Review of Theatre and Anaesthetic Services

The Robert Jones & Agnes Hunt Orthopaedic Hospital NHS Foundation Trust

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INTRODUCTION

This report presents the findings of the review of Theatre and Anaesthetic Services at The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust that took place on 7th February 2017. The purpose of the visit was to review compliance with the following West Midlands Quality Review Service (WMQRS) Quality Standards:

- WMQRS Theatre and Anaesthetics 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 which reviewed the services in The Robert Jones & Agnes Hunt Orthopaedic Hospital NHS Foundation 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 Robert Jones & Agnes Hunt Orthopaedic Hospital NHS Foundation Trust
- NHS Shropshire and NHS Telford and Wrekin Clinical Commissioning Groups

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 commissioners in relation to this report are NHS Shropshire and NHS Telford & Wrekin Clinical Commissioning Groups.

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 Robert Jones & Agnes Hunt Orthopaedic Hospital NHS Foundation 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.

THEATRE AND ANAESTHETIC SERVICES

General Comments and Achievements

Theatre and anaesthetic services at The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust were well-organised with a positive atmosphere and a clear focus on service improvement. The leadership team for theatres and anaesthetics was relatively new with energy, plans and ideas for improving the care provided. Nearly all of the theatre and anaesthetic staff who met reviewers were positive and highly committed. Reviewers saw good quality improvement displays in theatres covering the STAR (Sustaining Quality through Assessment and Review) awards gained and a theatre 'dashboard'. 'Patient Safety at a Glance' boards were in use on all wards and the day unit. These were clear about the exact location of each patient, for example, 'still on the ward' or 'en route to theatre'.

Good team-working and good liaison with other services were in place, for example, with the High Dependency Unit for staff and equipment to care for bariatric patients. Links with services at The Shrewsbury and Telford Hospital NHS Trust were also good.

The Trust had increased the proportion of children operated on specific children's lists. When there were no paediatric patients, the paediatric recovery bay was used for more vulnerable patients as this provided better observation and families could be with patients.

Medicines management arrangements were good, including management of the Controlled Drugs cupboard.

Good Practice

1. Very good day surgery protocols were in use, in particular, those relating to anterior cruciate ligament surgery, shoulder surgery and Uni-compartmental knee replacement. The pathways were very clearly defined and included arrangements for 'take home' Controlled Drugs, including Clexane and Oromorph, which were provided by staff on the Baschurch Day Surgery Unit under Patient Group Directives. The arrangements were planned well in advance and reduced the requirement for pharmacy input and interaction, thereby saving pharmacy time.

2. The Baschurch Day Unit provided good environment for day surgery. The layout of the unit with individual areas for patients to get changed, frosted glass and curtains made it much easier for patients' privacy and dignity to be respected. It also allowed family members to be present when this was appropriate. The organisation of the Unit was very focussed on patients' needs, including a 'safety huddle' daily as soon as the first patient had gone to every theatre.

3. Good IT systems were in use which linked well across the patient 'journey'. The Bluespier theatre management system was used very well, including for automated ordering. Pre-operative information was linked with the theatre system so that pre-assessment information could be easily seen. IT systems linked with those at The Shrewsbury and Telford Hospital NHS Trust. Picture Archiving and Communication System (PACS) was available in all theatres and I-Pads were used for pre-operative assessment and in theatres.

Immediate Risks: No immediate risks were identified.

Concerns

1. **Radiographer Staffing Levels**

Imaging services had 4.5 w.t.e radiographer vacancies and had identified that three additional posts were needed. Three radiographers were regularly supplied to theatres but reviewers were told that six staff were needed to ensure theatres could run efficiently. The shortage of radiographers was leading to delays in lists and was impacting on theatre capacity. Providing radiographers to theatres was prioritised and so this issue also impacted on the availability of radiographers for in-patient and out-patient work. A service review was being undertaken with the aim of improving the match of radiographer capacity to theatre demand.

Radiographers were available only 9am to 5pm with no arrangements for radiographers to cover theatre overruns or scheduled later lists. Reviewers were told that radiographers regularly left part way through a Saturday morning chronic pain intervention list. Other issues mentioned to reviewers were the lack of a lead radiographer for theatres and a shortage of radiographers with paediatric competences. .

2. **WHO *Safer Surgery* Checklist**

Implementation of the WHO *Safer Surgery* Checklist was not robust in all the theatres observed. One theatre did follow the procedure expected by the Trust's Standard Operating Procedure and this appeared to be the norm for this theatre. In another, however, although the principles of the *Safer Surgery* Checklist were followed, implementation was not achieved. In this theatre, the checklist was not used with discussion based on the operating list, there was no clearly identified team leader, the discussion was not led by anyone and the discussion did not cover all aspects of the checklist, in particular, prostheses (which was relevant for the procedure being undertaken). Reviewers suggested the need for more challenge and feedback on whether the WHO *Safer Surgery* Checklist was being implemented.

