

# EndoVascular resuscitation, bleeding and Trauma Management (EVTM)

## Hands-on Workshop



**Örebro, Sweden 2<sup>nd</sup> December 2021**

*Endovascular and hybrid solutions for the bleeding patient;*  
Aortic balloon occlusion (*REBOA*) usage, Vascular Access, Embolization,  
Imaging, Endografts, ECMO, SAAP and modern techniques in Resuscitation

**EVTM international instructors (Preliminary, depends on travel restrictions; TBA)**

Martin Malina(UK), Claes Forsell (SE), Ken Boffard (ZA), Boris Kessel (IL), Viktor Reva (RU), Ernest Moore (US), Frank Plani (Za), Artai Pirouzram(SE), Lionel Lamhault (FR), Chuk Fox (US); Paul Rees (UK), Offer Galili (IL), Gad Shaked (IL), Jon Barratt (UK)

Dept. of Cardiothoracic and Vascular Surgery, Dept. of General Surgery,  
Dept. of Anesthesia and Intensive Care, Örebro University Hospital, Sweden

**Local team:** Maria Wikström, Emanuel Dogan, Anna Stene,  
Monica Clomén, Nina Adolfsson, Jonas Berlin, Johan Josefsson, Mitra Sadeghi, David McGreevy

**Target:** Surgeons, Trauma, Vascular, IR, ED, Intensivists and Military with interest in trauma/bleeding/resuscitation, emergency & pre-hospital teams

**Date:** 2<sup>nd</sup> December 2021 at Örebro University Hospital Experimental training center

**Workshop Director:** Dr. Tal Hörer MD, PhD, Associate Professor of Surgery

**Workshop Secretary / Registration:** MKON office via [jevtm.com](http://jevtm.com) website/registration

**Cost** (cover expenses only): 300€, 200€ for EVTMM Society members

**Partners:** Örebro University Hospital and TBA

The aim of this one day workshop is to stimulate discussion, mutual learning and sharing of experiences while practicing EndoVascular resuscitation and Trauma Management (EVTMM) using a multidisciplinary team approach. “No ego, just good science and cooperation” is the main motion of the event. It is built on an individual, professional level and we will together explore different methods for resuscitation, bleeding control and trauma management. Some methods used clinically world-wide while some are under developments and have been used in selected patients.

- Vascular access:
  - Different methods (blind, doppler, ultrasound, fluoroscopy and cut down)
  - Its use in hemodynamic unstable patients
- Aortic Balloon Occlusion (REBOA) basic and advanced methods and SAAP
- Basic and advanced endograft and embolization methods
- Damage Control EVTMM and Bailout methods
- Basic and advanced postoperative considerations
- Up-to-date research and clinical experience
- ABOTrauma Registry cases; Local and international cases
- Knowledge of basic material and new technologies on the market
- Intensive training on live tissue
- ICU and ECMO aspects
- Basics for building an “EVTMM service”
- Advanced experimental methods in resuscitation

The workshop is designed for experienced physicians but is individually tailored during the practical parts. Participants will get basic training and knowledge of REBOA placement as part of the EVTMM concept. The workshop has been certificated by the EACCME and acknowledged by collaboration with societies like the European Society for Trauma and Acute Care Surgery, the European vascular society and others.

## **Program at the experimental training center, USÖ**

07:30 Gathering/changing at the Training Center (2<sup>nd</sup> floor)

07:30-08:40 “EVTMM review - what can we do?”

08:40-09:30 Breakfast with the industry. Short presentations on EVTMM issues

09:30-15:00 Hands-on animal lab including:

Every station is led by a highly experienced instructor with one-to-one training on live tissue as well as group scenario discussions. (Lunch and coffee will be served in the lab) Changing stations according to interest is encouraged.

### **Practical training points in the animal lab:**

1. Material usage in bleeding patients, general considerations and management scenarios
2. Vascular Access
  - Basic principles/advanced methods
  - Cut down techniques
  - Endoshunts (and shunts)
  - Hybrid procedures
  - Puncture methods
  - Seldinger technique
  - The failing access - alternatives
  - Venous access and Ultrasound
3. Upgrading/introducers/guide wires
4. REBOA
  - Material and REBOA kit
  - Deflation and re-positioning
  - Intermittent/Partial inflation (MAP as target - iREBOA/pREBOA)
  - Ongoing bleeding practice
  - CPR procedures and pending arrest
5. ECMO practical use with tips and tricks
6. Embolization – from coils to fluid embolization, with hands on practice
7. Endografts for bleeders with practical use; Principles of SAAP and other advanced methods.

As times allows and based on individual level:

8. Balloon in alternate locations (Iliac, Subclavian, Brachiocephalic trunk/Zone 1 neck)
9. Aortography and Angiography considerations (type, volume etc.)
10. Bailouts in endovascular and hybrid surgery

15:00 End of workshop and evaluation

“No ego, just good science and cooperation”