



West Midlands Paediatric Critical Care Network

# Care of Critically III & Critically Injured Children Quality Review Visit

## The Royal Wolverhampton NHS Trust

Visit Date: 27<sup>th</sup> September 2018

Report Date: November 2018

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### **INTRODUCTION**

This short report presents the findings of the review of Critically III and Critically Injured Children that took place on 27<sup>th</sup> September 2018. The review visit was commissioned by the West Midlands Paediatric Critical Care Network (WMPCCN), on behalf of commissioners and NHS England who have responsibility for making recommendations on future provision for the delivery of paediatric critical care. This review programme links to both a National Paediatric Critical Care Review; and a West Midlands Paediatric Critical Care CQUIN. The CQUIN outlined a requirement for all West Midlands children's services to be assessed against the WMQRS /Paediatric Intensive Care Society (2016) Standards for the Care of Critically III Children (v.5) by July 2017.

The purpose of the visit was to validate the self-assessments and to review the pathway for critically ill children attending the Emergency Department and Children's assessment unit through to inpatient and high dependency inpatient areas where applicable. As part of the WMPCCN programme, information was also gathered about existing capacity to provide paediatric high dependency care at a local level, and the plans that may be required to deliver a higher level of paediatric critical care nearer to the patient's home in the future. Only a select number of Quality Standards were reviewed during this visit. The Quality Standards identified were agreed by the WMPCCN as being important to provide the information required to inform commissioners as part of the National CQUIN for 2017/18. The review visit consisted of a half-day visit, during which reviewers looked at evidence against the self-assessment submitted, met with the lead team for children's services and viewed facilities. This review programme was therefore not as in-depth as the Critically III and Critically Injured Children peer review programmes undertaken across the West Midlands in previous years, but was designed to provide specific assurances.

The aim of the standards and the review programme is to help providers and commissioners of services to improve clinical outcomes and service users' and carers' experiences by improving the quality of services. The report also gives external assurance of the care, which can be used as part of the organisations' Quality Accounts. For commissioners, the report gives assurance of the quality of services commissioned, and identifies areas where developments may be needed.

The report reflects the situation at the time of the visit. The text of this report identifies the main issues raised during the course of the visit. Any immediate risks identified include the Trust's response and WMQRS's response to any actions taken to mitigate the risk. Appendix 1 lists the visiting team that reviewed the services at The Royal Wolverhampton NHS Trust. Appendix 2 contains the details of compliance with each of the standards and the percentage of standards met.

This report describes services provided or commissioned by the following organisations:

- The Royal Wolverhampton NHS Trust
- NHS Wolverhampton Clinical Commissioning Group

Most of the issues identified by quality reviews can be resolved by providers' and commissioners' own governance arrangements. Many can be tackled by the use of appropriate service improvement approaches; some require commissioner input. Individual organisations are responsible for taking action and monitoring this through their usual governance mechanisms. The lead commissioner for the service concerned is responsible for ensuring action plans are in place and monitoring their implementation, liaising, as appropriate, with other commissioners, including commissioners of primary care. The lead commissioner in relation to this report is NHS Wolverhampton Clinical Commissioning Group.

## ABOUT WEST MIDLANDS QUALITY REVIEW SERVICE

WMQRS is a collaborative venture between NHS organisations in the West Midlands to help improve the quality of health services by developing evidence-based Quality Standards, carrying out developmental and supportive quality reviews (often through peer review visits), producing comparative information on the quality of services and providing development and learning for all involved.

Expected outcomes are better quality, safety and clinical outcomes, better patient and carer experience, organisations with better information about the quality of clinical services, and organisations with more confidence and competence in reviewing the quality of clinical services. More detail about the work of WMQRS is available on <a href="http://www.wmqrs.nhs.uk">www.wmqrs.nhs.uk</a>

#### **ACKNOWLEDGMENTS**

West Midlands Quality Review Service and the West Midlands Paediatric Critical Care Network would like to thank the staff and service users and carers of The Royal Wolverhampton NHS Trust for their hard work in preparing for the review and for their kindness and helpfulness during the course of the visit. Thanks, are also due to the visiting team and their employing organisations for the time and expertise they contributed to this review.

## CARE OF CRITICALLY ILL AND CRITICALLY INJURED CHILDREN

#### **TRUST-WIDE**

#### **General Comments and Achievements**

This review looked at the care of critically ill and critically injured children in the Emergency Department, Children's Assessment Unit, inpatient ward and high dependency care unit at New Cross Hospital. Day case surgery was not included in this review.

Reviewers were impressed with the attitude and approach of all the staff they met, particularly their commitment to the care of children and an ambition to improve the services offered. Good leadership was evident in all the areas visited, and there were good working relationships between the departments. All services were proactive in involving children in the development of services.

Some comments in the Trust-wide section of this report apply to more than one service and are not duplicated in other areas of the report.

#### **Good Practice**

- 1. A strong commitment to education and training was evident. Simulation training covering care of the sick child was held every week, with the venue alternating between the ED and the paediatric wards. An annual training day was held with anaesthetic staff, theatres and the ENT team.
- 2. A Trust-wide tracheostomy group (acute and community) had developed a tracheostomy passport for staff training, which was available on the clinical portal. Ward nurses were trained and had competences in caring for children with tracheostomies, and staff maintained their competences by working with the paediatric community nursing team.
- 3. A 'creating best practice' workstream had been created to look at standardising care, equipment and training for staff caring for children in other areas such as the fracture clinic, ophthalmology and ENT. Part of this work was to consider whether a two-year rotation for nurses with other services providing care for children was feasible.

#### Immediate Risks: none

#### Concern

#### 1. Resuscitation training

Not all staff had the expected level of resuscitation training. Reviewers acknowledged that the Trust had taken mitigating action in relation to the issue, with the implementation of a weekly in-house simulation training programme (see Good Practice section above). The reviewers were also told that the lead advanced care practitioner would be providing Trauma Immediate Life Support training (TILS) for all paediatric nurses in the children's ED (CED) over the next few months and that staff from the adult ED, PAU and ward would also be invited to attend. Reviewers were told that funding for nurses to undertake external advanced paediatric resuscitation and life support training was limited, but that there were plans to provide European Paediatric Advanced Life Support training in house, commencing in 2019.

However, at the time of the visit: -

- a. None of the registered children's nurses in the CED had up to date competences in advanced resuscitation and life support. This was identified as a concern at the last visit in October 2017, although since the visit in 2017 all staff had completed paediatric basic life support training and a one-day course in paediatric life support.
- b. Across the paediatric wards, only 7% of 58 qualified staff had advanced paediatric resuscitation and life support competences, and 24% had completed paediatric immediate life support training. All staff had

undertaken paediatric basic life support training. Reviewers were concerned that there were insufficient nurses with advanced paediatric resuscitation and life support competences for the complexity of children cared for by the service. Six Band 6 staff were booked to attend advanced paediatric resuscitation and life support training in March 2019.

c. From the evidence available it was not clear if all the ED middle grade staff had appropriate competences. Reviewers were assured that all middle grade staff in training were compliant, but it was not clear if non-training middle grade doctors in post across the ED had appropriate competences.

#### 2. Resuscitation trolleys

Resuscitation trolleys for adults and children were different colours in different areas of the hospital. This same issue was identified at the 2015 visit and had not yet been addressed. Staff who met with the reviewers considered that the inconsistency was still of concern, and the reviewers were concerned that the Trust had still not addressed this issue. As previously reported, on the paediatric ward the paediatric trolley was red and the adult trolley blue. In all other areas of the hospital the adult trolley was red and the paediatric trolley blue. This decision had been made because of the larger size of the red trolleys and the need for more equipment on the paediatric ward. Reviewers were concerned about the potential for confusion, especially because of the extent of joint working of medical and nursing staff between the ED and the paediatric ward. The associated risk was mitigated, however, because use of the trolley was always under the supervision of the team who knew the area and were acquainted with the trolleys.

#### 3. Access to imaging

Access to CT scanning was accessible but reviewers were told that reporting for critically ill children was not available within one hour. Twenty-four-hour access to ultrasound scanning was not available and MRI was only available five days a week.

#### **Further Consideration**

- 4. Trust staff did not have Trust indemnity insurance to undertake time critical transfers for children who were not ventilated, such as neuro-surgical emergencies. Reviewers were told that the Trust was seeking legal advice. Reviewers considered that an early resolution should be sought.
- 5. The trauma guidelines did not yet reflect the latest advice to contact KIDS Intensive Care and Decision Support rather than the regional trauma desk.

