



# **West Midlands Paediatric Critical Care Network**

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

# Sandwell and West Birmingham Hospitals NHS Trust

Visit Date: 20<sup>th</sup> September 2018 Report Date: November 2018

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#### **INTRODUCTION**

This short report presents the findings of the review of the care of Critically III and Critically Injured Children that took place on 20<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 made by the acute Trust, 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 Ill 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 Sandwell and West Birmingham Hospitals 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:

- Sandwell and West Birmingham Hospitals NHS Trust
- NHS Sandwell and West Birmingham 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 Sandwell and West Birmingham 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="https://www.wmgrs.nhs.uk">www.wmgrs.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 Sandwell and West Birmingham Hospitals 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 (ED) and Children's Assessment Unit (CAU) (D19) based at City Hospital, and the ED, inpatient wards and high dependency care (Lyndon Ground and Lyndon 1 wards) at Sandwell General Hospital. Children would attend emergency departments at both sites. At City Hospital children were either admitted to the CAU or transferred to the inpatient wards at Sandwell General Hospital. Day surgery provision and the services provided by the Birmingham Midland Eye Centre were not included in this review.

The Trust's move to the Midland Metropolitan Hospital had been delayed until 2022. Staff who met with the reviewing team were welcoming and working hard to provide care in difficult circumstances. The environment within which care was provided was not ideal, especially because there were two sites and because the distance from the ED at City Hospital to the CAU in ward D19 was long. This issue had been discussed by the Group Director at a Quality and Safety meeting in August 2018.

Separate paediatric consultants were on call for each site across the Trust, with on-site consultant cover on the CAU (City site) from 8.30am to 4.30pm each day and on the Sandwell site from 9am to 6pm.

A middle grade doctor and a junior doctor covered the CAU at City Hospital until 11pm daily, and then overnight the middle grade clinician also covered the neonatal unit.

Two Band 7 registered children's nurse managers were in place; one covered Sandwell PAU, City PAU (D19) and Lyndon Ground alongside the adolescent unit, while the other had responsibility for Lyndon 1. A trainee advanced nurse practitioner (ANP) had commenced in post in September 2018, and a Band 8A paediatric ANP had been recruited and was awaiting a date to commence in post. A nurse competence framework had been updated and implemented since the last visit.

The Trust was in the process of implementing UNITY (an electronic patient record system), and had a scheduled test of the system at City Hospital on the day of the visit. For this reason, the Trust requested that the reviewers should reduce the time of the visit to the City site and the impact on the staff working that day, so the reviewers viewed facilities, talked to staff and saw key information before moving to Sandwell General Hospital for the remainder of the review. Staff who met the team had been involved in the development of the Paediatric Early Warning Score as well as some of the paediatric elements of the UNITY system.

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**

- The intensive care units had a good process for caring for children admitted to the unit for stabilisation and airway management. Intensive care unit nurses had competences in caring for the sick child and there was a designated bed area which was very well equipped and was not used for adult patients.
- 2. Multi-disciplinary scenario training was in place, and simulation training days were held monthly across the site and were attended by paediatric service and emergency department staff.
- 3. The 'High Dependency' nurse education programme was very comprehensive and well planned with a number of study days for staff scheduled to take place over the next few months.
- 4. The paediatric handbook in use in all areas was very comprehensive and a useful resource for staff (see also Further Consideration section below in relation to governance of the handbook).

Immediate Risks: None

#### **Serious Concern**

#### 1. Nurse staffing

Nurse staffing was of serious concern to the reviewers for a combination of reasons:

- a. There were not sufficient nursing staff on the wards with the expected level of advanced resuscitation and life support training to enable a nurse to be on duty on each shift on the wards. Only three Band 7 nurses had completed advanced resuscitation and life support training, and three staff were booked to attend a course in 2019. Some staff had reported a negative experience of undertaking the course, which had resulted in other staff being reluctant to attend formal training courses. It was not clear to the reviewers why management action had not been taken to address this issue.
- b. From the evidence submitted following the visit, only 76% of staff (42/55 staff) on the wards at Sandwell had completed basic life support training. Twenty-nine out of 40 registered children's nurses (72.5%) had completed paediatric immediate life support training. Eight registered children's nurses had competed the in-house HDU training on the day of the visit. Five registered children's nurses had not completed any immediate life support or HDU training. Reviewers were told that a plan was in place to ensure that all staff had up to date basic life support training, and that acute unit staff would be prioritised to attend paediatric immediate life support training and the in-house HDU course.
- c. At the time of the visit there were six whole time equivalent (wte) registered nurse vacancies, and bank staff were used to cover shortfalls in staffing. Reviewers were told that the Trust was experiencing difficulties in recruiting to these posts. The Trust was actively working on recruitment and retention, and was considering alternative options to increase nurse staffing on the children's wards, including appointing adult registered nurses and providing paediatric skills training to 'grow their own' registered nurse cover on the wards.
- d. Lyndon 1 had 18 beds open in the summer and 22 beds in the winter, including two beds for high dependency care. Staff were expected to be flexible about leave so that cover could be increased over the winter months. Staffing for the 18 beds in the summer was 3:1 registered nurse to non-registered staff, and in the winter the ratio was 5:2 registered to non-registered staff. Rotas seen at the time of the visit showed that a Band 4 practitioner was often included in the staffing numbers, and therefore that the ratio was reduced to 2:2 registered to non-registered staff, which would not provide appropriate registered nurse cover for the ward.
  - Some medical and nursing staff who spoke to reviewers during the visit were also concerned about the levels of staffing available, and at times felt that staffing levels were insufficient to provide safe care.
- e. Reviewers were concerned that staff with the appropriate competences may not always be available to undertake inter-hospital transfers.
- f. Band 7 nurses were not supernumerary, which reduced the management and staff support time available. The Band 7 nurses had two management days and were clinical on the other three days.

#### Concerns

#### 1. Consultant cover

At the time of the visit consultant cover was insufficient to ensure that every child admitted to a paediatric department with an acute medical problem was seen by a consultant paediatrician within 14 hours of admission. At the CAU at City Hospital, consultant cover was only available between the hours of 8.30am and 4.30pm daily, and at Sandwell Hospital the hours were 9am to 6pm daily. Outside these hours a consultant on-call rota was in place. Reviewers were told that there were plans to extend consultant cover on the wards at Sandwell Hospital until 7pm each day.

2. Reviewers were particularly concerned about the arrangements at City Hospital, as children stayed on the unit for more than 24 hours, especially if the relevant speciality, for example, ophthalmology, ear nose and throat, gynaecology or dermatology, was based at City Hospital.

#### 3. Resuscitation equipment

Several issues were identified with resuscitation equipment:

- a. The equipment on the resuscitation trolley at the CAU on D19 was not sealed, and therefore medications for use in emergencies were kept separately in the treatment room cupboard and accessed by staff using a number key code. Staff who met with the reviewers told them that following a review across the Trust, new trolleys had been ordered and would in future be sealed. The resuscitation trolleys in the ED at both sites were sealed.
- b. At Sandwell General Hospital, documentation showed that the defibrillator on the children's ward had not been checked for three days.
- Paediatric grab bags were not standardised across the Trust which had the potential for confusion for staff especially as staff would transfer children across the various areas.

#### 4. Anaesthetic 24-hour cover

At the time of the visit not all anaesthetists on the 24-hour rota held appropriate and up to date advanced resuscitation and life support and advanced paediatric airway management competences.

#### 5. Guidelines and Policies

The governance of guidelines and policies was of concern to reviewers. Many of the guidelines shown to the reviewers, some of which were included in the paediatric handbook, had exceeded their review date. Out of date guidelines included Asthma (2016), Sickle Cell (March 2018), Sepsis (2015) (which did not reference the latest NICE guidance), and Status Epilepticus (2017). Management of acutely distressed children, including the use of restraint, was out of date, and there were no guidelines covering cardiac arrhythmias. Reviewers were told that guidelines had previously been monitored at Trust-wide level, but that governance arrangements had been devolved to each directorate, resulting in a backlog of guidance that was due to be updated.

#### **Further Consideration**

- 1. The facilities across all the paediatric areas seen by the reviewers were challenging, in terms of functionality, space and décor. Reviewers acknowledged the difficult position that the Trust was experiencing with the delay of at least four years before moving to the new hospital, but considered that remedial work would be required, especially at City Hospital, to ensure that facilities were fit for purpose.
- 2. Limited support for play was available across the Trust, with only 1.6 wte play specialists across all the wards. There was therefore no dedicated play therapy time allocated to either ED.

#### CHILDREN'S EMERGENCY DEPARTMENTS CITY AND SANDWELL HOSPITALS

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

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

Since the last review, a paediatric emergency medicine consultant had been appointed, with a further two general emergency medicine consultants due to commence work at the Trust.

A resuscitaire was now in place at City Hospital and a review of transfer equipment had taken place, resulting in the purchase of new equipment transfer bags for the ED (see also Trust-wide section of the report under Concerns about standardisation of equipment).

The Children's EDs were open from 10am until 10pm. Outside these hours, children were seen in the main ED, although reviewers were told that at Sandwell the department might stay open longer depending on how busy it was.

