

#### E07/S/a

## 2013/14 NHS STANDARD CONTRACT FOR PAEDIATRIC INTENSIVE CARE

## PARTICULARS, SCHEDULE 2 – THE SERVICES, A – SERVICE SPECIFICATION

Service Specification No.	E07/S/a	20
Service	Paediatric Intensive Care	~
Commissioner Lead		
Provider Lead		
Period	12 months	
Date of Review	0	

#### 1. Population Needs

#### 1.1 National/local context and evidence base

Paediatric Critical Care services look after children and young people whose conditions are life-threatening and need constant, close monitoring and support from equipment and medication restore and/or maintain normal body functions. Care is provided in specialist areas (Intensive Care Units (PICUs) or High Dependency Units (PHDU)) that have high levels of highly trained staff, monitoring and treatment equipment (Intensive Care Society, www.ics.uk)

The service model and standards outlined in this specification are congruent with the revised *Standards for the Care of Critically III Children* (4<sup>th</sup> Edition, 2010), produced by The Paediatric Intensive Care Society (see section 1.2 for link).

Case-mix and level of intervention performed varies substantially between PICUs depending on tertiary services supported and local provision of High Dependency Unit (HDU) services.

In England 1.4 children per 100,000 population are admitted to a Paediatric Intensive Care Unit.

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Paediatric Critical Care Minimum Data Set (PCCMDS) data submitted to Paediatric Intensive Care Audit Network (PICANet) from paediatric intensive care providers in the UK and Ireland, presented in the Annual Report of PICANet, Jan 2008 to Dec 2010 for the 0–15 age group, indicate the following national averages:

- 40.9% of admissions (52,337 in total) to PICU are planned 34.2% (17,891) following surgery, and 6.7% (3,513) for non-surgical reasons.
- 59.1% (30,933) of admissions are for unplanned emergency care.
- The top three indications for admission to a paediatric intensive care unit are: cardiovascular (28.6%); respiratory (26.0%); and neurological (11.0%).
- 65.7% require invasive mechanical ventilation (i.e. via an endotracheal tube) during their stay; 14.9% will require non-invasive ventilation.
- These averages conceal substantial inter-unit variation, with the percentage of children on PICU requiring invasive ventilation varying from 6 to 85%. <u>http://www.picanet.org.uk/</u>: <u>Documents/General/Annual%20report%20publishe</u> <u>d%202011/Annual\_report\_02\_12\_11v2.pdf</u>

PICU should be planned on an annualised overall average occupancy of around 80%. However, there is considerable seasonal variation in demand, and PICU are especially susceptible to "winter pressures" due to the increase in severe respiratory infections (especially bronchiolitis) during the winter months.

Contingency plans should be made to manage this pressure. A PICU must be able to plan to meet demand based on local/regional circumstances and historical activity patterns.

An important aspect of capacity planning is to ensure the ability to flex staffing to meet the demand for occupancy levels above normal levels where absolutely necessary, while maintaining a safe service. Close cooperation between units, referring hospitals, adult critical care networks and retrieval services is essential to maintain adequate capacity at times of peak demand.

# Evidence Base

National reference documents relating to the service standards for paediatric critical care services, and referenced in this specification are:

- Department of Health (2008) Commissioning Safe and Sustainable Paediatric Services: A Framework of Critical Interdependencies <u>http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPol</u> icvAndGuidance/DH\_088068
- Department of Health (2006) Review of Commissioning Arrangements for Specialised Services (the Carter Review) <u>http://webarchive.nationalarchives.gov.uk/:.+/www.dh.gov.uk/en/Managingyour</u> organisation/Commissioning/Commissioningspecialisedservices/DH\_4135174
- Department of Health (2006) The acutely or critically sick or injured child in the district general hospital <u>http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPol</u> <u>icyAndGuidance/DH\_062668</u>
- Department of Health (2006) Critical Care Minimum Data Set (CCMDS)
   <u>http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPol</u>
   icyAndGuidance/DH\_116368

- Department of Health (2003) Getting the Right Start: National Service Framework for Children; Standards for Hospital Services http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPol icyAndGuidance/DH\_4006182
- Department of Health (1997) A Bridge to the Future: nursing standards, education, workforce and planning in paediatric intensive carehttp://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsP ol\_icyAndGuidance/DH\_4005506
- Department of Health/Health Services Directorate (1997) Paediatric Intensive Care: "A Framework for the Future" <u>http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicy</u> <u>AndGuidance/DH\_4005760</u>
- Healthcare Commission (2007) Improving Services for Children in Hospital <u>http://caredirectory.cqc.org.uk/ db/\_documents/Improving\_services\_for\_childr</u> en\_in\_hospital.pdf
- Paediatric Intensive Care Society (2010) Standards for the Care of Critically III Children (v.2, 4th ed.) <u>http://www.ukpics.org.uk/documents/PICS\_standards.pdf</u>
- Royal College of Nursing (2011) Health care service standards in caring for neonates, children and young people <u>http://www.rcn.org.uk/\_\_\_\_\_\_data/assets/pdf\_\_file/0010/378091/003823.pdf</u>
- Safeguarding children and young people-roles and competencies for health care staff. Intercollegiate document, September 2010. http://www.rcpch.ac.uk/safeguarding
- Protecting children and young people: responsibilities of all doctors. GMC Sept 2012. www.gmc-uk.org/guidance.