#### CHILDREN'S EMERGENCY DEPARTMENT (CED)

#### **General Comments and Achievements**

All ED consultants had up to date advanced paediatric resuscitation and life support competences. The Trust had 5.5 paediatricians who sub-specialised in paediatric emergency medicine and who were all advanced paediatric life support instructors. The CED was open 24 hours a day, and a paediatric emergency medicine consultant was available from 8.30am to review investigative results and reports and then clinically from 9am to 12 midnight daily in the CED. Outside these hours, an advanced care practitioner was on duty with medical support from the ED department. One registered children's nurse had a post-registration qualification in paediatric mental health.

See also Trust-wide section of the report (under General Comments).

#### **Good Practice**

1. Facilities in the CED were welcoming and well designed. The high care area was well equipped and child friendly. Reviewers were particularly impressed with the art work on the celling, which had been designed by children from a local school. Ceiling tiles included pictures and messages that the school children thought would help children who were being cared for in the high care area.

- 2. Reviewers were impressed with the level of advanced care practitioners available in the CED, who were being trained to assess and treat patients and undertake some middle grade clinical activities.
- 3. See also Trust-wide section of the report (under Good Practice).

#### Immediate Risks: None

#### Concerns

1. See Trust-wide section of the report (under Concerns).

#### **Further Consideration**

- 1. The ED did not have play therapy or distraction support staff available daily as would have been expected for a department with more than 16,000 attendances per year.
- 2. See also Trust-wide section of the report (under Further Consideration).

## CHILDREN'S ASSESSMENT UNIT (CAU), INPATIENT WARD AND PAEDIATRIC HIGH DEPENDENCY UNIT

#### **General Comments and Achievements**

All inpatient care was provided on the inpatient ward, which consisted of 26 beds, including four beds for HDU care and a 14-bedded assessment unit. The team were planning to equip and use two further cubicles for high dependency care over the winter months.

Staff clearly worked well together, and the environment on the wards was bright and welcoming. All paediatric consultants and middle grade staff had up to date advanced resuscitation and life support competences. A nurse practice education facilitator had commenced in post. One registered children's nurse on ward A21 had a post-registration qualification in paediatric mental health.

See also Trust-wide section of the report (under General Comments).

#### **Good Practice**

- 1. Reviewers were impressed with the handover process. There were consultant-led morning and evening ward rounds at which all cases were discussed, and all middle grade clinicians were involved.
- 2. See also Trust-wide section of the report (under Good Practice).

#### Immediate Risks: None

#### Concerns

1. See Trust-wide section of the report (under Concerns).

#### **Further Consideration**

- 1. The paediatric service did not have an operational policy. Reviewers suggested that a policy that collated all the operational processes and good practice taking place would be a valuable resource for staff, as well as providing a framework for audit. The HDU policy was very brief and would also benefit from review, particularly to include guidance on 'stepping up' and 'stepping down' from high dependency care.
- 2. See also Trust-wide section of the report (under Further Consideration).

#### **EXISTING HDU CARE AND PLANS FOR THE FUTURE**

The lead team for children's services were keen to consider their position for delivering more complex level 2 care. Reviewers were told that there was universal support across the Trust for the development of a designated level 2 unit, and some workforce planning had commenced. At the time of the visit, HDU care could be provided for children who required continuous positive airway pressure (CPAP) ventilation. Hi-flow nasal oxygen machines had been purchased and were in the process of being commissioned for use. Nursing staff had competences in caring for children with stable tracheostomies.

The Trust team and reviewers identified several areas for consideration by both the Trust and WMPCCN in the future designation and provision of level 2 HDU care across the West Midlands.

- 3. Workforce investment (medical and nurse staffing) would be required to deliver more HDU care.
- 4. Capital investment at the Trust would be required, in terms of central monitoring equipment and isolation cubicles suitable for HDU care.
- 5. The WMPCCN should work with all providers to develop medical and nursing competences for caring for patients on acute bilevel positive airway pressure (Bi-PAP) ventilation.
- Discussion with West Midlands Deanery would need to take place about appropriate middle grade clinician cover at ST6 level being allocated to designated level 2 units, or the ability to provide training and supervision for ST4 & 5 middle grade clinicians.
- 7. There needed to be region-wide discussion about the number of different models of ventilator in use. Ensuring that sufficient staff have the confidence and competence to care for children requiring ventilation closer to home is problematic for local HDUs if too many different models of ventilators are in use across the region.

## **APPENDIX 1** MEMBERSHIP OF VISITING TEAM

Visiting Team		
Ally Davies	Network Lead/BWC Transformation Manager	Birmingham Women's and Children's NHS Foundation Trust
Aimee Haynes	Network Governance Administrator	KIDS/NTS Retrieval Service; Birmingham Women's and Children's NHS Foundation Trust
Dana Picken	Matron, Paediatrics	Worcestershire Acute Hospitals NHS Trust
Ms Sanjay Revanna	Consultant Paediatric Intensivist	KIDS/NTS Retrieval Service; Birmingham Women's and Children's NHS Foundation Trust
Caroline Whyte	Divisional Director of Nursing Children, Young People and Neonates (Acute and Community) WCCSS	Walsall Healthcare NHS Trust

WMQRS Team		
Sarah Broomhead	Assistant Director	West Midlands Quality Review Service

## **APPENDIX 2** COMPLIANCE WITH THE QUALITY STANDARDS

Analyses of percentage compliance with the Quality Standards should be viewed with caution as they give the same weight to each of the Quality Standards. Also, the number of Quality Standards applicable to each service varies depending on the nature of the service provided. Percentage compliance also takes no account of 'working towards' a particular Quality Standard. Reviewers often comment that it is better to have a 'No, but', where there is real commitment to achieving a particular standard, than a 'Yes, but' where a 'box has been ticked' but the commitment to implementation is lacking. With these caveats, table 1 summarises the percentage compliance for each of the services reviewed.

#### Table 1 - Percentage of Quality Standards met

Details of compliance with individual Quality Standards can be found in a separate document.

Service	Number of Applicable QS	Number of QS Met	% met
Hospital-wide	10	7	70
Emergency Department	21	14	67
Children's Assessment Service	22	15	68
In-patient Ward	21	15	71
Integrated IP & L1PCCU – Ward C2	29	19	66
Health Economy	103	70	68

## **HOSPITAL-WIDE**

Ref	Standard	Met?	Reviewer's comments
HW-201	Board-Level Lead for Children	Y	
	A Board-level lead for children's services should be identified.		
HW-202	Clinical Leads	Y	
	<ul> <li>The Board-level lead for children's services should ensure that the following leads for the care of children have been identified:</li> <li>a. Lead consultants and nurses for each of the areas where children may be critically ill (QS **-201)</li> <li>b. Lead consultant for paediatric critical care</li> <li>c. Lead consultant for surgery in children (if applicable)</li> <li>d. Lead consultant for trauma in children (if applicable)</li> <li>e. Lead anaesthetist for children (QS A-201)</li> <li>f. Lead anaesthetist for paediatric critical care (QS A- 202)</li> <li>g. Lead GICU consultant for children (QS A-203) (if applicable)</li> <li>h. Lead consultant/s and lead nurse/s for the Specialist Paediatric Transport Service (QS T-201) (if applicable)</li> <li>i. Lead consultant and lead nurse and for safeguarding children</li> <li>j. Lead allied health professional for the care of</li> </ul>		
H\M/_202	critically ill children	N	The group did not include the leads
HW-203	Hospital Wide Group Hospitals providing hospital services for children should have a single group responsible for the coordination and development of care of critically ill and critically injured children. The membership of this group should include all nominated leads (QS HW-202) and the Resuscitation Officer with lead responsibility for children. The accountability of the group should include the Hospital Lead for children's services (QS HW-201). The relationship of the group to the Trust's mechanisms for safeguarding children and clinical governance issues relating to children should be clear.		The group did not include the leads for anaesthesia, safeguarding and allied health professionals.

Ref	Standard	Met?	Reviewer's comments
HW-204	Paediatric Resuscitation Team	Y	
	<ul> <li>A paediatric resuscitation team should be immediately available at all times, comprising at least three people:</li> <li>a. A Team Leader with up to date advanced paediatric resuscitation and life support knowledge and competences and at least Level 1 RCPCH (or equivalent) competences (QS PM-203)</li> <li>b. A second registered healthcare professional with up to date advanced paediatric resuscitation and life support competences</li> <li>An anaesthetist, or other practitioner, with up to date competences in advanced paediatric resuscitation and life support and advanced airway management</li> </ul>		
HW-205	<b>Consultant Anaesthetist 24 Hour Cover</b> A consultant anaesthetist with up to date competences in advanced paediatric resuscitation and life support and advanced paediatric airway management who is able to attend the hospital within 30 minutes and does not have responsibilities to other hospital sites should be available 24/7.	Y	In-house training for all anaesthetic staff included recognition of the sick child, scenario, life support and condition specific training.
HW-206	Other Clinical Areas	Y	
	Staff in other clinical areas where children may be critically ill, such as imaging and paediatric out-patient departments, should have basic paediatric resuscitation and life support training.		
HW-401	Paediatric Resuscitation Team – Equipment	Y	
	The paediatric resuscitation team should have immediate access to appropriate drugs and equipment which are checked in accordance with local policy.		
HW-501	Resuscitation and Stabilisation	Ν	Care parents during the
	<ul> <li>Protocols should be in use covering resuscitation and stabilisation, including:</li> <li>a. Alerting the paediatric resuscitation team</li> <li>b. Arrangements for accessing support for difficult airway management</li> <li>c. Stabilisation and ongoing care</li> <li>d. Care of parents during the resuscitation of a child</li> </ul>		resuscitation of the child was not included in the policy.