#### **Good Practice**

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

Immediate Risks: None

#### Concerns

#### Emergency medicine consultant staff resuscitation training – Sandwell General Hospital

At the time of the visit data were not available to assure the reviewers that all ED consultants had appropriate and up to date advanced resuscitation and life support competences.

#### 2. Children's trained nurses

A children's trained nurse was not always on duty in the EDs, especially at night when cover was provided by ED nurses. The plans for the move to the new hospital did not yet include 24-hour cover by a registered children's nurse for the paediatric ED.

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

#### **Further Consideration**

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

#### CHILDREN'S ASSESSMENT UNIT (CAU) D19 - CITY HOSPITAL

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

See also Trust-wide section of the report.

The assessment unit on D19 cared for children who were under shared care arrangements with other specialities (e.g. ENT and Ophthalmology) and for up to 23 hours for other children who would then be transferred to Sandwell Hospital.

The unit had on cubicle available for the care of children with high dependency needs and staff with high dependency competences were always on duty.

#### **Good Practice**

- 1. Paediatric Early Warning System (PEWS) documentation seen by the reviewers was comprehensive and showed that appropriate escalation and medical reviews had taken place.
- 2. See Trust-wide section of the report

Immediate Risks: None

#### **Concerns**

1. See Trust-wide section of the report

#### **Further Consideration**

1. See Trust-wide section of the report

# CHILDREN'S ASSESSMENT UNIT, INPATIENT WARD AND PAEDIATRIC HIGH DEPENDENCY UNIT – SANDWELL HOSPITAL

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

Most of the findings about paediatric services are given in the Trust-wide section of this report. Inpatient facilities were provided on Lyndon Ground and Lyndon 1. Staff who met with the reviewers were welcoming and working hard to provide care for children. A nurse competence framework was in place.

#### **Good Practice**

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

Immediate Risks: None

#### **Concerns**

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

#### **Further Consideration**

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

#### **FUTURE PLANS**

As part of the visit the WMPCCN were keen to hear from staff about their views on the future delivery of critical care for children across the region. The Trust team and reviewers identified several areas for consideration by both the Trust and the WMPCCN in the designation and provision of level 2 HDU care across the West Midlands.

The team were keen to consider delivering more complex level 2 care, which would require appropriate commissioning.

At the time of the visit children on hi-flow nasal oxygen therapy, children with stable tracheostomies and children on continuous positive airway pressure (CPAP) ventilation (for children 6-8 kg only) were cared for across the paediatric high dependency areas in the Trust. Twice-weekly multi-disciplinary training on new equipment, such as AIRVO, was delivered, with plans to cover training in other high dependency care.

- 1. Staff had concerns about the capacity to provide CPAP this coming winter.
- 2. Staff were keen to support any work with the wider WMPCCN to develop medical and nursing competences for caring for patients on acute bilevel positive airway pressure (BiPAP) ventilation.
- 3. A significant capital and workforce investment (particularly in nurse staffing) would be required to deliver more HDU care prior to the move to the new hospital.
- 4. A four-bedded HDU area plus two HDU side rooms are planned within the new hospital to accommodate increased HDU activity. Workforce investment would be required before the Trust could plan admissions to an increased bed capacity for HDU.

# **APPENDIX 1 MEMBERSHIP OF VISITING TEAM**

Visiting Team							
Juliet Brown	Network Coordinator	WM Paediatric Critical Care Network - Birmingham Women's and Children's NHS Foundation Trust					
Emma Bull	KIDS Lead Nurse, KIDS Intensive Care and Decision Support	Birmingham Women's and Children's NHS Foundation Trust - Birmingham Children's Hospital					
Keely Evans	Directorate Manager, Acute & Community Paediatrics	The Royal Wolverhampton NHS Trust					
Dr Pavanasam Ramesh	Consultant in PICU and General Paediatrics	University Hospitals of North Midlands 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	6	60
Emergency Dept – City Hospital	21	16	76
Emergency Dept – Sandwell Hospital	21	15	71
Children's Assessment Service – City Hospital	23	18	78
In-patient – Lyndon Ground	22	14	64
Integrated IP & L1PCCU – Lyndon 1	30	24	80
Health Economy	127	93	73

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# HOSPITAL-WIDE

Ref	Standard	Met?	Reviewer's comments
HW-201	Board-Level Lead for Children	Υ	
	A Board-level lead for children's services should be identified.		
HW-202	Clinical Leads	Υ	
	The Board-level lead for children's services should ensure that the following leads for the care of children have been identified:  a. Lead consultants and nurses for each of the areas where children may be critically ill (QS **-201)  b. Lead consultant for paediatric critical care  c. Lead consultant for surgery in children (if applicable)  d. Lead consultant for trauma in children (if applicable)  e. Lead anaesthetist for children (QS A-201)  f. Lead anaesthetist for paediatric critical care (QS A-202)  g. Lead GICU consultant for children (QS A-203) (if applicable)  h. Lead consultant/s and lead nurse/s for the Specialist Paediatric Transport Service (QS T-201) (if applicable)  i. Lead consultant and lead nurse and for safeguarding children  j. Lead allied health professional for the care of critically ill children		
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.	N	Board lead for children was not included in the terms of reference for the group.

