WM QRS West Midlands Quality Review Service

NHS

Care of Critically Ill & Critically Injured Children in the West Midlands

George Eliot Hospital NHS Trust

Visit Date: 5th June 2014 Report Date: August 2014

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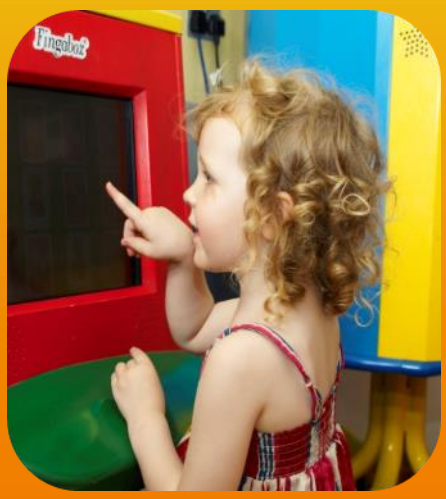

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INTRODUCTION

This report presents the findings of the review of the Care of Critically Ill and Critically Injured Children at George Eliot Hospital NHS Trust which took place on 5th June 2014. The purpose of the visit was to review compliance with West Midlands Quality Review Service (WMQRS) Quality Standards for:

- Care of Critically Ill and Critically Injured Children in the West Midlands, Version 4, March 2013

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 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. Appendix 1 lists the visiting team which reviewed the services at George Eliot Hospital 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:

- George Eliot Hospital NHS Trust
- NHS North Warwickshire 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 North Warwickshire Clinical Commissioning Group.

ABOUT WEST MIDLANDS QUALITY REVIEW SERVICE

WMQRS was set up as a collaborative venture by 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 www.wmqrs.nhs.uk

ACKNOWLEDGMENTS

West Midlands Quality Review Service would like to thank the staff and service users and carers of George Eliot Hospital 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.

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CARE OF CRITICALLY ILL AND CRITICALLY INJURED CHILDREN

TRUST-WIDE

General Comments and Achievements

Services reviewed at this visit were the 24/7 Children's Assessment Unit, located adjacent to the Emergency Department, and a Day Procedures Unit which cared for children and young people needing day surgery or medical day procedures. Children needing in-patient care were transferred to University Hospitals Coventry and Warwickshire NHS Trust.

Reviewers considered that this innovative model was providing safe, high quality care. The Trust had recognised the importance of paediatric services in sustaining other maternity and Emergency Department services and had supported their development.

All staff who met the visiting team were highly committed to providing good care for children and had positively embraced the new service model. Medical and managerial leadership of children's services was strong and the positive staff attitude shown is a tribute to the quality of their leadership. Staff were particularly positive about the impact which on-site consultant paediatricians had had on the quality of care for children. Strong collaborative working among the team of consultants was well-embedded.

Some reviewers had been part of previous visiting teams reviewing the care of critically ill and critically injured children at George Eliot Hospital and commented on the very significant improvement since previous visits. Reviewers were impressed by the depth of expertise in service improvement within children's services. This expertise had clearly been used in developing and implementing the new service model. Further improvements were also being planned, for example, the appointment of 'Quality Improvement Fellows' and greater use of technology, such as 'skype' out-patient consultations.

Services were appropriately staffed and the organisation of the services made efficient use of staff time. Senior decision-makers were involved early in the patient pathway which resulted in good use of staff and other resources throughout the patients' stay. Activity levels were not too high and so staff had time to ensure good care was provided, to reflect on their work and consider improvements which could be made. PALS (Patient Advice and Liaison Service) reported that they were rarely contacted by people with concerns about children's services.

Good Practice

Reviewers were impressed by all aspects of the services for children at George Eliot Hospital and, in particular, by:

1 Lots of multi-disciplinary training was taking place, including simulation training and scenario training based in clinical areas.

2 A rapid debrief took place after every resuscitation event. This involved the whole team and so all staff were immediately aware of the outcome of the debrief. The debrief was then translated into an immediate action plan. Several staff commented on how effective this was in improving care for children and staff confidence.

3 The services actively encouraged feedback and learning. Feedback arrangements included the opportunity to text a mobile phone number and the Trust would ring back for a conversation about the family's experience of care. Good evidence of learning from incidents was also evident.

Immediate Risks: No immediate risks were identified.

Concerns

1 **Maintaining competence of consultants on the emergency on call rota**

Anaesthetists on call for emergencies were not able to provide evidence of maintaining competence in resuscitation, stabilisation and airway management of children. The Trust was aware of this issue and was considering ways in which it could be addressed.

Further Consideration

1 George Eliot Hospital was facing an interesting and important opportunity in relation to nursing leadership for children's services. The lead nurse for children's services was due to retire shortly after the visit and plans for the future of this post were not yet finalised. An interim arrangement involving the safeguarding lead covering the lead nurse for children's services role had been agreed. Reviewers considered that strong nursing leadership with sufficient time and focus for the leadership role will be important in ensuring ongoing development of services.

The new post-holder will also need to take forward other aspects of nursing development, including clarifying proposed roles for Advanced Nurse Practitioners, especially as three highly committed staff were training for these roles but did not yet have job plans into which to move on completion of training. Nurse training was also in need of documentation and embedding. Nurses had generic Trust competency packs which did not yet cover specific competences required for each post. Appropriate training had been undertaken but there was no ongoing system for ensuring competences were being maintained.

2 Criteria for surgery on children and non-surgical procedures requiring anaesthesia were not yet documented. All staff who met the visiting team were clear and consistent about the criteria that were in use. Reviewers suggested that the existing criteria should be documented.

