p> <p>1 Services should be planning to achieve this standard. The RCN has set a target date of 2015 for full implementation.</p> <p>2 Small services which are co-located may share staff.</p>

Ref.	Standard	Demonstration of compliance
<b>FACILITIES AND EQUIPMENT</b>		
40.	An appropriately designed and equipped area, or adequate mobile equipment, for resuscitation and stabilisation of critically ill children of all ages should be available. Drugs and equipment should be checked in accordance with local policy.	Suitable area containing the drugs and equipment listed in Appendix 3. Policy covering frequency of checking and evidence of checks having taken place in accordance with this policy.
<b>GUIDELINES, POLICIES AND PROCEDURES</b>		
41.	Guidelines should be in use covering: <ul style="list-style-type: none"> <li>• Admission</li> <li>• Discharge</li> <li>• Treatment of all major conditions, including head injuries, meningococcal infection, asthma, status epilepticus, upper airway obstruction and inhaled foreign body.</li> </ul>	Written guidelines.  <i>Notes:</i> 1 Guidelines should be clear on the roles and responsibilities of all members of the multi-disciplinary team, including anaesthetic services (see standard 14 and 90) 2 Guidelines should include actions to prevent / prepare for deterioration.
42.	Protocols should be in use covering resuscitation and stabilisation.	Written protocol.  <i>Notes:</i> 1 As standard 41 note 1. 2 In Emergency Departments with no on-site children's assessment or in-patient children's service, this protocol should be clear about the arrangements for ensuring paediatric medical and appropriate anaesthetic input to the care of the child.
43.	Resuscitation and stabilisation protocols (standard 42) should be clear about the indications and arrangements for accessing ENT services when needed for airway emergencies.	Written protocol
44.	Protocols should be in use covering accessing advice from a Retrieval Service or PIC consultant and providing full clinical information.	Written protocol for 24-hour advice, including referral protocols and contact numbers.  <i>Notes:</i> 1 Although the Retrieval Service / PICU will give advice, the management of the child remains the responsibility of the referring team until the child is transferred to the Retrieval Service / PICU team. It is also expected that the local paediatrician or anaesthetist will remain involved with the care of the child and support the work of the Retrieval Service while on-site. 2 Essential referral information is given in Appendix 7. 3 As standard 42 notes 1 and 2.



Ref.	Standard	Demonstration of compliance
45.	Protocols should be in use covering transfer to a PICU.	Written protocol agreed with the Retrieval Service covering the local population. <i>Note: As standard 42 notes 1 and 2.</i>
46.	The transfer protocol (standard 45) should include local guidelines on the maintenance of intensive care for a critically ill child until the child's condition improves or the retrieval team arrives. These guidelines should stipulate the location/s in which children may be maintained.	Local guidelines on maintenance of intensive care. <i>Note: As standard 42 notes 1 and 2.</i>
47.	Decisions on whether a child needs to be transferred should be taken by the appropriate local consultant with a PIC consultant.	Written protocol. Audit of retrievals is a desirable additional demonstration of compliance. <i>Note: As standard 42 notes 1 and 2.</i>
48.	Arrangements should be in place covering when the lead PIC centre is full or the retrieval team cannot function.	Written protocol agreed with the Retrieval Service covering the local population. <i>Note: This protocol may include reference to the transfer contingency plan (standard 51).</i>
49.	There should be arrangements for the transfer of children requiring specialised intensive care not available in the lead PIC centre, including burns care and ECMO.	Written protocol. <i>Note: This standard is not applicable to areas providing elective surgery only.</i>
50.	Protocols should be in use covering transfer of seriously ill children within the hospital, for example, to or from imaging or theatre. The protocol should specify the escort arrangements and equipment required.	Written protocol.

Ref.	Standard	Demonstration of compliance
TRANSFER CONTINGENCY PLAN		
51.	<p>Arrangements should be in place for situations where retrieval is clinically inappropriate or time-critical, for example, severe head injury, intracranial bleeding, severe thoracic vascular trauma, burns and some intra-abdominal emergencies, where retrieval may introduce unsafe delay. The arrangements should include:</p> <ul style="list-style-type: none"> <li>• advice from the Retrieval Service or lead PIC centre (standard 44)</li> <li>• contact details of relevant specialists where additional advice may be required, for example, neurosurgeons</li> <li>• escort team of one nurse and one doctor</li> <li>• training and experience of escort team (standards 52, 53)</li> <li>• indemnity for escort team</li> <li>• drugs and equipment (standard 54)</li> <li>• arrangements for emergency transport with a local ambulance service and the air ambulance</li> <li>• arrangements for ensuring restraint of children, equipment and staff during transfer.</li> </ul>	<p>Written protocol agreed with Retrieval Service covering the local population.</p> <p><i>Notes:</i></p> <p>1 This standard cannot be met if any of standards 44, 52, 53 and 54 are not met.</p> <p>2 Information about ambulance services should include contact information, vehicle specification (road ambulance) and response times.</p> <p>3 All children, equipment and staff in the ambulance should be restrained during transfer in accordance with European CEN 1789/2000 standard. Age-appropriate child restraint devices should be available either within the department or there should be an arrangement with the ambulance service for such devices to be provided. Equipment used during transport should be capable of being secured to the stretcher and there should be no loose items in the rear cabin.</p>
52.	<p>The referring consultant should judge the appropriateness of the medical escort. This would normally be a senior clinician with competences in a) care of the critically ill child or b) emergency transfer or c) airway management.</p>	<p>Written guidelines.</p>
53.	<p>The accompanying nurse should normally be a senior nurse with competences in a) care of the critically ill child or b) emergency transfer or c) airway management.</p>	<p>Written guidelines.</p>
54.	<p>Appropriate drugs and equipment available for an emergency transfer should be available. Drugs and equipment should be checked in accordance with local policy.</p>	<p>Inventory of drugs and equipment. Policy covering frequency of checking and evidence of checks having taken place in accordance with this policy.</p> <p><i>Note: The drugs and equipment listed in Appendix 3 are a guide to those that should be available for an emergency transfer.</i></p>

Ref.	Standard	Demonstration of compliance
GOVERNANCE		
55.	The service should have appropriate arrangements for clinical review of morbidity, mortality, transfers and untoward clinical incidents.	Evidence of review meetings. <i>Note: This standard is additional to the requirements of standards for review with the Retrieval Service and PICU (standards 128 and 183).</i>
56.	The service should be submitting data to, and participating in, appropriate national, regional and local clinical audit programmes.	Evidence of submission of data to appropriate audit programmes.

