Knowledge Track Course

28 March – 1 April 2022
Lindner Hotel Prague Castle, Prague

CME accreditation for this event has been approved by EACCME®

Course Organiser:
Nuria Novoa, Salamanca, Spain
ESTS Director of Education
and Knowledge Track Course Coordinator

INFORMATION & REGISTRATION: www.esths.org
KNOWLEDGE TRACK COURSE
ESTS SCHOOL OF THORACIC SURGERY - KNOWLEDGE TRACK COURSE
28 March – 1 April 2022 · Prague, Czech Republic

On site
Clemens Aigner, Essen, Germany
Hasan Batirel, Istanbul, Turkey
ESTS Secretary General
Alessandro Brunelli, Leeds, UK
ESTS President
Xavier B. D’Journo, Marseille, France
Nuria Novoa, Salamanca, Spain
ESTS Director of Education
Cecilia Pompili, Verona, Italy
Enrico Ruffini, Torino, Italy
ESTS Past President

Virtual faculty
Hale Basak Caglar, Istanbul, Turkey
Laura Donahoe, Toronto, Canada
Rene Horsleben Petersen, Copenhagen, Denmark
Director of the Annual Meeting
Walter Kepletko, Vienna, Austria
Gilbert Massard, Luxembourg, Luxembourg
ESTS Past Past President
Paula Moreno, Cordoba, Spain
Isabelle Opitz, Zurich, Switzerland
ESTS Treasurer and President Elect
Alan D. Sihoe, Hong Kong
Hong Kong S.A.R, China.
David Waller, London, United Kingdom
Paul Van Schil, Antwerp, Belgium

FACULTY

Webinar
Tim Batchelor, Bristol, UK
Gaetano Rocco, New York, USA
ESTS Past President and Past Editor
# DAY 1: MONDAY 28 MARCH 2022

## MODULE 1: INTRODUCTION

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.30-14.00 h</td>
<td>Welcome, opening remarks, presentation round</td>
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<tr>
<td></td>
<td>H. Batirel</td>
</tr>
<tr>
<td>14.00-14.15 h</td>
<td>ESTS school</td>
</tr>
<tr>
<td></td>
<td>N. Novoa</td>
</tr>
<tr>
<td>14.15-14.30 h</td>
<td>The EBTS certification process</td>
</tr>
<tr>
<td></td>
<td>N. Novoa</td>
</tr>
</tbody>
</table>

## MODULE 2: PERI AND POSTOPERATIVE MANAGEMENT

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</thead>
<tbody>
<tr>
<td>14.30-14.45 h</td>
<td>Preoperative functional evaluation</td>
</tr>
<tr>
<td></td>
<td>C. Pompili</td>
</tr>
<tr>
<td>14.45-15.00 h</td>
<td>Chest tube management</td>
</tr>
<tr>
<td></td>
<td>N. Novoa</td>
</tr>
<tr>
<td>15.00-15.15 h</td>
<td>Anticoagulants, antiplatelet and stents</td>
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<tr>
<td></td>
<td>H. Batirel</td>
</tr>
<tr>
<td>15.15-15.30 h</td>
<td>Perioperative physiotherapy</td>
</tr>
<tr>
<td></td>
<td>N. Novoa</td>
</tr>
<tr>
<td>15.30-16.00 h</td>
<td>Coffee break</td>
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### WEBINAR

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>16.00-17.00 h</td>
<td>Enhanced Recovery After Surgery</td>
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<td></td>
<td>Tim Batchelor</td>
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</tbody>
</table>

### Case discussion on perioperative management

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</thead>
<tbody>
<tr>
<td>17.00-18.00 h</td>
<td>Case discussion on perioperative management</td>
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<td></td>
<td>All faculty</td>
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</tbody>
</table>

### Welcome reception at the hotel

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.30-19.00 h</td>
<td>Welcome reception at the hotel</td>
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</tbody>
</table>

### Interactive dinner

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.00 h</td>
<td>Interactive dinner</td>
</tr>
<tr>
<td></td>
<td>Possibility of attendees presenting cases: Free topic, structured presentation. Maximum 10 minutes for each case</td>
</tr>
</tbody>
</table>
### MODULE 3: WHAT TO DO WHEN THINGS GO WRONG?

- **8.30-8.50 h**  
  Management of prolonged air-leak  
  C. Pompili

- **8.50-9.10 h**  
  Management of postoperative empyema  
  N. Novoa

- **9.10-9.30 h**  
  Management of postoperative bleeding  
  A. D. Sihoe (pre-recorded)

- **9.30-9.45 h**  
  Management of cardiac complications after surgery  
  C. Pompili

- **9.45-10.00 h**  
  Management of unusual lung complications after resection  
  H. Batirel

- **10.00-10.30 h**  
  Case discussion on postoperative complications  
  All Faculty