# 2. Scope

# 2.1 Aims and objectives of service

The aim of the PICU service is to provide care for the critically ill or injured child, including those recovering from elective surgery and that care is delivered "within PICUs conforming to agreed guidelines and standards" (PIC Standards June 2010). These national standards set out the optimal requirements for the care of critically ill children and their families and identify specific medical, nursing, technical and emotional needs that are best provided by a specialist Paediatric Intensive Care multidisciplinary team in a PICU.

The PICU Service will deliver the aim to provide critical care to national standards:

- Paediatric Intensive Care (PIC) is provided as part of a pathway of care and colocated with other specialist children's services and facilities.
- All PIC will be provided in PICUs and only in other facilities until the arrival of the PIC Retrieval team with exception of short term care which may be provided in Adult ICUs as part of a local agreement with the lead centre and the network
- A PICU must provide or have access to a 24 hour Retrieval Service.
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- PIC must be provided by appropriately trained staff in equipped facilities. 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 to children and families during the child's critical illness and, if necessary, through bereavement must be provided
- There must be active support to the care of critically ill children in referring hospitals, including through advice, training and audit delivered through a network

PICU provides care for children requiring intensive care and monitoring, including medically unstable patients requiring intubation or ventilation, single or multi-organ support, and continuous or intensive medical or nursing supervision. PICU also provides routine planned post-operative care for surgical procedures, or during some planned medical admissions.

## 2.2 Service description/care pathway

- Children may access the critical care pathway to PICU through a number of routes: Inpatient children's services within the same hospital
- Operating theatres
- Neonatal units and occasionally, labour wards.
- Emergency Department

PICU Retrieval Service will facilitate many of the admissions to PICU from secondary care

The service must ensure that comprehensive referral pathways and mechanisms are in place, and that similar pathways are in place to support egress from the service. This will include:

- Escalation to highly specialised services.
- Step-down facilities such as paediatric High Dependency Unit.
- Transfer to inpatient children's service (acute paediatric wards)
- Palliative care.
- Community care, as appropriate to patient's needs

Inpatient paediatric critical care services must be available and fully operational 24 hours per day, 365 days per year.

The service will be delivered by appropriately trained and skilled staff, including consultant- level cover on the PICU at all times and must be able to act co-operatively with other PICUs and paediatric intensive care retrieval services. PICUs are unlikely to be able to meet demand from their catchment area 100% of the time, and PICUs must be seen as part of a cooperative system to meet national demand.

Paediatric intensive care is delivered in 3 types of hospital within a network model:

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• Lead centres, providing most of the intensive care needed in the area and supporting the whole service for the area through provision of advice and training.

- Major acute general hospitals with large adult intensive care units, which already provide a considerable amount of paediatric intensive care.
- Specialist hospitals providing some intensive care in support of specific specialties (e.g. cardiac surgery, neurosurgery, burn care).

Each area should have a network or lead PICU (providing at least Level 3 care), which, as part of a network, will be responsible for the development of appropriate referral and care pathways with other PICU and local hospitals within its catchment. Paediatric intensive care is split into four care levels:

- Level 1: high dependency care
- Level 2: intensive care (simple)
- Level 3: intensive care (complex)
- Level 4: highly specialised intensive care

Not all units offer all four levels of care. Some PICUs act as Lead Centres with a fuller range of paediatric intensive care services and capabilities whereas other units offer more limited levels of care in consultation with a Lead Centre.

This Service Specification covers care levels 2, 3 and 4 but excludes Respiratory ECMO.

Children may require cardiovascular or renal support, intracranial pressure monitoring or other advanced interventions, or may need to be nursed separately in a cubicle. The complexity of nursing and medical support for these aspects of care necessitates a high staff to patient ratio follows:

for on a general children's Nursing (RCN)				
0       Children who can be cared for on a general children's ward       As per Royal College of Nursing (RCN) standards(section 1.2 fo link)         1       High dependency       Children requiring closer observation and monitoring than is usually available on an ordinary children's ward, with higher than usual staffing levels.       0.5 : 1(1:1 if in a cubicle)         1.       Intensive care       Children requiring closer observation and monitoring than is usually available on an ordinary children's ward, with higher than usual staffing levels.       1 : 1         1.       Intensive care       Children requiring continuous nursing supervision, and may need ventilatory support (including CPAP) or support of two or more organs systems. Usually children at level 2 are intubated to assist       1 : 1	Care Level	Definition		
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		•		
breathing.		are intubated to assist		
		breathing.		