## B2 RECEPTION OF CRITICALLY ILL CHILDREN

These standards apply to each area in the hospital (except Minor Injuries Units, Walk-in Centres and Urgent Care Centres) where critically ill children may arrive. They are additional to the standards in section B1 which should also be met. Responsibility for these standards lies with the nominated lead consultant (standard 32) and nominated lead nurse (standard 36) for each area.

Ref.	Standard	Demonstration of compliance
EMERGENCY DEPARTMENTS CARING FOR CHILDREN		
57.	There should be a nominated paediatric consultant responsible for liaison with the nominated Emergency Department consultant (standard 32).	Name of consultant.
58.	Emergency departments seeing 16,000 or more child attendances per year should have an emergency department consultant with sub-specialty training in paediatric emergency medicine and a consultant paediatrician with sub-specialty training in paediatric emergency medicine.	Name of consultants. <i>Note: This standard is applicable only to departments seeing 16,000 or more children and young people per year.</i>
59.	Emergency departments seeing less than 16,000 child attendances per year should have arrangements in place to ensure the ongoing competence of clinical staff in the care of critically ill children.	Details of arrangements for ensuring ongoing competence of clinical staff. <i>Note: This standard is not applicable to Emergency Departments seeing 16,000 or more children and young people per year.</i>
60.	Protocols for accessing advice from the local in-patient children's service and local intensive care team should be agreed and regularly reviewed.	Written protocol covering 24-hour advice.

Ref.	Standard	Demonstration of compliance
ALL DEPARTMENTS WHICH ARE 'OPEN' TO CHILDREN		
61.	A system for alerting and organising the appropriate team within the hospital (for example, paediatric resuscitation team, trauma team) should be in place.	Written protocol. <i>Note: In Emergency Departments which do not care for children this protocol should cover the system for alerting the hospital to which patient is transferred.</i>
62.	A triage system should be operating which recognises the needs of children and ensures that all non-ambulant patients are triaged immediately.	Written protocol. <i>Note: This protocol should ensure visual assessment within minutes of arrival, a brief clinical assessment within 15 minutes of arrival and a system of prioritisation for full assessment if waiting times exceed 15 minutes. Initial assessment should include a pain score where appropriate.</i>

## B3 IN-PATIENT CARE OF CHILDREN (INCLUDING HIGH DEPENDENCY CARE)

These standards apply to each area in the hospital providing in-patient care for children. They are additional to the standards in section B1 which should also be met. Responsibility for these standards lies with the nominated lead consultant (standard 32) and nominated lead nurse (standard 36) for each area.

Ref.	Standard	Demonstration of compliance
SUPPORT FOR CRITICALLY ILL CHILDREN AND THEIR FAMILIES		
63.	Parents should be given written information about the unit, including visiting arrangements, ward routine and location of facilities within the hospital that the parents may want to use.	Examples of information for parents. <i>Note: Information should be available in formats and languages appropriate to the needs of the patients and their families.</i>
64.	Facilities should be available for the parent of each child, including: <ul style="list-style-type: none"> <li>• Somewhere to sit away from the ward</li> <li>• A quiet room for relatives</li> <li>• A kitchen, toilet and washing area</li> <li>• A changing area for other young children.</li> </ul>	Facilities available.
65.	Overnight facilities should be available for the parent or carer of each child, including a foldaway bed or pullout chair-bed next to the child.	Facilities available.

Ref.	Standard	Demonstration of compliance
66.	Units expecting to provide high dependency care for longer than 48 hours should have appropriate facilities for parents and carers to stay overnight, including accommodation on site but away from the ward.	Facility available. <i>Note: This standard is not applicable to units that expect to provide short-term high dependency care only.</i>
CLINICAL COMPETENCES		
67.	There should be 24 hour resident cover by a clinician trained to, or training at, the equivalent of paediatric medicine (RCPCH) level 2 competences or above.	Medical staff rotas. <i>Notes:</i> <i>1 For doctors in training, this will normally be ST3 or above.</i> <i>2 RCPCH competence frameworks are available at:</i> <a href="http://www.rcpch.ac.uk/Training/Competency-Frameworks">www.rcpch.ac.uk/Training/Competency-Frameworks</a>
68.	There should be a nominated paediatric consultant with lead responsibility for policies and procedures relating to high dependency care.	Name of consultant. <i>Note: This may or may not be the same person as the nominated lead for the area (standard 32).</i>
69.	There should be access to other appropriate specialties depending on the usual case mix of patients, for example, 24-hour ENT cover for tracheostomy care.	Details of arrangements.
70.	There should be a nominated lead nurse with responsibility for policies and procedures relating to high dependency care. This should be a senior children's nurse with competences and experience in providing high dependency care.	Name of nurse. <i>Note: This may or may not be the same person as the nominated lead nurse for the area (standard 36).</i>
71.	There should be 24-hour on-site access to a senior nurse with intensive care skills and training	Details of arrangements.
72.	Children needing high dependency care should be cared for by a children's nurse with paediatric resuscitation training and competences in providing high dependency care.	Nursing rotas showing at least one nurse per shift with appropriate competences or local audit of high dependency care. <i>Note: Appendix 1 includes definitions of high dependency care. Appendix 5 gives details of expected resuscitation training.</i>
73.	Nurse staffing for children needing high dependency care should be 0.5:1 or 1:1 if nursed in a cubicle.	Local audit of high dependency care. <i>Notes:</i> <i>1 Appendix 1 includes definitions of high dependency care.</i> <i>2 In larger high dependency units, a supernumerary shift leader will also be needed.</i>
74.	If children with tracheostomies are cared for on the ward, there should be a nurse with skills in tracheostomy care on each shift.	Details of arrangements. <i>Note: This standard is not applicable if children with tracheostomies are not admitted.</i>

Ref.	Standard	Demonstration of compliance
<b>FACILITIES AND EQUIPMENT</b>		
75.	An appropriately designed and equipped area for providing high dependency care for children of all ages should be available. Drugs and equipment should be checked in accordance with local policy.	<p>Suitable area containing the drugs and equipment listed in Appendix 3. Policy covering frequency of checking and evidence of checks having taken place in accordance with this policy.</p> <p><i>Note: This may or may not be the same area as in standard 40.</i></p>
<b>GUIDELINES, POLICIES AND PROCEDURES</b>		
76.	Guidelines should be in use covering the type of children for whom high dependency care will normally be provided and the expected duration of high dependency care. These guidelines should specify the expected age and medical interventions (including duration of interventions).	<p>Written guidelines</p> <p><i>Note: All in-patient units should be able to provide high dependency care for at least 48 hours. Some service may be staffed (standards 72 and 73) to provide high dependency care for longer periods of time.</i></p>
<b>DATA COLLECTION AND AUDIT</b>		
77.	There should be arrangements in place for collection of clinical data on all children receiving high dependency or intensive care and for submission of these data to lead PICU audit programmes.	<p>Evidence of submission of data to lead PICU audit programmes.</p> <p><i>Note: This standard is linked to standard 182.</i></p>

