WM QRS West Midlands Quality Review Service

NHS

Review of Theatre and Anaesthetic Services

The Shrewsbury and Telford Hospital NHS Trust (Shropshire and Telford & Wrekin Health Economy)

Visit Date: 15th and 16th March 2017 Report Date: May 2017

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UKAS INSPECTION 8831

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INTRODUCTION

This report presents the findings of the review of theatre and anaesthetic services at The Shrewsbury and Telford Hospital NHS Trust that took place on 15th and 16th March 2017. The purpose of the visit was to review compliance with the following West Midlands Quality Review Service (WMQRS) Quality Standards:

- WMQRS Theatre and Anaesthetic Services QSs V1.6

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 that reviewed the services in The Shrewsbury and Telford 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:

- The Shrewsbury and Telford Hospital NHS Trust
- NHS Telford and Wrekin Clinical Commissioning Group
- NHS Shropshire 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.

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 www.wmqrs.nhs.uk

ACKNOWLEDGMENTS

West Midlands Quality Review Service would like to thank the staff and service users and carers of The Shrewsbury and Telford 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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THE SHREWSBURY AND TELFORD HOSPITAL NHS TRUST

THEATRE AND ANAESTHETIC SERVICES

General Comments and Achievements

Theatre and anaesthetic staff who met the visiting team were welcoming, honest and open about the service provided, and staff were clearly proud of the progress that had been made. Teamwork was good, and reviewers were particularly impressed that some surgeons at Royal Shrewsbury Hospital (RSH) were active members of the theatre team. Staff were supportive of each other, and staff turnover was low. Staff of all disciplines were committed and working hard to maintain services.

Theatre nurses and Operating Department Practitioners (ODPs) were particularly hard-working, dynamic and forward-looking, especially at RSH, and were keen to make improvements in the services offered. Many were working over and above normal expectations with considerable goodwill and willingness to "go the extra mile". Reviewers strongly recommended that senior management from the Trust continue to support and encourage theatre staff.

Some progress had been made on Trust-wide management of theatre services. Many of the theatre-related policies and procedures were Trust-wide. The matron and operational manager were Trust-wide posts. Theatre quality review meetings were Trust-wide, which enabled learning from the two hospital sites to be shared. Professional development practitioners and acute pain nurses worked across both sites. Compliance with mandatory training and appraisals was over 90% (although see 'further consideration 7' below in relation to data for RSH). Arrangements for the management of controlled drugs were generally robust on both sites.

At RSH reviewers saw good examples of flexible working between the Surgical Admission Suite and the pre-operative assessment area, which represented effective use of staff resources. Also at RSH, the arrangements for checking resuscitation trolleys were robust.

Many of the issues identified in this report could be resolved internally by theatres and anaesthetic services if strong Trust-wide clinical leadership was in place in all theatre-related disciplines.

Good Practice

1. Notice boards were very well used for internal communication with staff. A lot of up to date information was displayed, including safety boards and feedback on incidents. Staff had good awareness of the information displayed on the boards.
2. The system for analysis and feedback in relation to incidents was extremely good. A local system for recording non-clinical events that interfered with the smooth running of theatres had been developed and was well used by theatre staff. In relation to serious incidents, learning meetings took place and a simple, clear, visually attractive summary was then produced. These summaries were displayed in several areas in theatres. Summaries included good practice points and the learning gained from the incident, as well as describing the problem that had occurred.
3. Very good preceptorship and staff orientation packages had been implemented, underpinned by a very good competency matrix. Theatre support packs were comprehensive, and covered the duty of candour.
4. Good theatre 'dashboards' were in use, which showed performance and trends across theatre management issues. This included a good mandatory training 'dashboard' that clearly identified both overall completion levels and the position for individual members of staff.
5. An obstetric ODP was available 24/7, which provided very good support for obstetric anaesthesia, including assistance with epidurals.
6. The environment in the maternity theatre was excellent, and included good use of lighting to create a calm ambience. All equipment and consumables were checked, in place and immediately ready for use.

Immediate Risks

1. **Documentary evidence of safety checks**

   A risk of system failure and further serious incidents was present, despite the significant work undertaken to create a culture of improving safety and learning from incidents, because of the lack of documentation of safety checks.

   a. **WHO *Safer Surgery* Checklist**
   Completion of each of the five stages of the WHO *Safer Surgery* Checklist was not recorded on either hospital site, especially from stage 2 onwards. A stamp was applied to indicate that all stages had been completed, but this did not record the stages separately and did not have space for a signature, as recommended by national guidance. As a result, the Trust Board did not have assurance of the implementation of the WHO *Safer Surgery* Checklist in the theatre environment. An appropriate checklist was in use in the maternity theatres for all stages except the team brief and de-brief.

