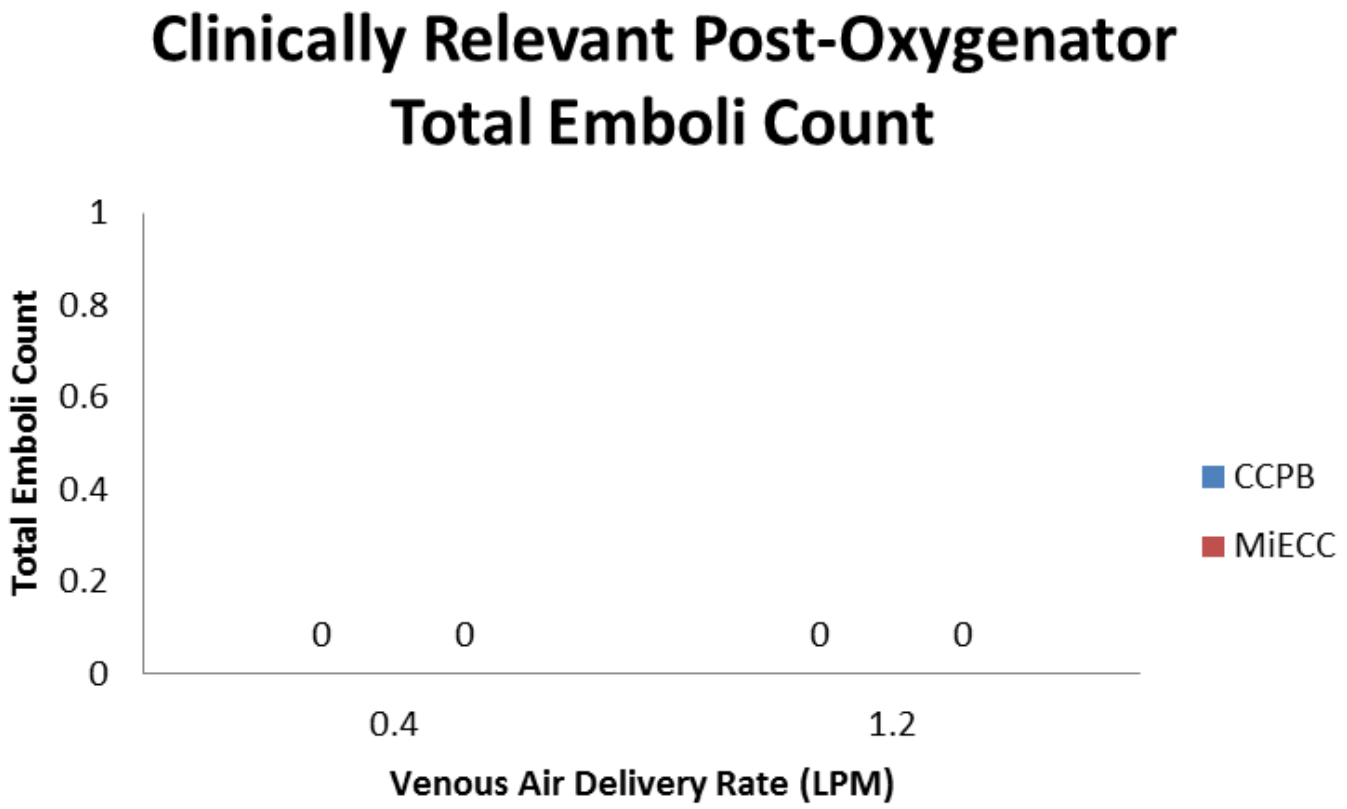
Results



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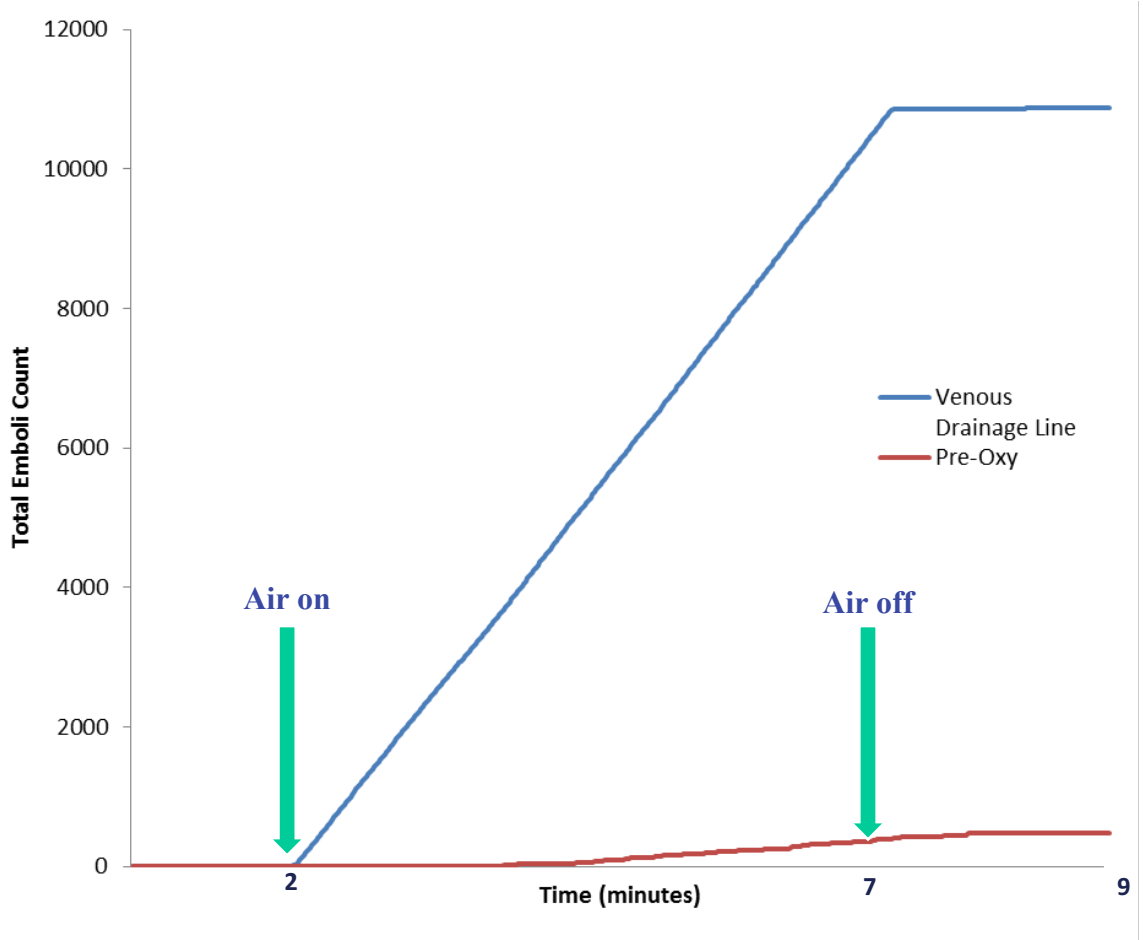
