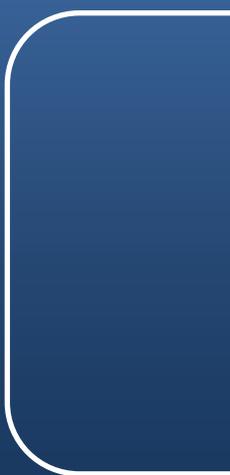# Review of Theatre and Anaesthetic Services

Royal Stoke University Hospital, University Hospitals of North Midlands NHS Trust

Visit Date: 10th June 2015   Report Date: September 2015

Images courtesy of NHS Photo Library and Sandwell & West Birmingham NHS Trust

INDEX

INTRODUCTION

This report presents the findings of the review of theatre and anaesthetics services that took place on 10th June 2015. The purpose of the visit was to review compliance with the following West Midlands Quality Review Service (WMQRS) Quality Standards:

- Theatre and Anaesthetic Services, Version 1.1, November 2013

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

The report reflects the situation at the time of the visit. The text of this report identifies the main issues raised during the course of the visit. Appendix 1 lists the visiting team which reviewed the services at Royal Stoke University Hospital, University Hospitals of North Midlands 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:

- University Hospitals of North Midlands NHS Trust
- NHS North Staffordshire Clinical Commissioning Group
- NHS Stoke on Trent Clinical Commissioning Group

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

ABOUT WEST MIDLANDS QUALITY REVIEW SERVICE

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

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

ACKNOWLEDGMENTS

West Midlands Quality Review Service would like to thank the staff and service users and carers of Royal Stoke University Hospital, University Hospitals of North Midlands 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.

THEATRE AND ANAESTHETIC SERVICES

This review looked at theatres and anaesthetic services at Royal Stoke University Hospital (University Hospitals of North Midlands NHS Trust) in particular, at three groups of theatres: Central Treatment Suite, Hub Theatres and Main Theatres. Reviewers reviewed relevant documentation and theatre records, visited the admission ward and theatre facilities, observed the theatre set-up in several theatres and talked to staff and some patients.

General Comments and Achievements

Staff who met the visiting team were open and welcoming. Team-working was good, especially between theatre and recovery staff. For example, recovery staff visited each theatre at the start of morning and afternoon lists to identify if there were any problems of which recovery staff needed to be aware. Reviewers were impressed by the positive attitude of staff given the significant pressure under which they were working (see below).

The Central Treatment Suite was running smoothly and did not have the staffing problems being experienced by other theatres. Patients reported good communication if there were any delays.

The theatre management system was being used very well. Communication with ward-based discharge coordinators was also working well.

Good Practice

1   Simulation and human factors training was being undertaken on a multi-disciplinary basis, involving all staff.

2   Medical devices support was very good with machines repaired very quickly.

3   The Central Treatment Suite had a secondary decontamination process for endoscopes which meant that they could be decontaminated and available for use very quickly.

4   The paediatric recovery area was completely separate from the area for recovery of adult patients.

5   Good competency-based training packages were available for healthcare assistants and for band 5 and band 6 nurses.

Immediate Risks: No immediate risks were identified.

Concerns

Reviewers were seriously concerned about the range of issues facing theatres and anaesthetic services, and the resulting pressures on staff.

1   **WHO (World Health Organisation)** *Safer Surgery* **Checklist**

       Implementation of the WHO *Safer Surgery* checklist was of **serious** concern for a combination of reasons:

       a.   Teams in theatres did not appear to be committed to team implementation of the WHO *Safer Surgery* checklist. In several of the theatres observed by reviewers completion of the checklist was treated as a 'tick box' exercise rather than as an important process for the whole team. Some aspects were completed without being verbalised and in some theatres staff did not pay attention during the team brief. Reviewers observed one theatre where the patient was in theatre before the full team was available, there was lots of activity during the 'time out' and one person was not in the room and arrived later. In another theatre two people were not in the room for the 'time out' and others did not stop what they were doing for the 'time out'. In another theatre staff did not introduce themselves.

       b.   The local WHO checklist allowed some aspects to be completed by individuals which were relevant to the whole team, for example, blood loss. Reviewers observed this section being completed by surgeons in the anaesthetic room rather than discussed with the whole team in theatre.

c. WHO *Safer Surgery* checklist audits were undertaken but appeared to be audits of whether the checklist had been completed, not an audit of the process. Reviewers were told that weekly observations were undertaken but, given reviewers' observations on the day of the visit, the observers may also have been looking at whether the checklist was completed rather than at whether the process was undertaken as expected.