3 Reviewers suggested that anaesthetists on the on call rota should consider undertaking experience in a busy paediatric service on a sufficiently regular basis to ensure their competences in resuscitation, stabilisation and maintenance of children are maintained. This is particularly important because the second on-site anaesthetist may be in theatre and so may be unavailable to help with a resuscitation.

4 Across the services reviewed, relatively little information specifically for children and young people was seen. Further work in this area may be helpful as part of the ongoing improvement of the services at George Eliot Hospital.

5 Some aspects of the management of resuscitation were being revised. The Trust was planning to introduce standardised, sealed resuscitation trolleys across all services. The paediatric section of the Trust resuscitation policy had been revised but had not yet been incorporated into the main resuscitation policy. A new database for recording resuscitation training was being implemented with the aim of including external courses completed as well as local resuscitation training. Reviewers supported these developments.

6 The Trust had had difficulty recruiting junior doctors for children's services. A structure of posts had been agreed and recruitment to these posts had been successful, although some staff had not started at the time of the review. Ongoing recruitment to these posts will be essential for the success of the overall model for children's services.

7 The Trust had worked hard on improving and embedding the working relationship with University Hospitals Coventry and Warwickshire (UHCW). Reviewers encouraged continuation of this work as effective relationships with UHCW is also essential for the success of the overall model for children's services.

8 A health economics evaluation of the model of care was being undertaken. Reviewers suggested that the outcome of this work would be very interesting to other services.

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Children's Assessment Unit

General Comments and Achievements

The Children's Assessment Unit was situated alongside the Emergency Department and provided 24/7 facilities for the assessment of children with complete separation from adult patients. Agreements were in place that ambulances did not bring children to the hospital.

The environment in the Children's Assessment Unit was welcoming and child-friendly. The Unit was warm and bright with tasteful, age-appropriate decoration. Considerable thought and care had been put into the design and decoration of the unit, including ensuring good observation of patients from the nurses' station.

Good clinical guidelines were in place and integration with the Emergency Department appeared to work well.

Good Practice

1 Reviewers were impressed by all aspects of the service, in particular, the effective flow of patients, consultant input early in the patient pathway and the impressive array of discharge leaflets.

Immediate Risks: No immediate risks were identified.

Concerns: No concerns were identified.

Further Consideration

1 Equipment on the Children's Assessment Unit resuscitation trolley was being simplified at the time of the visit and a list of equipment was being introduced. It will be important to ensure this work is followed through to full implementation.

2 Reviewers were surprised that junior doctors from the Emergency Department came to the Children's Assessment Unit to see patients with minor injuries rather than Emergency Nurse Practitioners (ENPs). Use of ENPs for this work could help to maintain their skills and provide staffing flexibility, more experienced staff and better continuity of staffing for the Children's Assessment Unit.

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Day Procedures Unit (DPU)

General Comments and Achievements

The day procedures unit was a six-bedded unit for children needing elective day case surgery or medical day case procedures. A small procedures room was also available. The environment in the unit was welcoming, child-friendly and bright. The Unit was well-organised with good arrangements for liaison with theatres and with children's out-patient clinics. Nursing leadership of the Unit was strong with good ideas for its further development. Staffing was increased, including the addition of play specialists, at times when day surgery lists were running.

Immediate Risks: No immediate risks were identified.

Concerns: No concerns were identified.

Further Consideration

1 Information about anaesthesia was given out on the day of surgery. Staff were considering options for ensuring families had this information sooner and reviewers supported this change.

2 Reviewers were told that relatively few families took up the option of pre-operative visits to the Day Procedures Unit and suggested that visiting the Day Procedures Unit at the same time as outpatient appointments and 'listing' for surgery may be a way to address this.

PAEDIATRIC ANAESTHESIA

General Comments and Achievements and Good Practice

Elective paediatric anaesthesia at George Eliot Hospital was mainly provided by three consultant anaesthetists and one associate specialist. The lead anaesthetist for children was keen and committed to improving the services offered. The role of anaesthetists in supporting children's airway management was clear and understood by staff throughout the hospital.

Immediate Risks: No immediate risks were identified.

Concerns

1 See Trust-wide section of this report in relation to maintaining competence among consultant anaesthetists on the emergency on call rota.

2 **Theatre and recovery staff resuscitation training**

Available training records did not confirm that all staff had appropriate training and experience in the care of children. A 'backlog' of staff had out of date resuscitation training. Additional courses were being run and the department hoped that all resuscitation training would be up to date by October 2014. It also appeared that over 50% of theatre and recovery staff were temporary staff (bank and agency) although, as far as possible, permanent staff were used for children's lists.

Further Consideration

1 See Trust-wide section of this report in relation to documentation of criteria for surgery on children.

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APPENDIX 1 MEMBERSHIP OF VISITING TEAM

Executive Lead

Dr Fiona Reynolds	Consultant Intensivist / Deputy Chief Medical Officer	Birmingham Children's Hospital NHS Foundation Trust

Visiting Team

Dr Chrisantha Halahakoon	Consultant Paediatrician	The Royal Wolverhampton NHS Trust
Dr Rose Johnson	Consultant in Emergency Medicine	Worcestershire Acute Hospitals NHS Trust
Pamela Smith	Acting Deputy Director of Nursing	The Dudley Group NHS Foundation Trust
Dr Sue Smith	Consultant Anaesthetist and Divisional Medical Director	The Royal Wolverhampton NHS Trust
Kirsti Soanes	Consultant Nurse	Birmingham Children's Hospital NHS Foundation Trust