# C

## ANAESTHESIA AND GENERAL INTENSIVE CARE FOR CHILDREN

### Objectives

- Arrangements and Facilities for Children receiving Anaesthetic & Critical Care services should comply with *Guidelines for the Provision of Anaesthetic Services (Paediatric Anaesthesia & Critical Care Services Sections)*, *The Royal College of Anaesthetists, 2009*.
- Anaesthesia for children should be delivered by practitioners with familiarity and experience of the techniques necessary to provide safe peri-operative care.
- All Anaesthetic Departments providing care for children should be clear about the limits of their expertise and have agreed guidelines to manage both elective and emergency workloads.
- The paediatric anaesthetic service should be delivered in facilities and with supporting infrastructure that is 'fit for purpose'.
- Children should be admitted to General Intensive Care Units only when it is in the best interests of the child and when there are appropriate arrangements for support and review by staff with skills and experience in the care of children and liaison with Paediatric Intensive Care staff.

Responsibility for these standards lies with the Head of Anaesthesia / Intensive Care, the nominated lead consultant anaesthetist responsible for policies and procedures relating to children (standard 79), the nominated lead intensive care consultant for policies and procedures relating to children (standard 80), the nominated lead surgeon responsible for policies and procedures relating to children's surgery (standard 17), working closely with the lead consultants for each area (standard 32) and the Board level lead for children's services (standard 4).

Ref.	Standard	Demonstration of compliance
CONFIGURATION OF ANAESTHETIC / SURGICAL SERVICES		
78.	The Hospital should be clear whether it provides the following services for children and the hospital site or sites on which each service is available: <ul style="list-style-type: none"><li>• Elective in-patient surgery</li><li>• Day case surgery</li><li>• Emergency surgery</li><li>• Acute pain service</li></ul>	Written description of services.

Ref.	Standard	Demonstration of compliance
CLINICAL COMPETENCES		
79.	There should be a nominated consultant anaesthetist with responsibility for policies and procedures relating to emergency and elective anaesthesia of children. This consultant should be involved in the delivery of anaesthetic services to children.	<p>Name of consultant anaesthetist. Details of involvement with the delivery of services to children.</p> <p><i>Note: The requirement for involvement in the delivery of anaesthetic services for children does not apply to hospital sites providing emergency services for adults and no other services for critically ill children.</i></p>
80.	There should be a nominated lead intensive care consultant with responsibility for Intensive Care Unit policies and procedures relating to children.	<p>Name of consultant.</p> <p><i>Notes:</i> 1 The lead consultant may also be the lead anaesthetist for children (standard 79). 2 This standard is not applicable if a general intensive care unit is not one of the possible areas for maintenance of intensive care (standard 46).</p>
81.	All anaesthetists and intensivists with emergency or elective paediatric responsibility should have up to date knowledge of advanced paediatric life support / resuscitation and stabilisation of critically ill children.	<p>Details of arrangements for maintaining competence of staff for their roles within the resuscitation and stabilisation of critically ill children.</p> <p><i>Notes:</i> 1 This training should comprise up to date appropriate in-house or other resuscitation and stabilisation training related to children. 2 The Royal College of Anaesthetists 'Guidance on Paediatric Anaesthesia' (2009) states that "consultants who have no fixed paediatric lists but have to provide out-of-hours cover should undertake regular annual CME which involves supervised work with a paediatric anaesthetic colleague". Examples include supernumerary attachments to paediatric lists or secondments to specialist centres / paediatric simulator work. 3 The role of the anaesthetic service in the care of critically ill children should be described in standards 41 to 47</p>



Ref.	Standard	Demonstration of compliance
82.	All anaesthetists involved in the elective surgical management of children should be familiar with current practice and the techniques necessary to provide safe care for children, including acute pain management.	Details of current experience (i.e. usual sessions per week / month) and relevant CPD of anaesthetists involved in elective surgical management of children.  <i>Note: Relevant CPD may include participation in departmental audit programmes.</i>
83.	There should be a nominated lead nurse with responsibility for ensuring policies, procedures and nurse training relating to children admitted to the general intensive care unit are in place. In general intensive care units admitting children regularly, the lead nurse should have specific competences in intensive care of children.	Name of lead nurse and details of training undertaken.  <i>Notes:</i> <i>1 It is desirable in all units that the lead nurse is a senior nurse with specific competences in looking after critically ill children.</i> <i>2 As standard 80 note 2.</i> <i>3 An example of a training programme appropriate for nurses in general intensive care units is given in Appendix 4.</i>
84.	Operating department assistance from personnel trained and familiar with paediatric work should be available for all emergency and elective children's surgery.	Evidence of staff training and experience.
85.	At least one member of the recovery room staff who has training and experience in paediatric practice should be available for all elective children's lists.	Evidence of staff training and experience.
<b>FACILITIES AND EQUIPMENT</b>		
86.	Child-friendly paediatric anaesthetic induction and recovery areas should be available within the theatre environment.	Facilities available  <i>Note: 'Child-friendly' should normally include visual and sound separation from adult patients.</i>
87.	Children needing elective surgery should be admitted to a day surgery unit or a children's ward area specifically identified for children's day surgery.	Facilities available
88.	Appropriate drugs and equipment should be available in each area in which paediatric anaesthesia is delivered. Drugs and equipment should be checked in accordance with local policy.	Drugs and equipment listed in Appendix 3 available in each area. Policy covering frequency of checking and evidence of checks having taken place in accordance with this policy.