   Practice in relation to the WHO Checklist on both sites was, however, generally good. The culture and ethos of compliance with the Checklist was robust and 'aide-memoire' questions were displayed in all theatres. All staff observed by reviewers cooperated with the Checklist as expected. Reviewers' only concern about practice was in day theatres at Princess Royal Hospital (PRH), where the team brief was recorded on the theatre list with little space and organisation of the issues identified.

   b. **Pre-operative Checklist**
   Pre-operative checklists were filled in on the ward and brought to theatre. Some staff said that the pre-operative checklist was checked again in the anaesthetic room but this did not happen systematically in the theatres observed, and no record was made of the check in the anaesthetic room. Reviewers commented that, in their experience, pre-operative checklists usually have space for the list to be re-checked and counter-signed by the ODP or anaesthetist in the anaesthetic room, and that discrepancies are not unusual, especially in relation to previous implant surgery.

   c. **Checking of Anaesthetic Machines (RSH only)**
   At RSH, there were no records or log books of checks of anaesthetic machines. There was no record that expected checks, including calibration and changes of tubing and other consumables, had taken place. Checking was done by ODPs but not recorded. Each patient's anaesthetic chart had a space to tick that machines had been checked, but reviewers could not see how the anaesthetist who ticked this box could be assured that this had happened.

Concerns

1. **Clinical Leadership**

   Reviewers were seriously concerned about Trust-wide clinical leadership for theatres and anaesthetic services. At the time of the review visit there was no Clinical Director at PRH, and the Clinical Director at RSH provided leadership within the anaesthetic department and the critical care department as well as being involved in plans to reconfigure local hospital services. Clinical leads for particular aspects of the service were identified separately for each site. The matron (with Trust-wide responsibility), theatre managers and operational managers were doing their best to drive improvements, and reviewers saw several examples of innovative developments by ODP and nursing leads. Reviewers did not see the expected level of clinical leadership from consultant anaesthetists. Reviewers were told of a history of difficulties with clinical leadership, and were given examples of problems in the relationship with the management of the Trust. Reviewers suggested that the Trust would require a strategic approach, with representatives from both sites engaged in resolving the clinical leadership issues, and that ongoing support for Clinical Director/s should be provided to ensure similar problems do not recur.

2. **Lack of Trust-wide Integration**

With few exceptions, theatres and anaesthetic services were run separately at RSH and PRH, with little operational integration and inconsistent clinical practice across the two sites. The management structure, with separate clinical and service leads and separate theatre managers for each site, worked against achieving effective Trust-wide integration, although theatre managers met regularly and some Trust-wide meetings were held. Reviewers were concerned about the lack of integration for the following reasons:

a. Differences in equipment and clinical practice on the two sites could pose safety issues if staff familiar with one site were required to work on the other site. Flexible staffing will be more easily achieved if equipment and clinical practice are the same on both sites.

b. Clinical services have changed and may change further in the future. Theatre staff with different specialist skills are needed on each site but patients may need to be operated on in an emergency on either site. The skill mix and competences needed to support the reconfigured services are complex and will be achieved only by flexible working between the two sites.

c. Theatre and anaesthetic services face several staffing challenges (see below). The Trust will be better placed to respond to these challenges if staff can be used flexibly between the two sites. The Trust is also more likely to retain experienced theatre and anaesthetic staff if staff with more specialist skills and interests are able to use these routinely.

d. Operational efficiency could be improved by the flexible use of staff. Service development will be much more efficient if undertaken once rather than separately for the two sites. As one member of staff commented to reviewers during the visit: “We would achieve much greater things if we all pulled together”.

3. **Staffing**

A number of staffing difficulties were identified during the review visit. These issues may be related to the issues of clinical leadership and Trust-wide integration identified above, and they make the need to tackle these even more pressing.

a. **Recovery staff covering critical care (RSH)**
The Trust escalation policy was that on call recovery staff would cover critical care if required. The Trust policy was a maximum of a four-hour call out after a 10-hour day working in recovery. Reviewers were told of a prolonged difference of opinion between matrons for theatres and critical care on this issue which had been neither escalated nor resolved. It was not clear how often the problem occurred and whether any action had been taken to address the concerns expressed by staff about their competence for working in critical care.

b. **Sickness**
Sickness had increased at RSH from 6.2% (October 2016) to 12.2% (January 2017). At PRH sickness had increased from 5.4% to 11.8% in the same period. Sickness was being actively managed

c. **Staffing levels (PRH)**
On the day of the review visit, at least two lists were run with staffing below Association for Perioperative Practitioners (AfPP) recommended levels; in particular, there was not a second ‘scrub’ practitioner.

d. **Competence and confidence for more specialist work**
A three-month rotation of theatre staff between specialties was supposed to be in operation. Reviewers were told by several staff that, in practice, there was a lot of swapping between lists, and that staff spent little time in the theatre where they were supposed to be working. This issue is related to low staffing and high sickness but will have implications for maintaining competence and confidence, especially for more specialist work.

e. **Communication and engagement**
Several staff commented that goodwill was 'running out', morale was falling and staff retention was becoming more of a problem. Uncertainties about service configuration across the health economy were contributing to staff uncertainty and enthusiasm, and morale appeared particularly low at PRH. Some staff were able to take forward initiatives but the service did not have an overall improvement plan and, in general, staff working in theatres and anaesthetic services did not appear able to agree and implement improvements effectively.

