



21st Postgraduate Refresher Course

Cardiovascular and Respiratory Physiology Applied to Intensive Care Medicine

Brussels, December 1-3, 2015

Tuesday 1, December, 2015

08.00	Registration <i>Welcome coffee</i>
08.30	Introduction J.L. Vincent (Brussels, Belgium) & M.R. Pinsky (Pittsburgh, United States)
08.35	Static lung and chest wall mechanics R. Naeije (Brussels, Belgium)
09.10	Esophageal pressure measurement A. Pesenti (Milan, Italy)
09.40	Lung edema R. Naeije (Brussels, Belgium)
10.10	<i>Discussion</i>
10.20	<i>Coffee break</i>
10.45	Gas exchange: basic aspects R. Naeije (Brussels, Belgium)
11.20	Gas exchange: clinical applications A. Pesenti (Milan, Italy)
11.50	PaO₂/FiO₂ in clinical practice L. Brochard (Toronto, Canada)
12.15	<i>Discussion</i>
12.30	<i>Lunch</i>
13.20	Evaluation of lung and gas volume A. Pesenti (Milan, Italy)
14.00	Lung mechanics: the equation of motion at the bedside L. Brochard (Toronto, Canada)
14.35	Severe COPD – Auto PEEP A. Pesenti (Milan, Italy)
15.15	<i>Discussion</i>
15.30	<i>Coffee break</i>
16.00	Ventilator-induced lung injury (VILI) M.R. Pinsky (Pittsburgh, United States)

16.30	Lung protective strategies: A practical approach L. Brochard (Toronto, Canada)
17.00	<i>Discussion</i>
17.15	Clinical cases Hypoxemia—J.L. Vincent (Brussels, Belgium) Lung mechanics – A. Pesenti (Milan, Italy) Severe COPD - M.R. Pinsky (Pittsburgh, United States) Invasive measurements - R. Naeije (Brussels, Belgium)

Wednesday 2, December, 2015

08.30	Pressure vs. Volume targeted mechanical ventilation L. Brochard (Toronto, Canada)
09.00	Physiological relevance of spontaneous breathing in the critically A. Pensenti (Milan, Italy)
09.30	Ventricular pump function: P/V loops M.R. Pinsky (Pittsburgh, United States)
10.00	<i>Discussion</i>
10.15	<i>Coffee break</i>
10.40	Acute pulmonary hypertension & right ventricular dysfunction R. Naeije (Brussels, Belgium)
11.10	The determinants of cardiac output J.L. Vincent (Brussels, Belgium)
11.45	Systemic blood pressure: Ventriculo-arterial coupling M.R. Pinsky (Pittsburgh, United States)
12.20	<i>Discussion</i>
12.30	<i>Lunch</i>
13.20	Venous return and effective circulating blood volume M.R. Pinsky (Pittsburgh, United States)
14.00	Cardiovascular alterations in sepsis J.L. Vincent (Brussels, Belgium)
14.40	<i>Discussion</i>
14.55	<i>Coffee break</i>

15.20	Heart-lung interactions M.R. Pinsky (Pittsburgh, United States)
16.00	Fluid responsiveness D. De Backer (Brussels, Belgium)
16.30	Fluid challenge J.L. Vincent (Brussels, Belgium)
17.00	<i>Discussion</i>
17.10	Clinical cases Right ventricular dysfunction - R. Naeije (Brussels, Belgium) Heart lung interactions - M.R. Pinsky (Pittsburgh, United States) Volume responsiveness – D. De Backer ((Brussels, Belgium)

08.30	Blood flow distribution M.R. Pinsky (Pittsburgh, United States)
09.15	Gas exchange and cardiovascular physiology in ECMO D. De Backer (Brussels, Belgium)
09.50	<i>Discussion</i>
10.00	<i>Coffee break</i>
10.25	Oxygen delivery and consumption: SvO₂ & ScvO₂ J.L. Vincent (Brussels, Belgium)
11.05	Circulatory shock J.L. Vincent (Brussels, Belgium)
11.45	Microcirculatory studies in humans D. De Backer (Brussels, Belgium)
12.20	<i>Discussion</i>
12.30	Lunch
13.20	Type of IV fluid M.R. Pinsky (Pittsburgh, United States)
13.55	Vasoactive agents J.L. Vincent (Brussels, Belgium)
14.30	Assessment of tissue perfusion J. Creteur (Brussels, Belgium)
15.05	Hepatosplanchnic hemodynamics D. De Backer (Brussels, Belgium)
15.35	<i>Discussion</i>
15.45	Clinical cases Hemodynamic management (J.L. Vincent, J. Creteur, D. De Backer)
16.15	Remaining questions