CCPB Emboli Count @ 1.2LPM



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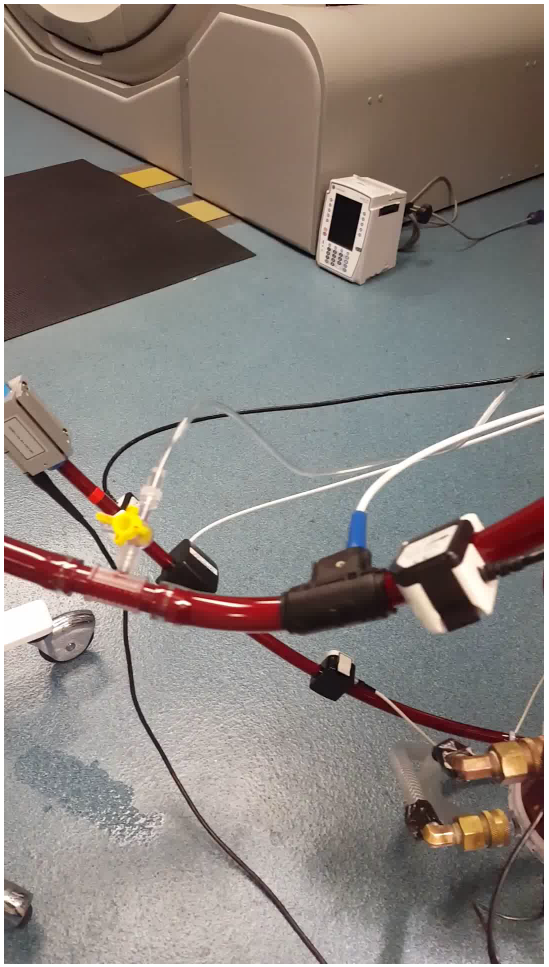
CCPB @ 1.2LPM