4. **Local Anaesthetic Monitoring (RSH)**

Patients were observed having procedures under local or regional anaesthetic in their outdoor clothes without the Association of Anaesthetists of Great Britain and Ireland (AAGBI) recommended monitoring (i.e. that minimum monitoring must be applied for local as well as general anaesthesia). Local anaesthetic blocks were being done on the next patient while the previous patient (who might be a vascular patient with multiple co-morbidities) was being operated on, with no monitoring during surgery.

5. **Privacy and Dignity**

Reviewers observed several instances where the available facilities did not provide appropriate privacy and dignity for patients. In each case staff were doing their best to mitigate the problems and ensure patients' privacy and dignity were maintained.

a. **RSH: Surgical Admissions Service**
Patients waiting for surgery changed into gowns and then waited in a very noisy area which was screened off from a breast clinic, a urology clinic and a busy corridor. Patients had to go through the clinic area when they went to theatre. Clinic patients had to go into the area where patients were waiting for theatre if they needed to use the toilet. Staff personal belongings were also stored in the area where patients were waiting for theatre. In order to try and preserve privacy and dignity female patients were given a dressing gown as well as a theatre gown and male patients were given pyjama bottoms.

b. **RSH: Recovery**
Patients waiting in recovery for an in-patient bed did not have access to toilet facilities and were being given food and drink while other patients were recovering from their anaesthetic. The area was very noisy, which made confidential discussion difficult.

c. **PRH: Recovery**
Patients waiting for theatre at PRH waited alongside the recovery area, with only a partial wall between the two areas. Patients waiting for theatre had direct sight of patients in the ITU bay in recovery.

d. **PRH: Vanguard**
Patients in the Vanguard Unit at PRH were located straight in front of anyone walking into the theatre, without any screen to protect their privacy and dignity.

6. **Facilities and Equipment**

Facilities and equipment at both sites were in need of attention, with implications for infection control, medicines management and safety.

a. **Infection control**
   i. At RSH some theatres had chipped surfaces, taped floors and missing ceiling tiles.

   ii. Very few hand gel dispensers were available at RSH (and staff did not carry their own hand gel). This was the reviewers' observation, although the Trust audit showed 100% compliance with the use of hand gel by staff. It was difficult to see how this compliance could be achieved with the hand gel dispensers available.

iii. Day theatres at PRH had unfilled holes in the wall where shelves had been taken down, and chipped surfaces.

iv. Day theatres at PRH were very cramped and cluttered, with clean instruments and personal belongings, including drinks, stored in the scrub room. The main theatres at PRH were also cluttered.

b. **Medicines management**

At RSH, antibiotics, paracetamol, saline and inhalation agents were all left on open shelves in the anaesthetic room because there was a lack of appropriate cupboards. (Controlled drugs and anaesthetic drugs were stored in cupboards.)

c. **Safety**

i. Some theatres and anaesthetic rooms at RSH did not have emergency call bells.

ii. At RSH some of the resuscitation trolleys were old and could not be sealed. This carried the risk that essential drugs and equipment could be used during the day, not replaced and so not be available in an emergency.

iii. Flammable labels were not visible at RSH.

iv. In PRH day theatres, some out of date drugs and out of date paediatric equipment were removed on the day of the visit.

v. A sharps box with a shelf life of three months but dated 2014 was on the paediatric trolley at RSH.

7. **Theatre Etiquette**

On both sites reviewers observed several staff walking around theatres in their own clothes. This appeared to be common practice and was not challenged by other staff. In the scrub rooms personal belongings with food and drinks were clearly visible, and staff drinks were also observed in the anaesthetic rooms at PRH. Also, the Trust policy on wearing 'scrubs' outside the theatre environment did not appear to be fully implemented.

8. **Inter-hospital Transfers**

The Trust policy on inter-hospital transfers was a restatement of AAGBI guidance and was not clear about who would undertake a transfer and what support would be available. The policy referred to a nurse escort but was not specific about the medical support for inter-hospital transfers. The policy did not cover the competences or level of training expected for transfers. (It stated "there is no training associated with this document".) This issue is particularly relevant because of the need to transfer patients between RSH and PRH, as well as for transfers elsewhere.

9. **Paediatric Anaesthesia**

Some issues identified in the 2015 review of paediatric anaesthesia had not yet been addressed, including:

a. Occasional paediatric practice at RSH (especially ophthalmic surgery and testicular torsion).

b. Paediatric recovery area at PRH.

10. **Document Control**

Several policies were out of date and, on others, version control did not match the version provided. Examples of out of date policies with dates due for review included Confidentiality (2015), Deprivation of Liberty (2016), Medical Devices (2014), Audit Policy (September 2016) and Operational Policy (January 2016).

