

Peer Review File

Article information: <https://dx.doi.org/10.21037/jtd-21-1504>.

Reviewer A:

Comment 1: This is a fantastic overview of thoracic surgery in the USA. There are so many strengths to this review including very updated accurate statistics and findings including 2021, the great explanation of the differences and complexities of healthcare insurance in the USA, the high GDP investment into US healthcare versus across the globe, the specific details of match rates and residency curriculum programs, and more importantly that social and demographic disparities still exist and are major issues in the treatment of lung cancer.

I only have on minor revision, and that is to add with all three residency areas of how to get into CT surgery, to add somewhere for all three that many of the residents that go through this process like myself and others do either an optional or Mandatory research fellowship which usually includes 2 additional research years.

Reply 1: Thank you for these comments. We have now included statistics on dedicated resident research time. Line 172-177.

Comment 2: Also if the authors could add on what their opinion is on how we increase the work-force in CT surgery given that match rate is only 60%, i.e. do we have more CT residency programs, do we change the dynamics and lifestyle, do we do more mentoring and advocacy for the field?

Reply 2: Thank you for this suggestion. We have now included information describing the expanded path to entering the field and reasons why surgeons leave the field. Line 199-213.

Reviewer B:

Comment: This is a very interesting review of the US thoracic surgery system. It is well written, detailed and adds information to the reader.

I recommend accept.

Reply: Thank you for reviewing this manuscript and for your comments.

Reviewer C:

Comment: Congratulations to the authors on your detailed statistics and report of the current situation on healthcare system, thoracic surgeries and training program in the U.S. There is much difference from the situations in most Asian countries. The authors should enrich the contents by adding data from Asian countries e.g. Japan, Hong Kong and even Australia, comparing their good and bad, and how to improve the defects in the U.S. so that sick people can get help much easier.

Reply: Thank you for reviewing this manuscript and for this excellent suggestion. We have provided some comparison between the US and Asian countries in the lung cancer section. Line 282-285. To fully address thoracic surgery in Asian countries, a separate manuscript would likely be necessary.

Reviewer D:

Comment: Well written article with important insight for readers at leadership as well as training level within thoracic surgery training programs in the United States

Reply: Thank you for reviewing this manuscript and for your comments.

Reviewer E:

Comment: Authors describe how US healthcare systems work and how thoracic surgeons develop their career. The present paper is comprehensive and concise.

Reply: Thank you for reviewing this manuscript and for your comments.

Reviewer F:

Comment 1: This is a very interesting paper about the nowadays state of thoracic surgery in the united states, which includes some important points which we can take as starting point to improve our everyday activity.

There are some points that could be improvable:

- LINE 108: You should compare that fall with other developed countries 2020 life expectancy change.

Reply 1: Thank you. This has been completed. Line 115-118.

Comment 2: LINE 118: You should add the treatment of other benign conditions of the chest wall, such as deformities

Reply 2: Thank you. This has been completed. Line 129-134.

Comment 3: Such as you did with thoracic vs general surgeons, it would be advisable to compare the results of those pure thoracic surgeons with cardiothoracic ones.

Reply 3: The paper referenced in line 148 does compare cardiothoracic surgeons that perform mainly thoracic surgery v. cardiothoracic surgeons that mainly perform cardiac surgery and general surgeons. This has been clarified.

Comment 4: LINE 219-24: This paragraph should be in the introduction section.

Reply 4: This paragraph has been moved. Thank you.

Comment 5: "Lung Cancer: the most commonly treated disease by thoracic surgeons in the United States". It would be interesting to expand the study of the results on lung cancer surgery to the kind of insurance or kind of surgeon (general vs thoracic vs cardiothoracic)

Reply 5: This has been examined with respect to survival and morbidity. Thank you for this suggestion. Line 265-268 and line 273-277.