



*The Intensive Connection*

# ARF SECTION MEETING

07.10.2024 – L. Piquilloud

Training Programme  
*Together*  
WE ARE INTENSIVE CARE  
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- Welcome Prof. Leo Heunks, new chair elect
- Year 2024 – short summary of the section activities
- Positions available
- Call for research projects and presentation of the 4 selected to be endorsed
- Transition safe

# AGENDA

Training Programme  
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# Minutes

- No comments on the agenda, no additional subjects proposed

# WELCOME



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**Prof. Leo Heunks**  
**Head of the Intensive care Unit**  
**Radboud University**  
**Nijmegen- The Netherlands**

# NEW CHAIR ELECT OF THE ARF SECTION

**Training Programme**  
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# Minutes

- L.Piquilloud introduces Leo who then shortly introduced himself.
- Leo is congratulated for his nomination as the next section chair



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# ARF SECTION- YEAR 2024

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# Educational activities 2024

- Masterclass on Mechanical ventilation and Acute respiratory failure



Level 1. Foundation  
Course in ARF & MV

- **Foundamental levels** in March 2024 was a great success with very good feedbacks



Level 2. Transition  
Course in ARF & MV  
Dates: June 27-28, 2024

- **Intermediate course** on 28th and 29th of June. More than 70 fellows registered. Very good feedback.



Adv Course in ARF &  
MV  
Dates: October 05-06, 2024

**Advanced course** at LIVES 2024 on Saturday and Sunday: a lot of fun, waiting for the feedbacks

**+ first fellowship (founded by ESICM) in Parc Taulí Hospital Universitari (Prof O.Roca)**

# Other scientific activities 2024

- Webinars 2023-2024



**5 webinars, 11 speakers**

- Link platform: experts identified, test ok with the platform



**Tele-expertise platform**

- Next podcasts: 2 recordings done (Dysnpea, Oesophaegal pressure monitoring) and one planned (Ventilation in COPD)



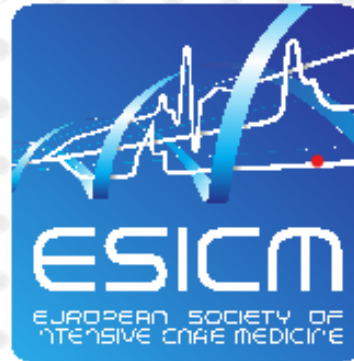
Always looking for colleagues who can contribute → an online form will be sent to you at the end of the year so that you can indicate your interest



# Minutes

- No comments about the “review of the year” from the audience

# POSITIONS AVAILABLE



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- Research committee representative
- CTC committee (education)

You can send your candidacy by e-mail with a short motivation letter and CV

➔ [Lise.piquilloud@chuv.ch](mailto:Lise.piquilloud@chuv.ch)

[leo.heunks@radboudumc.nl](mailto:leo.heunks@radboudumc.nl)

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# Minutes

- Some questions about the roles of the representatives.
- Several members express their potential interest. They are ask to confirm their interest by e-mail.

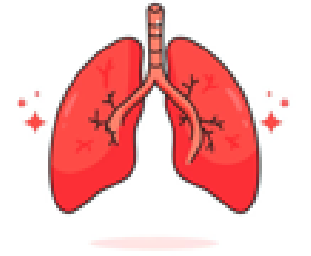
# Research

- Call for proposal that could be done with the help of the section
  - 20 proposals received
  - 4 preselected
    - 2 surveys
    - 1 observational prospective projects
    - 1 other (validation study, prospective)
- ➔ These projects will now be presented

# Minutes

- No particular comment about this feedback.