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The NHS Commissioning Board is now known as NHS England

2.	Intensive care	Children requiring intensive nursing supervision at all times, undergoing complex monitoring and/or therapeutic procedures, including advanced respiratory support.	1.5 : 1	
3.	Highly specialised intensive care	Children receiving treatment by extra-corporeal membrane oxygenisation (ECMO) provided at a very small number of hospitals are sometimes described as requiring level 4 intensive care.	2:1	

In most cases, patients undertake a "step-down" pathway to paediatric HDU and/or regular paediatric wards (often to a hospital closer to the patient's home) prior to discharge home. The standards and commissioning responsibilities for paediatric high dependency services are outlined in a separate service specification.

## Multidisciplinary Team

Discharge from PICU may require co-ordinated planning, and can involve timescales that include making necessary adjustments to patient's homes, parent/carer employment, and close liaison with educational and authorities to make suitable provision for the child's on- going needs. However, whilst it can be complex, it is important that discharge of PICU patients is undertaken in a timely manner to ensure proper use of PICU capacity, but also to support the quality of life and the continuing improvement in long-term condition for the child and their family.

PICU will need to maintain excellent working relationships and undertake frequent liaison with the following areas/bodies:

- Paediatric Cardiac Surgery and Neurosurgical Teams
- Paediatric Anaesthetic and Pain services
- Paediatric Palliative Care Teams
- Paediatric Physiotherapy and SALT Services
- Paediatric Nutrition Teams
- Paediatric Psychology Services
- Paediatric Radiology Services
- Paediatric Laboratory Services (biochemistry, haematology, microbiology and pathology)

- Network A&E
- Network Paediatric Wards
- Network Paediatric HDU
- Network Neonatal Units/Networks
- Paediatric Retrieval Services

- Other PICUs
- Adult Critical Care Networks
- Continuing Health Care Teams
- Social Services
- Local Education Authorities

## Long Term Ventilation (LTV)

Patients may require care in a PICU if they are in the process of transitioning to alternative permanent long-term ventilation (LTV) facilities (possibly requiring home adaptations), or to palliative care placements. However, once a patient has been medically stable on LTV for 90 days, commissioning responsibility and charges pass to local Clinical Commissioning Group commissioners.

Further information on LTV services is available in the separate Long Term Ventilation service specification.

# Cardiac Extra Corporeal Membrane Oxygenation (ECMO)

PICUs that are co-located with paediatric cardiac surgery centres are occasionally required to undertake unanticipated post-operative "rescue" ECMO for children who fail to separate from cardiopulmonary bypass, or planned cardiac ECMO as part of a planned cardiac surgery procedure pathway. This ECMO activity is different to respiratory ECMO and is not nationally commissioned.

PICUs may also occasionally be required to undertake emergency cardiac ECMO on patients that deteriorate swiftly and/or unexpectedly. In this scenario, patients will be commenced on ECMO as a bridge to transplant, and will transferred as soon as possible to one of the national paediatric cardio-pulmonary transplant centres by a retrieval service.

Further information on cardiac ECMO services is available in the paediatric cardiac surgery specification.

#### **Other Specialist Services**

There should be arrangements for the transfer of children requiring specialised intensive care (including for specialist burns care, respiratory ECMO, organ transplant etc.) not available at the admitting PICU.

The service will additionally follow the standards and criteria outlined in the general specification for specialised children's services (attached as Annex 1 to this Specification).

#### General Paediatric care

When treating children, the service will additionally follow the standards and criteria outlined in the Specification for Children's Services (attached as Annex 1 to this

specification)

## 2.3 Population covered

Children up to the age of 16 are normally cared for in a PICU. Although the *National Service Framework for Children* (section 1.2 for link) states the age range for inclusion within paediatric care is 0-18 years (up to but not including the 19<sup>th</sup> birthday), patients aged 16+ years are not usually admitted to PICU. In addition, on very rare occasions a PICU may be deemed to be the most clinically appropriate place to provide critical care to young adults between the ages of 16-24 years (up to but not including the 24th birthday) – for instance as part of a long-term pathway of care managed by a paediatric team, such as cleft lip and palate surgery or reconstructive surgery following severe burns.

Therefore, any patient between the ages of 0-24 years cared for in a designated PICU, or transferred to or from a PICU by a commissioned paediatric critical care retrieval service, will be considered to be accessing paediatric critical care.

Ensuring equity of access to any specialised service can present challenges, particularly in areas with a large geographical area and sparse population. There is a balance to be found in ensuring that a PICU has sufficient activity to maintain clinical competence and safety, but allowing access to as much of the population being served as possible within a limited travelling distance.

It is important that all PICU are supported by excellent PIC Retrieval Services, and that PICU have systems in place to ensure that capacity is optimally managed with sufficient flex so that beds are available as required, both for emergency admissions and to support any complex elective or non-elective surgery. Further information on paediatric critical care retrieval services is available in the paediatric critical care retrieval services is available in the paediatric critical care retrieval services is available in the paediatric critical care

PICU will agree region-wide policies with referring hospitals and paediatric critical care retrieval services for the management of time critical referrals, for example in the event of spinal or head injury trauma cases who may need to be transferred directly to a neurosurgical centre for emergency surgery.