2 **Capacity**

Reviewers were also **seriously** concerned about the capacity available within the hospital (wards, theatres and recovery) and the impact on both the pathway of care for patients needing surgery and on staff working within the Hub, main theatres and recovery areas. Several issues contributed to reviewers' serious concerns:

a. Patients were staying in recovery overnight and for up to 48 hours. This impacted on their privacy and dignity, especially as recovery was a mixed sex area and patients were being 'recovered' with alert patients in the same area. Staff could not provide appropriate care for patients who stayed in recovery for a long time, for example, easy access to water was not available. Reviewers were also given an example of organ harvesting from a patient who had died in recovery.

b. Reviewers were told that more than eight patients could still be in the recovery area when night staff came on duty. There were then only two staff in recovery, theatres were often still running and some patients had to be 'recovered' in theatre.

c. Theatres were operating until late in the evening and sometimes overnight with these patients usually staying in recovery overnight. This practice contravened Confidential Enquiry into Perioperative Deaths (CEPOD) recommendations.

d. Patients in recovery who needed critical care were supported by the critical care outreach team. This support was highly appreciated by recovery staff but meant that the outreach team was not available for the rest of the hospital.

e. Some patients were discharged home from recovery. Nurse-led discharge from recovery was in place but the reviewers considered that the guidelines governing this process did not contain sufficient detail. In particular, patients could be discharged if nurses considered they were 'cardiovascularly stable' but the guidelines did not include detail of what this meant.

f. The limited capacity in recovery also impacted on the ability of the theatres to undertake emergency work. Reviewers were told that emergency admissions had increased by 30%. A clear policy on treatment of emergency patients was not evident and some staff told the reviewers that they felt under pressure not to treat patients needing emergency surgery before elective cases.

g. Reviewers were told that operations on some cancer patients were being delayed and 18 week referral to treatment times were being breached for some patients. The majority of day case surgery and more minor surgery had been transferred to County Hospital, Stafford, and the theatre lists were made up of emergency and major cases. This significantly reduced the flexibility for cancelling cases which had previously been available, increased the pressure on recovery and increased the pressure on staff working in the Hub and main theatres.

h. The admissions unit was supposed to be closed overnight but staff reported that they could arrive in the morning to find that the unit had been opened overnight for other patients. Patients for surgery then could not be admitted which impacted on the efficiency of the theatre utilisation.

i. The Trust was aware of the problems with capacity which were recorded on the Trust risk register. The possibility of opening new theatres was being considered but, at the time of the

review, the Trust did not have sufficient staff to open additional theatres. Interim measures to address the problems being experienced were not evident.

3   **Staffing levels**

Staff turnover (10.9%) was close to the Trust expected maximum of 11% with more theatre staff leaving than could be recruited. Reviewers were told that, on average, 3.65wte left the department monthly and 2.96wte qualified staff were recruited. Reviewers were also told of difficulties in ensuring appropriate mentoring of new staff and high short-term sickness rates*. Some staff reported being asked to come in to work even though they were feeling unwell. The pressures on capacity were clearly impacting adversely on staff morale. Mandatory training levels were low in some areas, for example, only 51% staff in Hub and main theatres had completed resuscitation training. Manual handling training levels were also low. The target levels for mandatory training were not clearly defined. Staff training was shaded green when it improved from the previous period and not because it had achieved a set target.

4   **Pre-populated disposables boards**

Swabs, needles and other disposables used in theatres were written on a board and then counted. The board was not pre-populated with the types of disposables which should be counted. Reviewers observed one example where swabs had not been written on the board until reviewers commented that it had been missed.

5   **Checking of equipment**

Arrangements for documenting equipment checks were not robust. One of the (non-self-checking) anaesthetic machines did not have a book to record checks which had been completed. Clear instructions for checking were attached to one anaesthetic machine but not to others. One of the defibrillators in main theatres had not been checked in accordance with Trust policy.