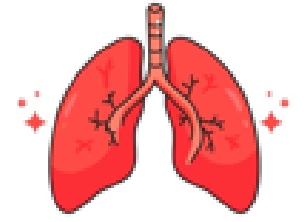
# PROJECT 1



## External validation of the BREF models for estimating the breathing effort during high-flow oxygen therapy

Alessandro Santini  
IRCCS Humanitas Research Hospital, Milan, Italy

# What are the BREF models?



Two models to predict the inspiratory effort during high-flow oxygen therapy (HFNC):

- One model predicts the esophageal pressure swing ( $\Delta P_{es}$ ) in  $\text{cmH}_2\text{O}$
- The other model predicts the risk of  $\Delta P_{es}$  being  $>10 \text{ cmH}_2\text{O}$

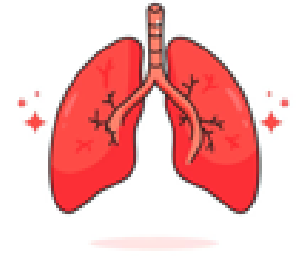
Both models are based on three variables:

- Arterial base excess ( $\text{mmol/L}$ )
- Respiratory rate ( $\text{bpm}$ )
- $\text{PaO}_2:\text{FiO}_2$  ( $\text{mmHg}$ )

Predictive performance:

- Adjusted  $R^2$  0.39 for the actual  $\Delta P_{es}$
- AUROC 0.79 (0.73-0.85) for the risk of  $\Delta P_{es}$  being  $>10 \text{ cmH}_2\text{O}$

# What are we planning to do?

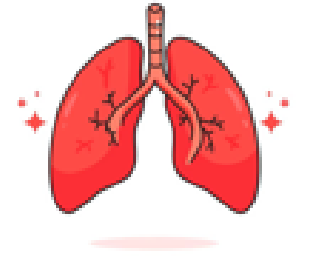


To run a multicenter observational study in 250 patients on HFNC and  $\Delta P_{es}$  monitored with an esophageal balloon for a clinical reason:

- 1) Estimate the inspiratory effort with the two BREF models and compare the results with the actual  $\Delta p_{es}$  > **external validation**
- 2) Update the BREF models with other variables (for instance, whether the accessory muscles are activated or not, the severity of dyspnea, and the circulating level of C-reactive protein) > **model update**
- 3) Ask physicians to estimate the inspiratory effort of their patients and then compare their performance with that of the BREF models > **clinical utility**



# Where are we now?



The study should start at the beginning of 2025

- Our local IRB asked for minor changes to the consent form (conditional approval)
- Seven Italian centers expressed their interest in participating
- We are looking for other centers to participate

For any other info, please contact us at **alessandro.santini@hunimed.eu** or **alessandro.protti@hunimed.eu**

# Minutes

- The BREF project was presented.
- Good feedbacks from the audience
- Potentially interested centers can contact the investigators by e mail:  
**alessandro.santini@hunimed.eu** or  
**alessandro.protti@hunimed.eu**

## PROJECT 2

*“Inhaled drug delivery in patients with respiratory support: International observational study.”*

Jonathan Dugernier, PT, PhD

Professeur associé, Haute Ecole Arc Santé

Physiotherapist, Réseau hospitalier neuchâtelois

Switzerland

Prof Stephan Ehrmann, MD, PhD

Médecine intensive et réanimation

CHRU de Tours

France

Prof Ignacio Martin-Loeches, MD, PhD, FJFICMI

Department of Intensive Care Medicine

St James's Hospital

Ireland

Prof Antonio Artigas, MD, PhD

Critical Care Center

Sabadell Hospital

Spain

# Minutes

- The project is presented by Stephan Ehrmann.
- Questions asked about the possible supports from the section for such a project.
  - ➔ The section chairs are available to:
    - Review the full project
    - Present it to the research section chair of the society
    - Share the information they can obtain regarding the ethics committee approvals in the different countries ( same answers as the one that are needed for the TRANSISAFE project)

## PROJECT 3



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**37<sup>TH</sup> ANNUAL  
CONGRESS**  
**05-09 OCTOBER**



[www.esicm.org](http://www.esicm.org)