The service outlined in this specification is for patients ordinarily resident in England\*; or otherwise the commissioning responsibility of the NHS in England (as defined in *Who Pays?: Establishing the responsible commissioner* and other Department of Health guidance relating to patients entitled to NHS care or exempt from charges).

\*Note: for the purposes of commissioning health services, this EXCLUDES patients who, whilst resident in England, are registered with a GP Practice in Wales, but

INCLUDES patients resident in Wales who are registered with a GP Practice in England.

## 2.4 Any acceptance and exclusion criteria

## Acceptance criteria

Referral for admission to PICU is via secondary care (usually consultant) referral, and is possible from the following sources:

Internal sources (from within the same hospital)	<ul> <li>Planned booked admission following complex surgery</li> <li>Emergency admission following surgery (following unexpected complications)</li> <li>Paediatric ward</li> <li>Paediatric HDU</li> <li>Neonatal intensive care unit (NICU), Local Neonatal Unit (LNU) or Special Care Unit (SCU)</li> <li>A&amp;E</li> </ul>	
External	Paediatric intensive care retrieval services.	
sources	Occasionally, transfer by ambulance from another hospital using	
	hospital staff.	

Referral from external sources is in the majority of cases via specialised paediatric intensive care retrieval, and must be the result of a consultant-to-consultant discussion.

Paediatric intensive care admission is mandatory for children likely to require advanced respiratory support (i.e. acute or medium term mechanical ventilation), but children should also be referred to PICU if they:

- are highly likely to require an intensive care dependent procedure
- have symptoms or evidence of shock, respiratory distress or respiratory depression
- have the potential to develop airway compromise
- have an unexplained deteriorating level of consciousness
- have required resuscitation or who are requiring some form of continuous resuscitation
- have received a significant injury
- have had prolonged surgery or any surgical procedure that is medium or high risk, or of a specialist nature – even if elective
- have potential or actual severe metabolic derangement, fluid or electrolyte imbalance

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• have acute organ (or organ system) failure

- have established chronic disease (or organ system failure) and who experience a severe acute clinical deterioration, or secondary failure in another organ system
- require one-to-one nursing due to the severity of an acute or acute-on-chronic illness

Patients should be retrieved to a PICU if the expected length of intubation is more than 24 hours

## **Exclusion criteria**

Neonates that have not already been discharged home are not usually cared for in a PICU. However, arrangements may be agreed locally relating to the management of neonates requiring intensive care following surgery – for example, cardiac and gastrointestinal surgery. Any neonate cared for in a PICU will be classified as receiving paediatric critical care.

Adult patients should not be treated in a PICU, though patients aged 16-18 years (or occasionally, up to 24 years) may be treated in a PICU if this is deemed to be the most appropriate location care based on individual needs (see section 2.3 above).

Children with a PICU stay of ≤4 hours will not be classified as having a chargeable PICU stay.

Only a limited number of centres nationally have the facilities to provide respiratory ECMO and other highly specialised paediatric intensive care, for example, Burns Care, though some PICUs providing Level 3 and 4 care have the ability to "step-up" their care level on a short-term basis.

## 2.5 Interdependencies with other services

Paediatric intensive care is a key interdependency service for a large number of specialised services, and also has several dependencies of its own, as detailed in *Commissioning Safe and Sustainable Paediatric Services: A Framework of Critical Interdependencies* (section 1.2 for link).

Paediatric intensive care providers must comply with the co-location and adjacency requirements as set out in the interdependencies framework. Whilst links to adult specialised services are important, the interdependencies between specialised children<sup>s</sup> services should take precedence.

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## **Co-location of Services**

The critical dependencies and adjacencies for paediatric intensive care are as follows:

Interdependencies and adjacencies scaleRedAbsolute dependency requiring co-location

Amber 3*	Co-location required. If not co-located, very close clinical network with transport or a visit from a paediatric specialist within 4 hours required.
Amber 3	Co-location desirable. Transfer or visit from a paediatric specialist within 4 hours required.
Amber 2	Transfer or visit from a paediatric specialist within 24 hours required.
Amber 1	Possible for planned specialised intervention with a timescale as planned.
Green	Indirect or no co-dependency.

Services upon which PICU is dependent are

Core specialised paediatric service required by PICU		s V
ENT (airway)	(	Red
Specialised paediatric surgery	<u> </u>	Red
Specialised paediatric anaesthesia	VO.	Red

Additional specialised paediatric service required by PICU		
Clinical haematology	Amber 3	
Respiratory medicine	Amber 3	
Cardiology	Amber 3	
Neurosurgery	Amber 3	
Metabolic medicine	Amber 2	
Neurology	Amber 2	
Major trauma (including maxillo-facial and plastics)	Amber 2	
Nephrology	Amber 2	
Burns	Amber 1	
Immunological disorders	Amber 1	
Infectious diseases Am		
Urology	Amber 1	
Gastroenterology	Amber 1	

Paediatric intensive care providers should be able to demonstrate availability of at least some of the services identified as having significant dependency on paediatric intensive care.