WMQRS Team

Jane Eminson	Acting Director	West Midlands Quality Review Service

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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 varied 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

Service	Number of Applicable QS	Number of QS Met	% met
Care of Critically Ill and Critically Injured Children			
Trust-Wide	9	8	89
Children's Assessment Unit	37	34	92
Day Procedure Unit	36	33	92
Paediatric Anaesthesia	16	12	75
Total	98	87	89

Pathway and Service Letters: The Standards are in the following sections:

PC-	Care of Critically Ill Children Pathway	Acute Trust-wide
PM-	Care of Critically Ill Children Pathway	Core Standards for Each Area: Emergency Departments, Children's Assessment Services, In-patient and High Dependency Care Services for Children
PE-	Care of Critically Ill Children Pathway	Emergency Departments Caring for Children
PQ-	Care of Critically Ill Children Pathway	In-patient and High Dependency Care Services for Children
PG-	Care of Critically Ill Children Pathway	Anaesthesia and General Intensive Care for Children

Topic Sections: Each section covers the following topics:

-100	Information and Support for Children and Their Families
-200	Staffing
-300	Support Services
-400	Facilities and Equipment
-500	Guidelines and Protocols
-600	Service Organisation and Liaison with Other Services
-700	Governance

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TRUST-WIDE

Ref	Quality Standards	Met?	Comments
PC-201	**Board-level lead for children** A Board-level lead for children's services should be identified.	Y	
PC-202	**Lead consultants and lead nurses** The Board level lead for children's services should ensure that the following leads for the care of children have been identified: a. Nominated lead consultants and nurses for each of the areas where children may be critically ill (QS PM-201) b. Nominated lead consultant for emergency and elective surgery in children c. Nominated lead consultant for trauma in children d. Nominated lead anaesthetist (QS PG-201) and lead ICU consultant (QS PG-202) for children	Y	
PC-501	**Minor injuries units** If the Trust's services (QS PC-601) include a Minor Injuries Unit, Walk-in Centre or Urgent Care Centre, this Unit should have a protocol in use in the event of a critically ill child, or potentially critically ill child, presenting. This protocol should include transfer to an appropriate paediatric unit.	Y	
PC-502	**Hospitals with emergency services for adults only – avoiding child attendances** Hospitals without on-site assessment or in-patient services for children should:a. Indicate clearly to the public the nature of the service provided for childrenb. Have agreed a protocol with the local ambulance service that children are not brought to the service by ambulance	N/A	
PC-503	**Hospitals with emergency services for adults only – paediatric advice** Hospitals without on-site assessment or in-patient services for children should have guidelines for accessing paediatric medical advice agreed with a local paediatric medical unit and regularly reviewed.	N/A	
PC-504	**Surgery on children** The Trust should have agreed the exclusion criteria for elective and emergency surgery on children (QS PG-503).	N	Criteria for surgery on children were not yet documented. All staff who met the visiting team were clear and consistent about the criteria that were in use.

Ref	Quality Standards	Met?	Comments
PC-601	**Services provided** The Trust should be clear whether it provides the following services and the hospital site or sites on which each service is available: a. Minor Injury Unit, Walk-in Centre or Urgent Care Centre b. Emergency Department for: • Adults • Children c. Trauma service for children and, if so, its designation d. Children's assessment service e. In-patient children's service f. High Dependency Care service for children g. Elective in-patient surgery for children h. Day case surgery for children I. Emergency surgery for children j. Acute pain service for children k. Paediatric Intensive Care retrieval and transfer service l. Paediatric Intensive Care service	Y	
PC-602	**Children's assessment service location** If the Trust provides a children's assessment service, this should be sited alongside either an Emergency Department or an in-patient children's service.	Y	
PC-603	**Hospitals accepting children with trauma**Hospitals accepting children with trauma should also provide, on the same hospital site:a. High Dependency Care service for childrenb. Paediatric Intensive Care service or a general intensive care unit which admits children needing: • A short period of post-anaesthetic care • Maintenance prior to transfer to PICU (QS PM-506)	N/A	Ambulances did not bring children with trauma to the hospital. Children with trauma may be brought by families.
PC-604	**Trust-wide group** Trusts 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 PC-202) and the Resuscitation Officer with lead responsibility for children. The accountability of the group should include the Trust Director with responsibility for children's services (QS PC-201). The relationship of the group to the Trust's mechanisms for safeguarding children (QS PM-297) and clinical governance issues relating to children should be clear.	Y	

Ref	Quality Standards	Met?	Comments
PC-703	**Approving guidelines and policies**The mechanism for approval of policies, procedures, guidelines and protocols relating to the care of critically ill and critically injured children should have been agreed by the Trust-wide group (QS PC-604) or a sub-group thereof.	Y	
PC-704	**Child death** The death of a child while in hospital should undergo formal review. This review should be multi-professional and all reasonable steps should be taken to involve specialties who contributed to the child's care. Primary and community services should be involved where appropriate. All deaths of children in hospital should be reported to the local Child Death Overview Panel.	Y	

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Children's Assessment Unit

Ref	Quality Standards	Met?	Comments
PM-101	**General support for families** The following support services should be available: a. Interfaith and spiritual support b. Social workers c. Interpreters d. Bereavement support e. Patient Advice and Advocacy Services Information for parents about these services should also be available.	Y	Good safeguarding packs were available but information about other support available from social services was less visible.
PM-102	**Child-friendly environment** There should be a child-friendly environment, including toys and books / magazines for children of all ages. There should be visual and, ideally, sound separation from adult patients.	Y	The Unit provided an excellent, child-friendly environment.
PM-103	**Parental access** There should be parental access to the child at all times except when this is not in the interest of the child or the privacy and confidentiality of other children and their families.	Y	
PM-104	**Information for children** Children should be offered appropriate information to enable them to share in decisions about their care.	N	Reviewers did not see any information specifically for children.
PM-105	**Information for parents** Parents should have information, encouragement and support to enable them fully to participate in decisions about, and in the care of, their child.	Y	Very good information for parents was available although the asthma leaflet was out of date.

