Recommendation for the provision of formal second opinions for patients requiring high-risk lung cancer surgery (J King on behalf of the SCTS Thoracic Surgery Sub-committee).

It is known that anatomical lung resection is the treatment associated with the best long-term outcomes and cure rates in patients with stage I and II resectable non-small cell lung cancer. Surgery may also be appropriate in patients with proven early stage small cell lung cancer, and highly selected stage IIIa NSCLC patients within the context of extended resection and / or multimodality treatment. The increasing availability of minimal access surgery, and improvements in peri-operative care have enabled surgeons to offer potentially curative surgery to increasing numbers of patients at a relatively low risk of death, chronic dyspnoea and complications. There is also increasing evidence that surgery is associated with improved survival even in the elderly, in comparison with other treatment modalities. However it remains the case that the lung cancer resection rate in the UK is geographically variable, and overall lower, than in several other European countries. National guidelines and quality standards (BTS and NICE) and the NHS England commissioning guidance for lung cancer, state that all patients with tumours that are potentially treatable with radical intent, who are not initially offered surgery by their local multidisciplinary team (MDT), should be offered the option of a second surgical opinion. However the mechanism by which a second opinion is obtained is not stipulated.

Thoracic surgeons are required to assess and counsel all patients referred for surgery, and to advise them of the risks of surgery specific to the patient's own fitness, co-morbidities and cancer stage, and the surgeon's personal operative outcomes. Offering surgery to patients who are considered high risk may still be appropriate if it can be demonstrated that surgery is the best radical treatment option. This requires that a complete resection can be achieved, patient fitness has been optimised, and the patient accepts the risks of complications and long-term dyspnoea.

There are two broad categories of lung cancer patients who may not be offered surgery on the basis of fitness rather than borderline resectability. The first group are those with non-respiratory co-morbidities that would adversely affect their ability to withstand any major surgery. These are often cardiovascular conditions such as symptomatic coronary artery or valvular heart disease. The NICE guidance and BTS guidelines provide clear advice on how these should be assessed. It is important that the MDT can access cardiology and / or other specialities rapidly if advice is required to help manage this group of patients.

The second group are those patients who are deemed at above average risk due to severely impaired respiratory function and / or dyspnoea following a thorough assessment of functional capacity (by exercise testing or other surrogate assessments as per guidelines). In some cases it will be appropriate and technically feasible to offer a sub-lobar resection to minimise the risk of respiratory compromise and post-operative dyspnoea, or recommend alternative treatments e.g. radiotherapy. However there will be a subgroup of patients where tumour size, stage or position is such that less than lobectomy / pneumonectomy will not achieve an R0 resection. These are the patients most likely to benefit from a formalised second opinion system should they wish to pursue surgery.

Recommendations:

- All patients with proven or likely stage 1-IIIa non-small cell lung cancer should be discussed by their local MDT with a thoracic surgeon present once definitive staging procedures have been performed. The final opinion as to whether surgery or an alternative treatment should be offered, should be a joint decision by the MDT, treating specialist (surgeon) and patient, after consideration of all available surgical options, absolute predicted risk, and efficacy of alternative treatments.

- Patients with early stage lung cancer deemed at high risk for surgery on the basis of reduced respiratory function testing and / or exercise capacity should have formal physiological testing e.g. cardiopulmonary exercise testing to help define the degree of risk they may be subjected to prior to definitive assessment by a surgeon, as per national guidelines.

- Patients should consider alternatives to surgery on the basis of poor performance status, active cardiovascular conditions or other co-morbidities that would significant impact on their ability to tolerate an operation. Fitness should be directly assessed by a core member of the MDT. If appropriate an assessment by another medical speciality e.g. cardiology, should be sought in a timely manner to clarify risk and possibility of optimisation.

- If in a peripheral MDT the consensus opinion is that the risks of surgery may outweigh the benefits, the patient should be offered the option of a second surgical opinion from the central thoracic unit MDT and / or another surgeon if desired.

- Patients whose initial assessment and MDT discussion was within a central MDT should be offered option of a second opinion from another surgeon if the consensus decision is that the risk of surgery is high but not prohibitive.

- If thoracic surgeons in both a peripheral and central MDT consider the risk of surgery too high, then the patient could be offered the option of an opinion from another central MDT if desired.

- Patients referred to a central MDM for consideration of other non-surgical treatments e.g. SABR should be discussed with a thoracic surgeon present and offered a surgical opinion if it is felt appropriate.