3. **Document Control**

Several documents were out of date, including all Standard Operating Procedures which were due for review in September 2016. The policy on stabilisation and transfer of adults was due for review in 2013. Several documents had no version control.

Further Consideration

1. Reviewers commented on the number of people in 'scrubs' outside the theatre environment, including in the shops and canteen. This did not appear to be necessary or in accordance with Trust policy.

2. Expecting theatre staff to work overtime appeared to have become the norm and expected of all staff. Ten theatres were running routinely but with only one 'late' team. It may be helpful to review the amount of overtime being undertaken and whether this is the best way of matching capacity and demand.

3. Operating Department Practitioners (ODPs), 'scrub' nurses and recovery staff were managed separately with separate competences and different arrangements in relation to overtime working. Within each group, several staff were working on only one type of list or one specialty (especially 'scrub' staff). Reviewers suggested that multi-skilling could provide considerably greater flexibility and could help to address recruitment and retention problems.

4. 'Transfers out' to other hospitals had increased in the months before the review visit. A review of the reasons for this increase may be helpful, especially as 'transfers out' may be related to care of deteriorating patients.

5. Reviewers were told of other issues which were being addressed and reviewers supported work in these areas:

    a. The proportion of theatre lists starting late appeared relatively high and the mechanisms for holding staff to account for late starts were not clear. The theatre utilisation group was looking into this issue.

    b. An audit of implementation of the consent procedure may be useful. Reviewers observed one example of procedure with an incomplete consent process and some documentation that was not clear.

    c. Reviewers were told of some old equipment, especially for hand surgery, but were not able to investigate this in detail.

    d. Implementation of the 'Sustaining Quality Through Assessment and Review' (STAR) scheme on the Baschurch Day Unit was planned but had not yet taken place.

    e. The strategy and direction for the chronic pain service was under review and not yet clear which was causing some unease for staff providing this service.

APPENDIX 1 MEMBERSHIP OF VISITING TEAM

Visiting Team		
Dr Emerantia Francis	Consultant Anaesthetist & College Tutor	The Royal Wolverhampton NHS Trust
Dr Simran Minhas	Clinical Service Lead Anaesthesia	The Royal Orthopaedic Hospital NHS Foundation Trust
Sheree Randall	Matron for Trauma and Orthopaedics	The Dudley Group NHS Foundation Trust
Julie Romano	Divisional Quality Governance Advisor, MLTC	Walsall Healthcare NHS Trust
Philip Swain	Senior Operating Department Practitioner	The Royal Orthopaedic Hospital NHS Foundation Trust
Lisa Walker	Theatre Operational Manager	The Royal Wolverhampton NHS Trust

WMQRS Team		
Jane Eminson	Director	West Midlands Quality Review Service

APPENDIX 2 COMPLIANCE WITH THE QUALITY STANDARDS

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

Table 1 - Percentage of Quality Standards met

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

Service	Number of Applicable QS	Number of QS Met	% met
Theatre and Anaesthetic Services	44	35	80

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

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	This QS was applicable only to the pain service which was not formally part of this review. Other anaesthetic services did not accept direct referrals.
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	N	Some procedure-specific information was available, including in the pre-operative clinic. The information that was available was good but did not cover all procedures, the staff who would be present or who would perform the procedure. The available information was not sufficient to support the consent procedure. Some information was out of date. Some, but not all, information included details on accessing larger print versions or versions in other languages.
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.	Y	Baschurch Day Unit provided a particularly good environment which supported respect for privacy and dignity. The combination of frosted glass and curtains was particularly good. Families could be with patients when this was appropriate and there was a lot of focus on patients' needs.
XG-104	**Communication Aids** Communication aids should be available to help patients with communication difficulties to participate in decisions about their care.	N	There was no 'loop' system in theatres or in the pre-operative area. Staff were not aware that a 'loop' could be obtained from switchboard. Large print communication aids were available.
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	These services were available but relatively little information about them was displayed.

Ref	Quality Standards	Met? Y/N	Reviewer Comments
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 servicesc. Examples of changes made as a result of feedback and involvement of patients and carers	Y	The ward areas had good feedback mechanisms which included the theatre experience and there were plans to introduce theatre-specific feedback. The Friends and Family Test and compliments cards were in use and feedback on these was displayed in Powys Ward and the pre-operative area.
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.	Y	A leadership structure was in place but some staff were not aware of it. Displaying a structure chart or information on leadership responsibilities may help communication with staff.
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	As QS XG-201.

Ref	Quality Standards	Met? Y/N	Reviewer Comments
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.	Y	See main report (further consideration) in relation to ODP and theatre nurse roles and working arrangements.
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.	N/A	

Ref	Quality Standards	Met? Y/N	Reviewer Comments
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	The acute pain team comprised an anaesthetist and pain nurses. Pharmacy and physiotherapy staff did not have sessional commitments to the acute pain team but each ward had an allocated pharmacist and physiotherapist. No anaesthetist had sessional time allocated for acute pain and the duty anaesthetist was used. The pain nurses were very enthusiastic and were developing training in the management of devices. Although the QS was not met, reviewers were not concerned about the arrangements for management of acute pain at RJAH and considered that they were appropriate for the service provided.
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	N	Documentation was out of date. A competence framework for ward staff was being developed.
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	A good document for new starters was in use.