Ref	Quality Standards	Met?	Comments
PM-106	**Keeping parents informed** Parents should be informed of the child's condition, care plan and retrieval (if necessary) and this information should be updated regularly.	Y	
PM-108	**Financial support** A policy on financial support for families of critically ill children should be developed and communicated to parents.	Y	
PM-199	**Involving children and families** The service should have mechanisms for: a. Receiving feedback from children and families about the treatment and care they receive b. Involving children and families in decisions about the organisation of the service	Y	Good arrangements for feedback were in place including the opportunity for families to text if they wished the Trust to ring them for feedback. A good display of action taken as a result of feedback was in place.
PM-201	**Lead consultant and lead nurse** A nominated consultant and nominated senior children's trained nurse should be responsible for: a. Protocols covering the assessment and management of the critically ill child b. Ensuring training of relevant staff The lead consultant and lead nurse should undertake regular clinical work within the area for which they are responsible.	Y	See main report (further consideration section) in relation to nursing leadership.
PM-202	**Consultant paediatrician 24 hour cover** 24 hour cover by a consultant paediatrician who is able to attend within 30 minutes and does not have responsibilities to other hospital sites should be available.	Y	
PM-203	**Consultant anaesthetist 24 hour cover** 24 hour cover by a consultant anaesthetist who is able to attend within 30 minutes and does not have responsibilities to other hospital sites should be available.	Y	
PM-204	**24 hour on site clinician competent in resuscitation and advanced airway management** 24 hour cover by a clinician with competences in resuscitation, stabilisation and intubation of children should be immediately available on each hospital site.	Y	
PM-205	**Medical staff resuscitation training** All relevant medical staff and clinical staff (QS PM-201) have appropriate, up to date paediatric resuscitation training.	Y	Resuscitation training for one Emergency Department consultant was in need of updating. Emergency Department consultants were not usually involved in the care of children.
PM-206	**Clinician with advanced resuscitation training on duty** A clinician with up to date advanced paediatric resuscitation training should be on duty at all times.	Y	

Ref	Quality Standards	Met?	Comments
PM-207	**Clinician with level 1 competences on duty** There should be 24 hour resident cover by a clinician with competences and experience in: a. Assessment of the ill child and recognition of serious illness and injury b. Initiation of appropriate immediate treatment c. Prescribing and administering resuscitation and other appropriate drugs d. Provision of appropriate pain management e. Effective communication with children and their families The level of competence expected is equivalent to paediatric medicine (RCPCH) level 1 competences in these areas.	Y	
PM-208	**Nursing and HCA staff competences** Nursing and health care assistant staffing and competency 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. A competence framework and training plan should ensure that all nursing and health care assistant staff have, or are working towards, competences appropriate for their role in the service including in: a. Paediatric resuscitation b. High dependency care c. Care and rehabilitation of children with trauma	Y	Good training was evident including four nurses with high dependency training. Nurses had a generic Trust competency pack although this did not cover competences specific for their post. A formal training plan was not yet embedded. Multi-disciplinary training including simulation and training based in clinical areas was clearly evident.
PM-209	**Minimum nurse staffing** Emergency Departments and day surgery services for children should have at least one registered children's nurse on duty at all times in each area. Children's assessment services and in-patient services for children should have at least two registered children's nurses on duty at all times in each area.	Y	
PM-210	**Nurse with paediatric resuscitation training on duty** At least one nurse with up to date paediatric resuscitation training should be on duty at all times.	Y	
PM-211	**Support for play** Appropriately qualified play specialists should be available 7 days a week.	N/A	A play specialist was available three days a week.

Ref	Quality Standards	Met?	Comments
PE-212	**Trauma team** Emergency Departments receiving children with trauma should have a Trauma Team immediately available at all times, including: a. Team Leader (see note 2) b. Emergency Department doctor (senior decision maker) c. Clinician trained to, or training at, the equivalent of paediatric medicine and neonatal medicine (RCPCH) level 2 competences or above (QS PQ-217) d. Clinician with competences in resuscitation, stabilisation and intubation of children (QS PM-203) e. General Surgeon f. Orthopaedic Surgeon	N/A	
PE-213	**ED liaison paediatrician** There should be a nominated paediatric consultant responsible for liaison with the nominated Emergency Department consultant (QS PM-201).	Y	
PE-214	**ED sub-speciality trained consultant** Emergency departments seeing 16,000 or more child attendances per year should have an emergency department consultant with sub-specialty training in paediatric emergency medicine and a consultant paediatrician with sub-specialty training in paediatric emergency medicine.	N/A	
PE-215	**Small emergency departments** Emergency departments seeing less than 16,000 child attendances per year should have arrangements in place to ensure the ongoing competence of clinical staff in the care of critically ill children.	N/A	A paediatrician was present in the unit at all times.
PM-296	**Policy on staff acting outside their area of competence** A Trust policy on staff acting outside their area of competence because this is in the best interest of the child should be in use covering: a. Exceptional circumstances when this may occur b. Staff responsibilities c. Reporting of event as an untoward clinical incident d. Support for staff	N	No specific policy was available.
PM-297	**Safeguarding training** All staff involved with the care of children should: a. Have training in safeguarding children appropriate to their role b. Be aware who to contact if they have concerns about safeguarding issues and c. Work in accordance with latest national guidance on safeguarding children	Y	