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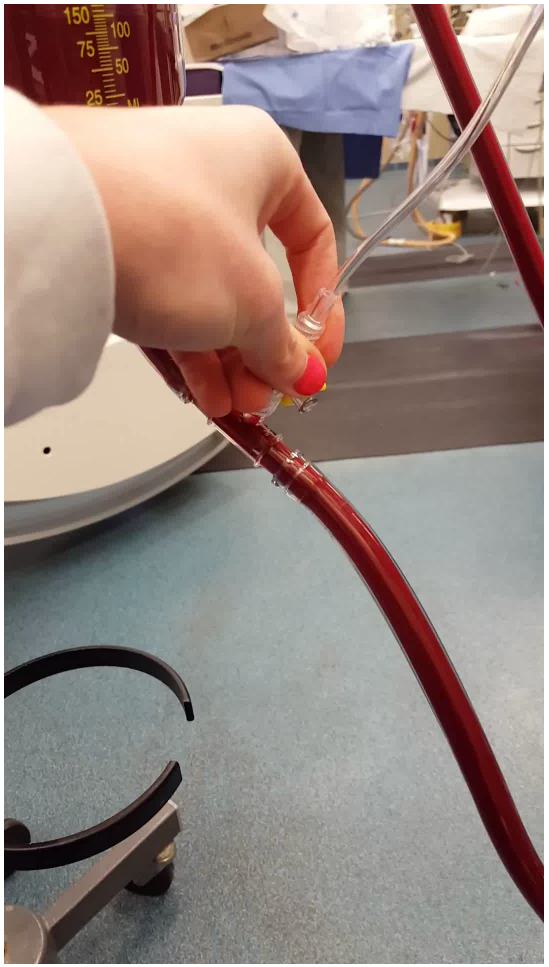
MiECC @ 1.2LPM



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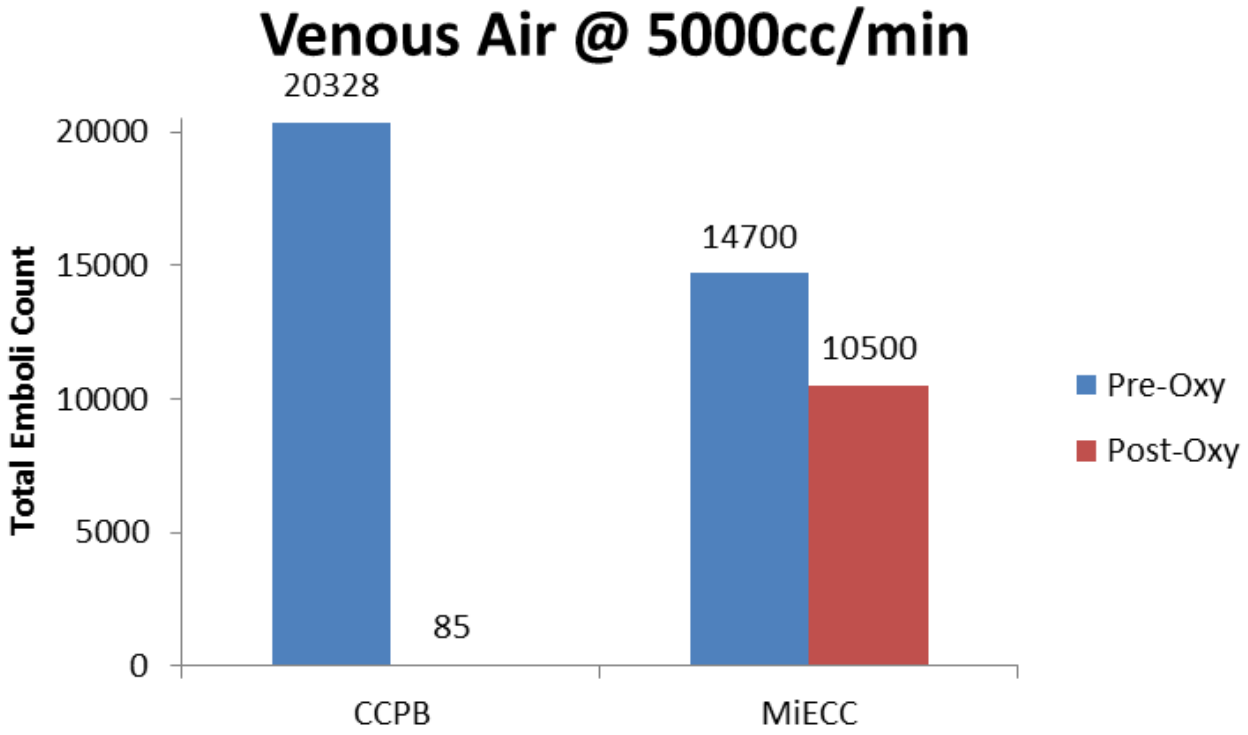
Results - Extreme Situation



