

European Society of Thoracic Surgeons institutional accreditation

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Submitted Oct 18, 2017. Accepted for publication Apr 06, 2018.

doi: 10.21037/jtd.2018.04.54

View this article at: <http://dx.doi.org/10.21037/jtd.2018.04.54>

Introduction

In 2014 we published a paper describing the finalities and rules of engagement of the European institutional accreditation process created and supported by the European Society of Thoracic Surgeons (ESTS) (1) more than 8 years ago. The objective of the current report is to update the previous document.

Aims of the ESTS institutional accreditation

In Europe the educational and regulatory pathways of general thoracic surgery (GTS) are variable in different countries. There isn't a centralized credentialing organization or a standardized set of criteria to regulate the practice of thoracic surgery in the continent.

The program of European Institutional Accreditation (EIA) has been created in 2010 to standardize GTS practice in Europe according to current surgical guidelines. There is no intention to use this qualification to regulate the profession as this is left to the individual national professional organizations.

The first unit was certified in 2011 and since then other 13 units across Europe have been awarded the EIA certificate.

Eligibility criteria for EIA

Eligible units must be active and high-quality contributors to the ESTS Database. A minimum of 150 anatomic lung resections performed in the last three years is required. This pre-requisite is essential to reliably calculate the Composite Performance Score (CPS).

For the same reason, the ESTS Database Committee

introduced the concept of quality of data as eligibility criteria. The variables used to calculate the predicted morbidity and predicted mortality need to have a certain degree of completeness. In fact, predicted morbidity and mortality are essential to calculate risk adjusted morbidity and mortality rates used for the CPS. This minimum cut off for completeness of these two essential elements of the CPS has been set at 80%. This means that eligible centers must have more than 20% of patients without calculated predicted morbidity or mortality rates.

Units must possess several structural, procedural and qualification criteria recommended by the ESTS and EACTS thoracic domain about structural and professional qualification in GTS, which describes a series of definitions and standards required for European units and surgeons in order to practice GTS (2).

The EIA remains a program restricted to European units.

The CPS

The CPS used for the EIA is a performance metric incorporating both process and outcome indicators for lung surgery. It is based on the methodology developed by the STS Quality Measurement Adult Cardiac Surgery (3).

The methodological steps have been described in previous publications (1,4). The following process and outcome measures are included as standardized measures in the CPS: the proportion of patients with preoperative DLCO available (5,6); the proportion of patients with clinical N2 disease who received preoperative invasive nodal staging (7); the proportion of patients with intraoperative adequate nodal staging (8); risk-adjusted morbidity and

mortality rates (9).

To calculate the CPS, these indicators are rescaled according to their standard deviations and then summed.

The models for adjusting cardiopulmonary complications and 30-day mortality were recently updated. The revised regression models are now named Eurolung1 and Eurolung2 (10) and were developed from the ESTS database on a population of nearly 50,000 anatomic lung resections.

The models for morbidity (Eurolung1) and mortality (Eurolung2) are reported in details elsewhere (10,11). They contain 8 and 9 variables respectively and showed a high predictive accuracy in the original population (10).

The audit process

Once the unit has been judged to be eligible for the EIA, a letter of invitation is sent from the ESTS administrative office to invite that unit to join the program.

Substantially, the EIA is a voluntary process and units are not obliged to participate. Upon acceptance the units need to be visited by inspectors nominated by the ESTS Database Committee who will perform a local audit aimed at verifying the correspondence of a sample of data registered in the ESTS database and their clinical data source. In addition the auditors are asked to verify a series of structural, professional and procedural characteristics of the unit, which need to be in line with the ones recommended by the European structural and qualification guidelines mentioned above (2).

The inspection is performed by a team composed by professional data auditors subcontracted by ESTS (for the data audit) and by a thoracic surgeon, usually the ESTS national regent for the unit's country, who is asked to review the clinical and procedural aspects of the unit. An audit report is created by the team and forwarded to the Database Committee for review.

Structure and qualification of GTS unit

The required structural/procedural/professional characteristics were described in previous publications (1,2,4). They are referring to the institutional status of the unit, including dedicated resources and personnel; the qualification of surgeons working in the eligible unit; the operating room to thoracic procedure ration (1:300–400); access to advanced care; the structure of the thoracic ward including the number of beds (4–6 beds every 100

procedures); outpatients and inpatients diagnostic facilities; number of procedures (a minimum of 150 major thoracic operations is recommended).

The process of accreditation

The timeline of the EIA process has been recently revised.

Each year in April, CPS is calculated automatically. The eligible units are announced during the European Conference of GTS (ESTS meeting) at the end of May and then formally invited to apply for the program. The deadline for acceptance to join the program is by the end of August. Upon receipt of the payment of an administrative fee covering the local audits, the inspections are organized and usually carried on during the following months. The aim is to have the process completed by March and the executive report of the auditors and Database Committee discussed in the Executive Committee meeting of April at the very latest.

Once the EIA is approved by the ESTS Executive Committee, the certificate is awarded during the next European Conference of GTS (ESTS meeting) in May/June.

The accreditation remains valid for 3 years, which can be revalidated for other 3 years (provided the CPS remains positive). After 6 years, the entire process including the local audit must be repeated.

Acknowledgements

None.

Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

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Cite this article as: Brunelli A. European Society of Thoracic Surgeons institutional accreditation. *J Thorac Dis* 2018;10(Suppl 29):S3539-S3541. doi: 10.21037/jtd.2018.04.54