Ref	Standard	Met?	Reviewer's comments
HW-598	<ul> <li>Trust-Wide Guidelines</li> <li>The following Trust-Wide guidelines should be in use: <ul> <li>a. Consent</li> <li>b. Organ and tissue donation</li> <li>c. Palliative care</li> <li>d. Bereavement</li> <li>e. Staff acting outside their area of competence covering:</li> <li>f. Exceptional circumstances when this may occur</li> <li>g. Staff responsibilities</li> <li>h. Reporting of event as an untoward clinical incident</li> <li>i. Support for staff</li> </ul></li></ul>	Ν	Guidelines covering bereavement or staff acting outside their area of competence were not yet in place. There was a bereavement checklist for staff to use which detailed some information. The organ and tissue donation policy would benefit from review to include more detail about paediatrics as, it only included contacting the KIDS Intensive care and Decision Support Team.
HW-602	Paediatric Critical Care Operational Delivery Network Involvement At least one representative from the Trust should attend each meeting of the Paediatric Critical Care Operational Delivery Network. Information about the work of the network should be disseminated to all staff involved in the provision of critical care for children	Y	

## **EMERGENCY DEPARTMENT**

Ref	Standard	Met?	Reviewer's comments
ED-201	Lead Consultant and Lead Nurse	Y	
	A nominated lead consultant and lead nurse should be responsible for staffing, training, guidelines and protocols, governance and for liaison with other services. The lead nurse should be a senior children's nurse. The lead consultant and lead nurse should undertake regular clinical work within the service for which they are responsible.		
ED-202	Consultant Staffing	Y	All of the 5.5 Paediatric Emergency
	<ul> <li>A consultant who is able to attend the hospital within 30 minutes and who does not have responsibilities to other hospital sites should be available 24/7</li> </ul>		Medicine Consultants were advanced paediatric resuscitation and life support instructors.
	b. All consultants should have up to date advanced		
	paediatric resuscitation and life support competences and should undertake CPD of		
	relevance to their work with critically ill and critically		
	injured children		
ED-203	'Middle Grade' Clinician	Y	
	<ul> <li>A 'middle grade' clinician with the following competences should be immediately available at all times:</li> <li>a. Advanced paediatric resuscitation and life support</li> <li>b. Assessment of the ill child and recognition of serious illness and injury</li> <li>c. Initiation of appropriate immediate treatment</li> <li>d. Prescribing and administering resuscitation and other appropriate drugs</li> <li>e. Provision of appropriate pain management</li> <li>f. Effective communication with children and their families</li> <li>g. Effective communication with other members of the multi-disciplinary team, including the on-duty consultant</li> <li>A clinician with at least Level 1 RCPCH (or equivalent)</li> <li>competences and experience should be immediately available. Doctors in training should normally be</li> </ul>		
	available. Doctors in training should normally be Specialist Trainee 4 (ST4) or above. Larger hospitals with several wards or departments caring for children will require more than one clinician with these competences on site 24/7.		

Ref	Standard	Met?	Reviewer's comments
ED-206	<ul> <li>Competence Framework and Training Plan – Staff</li> <li>Providing Bedside Care</li> <li>A competence framework and training plan should ensure that all staff providing bedside care have or are working towards, and maintain, competences</li> <li>appropriate for their role in the service including:</li> <li>a. Paediatric resuscitation: All staff should have basic paediatric resuscitation and life support competences and the service should have sufficient staff with advanced paediatric resuscitation and life support competences to achieve at least the minimum staffing levels (QS ED-208) and expected input to the paediatric resuscitation team (QS HW- 204)</li> <li>b. Care and rehabilitation of children with trauma (if applicable)</li> <li>c. Care of children needing surgery (if applicable)</li> <li>d. Use of equipment as expected for their role</li> <li>e. Care of children with acute mental health problems</li> </ul>	Ν	None of the paediatric nurses had advanced paediatric resuscitation and life support training. Nurses were working towards achieving levels of competence for their work in the ED.
ED-207	<ul> <li>Staffing Levels: Bedside Care</li> <li>Nursing and non-registered health care staffing levels should be appropriate for the number, dependency and case-mix of children normally cared for by the service and the lay-out of the unit. An escalation C12policy should show how staffing levels will respond to fluctuations in the number and dependency of patients. If staffing levels are achieved through flexible use of staff (rather than rostering), achievement of expected staffing levels should have been audited. Before starting work in the service, local induction and a review of competence for their expected role should be completed for all agency, bank and locum staff. The following minimum nurse staffing levels should be achieved:</li> <li>a. At least one nurse with up to date advanced paediatric resuscitation and life support competences on each shift</li> <li>b. At least one registered children's nurses on duty at all times in each area</li> </ul>	Ν	A nurse with up to date advanced paediatric resuscitation and life support competences was not available on every shift. See main report.

Ref	Standard	Met?	Reviewer's comments
ED-209	<ul> <li>Other Staffing</li> <li>The following staff should be available: <ul> <li>a. Appropriately qualified staff to provide support for play, mental stimulation and distraction during procedures (7/7)</li> <li>b. On-call access to pharmacy and physiotherapy services able to support the care of children (24/7)</li> <li>c. Access to dietetic service (at least 5/7)</li> <li>d. Access to a liaison health worker for children with mental health needs (7/7)</li> <li>e. Access to staff with competences in psychological support (at least 5/7)</li> </ul> </li> </ul>	Ν	The Emergency Department did not have play therapy or distraction support staff available daily, as expected for a department seeing more than 16,000 attendances per year.
ED-211	<b>ED Liaison Paediatrician</b> A nominated paediatric consultant should be responsible for liaison with the nominated Emergency Department consultant (QS ED-201).	Y	
ED-212	<b>ED Sub-speciality Trained Consultant</b> Emergency Departments seeing 16,000 or more child attendances per year should have a consultant with sub-specialty training in paediatric emergency medicine.	Y	
ED-301	Imaging Services 24 hour on site access to imaging services should be available including ultrasound and CT scanning, with reporting available within one hour. Arrangements for access to MRI should be in place. If staff with competences in reporting imaging of children are not available 24/7 then the Hospital should have arrangements for review of imaging by a paediatric radiologist.	N	24 hour to access to U/S was not available and MRI was only available five days a week. Access to CT scanning was available but, reviewers were told that reporting for critically ill children was not available within one hour.
ED-401	<b>Resuscitation Equipment</b> 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.	Y	
ED-402	<b>Grab Bag'</b> Appropriate drugs and equipment for in-hospital and time-critical transfers should be immediately available and checked in accordance with local policy.	Y	

Ref	Standard	Met?	Reviewer's comments
ED-501	Initial Assessment	Y	The average time for initial
	A protocol should be in use which ensures a brief		assessment in the previous six
	clinical assessment within 15 minutes of arrival,		months was 15 – 17 minutes.
	including a pain score (where appropriate), and a		
	system of prioritisation for full assessment if waiting		
	times for full assessment exceed 15 minutes.		
ED-502		Y	The policy would be offit from
ED-502	Paediatric Early Warning System	ř	The policy would benefit from review to include the time frame
	A system to provide early warning of deterioration of		for initial assessment.
	children should be in use. The system should cover		
	observation, monitoring and escalation of care.		
ED-503	Resuscitation and Stabilisation	Ν	Care of parents was not specifically
	Hospital-Wide protocols for resuscitation and		mentioned in the policies seen.
	stabilisation should be in use, including:		
	a. Alerting the paediatric resuscitation team		
	b. Arrangements for accessing support for difficult		
	airway management		
	c. Stabilisation and ongoing care		
	d. Care of parents during the resuscitation of a child		
ED-504	Paediatric Advice	Y	
	Guidelines on accessing advice from the local		
	paediatric service and local paediatric critical care		
	service should be in use in units where children are		
	not under the care of a paediatrician.		
ED-505	Clinical Guidelines	Ν	Polices covering restraint 'b' and 'g'
	The following clinical guidelines should be in use:		extravasation were not yet in
	<b>a.</b> Treatment of all major conditions, including:		place. The polices for Asthma and
	i. acute respiratory failure (including bronchiolitis		Bronchiolitis were scheduled for
	and asthma)		ratification the day after the visit.
	ii. sepsis (including septic shock and meningococcal		
	infection)		
	iii. management of diabetic ketoacidosis		
	iv. seizures and status epilepticus		
	v. trauma, including traumatic brain injury, spinal		
	injury and rehabilitation of children following		
	trauma (if applicable)		
	vi. burns and scalds		
	vii. cardiac arrhythmia		
	viii.upper airway obstruction		
	b. Management of acutely distressed children,		
	including use of restraint		
	c. Drug administration and medicines management		
	d. Pain management		
	e. Procedural sedation and analgesia		
	f. Infection control and antibiotic prescribing		
	g. Tissue viability, including extravasation		