Further Consideration

1   Reviewers considered that mechanisms for staff engagement and communication may benefit from review. Staff clearly did not think that their concerns were being listened to by managers above the level of the Matron for Theatres. Senior managers told reviewers that they did have a strategy for addressing the issues identified in this report but that staff appeared not to be interested in listening to these proposals. Reviewers were also told that Directorate briefings were held but not Directorate meetings at which issues could be discussed.

2   Theatre 25, the CEPOD theatre, was very busy when observed by reviewers. The lead nurse was taking phone calls throughout the time reviewers were present and was being expected also to answer questions from staff and find out if there were vacancies in another theatre. Reviewers suggested that appointing a coordinator for CEPOD theatres may be helpful. Given the size of the Trust and range of specialties, it may also be worth considering whether a second CEPOD theatre is required.

3   Only five C-arms were available and only three radiographers were available after 5pm. Reviewers were told that this led to delays in theatres but did not see any data about this issue.

4   Theatres did not utilise a register to record who was present in theatre for each patient. The ORMIS theatre system recorded who was present at any time during the list but not who was there for each patient. Signatures of those present were not recorded. The Trust may wish to review whether identifying the people present for each patient is necessary. Also, drug sheets seen had only a signature recorded; the member of staff's name was not always printed or the GMC (General Medical Council) numbers recorded. Reviewers commented that recording printed names and GMC numbers is now required by several other Trusts.

5   It may be helpful for staff from the Royal Stoke Hospital to visit other hospitals to observe how the WHO *Safer Surgery* checklist is completed and audited.

6   The COSHH (Control of Substances Hazardous to Health) cupboard in main theatres 1 to 5 had a notice saying that the cupboard should be locked at all times but the cupboard was open on the day of the visit.

7   Some good, up to date patient information was seen by reviewers but other patient information was out of date.

8   The Hub theatres had no mobile reception but senior medical staff did not carry bleeps. The arrangements for contacting senior medical in an emergency may benefit from review.

9   Given the extreme pressures on theatre capacity, reviewers suggested that further consideration should be given to the range of elective surgery being undertaken. Prioritisation based on minimising impact on patient outcomes and maximising impact on theatre time may be helpful. Options for undertaking more elective surgery elsewhere could also be considered.

APPENDIX 1 MEMBERSHIP OF VISITING TEAM

Visiting Team

Dr Abigail Akita	Consultant Anaesthetist	The Royal Wolverhampton NHS Trust
Debra Jones	Matron-Theatres and Day Surgery	Heart of England NHS Foundation Trust
Mr Howard Joy	Consultant General and Colorectal Surgeon	Sandwell & West Birmingham Hospitals NHS Trust
Jennie Muraszewski	Director of Operations – Surgery, Women and Children	The Dudley Group NHS Foundation Trust
Katy McErlain	Theatre Manager	Burton Hospitals NHS Foundation Trust
Dr David Perks	Assistant Medical Director - Consultant Anaesthetist	The Dudley Group NHS Foundation Trust
Sally Rushby	Head Nurse, Surgery	Burton Hospitals NHS Foundation Trust
Stephen Turner	ODP Team Leader	The Shrewsbury & Telford Hospital NHS Trust
Mr Nigel Williams	Consultant Colorectal Surgeon	University Hospitals Coventry & Warwickshire NHS Trust

Observers

Sarah Burwood	Health & Wellbeing Manager (Alcohol & Drugs)	Public Health England (PHE)
Tracy Kelly	Senior Nurse, Women and Children's Division	Noble's Hospital, Isle of Man
Jane Sloane	Head of Midwifery / Registered Midwife	Noble's Hospital, Isle of Man

WMQRS Team

Jane Eminson	Acting Director	West Midlands Quality Review Service
Sarah Broomhead	Assistant Director	West Midlands Quality Review Service

APPENDIX 2 COMPLIANCE WITH THE QUALITY STANDARDS

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

Table 1 - Percentage of Quality Standards met

Service	Number of Applicable QS	Number of QS Met	% met
Theatre and Anaesthetic Services	48	28	58

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

THEATRE AND ANAESTHETIC SERVICES - CENTRAL TREATMENT SUITE (CTS), HUB THEATRES AND MAIN THEATRES.