Ref.	Standard	Demonstration of compliance
89.	The general intensive care unit should have an appropriately designed and equipped area for providing intensive care for children. Drugs and equipment appropriate to the age and condition of children who may be admitted (standard 46) should be available and checked in accordance with local policy.	Drugs and equipment listed in Appendix 3 available in each area. Policy covering frequency of checking and evidence of checks having taken place in accordance with this policy.  <i>Note: As standard 80 note 2.</i>
<b>GUIDELINES, POLICIES AND PROCEDURES</b>		
90.	Protocols for resuscitation, stabilisation, accessing advice, transfer and maintenance of critically ill children (standards 41 to 47) should be clear about the role of the anaesthetic service and (general) intensive care in each stage of the child's care.	Evidence of inter-departmental agreement to protocols for standards 41 to 47.
91.	If the maintenance guidelines in standard 46 include the use of a general intensive care unit, they should specify: <ul style="list-style-type: none"> <li>• The circumstances under which a child will be admitted to and stay on the general intensive care unit</li> <li>• A children's nurse is available to support the care of the child and a senior children's nurse should review the child at least every 12 hours during their stay on the general intensive care unit</li> <li>• There should be discussion with a PICU about the child's condition prior to admission and regularly during their stay on the general intensive care unit</li> <li>• A local paediatrician should agree to the child being moved to the intensive care unit and should be available for advice</li> <li>• A senior member of the paediatric team should review the child at least every 12 hours during their stay on the general intensive care unit.</li> </ul>	Local guidelines on maintenance of intensive care in the general intensive care unit. Examples of patient notes / audits showing compliance with all aspects of the standard.  <i>Notes:</i> 1 As standard 80 note 2. 2 As standard 42 notes 1 and 2. 3 The requirement for discussion with PICU does not apply to children aged over 16 and for whom use of adult facilities is considered appropriate.
92.	Protocols should be in use covering: <ul style="list-style-type: none"> <li>• Exclusion criteria for elective and emergency surgery on children, including day case criteria</li> <li>• Non-surgical procedures requiring anaesthesia.</li> </ul>	Written protocols.  <i>Notes:</i> 1 These protocols should show consideration of children's age, clinical condition and co-morbidity and the time of day and expertise available within the hospital. 2 These protocols should be consistent with guidance on surgical services for children. 3 The protocols should be explicit about life-threatening situations where surgery needs to take place on site because transfer would introduce clinically inappropriate delay.

Ref.	Standard	Demonstration of compliance
93.	Clinical guidelines should be in use covering: <ul style="list-style-type: none"> <li>• Analgesia for children</li> <li>• Pre-operative assessment</li> <li>• Preparation of all children undergoing general anaesthesia.</li> </ul>	Written clinical guidelines.
94.	There should be close liaison between the lead consultant/s for paediatric anaesthesia (standard 79) and the Theatre Manager with regard to the training and mentoring of support staff.	Details of arrangements for ensuring collaboration.
95.	Wherever possible, elective surgery on children should be undertaken on dedicated operating lists for children. If dedicated lists are not feasible, children should be put at the start of lists with appropriately trained staff in the reception, anaesthetic room, theatre and recovery areas.	Written protocol or details of local arrangements.
<b>SUPPORT FOR CHILDREN AND FAMILIES</b>		
96.	Age-appropriate information about anaesthesia should be available for children and families	Information available <i>Note: Information should be available in formats and languages appropriate to the needs of the patients and their families.</i>
<b>DATA COLLECTION AND AUDIT</b>		
97.	There should be arrangements in place for collection of clinical data on all children receiving high dependency or intensive care and for submission of these data to lead PICU audit programmes.	Evidence of submission of data to lead PICU audit programmes. <i>Note: As standard 80 note 2.</i>

# D

## RETRIEVAL AND TRANSFER OF THE MOST CRITICALLY ILL CHILDREN

### Objectives

- A Retrieval Service should be available on a 24-hour basis to retrieve critically ill children from hospitals within the agreed catchment population
- The Retrieval Service should operate without compromising the care of children on the Paediatric Intensive Care Unit.
- The Retrieval Service should still operate when there is no bed available on the local Paediatric Intensive Care Unit.
- All transfers should be carried out by appropriately trained and equipped staff
- The Retrieval Service should actively support the care of critically ill children in referring hospitals, including through advice, training and audit.

The Retrieval Service may be provided by a PICU or by a separate Retrieval Service.

The Director of the Specialised Commissioning Team/s (or devolved Administrations' & National equivalents) for the population covered by the Retrieval Service is responsible for standard 98. The Lead Director for Children's Services within the host Hospital (standard 4) is responsible for ensuring the appointment of the lead consultant (standard 101) and lead nurse (standard 105). The nominated lead consultant (standard 101) and nominated lead nurse (standard 105) for the Retrieval Service are responsible for all other standards within this section.

Ref.	Standard	Demonstration of compliance
COMMISSIONING / STRUCTURING		
98.	The Retrieval Service should either be separately commissioned / structured or, if part of the PICU contract, should have specific activity and funding. The contract for the Retrieval Service should specify the normal catchment population for the service and any normal inclusions / exclusions in terms of age and conditions of children to be transferred.	Relevant sections of contract for Retrieval Service.
SUPPORT FOR CRITICALLY ILL CHILDREN AND THEIR FAMILIES		

Ref.	Standard	Demonstration of compliance
99.	Parents of children needing emergency transfer should be given all possible help regarding transport, car parking and directions to both the Hospital and the Unit to which their child is being transferred.	Examples of information for parents. Information should include at least a map, directions, car parking advice and contact numbers.  <i>Note: This standard duplicates standard 28. The intention is that the retrieval team will check that information has been given and, if not, will supply this information.</i>
100.	Information should be provided to referring hospitals to enable them to comply with standard 28.	Examples of information.  <i>Note: Referring hospitals are those within the Retrieval Service's normal catchment population (standard 98) and any other hospitals from which the Service receives a significant number of referrals.</i>
<b>CLINICAL COMPETENCES</b>		
101.	There should be a nominated lead consultant for the Retrieval Service responsible, with the lead nurse (standard 105) for ensuring training, protocols and audit are in place, and for sustaining regular links with referring hospitals. .	Name of consultant.
102.	The nominated lead consultant for the Retrieval Service should specify which medical staff are appropriately trained and experienced to carry out retrieval and whether or not direct consultant supervision is required.	List of medical staff authorised by the nominated lead consultant for the Retrieval Service to undertake retrievals.  <i>Note: In compiling the list of staff, account should be taken of the extent of recent experience of individual members of staff, whether appropriate CPD has been undertaken (standard 109) and whether staff are familiar with the equipment currently used by the Retrieval Service.</i>
103.	24 hour consultant advice should be available to the Retrieval Service and this consultant should be able to join the retrieval team if necessary. This consultant should not be providing cover for PICU at the same time as for the Retrieval Service.	Medical staffing rota.
104.	A doctor appropriately trained and experienced to carry out retrieval should be available at all times.	Medical staffing rota.  <i>Note: Retrieval Service staff may support PICU if not required for a retrieval so long as they are immediately available to the Retrieval Service when required.</i>

