Scientific symposium

Patient-controlled mechanical ventilation in the ICU: Self-protection of the lungs and diaphragm?

On the occasion of the inauguration of Dr. Leo Heunks

Date: June 2nd, 2017
Venue: VU University Medical Center
O2 Building (entrance opposite of hospital main entrance)
De Boelelaan 1108
1081 HZ Amsterdam
Program introduction

Mechanical ventilation is a life-saving intervention in patients with acute respiratory failure. The main goals of mechanical ventilation are to improve oxygenation and reduce work of breathing by the patient. Today, it is recognized that mechanical ventilation is associated with adverse events, in particular the development of respiratory muscle weakness, which in turn is associated with difficult weaning from the ventilator and increased mortality. Research conducted in the last decade has demonstrated that both ventilator under-assist and over-assist may induce weakness and injury of the respiratory muscles in ICU patients.

In this symposium we will discuss ventilator strategies that aim to deliver lung-protective and diaphragm protective mechanical ventilation in patients with acute respiratory failure. We are honored that national and international experts are willing to present their opinions at this symposium. We are looking forward to a lively discussion with the audience.

On behalf of the faculty,

Leo Heunks, Coen Ottenheijm and Armand Girbes
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<td>08.30 – 08.55</td>
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| 08.55 – 09.05| Welcome  
Armand Girbes, Amsterdam                                           |
| 09.05 – 09.30| Pathophysiology of ICU acquired diaphragm weakness  
Coen Ottenheijm, Amsterdam                                    |
| 09.30 – 09.55| Clinical impact of ICU acquired diaphragm weakness  
Alexandre Demoule, Paris                                        |
| 09.55 – 10.20| Expiratory muscle dysfunction and difficult weaning  
Annemijn Jonkman, Amsterdam                                      |
| 10.20 – 10.35| Discussion                                                              |
| 10.35 – 11.05| Coffee                                                                  |
| 11.05 – 11.30| Early use of assisted modes in ARDS: patient-SILI or diaphragm protective.  
Laurent Brochard, Toronto                                             |
| 11.30 – 11.55| Patient controlled mechanical ventilation: future perspectives  
Christer Sinderby, Toronto                                            |
| 11.55 – 12.20| Interaction between mechanical ventilation and transfusion on the occurrence of lung injury  
Nicole Juffermans, Amsterdam                                           |
| 12.20 – 12.35| Discussion                                                              |
| 12.35 – 13.15| Lunch                                                                   |
| 13.15 – 13.40| Patient-ventilator interaction in ARDS  
Laurent Brochard, Toronto                                              |
| 13.40 – 14.05| Breathing patterns in ventilated patients: What does it tell us?  
Alexandre Demoule, Paris                                               |
| 14.05 – 14.30| How to improve diaphragm function in difficult to wean patients?  
Hans van der Hoeven, Nijmegen                                        |
| 14.30 – 14.45| Discussion                                                              |
| 14.45 – 15.00| Closing remarks  
Armand Girbes, Amsterdam                                               |
| 15.45        | Inaugural speech Leo Heunks (Aula VU)                                   |
Faculty

**Armand Girbes, MD, PhD**
Dr Girbes is a professor of intensive care, head of the department intensive care at VU University medical center Amsterdam. His research focuses on the effects of hypoperfusion and reperfusion, hypothermia and clinical pharmacology. Currently he is the secretary of the European Society of Intensive Care Medicine.

**Coen Ottenheijm, PhD**
Dr Ottenheijm is a professor of Physiology, VU University medical center, Amsterdam. His research focuses on diaphragm dysfunction in congenital myopathies and ICU patients. He has obtained prestigious funding for research from several organizations including NOW and NIH.

**Nicole Juffermans, MD, PhD**
Dr Juffermans is a professor of intensive care at the Academic Medical Center Amsterdam. Her research focuses on efficacy and adverse effects of blood transfusion and hyperinflammation during critical illness. She is currently chief editor of the Netherlands Journal of Intensive Care

**Alexandre Demoule, MD, PhD**
Dr Demoule is a professor of intensive care, head of the department of respiratory ICU at Pitié-Salpêtrière, University Hospital group in Paris. He is an expert in mechanical ventilation and respiratory physiology and has published many state of the art papers in this field.

**Annemijn Jonkman, MSc**
Annemijn Jonkman is a technical physician and PhD student at the department of intensive care at the VU University medical center Amsterdam. Her research focuses on the effects of critical illness on expiratory muscle function and strategies to improve expiratory muscle function.
Laurent Brochard, MD, PhD
Dr. Brochard is a professor of Medicine and the Interdepartmental Division Director for Critical Care in the Faculty of Medicine, University of Toronto and Saint Michaels Hospital. He is an international expert on weaning and mechanical ventilation, and is leading a European Research Network dedicated to clinical studies in mechanical ventilation and weaning, called REVA. Currently he is deputy editor of the American Journal of Respiratory and Critical Care Medicine.

Christer Sinderby, PhD
Christer Sinderby is a respiratory physiologist who took his MSc at Karolinska Institute, Stockholm, and PhD degree at the University of Gothenburg. He currently holds a position as Staff Scientist in the Keenan Research Centre for Biomedical Science of St. Michael’s Hospital. He holds an affiliation Assistant Professor at the University of Toronto, Department of Medicine. He is a member of the Inter-departmental Division of Critical Care Medicine at University of Toronto, as well as the Institute for Biomedical Engineering and Science Technology (iBEST) at Ryerson University and St-Michael’s Hospital.

Hans van der Hoeven, MD, PhD
Dr. van der Hoeven is professor of intensive care, head of the department of intensive care and of the first Dutch weaning centre (NExCOB) at the Radboudumc, Nijmegen. His research focuses on patient safety in the ICU, sepsis, inflammation, delirium and mechanical ventilation.
Practical information
Registration for scientific symposium is required: www.vumc.nl/afdelingen/ICV/symposium

Costs for symposium: Euro 40,= (including refreshments and lunch)
Accreditation for symposium for NVIC, NVA, NIV and NVALT is pending
Language at scientific symposium is English.

After the symposium inaugural lecture (in Dutch)
Time 15.45 h
Venue: Aula of the VU, De Boelelaan 1105, 1018 HV, Amsterdam
Entrance to inaugural speech is free, reception afterwards