Any failure to secure, or loss of, services identified with a red, amber 3 or amber 2 interdependency should provoke an immediate review of the safety and sustainability of the delivery of paediatric intensive care.

Co-location in this context is defined as meaning either:

- location on the same hospital site; or
- location in other neighbouring hospitals if specialist opinion and intervention were available within the same parameters as if services were on the same site. These would be reinforced through formal links such as:
  - consultant job plans; and

•	consultant on-call rotas.
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# 3. Applicable Service Standards

# 3.1 Applicable national standards e.g. NICE, Royal College

Core Standards	
Standards for to medical	A nominated lead PICU consultant will be
and nursing staff are	responsible, along with the lead nurse, for ensuring
outlined in Standards for	training; protocols and audit are in place.
the Care of Critically III	All PIC consultants appointed after 1999 will have
Children (2010):	training in PIC approved by ICTPICM (Intercollegiate
	Committee for Training in Paediatric Intensive Care
	Medicine) or an equivalent national organisation.
	All PIC consultants must have regular day
	time commitments on the PICU.
	For every 8 or 10 PICU beds there
	must be at least one consultant
	available at all times.
	During normal working hours one medical
	trainee (or equivalent grade doctor) will not
	normally be allocated more than five
	patients
Interim for .	Outside normal working hours, for every eight
	PICU beds there should be at least one
	Specialist Registrar year 4 (ST4) or above
	grade doctor available to the unit at all times.
~Ø`	All medical staff working on the unit must have
	training in advanced paediatric life support and will
	undertake continuing professional development
▼	(CPD) of relevance to their work on the unit.
	The unit's nursing establishment and nursing
	rosters must be appropriate to the anticipated
	number and dependency of patients.
	Nurse to patient ratios as defined by PICS 2010
	Standards.
	Daily sessional support must be available to the
	PICU from pharmacy, physiotherapy and dietetic
	staff with competencies in the care of critically ill

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	children who have time in their job plans allocated to work on the PICU.
	Administrative and clerical support should be
	adequate for the number of beds and the level
	of care provided. This will include at least two
	secretarial staff to support consultant and
	senior nursing staff plus audit and database
Facilities	PICU must be easily accessible from elevators
	and to the departments from which children are
	usually admitted (i.e. A&E, HDU, operating
	theatres and recovery suite, imaging, cardiac
	catheterisation laboratories, ambulance bay
	and/or helipad). A PICU must also have the
	ability to nurse patients in isolation cubicles.
	Office accommodation where staff can undertake
	administrative tasks and co-ordinate patient care
	should be located within or directly adjacent to the
	PICU. These offices must contain the facility to view
	electronic patient records (if used) and diagnostic
	imaging.
	PICU should also incorporate space for
	parents, siblings, and immediate family of the
	patients. These facilities should include a
	kitchen, bathroom facilities, overnight provision
	(if not on the unit, at "dressing-gown" distance),
	changing areas and breastfeeding areas.
	Further detailed requirements for physical
	PICU facilities (including equipment and
	space requirements) are outlined in the
	Standards for the Care of Critically III
	Children (4th Ed., 2010) - see section 1.2 for
X	link.
	The key standard must be that the PICU
ξO.	is a safe place in which to provide care for
	critically ill children.
Information	Parents will have regular information and support to
	enable them to participate fully in decisions about
	the care of their child and children should be offered
X	information to enable them to share in decisions
	about their care, where appropriate.
	Parents of children needing emergency transfer will
	be given all possible help regarding transport,
	hospital location, car parking, and location of the unit
	to which their child is being transferred.
	Parents will be given information about the unit,
	including visiting arrangements, unit routine and
	location of other facilities within t hospital which
	they may wish to use.
	Access to support services (psychologists,

	interfaith support, social workers,
	interpreters, bereavement counselors) will be
	available to children and their families.
Reporting requirements	Each Trust with a PICU must make
	monthly activity submissions to SUS for
	PICU activity, against appropriate critical
	care HRGs as agreed with
	commissioners.
	Each lead PICU will monitor and audit
	essential referral and outcome information for
	children who meet intensive care criterion
	within its catchment (including those patients
	receiving paediatric critical care at local non-
	PICU or non-lead PICU providers), and will
	submit monthly PCCMDS data and clinical
	audit data to PICA Net within the agreed PICA
	Net timescales.
	Each PICU is responsible for reporting its bed
	status to the regional Retrieval Service or bed
	management team on a regular basis as
	agreed locally, supported by a written
	protocol. The protocol should also include
	contingency for communication with the
	Retrieval Service or bed management team if
	bed capacity is critical, or if there is a need to
	divert patients away from or close the PICU.
	Each defined PICU care network should
	keep a log of referrals refused by the
	network, with reasons given for refusal.
~	Refused referrals should be followed up
	and the eventual destination recorded.
	Each PICU must submit data to commissioners
$\langle O \rangle$	as part of a nationally agreed Quality Dashboard,
	at intervals agreed with the commissioner.