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	a' was met. 'b' was not met outside working hours when anaesthetic support was from an on call anaesthetist. An ALS trained outreach nurse was on call at all times. A medical registrar was also on site and the Trust was selective in the patients admitted. The Resuscitation Team had been defined without an anaesthetist and a Band 6 nurse held the resuscitation bleep. 'c' was met although see main report (further consideration section) in relation to differences between ODPs and theatre nurses.
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	Social events were organised. Multi-disciplinary audit meetings, departmental meetings and staff forums were held. The Trust had launched a 'Rebuilding Relationships' programme shortly before the review visit which was intended to challenge and develop multi-professional working.
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	An apprentice in HDU did the ICNARC data collection. The theatre receptionist collected NJAR data.

Ref	Quality Standards	Met? Y/N	Reviewer Comments
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	N	All aspects of the QS were met except imaging ('l'). 'a' was met with good availability of IT. 'b' was met during working hours by porters and outside working hours by an on-site 'boiler man'. No evidence of compliance with 'c' was available although reviewers assumed this was in place. 'd' was available although had to be called in at night. The bleep holder was responsible for ensuring all external doors were closed. See main report (concerns section) in relation to imaging support to theatres.
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	Y	The paediatric 'pathway' was clear with a pleasant new recovery area for children. Imaging equipment was available although see main report (concerns section) in relation to staffing to use this equipment.

Ref	Quality Standards	Met? Y/N	Reviewer Comments
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	Y	

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/A	
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	IT systems were good with good availability of information throughout the patient 'journey'.
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	Standard trolleys were suitable for bariatric patients and some wider trolleys were also available. The Trust's self-assessment indicated that bariatric gowns were not available. Reviewers suggested the Trust consider whether the available gowns are suitable for bariatric patients and, if not, ensure these are available so that dignity for these patients can be maintained.
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	
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	A lot of information was available for some aspects of this QS but no information for 'k' (CT only) and 'l'. Four documents covered pre-operative assessment and it may be helpful to combine some of these. Paediatric documentation was clearly and helpfully separate. See main report (concerns section) in relation to WHO Safer Surgery checklist.
XG-503	**Consent** The Trust consent procedure should be in use.	Y	An up to date consent procedure was available although it was not clear that this was fully implemented.

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 $\geq$10%	Y	Guidelines on inter-operative cell salvage were being re-written for new equipment. Guidelines on peri-operative management of bariatric patients were in several places and it may be helpful to bring these together. Trauma ('i') was not applicable. The Trust considered that 'k' was not applicable but reviewers considered that 'return to theatre' patients fell into this category and so guidelines should be in use. Reviewers also considered that 'm' was also applicable and they was lots of evidence that this aspect of the QS was met and well-organised.
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.	Y	The paediatric stabilisation and transfer policy was in date. The adult policy was out of date and due for review in 2013.
XG-506	**Pain Management** Guidelines should be in use covering management of: a. Peri - and post-operative acute pain b. Chronic pain	Y	Guidelines for 'a' were very good. Guidelines for 'b' were less clear.

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	It may be helpful to formalise guidelines on the infected patients coming through the operating theatre into a written Standard Operating Procedure (SOP).
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.	Y	Reviewers considered that this QS is applicable as patients do have to access to expertise and procedures at other hospitals, in particular, access to general acute hospital services. Good information links with The Shrewsbury and Telford Hospital NHS Trust (S&TH) were in place with patients being transfered there for embolisation, dialysis and other procedures. Echocardiography sessions were delivered weekly at RJAH by S&TH staff.
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	A policy was in place covering all aspects of the QS except extravasation.
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 SOPs were due for review in 2016. See also main report in relation to staff in 'scrubs' outside the theatre environment.
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	See main report (further consideration section) in relation to theatre sessions starting late.

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	
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	Y	c' took place informally.
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.	Y	A strategy was in place. Reviewers were told that there was also an improvement plan although they did not see this.
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	A system for monitoring 'f' was in place although data were not yet available.
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 rolling programme of audit was in place and reviewers saw evidence of audit of all aspects except theatre registers.

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	See main report (concerns section) in relation to WHO checklist. A quality assurance board was in place in theatres. The 'STAR' scheme (sustaining quality through assessment and review) was also in use except on Baschurch Ward.
XG-704	**Monitoring of Key Performance Indicators** Key performance indicators (QS XG-701) should be reviewed regularly with Trust management and with commissioners.	Y	
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	a' was met through Clinical Quality and Governance meetings and 'b' through the Journal Club.
XG-799	**Document Control** All policies, procedures and guidelines should comply with Trust document control procedures.	N	Several documents were out of date, including all SOPs. Several documents had no version control. See other QSs for more detail.