Ref	Standard	Met?	Reviewer's comments
ED-506	PCC Transfer Guidelines	Y	
	<ul> <li>Guidelines on referral to a Specialist Paediatric</li> <li>Transport Service should be in use, covering at least:</li> <li>a. Accessing advice from a Specialist Paediatric</li> <li>Transport Service and providing full clinical</li> <li>information</li> <li>b. Ensuring decisions on whether a child needs to be</li> </ul>		
	transferred are taken by the appropriate local consultant together with the Specialist Paediatric Transport Service		
	<ul> <li>Local guidelines on the maintenance of paediatric critical care until the child's condition improves or the SPTP arrives. These guidelines should stipulate the location/s in which children may be maintained</li> </ul>		
ED-507	In-hospital Transfer Guidelines	Y	
	Guidelines on transfer of seriously ill children within the hospital (for example, to or from imaging or theatre) should be in use. The guidelines should specify the escort arrangements and equipment required.		
ED-508	<ul> <li>Inter-hospital Transfer Guidelines</li> <li>Guidelines on transfer of children between hospitals or between hospital sites should be in use covering at least: <ul> <li>a. Types of patients transferred</li> <li>b. Composition and expected competences of the escort team</li> <li>c. Drugs and equipment required</li> <li>d. Restraint of children, equipment and staff during transfer</li> <li>e. Monitoring during transfer</li> </ul> </li> </ul>	Y	

Ref	Standard	Met?	Reviewer's comments
ED-509	<ul> <li>Time-Critical Transfer Guidelines</li> <li>Guidelines should be in place for situations where emergency transfer is time-critical and waiting for the SPTS to arrive may introduce unsafe delay, for example, severe head injury, intracranial bleeding, severe thoracic vascular trauma, burns and some intra-abdominal emergencies. The guidelines should include: <ul> <li>a. Securing advice from the Specialist Paediatric Transport Service (QS ED-506)</li> <li>b. Escort team of at least two clinical staff with appropriate training and experience. The referring consultant and senior nurse on duty should judge the appropriateness of the escorts who would normally be senior clinicians with experience and / or training in a) care of the critically ill child, b) emergency transfer and c) advanced airway management</li> <li>c. Indemnity for escort team</li> <li>d. Availability of drugs and equipment, checked in accordance with local policy (QS ED-402)</li> <li>e. Arrangements for emergency transport with a local ambulance service and the air ambulance</li> <li>f. Arrangements for ensuring restraint of children, equipment and staff during transfer</li> </ul> </li> </ul>	Ν	Guidelines were in the process of being reviewed. See main report re indemnity insurance.
ED-798	<b>Review and Learning</b> The service should have appropriate multi-disciplinary arrangements for review of, and implementing learning from, positive feedback, complaints, morbidity, mortality, transfers and clinical incidents and 'near misses'.	Y	

## CHILDREN'S ASSESSMENT SERVICE

	Lead Consultant and Lead Nurse		
		Y	
	A nominated lead consultant and lead nurse should be responsible for staffing, training, guidelines and protocols, governance and for liaison with other services. The lead nurse should be a senior children's nurse. The lead consultant and lead nurse should undertake regular clinical work within the service for which they are responsible.		
CA-202	Consultant Staffing	Y	Ten consultants covered the wards
	<ul> <li>a. A consultant who is able to attend the hospital within 30 minutes and who does not have responsibilities to other hospital sites should be available 24/7</li> <li>b. All consultants should have up to date advanced paediatric resuscitation and life support competences and should undertake CPD of relevance to their work with critically ill and critically injured children</li> </ul>		with an additional consultant to provide extra cover over the winter months. The Trust had plans to increase to 12 substantive consultants in post.
CA-203	'Middle Grade' Clinician	Y	
	<ul> <li>A 'middle grade' clinician with the following competences should be immediately available at all times:</li> <li>a. Advanced paediatric resuscitation and life support</li> <li>b. Assessment of the ill child and recognition of serious illness and injury</li> <li>c. Initiation of appropriate immediate treatment</li> <li>d. Prescribing and administering resuscitation and other appropriate drugs</li> <li>e. Provision of appropriate pain management</li> <li>f. Effective communication with children and their families</li> <li>g. Effective communication with other members of the multi-disciplinary team, including the on-duty consultant</li> <li>A clinician with at least Level 1 RCPCH (or equivalent)</li> <li>competences and experience should be immediately available. Doctors in training should normally be ST4 or above. Larger hospitals with several wards or departments caring for children will require more than</li> </ul>		

Ref	Standard	Met?	Reviewer's comments
CA-206	<ul> <li>Competence Framework and Training Plan – Staff</li> <li>Providing Bedside Care</li> <li>A competence framework and training plan should ensure that all staff providing bedside care have or are working towards, and maintain, competences</li> <li>appropriate for their role in the service including:</li> <li>a. Paediatric resuscitation: All staff should have basic paediatric resuscitation and life support competences and the service should have sufficient staff with advanced paediatric resuscitation and life support competences to achieve at least the minimum staffing levels (QS CA-208) and expected input to the paediatric resuscitation team (QS HW- 204)</li> <li>b. Care and rehabilitation of children with trauma (if applicable)</li> <li>c. Care of children needing surgery (if applicable)</li> <li>d. Use of equipment as expected for their role</li> <li>e. Care of children with acute mental health problems</li> </ul>	Ν	Out of 58 qualified staff only 7% had advanced paediatric resuscitation and life support competences and 24% had paediatric immediate life support training. All staff had basic life support training. All other aspects of the QS were met.
CA-207	<ul> <li>Staffing Levels: Bedside Care</li> <li>Nursing and non-registered health care staffing levels should be appropriate for the number, dependency and case-mix of children normally cared for by the service and the lay-out of the unit. An escalation policy should show how staffing levels will respond to fluctuations in the number and dependency of patients. If staffing levels are achieved through flexible use of staff (rather than rostering), achievement of expected staffing levels should have been audited. Before starting work in the service, local induction and a review of competence for their expected role should be completed for all agency, bank and locum staff.</li> <li>The following minimum nurse staffing levels should be achieved:</li> <li>a. At least one nurse with up to date advanced paediatric resuscitation and life support competences on each shift</li> <li>b. At least two registered children's nurses on duty at all times in each area</li> </ul>	Ν	A nurse with up to date advanced paediatric resuscitation and life support competences was not available on every shift. See main report.

Ref	Standard	Met?	Reviewer's comments
CA-209	<ul> <li>Other Staffing</li> <li>The following staff should be available: <ul> <li>a. Appropriately qualified staff to provide support for play, mental stimulation and distraction during procedures (7/7)</li> <li>b. On-call access to pharmacy and physiotherapy services able to support the care of children (24/7)</li> <li>c. Access to dietetic service (at least 5/7)</li> <li>d. Access to a liaison health worker for children with mental health needs (7/7)</li> </ul> </li> <li>e. Access to staff with competences in psychological support (at least 5/7)</li> </ul>	Ν	Psychology support was shared between acute and community and only available four days a week. All other aspects of the QS were met.
CA-301	Imaging Services	Ν	24-hour access to U/S was not
	24 hour on site access to imaging services should be available including ultrasound and CT scanning, with reporting available within one hour. Arrangements for access to MRI should be in place. If staff with competences in reporting imaging of children are not available 24/7 then the Hospital should have arrangements for review of imaging by a paediatric radiologist.		available and MRI was only available five days a week. Access to CT scanning was available but, reviewers were told that reporting for critically ill children was not available within one hour.
CA-401	Resuscitation Equipment	Y	
	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.		
CA-402	'Grab Bag'	Y	
	Appropriate drugs and equipment for in-hospital and time-critical transfers should be immediately available and checked in accordance with local policy.		
CA-406	'Point of Care' Testing	Y	
	'Point of care' testing for blood gases, glucose, electrolytes and lactate should be easily available.		
CA-501	Initial Assessment	Y	
	A protocol should be in use which ensures a brief clinical assessment within 15 minutes of arrival, including a pain score (where appropriate), and a system of prioritisation for full assessment if waiting times for full assessment exceed 15 minutes.		
CA-502	Paediatric Early Warning System	Y	
	A system to provide early warning of deterioration of children should be in use. The system should cover observation, monitoring and escalation of care.		

