The Royal Wolverhampton NHS Trust

CP20
Robotic Surgery Policy

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Attachment 1: RWT Robotic User Group Pan-speciality Safety checks and Emergency Standard Operating Procedures

Attachment 2: Robotic theatre session exchanger / offer pathway

Attachment 3: Clinical Illustration Consent Form

1.0 Policy Statement (Purpose / Objectives of the policy)

The Trust currently provides elective robotic surgery in cardiothoracic, general surgery, gynaecology, ENT and urology specialities. In line with the Trust's approach to maintaining high standards of patient care and safety, this policy outlines the arrangements in place for the safe use of robotic surgery by all users of the robotic surgery systems at the Royal Wolverhampton NHS Trust.

1.1 The aim of this policy is to create formal processes for users of the robotic surgery systems to deliver robotic surgery safely and in line with current Trust governance policies.

1.2 This policy aims to ensure the health and safety of Trust employees and patients who respectively perform or undergo robotic surgery, so far as is reasonably practicable.

1.3 This policy provides guidance in various emergency situations that may arise in relation to robotic surgery.

In adhering to this Policy, all applicable aspects of the Conflicts of Interest Policy must be considered and addressed. In the case of any inconsistency, the Conflicts of Interest Policy is to be considered the primary and overriding Policy.

2.0 Definitions

Robotic surgery	a surgical procedure or technology that adds a computer-assisted electromechanical device to the interaction between the surgeon and the patient.

3.0 Accountabilities

3.1 Divisional Medical Directors

Divisional Medical Directors for surgical services are responsible for implementing this policy and disseminating to all relevant parties

3.2 Clinical Directors

Clinical Directors in the surgical and anaesthetic specialities must disseminate this policy to all medical staff and senior nurses in their directorates and ensure they comply with its contents where relevant and in relation to robotic surgery use.

3.3 Head of Nursing

Head of nursing must disseminate this policy to all theatre staff involved with robotic surgery and ensure they comply with its contents where relevant and in relation to robotic surgery use.

3.4 Robotic Users Group

The Robotic Users Group are responsible for providing advice and recommendations about all aspects of robotic surgery to the Division. Members of the group must comply with the policy contents where relevant.

3.5 Medical staff

Consultants and junior medical staff in the relevant surgical and anaesthetic specialities must comply with the policy contents where relevant and in relation to robotic surgery use.

3.6 Theatre staff

All theatre staff must comply with the contents of this policy where relevant to their duties.

4.0 Policy Detail

4.1 Key principles

4.1.1 Services for robotic surgery must be consultant-led
4.1.2 All robotic surgery users and stakeholders must complete basic mandatory training as recommended by Robotic Users Group and undertake refresher training sessions on an annual basis.
4.1.3 Protocols for emergency scenarios in robotic surgery should be followed in the rare emergency events.
4.1.4 Clinical video recording for publication and educational use should be undertaken in accordance with Trust policy (CP18 Clinical Photography, Video and Audio Recordings).
4.1.5 Procedures for offering robotic surgery theatre lists should be followed to facilitate theatre list scheduling and maximising robotic surgery theatre use.

4.2 Robotic Surgery / Equipment Training

4.2.1 All surgical consultants and junior medical staff who undertake robotic surgery must have completed all relevant online robotic surgery training modules and robotic surgery induction course.
4.2.2 All theatre staff who facilitate robotic surgery and have direct interactions with robotic surgery equipment must have completed all relevant online robotic surgery training modules and robotic surgery induction course.
4.2.3 All surgeons performing robotic surgery must have completed either an accredited robotic surgery training programme or demonstrate accreditation reflecting their robotic surgery competencies before undertaking robotic surgery independently.
4.2.4 Any surgical medical staff who has not completed the required training must be supervised by a surgeon who has achieved the required competencies and accreditation in robotic surgery.
4.2.5 All theatre staff who have not completed basic training on the use of robotic surgery equipment should be supervised at all times by trained personnel.
4.2.6 All robotic surgery theatre personnel, including anaesthetic and surgical medical

staff must attend robotic surgery emergency situation simulation sessions on an annual basis.

4.2.7 No theatre or medical staff can partake in robotic surgery independently without completion of the required training as outlined above.