- **10.30-11.00 h**  
  Coffee break

### MODULE 4: INFECTIOUS DISEASES OF THE LUNG

- **11.00-11.15 h**  
  Hygiene protocols in the ward  
  N. Novoa

- **11.15-11.30 h**  
  Bronchiectasis  
  C. Pompili

- **11.30-11.45 h**  
  Hydatid disease  
  H. Batirel

- **11.45-12.00 h**  
  Aspergilloma & fungal diseases  
  N. Novoa

- **12.00-12.15 h**  
  Lung abscess and lung gangrene  
  H. Batirel

- **12.15-12.30 h**  
  TB and destroyed lung  
  C. Pompili

- **12.30-13.30 h**  
  Lunch

### MODULE 5: TRACHEA AND AIRWAYS PATHOLOGY

- **13.30-13.45 h**  
  Surgical anatomy of major airways  
  C. Aigner

- **13.45-14.00 h**  
  Tumors of trachea and large airways  
  W. Kepletko (pre-recorded)

- **14.00-14.15 h**  
  Surgical treatment of tracheal inflammatory stenosis  
  C. Aigner

- **14.15-14.30 h**  
  Non-surgical treatment of tracheal stenosis: Stenting, T-Tubes  
  N. Novoa

- **14.30-14.45 h**  
  Tracheoesophageal fistula  
  H. Batirel

- **14.45-15.00 h**  
  Tracheostomy and mini-tracheostomy  
  C. Pompili

- **15.00-15.30 h**  
  Coffee break
DAY 2: TUESDAY 29 MARCH 2022

MODULE 6: CHEST WALL PATHOLOGY

15.30-15.50 h  Tumors of the chest wall and their treatment  
                    C. Aigner

15.50-16.50 h  WEBINAR  
                    Principles of chest wall reconstruction  
                    G. Rocco

16.50-17.10 h  Congenital deformities of the chest wall  
                    N. Novoa

17.10-17.25 h  Thoracic outlet syndrome  
                    C. Aigner

17.25-17.45 h  Chest wall trauma  
                    C. Pompili

17.45-18.00 h  Pros and cons of chest wall stabilization after trauma  
                    G. Massard (pre-recorded)

18.00-18.15 h  Traumatic rupture of the diaphragm  
                    N. Novoa

18.15 h  Time for questions  
                    All faculty

19.00 h
## DAY 3: WEDNESDAY 30 MARCH 2022

### MODULE 7: LUNG CANCER - DIAGNOSIS AND STAGING

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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</thead>
<tbody>
<tr>
<td>8.30-8.45 h</td>
<td>Incidence and screening of NSCLC</td>
<td>C. Pompili</td>
</tr>
<tr>
<td>8.45-9.00 h</td>
<td>TNM 8° classification and prognosis</td>
<td>E. Ruffini</td>
</tr>
<tr>
<td>9.00-9.15 h</td>
<td>The process of diagnosis and staging</td>
<td>N. Novoa</td>
</tr>
<tr>
<td>9.15-9.30 h</td>
<td>Invasive mediastinal staging: when and how</td>
<td>E. Ruffini</td>
</tr>
<tr>
<td>9.30-10.00 h</td>
<td>Case discussion of NSCLC staging</td>
<td>All Faculty</td>
</tr>
<tr>
<td>10.00-10.30 h</td>
<td>Coffee break</td>
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### MODULE 8: LUNG CANCER: BASICS OF TREATMENT

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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</thead>
<tbody>
<tr>
<td>11.00-11.15 h</td>
<td>Principles of treatment of lung cancer</td>
<td>N. Novoa</td>
</tr>
<tr>
<td>11.15-11.30 h</td>
<td>Patient selection for VATS/uniportal major resection</td>
<td>H. Batirel</td>
</tr>
<tr>
<td>11.30-11.50 h</td>
<td>The perfect systematic lymphadenectomy (technique -video based-)</td>
<td>C. Aigner</td>
</tr>
<tr>
<td>11.50-12.10 h</td>
<td>Parenchyma saving procedures 1: sublobar resections</td>
<td>C. Aigner</td>
</tr>
<tr>
<td>12.10-12.30 h</td>
<td>Parenchyma saving procedures 2: sleeve resections</td>
<td>N. Novoa</td>
</tr>
<tr>
<td>12.30-12.45 h</td>
<td>Surgical strategy for solid and GGO pulmonary nodules</td>
<td>R. Horsleben Petersen (pre-recorded)</td>
</tr>
<tr>
<td>12.45-13.00 h</td>
<td>SBRT and tumour ablation</td>
<td>H. Basak Caglar (pre-recorded)</td>
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<tr>
<td>13.00-14.00 h</td>
<td>Lunch</td>
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### MODULE 9: LUNG CANCER – ADVANCED DISEASE

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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</thead>
<tbody>
<tr>
<td>13.45-14.30 h</td>
<td>Extended resections: Indications and results in mediastinal invasion</td>
<td>N. Novoa</td>
</tr>
<tr>
<td>14.30-14.45 h</td>
<td>Combined modality strategies</td>
<td>E. Ruffini</td>
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<tr>
<td>14.45-15.45 h</td>
<td>WEBINAR</td>
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<tr>
<td>15.45-16.15 h</td>
<td>Coffee break</td>
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### MODULE 9: LUNG CANCER – WEBINAR