Ref	Standard	Met?	Reviewer's comments
HW-204	Paediatric Resuscitation Team	Υ	
	A paediatric resuscitation team should be immediately available at all times, comprising at least three people:  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)  b. A second registered healthcare professional with up to date advanced paediatric resuscitation and life support competences  An anaesthetist, or other practitioner, with up to date		
	competences in advanced paediatric resuscitation and life support and advanced airway management		
HW-205	Consultant Anaesthetist 24 Hour Cover  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.	N	At the time of the visit not all anaesthetists on the 24hr rota had had appropriate and up to date advanced resuscitation and life support and advanced paediatric airway management competences.
HW-206	Other Clinical Areas  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.	Y	Children who were critically ill were always escorted to other areas.
HW-401	Paediatric Resuscitation Team – Equipment  The paediatric resuscitation team should have immediate access to appropriate drugs and equipment which are checked in accordance with local policy.	Y	See however see main report re defibrillator checking on the wards at Sandwell.
HW-501	Resuscitation and Stabilisation  Protocols should be in use covering resuscitation and stabilisation, 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	N	A policy covering care of parents during the resuscitation of a child was not in any of the policies seen by reviewers. In practice a process was in place to allocate a member of staff to support parents.  The Resuscitation Policy was out of date but had been granted an extension date for when the policy should be reviewed.

Ref	Standard	Met?	Reviewer's comments
HW-598	Trust-Wide Guidelines  The following Trust-Wide guidelines should be in use: a. Consent b. Organ and tissue donation c. Palliative care d. Bereavement e. Staff acting outside their area of competence covering: f. Exceptional circumstances when this may occur g. Staff responsibilities h. Reporting of event as an untoward clinical incident i. Support for staff	N	The organ and tissue donation did not cover children. A bereavement policy was not yet in place though a directory of services was available to guide staff and bereaved relatives. A Trust policy covering staff acting outside their area of competence including responsibilities, reporting and support for staff was not yet in place.
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?	City Hospital Reviewer's comments	Met?	Sandwell Hospital Reviewer's comments
ED-201	Lead Consultant and Lead Nurse  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.	Y		Y	
ED-202	<ul> <li>Consultant Staffing</li> <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>	Y		N	Information about whether consultant staff had appropriate competences in advanced resuscitation and life support records were not available to reviewers.

Ref	Standard	Met?	City Hospital Reviewer's comments	Met?	Sandwell Hospital Reviewer's comments
ED-203	'Middle Grade' Clinician	Υ		Υ	
	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 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 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?	City Hospital Reviewer's comments	Met?	Sandwell Hospital Reviewer's comments
ED-206	Competence Framework and	Υ	neviewer 3 comments	Υ	Neviewer 3 comments
	Training Plan – Staff Providing				
	Bedside Care				
	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:				
	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)				
	b. Care and rehabilitation of children				
	with trauma (if applicable)				
	c. Care of children needing surgery (if applicable)				
	d. Use of equipment as expected for				
	their role				
	e. Care of children with acute mental				
	health problems				

Ref	Standard	Met?	City Hospital	Met?	Sandwell Hospital
			Reviewer's comments		Reviewer's comments
ED-207	Staffing Levels: Bedside Care  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:  a. At least one nurse with up to date advanced paediatric resuscitation and life support competences on each shift  b. At least one registered children's nurses on duty at all times in each area	N	Reviewer's comments  There were insufficient registered children's nurses to provided cover at all times.	N	There were insufficient registered children's nurses to provided cover at all times.
ED-209	Other Staffing  The following staff should be available:  a. Appropriately qualified staff to provide support for play, mental stimulation and distraction during procedures (7/7)  b. On-call access to pharmacy and physiotherapy services able to support the care of children (24/7)  c. Access to dietetic service (at least 5/7)  d. Access to a liaison health worker for children with mental health needs (7/7)  e. Access to staff with competences in psychological support (at least 5/7)	N	The Emergency Departments did not have support for play or distraction as expected for ED seeing more than 16,000 per year.	N	The Emergency Departments did not have support for play or distraction as expected for ED seeing more than 16,000 per year.