4.3 Emergency standard operating procedures

4.3.1 The emergency standard operating procedures outline the steps that should be undertaken in different emergency scenarios that may be encountered in robotic surgery.

4.3.2 All personnel involved with robotic surgery should be familiar with the standard operating procedures in various emergency situations (see appendices).

4.3.3 At each robotic surgery emergency simulation training sessions, which must be undertaken annually, each emergency standard operating procedure must be practiced by attendees.

4.3.4 It is the responsibility of the lead consultant surgeon to ensure that robotic surgery team members are aware of the emergency standard operating procedures at each operating list. This should form part of the safety checklists that is performed for all patients undergoing surgical procedures (OP100, The use of Safety Checklists for Patients Undergoing Surgical and Interventional Procedures).

4.3.5 The emergency standard operating procedures should be available and easily accessible for reference in robotic surgery theatres.

4.4 Robotic theatre scheduling

4.4.1 The theatre directorate management team have overall responsibility for robotic theatre scheduling.

4.4.2 Surgical specialities must confirm the assigned robotic session dates, time and surgeons at least 8 weeks in advance.

4.4.3 If a surgical speciality cannot cover the assigned robotic session, the theatre scheduling team must be informed at least 8 weeks in advance to allow for reallocation of the robotic session to another robotic surgical speciality.

4.5 Exchanging or offering out robotic theatre lists between surgical specialities

4.5.1 The divisional management team have direct oversight of theatre allocations to surgical specialities.

4.5.2 A formal pathway to offering / exchanging robotic theatre sessions between surgical specialities is outlined (see appendices).

4.5.3 In the event that a robotic theatre session cannot be utilised by the allocated speciality, the theatre scheduling team must be informed at least 8 weeks in advance.

4.5.4 Specialities undertaking robotic surgery will be notified of available theatre sessions and if the speciality is able to utilise the session, the theatre divisional management team should be informed.

4.5.5 The theatre directorate management team will allocate the released robotic theatre session to the most suitable surgical speciality who are available to utilise the session. This respective surgical speciality should be informed.

4.5.6 If possible, the surgical speciality assigned to the robotic theatre session should liaise with the speciality that have offered the session out, to determine if an

alternative session can be offered in return. If this is possible then divisional management team should be notified of the arrangements and dates for the exchange of theatre sessions.

4.5.7 If a session remains unallocated for robotic surgery, the session will be offered back to the original speciality for non-robotic surgery use.

4.5.8 The theatre directorate management team have the final decision on allocation of robotic theatre sessions and are responsible for communicating allocations to each department.

4.6 Video recording of robotic surgery

4.6.1 Any video recording of robotic surgery must be undertaken in accordance with the current Clinical Photography, Video and Audio Recordings policy (CP18) and the robotic surgery video recording policy.

4.6.2 Appropriate written consent must be obtained from the patient prior to recording any aspect of surgery using the Trust approved Clinical Request/Consent Illustration form (see attachment 3).

4.6.3 The signed consent form must be physically signed by the patient or approved advocate and the consenting clinician.

4.6.4 The signed consent form must be uploaded to patients' medical records on Clinical Web Portal as a separate scanned document.

4.6.5 The responsible clinician must give the patient a full explanation of why, how and where the recordings will be used at the time of consent.

4.6.6 Video recordings must only be used for the original purpose for which consent was obtained and must not deviate from these boundaries.

4.6.7 Video recordings of robotic surgery must be captured using the device approved by the Trust.

4.6.8 All video recording must be stored on an approved secure hospital computer using the patient's unique hospital number and a database maintained of all patient recordings.

4.6.9 Recordings must be stored safely to prevent unauthorised viewing.

4.6.10 Recordings must not be downloaded onto personal laptops or PC's for storage.

4.6.11 No video recordings will be kept longer than is necessary in line with the Trust's Health Records Policy & Statement (OP07) unless consent has been obtained for either publication or restricted educational use.

4.7 Robotic surgery standard operating procedures

4.7.1 Robotic surgery must be carried out in accordance with the standards outlined in the Theatres Local Safety Standards for Invasive Procedures v2 and Trust policy CP65 – The safe management of sharps, swabs, instruments, needles and other accountable items used during surgical and interventional procedures within the Royal Wolverhampton NHS Trust.

