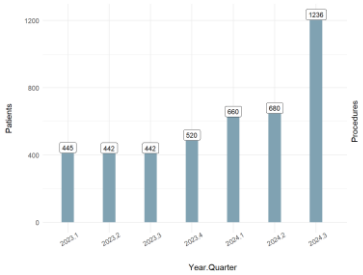
A DIFFERENT PERSPECTIVE FROM THE REGISTRY OF THE SPANISH SOCIETY OF THORACIC SURGERY

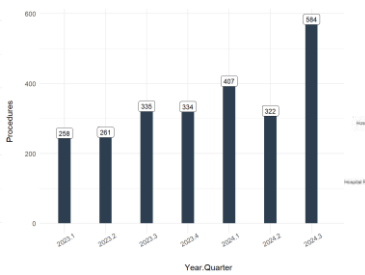
Raúl Embún
Thoracic Surgery Department. Miguel Servet University Hospital

Introduction
The Registry of the Spanish Society of Thoracic Surgery (ReSECT) is a permanent and dynamic registry of thoracic surgical procedures performed in Spain. ReSECT was registered in October 2022 (NC T05600569) with prospective patient recruitment beginning on 1 January 2023.
Previously, in September 2022, ReSECT obtained the favorable opinion of the Clinical Research Ethics Committee of Aragón (Spain), with a specific informed consent for this purpose.
The main objectives of our national registry are: 1) to promote quality of care, 2) to facilitate more efficient research, 3) to collaborate with the professional activity of our members, 4) to collaborate with other national and international registries.

Methodology
ReSECT is a longitudinal observational study designed to act as a personal registry of surgical activity of the participating professionals (operative-log functionality) and registry of surgical procedures at a department level (surgical processes).
While the operative-log functionality is retrospective and prospective, the recording of surgical processes is only prospective with respect to the activation date of each department in ReSECT.
Currently, the only active surgical process is dedicated to anatomical lung resections (ALR).
In line with the four values of the Registry, ReSECT is developing a public data science project (https://resect.netlify.app/) that aims to make known: 1) protocol and regulations of the Registry (transparency), 2) degree of contribution of users and centres (recognition of participation), 3) main results and continuous audit (credibility), 4) interactive web applications (data-driven value).

Results
Currently, 40 centers and 171 professionals are part of this project. More than 4500 patients have been recruited during the first 21 months of the project's existence, with a significant increase in the last quarter (fig 1-2). However, regarding the process of anatomical lung resections, the degree of contribution from each department is still quite heterogeneous (fig 3).





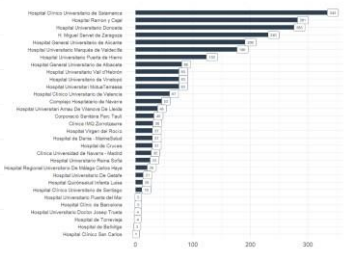
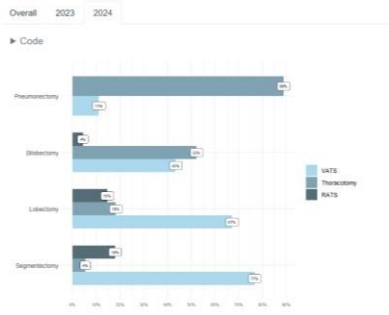
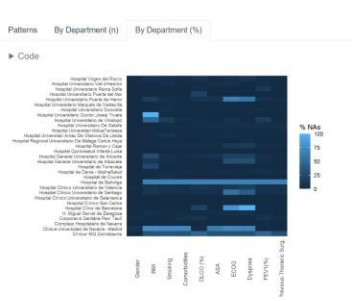


Fig 1. All Patients by quarter *Fig 2. ALR by quarter* *Fig 3. ALR by Department*

Our public scientific report, with annually aggregated results, is allowing for detailed and continuously updated insights into the evolution of some of the main clinical metrics of our activity: type of lung resection, surgical approach, postoperative stay, severity of complications and accuracy of staging for lung cancer (fig 4).
In addition, continuous audits including pace of recruitment, patterns of missing data, and rate of missing data by department for key variables are displayed with the purpose of improving quality of collected data (fig 5-6).





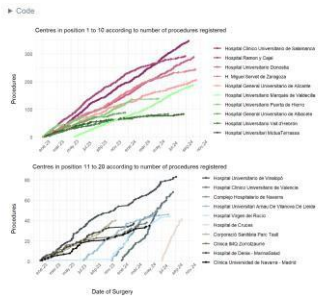
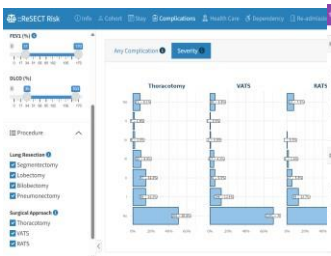
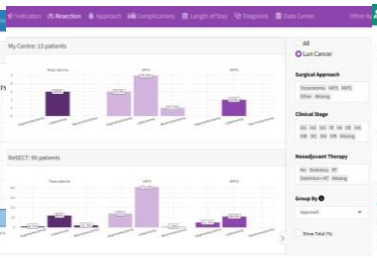


Fig 4. Resection and approach *Fig 5. Pr eop missing data by dep.* *Fig 6. Pace of recruitment*

Interactive ReSECT web applications are already sharing real-world and continuously updated results on demand, both publicly (ReSECT Risk app) and exclusively with ReSECT users (Benchmarking and Operative-log apps) (fig 7-9).





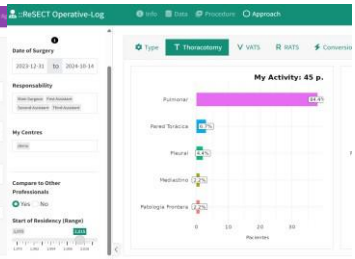


Fig 7. Public Risk App *Fig 8. Benchmarking App.* *Fig 9. Operative-log App*

Recently, an agreement between ReSECT and the ESTS database will result in the annual transfer of national data related to the process of anatomical lung resections to the European registry.

Conclusions

We believe it is important to leverage the full potential that new data science technologies offer us and thus share all the knowledge that a clinical registry in our specialty can provide in a public, continuous, and on-demand manner. We are committed to collaboration between projects to add value and progress on our path to excellence.