Ref	Standard	Met?	Reviewer's comments
CA-503	Resuscitation and Stabilisation	Y	
	<ul> <li>Hospital-Wide protocols for resuscitation and stabilisation should be in use, including:</li> <li>a. Alerting the paediatric resuscitation team</li> <li>b. Arrangements for accessing support for difficult airway management</li> <li>c. Stabilisation and ongoing care</li> <li>d. Care of parents during the resuscitation of a child</li> </ul>		
CA-504	Paediatric Advice	N/A	
	Guidelines on accessing advice from the local paediatric service and local paediatric critical care service should be in use in units where children are not under the care of a paediatrician.		
CA-505	Clinical Guidelines	Ν	Polices covering restraint 'b' and 'g'
	<ul> <li>The following clinical guidelines should be in use:</li> <li>All: <ul> <li>a. Treatment of all major conditions, including:</li> <li>i. acute respiratory failure (including bronchiolitis and asthma)</li> <li>ii. sepsis (including septic shock and meningococcal infection)</li> <li>iii. management of diabetic ketoacidosis</li> <li>iv. seizures and status epilepticus</li> <li>v. trauma, including traumatic brain injury, spinal injury and rehabilitation of children following trauma (if applicable)</li> <li>vi. burns and scalds</li> <li>vii. cardiac arrhythmia</li> <li>viii.upper airway obstruction</li> </ul> </li> <li>b. Management of acutely distressed children, including use of restraint</li> <li>c. Drug administration and medicines management</li> <li>d. Pain management</li> <li>e. Procedural sedation and analgesia</li> <li>f. Infection control and antibiotic prescribing</li> <li>g. Tissue viability, including extravasation</li> <li>h. Nasal high flow therapy (if used)</li> <li>i. Management of children undergoing surgery (if applicable)</li> </ul>		extravasation were not yet in place. The polices for Asthma and Bronchiolitis were scheduled for ratification the day after the visit.

Ref	Standard	Met?	Reviewer's comments
CA-506	PCC Transfer Guidelines	Y	
	<ul> <li>Guidelines on referral to a Specialist Paediatric</li> <li>Transport Service should be in use, covering at least:</li> <li>a. Accessing advice from a Specialist Paediatric</li> <li>Transport Service and providing full clinical</li> <li>information</li> <li>b. Ensuring decisions on whether a child needs to be</li> </ul>		
	transferred are taken by the appropriate local consultant together with the Specialist Paediatric Transport Service		
	c. Local guidelines on the maintenance of paediatric critical care until the child's condition improves or the SPTP arrives. These guidelines should stipulate the location/s in which children may be maintained		
CA-507	In-hospital Transfer Guidelines	Y	
	Guidelines on transfer of seriously ill children within the hospital (for example, to or from imaging or theatre) should be in use. The guidelines should specify the escort arrangements and equipment required.		
CA-508	<ul> <li>Inter-hospital Transfer Guidelines</li> <li>Guidelines on transfer of children between hospitals or between hospital sites should be in use covering at least: <ul> <li>a. Types of patients transferred</li> <li>b. Composition and expected competences of the escort team</li> <li>c. Drugs and equipment required</li> <li>d. Restraint of children, equipment and staff during transfer</li> <li>e. Monitoring during transfer</li> </ul> </li> </ul>	Y	

Ref	Standard	Met?	Reviewer's comments
CA-509	<ul> <li>Time-Critical Transfer Guidelines</li> <li>Guidelines should be in place for situations where emergency transfer is time-critical and waiting for the SPTS to arrive may introduce unsafe delay, for example, severe head injury, intracranial bleeding, severe thoracic vascular trauma, burns and some intra-abdominal emergencies. The guidelines should include: <ul> <li>a. Securing advice from the Specialist Paediatric Transport Service (QS CA-506)</li> <li>b. Escort team of at least two clinical staff with appropriate training and experience. The referring consultant and senior nurse on duty should judge the appropriateness of the escorts who would normally be senior clinicians with experience and / or training in a) care of the critically ill child, b) emergency transfer and c) advanced airway management</li> <li>c. Indemnity for escort team</li> <li>d. Availability of drugs and equipment, checked in accordance with local policy (QS CA-402)</li> <li>e. Arrangements for emergency transport with a local ambulance service and the air ambulance</li> <li>f. Arrangements for ensuring restraint of children, equipment and staff during transfer</li> </ul> </li> </ul>	N	Guidelines were in the process of being reviewed.See main report re indemnity insurance.

Ref	Standard	Met?	Reviewer's comments
Ref CA-601	<ul> <li>Operational Policy</li> <li>The service should have an operational policy covering at least: <ul> <li>a. Individualised management plans are accessible for children who have priority access to the service (where applicable)</li> <li>b. Informing the child's GP of their attendance / admission</li> <li>c. Level of staff authorised to discharge children</li> <li>d. Arrangements for consultant presence during 'times of peak activity' (7/7)</li> <li>e. Servicing and maintaining equipment, including 24 hour call out where appropriate</li> <li>f. Arrangements for a consultant-led rapid access service which can see children within 24 hours of referral</li> <li>g. Arrangements for admission within four hours of the decision to admit</li> <li>h. Types of patient admitted</li> <li>i. Review by a senior clinician within four hours of admission</li> <li>j. Review by a consultant-led clinical handovers every 24 hours</li> <li>k. Handover of patients at each change of responsible</li> </ul> </li> </ul>	N N	Reviewer's comments An operational policy covering the requirements of the QS was not yet in place
	<ul> <li>consultant, non-consultant medical staff, nursing staff and other staff</li> <li>I. Discussion with a senior clinician prior to discharge</li> </ul>		
CA-703	<ul> <li>Audit and Quality Improvement</li> <li>The service should have a rolling programme of audit, including at least: <ul> <li>a. Audit of implementation of evidence based guidelines (QS CA-500s)</li> </ul> </li> <li>b. Participation in agreed national and network-wide audits</li> <li>c. Use of the 'Urgent and Emergency Care Clinical Audit Toolkit' to review individual clinical consultations</li> </ul>	Y	'c' was not applicable.
CA-704	Key Performance Indicators Key performance indicators should be reviewed regularly with Hospital (or equivalent) management and with commissioners.	Y	

Ref	Standard	Met?	Reviewer's comments
CA-798	Review and Learning	Y	
	The service should have appropriate multi-disciplinary arrangements for review of, and implementing learning from, positive feedback, complaints, morbidity, mortality, transfers and clinical incidents and 'near misses'.		

## **IN-PATIENT WARD**

Lead Consultant and Lead Nurse	Y	
A nominated lead consultant and lead nurse should be responsible for staffing, training, guidelines and protocols, governance and for liaison with other services. The lead nurse should be a senior children's nurse. The lead consultant and lead nurse should undertake regular clinical work within the service for which they are responsible.		
Consultant Staffing	Y	
<ul> <li>a. A consultant who is able to attend the hospital within 30 minutes and who does not have responsibilities to other hospital sites should be available 24/7</li> <li>b. All consultants should have up to date advanced paediatric resuscitation and life support competences and should undertake CPD of relevance to their work with critically ill and critically injured children</li> </ul>		
'Middle Grade' Clinician	Y	
<ul> <li>A 'middle grade' clinician with the following competences should be immediately available at all times:</li> <li>a. Advanced paediatric resuscitation and life support</li> <li>b. Assessment of the ill child and recognition of serious illness and injury</li> <li>c. Initiation of appropriate immediate treatment</li> <li>d. Prescribing and administering resuscitation and other appropriate drugs</li> <li>e. Provision of appropriate pain management</li> <li>f. Effective communication with children and their families</li> <li>g. Effective communication with other members of the multi-disciplinary team, including the on-duty consultant</li> <li>A clinician with at least Level 1 RCPCH (or equivalent) competences and experience should be immediately available. Doctors in training should normally be ST4 or above. Larger hospitals with several wards or departments caring for children will require more than one clinician with these competences on site 24/7.</li> </ul>		
Medical Staff: Continuity of Care Consultant rotas should be organised to give	Y	
	responsible for staffing, training, guidelines and protocols, governance and for liaison with other services. The lead nurse should be a senior children's nurse. The lead consultant and lead nurse should undertake regular clinical work within the service for which they are responsible. <b>Consultant Staffing</b> a. A consultant who is able to attend the hospital within 30 minutes and who does not have responsibilities to other hospital sites should be available 24/7 b. All consultants should have up to date advanced paediatric resuscitation and life support competences and should undertake CPD of relevance to their work with critically iil and critically injured children <b>'Middle Grade' Clinician</b> A 'middle grade' clinician with the following competences should be immediately available at all times: a. Advanced paediatric resuscitation and life support b. Assessment of the ill child and recognition of serious iillness and injury c. Initiation of appropriate immediate treatment d. Prescribing and administering resuscitation and other appropriate drugs e. Provision of appropriate pain management f. Effective communication with children and their families g. Effective communication with other members of the multi-disciplinary team, including the on-duty consultant A clinician with at least Level 1 RCPCH (or equivalent) competences and experience should be immediately available. Doctors in training should normally be ST4 or above. Larger hospitals with several wards or departments caring for children will require more than one clinician with these competences on site 24/7.	responsible for staffing, training, guidelines and protocols, governance and for liaison with other services. The lead nurse should be a senior children's nurse. The lead consultant and lead nurse should undertake regular clinical work within the service for which they are responsible. Consultant Staffing Y a. A consultant who is able to attend the hospital within 30 minutes and who does not have responsibilities to other hospital sites should be available 24/7 b. All consultants should have up to date advanced paediatric resuscitation and life support competences and should undertake CPD of relevance to their work with critically ill and critically injured children Y A 'middle grade' clinician with the following competences should be immediately available at all times: a. Advanced paediatric resuscitation and life support b. Assessment of the ill child and recognition of serious illness and injury c. Initiation of appropriate immediate treatment d. Prescribing and administering resuscitation and other appropriate drugs e. Provision of appropriate pain management f. Effective communication with other members of the multi-disciplinary team, including the on-duty consultant A clinician with at least Level 1 RCPCH (or equivalent) competences and experience should be immediately available. Doctors in training should normally be ST4 or above. Larger hospitals with several wards or departments caring for children will require more than one clinician with these competences on site 24/7. Medical Staff: Continuity of Care