4.7.2 All theatre staff members involved in robotic surgery are responsible for ensuring that all standards are adhered to for every robotic surgery procedure.

4.7.3 It is the responsibility of the surgical speciality team to select patients who may benefit from robotic surgery, taking into account the clinical indications, contraindications and patient specific factors.

4.7.4 Consent for robotic surgical procedures must be obtained in accordance with the Trust policy CP06 – Consent to Treatment and Investigation policy.

4.7.5 Re-usable instruments associated with robotic surgery must be decontaminated

in accordance with HS12 - Decontamination of Re-usable Medical Devices.

4.7.6 Maintenance of the robotic systems and associated instruments will be overseen by the robotic theatre coordinator. Protocol 6 of HS11 policy - Service, Maintenance, Repair and Decontamination of Medical Devices provides guidance with respects to maintenance of medical devices.
All maintenance documentation from the OEM is recorded on the Trust asset register F2

4.7.7 It is the responsibility of the designated theatre team leader to ensure that robotic equipment and instruments are appropriately prepared and set up for each robotic surgical procedure undertaken.

4.8 Governance

4.8.1 Clinical governance of robotic surgery cases ultimately is the responsibility of the respective surgical directorates in the same manner for all clinical activity.

4.8.2 Regular audit and review by respective clinical teams is essential and the outcomes should be fed back to the robotic surgery users group.

4.8.3 The robotic surgery users group will provide guidance and advice where required for clinical governance matters involving robotic surgery.

5.0 Financial Risk Assessment

1	Does the implementation of this policy require any additional Capital resources	No
2	Does the implementation revenue resources of this policy require additional	No
3	Does the implementation of this policy require additional manpower	No
4	Does the implementation of this policy release any manpower costs through a change in practice	No
5	Are there additional staff training costs associated with implementing this policy which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments	

6.0 Equality Impact Assessment

An equality analysis has been carried out and it indicates that:

Tick	Options
	A. There is no impact in relation to Personal Protected Characteristics as defined by the Equality Act 2010.
✓	B. There is some likely impact as identified in the equality analysis. Examples of issues identified, and the proposed actions include:

7.0 Maintenance

This policy will be reviewed three-yearly by the Robotic User Group on behalf of the division for surgical services.

8.0 Communication and Training

This policy will be made available on the intranet and copies sent to the Clinical Directors of relevant directorates to disseminate to medical and nursing staff, and to the Matron for the Critical Care Services Directorate to disseminate to theatre staff. The Robotic Users Group will also disseminate this policy to robotic surgery users

9.0 Audit Process

Criterion	Lead	Monitoring method	Frequency	Committee
All robotic surgery users (medical and theatre staff) have received appropriate basic training of robotic surgery equipment use	Robotic Users Group Clinical Directors of relevant specialities Theatre Management	Registry of all relevant staff completing in-service training and record of certificates of completion	Yearly	Robotic Users Group & Theatre Management
Completion of annual training sessions in emergency standard operating procedures	Robotic Users Group Theatre Management Clinical Directors of relevant specialities	Registry and certificate of completion of training	Yearly	Robotic Users Group & Theatre Management
Compliance to policy on video recording consent and capture	Robotic Users Group	Notification from staff	Whenever video recording is undertaken	Robotic Users Group

10.0 References

Part A - Document Control

Policy number and Policy version: CP20 Version 1.0	**Policy Title** Robotic Surgery Policy	**Status:** Final		**Author: Mr David Mak** **Chief Officer Sponsor: Chief Medical Officer**
Version / Amendment History	Version	Date	Author	Reason
	1.0	May 2025	Mr D Mak	Implementation of Trust-wide Robotic Surgery Policy
Intended Recipients: Robotic Surgery Users				
Consultation Group / Role Titles and Date: Robotic Surgery Users Group March 2022				
Name and date of Trust level group where reviewed	Trust Policy Group – April 2025			
Name and date of final approval committee	Trust Policy Group – April 2025			
Date of Policy issue	May 2025			
Review Date and Frequency (standard review frequency is 3 yearly unless otherwise indicated – see section 3.8.1 of Attachment 1)	3 Years – April 2025			
Training and Dissemination: Robotic Users Group				
To be read in conjunction with: • CP18 Clinical Photography, Video and Audio Recordings • OP100 The use of Safety Checklists for Patients Undergoing Surgical and Interventional Procedures • OP07 Health Records Policy and Statement (GDPR) • CP65, The Safe Management of Sharps, Swabs, Instruments, Needles and other Accountable items used during surgical and interventional procedures within the Royal Wolverhampton NHS Trust • CP06 Consent to Treatment and Investigation Policy • HS12 Decontamination of Re-usable Medical Devices Surgical Instruments and Scopes • Protocol 6 of HS11 policy - Service, Maintenance, Repair and Decontamination of Medical Devices provides guidance with respects to maintenance of medical devices				
Initial Equality Impact Assessment (all policies): Completed **Impact assessment (as required): Completed** If you require this document in an alternative format e.g., larger print please contact Policy Management Officer				
Monitoring arrangements and Committee	• Robotic Users Group • Theatre Management			