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.45-14.30 h</td>
<td>Target therapies and immunotherapy</td>
<td>P. Van Schil</td>
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<tr>
<td>14.45-15.45 h</td>
<td>WEBINAR</td>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>15.45-16.15 h</td>
<td>Coffee break</td>
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</table>
MODULE 10: LUNG CANCER: DIFFICULT SCENARIOS

16.15-16.30 h  Multiple metacroneous primary tumors: staging and treatment strategies
               H. Batirel

16.30-14.45 h  Stage IV: Oligometastatic disease. Definitions and treatment
               N. Novoa

16.45-17.00 h  Lung metastases
               E. Ruffini (pre-recorded)

MODULE 11: RARE LUNG TUMORS

17.00-17.15 h  Neuroendocrine tumors
               C. Aigner

17.15-17.30 h  Benign tumors of the lung
               E. Ruffini (pre-recorded)

17.30 h  Case Discussion of NSCLC
         All faculty

21.00 h  Attendees will present videos after dinner
DAY 4: THURSDAY 31 MARCH 2022

MODULE 12: MEDIASTINUM - BENIGN DISEASE

8.30-8.45 h  Mediastinitis
             N. Novoa

8.45-9.00 h  Esophageal leak and rupture: diagnosis and treatment
             X. B. D’Journo

9.00-9.15 h  Diagnosis and management of chylotorax
             N. Novoa

9.15-9.30 h  Hyperhidrosis and the sympathetic chain
             X. D’Journo

9.30-9.45 h  Thymoma: WHO and Masaoka staging
             E. Ruffini

9.45-10.00 h Indications for upfront surgery vs multimodality treatment
             E. Ruffini

10.00-10.15 h Extended resections
             E. Ruffini

10.15-10.45 h Coffee break

10.45-11.00 h Neurogenic tumors
             N. Novoa

11.00-11.15 h Germ cell tumors of the mediastinum
             L. Donahoe (pre-recorded)

11.15-11.30 h Hyperparathyroidism
             N. Novoa

MODULE 13: TUMORAL PATHOLOGY OF THE MEDIASTINUM

11.30-11.45 h Surgical anatomy of the esophagus
             N. Novoa

11.45-12.00 h GERD, hernia and short esophagus
             X. B. D’Journo

12.00-12.15 h Benign disorders: motility and diverticula
             X. B. D’Journo

12.15-12.30 h Essentials of esophageal cancer including staging
             X. B. D’Journo

12.30-12.45 h Principles of surgical treatment in esophageal cancer
             X. B. D’Journo

12.45-13.45 h Lunch
## MODULE 15: PLEURAL DISEASES

### 8.30-8.45 h
**Pneumothorax: primary and secondary**
N. Novoa

### 8.45-9.00 h
**Catamenial pneumothorax**
P. Moreno (pre-recorded)

### 9.00-9.15 h
**Management of benign pleural effusion**
E. Ruffini (pre-recorded)

### 9.15-9.30 h
**Management of malignant pleural effusion**
A. Brunelli

### 9.30-9.45 h
**Management of residual pleural space**
N. Novoa

### 9.45-10.00 h
**Pleural tumours: mesothelioma**
I. Opitz (pre-recorded)

### 10.00-10.15 h
**Other pleural tumours**
P. Moreno (pre-recorded)

### 10.15-10.30 h
**Case Discussion of Pleural Pathology**
All faculty

### 11.30-11.45 h
**Medical and surgical treatment of pulmonary hypertension**
P. Moreno (pre-recorded)

### 11.45-12.00 h
**Invasive management of emphysema**
D. Waller

### 12.00-12.15 h
**Essentials of ECMO**
P. Moreno (pre-recorded)

### 12.15-12.45 h
**Principles of lung transplantation**
P. Moreno (pre-recorded)

### 12.45-13.45 h
Lunch

## MODULE 16: RESPIRATORY FAILURE

### 11.00-11.15 h
**Idiopathic pulmonary fibrosis**
N. Novoa

### 11.15-11.30 h
**Diagnosis and classification of pulmonary hypertension**
P. Moreno (pre-recorded)

### 11.30-11.45 h
**Embryology & congenital diseases of the lung: Brief summary and frequent cases**
N. Novoa

### 11.45-12.15 h
**Diagnosis and classification of pulmonary hypertension**
P. Moreno (pre-recorded)

### 12.00-12.15 h
**Medical and surgical treatment of pulmonary hypertension**
P. Moreno (pre-recorded)

### 12.15-12.45 h
**Invasive management of emphysema**
D. Waller

### 12.45-13.45 h
Lunch

## MODULE 17: PEDIATRIC THORACIC SURGERY

### 13.45-14.00 h
**Embryology & congenital diseases of the lung: Brief summary and frequent cases**
N. Novoa

### 14.00-14.30 h
**Honorary lecture**
ESTS President Dr. Alessandro Brunelli

### 14.30-15.45 h
**ESTS Grand Prix**
All faculty/Participants

### 15.45 h
Feedback and farewell