

**Conclusion**

Many patients, including those with progressed lung cancer, were ultimately offered surgery, which may otherwise not have been an option. High-risk operated patients showed similar longer-term survival as the non-operated group. Surgery may thus be safe in appropriately selected patients.

**A262****Robotic Surgery Reduces the Barrier to Widespread Practice of Segmentectomy**

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**Objectives**

Segmentectomy offers an alternative to lobectomy but with parenchymal preservation and comparable outcomes. However, segmentectomy is technically more challenging. We report our experience of rapid adoption of segmentectomy through robotic surgery.

**Methods**

Single-institution retrospective audit of segmentectomies, from 2017–2021. Segmentectomies were performed by thoracotomy, video-assisted thoracoscopy (VATS) and robot-assisted thoracoscopy (RATS) by all 5 surgeons in one department. Data was analysed between 3 equal time periods (405 days), P1, P2, P3, representing different stages of implementation of the segmentectomy.

**Results**

217 segmentectomies were performed for proven or suspected stage I lung cancer. Number of segmentectomies increased by 348% (31(P1), 78(P2), 108(P3)); the ratio of lobectomy: segmentectomy increased from 100:13(P1) to 100:55(P3). 182(83%) segmentectomies were RATS, these increased 594% from 17(55%) (P1) to 101(95%) (P3). The median operative time fell: from 210 min(P1), 180 min(P2) to 173 min(P3).

The complexity of the segmentectomies also increased: the proportion of atypical segmentectomies increased sixfold (10%(P1) vs 65%(P3)).

Overall 30-day-mortality and 90-day-mortality was 1% and 3% respectively. Respiratory complications occurred in 30 cases (14%), persistent air leak in 59 (27%) and other complications in 15 (7%) cases. 11 cases (5%) returned to theatre and 13 (6%) required re-admission. There was no difference in complication rates between the study periods.

**Conclusions**

The number, proportion, and complexity of segmentectomies performed increased rapidly driven by the RATS approach. The complication and mortality rates remained similar in all study periods and the procedural efficacy improved, despite increasing complexity of the operations. Therefore, RATS provides a safe and effective method to enable delivery of segmentectomy as standard of care.

**A263****Animation Supported Consent for Lung Resection Procedures**

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**Introduction**

Patient understanding of Lung Resection Procedures is often incomplete before consent to surgery. Innovative approaches are needed to improve the consent pathway and support shared decision-making.

**Methods**

- Video animations created by Explain my Procedure Ltd for evaluation pending subscription.

- Baseline understanding of patient understanding of Lung Resection Procedures (Questionnaire) n = 29
- Links to multi-language videos sent to patients pre-admission
- Patients provided with video books at pre-admission clinic and on admission to ward
- Post-animation patient Understanding of Lung Resection Procedures (Questionnaire) n = 30

**Results**

Figure 1 compares patient-reported understanding of the procedure, its benefits and risks and alternatives to the procedure in the no animation group and the animation group. There was a significant ( $P < 0.05$ ) improvement in patient understanding in all domains following introduction of the animation to aid consent.

**Conclusion**

- Animation supported sample group showed a greater level of understanding in terms of procedure, benefits, risks and alternatives.
- Thoracic advanced nurse practitioners have found videos to be immensely useful especially with non-native English speakers.
- Patients who utilized the animations would recommend its use.
- Explain my Procedure recommended for routine use before consent to thoracic surgery.

**A264****Incidence and Resource Burden for the Management of CT Detected Ground Glass Opacities at a Tertiary Lung Cancer Service in the UK**

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**Objectives**

The increased use of computer tomography (CT) for lung cancer screening and evaluation of other intrathoracic disease has led to greater awareness of ground glass opacity (GGO) lesions. We aim to evaluate the incidence of GGOs identified on CT at a tertiary lung cancer service in the UK to determine any trends and to quantify impact on time and resources.

**Methods**

We retrospectively identified patients reported with GGOs and discussed during MDT meetings held from 2017 to 2019 between the Royal Free and the Royal Brompton Hospitals. Data were collected, their demographics were reported, and annual incidence as well as further analyses on their management were calculated.

**Results**

3,731 patients were discussed at MDT meetings from 2017–2019. 53% were male, the mean age (SD) of the cohort was 68 years and 12% (438 patients) had GGOs identified on CT scans. GGO incidence showed an increasing trend between 2017 and 2019 at a frequency of 100 (9%), 159 (12%), 179 (14%) respectively. These 438 were filtered using an exclusion criterion to leave 274 individual patients. Of these, 148 (54%) were discharged from the MDT, 24 (9%) were deceased in the follow up period, and 31 (11%) were lost to follow-up; the rest remain under follow up. The median (IQR) follow-up time was 263 days (61–734) and time between scans was 89 days (32–183). 19 (10%) patients had biopsy proven pre-cancerous lesions or adenocarcinoma. 24 went on to have surgical intervention in our study period.