Ref	Standard	Met?	Reviewer's comments
IP-206	<ul> <li>Competence Framework and Training Plan – Staff</li> <li>Providing Bedside Care</li> <li>A competence framework and training plan should ensure that all staff providing bedside care have or are working towards, and maintain, competences</li> <li>appropriate for their role in the service including:</li> <li>a. Paediatric resuscitation: All staff should have basic paediatric resuscitation and life support competences and the service should have sufficient staff with advanced paediatric resuscitation and life support competences to achieve at least the minimum staffing levels (QS CA-208) and expected input to the paediatric resuscitation team (QS HW- 204)</li> <li>b. Care and rehabilitation of children with trauma (if applicable)</li> <li>c. Care of children needing surgery (if applicable)</li> <li>d. Use of equipment as expected for their role</li> <li>e. Care of children with acute mental health problems</li> </ul>	Ν	Out of 58 qualified staff only 7% had advanced paediatric resuscitation and life support competences and 24% had Paediatric immediate life support training. All staff had basic life support training. All other aspects of the QS were met.
IP-207	<ul> <li>Staffing Levels: Bedside Care</li> <li>Nursing and non-registered health care staffing levels should be appropriate for the number, dependency and case-mix of children normally cared for by the service and the lay-out of the unit. An escalation policy should show how staffing levels will respond to fluctuations in the number and dependency of patients. If staffing levels are achieved through flexible use of staff (rather than rostering), achievement of expected staffing levels should have been audited. Before starting work in the service, local induction and a review of competence for their expected role should be completed for all agency, bank and locum staff.</li> <li>The following minimum nurse staffing levels should be achieved:</li> <li>a. At least one nurse with up to date advanced paediatric resuscitation and life support competences on each shift</li> <li>b. At least two registered children's nurses on duty at all times in each area</li> </ul>	Y	A nurse with up to date advanced paediatric resuscitation and life support competences was not available on every shift. See main report.

Ref	Standard	Met?	Reviewer's comments
IP-209	<ul> <li>Other Staffing</li> <li>The following staff should be available: <ul> <li>Appropriately qualified staff to provide support for play, mental stimulation and distraction during procedures (7/7)</li> <li>Access to a liaison health worker for children with mental health needs (7/7)</li> <li>Access to staff with competences in psychological support (at least 5/7)</li> <li>Pharmacist with paediatric competences (with time allocated at least 5/7 for work on the unit)</li> <li>Physiotherapist with paediatric competences (with time allocated at least 5/7 for work on the unit)</li> <li>On-call access to pharmacy and physiotherapy services able to support the care of children (24/7)</li> <li>Access to an educator for the training, education and continuing professional development of staff</li> </ul> </li> </ul>	Ν	Psychology support was shared between acute and community and only available four days a week. All other aspects of the QS were met.
IP-301	Imaging Services 24 hour on site access to imaging services should be available including ultrasound and CT scanning, with reporting available within one hour. Arrangements for access to MRI should be in place. If staff with competences in reporting imaging of children are not available 24/7 then the Hospital should have arrangements for review of imaging by a paediatric radiologist.	Ν	24-hour to access to U/S was not available and MRI was only available five days a week. Access to CT scanning was available but, reviewers were told that reporting for critically ill children was not available within one hour.
IP-401	Resuscitation EquipmentAn 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.'Grab Bag'Appropriate drugs and equipment for in-hospital and time-critical transfers should be immediately available and checked in accordance with local policy.	Y	
IP-501	Initial Assessment A protocol should be in use which ensures a brief clinical assessment within 15 minutes of arrival, including a pain score (where appropriate), and a system of prioritisation for full assessment if waiting times for full assessment exceed 15 minutes.	Y	

Ref	Standard	Met?	Reviewer's comments
IP-502	Paediatric Early Warning System	Y	
	A system to provide early warning of deterioration of		
	children should be in use. The system should cover		
	observation, monitoring and escalation of care.		
IP-503	Resuscitation and Stabilisation	Y	
	Hospital-Wide protocols for resuscitation and		
	stabilisation should be in use, including:		
	<ul> <li>a. Alerting the paediatric resuscitation team</li> </ul>		
	b. Arrangements for accessing support for difficult		
	airway management		
	c. Stabilisation and ongoing care		
	d. Care of parents during the resuscitation of a child		
IP-504	Paediatric Advice	N/A	
		,,	
	Guidelines on accessing advice from the local		
	paediatric service and local paediatric critical care service should be in use in units where children are		
	not under the care of a paediatrician.		
IP-505	Clinical Guidelines	N	Polices covering restraint 'b' and 'g'
11-202		IN	extravasation were not yet in
	The following clinical guidelines should be in use:		place.
	All:		The polices for Asthma and
	<b>a.</b> Treatment of all major conditions, including:		Bronchiolitis were scheduled for
	<ul> <li>acute respiratory failure (including bronchiolitis and asthma)</li> </ul>		ratification the day after the visit.
	<ul> <li>sepsis (including septic shock and meningococcal infection)</li> </ul>		
	iii. management of diabetic ketoacidosis		
	iv. seizures and status epilepticus		
	v. trauma, including traumatic brain injury, spinal		
	injury and rehabilitation of children following		
	trauma (if applicable)		
	vi. burns and scalds		
	vii. cardiac arrhythmia		
	viii.upper airway obstruction		
	b. Management of acutely distressed children,		
	including use of restraint		
	c. Drug administration and medicines management		
	d. Pain management		
	e. Procedural sedation and analgesia		
	f. Infection control and antibiotic prescribing		
	<b>g.</b> Tissue viability, including extravasation		
	h. Nasal high flow therapy (if used)		
	<ul> <li>Management of children undergoing surgery (if applicable)</li> </ul>		
	j. Rehabilitation after critical illness (if applicable)		

Ref	Standard	Met?	Reviewer's comments
IP-506	PCC Transfer Guidelines	Y	
	<ul> <li>Guidelines on referral to a Specialist Paediatric</li> <li>Transport Service should be in use, covering at least:</li> <li>a. Accessing advice from a Specialist Paediatric</li> <li>Transport Service and providing full clinical</li> <li>information</li> <li>b. Ensuring decisions on whether a child needs to be transferred are taken by the appropriate local</li> <li>consultant together with the Specialist Paediatric</li> <li>Transport Service</li> </ul>		
	c. Local guidelines on the maintenance of paediatric critical care until the child's condition improves or the SPTP arrives. These guidelines should stipulate the location/s in which children may be maintained		
IP-507	In-hospital Transfer Guidelines	Y	
	Guidelines on transfer of seriously ill children within the hospital (for example, to or from imaging or theatre) should be in use. The guidelines should specify the escort arrangements and equipment required.		
IP-508	<ul> <li>Inter-hospital Transfer Guidelines</li> <li>Guidelines on transfer of children between hospitals or between hospital sites should be in use covering at least: <ul> <li>a. Types of patients transferred</li> <li>b. Composition and expected competences of the escort team</li> <li>c. Drugs and equipment required</li> <li>d. Restraint of children, equipment and staff during transfer</li> <li>e. Monitoring during transfer</li> </ul> </li> </ul>	Y	