Document summary/key issues covered. The aim of this policy is to create formal processes for users of the robotic surgery systems to deliver robotic surgery safely and in line with current Trust governance policies.	
Key words for intranet searching purposes	CP20, Robotic, Surgery, Theatre, Surgical, Robotic Surgery, Robotic Theatres, Robotic Users, Robotic Users Group, Robotic Theatre Session

RWT Robotic User Group
Pan-speciality Safety checks and Emergency Standard Operating Procedures

Team:
Surgeon
Anaesthetist
Surgical First Assistant (Doctor/Surgeon or Nurse)
Anaesthetic Practitioner (ODP)
Scrub Nurse
Circulator 1
Circulator 2
Additional team members and roles to be highlighted

Before starting the list:
Morning debrief – all team members present – introduce self and role
Patient factors discussed
Specific roles allocated to team members
Human factors – any issues to be discussed
Any new members joining late must introduce self and role to the whole team

Anaesthetic room:
No entry unless Anaesthetist has given the green light once anaesthetic procedures have been completed safely
Patient positioning on the operating table – operating surgeon must be present
Safety patient strap to be checked by surgeon, anaesthetist and ODP

Operating theatre:
Operating table positioning with patient's umbilicus directly under the operating light's middle beam
WHO checklist – beginning and end of the list
Debrief at the end of the list – any safety/instrument issues must be highlighted and escalated

Safety checks and roles:
Surgeon leads at the start of EVERY case after the first WHO checklist

- Each team member's roles to be re-defined clearly for emergency procedures. Ask team if they are happy in their respective roles
- Pressure settings for pneumoperitoneum to be defined for initial stages and after docking
- Patient strap to be checked after every position change (if using ITM), and after initial ports and position if using a normal operating table.
- Do NOT dock the robot until the anaesthetist is happy with the ventilation. Loosen the strap first if any ventilatory issues
- Check that scalpel and laparoscopic as well as open trays/instruments are available inside theatre
- Position of the sterile robotic instrument key, emergency robotic button and CPR kit and emergency team call out buzzer to be clearly highlighted to all team members
- All team members to be empowered to contribute to safety measures and voice any concerns clearly.

Patient in cardiopulmonary arrest - Lead clinician calls "CPR"

Action	
Anaesthetist	Leads the CPR
Surgeon	Ensures the instruments jaws are open and straight in the operative field and away from any major structures Asks for the insufflation to be switched off Gets ready to assist with chest compressions
Surgical First assistant	Removes the robotic instruments and the camera from the patient Undocks, Removes the arms with cannulas attached away and commences chest compressions Remove surgical items which may impact patient positioning
Anaesthetic practitioner (ODP)	Supports Anaesthetist Patient positioning Defibrillator preparation Emergency drugs
Scrub nurse	Helps move the arms and cannulas away Positions the camera in a safe place Prepares instruments (emergency laparotomy/thoracotomy / sternotomy set) and swabs
Circulator 1	Turns off insufflation Move the robot away from the patient Opens emergency instrument sets
Circulator 2	Calls for help Opens gown and gloves for surgeon

Controlled bleeding—lead clinician calls "Controlled Undock"