Ref	Quality Standards	Met?	Comments
PM-301	**Support services 24 hour cover** 24-hour access to pharmacy, biochemistry, pathology, imaging and physiotherapy services able to support the care of children, and weekday access to dietetic services, should be available. If staff with competences in reporting imaging of children are not available 24/7 then the Trust should have arrangements for review of imaging by a paediatric radiologist.	Y	Very good access to support services was in place.
PE-302	**Critical care support** Emergency Departments accepting children with trauma should have access, on the same hospital site, to: a. High Dependency Care service for children b. Paediatric Intensive Care service or a general intensive care unit which admits children needing: • A short period of post-anaesthetic care • Maintenance prior to transfer to PICU (QS PM-506)	N/A	
PM-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.	Y	See main report (further consideration section) in relation to completion of work on tidying the trolley and adding a list of expected equipment.
PM-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 exceed 30 minutes.	Y	A clear escalation flow-chart was on the notice board.
PM-502	**Paediatric advice** Protocols for accessing advice from the local paediatric service and local paediatric intensive care service should be in use in units where children are not under the care of a paediatrician.	N/A	
PM-503	**Clinical guidelines** Guidelines should be in use covering: a. Admission b. Treatment of all major conditions, including meningococcal infection, asthma, status epilepticus, diabetic ketoacidosis, upper airway obstruction and inhaled foreign body. c. Treatment of the consequences of trauma d. Procedural sedation and analgesia e. Discharge	Y	

Ref	Quality Standards	Met?	Comments
PM-504	**Early warning protocol** A protocol designed to provide early warning of deterioration of children should be in use. The protocol should cover observation, monitoring and escalation of care.	Y	
PM-505	**Resuscitation and stabilisation protocol** Protocols should be in use covering resuscitation and stabilisation, including: a. Alerting the paediatric resuscitation team b. Indications and arrangements for accessing ENT services when needed for airway emergencies c. In Emergency Departments with no on-site children's assessment or in-patient children's service, arrangements for ensuring paediatric medical and appropriate anaesthetic input to the care of the child	Y	The paediatric part of the Trust resuscitation policy had been updated but was not yet incorporated into the main resuscitation policy.
PM-506	**PICU transfer protocol** A protocol on transfer to a PICU should be in use, which should include: a. Accessing advice from a Retrieval Service or PIC consultant and providing full clinical information b. Ensuring decisions on whether a child needs to be transferred are taken by the appropriate local consultant with a PIC consultant c. Local guidelines on the maintenance of intensive care for a critically ill child until the child's condition improves or the retrieval team arrives which should stipulate the location/s in which children may be maintained d. Arrangements for the transfer of children requiring specialised intensive care not available in the lead PIC centre, including burns care and ECMO	Y	
PM-507	**In-hospital transfer protocol** A protocol on transfer of seriously ill children within the hospital (for example, to or from imaging or theatre) should be in use. The protocol should specify the escort arrangements and equipment required.	Y	

Ref	Quality Standards	Met?	Comments
PM-508	**High dependency care transfer protocol** Hospitals which undertake transfers of children needing high dependency care should have a protocol agreed by the Retrieval Service for the local population which covers: 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 The protocol should cover primary transfers of children to a High Dependency Care Unit and 'back-transfers' from PICU.	Y	The risk assessment for patients who needed transport to University Hospitals Coventry & Warwickshire NHS Trust was well written and clear about the escort required.
PM-509	**Transfer contingency protocol** A protocol should be in place for situations where retrieval is clinically inappropriate or time-critical, for example, severe head injury, intracranial bleeding, severe thoracic vascular trauma, burns and some intra-abdominal emergencies, where retrieval may introduce unsafe delay. The protocol should include: a. Advice from the Retrieval Service or lead PIC centre (QS PM-506) b. Contact details of relevant specialists where additional advice may be required, for example, neurosurgeons c. Escort team of one nurse and one doctor with appropriate training and experience. The referring consultant and senior nurse on duty should judge the appropriateness of the medical escort who would normally be senior clinicians with experience and / or training in a) care of the critically ill child or b) emergency transfer or c) airway management. d. Indemnity for escort team e. Availability of drugs and equipment, checked in accordance with local policy f. Arrangements for emergency transport with a local ambulance service and the air ambulance g. Arrangements for ensuring restraint of children, equipment and staff during transfer	Y	
PM-510	**Organ donation policy** A Trust policy on organ donation should be in use which is specific about organ donation in children and includes transplant coordinator contact details.	Y	

Ref	Quality Standards	Met?	Comments
PM-511	**Bereavement policy** A Trust bereavement policy should be in use which specifically covers the death of a child and bereavement of parents, carers and siblings. This policy should specify arrangements for obtaining consent for post-mortems.	Y	
PE-511	**Trauma protocol** A protocol on care of children with trauma should be in use covering: a. Dedicated phone in the Emergency Department b. Alerting and activating the Trauma Team (QS PE-212) c. Handover from the pre-hospital team to the Trauma Team lead using ATMIST d. Responsibilities of members of the Trauma Team, including responsibility for: i. Liaison with families ii. Calling all relevant consultants e. Involvement of neurosurgeons in all decisions to operate on children with traumatic brain injury f. Indications and arrangements for referral to the Major Trauma Centre for children, including referral of children needing assessment for: i. Neurosurgery ii. Vascular surgery iii. Cardiothoracic surgery iv. Spinal cord service v. Other specialist surgery g. Handover of children no longer needing the care of the Trauma Team h. Completing standardised documentation i. Responsibilities for recording receipt of imaging reports j. Major incidents	N/A	
PE-512	**Trauma guidelines** Guidelines should be in use covering care of children with trauma, including: a. Immediate airway management b. Haemorrhage control and massive transfusion c. Chest drain insertion	N/A	