Ref	Standard	Met?	City Hospital	Met?	Sandwell Hospital
			Reviewer's comments		Reviewer's comments
ED-211	ED Liaison Paediatrician	Υ		Υ	
	A nominated paediatric consultant should be responsible for liaison with the nominated Emergency				
	Department consultant (QS ED-201).				
ED-212	ED Sub-speciality Trained Consultant  Emergency Departments seeing 16,000 or more child attendances per year should have a consultant with sub-specialty training in paediatric emergency medicine.	Y		Y	
ED-301	Imaging Services	Υ		Υ	
	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.				
ED-401	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	Y		Y	
	accordance with local policy.				
ED-402	Grab Bag'	Υ		Υ	
	Appropriate drugs and equipment for in-hospital and time-critical transfers should be immediately available and checked in accordance with local policy.				

Ref	Standard	Met?	City Hospital	Met?	Sandwell Hospital
			Reviewer's comments		Reviewer's comments
ED-501	Initial Assessment	Y		Υ	
	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.				
ED-502	Paediatric Early Warning System	Υ		Υ	
	A system to provide early warning of deterioration of children should be in				
	use. The system should cover				
	observation, monitoring and escalation of care.				
ED-503	Resuscitation and Stabilisation	Υ		Υ	
ED-303		ĭ		Ť	
	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				
ED-504	Paediatric Advice	Υ		Υ	
	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.				

Ref	Standard	Met?	City Hospital Reviewer's comments	Met?	Sandwell Hospital Reviewer's comments
ED-505	Clinical Guidelines  The following clinical guidelines should be in use:  a. Treatment of all major conditions, including:  i. acute respiratory failure (including bronchiolitis and asthma)  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	N	Many of the guidelines were out of date - see main report.	N	Many of the guidelines were out of date - see main report.

Ref	Standard	Met?	City Hospital	Met?	Sandwell Hospital
			Reviewer's comments		Reviewer's comments
ED-506	PCC Transfer Guidelines	Υ		Υ	
	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				
ED-507	In-hospital Transfer Guidelines  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.	Y		Y	
ED-508	Inter-hospital Transfer Guidelines 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	N	The policy did not include Restraint of children, equipment and staff during transfer	N	The policy did not include restraint of children, equipment and staff during transfer

Ref	Standard	Met?	City Hospital	Met?	Sandwell Hospital
			Reviewer's comments		Reviewer's comments
ED-509	Time-Critical Transfer Guidelines  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:  a. Securing advice from the Specialist Paediatric Transport Service (QS ED-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 ED-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	N	The policy did not include 'c' indemnity for escort team and 'd' Availability of drugs and equipment, checked in accordance with local policy. The policy would benefit from being more specific about details of staff competence for undertaking time-critical transfers.	N	The policy did not include 'c' indemnity for escort team and 'd' availability of drugs and equipment, checked in accordance with local policy. The policy would benefit from being more specific about details of staff competence for undertaking time-critical transfers.
ED-798	Review and Learning	Υ		Υ	
	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'.				

# CHILDREN'S ASSESSMENT SERVICE

Ref	Standard	Met?	City Hospital Reviewer's comments
CA-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.		
CA-202	Consultant Staffing	Υ	
	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		
	<ul> <li>All consultants should have up to date advanced</li> <li>paediatric resuscitation and life support</li> </ul>		
	competences and should undertake CPD of		
	relevance to their work with critically ill and critically		
	injured children		
CA-203	'Middle Grade' Clinician	Υ	
	A 'middle grade' clinician with the following competences should be immediately available at all times:		
	a. Advanced paediatric resuscitation and life support		
	<ul> <li>Assessment of the ill child and recognition of serious illness and injury</li> </ul>		
	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.		

Ref	Standard	Met?	City Hospital
		<u>.</u>	Reviewer's comments
CA-206	Competence Framework and Training Plan – Staff	Υ	Two nurses also had HDU
	Providing Bedside Care		competences.
	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:		
	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)		
	<ul> <li>b. Care and rehabilitation of children with trauma (if applicable)</li> </ul>		
	c. Care of children needing surgery (if applicable)		
	d. Use of equipment as expected for their role		
	e. Care of children with acute mental health problems		
CA-207	Staffing Levels: Bedside Care	Υ	
	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.		
	The following minimum nurse staffing levels should be		
	achieved:		
	<ul> <li>At least one nurse with up to date advanced paediatric resuscitation and life support</li> </ul>		
	competences on each shift		
	b. At least two registered children's nurses on duty at		
	all times in each area		

