

# Lead Extraction

## 1. Course Factsheet

<b>Course title</b>	Lead Extraction: Indication, Techniques and complication management		
<b>Academic Institution</b>	ERIS Institute	<b>Partner company</b>	TBC
<b>Dates</b>	24 – 26 November 2026	<b>Duration</b>	23 hours (In 3 days)
<b>Venue / Modality</b>	Brussels (Vrije University Brussels)		
<b>Course directors</b>	Mark La Meir, Jose Guerra, Serge Boveda		
<b>Overall learning goals</b>	<ul style="list-style-type: none"> <li>• Introduce lead-management practice to cardiologists &amp; cardiac surgeons aiming to set up or expand this activity in their centers</li> <li>• Provide a solid grasp of indications (infective &amp; non-infective), extraction techniques (manual, mechanical, laser) and complication prevention/management</li> </ul>		
<b>Certified competencies</b>	<ul style="list-style-type: none"> <li>• Case selection, extraction workflow, lead-locking device workflow, active (laser, mechanical, haptic force) lead extraction, CIED reimplantation strategies, complication prevention and management.</li> </ul>		
<b>Material provided</b>	<ul style="list-style-type: none"> <li>• Digital manual</li> <li>• OR checklist</li> <li>• Access to ERIS INSTITUTE Academy</li> </ul>		
<b>Assessment</b>	<ul style="list-style-type: none"> <li>• Daily quiz</li> <li>• Final practical exam (certification model TBD)</li> </ul>		
<b>Credits / certificate</b>	ERIS Institute		
<b>Faculties</b> (6 Faculties in total)	VUB Faculty: Mark La Meir, Ines Van Loo, Ingrid Overeinder, Alexandre Almorad, Ivan Eltsov Non VUB BE: Frederic Van Heuverswym External Non BE: Serge Boveda, Brigitte Oswald, Pascal Defaye		
<b>Course coordination</b>	Ivan Eltsov. Email: <a href="mailto:ivan.eltsov@vub.be">ivan.eltsov@vub.be</a>		

## 2. Detailed Programme

### Mandatory e-learning (before the in-person Course)

Pre learning contain different modules for surgeons and cardiologists.

All modules (TBD) before logging in to the live Day 1 session.

### Day 1 – Theory & Technology Basics

Time	Session	Speaker
09:00 – 09:30	Introduction and History	Serge Boveda
09:30 – 10:00	Recommendations (EHRA positioning paper)	Serge Boveda
BREAK		
10:20 – 10:50	Non Infections indications (All others, MRI/Chronic Pain, Abandoned Leads)	Alexandre Almorad
10:50 – 11:20	Risks and Benefits (Lexicon Paper/Electra)	Pascal Defaye
11:20 – 11:50	Approaches (Superior, Femoral, Surgical)	Mark La Meir/Brigitte Oswald
11:50 – 12:50	Lead Preparation (Type of lead PM/ICD/LV)	Frederic Van Heuverswym
LUNCH BREAK		
14:00 – 16:00	Techniques (Manual/Mechanical/Laser)	Pascal Defaye/Ines Van Loo
BREAK		
16:15 – 17:45	Safety (Complications, Rescue Balloon)	Brigitte Oswald/Mark La Meir

### Day 2 – Supervised Simulation (on-site, rotating groups)

The nine participants will be split into three groups. Each group spends 90 minutes at a station, rotates, and repeats until all have completed every activity.

Faculties for Day 2: the 3 course directors + VUB staff for extra support or questions (Ines Van Loo, Ingrid Overeinder, Alexandre Almorad, Ivan Eltsov) All rotating – total 4 faculties

- Station A: Laser Lead Extraction
- Station B: Mechanical Lead Extraction
- Station C: Haptic Force Lead Extraction

Time	Group 1	Group 2	Group 3	Faculty lead
09:00 – 10:30	Station A	Station B	Station C	Faculty rotation
10:45– 12:15	Station B	Station C	Station A	Faculty rotation
12:30 – 14:00	Station C	Station A	Station B	Faculty rotation
14:00 – 15:00	LUNCH BREAK			
15:00 – 16:30	Open practice in any Station			Faculty rotation
16:30 – 17:30	Consolidation & debrief			Panel

### Day 3 – Clinical Immersion: real-life conditions & live cases observation

Participants remain in the same three groups of three. For each of the three patients, one group attends the procedure in the Lab VUB, while the other two groups observe in the retransmission room with live faculty commentary and interaction. Groups rotate so everyone experiences at least one case in the lab.

**Operators:** Faculties for Day 3: the 3 course directors (Jose Guerra, Alex Almorad, Serge Boveda for interaction in the retransmission room) + Staff from VUB (Mark La Meir, Ines Van Loo - operators, Ingrid Overeinder/Ivan Eltsov – explanations in the OR)

2 faculties in transmission room, 1 operator and 1 for explanations in the OR

Time	Group 1	Group 2	Group 3	Patient / Notes
09:00 – 10:15	Lab VUB	Retransmission room	Retransmission room	Patient 1
10:15 – 11:15	Debrief and Break			
11:15 – 12:30	Retransmission room	Lab VUB	Retransmission room	Patient 2
12:30 – 14:00	Debrief and Lunch Break			
14:00 – 15:15	Retransmission room	Retransmission room	Lab VUB	Patient 3
15:15 – 16:00	Group debrief and Break			
16:00 – 16:30	Evaluation Certification & closing			

### 3. Participants

**Total: 9** (3 groups of 3)

**Selection:** CV submission and final validation by the ERIS Board

#### Requirements

- Cardiologists experienced with transvenous CIED implantation (actively implanting) and some surgical experience
- Cardiac Surgeons with CIED knowledge and motivation for the subject.

### 4.