Further Consideration

1. **Local Safety Standards for Invasive Procedures (LocSSIPs)**

The Trust was an early implementer site for LocSSIPs and some good Trust-wide work had started. A gap analysis had been undertaken and an action plan prepared. A 'LocDown' system had been introduced for

reporting non-clinical events and was working well. It was not clear that clinically-related LocSSIPs were being progressed in accordance with the action plan. It was also not clear how the Trust was taking forward LocSSIPs outside the theatre environment, for example in endoscopy and cardiac catheterisation.

2. **Emergency Theatres**

   a. At RSH the evening on-call theatre team was used to cover late-running elective lists. The emergency theatre was therefore unavailable for up to two hours until staff were available or the second on-call team was called in. Operations on emergency patients were delayed or cancelled as a result.

   b. At PRH the emergency surgery (CEPOD) list was available only in the afternoon, and there was no trauma list at weekends. There were plans to move this to a morning list, but reviewers considered that this would be unlikely to run efficiently. A half-day trauma list took place in the afternoon. Reviewers suggested that having a morning trauma list and an afternoon CEPOD list would improve patient flow and be a more efficient use of theatre resources.

3. **Policies**

   a. Trust guidelines on antimicrobial therapy for hip replacement did not appear to be in use. Reviewers observed time spent in theatre discussing antimicrobial therapy for a standard procedure.

   b. The Trust policy and pre-operative checklist expected that a registered healthcare professional should carry out the check on the ward, and the checklist required the signature of a registered nurse. Reviewers considered that, in practice, this may be delegated to a healthcare assistant and counter-signed by a registered nurse. If so, the only person who would have asked a patient about, for example, a previous hip replacement or a pacemaker insertion would be a non-registered member of staff. The Trust may wish to consider this issue alongside other issues about the pre-operative checklist (see 'immediate risk' section of this report).

4. **Capacity Management**

   a. PRH did not have a Surgical Admissions Suite (or equivalent), which resulted in significant variation between wards in patients being ready for theatres. Reviewers were told that a surgical admissions suite was planned to open in July 2017.

   b. Several of the theatres observed by reviewers did not start until significantly after the time expected. Staff commented that this was quite a normal occurrence (especially in PRH day theatres) and, although notes were made of any contributing factors for the delays, a clear plan for tackling late starts was not apparent.

   c. At PRH reviewers observed two patients being sent to theatre with a gown over their own clothes, possibly because of a lack of understanding by ward staff of how patients should be prepared for theatre. These patients then had to be undressed in the theatre, which took up valuable theatre time.

   d. At RSH recovery staff often had to stay very late because patients were still in recovery waiting for an in-patient bed. At PRH critical care patients were cared for in recovery if sufficient critical care capacity was not available.

5. **Surgeon Involvement in 'Sign In'**

   Reviewers also commented that clinical practice in several of the theatres observed was that the surgeon saw the patient on the ward or in the Surgical Admissions Suite but did not see them again until they were anaesthetised and prepared for surgery. The 'sign in' did not include the patient as part of the team and, for several patients, the surgeon, anaesthetist and awake patient were never together. The opportunity for additional questions and confirmation of consent before the patient was anaesthetised was therefore lost. Although not strictly required by national guidance, reviewers commented that in their Trusts it is usual for the surgeon to greet the patient in the anaesthetic room before they are anaesthetised.

6. **Imaging Support**

Radiographer support to theatres was good on both sites. Staff were reported to be under pressure on both sites, particularly out of hours, when three radiographers covered the whole Trust for imaging and theatres. Plans for increasing radiographer support out of hours were under discussion. At PRH access to CT scanning was reported to be difficult due to failures of the single on-site CT scanner.

7. **Mandatory Training (RSH)**

The 'dashboard' suggested that completion of mandatory training was over 90%, but the individual staff data for RSH showed only 49% compliance in the last 12 months. This may be explained by the expected frequency of training but, if so, this was not clear from the data provided. Staff reported a mixed picture; some staff said that lots of training was available, whereas others said that all training had been cancelled. Reviewers were not able to clarify this issue in the time available.

8. **Equipment**

a. Reviewers were told that supply of equipment for the orthopaedic day theatre at PRH was difficult, with delays in the purchase of small items of equipment like thyroid protectors, delays in accessing stock from main theatres, lack of availability of some equipment and difficulties in sharing equipment across sites. Reviewers were unable to investigate this issue in the time available and suggested that an audit of the frequency of these problems may be helpful.

b. An ultrasound machine was not immediately available within the delivery suite as expected by national guidance; it had to be accessed from the main theatres.