Ref	Standard	Met?	Reviewer's comments
IP-509	<ul> <li>Time-Critical Transfer Guidelines</li> <li>Guidelines should be in place for situations where emergency transfer is time-critical and waiting for the SPTS to arrive may introduce unsafe delay, for example, severe head injury, intracranial bleeding, severe thoracic vascular trauma, burns and some intra-abdominal emergencies. The guidelines should include: <ul> <li>a. Securing advice from the Specialist Paediatric Transport Service (QS CA-506)</li> </ul> </li> <li>b. Escort team of at least two clinical staff with appropriate training and experience. The referring consultant and senior nurse on duty should judge the appropriateness of the escorts who would normally be senior clinicians with experience and / or training in a) care of the critically ill child, b) emergency transfer and c) advanced airway management</li> <li>c. Indemnity for escort team</li> <li>d. Availability of drugs and equipment, checked in accordance with local policy (QS CA-402)</li> <li>e. Arrangements for emergency transport with a local ambulance service and the air ambulance</li> <li>f. Arrangements for ensuring restraint of children, equipment and staff during transfer</li> </ul>	N	Guidelines were in the process of being reviewed. See main report re indemnity insurance.

Ref	Standard	Met?	Reviewer's comments
IP-601	<ul> <li>Operational Policy</li> <li>The service should have an operational policy covering at least: <ul> <li>a. Individualised management plans are accessible for children who have priority access to the service (where applicable)</li> <li>b. Informing the child's GP of their attendance / admission</li> <li>c. Level of staff authorised to discharge children</li> <li>d. Arrangements for consultant presence during 'times of peak activity' (7/7)</li> <li>e. Servicing and maintaining equipment, including 24 hour call out where appropriate</li> <li>f. Arrangements for a consultant-led rapid access service which can see children within 24 hours of referral</li> <li>g. Arrangements for admission within four hours of the decision to admit</li> <li>h. Types of patient admitted</li> <li>i. Review by a senior clinician within 14 hours of admission and at least two consultant-led clinical handovers every 24 hours</li> <li>k. Handover of patients at each change of responsible consultant, non-consultant medical staff, nursing staff and other staff</li> </ul> </li> </ul>	Ν	An operational policy covering the requirements of the QS was not yet in place
IP-704	<ul> <li>Audit and Quality Improvement</li> <li>The service should have a rolling programme of audit, including at least: <ul> <li>a. Audit of implementation of evidence based guidelines (QS CA-500s)</li> <li>b. Participation in agreed national and network-wide audits</li> <li>c. Use of the 'Urgent and Emergency Care Clinical Audit Toolkit' to review individual clinical consultations</li> </ul> </li> </ul>	Y	
IP-798	Key Performance Indicators Key performance indicators should be reviewed regularly with Hospital (or equivalent) management and with commissioners.	Y	

## INTEGRATED IN-PATIENTS & L1 PAEDIATRIC CRITICAL CARE

Ref	Standard	Met?	Reviewer's comments
L1-101	Child-friendly Environment	Y	
	Children should be cared for in a defined safe and		
	secure child-friendly environment, with age-		
	appropriate stimulation and distraction activities.		
L1-102	Parental Access and Involvement	Y	
	Parents should:		
	a. Have access to their child at all times except when		
	this is not in the interest of the child and family or of the privacy and confidentiality of other children and their families		
	<ul> <li>b. Be informed of the child's condition, care plan and emergency transfer (if necessary) and this information should be updated regularly</li> </ul>		
	c. Have information, encouragement and support to enable them fully to participate in decisions about,		
	and in the care of, their child		
L1-201	Lead Consultant and Lead Nurse	Y	
	A nominated lead consultant and lead nurse should be responsible for staffing, training, guidelines and		
	protocols, governance and for liaison with other		
	services. The lead nurse should be a senior children's		
	nurse. The lead consultant and lead nurse should		
	undertake regular clinical work within the service for which they are responsible.		
L1-202	Consultant Staffing	Y	
	<ul> <li>A consultant who is able to attend the hospital within 30 minutes and who does not have responsibilities to other hospital sites should be available 24/7</li> </ul>		
	<ul> <li>All consultants should have up to date advanced paediatric resuscitation and life support competences and should undertake CPD of relevance to their work with critically ill and critically injured children</li> </ul>		

Ref	Standard	Met?	Reviewer's comments
L1-203	'Middle Grade' Clinician	Y	
L1-203	<ul> <li>A 'middle grade' clinician with the following competences should be immediately available at all times:</li> <li>a. Advanced paediatric resuscitation and life support</li> <li>b. Assessment of the ill child and recognition of serious illness and injury</li> <li>c. Initiation of appropriate immediate treatment</li> <li>d. Prescribing and administering resuscitation and other appropriate drugs</li> <li>e. Provision of appropriate pain management</li> <li>f. Effective communication with children and their</li> </ul>	T	
	families g. Effective communication with other members of the multi-disciplinary team, including the on-duty consultant		
	A clinician with at least Level 1 RCPCH (or equivalent) competences and experience should be immediately available. Doctors in training should normally be ST4 or above. Larger hospitals with several wards or departments caring for children will require more than one clinician with these competences on site 24/7.		
L1-205	Medical Staff: Continuity of Care Consultant rotas should be organised to give reasonable continuity of care.	Y	

Ref	Standard	Met?	Reviewer's comments
L1-206	<ul> <li>Competence Framework and Training Plan – Staff Providing Bedside Care</li> <li>A competence framework and training plan should ensure that all staff providing bedside care have or are working towards, and maintain, competences appropriate for their role in the service including:</li> <li>a. Paediatric resuscitation: All staff should have basic paediatric resuscitation and life support competences and the service should have sufficient staff with advanced paediatric resuscitation and life support competences to achieve at least the minimum staffing levels (QS L1-208) and expected input to the paediatric resuscitation team (QS HW- 204)</li> <li>b. Care and rehabilitation of children with trauma (if applicable)</li> <li>c. Care of children needing surgery (if applicable)</li> <li>d. Use of equipment as expected for their role</li> <li>e. Care of children with acute mental health problems</li> <li>f. Appropriate level paediatric critical care competences: 70% of nursing staff working on the PCC Units should have appropriate level competences in paediatric critical care.</li> </ul>	Ν	Out of 58 qualified staff only 7% of had advanced paediatric resuscitation and life support competences and 24% had paediatric immediate life support training. All staff had basic life support training. All other aspects of the QS were met.
L1-207	<ul> <li>Staffing Levels: Bedside Care</li> <li>Nursing and non-registered health care staffing levels should be appropriate for the number, dependency and case-mix of children normally cared for by the service and the lay-out of the unit. An escalation policy should show how staffing levels will respond to fluctuations in the number and dependency of patients. If staffing levels are achieved through flexible use of staff (rather than rostering), achievement of expected staffing levels should have been audited.</li> <li>Before starting work in the service, local induction and a review of competence for their expected role should be completed for all agency, bank and locum staff.</li> <li>The following minimum nurse staffing levels should be achieved:</li> <li>a. At least one nurse with up to date advanced paediatric resuscitation and life support competences on each shift</li> <li>b. At least two registered children's nurses on duty at all times in each area</li> <li>c. At least one nurse per shift with appropriate level competences in paediatric critical care</li> <li>d. One nurse with appropriate level competences in paediatric critical care</li> </ul>	N	A nurse with up to date advanced paediatric resuscitation and life support competences was not available on every shift. See main report. However, 10 of the registered children's nurses did have high dependency training including one nurse who was paediatric intensive care trained.

Ref	Standard	Met?	Reviewer's comments
L1-208	<ul> <li>New Starters</li> <li>Nurses and non-registered health care staff without previous paediatric critical care experience should undertake: <ul> <li>a. A structured, competency-based induction programme including a minimum of 75 hours of supervised practice in the PCC Unit (or in a higher level unit)</li> <li>b. A programme of theoretical and bedside education and training ensuring a defined level of competency is achieved within 12 months</li> <li>Nurses and non-registered health care staff with previous paediatric critical care experience should complete local induction and a review of competence for their expected role.</li> </ul> </li> </ul>	Ν	A competence package was in place but not yet completed for new starters.
L1-209	<ul> <li>Other Staffing</li> <li>The following staff should be available: <ul> <li>a. Appropriately qualified staff to provide support for play, mental stimulation and distraction during procedures (7/7)</li> <li>b. Access to a liaison health worker for children with mental health needs (7/7)</li> <li>c. Access to staff with competences in psychological support (at least 5/7)</li> <li>d. Pharmacist with paediatric competences (with time allocated at least 5/7 for work on the unit)</li> <li>e. Physiotherapist with paediatric competences (with time allocated at least 5/7 for work on the unit)</li> <li>f. On-call access to pharmacy and physiotherapy services able to support the care of children (24/7)</li> <li>g. Access to an educator for the training, education and continuing professional development of staff</li> </ul> </li> </ul>	Ν	Psychology support was shared between acute and community and only available four days a week. All other aspects of the QS were met.
L1-301	Imaging Services 24 hour on site access to imaging services should be available including ultrasound and CT scanning, with reporting available within one hour. Arrangements for access to MRI should be in place. If staff with competences in reporting imaging of children are not available 24/7 then the Hospital should have arrangements for review of imaging by a paediatric radiologist.	Ν	24 -hour to access to U/S was not available and MRI was only available five days a week. Access to CT scanning was available but, reviewers were told that reporting for critically ill children was not available within one hour.

