

Reviewer A:

Comment: The author described the history and current status of thoracic surgery in Estonia.

I enjoyed the manuscript and became interested in Estonia.

I would like to know about the training system for general surgery and thoracic surgery as specialized fields. How many doctors participate in surgical training and how do they specialize in their careers? Are they accredited by the official board?

Reply: An explanation has been added into the text, describing the separate training for general surgeons and thoracic surgeons (lines 216–217), as well as the accreditation of medical specialists in Estonia (lines 222–224). The number of trainees in thoracic surgery is very small and it is stated in the manuscript that residency positions are not opened every year. I do not think that a description of the specialization process of general surgeons would fit into the scope of this paper.

Reviewer B:

In this manuscript titled ‘Thoracic surgery in Estomia’. The study was conducted to introduce the environment of thoracic surgery. Thoracic surgeries were performed in two facilities. I have some foundational questions.

Lung cancer surgery

Comment 1: Which facilities are that a lot of lung cancers is treated?

Reply 1: I may not fully understand the question, but it is stated in the manuscript that: “Thoracic operations are performed in the department of thoracic surgery and lung transplantation in Tartu University Hospital with 14 beds and 4 specialized surgeons (in Tartu), and the department of thoracic surgery in North-Estonia Medical Centre with 14 beds and 5 surgeons (in Tallinn).”

2. L99. The authors provided why the number of surgeries for lung cancer increase in Estomnia.

Reply 2: As I understand, the reviewer is interested in the reason, why did the number of lung cancer operations increase in Estonia. Although it is speculative, the possible explanations are added into the manuscript (lines 136–138).

3. L105 to L113. They should transfer them into minimally invasive thoracic surgery.

Reply 3: I do not fully agree with this suggestion, as these lines describe the evolution of lung cancer surgery, and not the implementation of minimally invasive surgery in

general.

4. First lobectomy was performed in 2006 (L107) or in 2005 (L130)?

Reply 4: As stated in the manuscript, the first VATS lobectomy was performed in 2005 (the patient had a benign disease), and first VATS lobectomy for lung cancer was performed a year later (2006).

5. Where is the first lobectomy performed?

Reply 5: It was performed in Tartu University Hospital (added into text, lines 169–170).

6. The authors should provide the schema of surgical history in Estonia.

Reply 6: The paper focuses on thoracic surgery, therefore I do not believe that providing an overview of the history of surgery in general in Estonia would be relevant in this manuscript.

Specialization and training in thoracic surgery

1. L163 too 169. I think that it is unnecessary.

Reply 7: This suggestion is a bit contradictory with the suggestions of other reviewers, therefore I would leave the brief description about specialization as it was.

2. How many general surgeons became thoracic surgeons a year?

Reply 8: None. A more detailed description about specialization in general surgery and thoracic surgery is now provided in the manuscript (lines 216–217).

3. How many lobectomies or more could thoracic surgeons experience during residency among 300 operations.

Reply 9: This number is not predefined and depends on several circumstances. The current requirements are briefly described in the manuscript (lines 218–221).

Reviewer C:

Comment: I am honored to have an opportunity to review this article describing thoracic surgery in Estonia. I have less of a sense of what it's like in thoracic surgery in Estonia, so it's very informative. Uniportal VATS as the mainstream technology and aggressive indication of surgery are also impressive. I think this paper is well written, and can be considered for publication.

Reviewer D:

Comment: A very interesting account of thoracic surgery in a developing country. Of particular interest is the challenges faced due to the political situation which contributes to poorer outcomes due to imposed delays and movement restrictions.

Reviewer E:

Laisaar provides an interesting manuscript that details the general situation of thoracic surgery in Estonia.

Comment 1: How many graduates does the medical faculty have per year?

Reply 1: There are around 150 graduates. The information has been added to the manuscript (lines 204–205).

Comment 2: Does Estonia have a full professor for thoracic surgery at the university?

Reply 2: No, there is a part-time associate professor. This information has been added into manuscript (lines 204–205).

Comment 3: For evaluation of research activities, the number of peer-reviewed articles would be of interest (statistics by the ISI database)

Reply 3: The number of publications in past 5 years has been added into manuscript (lines 235–236).

Comment 4: A table of the annual frequency of thoracic surgical procedures in Estonia during the last years would be helpful

Reply 4: This information would probably be too detailed and is not easily available. The scope of thoracic surgery in general and the total number of operations is described in the manuscript (lines 79–80 and 91–107).

Comment 5: MatrixRIB® Fixation System should be referred to DePuty Synthes manufacturer

Reply 5: A correction has been made in the manuscript (lines 106–107).

Comment 6: Line 132 typing error: completion pneumonectomy

Reply 6: A correction has been made in the manuscript (line 171).

Comment 7: How do you arrange follow-up and home care in lung cancer patients

Reply 7: A brief description has been added into the manuscript (lines 158–159).

Comment 8: Are cancer patients being recorded in a nationwide or institution-wide database for clinical and research purposes?

Reply 8: A few sentences describing the registries has been added into the manuscript (lines 117–121).

Reviewer F:

Comment: Thank you for this contribution. Firstly, I think this manuscript has both originality and importance with regards to reporting the nationwide status of thoracic

surgery in a modernized healthcare system. The manuscript describes the broad scope of the specialty and insightfully summarizes both the history and current professional status. Large parts of the manuscript have a more of a “letter-to-the-editor” style. Although those parts are well written and are interesting they dominate over the “original-report” parts of the manuscript. The clinical findings analyzing for example outcomes after oncologic pulmonary resections and outcomes after lung transplantation procedures, are for my taste too abrupt. A more complete image could be drawn out. More clinical factors summarized and presented.

Reply: The manuscript is an “invited paper by editor”, therefore the format of the manuscript should be similar to a “letter to the editor”. Some evidence from previous studies and unpublished data have been added to the manuscript to make it more informative.

Reviewer G:

I have understood the situation of thoracic surgery in Estonia. Nothing in particular.

Reviewer K:

Comment: The reviewer wants to congratulate the author on the nice introduction of the current practice of thoracic surgery in Estonia. The potential readers will read the paper with much interest. However, there are multiple grammatical and typo errors in this manuscript. The reviewer strongly recommends that the authors should ask the professional editor to check the manuscript again. Most of the contents of this article is not novel, but through this article we can understand the current practice of the thoracic surgery in Estonia.

Reply: The paper has been thoroughly re-checked.

Reviewer L:

I really appreciate this opportunity of reviewing your article.

In this manuscript, the history and current overview of the thoracic surgery in Estonia are comprehensively documented. My questions and interests are listed below, and I hope these supplements will brush up your article.

Comment 1: Some more health statistics of your country: Smoking rate and average longevity.

Reply 1: This information has been added into the manuscript (lines 57–61).

Comment 2: Brief introduction of the famous Estonian E-Health system.

Reply 2: Although Estonia is well-known for several well-functioning e-solutions, unfortunately e-health is not one of them. We have independent e-health programs in different hospitals and for general practitioners, and a state-run e-health platform, but all these do not “communicate” very well with each other. I believe it would be out of the scope of this manuscript to describe the whole e-health system in Estonia.

Comment 3: A figure or picture to impress your city/hospital/university.

Reply 3: I am happy to add pictures of our hospital, university etc. in case the journal accepts this idea.