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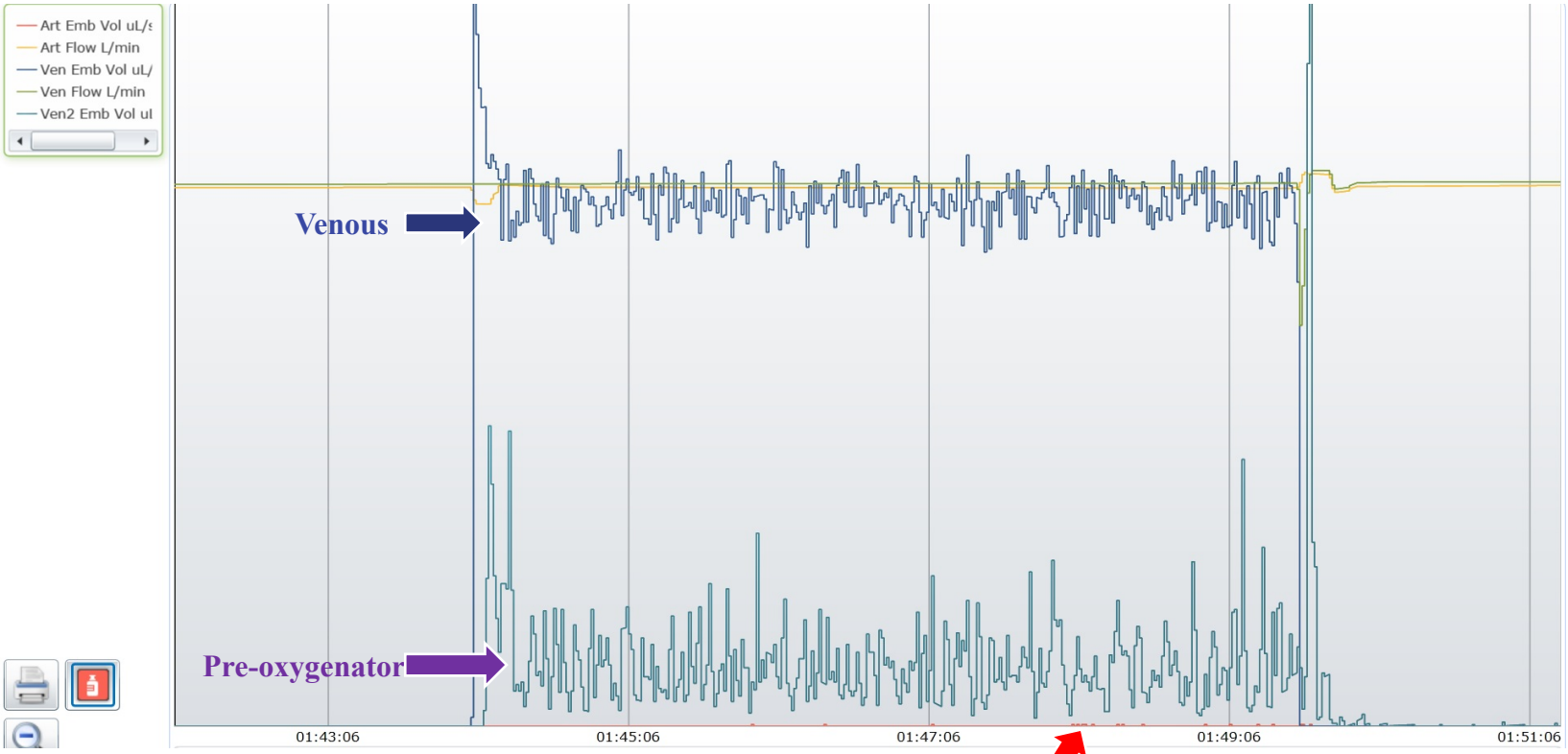
CCPB @ 5LPM



