

Peer Review File

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Reviewer A:

Comment: The authors reported about the current situation of thoracic surgery in the UK. They provided various information mainly about surgery for lung cancer and mesothelioma. The paper is easy to read and contains various important information. This paper should be accepted for publication, but the reviewer suggests that some information on lung transplantation should be added, which would improve the meaning of this paper. The reviewer would like to know the current situation of lung transplantation practice in the UK, such as EVLP and DCD.

Reply: Thank you, we have now included in our revised manuscript. We have included a paragraph in our manuscript on lung transplant including information on EVLP and DCD on page 3. The paragraph specifies how the the quality standards for such operations is ensured in the UK.

Reviewer B:

Comment: Thank you for giving me the opportunity to review the manuscript. This manuscript is well written and can help the reader to understand the excellent medical system in UK.

Reply: Thank you for your kind comments.

Reviewer C:

Comment: In this manuscript, the authors briefly summarized characteristics of the UK Healthcare system, current standards of thoracic surgeries, and some clinical studies conducted in UK. Some minor comments include, (1) Description of TRACERx and (2) detailed education system for thoracic surgeons in UK.

Reply: Thank you for your comments. We have now included a paragraph on thoracic surgery training pathway and have mentioned and described TRACERx in the multicentre studies paragraph (page 5).

Reviewer D:

Comment: This manuscript is a concise report of thoracic surgery in UK. This manuscript should be submitted as Editorial commentary.

Reply: Thank you, based on the reviewer's comments, we have now expanded our manuscript to cover the wider aspects of thoracic surgery in the UK including lung transplantation, chest deformities and chest injuries and the educational pathway for young thoracic surgeons.

Reviewer E:

Comment 1: I would like to congratulate the authors of an interesting manuscript titled "Thoracic Surgery in the UK".

In their paper, the authors describe the current state of thoracic surgery in the United Kingdom. They focus primarily on the organization of thoracic surgery, treatment of lung cancer and pleural mesothelioma, and research conducted in this field. The article is very well written and does not require significant changes.

Reply: Thank you for your kind comments.

Comment 2: The authors, however, omitted some important areas that in many countries fall within the scope of thoracic surgery. To get a complete picture of the current state of thoracic surgery in the United Kingdom, authors should also discuss areas such as the treatment of thoracic malformations, chest injuries, esophageal cancer, and lung transplantation. If in the United Kingdom such operations are performed by surgeons of other specialties or if the authors do not have data in this regard, such information should be included in the text.

Reply 2: Thank you, we have now included in our revised manuscript. We have added a paragraph on lung transplantation in the UK in page 3. Additionally, we have mentioned in our manuscript that oesophageal cancer is no longer operated by thoracic surgeons and have added a paragraph on chest wall deformities and chest injuries in page 3.

Comment 3: From the point of view of the future evolution of thoracic surgery, both in the United Kingdom and in other countries, it would be worth expanding the discussion on the potential problems and difficulties that thoracic surgeons are facing now and may face in the future, such as the high percentage of patients who are not operated on or the possibilities and problems associated with the development of radiotherapy.

Reply 3: Thank you, we have now included in our revised manuscript, including the resection rates and the percentage of patients receiving radiotherapy in stage I and II lung cancer in page 2.

Comment 4: It would also be valuable to add a short comment on the future of using new technologies such as e-medicine or artificial intelligence in thoracic surgery.

Reply 4: Thank you, we have now included in our revised manuscript. We have commented on a new paragraph about the adoption of digital healthcare technologies in thoracic surgery (page 6).

Comment 5: In summary, some changes to the article could increase its value and the degree to which it could influence the development of thoracic surgery in many countries.

However, even in its current form the article is of high quality and I believe it should be published, even if the authors would decide not to make suggested changes. In this case, however, the title of the article should be slightly modified to emphasize the limitations of the article, I would suggest "Oncologic Thoracic Surgery in the United Kingdom".

I can recommend publication of the manuscript in the JTD after minor revision.

Reply 5: Thank you.

Reviewer F:

The article by Pons and Lim gives us an overall view of what was and what is now thoracic surgery in the UK. This article is part of the “Thoracic Surgery Worldwide” series and is very interesting.

Still, I have a few comments to make:

Comment 1: Authors mentioned that UK “is the only country in the world to have conducted randomized trials on all three major operations for mesothelioma”. I agree that UK researchers are very active in this field but I would be more tempered as other teams in the world have published good papers on this subject too (Raskin J et al, Transl Lung Cancer Res. 2018; Stahel RA et al, Lancet Oncol. 2015; Migliore M et al, Future Oncol. 2015...)

Reply 1: Thank you, we agree that there have been many good research publications on surgery for mesothelioma, but none are randomized trials, a truly unique feature of the UK.

Comment 2: Can the authors tell us more about their national database? What is done from these data? We understand from the article that audits are conducted but is it used for research purposes? How many centers participate? How centers are encouraged to enter their data?

Reply 2: We have now added in the same paragraph (page 5) more information on the database.

Comment 3: The article does not mention at all lung transplantation activity. How many lung transplantations are done? How is it organized in the UK? What are the perspectives of this activity in the UK?

Reply 3: We have included a paragraph in our manuscript on lung transplant including information on EVLP and DCD on page 3.

Comment 4: In their conclusion, can the authors resume the strengths and the flaws of thoracic surgery in the UK? Can the authors share their vision of what should be thoracic surgery in the UK in the future?

Reply 4: Thank you for your comments. We believe the last paragraph now summarises the strengths and the flaws of thoracic surgery in the UK.

Reviewer G:

Comment: Thank you for asking me to review this nice overview about Thoracic Surgery in the UK. In total I just have one remark to line 50:

It is known that the morbidity and mortality rates are lower if a thoracic surgery center performs many resections, especially anatomic resections. For my opinion it would be interesting if the authors could add here the average number of anatomic resection per year of the centers in the UK. And if this differs a lot between the thoracic surgery centers. Furthermore, it would be interesting if the authors could also add the morbidity and mortality rate after anatomic resections in the UK.

Reply: We have now stated the variability of resection rates in the different trusts and have added the mortality rates after lung resection and its trend since 1985.