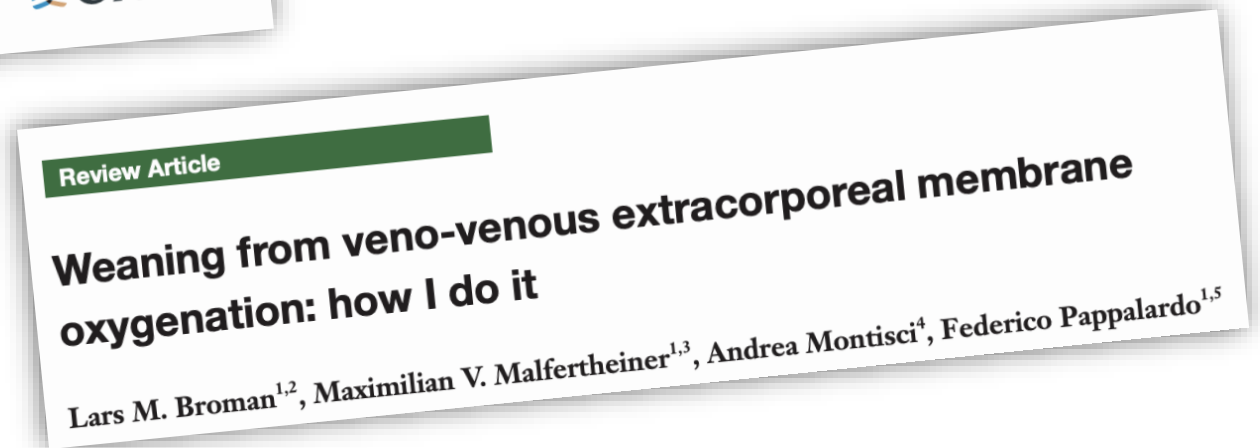
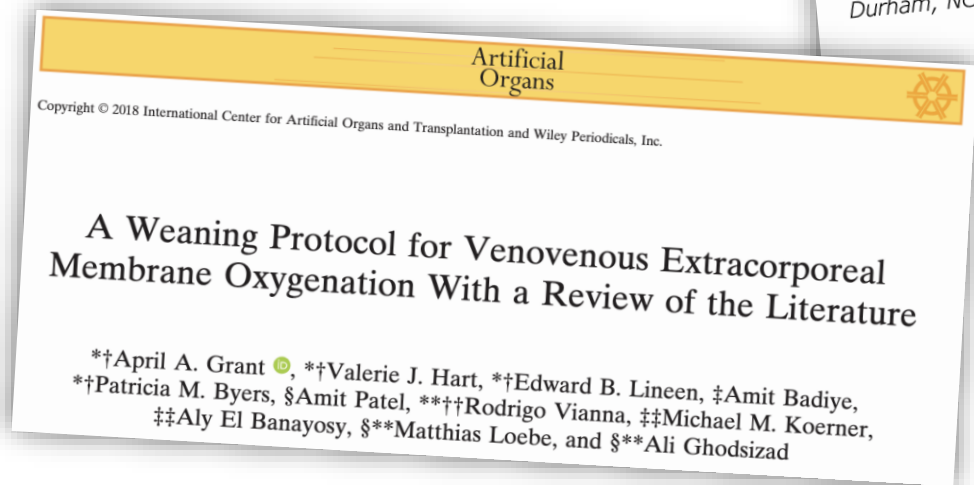
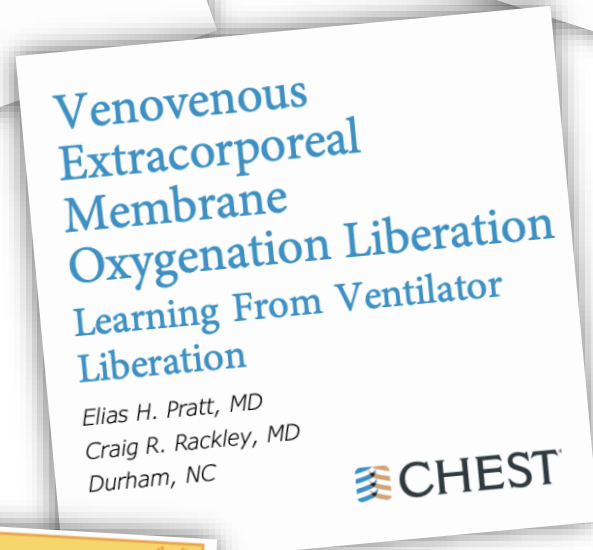
## SURVEY PROPOSAL – ESICM ARF Section