Ref.	Standard	Demonstration of compliance
105.	<p>There should be a nominated lead nurse for the Retrieval Service responsible, with the lead consultant (standard 101) for ensuring training, protocols and audit are in place and for sustaining links with referring hospitals.</p> <p>This should be a senior children's nurse with competences and experience in acute care of children.</p>	Name of nurse.
106.	<p>The nominated lead nurse should specify which nursing and other non-medical staff are appropriately trained and experienced to carry out retrievals and whether or not direct supervision is required.</p>	<p>List of nursing and other non-medical staff authorised by the nominated lead nurse for the Retrieval Service to undertake retrievals, and whether supervision is required.</p> <p><i>Note: Other non-medical staff may include Operating Department Practitioners and / or other staff with appropriate competences.</i></p>
107.	<p>A nurse or other non-medical member of staff trained and experienced to carry out retrievals should be available at all times.</p>	<p>Nursing rotas for Retrieval Service.</p> <p><i>Notes:</i>  1 As standard 104.  2 As standard 106.</p>
108.	<p>Staff working on the Retrieval Service should be indemnified for their practice in vehicles and in referring hospitals and should be insured for personal injury sustained in the course of their professional work.</p>	Evidence of indemnity and insurance.
109.	<p>All staff working on the Retrieval Service should be undertaking Continuing Professional Development of relevance to their work within the Retrieval Service.</p>	Discussion with staff. Evidence of ongoing CPD.
<b>FACILITIES AND EQUIPMENT</b>		
110.	<p>There should be a dedicated phone line for arranging retrievals, the telephone number of which should be distributed to referring hospitals.</p>	Details of phone line

Ref.	Standard	Demonstration of compliance
111.	<p>The Retrieval Service should have arrangements for emergency transport agreed with the local ambulance service. These arrangements should include contact information, vehicle specification and response times. The arrangements should ensure that all children, equipment, staff and parents in the ambulance are restrained during transfer in accordance with European CEN 1789/2000 standard.</p> <p>The arrangements should specify:</p> <ul style="list-style-type: none"> <li>• All ambulances should comply with: <ul style="list-style-type: none"> <li>○ BS EN 1789:2007</li> <li>○ BS EN 13976-2:2003 and 13976-1:200306/30106983</li> <li>○ DC EN 13718-1 and 13718-2 or more recent requirements</li> </ul> </li> <li>• All drivers should be trained to the core competences in the Driving Standard Agency 'Blue Light Expectations'</li> <li>• Use of traffic law exemptions will be audited as part of a quality assurance programme.</li> </ul>	<p>Written arrangements agreed with ambulance service.</p> <p><i>Notes:</i></p> <p><i>1 Age-appropriate child restraint devices should be available. Equipment used during transport should be capable of being secured to the trolley, and the trolley itself should be capable of being safely secured in the ambulance in accordance with CEN standards.</i></p> <p><i>2 If parents travel with their child in the ambulance then the Service Level Agreement with the ambulance service must include insurance of parents.</i></p>
112.	<p>The Retrieval Service should have arrangements for air transport which ensure compliance with European Aero-Medical Institute (EURAMI) / CAMTS Standards.</p>	<p>Written arrangements agreed with air transport service provider/s.</p>
113.	<p>The retrieval team should be equipped to care for children of different ages. Drugs and equipment should be checked in accordance with local policy.</p>	<p>Equipment available. Policy covering frequency of checking and evidence of checks having taken place in accordance with this policy.</p> <p><i>Note: Equipment should be appropriate for the ages of children the service is contracted to transfer.</i></p>
114.	<p>The retrieval team should have facilities to contact specialist teams throughout the retrieval, including during transport.</p>	<p>Details of communication facilities.</p>
<b>GUIDELINES, POLICIES AND PROCEDURES</b>		
115.	<p>The Retrieval Service should have an operational policy for handling requests for retrieval covering, at least:</p> <ul style="list-style-type: none"> <li>• Arrangements for ensuring consultant advice is available</li> <li>• Documenting the advice given.</li> </ul>	<p>Written policy</p> <p><i>Note: This standard links with standard 47.</i></p>

Ref.	Standard	Demonstration of compliance
116.	<p>The Retrieval Service should have an operation policy covering at least:</p> <ul style="list-style-type: none"> <li>• Normal catchment population for the service and any normal inclusions / exclusions in terms of age and conditions of children to be transferred</li> <li>• Number and types of staff allowed to go on retrievals</li> <li>• Roles within the retrieval</li> <li>• Staff rostering to minimise fatigue and unplanned overtime</li> <li>• Duty status during illness and pregnancy</li> <li>• 'Back up' plan for days when the Retrieval Service is not available or the local PICU is full</li> <li>• Vehicle breakdown and accidents.</li> </ul>	<p>Written policy.</p> <p><i>Note: The normal catchment population and service inclusions / exclusions should be consistent with the contract for the service (standard 98).</i></p>
117.	<p>The Retrieval Service should have written guidelines covering at least:</p> <ul style="list-style-type: none"> <li>• Staff alertness (especially single driver operations)</li> <li>• Moving and handling</li> <li>• Footware</li> <li>• Helmets</li> <li>• Flame retardant and reflective clothing</li> <li>• Eye and ear protection</li> <li>• Restraint of equipment, patient, staff and parents</li> <li>• Infection control</li> <li>• Hazardous materials recognition and response</li> <li>• Handover of clinical data to PICU</li> </ul>	<p>Written guidelines</p>
118.	<p>The Retrieval Service should have written guidelines covering arrangements for transfer of parents. Wherever possible and appropriate, parents should be given the option to accompany their child during the transfer. Where this is not possible or appropriate, other arrangements should be made to transfer parents.</p>	<p>Written guidelines covering arrangements for transfer of parents.</p>
119.	<p>The Retrieval Service should have a written policy on reporting of untoward clinical incidents. This policy should ensure that, where appropriate, untoward clinical incidents are reported to the governance arrangements of both the host organisation and referring hospital.</p>	<p>Written policy</p>
<b>GOVERNANCE</b>		
120.	<p>The Retrieval Service should have agreed the transfer protocols (standard 45) for all referring hospitals.</p>	<p>Schedule of agreed transfer protocols, including dates agreed and dates due for review.</p>
121.	<p>The Retrieval Service should have agreed the transfer contingency plans (standard 51) for each acute hospital within its usual catchment population.</p>	<p>Schedule of agreed transfer contingency plans, including dates agreed and dates due for review.</p>