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APPENDIX 1 MEMBERSHIP OF VISITING TEAM

Name	Role	Organisation
Dr Julian K Berlet	Consultant Anaesthetist & Divisional Medical Director of Theatres, Ambulatory, Critical & Outpatients	Worcestershire Acute Hospitals NHS Trust
Dr Nicholas Crombie	Consultant Trauma Anaesthetist	University Hospitals Birmingham NHS Foundation Trust
Phyllis Dunn	Lead Nurse Ambulatory Theatres	University Hospitals of North Midlands NHS Trust
Liz Fitzhugh	Theatre Manager	University Hospitals Coventry & Warwickshire NHS Trust
Susan Parker	Senior Operating Department Practitioner, Education and Quality Lead	University Hospitals of North Midlands NHS Trust
Mr Colin Rogers	Consultant Breast and General Surgeon Clinical Director of Service Improvement	Burton Hospitals NHS Foundation Trust
Mr Nigel Williams	Consultant Colorectal Surgeon	University Hospitals Coventry & Warwickshire NHS Trust

WMQRS Team		
Jane Eminson	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 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
Theatre and Anaesthetic Services	46	29	63

Pathway and Service Letters

XG-	Theatre and Anaesthetic Services

Topic Sections

Each section covers the following topics:

-100	Information and Support for Patients and Carers
-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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THEATRES AND ANAESTHETICS

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-101	**Service Information** Patients should be offered written information about: a. Services provided, location and hours of opening b. Visiting hours and visiting arrangements c. How to contact the service d. Staff they are likely to meet	N/A	However, reviewers did not see any service information for direct referrals to the chronic pain service at PRH.
XG-102	**Procedure Information** For each procedure, patients should be offered written information, and the opportunity to discuss this, covering: a. Preparation for the procedure b. Types of anaesthesia available c. Staff who will be present at or who will perform the procedure d. Any side effects	Y	
XG-103	**Privacy, Dignity and Security** Patients' privacy, dignity and security should be maintained at all times, including security of clothes, dentures, hearing aids and personal belongings during examinations and procedures.	N	See main report ('concerns' section).
XG-104	**Communication Aids** Communication aids should be available to help patients with communication difficulties to participate in decisions about their care.	Y	
XG-196	**General Support for Service Users and Carers** Patients and carers should have easy access to the following services. Information about these services should be easily available: a. Interpreter services, including access to British Sign Language b. 'Compliments and complaints' procedures	Y	
XG-199	**Involving Patients and Carers** The service should have: a. Mechanisms for receiving feedback from patients and carers about their treatment and care b. Mechanisms for involving patients and carers in decisions about the organisation of the services c. Examples of changes made as a result of feedback and involvement of patients and carers	Y	

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-201	**Leadership** Theatre and Anaesthetic Services should have a Clinical Director, Lead Nurse, Lead Operating Department Practitioner and Lead Manager with responsibility for staffing, training, guidelines and protocols, service organisation, governance and for liaison with other services.	N	On the day of the review visit there was no Clinical Director for the PRH site. Leadership posts were a mixture of split site and Trust-wide. There were separate Clinical Directors and theatre managers for RSH and PRH but the matron and operational manager were Trust-wide appointments.
XG-202	**Service Leads** Leads for, at least, the following areas should be identified: a. Critical care, including high dependency care and outreach b. Acute and non-acute pain services c. Obstetric anaesthesia d. Care of children e. Major incidents f. Admissions and day care g. Pre-operative assessment h. Recovery i. Equipment management	Y	Service leads were different on each site. At RSH there was no lead clinician for chronic pain as no service was provided.
XG-203	**Staffing Levels** The service should have sufficient staff with appropriate competences to deliver the expected number of assessments and procedures for the usual case mix of patients within expected timescales (QS XG-602). An escalation policy should be in place which ensures flexibility of staffing in response to fluctuations in demand and availability of staff. Staffing levels should be based on a competence framework covering staffing levels and competences expected (QS XG-206), and should ensure an appropriate skill mix of consultant anaesthetists, other anaesthetic medical staff, physicians assistants, operating department practitioners, theatre assistants, theatre nurses and porters. In Major Trauma Centres the trauma anaesthetic team should be separate from other emergency and elective teams. In hospitals with obstetric units the obstetric anaesthetic team should be separate to enable elective work to continue uninterrupted by emergency work and a named consultant should be responsible for each elective caesarean section list.	N	See main report ('concerns' section).