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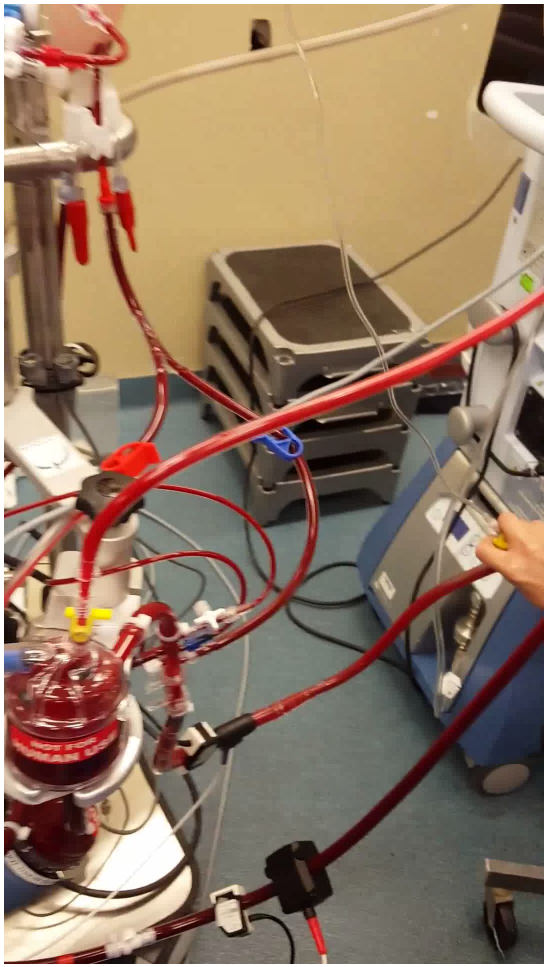
MiECC @ 5LPM



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Discussion

- CCPB had more pre-oxygenator emboli than MiECC (@ 1.2 & 5 LPM)
  - MiECC actively removed venous air with the VARD
  - CCPB venous screen filter became overwhelmed

Discussion

- Continuously losing volume with the VARD
  - Average blood loss of 1500 ml observed during MiECC trials
  - This blood must be returned to patient

Conclusion

- MiECC comparable to CCPB when handling venous air @ 400 & 1200 mL/min
  - no post-oxygenator emboli detected

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Adoptation of MiECC?

- Air handling is not a valid reason to exclude the use of MiECC in clinical practice

Conventional versus Minimally Invasive extra-corporeal circulation in patients undergoing Cardiac Surgery: a randomised controlled trial (COMICS)