Action	
Surgeon	Applies vascular clamp / atraumatic robotic instrument to grasp / stem bleeding if possible Calls "controlled Undock" Prior to leaving the console press the Emergency Stop Button Explain clearly which arm number is holding the injured vessel – clear instructions for the arm not to be removed Don sterile gown and gloves Return to patient and perform open surgery
Surgical First assistant	Removes robotic instruments and cannula away from patient EXCEPT for any instrument holding the injured blood vessel Commences / assists in performing open surgery When control of the vessel has been achieved, asks for the Emergency release key Removes robotic instrument
Anaesthetist	Manages patients haemodynamically
Anaesthetic practitioner (ODP)	Supports Anaesthetist Orders blood products as instructed
Scrub nurse	Prepares instruments (emergency laparotomy/ thoracotomy / sternotomy set) and swabs Positions the camera in a safe place
Circulator 1	Opens emergency instrument sets Passes the sterile emergency release key Moves robot away when asked
Circulator 2	Opens gown and gloves for surgeon Calls for help

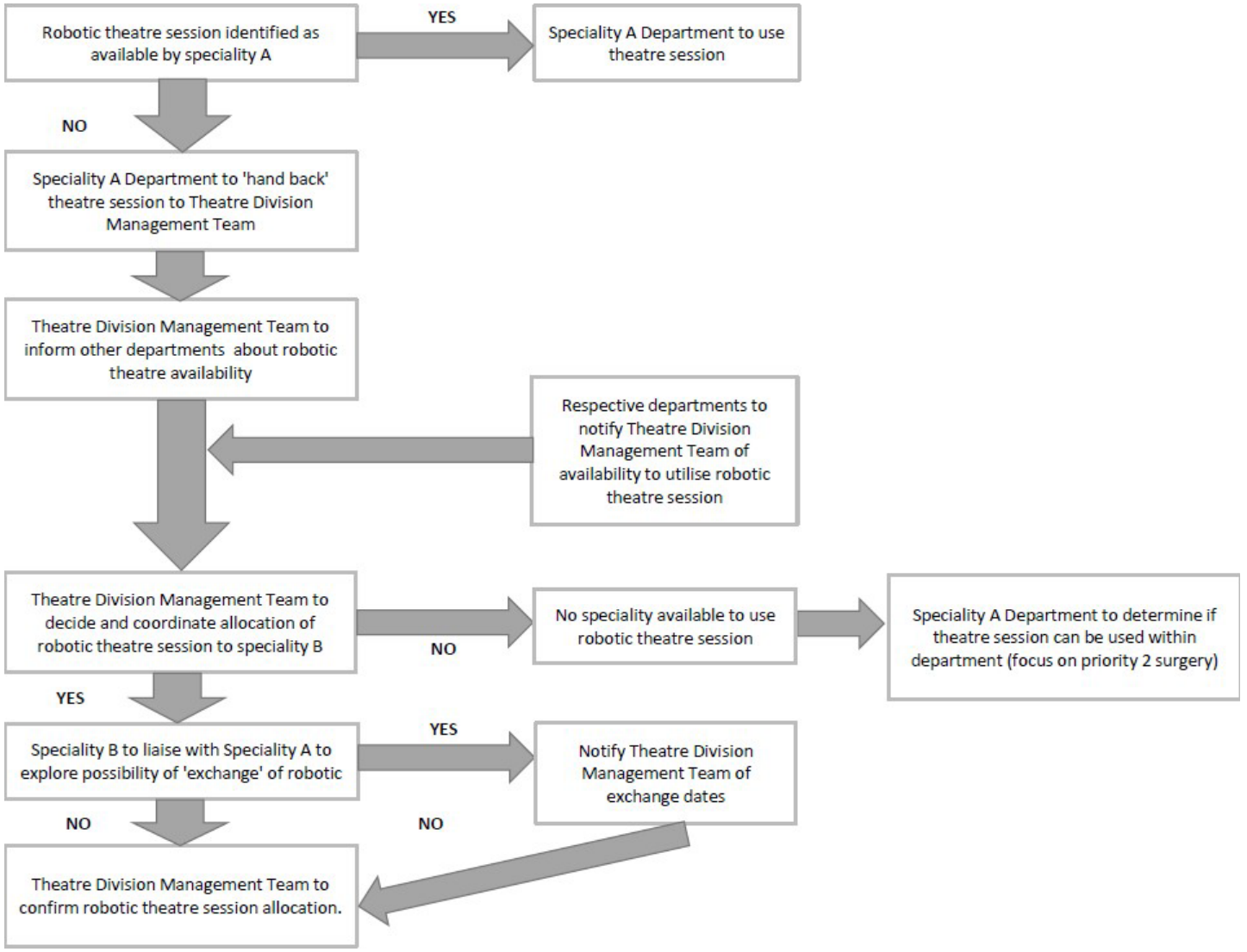
Uncontrolled bleeding—lead clinician calls "Emergency Undock"