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-204	**Obstetric Anaesthesia Duty Anaesthetist** A duty anaesthetist competent to undertake duties on the delivery suite should be: a. Immediately available for emergency work on the delivery suite 24/7 b. Resident on-site in units offering a 24 hour epidural service c. Able to delay other responsibilities should obstetric work arise All duty anaesthetists should have completed an initial assessment of competence in obstetric anaesthesia (IACOA) or have equivalent competences before undertaking unsupervised obstetric work.	Y	The QS was met at PRH and was not applicable at RSH. Reviewers noted that the arrangements would not meet Obstetric Anaesthetists' Association requirements for 10 sessions per week of consultant cover. This was 50% met, with 50% of the sessions being provided by a non-consultant grade doctor.
XG-205	**Acute Pain Team** An acute pain team should be available including: a. Consultant anaesthetist with sessional commitments to the team b. Specialist nurse with specific competences in the management of acute pain c. Other medical, nursing and operating department practitioner staff as required for the number of patients and the complexity of their needs d. Pharmacist with sessional commitments to the team e. Physiotherapist with sessional commitments to the team	N	An acute pain team was available, with consultant time and two specialist nurses. The service did not have pharmacy and physiotherapy support with sessional time allocated to acute pain.
XG-206	**Competence Framework and Training Plan** A competence framework should cover expected competences for roles within the service. A training and development programme should ensure that all staff have, and are maintaining, these competences. The competence framework and training plan should cover all staff identified in QS XG-203, including at least: a. Moving and handling in the theatre environment b. Drug administration c. Plastering d. Resuscitation e. Use of equipment f. Care of children and young people	Y	The QS was clearly met at PRH. The information relating to RSH was less clear (see 'further consideration' section of main report). Compliance has been determined from the 'dashboard' data.
XG-207	**New Starters, Agency, Bank and Locum Staff** Before starting work in the service, local induction and a review of competence for the expected role in assessments and procedures should be completed for all new starters, agency, bank and locum staff.	Y	

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-208	**Emergency Service** Staff with appropriate competences should be available outside planned sessions including: a. On call consultant anaesthetist b. On-site anaesthetist of grade CT3 or above (or equivalent) c. Emergency theatre service Competences for emergency work should be maintained through appropriate Continuing Professional Development and / or daytime job-planned work.	N	See main report ('further consideration' section).
XG-209	**Staff monitoring** Arrangements should be in place for monitoring and reviewing staff sickness, vacancy and turnover levels.	Y	
XG-210	**Team building** The service should **encourage** a range of activities to develop team building and multi-professional working.	Y	
XG-299	**Administrative, Clerical and Data Collection Support** Administrative, clerical and data collection support should be available during working hours to support all aspects of theatre and anaesthetic services, including the acute pain team.	Y	
XG-301	**Support Services** Timely access to the following services should be available: a. IT support b. Hospital porters c. Patient transport d. Security e. Cleaning f. Linen supplies g. Logistics and sterile services h. Pharmacy, covering advice and supply of drugs and medical gas testing i. Infection control advice j. Medical records k. Pathology l. Imaging m. Plastering (if not part of theatre and anaesthetic service) n. Electronic and Bio-Medical Engineering	Y	Good support was available including imaging support (see 'further consideration' section of main report).

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-302	**Blood and Transplant** Appropriate arrangements should be in place for: a. Supply and storage of blood products b. Other NHS Blood and Transplant storage requirements (if applicable)	Y	
XG-401	**Facilities and Equipment** The service should have appropriate facilities and equipment to deliver the expected number of assessments and procedures for the usual case mix of patients within expected timescales (QS XG-602). Facilities and equipment should comply with all relevant Standards and should ensure: a. Appropriate privacy, dignity and security for patients (QS XG-103) b. Appropriate separation of children and adults c. Immediate availability of resuscitation equipment for children and adults which is checked in accordance with Trust policy d. Availability of specialist equipment when required e. In-theatre imaging when required	N	Several aspects of the facilities available were of concern (see main report). Good equipment was available on both sites. The facilities in the obstetric theatre at PRH were excellent. The Vanguard Unit at PRH also provided a pleasant environment.
XG-402	**Equipment Management** The service should have arrangements for equipment management covering: a. Procurement and management of equipment and consumables b. Installation assurance c. Calibration, operation and performance of equipment d. Equipment maintenance (service contracts and maintenance schedules) covering planned maintenance and 24/7 breakdown or unscheduled maintenance e. Contingency plans in the event of equipment breakdown f. Monitoring and management of equipment failures and faults g. Ensuring safety warnings, alerts and recalls are circulated and acted upon within specified timescales h. Programme of equipment replacement and risk management of equipment used beyond its replacement date	N	At RSH there were no records or log books of checks of anaesthetic machines (see 'immediate risk' section of main report). At PRH some out of date drugs and equipment were removed during the course of the visit, and anaesthetic trolleys were not always checked daily.

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-403	**Delivery Suite Equipment** The following facilities and equipment should be available within the Delivery Suite: a. At least one fully equipped obstetric theatre b. Blood gas analysis and the facility for rapid estimation of haemoglobin and blood sugar c. Monitoring equipment for the measurement of non-invasive blood pressure and invasive haemodynamic monitoring d. Equipment for measuring ECG, oxygen saturation and temperature e. Rooms should have oxygen, suction equipment and resuscitation equipment, including a defibrillator. All equipment must be checked in accordance with Trust policy. f. Rooms should have active scavenging of waste anaesthetic gas to comply with COSHH guidelines on anaesthetic gas pollution. g. Supply of O rhesus negative blood available 24/7 for emergency use h. Blood warmer allowing the rapid transfusion of blood and fluids. i. Access to cell salvage equipment. j. Patient controlled analgesia equipment and infusion devices for post-operative pain relief k. Ultrasound imaging equipment for central vascular access, transversus abdominis plane (TAP) blocks and epidural cannulation of patients as well as high risk and bariatric women l. Intralipid, Sugammadex and dantrolene with their location clearly identified.	N	This QS was met at PRH except that no ultrasound machine was immediately available within the delivery suite. The QS was not applicable at RSH.
XG-404	**IT system** IT systems for storage, retrieval and transmission of patient information should be in use. Theatre and anaesthetic staff should have access to: a. Pre-assessment information b. Theatre management system c. Trust Patient Administration System d. Emails and the Trust intranet and policies e. On-line medical and other relevant information System connectivity should be sufficient to ensure that patient details are entered once only.	Y	
XG-405	**Moving and Handling Aids** Moving and handling aids should be available and appropriately maintained.	Y	