Ref	Standard	Met?	Reviewer's comments
L1-401	Resuscitation Equipment	Y	
	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.		
L1-402	'Grab Bag'	Y	
	Appropriate drugs and equipment for in-hospital and		
	time-critical transfers should be immediately available		
	and checked in accordance with local policy.		
L1-404	Facilities	Y	Though children that required
	Paediatric critical care should be provided in a		isolation and level one care had to
	designated area, distinct from children needing		be cared for at the other end of the ward and not within the
	general paediatric care.		designated HDU area.
L1-405	Equipment	Y	
	Equipment, including disposables, should be		
	appropriate for the usual number and age of children		
	and the critical care interventions provided.		
	Equipment should be checked in accordance with local		
	policy.		
L1-406	'Point of Care' Testing 'Point of care' testing for blood gases, glucose,	Y	
	electrolytes and lactate should be easily available.		
IP-501	Initial Assessment	Y	
	A protocol should be in use which ensures a brief		
	clinical assessment within 15 minutes of arrival,		
	including a pain score (where appropriate), and a		
	system of prioritisation for full assessment if waiting		
	times for full assessment exceed 15 minutes.		
L1-502	Paediatric Early Warning System	Y	
	A system to provide early warning of deterioration of		
	children should be in use. The system should cover		
11 502	observation, monitoring and escalation of care. Resuscitation and Stabilisation	Y	
L1-503		T	
	Hospital-wide protocols for resuscitation and stabilisation should be in use, including:		
	a. Alerting the paediatric resuscitation team		
	b. Arrangements for accessing support for difficult		
	airway management		
	c. Stabilisation and ongoing care		
	d. Care of parents during the resuscitation of a child		

Ref	Standard	Met?	Reviewer's comments
L1-504	Paediatric Advice	N/A	
	Guidelines on accessing advice from the local		
	paediatric service and local paediatric critical care		
	service should be in use in units where children are		
	not under the care of a paediatrician.		
L1-505	Clinical Guidelines	Ν	Polices covering restraint 'b' , 'g'
	The following clinical guidelines should be in use: All:		extravasation and Hi Flow were not yet in place.The polices for
	a. Treatment of all major conditions, including:		Asthma and Bronchiolitis were
	i. i. acute respiratory failure (including		scheduled for ratification the day
	bronchiolitis and asthma)		after the visit.
	ii. ii. sepsis (including septic shock and		
	meningococcal infection)		
	iii. iii. management of diabetic ketoacidosis		
	iv. iv. seizures and status epilepticus		
	v. v. trauma, including traumatic brain injury, spinal		
	injury and rehabilitation of children following		
	trauma (if applicable)		
	vi. vi. burns and scalds		
	vii. vii. cardiac arrhythmia		
	viii.viii. upper airway obstruction		
	b. Management of acutely distressed children,		
	including use of restraint		
	c. Drug administration and medicines management		
	d. Pain management		
	e. Procedural sedation and analgesia		
	f. Infection control and antibiotic prescribing		
	g. Tissue viability, including extravasation		
	h. Nasal high flow therapy (if used)		
	i. Management of children undergoing surgery (if		
	applicable)		
	j. Rehabilitation after critical illness (if applicable)		
L1-506	PCC Transfer Guidelines	Ν	
	Guidelines on referral to a Specialist Paediatric		
	Transport Service should be in use, covering at least:		
	a. Accessing advice from a Specialist Paediatric		
	Transport Service and providing full clinical		
	information		
	b. Ensuring decisions on whether a child needs to be		
	transferred are taken by the appropriate local		
	consultant together with the Specialist Paediatric		
	Transport Service		
	c. Local guidelines on the maintenance of paediatric		
	critical care until the child's condition improves or		
	the SPTP arrives. These guidelines should stipulate		
	the location/s in which children may be maintained		

Ref	Standard	Met?	Reviewer's comments
L1-507	In-hospital Transfer Guidelines	Y	
	Guidelines on transfer of seriously ill children within		
	the hospital (for example, to or from imaging or		
	theatre) should be in use. The guidelines should		
	specify the escort arrangements and equipment		
	required.		
L1-508	Inter-hospital Transfer Guidelines	Ν	
	Guidelines on transfer of children between hospitals		
	or between hospital sites should be in use covering at		
	least:		
	a. Types of patients transferred		
	b. Composition and expected competences of the		
	escort team		
	c. Drugs and equipment required		
	d. Restraint of children, equipment and staff during		
	transfer		
	e. Monitoring during transfer		
L1-509	Time-Critical Transfer Guidelines	N	Guidelines were in the process of
	Guidelines should be in place for situations where		being reviewed.See main report re
	emergency transfer is time-critical and waiting for the		indemnity insurance
	SPTS to arrive may introduce unsafe delay, for		
	example, severe head injury, intracranial bleeding,		
	severe thoracic vascular trauma, burns and some		
	intra-abdominal emergencies. The guidelines should include:		
	a. Securing advice from the Specialist Paediatric		
	Transport Service (QS L1-506)		
	b. Escort team of at least two clinical staff with		
	appropriate training and experience. The referring		
	consultant and senior nurse on duty should judge		
	the appropriateness of the escorts who would		
	normally be senior clinicians with experience and /		
	or training in a) care of the critically ill child, b)		
	emergency transfer and c) advanced airway		
	management		
	c. Indemnity for escort team		
	d. Availability of drugs and equipment, checked in		
	accordance with local policy (QS L1-402)		
	e. Arrangements for emergency transport with a local		
	ambulance service and the air ambulance		
	f. Arrangements for ensuring restraint of children,		
	equipment and staff during transfer		

Ref	Standard	Met?	Reviewer's comments
L1-601	<ul> <li>All:</li> <li>The service should have an operational policy covering at least: <ul> <li>a. Individualised management plans are accessible for children who have priority access to the service (where applicable)</li> <li>b. Informing the child's GP of their attendance / admission</li> <li>c. Level of staff authorised to discharge children</li> <li>d. Arrangements for consultant presence during 'times of peak activity' (7/7)</li> <li>e. Servicing and maintaining equipment, including 24 hour call out where appropriate</li> <li>f. Arrangements for admission within four hours of the decision to admit</li> <li>g. Types of patient admitted</li> <li>h. Review by a senior clinician within four hours of admission</li> <li>j. Review by a consultant within 14 hours of admission and at least two consultant-led clinical handovers every 24 hours</li> <li>k. Handover of patients at each change of responsible consultant, non-consultant medical staff, nursing staff and other staff</li> </ul> </li> </ul>	N	An operational policy covering the requirements of the QS was not yet in place. The HDU policy was very brief and would benefit from review.
L1-702	<ul> <li>Data Collection</li> <li>The service should collect: <ul> <li>a. Paediatric Intensive Care Audit Network (PICANet) data</li> </ul> </li> <li>b. Paediatric Critical Care Minimum Data Set for submission to Secondary Uses Service (SUS)</li> <li>c. 'Quality Dashboard' data as recommended by the PCC Clinical Reference Group (CRG)</li> </ul>	Y	
L1-703	<ul> <li>Audit and Quality Improvement</li> <li>The service should have a rolling programme of audit, including at least: <ul> <li>a. Audit of implementation of evidence based guidelines (QS L1-500s)</li> <li>b. Participation in agreed national and network-wide audits</li> <li>c. Use of the 'Urgent and Emergency Care Clinical Audit Toolkit' to review individual clinical consultations</li> </ul> </li> </ul>	Y	'c' was not applicable

Ref	Standard	Met?	Reviewer's comments
L1-704	Key Performance Indicators	Y	
	Key performance indicators should be reviewed regularly with Hospital (or equivalent) management and with commissioners.		
L1-798	<b>Review and Learning</b> The service should have appropriate multi-disciplinary arrangements for review of, and implementing learning from, positive feedback, complaints, morbidity, mortality, transfers and clinical incidents and 'near misses'.	Y	