Ref	Standard	Met?	City Hospital Reviewer's comments
CA-209	Other Staffing	N	
CA-209	<ul> <li>The following staff should be available:</li> <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>	IN	Ward based play therapists were not available 7 days a week
CA-301	Imaging Services	Υ	
	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.		
CA-401	Resuscitation Equipment	Υ	
	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'	Υ	
	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	Υ	
	'Point of care' testing for blood gases, glucose, electrolytes and lactate should be easily available.		
CA-501	Initial Assessment	Υ	
	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	Υ	
	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?	City Hospital
			Reviewer's comments
CA-503	Resuscitation and Stabilisation  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	Υ	
CA-504	Paediatric Advice  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.	Y	
CA-505	Clinical Guidelines  The following clinical guidelines should be in use: All:  a. Treatment of all major conditions, including:     i. acute respiratory failure (including bronchiolitis and asthma)     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 h. Nasal high flow therapy (if used) i. Management of children undergoing surgery (if applicable)	N	Many of the guidelines were out of date - see main report.

Ref	Standard	Met?	City Hospital
			Reviewer's comments
CA-506	PCC Transfer Guidelines  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	Y	
CA-507	In-hospital Transfer Guidelines  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.	Y	
CA-508	Inter-hospital Transfer Guidelines  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	N	The policy did not include restraint of children, equipment and staff during transfer.

Ref	Standard	Met?	City Hospital Reviewer's comments
CA-509	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:  a. Securing advice from the Specialist Paediatric Transport Service (QS CA-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 CA-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	N	The policy did not include 'c' indemnity for escort team and 'd' availability of drugs and equipment, checked in accordance with local policy. The policy would benefit from being more specific about details of staff competence for undertaking time-critical transfers.

Ref	Standard	Met?	City Hospital
04.604		••	Reviewer's comments
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 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> <li>l. Discussion with a senior clinician prior to discharge</li> </ul> </li> </ul>	N	Operation policy was in place but a review by a consultant within 14 hours of admission was not yet possible as consultant cover was only 9 - 4.30. An open access policy was also in place
CA-703	Audit and Quality Improvement	Υ	
	The service should have a rolling programme of audit, including at least:  a. Audit of implementation of evidence based guidelines (QS CA-500s)  b. Participation in agreed national and network-wide audits  c. Use of the 'Urgent and Emergency Care Clinical Audit Toolkit' to review individual clinical consultations		
CA-704	Key Performance Indicators	Υ	
	Key performance indicators should be reviewed regularly with Hospital (or equivalent) management and with commissioners.		

Ref	Standard	Met?	City Hospital Reviewer's comments
CA-798	Review and Learning  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	

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# **IN-PATIENT WARDS**

Ref	Standard	Met?	Lyndon Ground Reviewer's comments
IP-201	Lead Consultant and Lead Nurse	Υ	
	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.		
IP-202	Consultant Staffing	Υ	
	<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>		
IP-203	'Middle Grade' Clinician	Υ	
	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 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.		

Ref	Standard	Met?	Lyndon Ground Reviewer's comments
IP-205	Medical Staff: Continuity of Care	Υ	
	Consultant rotas should be organised to give reasonable continuity of care.		
	reasonable continuity of care.		
IP-206	Competence Framework and Training Plan – Staff Providing Bedside Care	N	Only three of the Band 7 nursing staff had advanced paediatric
	A competence framework and training plan should		resuscitation and life support
	ensure that all staff providing bedside care have or are		competences.
	working towards, and maintain, competences		
	appropriate for their role in the service including:		
	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)		
	b. Care and rehabilitation of children with trauma (if		
	applicable)		
	c. Care of children needing surgery (if applicable)		
	d. Use of equipment as expected for their role		
	e. Care of children with acute mental health problems		
IP-207	Staffing Levels: Bedside Care	N	A nurse with up to date advanced
	Nursing and non-registered health care staffing levels		paediatric resuscitation and life
	should be appropriate for the number, dependency		support competences was not available on each shift.
	and case-mix of children normally cared for by the		available on each shirt.
	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.		
	The following minimum nurse staffing levels should be		
	achieved:		
	a. At least one nurse with up to date advanced		
	paediatric resuscitation and life support		
	competences on each shift  b. At least two registered children's nurses on duty at		
	all times in each area		
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Ref	Standard	Met?	Lyndon Ground Reviewer's comments
IP-209	Other Staffing	N	Ward based play therapists were not available at weekends
	<ul> <li>The following staff should be available:</li> <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 dietetic service (at least 5/7)</li> </ul>		not available at weekends
	h. Access to an educator for the training, education and continuing professional development of staff		
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.	Y	
IP-401	Resuscitation Equipment  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.  'Grab Bag'	N	Checklist documentation showed that the defibrillator had not been checked for three days.
	Appropriate drugs and equipment for in-hospital and time-critical transfers should be immediately available and checked in accordance with local policy.		
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?	Lyndon Ground Reviewer's comments
IP-502	Paediatric Early Warning System	Υ	
	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	Υ	
	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		
IP-504	Paediatric Advice	Υ	
	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	Many of the guidelines were out
	The following clinical guidelines should be in use:  All:  a. Treatment of all major conditions, including:     i. acute respiratory failure (including bronchiolitis and asthma)     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 h. Nasal high flow therapy (if used) i. Management of children undergoing surgery (if applicable) j. Rehabilitation after critical illness (if applicable)		of date - see main report.