Ref.	Standard	Demonstration of compliance
122.	The Retrieval Service should audit and monitor requests for retrieval to which it is not able to respond.	Audit of ability to respond.
123.	The retrieval team should arrive at the referring unit within three hours of the decision to retrieve the child.	Audit of retrievals. <i>Note: In remote area, where the Retrieval Service has considerable distance to travel, retrieval team should arrive within four hours of the decision to retrieve the child.</i>
124.	Wherever possible, a child should undergo one retrieval journey only.	Audit of retrievals involving more than one retrieval journey.
125.	Retrieval training exercises should be run at least annually.	Record of training exercises.
126.	The Retrieval Service should be collecting data on, at least: <ul style="list-style-type: none"> <li>• Referrals, including those that do not result in transfer</li> <li>• Referral information completeness</li> <li>• Advice to referring hospitals</li> <li>• Pre-transfer patient condition &amp; management</li> <li>• Retrievals</li> <li>• Ambulance response times</li> <li>• Untoward clinical incidents</li> <li>• Mortality and morbidity</li> </ul> These data should be collected for all children for whom retrieval was requested, including those not retrieved by the Service.	Evidence of data collection <i>Note: Essential referral information is given in Appendix 7.</i>
127.	The Retrieval Service should be submitting the required dataset to the Paediatric Intensive Care Audit Network (PICANet) within three months of the retrieval.	PICANet Annual Report
128.	The Retrieval Service should have arrangements for clinical review of cases, including review with referring hospitals.	Details of arrangements. <i>Note: The review of cases may be undertaken jointly with PICU or may be separate.</i>
129.	The Retrieval Service should produce an annual report summarising activity, compliance with quality standards, and clinical outcomes. The report should identify actions required to meet expected quality standards and progress since the previous year's annual report. This report should be shared with referring hospitals.	Annual report. Evidence of sharing with referring hospitals. <i>Note: The annual report may form part of the PICU annual report or may be separate.</i>

Ref.	Standard	Demonstration of compliance
130.	The Retrieval Service should offer an education / training programme for referring hospitals covering assessment, resuscitation, stabilisation and maintenance of critically ill and injured children prior to the arrival of the Retrieval Service.	<p>Details of training programme/s offered.</p> <p><i>Note: This education / training programme may be combined with the PICU programme (standard 138) or may be separate.</i></p>
131.	The Retrieval Service should have arrangements for receiving ongoing feedback from referring hospitals.	Details of arrangements.

# E

## PAEDIATRIC INTENSIVE CARE

### Objectives

- Paediatric Intensive Care units should be co-located with other appropriate specialist children's services and facilities as described in '*Commissioning Safe and Sustainable Specialised Paediatric Services: A Framework of Critical Inter-Dependencies*'. (Department of Health, 2008). Although this Document was drawn up for England, the Working Party endorses these principles for the setting of paediatric intensive care across the UK.
- Each PICU should either provide or have access to a 24 hour Retrieval Service meeting the Standards in Section D.
- All Paediatric Intensive Care (levels 2, 3 and 4) should be provided in Paediatric Intensive Care Units. Paediatric Intensive Care should be provided in other facilities only until the retrieval team arrives or if the child's condition is expected to improve quickly.
- Families should be able to participate fully in decisions about the care of their child and, wherever possible, in giving this care.
- Appropriate support services should be available to children and their families during the child's critical illness and, if necessary, through bereavement.
- Paediatric Intensive Care should be provided by appropriately trained staff in appropriately equipped facilities (as described in these Standards).
- Advanced intensive care techniques such as high frequency ventilation, haemofiltration or ECMO should not be delivered to children outside a PICU other than in exceptional circumstances.
- Each PICU should actively support the care of critically ill children in referring hospitals, including through advice, training and audit.

The Director of the Specialised Commissioning Team/s (or devolved Administrations' and National equivalents) for the population covered by the PICU is responsible for standard 132. The Lead Director for Children's Services (standard 4) is responsible for ensuring the appointment of the lead consultant (standard 154) and lead nurse (standard 163). The nominated lead consultant (standard 154) and nominated lead nurse (standard 163) for the PICU are responsible for all other standards within this section.

Ref.	Standard	Demonstration of compliance
COMMISSIONING / STRUCTURING of PIC SERVICES		
132.	Health Boards or the Hospital's contract with its lead Commissioner should specify the normal catchment population for the PICU service and any normal inclusions / exclusions in terms of age and conditions of children to be admitted.	Relevant sections of Hospital Board Operating Policy or contract with lead Commissioner for PICU.
LINKS WITH OTHER SERVICES		
133.	Paediatric intensive care services should be co-located with the following services: <ul style="list-style-type: none"> <li>• ENT (Airway)</li> <li>• Specialised paediatric surgery</li> <li>• Specialised paediatric anaesthesia</li> </ul>	Description of services available <i>Note: More detail of co-location, 'integrated clinical service' and service definitions and expectations of related services is given in 'Commissioning Safe and Sustainable Specialised Paediatric Services', DH 2008.</i>
134.	Paediatric Intensive Care services should be co-located or work as an 'integrated clinical service' with the following paediatric services: <ul style="list-style-type: none"> <li>• Clinical haematology</li> <li>• Respiratory medicine</li> <li>• Cardiology</li> <li>• Cardio-thoracic surgery</li> <li>• Neuro-surgery</li> </ul>	Description of services available <i>Note: As standard 133.</i>
135.	Paediatric Intensive Care services should have 'next working day' access to the following paediatric services through either visits by consultant specialists or transfer of care (including appropriate transport arrangements): <ul style="list-style-type: none"> <li>• Metabolic medicine</li> <li>• Neurology</li> <li>• Major trauma (including maxillo-facial surgery and plastic surgery)</li> <li>• Nephrology</li> </ul>	Description of services available <i>Note: As standard 133.</i>
136.	Paediatric Intensive Care services should have access as required to the following paediatric services: <ul style="list-style-type: none"> <li>• Immunological disorders</li> <li>• Infectious diseases</li> <li>• Urology</li> <li>• Gastro-enterology</li> </ul>	Description of services available <i>Note: As standard 133.</i>
137.	There should be 24 hour on site access to a paediatric imaging service including CT and MRI, and neuro-radiology reporting.	Services available