Ref	Quality Standards	Met?	Comments
PE-513	**Trauma imaging** A protocol on imaging of children with trauma should be in use which ensures: a. Where indicated, CT is the primary imaging modality b. CT scanning is undertaken within 30 minutes of arrival c. Electronic transmission of images for immediate reporting d. A provisional report is issued within one hour and communicated by telephone and electronically e. Indications and arrangements for review of imaging by a neuro-radiologist f. Full report is issued electronically within 12 hours g. Any significant variations between the provisional and final report are communicated to the senior clinician responsible for the care of the child h. Responsibilities of other services for recording receipt of imaging reports	N/A	
PM-702	**Audit** The service should have a rolling programme of audit of compliance with clinical guidelines (QSs PM-503 to PM-509).	Y	
PM-703	**National audit programmes** The service should be submitting data to, and participating in, appropriate national and regional clinical audit programmes including, for services caring for children with trauma, TARN.	Y	
PM-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	See main report good practice section.
PM-799	**Document control** All policies, procedures, guidelines and protocols relating to the care of critically ill and critically injured children should comply with Trust document control procedures.	N	Some documents were out of date, some did not have a front sheet and document control arrangements were unclear.

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DAY PROCEDURE UNIT

Ref	Quality Standards	Met?	Comments
PM-101	**General support for families** The following support services should be available: a. Interfaith and spiritual support b. Social workers c. Interpreters d. Bereavement support e. Patient Advice and Advocacy Services Information for parents about these services should also be available.	Y	
PM-102	**Child-friendly environment** There should be a child-friendly environment, including toys and books / magazines for children of all ages. There should be visual and, ideally, sound separation from adult patients.	Y	
PM-103	**Parental access** There should be parental access to the child at all times except when this is not in the interest of the child or the privacy and confidentiality of other children and their families.	Y	
PM-104	**Information for children** Children should be offered appropriate information to enable them to share in decisions about their care.	N	Reviewers did not see any information specifically for children.
PM-105	**Information for parents** Parents should have information, encouragement and support to enable them fully to participate in decisions about, and in the care of, their child.	Y	
PM-106	**Keeping parents informed** Parents should be informed of the child's condition, care plan and retrieval (if necessary) and this information should be updated regularly.	Y	
PM-108	**Financial support** A policy on financial support for families of critically ill children should be developed and communicated to parents.	Y	
PM-199	**Involving children and families** The service should have mechanisms for: a. Receiving feedback from children and families about the treatment and care they receive b. Involving children and families in decisions about the organisation of the service	Y	The paediatric service used Patient Reported Experience Measure (PREMS) questionnaires. Further work on displaying actions taken as a result of feedback was planned.

Ref	Quality Standards	Met?	Comments
PM-201	**Lead consultant and lead nurse** A nominated consultant and nominated senior children's trained nurse should be responsible for: a. Protocols covering the assessment and management of the critically ill child b. Ensuring training of relevant staff The lead consultant and lead nurse should undertake regular clinical work within the area for which they are responsible.	Y	
PM-202	**Consultant paediatrician 24 hour cover** 24 hour cover by a consultant paediatrician who is able to attend within 30 minutes and does not have responsibilities to other hospital sites should be available.	Y	
PM-203	**Consultant anaesthetist 24 hour cover** 24 hour cover by a consultant anaesthetist who is able to attend within 30 minutes and does not have responsibilities to other hospital sites should be available.	Y	
PM-204	**24 hour on site clinician competent in resuscitation and advanced airway management** 24 hour cover by a clinician with competences in resuscitation, stabilisation and intubation of children should be immediately available on each hospital site.	Y	
PM-205	**Medical staff resuscitation training** All relevant medical staff and clinical staff (QS PM-201) have appropriate, up to date paediatric resuscitation training.	Y	
PM-206	**Clinician with advanced resuscitation training on duty** A clinician with up to date advanced paediatric resuscitation training should be on duty at all times.	Y	See paediatric anaesthesia section of this report in relation to consultant anaesthetist training.
PM-207	**Clinician with level 1 competences on duty** There should be 24 hour resident cover by a clinician with competences and experience in: a. Assessment of the ill child and recognition of serious illness and injury b. Initiation of appropriate immediate treatment c. Prescribing and administering resuscitation and other appropriate drugs d. Provision of appropriate pain management e. Effective communication with children and their families The level of competence expected is equivalent to paediatric medicine (RCPCH) level 1 competences in these areas.	Y	