Ref	Standard	Met?	Lyndon Ground
			Reviewer's comments
IP-506	PCC Transfer Guidelines	Y	
	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		
ID 507	·		
IP-507	In-hospital Transfer Guidelines	Υ	
	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.		
ID 500	•	N	The melian did not include
IP-508	Inter-hospital Transfer Guidelines	N	The policy did not include restraint of children, equipment
	Guidelines on transfer of children between hospitals		and staff during transfer.
	or between hospital sites should be in use covering at		and stan daring transfer.
	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		

Ref	Standard	Met?	Lyndon Ground Reviewer's comments
IP-509	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:  a. Securing advice from the Specialist Paediatric Transport Service (QS CA-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 CA-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	N	The policy did not include 'c' Indemnity for escort team and 'd' availability of drugs and equipment, checked in accordance with local policy. The policy would benefit from being more specific about details of staff competence for undertaking time-critical transfers.

Ref	Standard	Met?	Lyndon Ground
			Reviewer's comments
IP-601	Operational Policy  The service should have an operational policy covering at least:  a. Individualised management plans are accessible for children who have priority access to the service (where applicable)  b. Informing the child's GP of their attendance / admission  c. Level of staff authorised to discharge children  d. Arrangements for consultant presence during 'times of peak activity' (7/7)  e. Servicing and maintaining equipment, including 24 hour call out where appropriate  f. Arrangements for a consultant-led rapid access service which can see children within 24 hours of referral  g. Arrangements for admission within four hours of the decision to admit  h. Types of patient admitted  i. Review by a senior clinician within four hours of admission  j. Review by a consultant within 14 hours of admission and at least two consultant-led clinical handovers every 24 hours  k. Handover of patients at each change of responsible consultant, non-consultant medical staff, nursing staff and other staff	N	A review by a consultant within 14 hours of admission was not yet possible as consultant cover on the wards was 9-6pm daily. The Trust was looking at increasing consultant presence till 7pm each day.
10.704	I. Discussion with a senior clinician prior to discharge	.,	
IP-704	Audit and Quality Improvement  The service should have a rolling programme of audit, including at least:  a. Audit of implementation of evidence based guidelines (QS CA-500s)  b. Participation in agreed national and network-wide audits  c. Use of the 'Urgent and Emergency Care Clinical Audit Toolkit' to review individual clinical consultations	Y	
IP-798	Key Performance Indicators	Υ	
	Key performance indicators should be reviewed regularly with Hospital (or equivalent) management and with commissioners.		

# INTEGRATED IN-PATIENTS & L1 PAEDIATRIC CRITICAL CARE

Ref	Standard	Met?	Reviewer's comments
L1-101	Child-friendly Environment	Υ	
	Children should be cared for in a defined safe and secure child-friendly environment, with ageappropriate stimulation and distraction activities.		
L1-102	Parental Access and Involvement	Υ	However, the rooms were very
	<ul> <li>Parents should:</li> <li>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</li> <li>b. Be informed of the child's condition, care plan and emergency transfer (if necessary) and this information should be updated regularly</li> <li>c. Have information, encouragement and support to enable them fully to participate in decisions about, and in the care of, their child</li> </ul>		clinical and not very child friendly.
L1-201	Lead Consultant and Lead Nurse	Υ	
	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	Υ	
	<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>		

Ref	Standard	Met?	Reviewer's comments
L1-203	'Middle Grade' Clinician	Υ	
	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 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.		
L1-205	Medical Staff: Continuity of Care	Υ	
	Consultant rotas should be organised to give reasonable continuity of care.		

