

AXA Health Robotic Surgery Review
Thoracic Surgery
Dr John M Burke
November 2021

Background

AXA Health is constantly seeking to make sure that its offering to patients reflects the best possible evidence and follows current UK practice. This means taking decisions as to what surgical procedures should be funded and to what level.

Surgical robotics is a rapidly progressing field, constantly expanding and evolving to move into new specialities. For this reason, AXA Health has started a process to systematically assess the status of robotic surgery in each speciality, to determine what the evidence is for robotic use and what is currently the standard of care in the NHS.

This document outlines the current policy for thoracic robotic surgery and is based on NICE guidance, review of the literature and interviews carried out with a number of organisations and key leaders in the thoracic surgery field.

It is clear that robotic thoracic surgery is becoming increasingly common the UK, with 13 out of 36 NHS thoracic centres currently using the Intuitive platform and a significant number of the remaining centres also having a business case approved to purchase or use a robot system.

The aim is for these guidelines to be frequently updated and we would be very happy to receive any new evidence you feel is relevant regarding any of these procedures.

Overview of operations and evidence

The 2016 NICE review (<https://www.england.nhs.uk/wp-content/uploads/2018/07/Robotic-assisted-lung-resection-for-primary-lung-cancer.pdf>) concluded that robot-assisted thoracic surgery (RATS) was safe but that there was insufficient evidence to routinely commission the service. However, since then the field has progressed and more data is available in some areas, though large scale trials are still lacking.

Lung Surgery

Lobectomy can be equally done via VATS or RATS but there have been suggestions that there are benefits in terms of improved outcome data from case series analysis. However, at present, robust evidence is still lacking for a clear benefit of RATS over VATS for straightforward lobectomy.

In contrast, sublobar resection for nodules and smaller tumours is only possible via RATs and it is possible it will become the standard of care in the near future if evidence outcomes are better, with a trial in this field about to start. This is particularly important, as with lung cancer screening programmes rolling out more widely there will be more indeterminate nodules discovered that will require resection.

Lung volume reduction surgery for emphysema is another growth area as RATS can be used with blood borne dyes (ICGC) to demonstrate blood flow to identify the non-perfused areas of lung that can be safely removed, allowing stapling on perfused lung and fewer air leaks. This is very complex, and these patients have other bronchoscopic options available like valves. Therefore, this work should only be carried out in specialist centres with appropriate emphysema MDT supervision.

AXA Health will fund eligible RATS lobectomy at the same rate as VATS lobectomy. AXA Health will consider RATS sublobar resection on a case by case basis to improve patient outcomes by removing less lung.

Lung reduction surgery is highly complex and developing and therefore should be considered experimental and only funded by AXA Health for selected surgeons, in specific centres, with sufficient experience, guided by an appropriate MDT.

Mediastinal surgery

RATS mediastinal surgery (e.g. thymic glands and schwannomas) has significant potential benefits over open surgery due to shorter length of stay and less morbidity for the patient. Due to the angles required there is not a VATS option for these cases; therefore, the alternative would be an open procedure.

AXA Health will fully fund RATS mediastinal surgery.

Other miscellaneous procedures

One difference between RATS and VATS is that RATS is done under CO₂ insufflation whereas VATS is done open to air. This means there are a few procedures where the CO₂ inflation allows techniques not possible using VATS. An example being diaphragm plication where the CO₂ pushes the baggy diaphragm away, allowing the surgeon to suture it.

AXA Health will consider funding these rarer procedures on a case by case basis.

Credentialing of surgeons

It is important for patients to be confident that their surgeons have been appropriately trained in RATS techniques. Therefore, AXA Health will require that the following criteria are met for any surgeon wanting to carry out RATS in the private sector.

1. Completed Intuitive or CMR training and proctorship including 20 cases.
2. Have a further 20 independent cases documented.
3. Be carrying out the same procedure in the NHS (alternative for purely private surgeons: have detailed audit of outcomes and clear evidence of training).
4. If there is an NHS Governance Board or similar in place they should be carrying out the same range of procedures this covers.
5. Be formally collecting their own outcome data and be able to present it (either recruiting to a trial, submitting data to a national database, or collating their own data in sufficient detail).

Engage with us

Funding decisions in the private sector can be complex and inevitably, there will be surgeons and patients who feel that the bar has been set at the wrong height for a given operation or approach. This review has attempted to provide clarity to the thoracic surgery field based on evidence and the opinions of professional societies and experts. We want this process to begin a dialogue with the surgical community and, therefore, please reach out to us if you have any comments or if you feel the evidence has changed.

Contact us: medevsupport@axahealth.co.uk

To discuss robot-assisted surgeon credentialing details, please contact Sarah Taylor, Head of Specialist & Practitioner Relations: specialistrelationships.health@axahealth.co.uk

Dr. John Burke (Director of Medical Policy)

Sarah Taylor (Head of Specialist & Practitioner Relations)