# 4. Key Service Outcomes

The key patient outcomes of this specification are to minimise mortality and morbidity of children requiring intensive care, via the measures on the national PICU Quality Dashboard:

- Unit risk-adjusted discharge mortality within 99.9% confidence intervals on funnel plot graphs
- <5% rate of refusal of requests for emergency admissions from within catchment area/network due to PICU capacity issues
- <5% rate of cancellation of elective surgery on the planned day of surgery due to lack of a "booked" PICU bed
- Low rate of emergency readmission to a PICU within 48hrs of a previous

discharge/transfer from a PICU (baseline being set in 12/13) Maintenance of an average annual Unit occupancy rate of 80%

- Low rate of unplanned extubations per 100 ventilated bed days (baseline being set in 12/13)
- Deaths on the PICU to be reviewed at a multidisciplinary team meeting within 3 months, with an action plan put in place where appropriate (baseline being set in 12/13)
- 100% data submissions to PICA Net within 3 months of patient discharge 100% completeness of PCCMDS data submissions to Secondary Users Service (SUS)
- High rate of care handover letters issued to subsequent care provider within 48hrs of discharge from PICU (baseline being set in 12/13)

# ANNEX 1 TO SERVICE SPECIFICATION

# **PROVISION OF SERVICES TO CHILDREN**

Aims and objectives of service

This specification annex applies to all children's services and outlines generic standards and outcomes that would fundamental to all services.

The generic aspects of care:

The Care of Children in Hospital (Health Services Circular 1998/238) requires that:

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Children are admitted to hospital only if the care they require cannot be as well

provided at home, in a day clinic or on a day basis in hospital.

- Children requiring admission to hospital are provided with a high standard of medical, nursing and therapeutic care to facilitate speedy recovery and minimize complications and mortality.
- Families with children have easy access to hospital facilities for children without needing to travel significantly further than to other similar amenities.
- Children are discharged from hospital as soon as socially and clinically appropriate and full support provided for subsequent home or day care.
- Good child health care is shared with parents/carers and they are closely involved in the care of their children at all times unless, exceptionally, this is not in the best interest of the child; Accommodation is provided for them to remain with their children overnight if they so wish.

## Service description/care pathway

All paediatric specialised services have a component of primary, secondary, tertiary and even quaternary elements.

The efficient and effective delivery of services requires children to receive their care as close to home as possible dependent on the phase of their disease.

Services should therefore be organised and delivered through "integrated pathways of care" (*National Service Framework for children, young people and maternity services* (Department of Health & Department for Education and Skills, London 2004)

## Interdependencies with other services

All services will comply with *Commissioning Safe and Sustainable Specialised Paediatric Services: A Framework of Critical Inter-Dependencies* – Department of Health

## Imaging

All services will be supported by a 3 tier imaging network ("Delivering

*quality imaging services for children*<sup>®</sup> Department of Health 3732 March 2010). Within the network:

- It will be clearly defined which imaging test or interventional procedure can be performed and reported at each site
- Robust procedures will be in place for image transfer for review by a specialist radiologist, these will be supported by appropriate contractual and information governance arrangements
- Robust arrangements will be in place for patient transfer if more complex imaging or intervention is required
- Common standards, protocols and governance procedures will exist throughout the network.

- All radiologists, and radiographers will have appropriate training, supervision and access to continuing professional development (CPD)
- All equipment will be optimised for paediatric use and use specific paediatric software

## Specialist Paediatric Anaesthesia

Wherever and whenever children undergo anaesthesia and surgery, their particular needs must be recognised and they should be managed in separate facilities, and looked after by staff with appropriate experience and training.<sup>1</sup> All UK anaesthetists undergo training which provides them with the competencies to care for older babies and children with relatively straightforward surgical conditions and without major co-morbidity. However those working in specialist centres must have undergone additional (specialist) training<sup>2</sup> and should maintain the competencies so acquired<sup>3</sup> \*. These competencies include the care of very young/premature babies, the care of babies and children undergoing complex surgery and/or those with major/complex co-morbidity (including those already requiring intensive care support).

As well as providing an essential co-dependent service for surgery, specialist anaesthesia and sedation services may be required to facilitate radiological procedures and interventions (for example MRI scans and percutaneous nephrostomy) and medical interventions (for example joint injection and intrathecal chemotherapy), and for assistance with vascular access in babies and children with complex needs such as intravenous feeding.

Specialist acute pain services for babies and children are organised within existing departments of paediatric anaesthesia and include the provision of agreed (hospital wide) guidance for acute pain, the safe administration of complex analgesia regimes including epidural analgesia, and the daily input of specialist anaesthetists and acute pain nurses with expertise in paediatrics.

\*The Safe and Sustainable reviews of paediatric cardiac and neuro- sciences in England have noted the need for additional training and maintenance of competencies by specialist anaesthetists in both fields of practice.