Ref.	Standard	Demonstration of compliance
138.	Paediatric Intensive Care services should provide a programme of ongoing education and training for staff involved in acute care of children in referring hospitals. This programme should include emergency transfer, resuscitation and stabilisation of the sick child, and high dependency care.	Programme details. <i>Note: This education / training programme may be combined with the Retrieval Service programme (standard 130) or may be separate.</i>
<b>SUPPORT FOR CRITICALLY ILL CHILDREN AND THEIR FAMILIES</b>		
139.	There should be a child-friendly environment. There should be visual and sound separation from adult patients.	Facilities available.
140.	There should be parental access to the child at all times except when this is not in the best interests of the child or the privacy and confidentiality of other children and their families.	Examples of information for children and parents. Results from Feedback Surveys of Parents & Carers <i>Note: Information should be available in formats and languages appropriate to the needs of the patients and their families.</i>
141.	Parents should be informed of the child's condition, care plan and retrieval (if necessary) and this information should be updated regularly.	Written guidelines on communication with parents.
142.	Parents should be given written information about the unit, including visiting arrangements, unit routine and location of facilities within the hospital that the parents may want to use.	Examples of information for parents. <i>Note: As standard 140.</i>
143.	Parents should have information, encouragement and support to enable them fully to participate in decisions about, and in the care of, their child.	Examples of information for parents. <i>Note: As standard 140.</i>
144.	The following support services should be available: <ul style="list-style-type: none"> <li>• Interfaith and spiritual support</li> <li>• Social workers</li> <li>• Interpreters</li> <li>• Bereavement support</li> <li>• Patient Advice and Advocacy Services</li> <li>• Psychological support for families and staff</li> </ul> Information for parents about these services should also be available.	Support services and relevant information available. <i>Notes:</i> 1 'Availability' of support services is not defined but should be appropriate to the case mix and needs of the patients. 2 As standard 140.
145.	Facilities should be available for the parent of each child, including: <ul style="list-style-type: none"> <li>• Somewhere to sit away from the unit,</li> <li>• A quiet room for relatives,</li> <li>• A kitchen, toilet and washing area, and</li> <li>• A changing area for other young children.</li> </ul>	Facilities available.
146.	Overnight facilities should be available for the parent or carer of each child, including : <ul style="list-style-type: none"> <li>• A pullout chair-bed next to the child.</li> <li>• Accommodation on site but away from the unit.</li> </ul>	Facilities available.

Ref.	Standard	Demonstration of compliance
147.	A policy on financial support for families of critically ill children should be developed and communicated to parents.	Information for parents covering, at least, costs of travel, car parking and, if applicable, overnight accommodation. <i>Note: As standard 140.</i>
148.	Children should be offered appropriate information to enable them to share in decisions about their care.	Examples of age-appropriate information. <i>Note: As standard 140.</i>
149.	Appropriately qualified play specialists should be available 7 days a week.	Name/s of play specialists. <i>Note: At least one play specialist should have the Hospital Play Specialist or equivalent qualification.</i>
<b>FACILITIES AND EQUIPMENT</b>		
150.	Units should conform to the minimum specification given in Appendix 11 and any current Department of Health Building Notices. In older facilities the space within the unit should not compromise the clinical care that can be offered.	Viewing facilities. <i>Note: This standard applies to all units built after 2003. All units should be working towards this standard and must ensure that space within the unit does not compromise the clinical care that can be offered.</i>
151.	'Near patient' testing for blood gases, electrolytes and lactate should be available	Viewing facilities.
152.	The unit should have appropriate equipment, including disposables, needed to care for children of different ages. Drugs and equipment should be checked in accordance with local policy.	Equipment available. Policy covering frequency of checking and evidence of checks having taken place in accordance with this policy. <i>Note: Equipment should be appropriate for the ages of children for whom the unit is contracted to provide care.</i>
153.	The unit should have agreed arrangements for servicing and maintaining equipment. Responsibility for equipment maintenance should be clearly defined. Service contracts should include 24 hour call out where appropriate.	Description of arrangements and responsibilities, including overview responsibility. <i>Note: Units are not expected to provide details of service contracts and maintenance agreements.</i>
<b>CLINICAL COMPETENCES</b>		
154.	There should be a nominated lead consultant for the unit responsible, with the lead nurse (standard 163) for ensuring training, protocols and audit are in place.	Name of consultant.
155.	All Paediatric Intensive Care consultants appointed after 1999 should have training in Paediatric Intensive Care approved by ICTPICM or an equivalent national organisation.	Details of consultants' training <i>Note: Newly appointed consultants should have received complementary training in either paediatrics or anaesthesia, depending on their base specialty.</i>

Ref.	Standard	Demonstration of compliance
156.	All Paediatric Intensive Care consultants should have regular day-time commitments on the Paediatric Intensive Care Unit.	Details of PICU staffing.
157.	For every 8 to 10 PICU beds there should be at least one consultant available to the unit at all times.	<p>Details of PICU staffing.</p> <p><i>Notes:</i></p> <p>1 'Available' means that the consultant can attend the PICU if required (ie. is not covering the Retrieval Service and is not in theatre).</p> <p>2 An increasing amount of consultants' time should be allocated to working on the unit as the number of PICU beds increases within each 'cell' of 8-10 beds. For example, units of 16-20 beds should normally have two consultants working on the unit during normal working hours.</p>
158.	During normal working hours one medical trainee (or equivalent grade doctor) should not normally be allocated more than five patients.	<p>Details of PICU staffing.</p> <p><i>Notes:</i></p> <p>1 'Normal working hours' are not specified and will depend on the size of the unit, case-mix of patients and ward round patterns. Exact staffing ratios will depend on case-mix, availability of nurse specialists and seniority of medical trainees.</p> <p>2 This doctor should not have responsibilities elsewhere and should not also be covering the Retrieval Service.</p> <p>3 This standard is based on ICTPICM recommendations.</p>
159.	Outside normal working hours, for every eight PICU beds there should be at least one ST4 or above grade doctor available to the unit at all times.	<p>Details of PICU staffing.</p> <p><i>Note:</i></p> <p>1 This doctor should not have responsibilities elsewhere and should not also be covering the Retrieval Service.</p> <p>2 This standard is based on ICTPICM recommendations.</p>
160.	<p>The Lead Consultant should be supported by consultants with lead responsibility for the following areas:</p> <ul style="list-style-type: none"> <li>• Clinical audit</li> <li>• Organ donation</li> <li>• Research</li> <li>• Medical education</li> <li>• Care of children needing long-term respiratory support</li> </ul>	<p>Names of lead consultants for individual areas</p> <p><i>Note: A consultant may have responsibility for more than one area.</i></p>