Ref	Quality Standards	Met?	Comments
PM-208	**Nursing and HCA staff competences** Nursing and health care assistant staffing and competency 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. A competence framework and training plan should ensure that all nursing and health care assistant staff have, or are working towards, competences appropriate for their role in the service including in: a. Paediatric resuscitation b. High dependency care c. Care and rehabilitation of children with trauma	Y	Good training was evident including four nurses with high dependency training. Nurses had a generic Trust competency pack although this did not cover competences specific to their post. A formal training plan was not yet embedded. Multi-disciplinary training including simulation and training based in clinical areas was clearly evident.
PM-209	**Minimum nurse staffing** Emergency Departments and day surgery services for children should have at least one registered children's nurse on duty at all times in each area. Children's assessment services and in-patient services for children should have at least two registered children's nurses on duty at all times in each area.	Y	
PM-210	**Nurse with paediatric resuscitation training on duty** At least one nurse with up to date paediatric resuscitation training should be on duty at all times.	Y	
PM-211	**Support for play** Appropriately qualified play specialists should be available 7 days a week.	Y	The play specialist was present in the unit. Children are offered the opportunity to attend the unit before surgery.
PM-296	**Policy on staff acting outside their area of competence** A Trust policy on staff acting outside their area of competence because this is in the best interest of the child should be in use covering: a. Exceptional circumstances when this may occur b. Staff responsibilities c. Reporting of event as an untoward clinical incident d. Support for staff	N	No specific policy was available.
PM-297	**Safeguarding training** All staff involved with the care of children should: a. Have training in safeguarding children appropriate to their role b. Be aware who to contact if they have concerns about safeguarding issues and c. Work in accordance with latest national guidance on safeguarding children	Y	

Ref	Quality Standards	Met?	Comments
PM-301	**Support services 24 hour cover** 24-hour access to pharmacy, biochemistry, pathology, imaging and physiotherapy services able to support the care of children, and weekday access to dietetic services, should be available. If staff with competences in reporting imaging of children are not available 24/7 then the Trust should have arrangements for review of imaging by a paediatric radiologist.	Y	
PM-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.	Y	
PM-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 exceed 30 minutes.	N/A	
PM-502	**Paediatric advice** Protocols for accessing advice from the local paediatric service and local paediatric intensive care service should be in use in units where children are not under the care of a paediatrician.	N/A	
PM-503	**Clinical guidelines** Guidelines should be in use covering: a. Admission b. Treatment of all major conditions, including meningococcal infection, asthma, status epilepticus, diabetic ketoacidosis, upper airway obstruction and inhaled foreign body. c. Treatment of the consequences of trauma d. Procedural sedation and analgesia e. Discharge	Y	
PM-504	**Early warning protocol** A protocol designed to provide early warning of deterioration of children should be in use. The protocol should cover observation, monitoring and escalation of care.	Y	

Ref	Quality Standards	Met?	Comments
PM-505	**Resuscitation and stabilisation protocol** Protocols should be in use covering resuscitation and stabilisation, including: a. Alerting the paediatric resuscitation team b. Indications and arrangements for accessing ENT services when needed for airway emergencies c. In Emergency Departments with no on-site children's assessment or in-patient children's service, arrangements for ensuring paediatric medical and appropriate anaesthetic input to the care of the child	Y	
PM-506	**PICU transfer protocol** A protocol on transfer to a PICU should be in use, which should include: a. Accessing advice from a Retrieval Service or PIC consultant and providing full clinical information b. Ensuring decisions on whether a child needs to be transferred are taken by the appropriate local consultant with a PIC consultant c. Local guidelines on the maintenance of intensive care for a critically ill child until the child's condition improves or the retrieval team arrives which should stipulate the location/s in which children may be maintained d. Arrangements for the transfer of children requiring specialised intensive care not available in the lead PIC centre, including burns care and ECMO	Y	
PM-507	**In-hospital transfer protocol** A protocol on transfer of seriously ill children within the hospital (for example, to or from imaging or theatre) should be in use. The protocol should specify the escort arrangements and equipment required.	Y	
PM-508	**High dependency care transfer protocol** Hospitals which undertake transfers of children needing high dependency care should have a protocol agreed by the Retrieval Service for the local population which covers: 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 The protocol should cover primary transfers of children to a High Dependency Care Unit and 'back-transfers' from PICU.	Y	The risk assessment for patients who needed transport to University Hospitals Coventry & Warwickshire NHS Trust was well written and clear about the escort required.

Ref	Quality Standards	Met?	Comments
PM-509	**Transfer contingency protocol** A protocol should be in place for situations where retrieval is clinically inappropriate or time-critical, for example, severe head injury, intracranial bleeding, severe thoracic vascular trauma, burns and some intra-abdominal emergencies, where retrieval may introduce unsafe delay. The protocol should include: a. Advice from the Retrieval Service or lead PIC centre (QS PM-506) b. Contact details of relevant specialists where additional advice may be required, for example, neurosurgeons c. Escort team of one nurse and one doctor with appropriate training and experience. The referring consultant and senior nurse on duty should judge the appropriateness of the medical escort who would normally be senior clinicians with experience and / or training in a) care of the critically ill child or b) emergency transfer or c) airway management. d. Indemnity for escort team e. Availability of drugs and equipment, checked in accordance with local policy f. Arrangements for emergency transport with a local ambulance service and the air ambulance g. Arrangements for ensuring restraint of children, equipment and staff during transfer	Y	
PM-510	**Organ donation policy** A Trust policy on organ donation should be in use which is specific about organ donation in children and includes transplant coordinator contact details.	Y	
PM-511	**Bereavement policy** A Trust bereavement policy should be in use which specifically covers the death of a child and bereavement of parents, carers and siblings. This policy should specify arrangements for obtaining consent for post-mortems.	Y	
PM-702	**Audit** The service should have a rolling programme of audit of compliance with clinical guidelines (QSs PM-503 to PM-509).	Y	
PM-703	**National audit programmes** The service should be submitting data to, and participating in, appropriate national and regional clinical audit programmes including, for services caring for children with trauma, TARN.	Y	

Ref	Quality Standards	Met?	Comments
PM-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	See main report good practice section.
PM-799	**Document control** All policies, procedures, guidelines and protocols relating to the care of critically ill and critically injured children should comply with Trust document control procedures.	N	Some documents were out of date, some did not have a front sheet and document control arrangements were unclear.