# References

- 1. Guidelines for the Provision of Anaesthesia GPAS Paediatric anaesthetic services. Royal College of Anaesthetists 2010 www.rcoa.ac.uk
- 2. Certification of Completion of Training (CCT) in Anaesthesia 2010
- 3. Continuing Professional Development (CPD) matrix level 3

# Specialised Child and Adolescent Mental Health Services (CAMHS)

The age profile of children and young people admitted to specialised CAMHS

day/in-patient settings is different to the age profile for paediatric units in that it is predominantly adolescents who are admitted to specialised CAMHS inpatient settings, including over-16s. The average length of stay is longer for admissions to mental health units. Children and young people in specialised CAMHS day/in- patient settings generally participate in a structured programme of education and therapeutic activities during their admission.

Taking account of the differences in patient profiles the principles and standards set out in this specification apply with modifications to the recommendations regarding the following

- Facilities and environment essential Quality Network for In-patient CAMHS (QNIC) standards should apply (http://www.rcpsych.ac.uk/quality/quality,accreditationaudit/qnic1.aspx)
- Staffing profiles and training essential QNIC standards should apply.
- The child/ young person's family are allowed to visit at any time of day taking account of the child / young persons need to participate in therapeutic activities and education as well as any safeguarding concerns.
- Children and young people are offered appropriate education from the point of admission.
- Parents/carers are involved in the child/young persons care except where this is not in the best interests of the child / young person and in the case of young people who have the capacity to make their own decisions is subject to their consent.
- Parents/carers who wish to stay overnight are provided with accessible accommodation unless there are safeguarding concerns or this is not in the best interests of the child/ young person.

# Applicable national standards e.g. NICE, Royal College

Children and young people must receive care, treatment and support by staff registered by the Nursing and Midwifery Council on the parts of their register that permit a nurse to work with children (Outcome 14h *Essential Standards of Quality and Safety*, Care Quality Commission, London 2010)

- There must be at least two Registered Children's Nurses (RCNs) on duty 24 hours a day in all hospital children's departments and wards.
- There must be an Registered Children's Nurse available 24 hours a day to advise on the nursing of children in other departments (this post is included in the staff establishment of 2RCNs in total).

Accommodation, facilities and staffing must be appropriate to the needs of children and separate from those provided for adults. All facilities for children and young people must comply with the Hospital Build Notes *HBN 23 Hospital Accommodation for Children and Young People* NHS Estates, The Stationary Office 2004.

All staff who work with children and young people must be appropriately trained to provide care, treatment and support for children, including Children's Workforce Development Council Induction standards (Outcome

14b *Essential Standards of Quality and Safety*, Care Quality Commission, London 2010).

Each hospital who admits inpatients must have appropriate medical cover at all times taking account of guidance from relevant expert or professional bodies (National Minimum Standards for Providers of Independent Healthcare, Department of Health, London 2002)."Facing the Future" Standards, Royal College of Paediatrics and Child Health.

Staff must carry out sufficient levels of activity to maintain their competence in caring for children and young people, including in relation to specific anaesthetic and surgical procedures for children, taking account of guidance from relevant expert or professional bodies (Outcome 14g *Essential Standards of Quality and Safety*, Care Quality Commission, London 2010).

Providers must have systems in place to gain and review consent from people who use services, and act on them (Outcome 2a *Essential Standards of Quality and Safety*, Care Quality Commission, London 2010). These must include specific arrangements for seeking valid consent from children while respecting their human rights and confidentiality and ensure that where the person using the service lacks capacity, best interest meetings are held with people who know and understand the person using the service. Staff should be able to show that they know how to take appropriate consent from children, young people and those with learning disabilities (Outcome 2b) (*Seeking Consent: working with children* Department of Health, London 2001).

Children and young people must only receive a service from a provider who takes steps to prevent abuse and does not tolerate any abusive practice should it occur (Outcome 7 *Essential Standards of Quality and Safety*, Care Quality Commission, London 2010 defines the standards and evidence required from providers in this regard). Providers minimise the risk and likelihood of abuse occurring by:

- Ensuring that staff and people who use services understand the aspects of the safeguarding processes that are relevant to them.
- Ensuring that staff understand the signs of abuse and raise this with the right person when those signs are noticed.
- Ensuring that people who use services are aware of how to raise concerns of abuse.
- Having effective means to monitor and review incidents, concerns and complaints that have the potential to become an abuse or safeguarding concern.
- Having effective means of receiving and acting upon feedback from people who use services and any other person.
- Taking action immediately to ensure that any abuse identified is stopped and suspected abuse is addressed by:

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 having clear procedures followed in practice, monitored and reviewed that take account of relevant legislation and guidance for the management of alleged abuse