Chris Rogers

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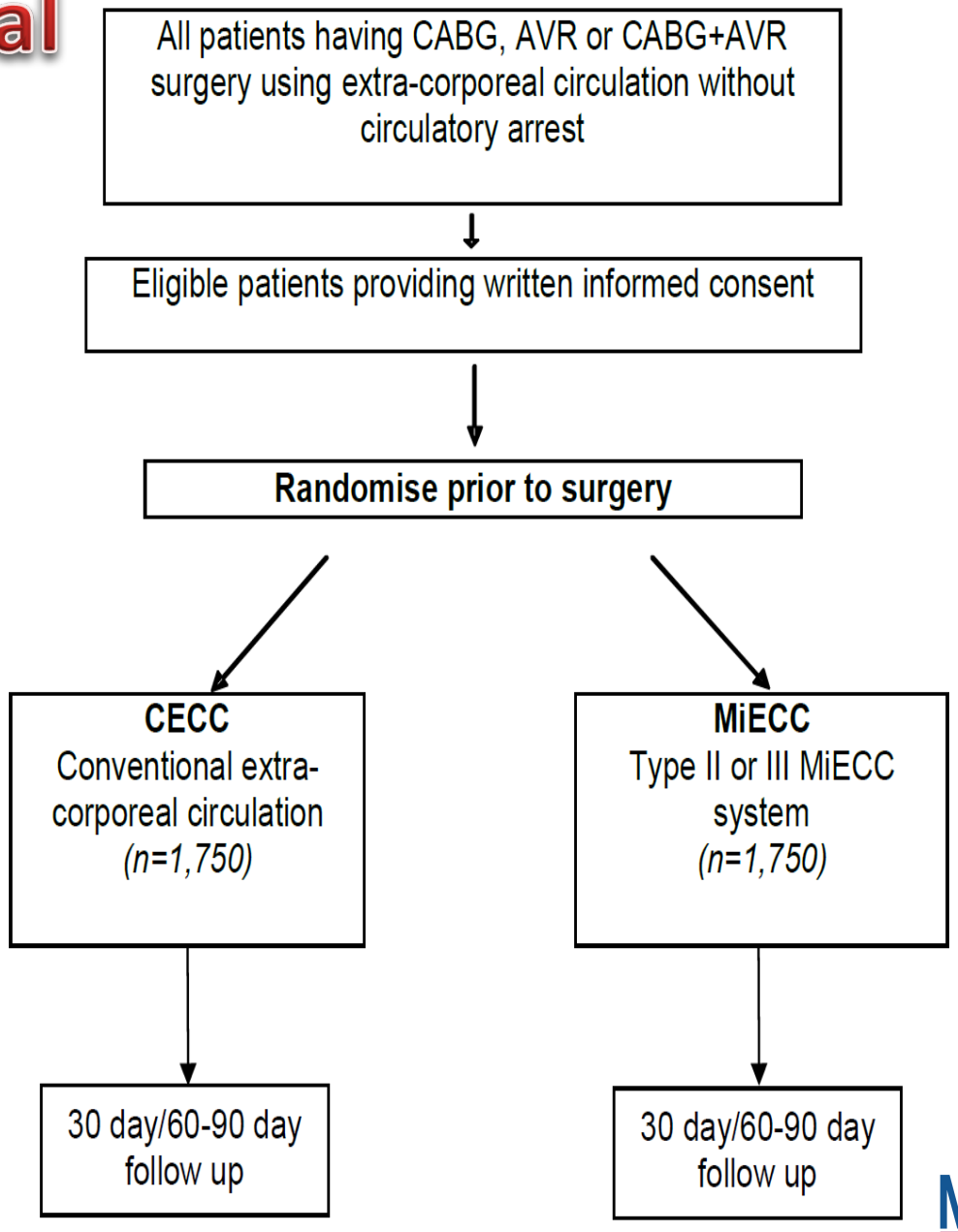
CoMICs trial



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MiECTiS Minimal Invasive Extracorporeal Technologies International Society

CoMICs trial

Primary outcome

composite of post-operative SAEs up to 30 days

- death
- myocardial infarction
- stroke
- gut infarction
- AKI
- reintubation
- tracheostomy
- mechanical ventilation for >48 hours
- reoperation
- sternal wound infection
- septicaemia

Secondary outcome

- all-cause mortality 30 days after randomization
- other SAEs 30 days after randomization
- units of RBC transfused up to 30 days
- other blood products transfused up to 30 days
- time to discharge from cardiac ICU
- time to discharge from hospital
- health-related quality of life up to 90 days
- health and social care resources and costs up to 90 days

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MiECTiS Minimal Invasive Extracorporeal Technologies International Society

CoMICs trial

Participating Centres

MiECTiS Minimal Invasive Extracorporeal Technologies International Society

Thessaloniki Greece	Bern Switzerland	Braunschweig Germany	Regensburg Germany
Coswig Germany	Bad Oeynhausen Germany	Cologne Germany	Berlin Germany
Ulm Germany	Maastricht The Netherlands	Ankara Turkey	Singapore Singapore
Plymouth UK	Hull UK	London UK	Bristol UK
Monza Italy	Bari (1) Italy	Bari (2) Italy	Torino Italy
London Canada	Toronto Canada	Dammam Saudi Arabia	Jerusalem Israel

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In Press, Accepted Manuscript — Note to users

MiECT

Minimal invasive Extracorporeal Circulation (MiECC); towards a more physiologic perfusion ☆

Kyriakos Anastasiadis*, Polychronis Antonitsis*, Marco Ranucci†, John Murkin‡, on behalf of the Minimal invasive Extracorporeal Technologies international Society (MiECTiS)

doi:10.1053/j.jvca.2016.01.018

We believe that the goal of a **"more physiologic" perfusion is mandatory** in the modern era of cardiac surgery.