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-406	**Specialist Equipment** The service should have access to appropriate equipment, moving and handling aids and patient gowns to meet the needs of: a. Bariatric patients b. Adults and children with physical disabilities	Y	
XG-501	**Referral Information** Guidelines on information to be sent with each referral should have been agreed and circulated to all referring GPs and referring hospital clinicians.	N/A	A good 'high risk obstetric referral' form was in use.
XG-502	**Patient Pathway Guidelines** Guidelines should be in use covering: a. Pre-assessment, including antenatal referrals b. Pre-operative care c. Assessment prior to anaesthesia and procedure d. Range of anaesthetic techniques normally offered for each procedure e. Use of WHO Safer Surgery Checklist f. Anaesthetic assistance throughout the procedure. g. Monitoring during anaesthesia and recovery h. Post-operative care i. Post-surgery review j. Recognition and treatment of complications, including involving other services as required k. Anaesthesia in the CT and MRI environment l. Use of ultrasound during anaesthesia m. Anaesthesia in the plaster room n. Wrong site block tool kit o. Handover to post-anaesthetic care These protocols should be explicit about responsibilities at each stage of the assessment and procedure and about handover between stages of the patient pathway. Protocols should be specific about indications and arrangements for day case and short-stay surgery and enhanced recovery.	N	See main report ('immediate risks' section) in relation to the WHO *Safer Surgery* Checklist. Some other guidelines were available but several were copies of national guidance and evidenced no consideration of how this would be implemented locally.
XG-503	**Consent** The Trust consent procedure should be in use.	Y	A good consent policy was in use which also covered consent for research.

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-504	**Clinical Guidelines** Clinical guidelines should be in use covering at least: a. Management of patients with allergies b. Post-operative management of epidural anaesthesia and peripheral nerve catheters c. Blood transfusion including blood component therapy, intra-operative cell salvage and management of massive haemorrhage d. Management of suspected anaphylaxis during anaesthesia e. Peri-operative management of bariatric patients f. Management of patients with diabetes g. Management of malignant hypothermia h. Management of post-operative nausea and vomiting i. Management of patients with trauma j. Management of sepsis k. Management of acute unplanned surgical care l. Conditions requiring antenatal referral to an anaesthetist (available to both obstetricians and midwives) m. High risk surgical care for patients with a predicted hospital mortality of ≥10%	N	All guidelines were present except those for post-operative nausea and vomiting.
XG-505	**Transfer** Guidelines on transfer of patients should be in use covering, at least: a. Transfer to and from critical care services within the hospital b. Transfer for critical care or other specialist care outside the hospital Guidelines should be specific about communication, staffing, equipment and transport during the transfer and governance responsibility.	N	See main report (inter-hospital transfers).
XG-506	**Pain Management** Guidelines should be in use covering management of: a. Peri - and post-operative acute pain b. Chronic pain	N	Guidelines covering acute pain management were in place. A service for patients with chronic pain was not provided at RSH. Anaesthetic staff had responsibilities for patients with chronic pain at PRH but relevant guidelines were not available.

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-507	**Infection Control** Guidelines on infection control should be in use, including: a. Care of patients with suspected or confirmed contagious and communicable diseases and/or suppressed immune systems, including patient care before, during and after their procedure b. Decontamination of equipment and environment, including before and after use by patients with suspected or confirmed contagious or communicable diseases c. Use of single-use, disposable equipment	Y	
XG-508	**Resuscitation Policy** The Trust resuscitation policy should be in use.	Y	
XG-509	**Network and More Specialist Services** Guidelines should be in use covering arrangements and agreed timescales for: a. Access to procedures available at other hospitals b. Access to specialist advice or procedures not available within the hospital c. Arrangements for theatre and anaesthetic staff and equipment to transfer to carry out procedures at another hospital (if required), including governance responsibility.	N	Guidelines covering the requirements of the QS were not yet in place. Further consideration of both a) procedures for which patients are usually referred elsewhere and b) procedures usually undertaken on only one of the sites within the Trust may also be helpful.
XG-510	**Management of Drugs and Anaesthetic Agents** Guidelines on the management of drugs and anaesthetic agents should be in use covering at least: a. Roles and responsibilities b. Security and storage c. Prescription, including prescription of unlicensed medicines and controlled drugs d. Preparation and administration e. Identification and management of extravasation f. Identification and management of patients at risk of adverse reactions g. Management of continual infusion and patient-controlled analgesia h. Prescribing of drugs to take home for day case patients i. Control of waste anaesthetic gases	Y	Guidelines were in place, although some out of date drugs and equipment were identified on the day of the visit and removed.
XG-511	**Hazardous Substances** The service should have an up to date report showing compliance with Control of Substances Hazardous to Health (COSHH) Regulations.	Y	