Action	
Surgeon	Ensures the instruments jaws are open and straight in the operative field Don sterile gown and gloves Return to patient and perform open surgery
Surgical First assistant	Removes robotic instruments and cannula in one movement Shouts "clear" Commences / assists in opening patient
Anaesthetist	Manages patient haemodynamically
Anaesthetic Practitioner (ODP)	Supports Anaesthetist Orders blood products as instructed
Scrub nurse	Prepares instruments (emergency tray set) and swabs
Circulator 1	Moves the robot away from the patient Opens emergency sets
Circulator 2	Opens gown and gloves for surgeon Calls for help

Technical issues/Power loss — lead clinician calls "Controlled undock"

Action	
Surgeon	Don sterile gown and gloves Give clear instructions which instruments in which arm numbers can be removed or if none should be removed - remember, the instruments will NOT move if they are docked (Si and Xi) If unsure of instrument whereabouts within the body, press the red button to freeze the robotic arms Return to patient and perform laparoscopy/open surgery as needed
Surgical First assistant	Remove robotic instruments if instructed to do so by the surgeon (Advisable in Si, not necessary in Xi) If certain that instruments are clear, and if instructed by the surgeon, then undock the arms and gently move the arms up along their vertical joints, overpowering the resistance to move the arms up and away from the patient. Be ready to commence/assist in performing laparoscopy/opening the patient
Anaesthetist	Manages patient haemodynamically
Anaesthetic Practitioner (ODP)	Supports Anaesthetist
Scrub nurse	Prepares instruments (emergency laparoscopic/open tray set) and swabs
Circulator 1	In a power loss situation where the backup battery is depleted, the shift switches may be set to N to manually drive the Patient Cart Press the red button on the patient cart if instructed to do so by the surgeon – this freezes the robot
Circulator 2	Opens gown and gloves for surgeon in case there's a need to convert to laparoscopic/open Set-up laparoscopic stack and cameras Calls for help if asked to do so

ROBOTIC THEATRE SESSION EXCHANGE / OFFER PATHWAY



The Royal Wolverhampton NHS
NHS Trust

Theatre Scheduling Process

	Non-Robotic Session	Robotic Session
8 weeks	Specialities confirm session date, time and surgeon If surgeon unavailable, session to be offered out within own speciality, with a view to confirming at 6 weeks that these have been allocated and will be utilised	Specialities confirm session date, time and surgeon If original speciality cannot cover the session, it is communicated to the theatre scheduling t team, with a view to reallocation within the Robotic specialities for a either ; surgical or training session
6 weeks	Specialities confirm if previously uncovered sessions have been reallocated to another surgeon If no surgeon available, theatre to review skill mix to ascertain if unallocated session can be offered to other Directorates. Theatre scheduling team then offer out lists accordingly Booking staff commence booking patients into confirmed sessions	Theatre scheduling team liaise with robotic leads to confirm session to be reallocated/ for what purpose 1. If a session has been identified as a potential training session, theatre scheduling team to liaise with Intuitive to establish if trainers are available 2. If session remains unallocated for robotic surgery, it is to be offered back out to the original speciality for non-robotic surgery. Booking staff commence booking patients into confirmed sessions
4 weeks	Sessions are locked Theatre Rota is Published 6 4 2 meeting take place to agree composition of the lists (to ensure lists are not light or heavy and required equipment available)	
2 weeks	Final list signed *off* by Surgeon and Group or Directorate Manager following 6 4 2 Golden patient confirmed Any changes after "sign *off*" that result in a change of utilisation % have to be agreed by the relevant Group Manager or nominated deputy, who will inform the Theatre Directorate Manager Final list is published to theatre teams, including rota convenors, to enable confirmation equipment, correct skill mix and Anaesthetist	
4 days	Unfilled slots held for Short Wait Cancer surgeries released and filled from the pool of pre-assessed patients	