Therefore, we advocate that MiECC should be integrated in the clinical practice guidelines and become the standard technique in cardiac surgery.

MiECTiS

UHN Toronto General Hospital

Webinar

Live: www.miectis.org

Watch live

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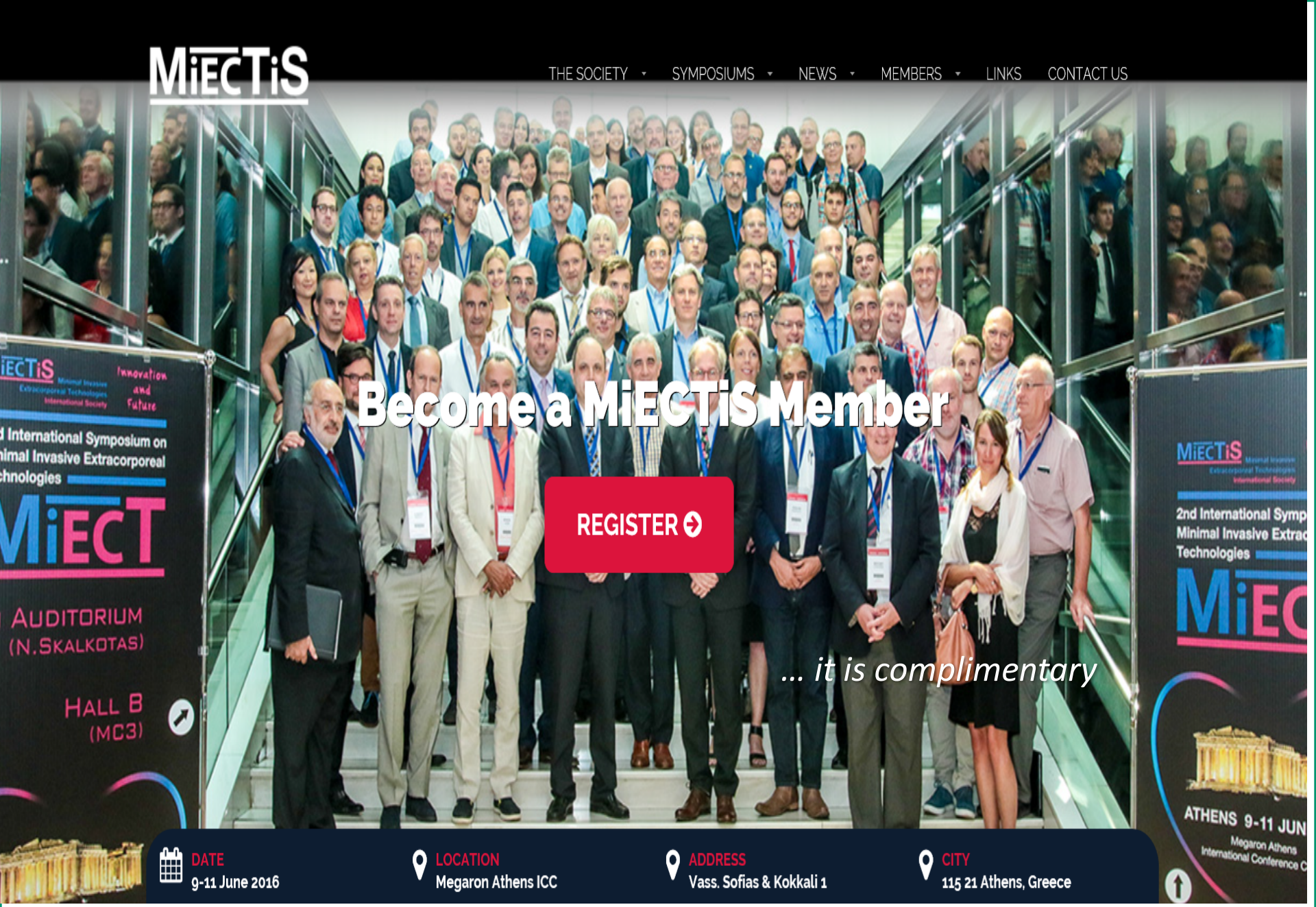

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