Ref.	Standard	Demonstration of compliance
161.	Consultants should not be on call for more than 25 hours without a break. Continuous periods of clinical work should conform both to EWTD and the subsequent derogations set out in Advance letter (MD) 6/98. Where limits are exceeded they are subject to 17 week reference period averaging and periods of compensatory rest.	Medical rotas
162.	All medical staff working on the unit should have training in advanced paediatric life support and should undertake CPD of relevance to their work on the unit.	Summary of staff training and CPD undertaken  <i>Notes:</i> <i>1 The level of training and updating appropriate to different staff is shown in Appendix 5. Medical staff should also have competences in 'Breaking Bad News'.</i> <i>2. Records of individuals' CPD should be available for appraisal/revalidation.</i>
163.	There should be a nominated lead nurse for the unit responsible, with the lead consultant (standard 154) for ensuring training, protocols and audit are in place.  This should be a senior children's nurse with competences and experience in the care of critically ill children.	Name of nurse.
164.	The unit's nursing establishment and nursing rosters should be appropriate to the anticipated number and dependency of patients. Staffing levels should be based on the ratios in Appendix 13.	Nurse staffing details and nursing rosters.
165.	Each unit should have a nominated nurse responsible for professional development of nursing staff within the unit with time allocated within his/her job plan for this role. This nurse should also offer support and advice on the professional development of allied health professionals working within the unit and nursing staff within referring hospitals.	Name of nominated nurse and description of responsibilities  <i>Notes:</i> <i>1 Responsibilities for professional development of nursing staff should include induction, training and continuing professional development.</i> <i>2 In larger units this will normally be a supernumerary role.</i>
166.	All nursing staff should either have or be working towards competences in Paediatric Intensive Care appropriate to their role within the unit.	Nurse training records  <i>Note: Training in children's nursing and in Paediatric Intensive Care is appropriate for nurses working on PICU. Competences should include 'Breaking Bad News'.</i>
167.	All nurses should have up to date paediatric resuscitation training. Senior nurses should have up to date advanced paediatric resuscitation training.	Training records  <i>Note: The level of training and updating appropriate to different staff is shown in Appendix 5.</i>



Ref.	Standard	Demonstration of compliance
168.	The unit should provide training for nursing staff in Paediatric Intensive Care in collaboration with local universities.	Details of training available <i>Note: Appendices 14 &amp; 15 give recommendations for nationally recognised Paediatric Intensive Care course for nurses.</i>
169.	Each unit should have a discharge coordinator responsible for managing the discharge of children with complex care needs.	Name of discharge coordinator <i>Note: The coordinator may have other responsibilities so long as sufficient time is available for managing discharges from PICU.</i>
<b>SUPPORT SERVICES</b>		
170.	Daily sessional support should be available to the Paediatric Intensive Care Unit from pharmacy, physiotherapy and dietetic staff with competences in the care of critically ill children who have time in their job plans allocated for their work on the unit.	Details of services available <i>Note: This support should be available on normal working days. For physiotherapy and pharmacy services there should also be arrangements for 24 hour emergency access.</i>
171.	Administrative and clerical support should be adequate for the number of beds and the level of care provided. This should include at least two WTE secretarial staff to support the consultants and senior nurses plus audit and database staff.	Discussion with staff <i>Note: 'Adequate' is not strictly defined. Clinical staff should not be spending unreasonable amounts of time on administrative duties, including data collection, that detract from their ability to provide patient care.</i>
<b>GUIDELINES, POLICIES AND PROCEDURES</b>		
172.	Guidelines should be in use covering: <ul style="list-style-type: none"> <li>• Admission</li> <li>• Discharge from the unit</li> </ul> Guidelines should include, for emergency admissions, notifying the patient's general practitioner of their admission.	Written guidelines. <i>Note: Guidelines should cover admission from and discharge to children's wards in the unit's host hospital as well as from / to referring hospitals.</i>
173.	Guidelines should be in use covering the treatment of all major conditions usually seen in PICU.	Written guidelines
174.	Guidelines should be in use covering drug and fluid prescribing and administration.	Written guidelines
175.	Guidelines should be in use covering: <ul style="list-style-type: none"> <li>• Haemofiltration and / or haemodiafiltration</li> <li>• HFOV</li> <li>• ECMO (if available)</li> </ul>	Written guidelines
176.	Guidelines should be in use covering referral and transfer of patients for any of the services in standards 134 to 136 and any other supra-regional services which are not available on site (for example, ECMO, transplantation).	Written guidelines

Ref.	Standard	Demonstration of compliance
177.	Guidelines on discharge of patients with tracheostomies to referring hospitals should be in use covering: <ul style="list-style-type: none"> <li>• Suitability for discharge</li> <li>• Staffing and monitoring facilities that should be in place prior to discharge</li> <li>• Process for planning and agreement of discharge.</li> </ul>	Written guidelines
178.	Children needing long-term respiratory support who are medically fit for discharge from PICU (i.e. needing level 1 care) should have an individual discharge plan agreed by their consultant, the unit's discharge coordinator (standard 169) and their PCT of residence (or devolved national equivalents).	Examples of discharge plans and written discharge information for children and families.  <i>Note: Discharge plans should include arrangements for staffing, equipment (including disposables) and respite care. Discharge plans may include transfer to a intermediate care service prior to return home.</i>
<b>GOVERNANCE</b>		
179.	The unit should be collecting data on all requests for admissions, including those who were not admitted. The unit should obtain data from the Retrieval Service on the eventual destination and clinical outcome of children for whom admission was refused.	Report of requests for admission and outcomes.  <i>Note: This standard links with Retrieval Service standard 126.</i>
180.	Average occupancy on the unit should not exceed 80%. The unit should be monitoring occupancy and there should be evidence of escalation within the Hospital and involvement of Health Boards/Commissioners if occupancy exceeds 80% for more than two successive months.	Occupancy monitoring information. Evidence of escalation and Health Board/Commissioner involvement if required.
181.	The unit should be submitting the required dataset to the Paediatric Intensive Care Audit Network (PICANet) within three months of discharge.	PICANet Annual Report
182.	The unit should be working with referring hospitals to undertake audits of the care of all critically ill children for their catchment area.	Examples of audits undertaken with referring hospitals.  <i>Notes:</i> <i>1 An example of data collection is given in Appendix 2.</i> <i>2 This standard is linked with standard 77.</i>
183.	The unit should have arrangements for clinical review of cases, including review with referring hospitals.	Evidence of unit review meetings and review meetings with referring hospitals.  <i>Note: The review of cases may be undertaken jointly with PICU or may be separate.</i>

Ref.	Standard	Demonstration of compliance
184.	The unit should produce an annual report summarising activity, compliance with quality standards, and clinical outcomes. The report should identify actions required to meet expected quality standards and progress since the previous year's annual report. This report should be shared with referring hospitals.	Annual report. Evidence of sharing with referring hospitals.  <i>Note: The annual report may form part of the Retrieval Service annual report or may be separate.</i>