



# European Association of Cardiothoracic Anaesthesiology



CONSORCI  
HOSPITAL GENERAL  
UNIVERSITARI  
VALÈNCIA



## Consorcio Hospital General University of Valencia. EACTA Thoracic Exchange Training Programme.

The Consorcio Hospital General University of Valencia is the oldest Hospital in Spain (more than 500 years old) with a modern and advanced equipment in a new Surgical building from 2016 ([click here](#)).

We have a wide experience to teach Thoracic Anesthesia because we organised seven international congresses in Thoracic Anesthesia so far.

Thoracic Anesthesia Section is chaired Dr. Manuel Granell (the delegate of the EACTA Thoracic Subspecialty Committee at the Education Committee) and includes six anaesthesiologists who are assigned to provide the perioperative care for the thoracic surgical patients.

**Aim:** To improve the knowledge in thoracic anaesthesia.

**Clinical activity:** The Trainees would attend to the different procedures, depending on the weekly activity. Individual schedule will be planned according to personal preferences and what is considered most interesting at that time for the trainees. A proposal of schedule can be seen below.

1. **Pre-anesthetic assessment (anesthetic evaluation, patient optimization, prehabilitation, ...):**  
(once a week)
2. **Thoracic surgery operating room** (4-5 sessions at week)
  - a. ROBOTIC THORACIC SURGERY
  - b. LASER LUNG RESECTION
  - c. THORACIC AMBULATORY SURGERY
  - d. ULTRASOUNDS (locoregional blocks, lung ultrasounds exam, transesophageal echocardiography, ...)
  - e. Types of surgery:
    - Lung / segmental / wedge /sleeve resections (open / VATS)
    - Tracheal bronchial resection surgery
    - Mediastinoscopy
    - Pleural surgery
    - Mesothelioma and hyperthermic chemotherapy
    - Lung ultrasound and transesophageal echocardiography
    - Mediastinoscopy
    - Pleural surgery
    - Sympathectomy
    - Pancoast surgery



3. **Interventional Pneumology:** including tracheobronchial stent implant, EBUS, cryo-biopsy, fiberoptic bronchoscopy (once every two weeks)
4. **Diagnostic Pneumology:** including fiberoptic bronchoscopy diagnosis, transtracheal biopsy, ... (once every two weeks)
5. **Post-operative care:** in PACU and intensive care (daily)
6. **Acute postoperative pain,** controlled by Pain Section (ward round once every two weeks)

**Objectives of the exchange rotation:** At the end of the exchange training rotation the applicant could gain knowledge in thoracic anesthesia, being exposed to a wide variety of clinical scenarios, including robotic thoracic surgery, VATS and open thoracic surgery.

**Knowledge and Clinical Exposure:** This training aims to improve knowledge regarding all the following:

**1. Assessment and patient preparation for thoracic surgery.**

**2. Advanced knowledge of airway management:**

- a. Lung isolation management (bronchial blockers like the Arndt B. Cohen, EZ Blocker, Uniblocker)
- b. Pulmonary separation management (double lumen tubes with or without embedded camera)
- c. Assessing the proper placement of the airway devices using a fiberoptic bronchoscope or an embedded camera into the endotracheal tube or double lumen tube
- d. Methods to facilitate intubation in thoracic surgery:
  - Intubation by fiberoptic bronchoscopy
  - Use of intubating introducers (e.g. Eschmann, Frova, ...) and facilitating intubation cannulas (e.g. Williams, VAMA, ...)
  - Intubation by video laryngoscope (with or without channel)
  - Exchange Catheters using double lumen tubes and /or orotracheal tube
- e. Safe extubation methods

**3. Advanced knowledge of assisted ventilation in thoracic surgery:**

- a. Outline the basic physiologic principles of OLV
- b. Apply one-lung ventilation strategy according to the principles of protective lung ventilation and open lung approach: Tidal volume - PEEP titration - Recruitment maneuvers - FiO<sub>2</sub> - Respiratory rate - Pressure-controlled ventilation vs Volume controlled ventilation
- c. Hypoxemia during one-lung ventilation: Incidence, risk factors for the development and treatment
- d. Appropriate ventilation management after lung resection: gradual re-expansion

**4. Analgesia methods in thoracic surgery:**

- a. Erector spinae block
- b. Thoracic epidural blockade
- c. Ultrasound-guided paravertebral blockade
- d. Interpleural blockade
- e. Other locoregional blockages
- f. Multimodal analgesia

## Educational



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1. Attendance at the department education sessions: once weekly, 8:00 am (surgical activity starts at 8:00 am on Monday).
2. Thoracic anesthesia teaching:
  - 2.1. First week: The basic principles of thoracic anesthesia.
  - 2.2. Second week: The advanced thoracic anesthesia (airway/ventilation/analgesia/research) according to trainee's preferences

## Research

- Basic introduction of research methodology and basic knowledge of clinical research will be available to discuss with the trainee.
- Our group is currently involved in the following studies
  1. Spanish National coordinator of PROTHOR (PROtective ventilation with high versus low PEEP during one-lung ventilation for THORacic surgery PROTHOR: A randomized controlled trial. (PROTHOR)
  2. TRIAL Research - Doctoral thesis (Directors: De Andrés JA. Granell M., Guijarro R: Director; researcher: Morales J.). Title: Prevention and treatment of acute nociceptive pain and neuropathic postoracotomy. Analgesic efficacy of intravenous lacosamide administered in the immediate preoperative period of thoracic surgery with a thoracotomy approach.
  3. TRIAL Research - Doctoral thesis (Directors: Mateo E, De Andrés JA. Granell M.; researcher: Broseta A.). 2. Ultrasound assessment of pulmonary congestion of the dependent lung in lung resection surgery.
  4. TRIAL Research - Doctoral thesis (Directors: Llagunes J, De Andrés JA. Granell M.; researcher: Cobo I.). Use of an optical system of ventilation and continuous vision in the rational management of the airway during the performance of percutaneous tracheostomies in a Critical Unit.
  5. TOSSCA facilitator (Airway management)

[More information and link to the registration form:](http://www.eacta.org/education/thoracic-exchange-training-programme)

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