Current practices for weaning from V-V ECMO:  
the **WEAN-ECMO** survey

Maria Teresa Passarelli

Marco Giani

# Rationale



# Rationale

## Heterogeneity:


- Timing of weaning trial (Sweep Gas Off Test)
  - Patient screening (criteria?)
  - **Duration of the gas off test**
  - **Ventilation modality during ECMO weaning**
    - **controlled MV** (PCV - ACV)
- vs
- **assisted MV** (PSV)
- vs
- **No MV** (extubation before ECMO weaning)

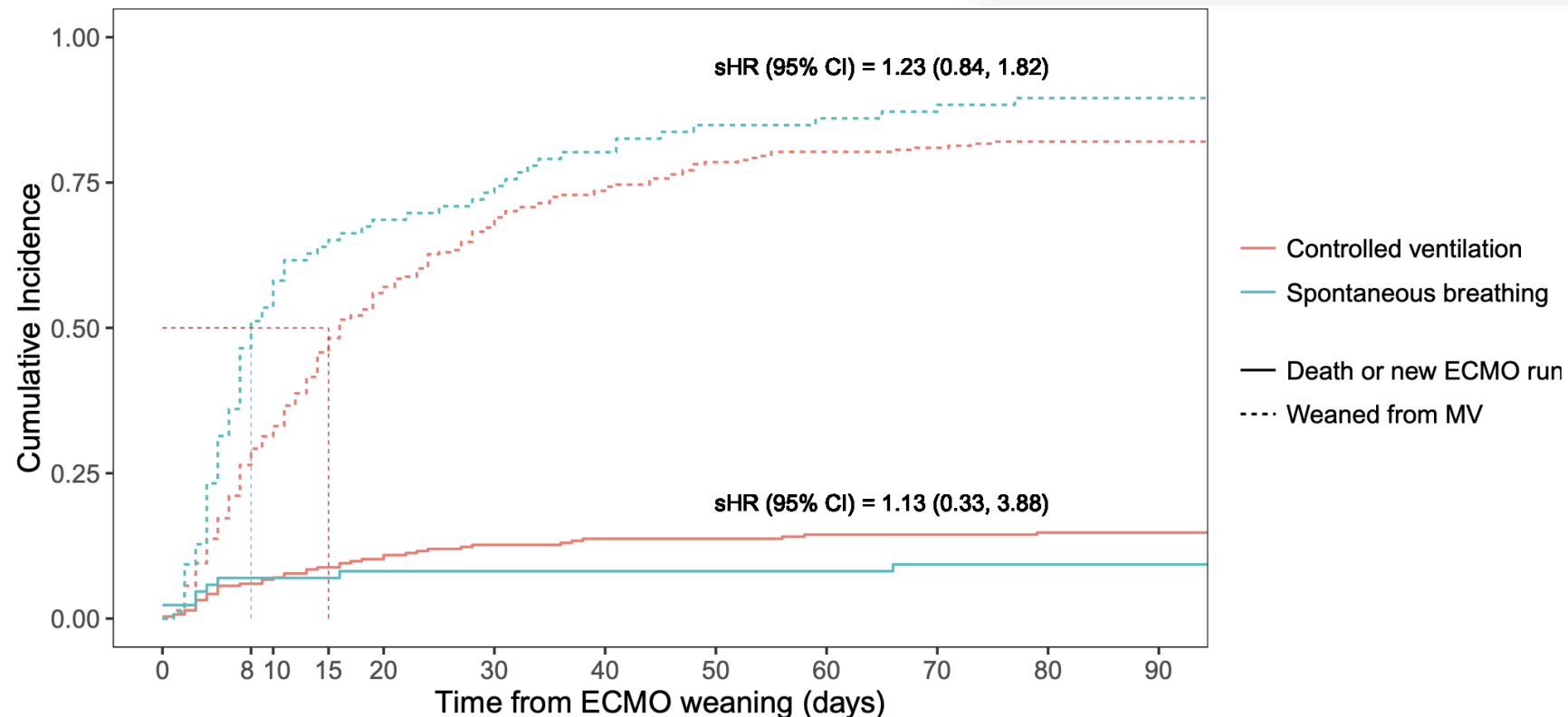
RESEARCH

Open Access



# Mechanical ventilation settings during weaning from venovenous extracorporeal membrane oxygenation

Maria Teresa Passarelli<sup>1,2</sup>, Matthieu Petit<sup>3</sup>, Roberta Garberi<sup>1,2</sup>, Guillaume Lebreton<sup>4,5</sup>, Charles Edouard Luyt<sup>3,4</sup>, Marc Pineton De Chambrun<sup>3</sup>, Juliette Chommeloux<sup>3</sup>, Guillaume Hékimian<sup>3</sup>, Emanuele Rezoagli<sup>1,2</sup>, Giuseppe Foti<sup>1,2</sup>, Alain Combes<sup>3,4</sup>, Marco Giani<sup>1,2</sup> and Matthieu Schmidt<sup>3,4\*</sup> 





# Survey design

International, multicenter, cross-sectional survey.

Four sections:

**Center Information**

1

**Timing and screening  
criteria for weaning test**

2

**Sweep gas-off trial**

3

**Ventilation modality during  
the ECMO weaning phase**

4

# Aims and expectations

- This heterogeneity highlights the need for a structured, evidence-based approach to ECMO weaning
- An international survey can help
  - To **gather insights** into the **practices** and decision-making processes related to V-V ECMO weaning across different countries.
  - To produce a **descriptive analysis** highlighting the **current state of the art** in V-V ECMO weaning.
  - To provide valuable insights that could **shape future research** in the relatively unexplored domain of **V-V ECMO weaning**.

# Working group

Maria Teresa Passarelli

Giacomo Grasselli

Jordi Riera

Gennaro Martucci

Vito Fanelli

Alain Combes

Daniel Brodie

Matthieu Schmidt

Marco Giani