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-512	**Health and Safety** The Trust Health and Safety Policy should be in use, including specific reference to the response to clinical incidents.	Y	
XG-601	**Operational Policy** A Theatre and Anaesthetics Service Operational Policy should be in use covering at least: a. Availability of services, including 24/7 availability b. Visitors and visiting by relatives and others c. Staff clothing d. Professional behaviour in the theatre environment e. Management of staff who are new or expectant mothers f. Safe handling and positioning of patients g. Communication and liaison with Trust bed management, surgical teams, obstetrics, imaging and pathology services h. IT security i. Management of clinical waste j. Safeguarding children and vulnerable adults in the operating theatre k. Death of patients in the theatre environment and organ donation l. Arrangements for obtaining feedback from hospital clinicians and for involving referring GPs and hospital clinicians in decisions about the organisation of the service m. Response to a Major Incident	Y	All points were covered in a number of policies. The operational policy was due for review in January 2016 and was being updated.
XG-602	**Capacity Management** The service should have a capacity management plan covering: a. Expected timescales for response to emergency, urgent and planned demand b. Response to unexpected fluctuations in demand c. Response to delays in surgery and recovery d. Medical arbitration on priority of theatre cases (Major Trauma Centres only) e. Daily access to theatres for reconstructive microsurgery (Major Trauma Centres only)	Y	An escalation policy was awaiting Board ratification. Significant capacity issues within the hospital were evident, and these were having an impact on theatres (see main report).

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-603	**Risk Assessment and Management** A system risk assessment and risk management should be in use covering risk assessment, risk management and review of risks. Risks and actions should be recorded in an up to date Divisional Risk Register. The risk management system should include feedback to staff about risks identified and action taken.	Y	Future staffing problems were not yet included on the risk register.
XG-604	**Service Improvement** The service should have systems for ongoing review and improvement of quality, safety and efficiency, including at least: a. Theatre utilisation b. Staff utilisation c. Review of clinical pathways with referring GPs and hospital clinicians	N	'a' and 'b' were met. Reviewers did not see evidence of 'c'.
XG-605	**Service Development Plan** The service should have a development plan or strategy which brings together the staffing, training, equipment and facilities plans for the next five years in support of the Trust's business plans.	N	A service development plan was not yet in place.
XG-701	**Data Collection** Regular data collection and monitoring should cover: a. Theatre utilisation, theatre session over-runs and under-runs b. Activity levels c. Timed clinical events along the patient pathway d. Achievement of agreed timescales for responding to emergency, urgent and planned demand e. Operations on 'high risk' surgical patients carried out under the direct supervision of a consultant surgeon and consultant anaesthetist f. Operations on patients with a predicted mortality of >5% where the consultant surgeon and consultant anaesthetist are present for the operation	Y	
XG-702	**Audit** The service should have a rolling programme of audit of compliance with guidelines and protocols [QSs XG-500s] and related outcomes.	Y	A programme of audits of hand hygiene, site marking and the environment was in place. The audits did not appear to cover clinical issues. Reviewers also suggested that the process of environmental audit may benefit from review, given the number of environmental issues identified by the visiting team.

Ref	Quality Standards	Met? Y/N	Reviewer Comments
XG-703	**Quality Assurance System** The service should have a system to ensure analysis and feedback on the quality of: a. Equipment management (QS XG-402) b. Cleanliness of theatres c. Preparation of clinical areas d. Implementation of WHO Checklist Feedback to individual members of staff should be linked with appraisal and re-validation arrangements.	N	'a' and 'b' were met. An audit process for 'c' was in place but was under review. Reviewers did not consider that an adequate audit process could take place without documentation of the WHO *Safer Surgery* five steps.
XG-704	**Monitoring of Key Performance Indicators** Key performance indicators (QS XG-701) should be reviewed regularly with Trust management and with commissioners.	Y	See main report ('good practice' section).
XG-798	**Multi-Disciplinary Review and Learning** The service should have appropriate multi-disciplinary arrangements for review of, and implementing learning from: a. Positive feedback, complaints, outcomes, incidents and 'near misses' b. Published scientific research and guidance relating to theatre and anaesthetic services	Y	See main report ('good practice' section).
XG-799	**Document Control** All policies, procedures and guidelines should comply with Trust document control procedures.	N	Several policies and guidelines were out of date (see main report).

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