Ref	Quality Standard	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	Y	
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	A range of procedural information was available. Some had been updated recently but a number of examples seen by reviewers were out of date.
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	Recovery: Patients privacy and dignity was compromised in recovery when patients were cared for in the area overnight. CTS: Privacy could not always be maintained due to the co-location of the admission and recovery area and theatre area. See also comments at XG-401.
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	

Ref	Quality Standard	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 services c. Examples of changes made as a result of feedback and involvement of patients and carers	N	Mechanisms for receiving feedback were not in place in all the theatre areas apart from CTS. Reviewers did not see any examples of changes made as a result of feedback. Trust-wide mechanisms for receiving feedback were in place.
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	See main report
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	

Ref	Quality Standard	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.	N	Theatres: All theatres followed the Association of Perioperative Practice (AFPP) guidelines though reviewers were told that staff retention was a problem, with more staff leaving than joining the departments. There were also insufficient supervisors to mentor new staff. Recovery had insufficient staff to manage the workload and staffing issues were often escalated to the executive team. There was also a higher level of short-term sickness amongst staff. Theatre staffing was included in the Trust Risk Register. A workforce plan was in place which included the development of competences for the band 3 scrub practitioners and an overseas recruitment campaign. CTS: reviewers were told that one bank and one agency member of staff had been working with the team for 12 months.
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	

Ref	Quality Standard	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	Y	

Ref	Quality Standard	Met? Y/N	Reviewer Comments
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	There were a number of issues around compliance with training: 'a': 27% of staff had not had manual handling training within the last year, some for as long as four to five years. There was evidence of incidents linked to manual handling in the theatre environment and reviewers witnessed a patient being transferred without the brakes on the trolley being applied. Key staff were not always clear about the percentage of staff compliant with training. Reviewers were told conflicting information, that compliance was defined by each module, and that the local system and Electronic Staff Record (ESR) do not link, though comparative information was available for all staff on the ESR system. Cell salvage training was available but it was not clear from the records which staff had completed the training. Resuscitation: 50% of staff had Immediate Life Support (ILS) training, and only 38% had completed Basic Life Support (BLS) training in the Hub Theatres, though an action plan was in place to address this. On-line conflict resolution training was not always completed and staff reported not being able to attend the half-day session due to workload. The return to work assessment was very good and a good three day train the trainer course was in place. A flexible approach had been taken to deliver training with staff providing sessions at the weekend.
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 Standard	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.	Y	
XG-209	**Staff monitoring** Arrangements should be in place for monitoring and reviewing staff sickness, vacancy and turnover levels.	N	Data was available to show that more staff were leaving than appointed, but data was not expressed as a turnover rate with clear thresholds.
XG-210	**Team building** The service should encourage a range of activities to develop team building and multi-professional working.	Y	A number of processes were in place including human factors and medical simulation training, and staff were paid overtime to attend. The Directorate had also won 'Employee of the month' in 2011 and the Chief Nurse award had recently been awarded to the recovery team.
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	

Ref	Quality Standard	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	Patient transport was not always timely and some patients were sitting all day waiting for transport home. Point 'l' was not met as there were insufficient C arms. Only three radiographers were available after 5pm. Access to electronic notes was not always available or accessible as the Trust was working with different IT systems since the merger with the County Hospital. A good secondary decontamination process for endoscopes was in place. There was also very good equipment support with staff based in theatres to undertake immediate repairs.
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	Though reviewers were told that due to insufficient staff, the harvesting of organs could not always take place.
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	Patients were staying in Hub recovery overnight which did not provide appropriate privacy and dignity. There was a separate paediatric recovery area, but this was opposite an area where adults were often being recovered. CTS: the area for patients was pleasant and accommodated an easy flow into and out of the theatre area. Reviewers commented that the disposable curtain in place when the theatre door was opened did not always provide privacy and theatre staff could be heard by those in the adjacent patient areas even when the door was closed. Reviewers suggested that the Trust should ask if patients think this is reasonable.

Ref	Quality Standard	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	Staff were able to get equipment back into service very quickly. See also comments at XG- 301.