...

To join the project contact us at

[passarellimariateresa@gmail.com](mailto:passarellimariateresa@gmail.com)

[marco.giani@unimib.it](mailto:marco.giani@unimib.it)

# Minutes

- The survey is presented by the investigators.
- Good feedbacks from the audience: interesting project.
- Potential difficulty raised: sending the survey to a lot of people with very few answers in the end. This should be avoided if possible. Question is raised about targeting the people who are going to receive the survey.
- The section supports this survey. This information will be transmitted by L.Piquilloud to the ESICM survey section. In addition, Leo and Lise are available to review the final proposal.

## PROJECT 4

“Surveying the Landscape: Anticoagulation Management in Pediatric ECMO Patients Across Europe”

Dr Cattaneo

# Minutes

- The section supports this survey. This information will be transmitted by L.Piquilloud to the ESICM survey section. In addition, Leo and Lise are available to review the final proposal.

# THE “SAFE” TRILOGY

## LUNG-SAFE UPDATE: STUDY FINDINGS



**SWITCH- SAFE**



- **The IDEA**
  - To look at the practice in the transition phase from controlled to assisted ventilation
  - To correlate practices with outcome
- **STILL A LOT OF PRACTICAL ISSUES TO SOLVE BUT ALREADY LOOKING FOR NATIONAL COORDINATORS** (if interested, send me an e-mail: [lise.piquilloud@chuv.ch](mailto:lise.piquilloud@chuv.ch))

# Minutes

- The project is presented by Lise
- Current phase of the project: preliminary.
  - The project has been presented to the research section of the society that is interested supporting.
  - However concrete support not formally discussed yet.
  - A lot of practical aspects still have to be solved
- The recruitment for national representatives is opened ➡ e-mails can be sent to Lise.





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# QUESTIONS?

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# Minutes

- No additional points.