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PAEDIATRIC ANAESTHESIA

Ref	Quality Standards	Met?	Comments
[PC-601]	**Surgery and anaesthetic services** The Trust should be clear whether it provides the following services for children and the hospital site or sites on which each service is available: a. Elective in-patient surgery for children b. Day case surgery for children c. Emergency surgery for children d. Acute pain service for children	Y	The Trust provided elective day case surgery only and no emergency surgery for children. There was no acute pain service for children but PiP (Partners in Paediatrics) guidelines were in use and staff were clear about the management of post-operative pain.
PG-102	**Information on anaesthesia** Age-appropriate information about anaesthesia should be available for children and families.	Y	The Royal College booklet was used and widely available. Staff had plans to ensure this was sent to families in advance, rather than being given on the day of surgery.
PG-199	**Involving children and families** The service should have mechanisms for: a. Receiving feedback from children and families about the treatment and care they receive b. Involving children and families in decisions about the organisation of the service	Y	
PG-201	**Lead anaesthetist** A nominated consultant anaesthetist should be responsible for policies and procedures relating to emergency and elective anaesthesia of children. This consultant should be involved in the delivery of anaesthetic services to children.	Y	
PG-202	**GICU lead consultant** A nominated lead intensive care consultant should be responsible for Intensive Care Unit policies and procedures relating to children.	N/A	

Ref	Quality Standards	Met?	Comments
PG-203	**Lead nurse** A nominated lead nurse should be responsible for ensuring policies, procedures and nurse training relating to children admitted to the general intensive care unit are in place.	N/A	
PG-204	**Medical staff caring for children** All anaesthetists or intensivists with emergency and / or elective paediatric responsibility should have up to date knowledge of advanced paediatric life support / resuscitation and stabilisation of critically ill children.	N	See main report.
PG-205	**Elective anaesthesia** All anaesthetists involved in the elective surgical management of children should be familiar with current practice and the techniques necessary to provide safe care for children, including acute pain management.	Y	Three anaesthetists took responsibility for all elective paediatric lists.
PG-206	**Operating department assistance** Operating department assistance from personnel trained and familiar with paediatric work should be available for all emergency and elective children's surgery. For hospitals accepting children with trauma, this includes competences in the care of children with trauma.	N	See main report.
PG-207	**Recovery staff** At least one member of the recovery room staff who has training and experience in paediatric practice should be available for all elective children's lists.	N	As QS PG-207
PG-401	**Induction and recovery areas** Child-friendly paediatric induction and recovery areas should be available within the theatre environment.	Y	Children were brought to theatre straight from the Day Procedures Unit. The recovery area had visual but not sound separation from adult patients. Children were taken back to the Day Procedures Unit as quickly as possible.
PG-402	**Day surgery** Children needing elective surgery should be admitted to a day surgery unit or a children's ward area specifically identified for children's day surgery.	Y	The environment was welcoming and child-friendly.
PG-403	**Drugs and equipment** Appropriate drugs and equipment should be available in each area in which paediatric anaesthesia is delivered. Drugs and equipment should be checked in accordance with local policy.	Y	

Ref	Quality Standards	Met?	Comments
PG-404	**GICU paediatric area** The general intensive care unit should have an appropriately designed and equipped area for providing intensive care for children. Drugs and equipment appropriate to the age and condition of children who may be admitted (QS PM-506) should be available and checked in accordance with local policy.	N/A	
PG-501	**Role of anaesthetic service in care of critically ill children** Protocols for resuscitation, stabilisation, accessing advice, transfer and maintenance of critically ill children (QSs PM-503 to PM-509) and the provision of high dependency care (QS PQ-514 and PQ-601) should be clear about the role of the anaesthetic service and (general) intensive care in each stage of the child's care.	Y	
PG-502	**GICU Care of children** If the maintenance guidelines in QS PM-506 include the use of a general intensive care unit, they should specify: a. The circumstances under which a child will be admitted to and stay on the general intensive care unit b. A children's nurse is available to support the care of the child and should review the child at least every 12 hours c. There should be discussion with a PICU about the child's condition prior to admission and regularly during their stay on the general intensive care unit d. A local paediatrician should agree to the child being moved to the intensive care unit and should be available for advice e. A senior member of the paediatric team should review the child at least every 12 hours during their stay on the general intensive care unit	N/A	
PG-503	**Surgery criteria** Protocols should be in use covering: a. Exclusion criteria for elective and emergency surgery on children b. Day case criteria c. Non-surgical procedures requiring anaesthesia	N	Criteria for surgery on children and non-surgical procedures requiring anaesthesia were not yet documented. All staff who met the visiting team were clear and consistent about the criteria that were in use.
PG-504	**Clinical guidelines - anaesthesia** Clinical guidelines should be in use covering: a. Analgesia for children b. Pre-operative assessment c. Preparation of all children undergoing general anaesthesia	Y	

Ref	Quality Standards	Met?	Comments
PG-601	**Liaison with theatre manager** There should be close liaison between the lead consultant/s for paediatric anaesthesia (QS PG-201) and the Theatre Manager with regard to the training and mentoring of support staff.	Y	
PG-602	**Children's lists** Wherever possible, elective surgery on children should be undertaken on dedicated operating lists for children. If dedicated lists are not feasible, children should be put at the start of lists with appropriately trained staff in the reception, anaesthetic room, theatre and recovery areas.	Y	
PG-701	**High dependency care: data collection (GICU)** The paediatric high dependency minimum data set should be collected and submitted to SUS.	N/A	

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