Ref	Standard	Met?	Reviewer's comments
L1-206	Competence Framework and Training Plan – Staff	Υ	b) not applicable as the ward did
	Providing Bedside Care		not look after children with
	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:  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)  b. Care and rehabilitation of children with trauma (if applicable)  c. Care of children needing surgery (if applicable)  d. Use of equipment as expected for their role  e. Care of children with acute mental health problems  f. Appropriate level paediatric critical care competences: 70% of nursing staff working on the		trauma.
	PCC Units should have appropriate level		
	competences in paediatric critical care.		
L1-207	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. The following minimum nurse staffing levels should be achieved:  a. At least one nurse with up to date advanced paediatric resuscitation and life support competences on each shift  b. At least two registered children's nurses on duty at all times in each area  c. At least one nurse per shift with appropriate level competences in paediatric critical care  d. One nurse with appropriate level competences in paediatric critical care for every two children needing Level 1 critical care	N	A nurse with advanced paediatric resuscitation and life support competences was not available on each shift and reviewers were not assured from the evidence seen that staffing levels of 3:1 registered to non-registered staff were always met. HDU staffing ratios were appropriate. See main report

Ref	Standard	Met?	Reviewer's comments
L1-208	New Starters  Nurses and non-registered health care staff without previous paediatric critical care experience should undertake:  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)  b. A programme of theoretical and bedside education and training ensuring a defined level of competency is achieved within 12 months  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.	Y	However new starters were often not supernumerary.
L1-209	<ul> <li>Other Staffing</li> <li>The following staff should be available:</li> <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 dietetic service (at least 5/7)</li> <li>h. Access to an educator for the training, education and continuing professional development of staff</li> </ul>	N	Ward based play therapists were not available at weekends.
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.	Y	

Ref	Standard	Met?	Reviewer's comments
L1-401	Resuscitation Equipment	Υ	
	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'	Υ	
	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	Υ	
	Paediatric critical care should be provided in a designated area, distinct from children needing general paediatric care.		
L1-405	Equipment	Υ	
	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	Υ	
	'Point of care' testing for blood gases, glucose, electrolytes and lactate should be easily available.		
IP-501	Initial Assessment	Υ	
	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	Υ	
	A system to provide early warning of deterioration of children should be in use. The system should cover observation, monitoring and escalation of care.		
L1-503	Resuscitation and Stabilisation	Υ	
	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	Υ	
	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	N	Many of the guidelines were out
3 <b>00</b>	The following clinical guidelines should be in use:  All:		of date - see main report.
	a. Treatment of all major conditions, including:		
	i. i. acute respiratory failure (including		
	bronchiolitis and asthma)		
	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	Υ	
	Guidelines on referral to a Specialist Paediatric		
	Transport Service should be in use, covering at least:		
	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		
	the location/s in which children may be maintained		

Ref	Standard	Met?	Reviewer's comments
L1-507	In-hospital Transfer Guidelines  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	Υ	
L1-508	required.  Inter-hospital Transfer Guidelines  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	N	The policy did not include restraint of children, equipment and staff during transfer
L1-509	Time-Critical Transfer Guidelines  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:  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	N	The policy did not include 'c' indemnity for escort team and 'd' availability of drugs and equipment, checked in accordance with local policy. The policy would benefit from being more specific about details of staff competence for undertaking time-critical transfers.

Ref	Standard	Met?	Reviewer's comments
Ref L1-601	All: The service should have an operational policy covering at least: a. Individualised management plans are accessible for children who have priority access to the service (where applicable) b. Informing the child's GP of their attendance / admission c. Level of staff authorised to discharge children d. Arrangements for consultant presence during 'times of peak activity' (7/7) e. Servicing and maintaining equipment, including 24 hour call out where appropriate f. Arrangements for admission within four hours of the decision to admit g. Types of patient admitted h. Review by a senior clinician within four hours of admission i. Discussion with a consultant within four hours of admission j. Review by a consultant within 14 hours of admission and at least two consultant-led clinical handovers every 24 hours k. Handover of patients at each change of responsible consultant, non-consultant medical staff, nursing staff and other staff	N N	A review by a consultant within 14 hours of admission was not yet possible as consultant cover on the wards was 9-6pm daily. The Trust was looking at increasing consultant presence till 7pm each day.
L1-702	Data Collection  The service should collect:  a. Paediatric Intensive Care Audit Network (PICANet) data  b. Paediatric Critical Care Minimum Data Set for submission to Secondary Uses Service (SUS)  c. 'Quality Dashboard' data as recommended by the PCC Clinical Reference Group (CRG)	Υ	
L1-703	Audit and Quality Improvement  The service should have a rolling programme of audit, including at least:  a. Audit of implementation of evidence based guidelines (QS L1-500s)  b. Participation in agreed national and network-wide audits  c. Use of the 'Urgent and Emergency Care Clinical Audit Toolkit' to review individual clinical consultations	Y	'c' was not applicable

Ref	Standard	Met?	Reviewer's comments
L1-704	Key Performance Indicators	Υ	
	Key performance indicators should be reviewed regularly with Hospital (or equivalent) management and with commissioners.		
L1-798	Review and Learning  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	