Ref	Quality Standard	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.	Y	
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.	N	A number of different systems were in use which required multiple entries of patient details. Work was in progress to improve connectivity with the systems in use at the County Hospital.
XG-405	**Moving and Handling Aids** Moving and handling aids should be available and appropriately maintained.	Y	

Ref	Quality Standard	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	Comprehensive clinical guidelines and policies covering referral information were not available. In practice there was a Pre-Ams (Pre-Admissions Management Service) pre-assessment clinic for adults. The Trust had plans to implement an assessment clinic for children.
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	Guidelines referenced in standards were not available on the intranet. There was no evidence for 'o'. From the case records seen there was a small space on the documentation to write about handover which was documented in records seen in the Hub Theatres, but not documented in records seen in the Main Theatres. Nurse-led discharge from recovery was in place but criteria covering the process did not contain sufficient detail - see main report. See main report regarding implementation of the WHO *Safer Surgery* Checklist. 'Stop before you block' guidance was in every anaesthetic room but not followed in practice and there had been three incidents in the last two years.

Ref	Quality Standard	Met? Y/N	Reviewer Comments
XG-503	**Consent** The Trust consent procedure should be in use.	Y	University Hospitals of North Midlands NHS Trust had adapted the national template and created a Trust consent form. The form included the five bullet points from the national template but it was not clear that the national caveats were fully covered.
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	
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	
XG-506	**Pain Management** Guidelines should be in use covering management of: a. Peri- and post-operative acute pain b. Chronic pain	Y	Surgical guidelines for Acute Pain Management were in use.

Ref	Quality Standard	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	N	Further work on implementing the infection control policy may be beneficial. Reviewers observed the following during the visit: One surgeon brought a drink into theatre and reviewers were told that this was common practice. In the recovery store the patient transfer board (PAT slide) was in the sluice and it was not clear to reviewers that this would be cleaned prior to each use. One practitioner had the same pair of gloves on for the whole procedure and all activities. CTS: no-one was seen using hand gel.
XG-508	**Resuscitation Policy** The Trust resuscitation policy should be in use.	Y	Only 51% of staff have appropriate training.
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 referenced in standards were not available on the intranet.
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	N	The drug sheets seen by the reviewers appeared to have only the prescriber's signature included. The front sheet required the name to be printed and the GMC (General Medical Council) number, but from the evidence seen this was not always completed.

Ref	Quality Standard	Met? Y/N	Reviewer Comments
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	Though in main theatres (1- 5); the notice on the COSSH cupboard said that it should be locked at all times, but the cupboard was open.
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	N	At the time of the visit the operational policy was in the process of being revised. A draft policy was available.
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)	N	See main report.

Ref	Quality Standard	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	N	Staff who met with the reviewing team were unable to describe what was in place for service improvement. Staff were aware of the issues they faced around theatre and staff utilisation.
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	The Vision 2025 strategy was seen. Extra capacity in critical care was planned. Work was in progress to provide extra theatres and wards, though recruitment of sufficient staff to support the extra provision was proving difficult.
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	

Ref	Quality Standard	Met? Y/N	Reviewer Comments
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 monthly audit was undertaken, though see also main report regarding the WHO audit. It was not clear from the evidence provided that analysis was being undertaken to assess improvement and the reports were only quantitative and not qualitative.
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	Reviewers did not see evidence of the systems to ensure analysis and feedback on the areas defined in the Quality Standard. See also main report about the implementation of the WHO checklist.
XG-704	**Monitoring of Key Performance Indicators** Key performance indicators (QS XG-701) should be reviewed regularly with Trust management and with commissioners.	N	Evidence showing monitoring of key performance indicators with Trust management and commissioners was not seen at the time of the visit.
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	N	Multi-disciplinary review and learning with all staff was not yet in place. There were shared learning PowerPoints about incidents available to staff and other weekly and monthly meetings did take place with some disciplines. Reviewers were told that teaching had reduced as the departments were much busier and staff could not be released. CTS: Staff were very articulate about review of, and implementing learning from, incidents.
XG-799	**Document Control** All policies, procedures and guidelines should comply with Trust document control procedures.	Y	Corporate policies were document controlled. Lots of patient information had been reviewed though a number of patient information leaflets seen were out of date, with review dates for 2012 or no review date documented.