- separating the alleged abuser from the person who uses services and others who may be at risk or managing the risk by removing the opportunity for abuse to occur, where this is within the control of the provider
- reporting the alleged abuse to the appropriate authority
- reviewing the person's plan of care to ensure that they are properly supported following the alleged abuse incident.
- Using information from safeguarding concerns to identify non-compliance, or any risk of non-compliance, with the regulations and to decide what will be done to return to compliance.
- Working collaboratively with other services, teams, individuals and agencies in relation to all safeguarding matters and has safeguarding policies that link with local authority policies.
- Participates in local safeguarding children boards where required and understand their responsibilities and the responsibilities of others in line with the Children Act 2004.
- Having clear procedures followed in practice, monitored and reviewed in place about the use of restraint and safeguarding.
- Taking into account relevant guidance set out in the Care Quality Commission's Schedule of Applicable Publications
- Ensuring that those working with children must wait for a full CRB disclosure before starting work.
- Training and supervising staff in safeguarding to ensure they can demonstrate the competences listed in Outcome 7E of the Essential Standards of Quality
- and Safety, Care Quality Commission, London 2010

All children and young people who use services must be

- Fully informed of their care, treatment and support.
- Able to take part in decision making to the fullest extent that is possible.
- Asked if they agree for their parents or guardians to be involved in decisions they need to make.

(Outcome 4I *Essential Standards of Quality and Safety*, Care Quality Commission, London 2010)

# **Key Service Outcomes**

Evidence is increasing that implementation of the national *Quality Criteria for Young People Friendly Services* (Department of Health, London 2011) have

the potential to greatly improve patient experience, leading to better health outcomes for young people and increasing socially responsible life-long use of the NHS. Implementation is also expected to contribute to improvements in health inequalities and public health outcomes e.g. reduced teenage pregnancy and STIs, and increased smoking cessation. All providers delivering services to young people should be implementing the good practice guidance which delivers compliance with the quality criteria. Poorly planned transition from young people's to adult-oriented health services can be associated with increased risk of non adherence to treatment and loss to follow-up, which can have serious consequences. There are measurable adverse consequences in terms of morbidity and mortality as well as in social and educational outcomes. When children and young people who use paediatric services are moving to access adult services (for example, during transition for those with long term conditions), these should be organised so that:

• All those involved in the care, treatment and support cooperate with the planning and provision to ensure that the services provided continue to be appropriate to the age and needs of the person who uses services.

The National Minimum Standards for Providers of Independent Healthcare, (Department of Health, London 2002) require the following standards:

- A16.1 Children are seen in a separate out-patient area, or where the hospital does not have a separate outpatient area for children, they are seen promptly.
- A16.3 Toys and/or books suitable to the child's age are provided.
- A16.8 There are segregated areas for the reception of children and adolescents into theatre and for recovery, to screen the children and adolescents from adult patients; the segregated areas contain all necessary equipment for the care of children.
- A16.9 A parent is to be actively encouraged to stay at all times, with accommodation made available for the adult in the child's room or close by
- A16.10 The child's family is allowed to visit him/her at any time of the day, except where safeguarding procedures do not allow this
- A16.13 When a child is in hospital for more than five days, play is managed and supervised by a qualified Hospital Play Specialist.
- A16.14 Children are required to receive education when in hospital for more than five days; the Local Education Authority has an obligation to meet this need and are contacted if necessary.
- **A18.10** There are written procedures for the assessment of pain in children and the provision of appropriate control.

All hospital settings should meet the *Standards for the Care of Critically III Children* (Paediatric Intensive Care Society, London 2010).

There should be age specific arrangements for meeting Regulation 14 of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2010. These require:

- A choice of suitable and nutritious food and hydration, in sufficient quantities to meet service users" needs;
- Food and hydration that meet any reasonable requirements arising from a service user"s religious or cultural background
- Support, where necessary, for the purposes of enabling service users to eat and drink sufficient amounts for their needs.
- For the purposes of this regulation, "food and hydration" includes, where
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   NHSC

applicable, parenteral nutrition and the administration of dietary supplements where prescribed.

 Providers must have access to facilities for infant feeding, including facilities to support breastfeeding (Outcome 5E, of the Essential Standards of Quality and Safety, Care Quality Commission, London 2010)

All paediatric patients should have access to appropriately trained paediatric trained dieticians, physiotherapists, occupational therapists, speech and language therapy, psychology, social work and CAMHS services within nationally defined access standards.

All children and young people should have access to a professional who can undertake an assessment using the Common Assessment Framework and access support from social care, housing, education and other agencies as appropriate

All registered providers must ensure safe use and management of medicines, by means of the making of appropriate arrangements for the obtaining, recording, handling, using, safe keeping, dispensing, safe administration and disposal of medicines (Outcome 9 *Essential Standards of Quality and Safety*, Care Quality Commission, London 2010). For children, these should include specific arrangements that:

- ensure the medicines given are appropriate and person-centred by taking account of their age, weight and any learning disability
- ensure that staff handling medicines have the competency and skills
- needed for children and young people's medicines management
- ensure that wherever possible, age specific information is available for people about the medicines they are taking, including the risks, including information about the use of unlicensed medicine in paediatrics.

Many children with long term illnesses have a learning or physical disability. Providers should ensure that:

- They are supported to have a health action plan
- Facilities meet the appropriate requirements of the Disability
- Discrimination Act 1995
- They meet the standards set out in Transition: getting it right for young people. Improving the transition of young people with long-term conditions from children's to adult health services. Department of Health, 2006, London