



Session 1

November

Day 1: Basic cardio-vascular applied physiology and pathophysiology

Morning at 9 am

- 1- Presentation of the course Olfa Hamzaoui and Bruno Mourvilliers
(Reims): 9H-9H30mns
- 2- Pathophysiology of shock states Jean-Louis Teboul (Paris) (Paris): 9H30-10H30
- 3- All you need to know about arterial pressure
 - a-Physiological determinants of arterial pressure Jean-Louis Teboul (Paris): 10H30-11H30
 - b- Bedside use of arterial pressure Olfa Hamzaoui (Reims): **11H30-12H30**

Afternoon at 14H00

- 1- **All you need to know about cardiac output**
 - a. Physiological determinants Michael Pinsky (USA)/ 14H00-15H00
 - b. Measurements: techniques, indications & limits Xavier Monnet (Kremlin Bicêtre) 15H00-16H00
- 2- **Wooclap (Olfa Hamzaoui and Jean-Louis Teboul) : 16H00-17H00**





Day 2: Peripheral perfusion, microcirculation and tissue oxygenation markers

Morning

1- ScvO₂

Olfa Hamzaoui : 09H00-10H00

2-PCO₂ gap

Jean-Louis Teboul (Paris): 10H00-11H00

3-Microcirculation

Daniel De Backer (Belgium): 11H00-12H00

Afternoon

**1- Mottling as a tool to guide management
14H30**

Hafid Ait Oufella (Paris): 13H30-

2-Capillary refill time as a tool to guide management

Glenn Hernandez (Chili): 14H30-15H30

**3- Lactate as a tool to guide management
Netherland): 15H30-16H30**

Jan Bakker (Rotterdam,

4- Wooclap



Session 2

December

Day 1: Hemodynamic assessment in critically ill patients

Morning: Monitoring devices

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|--|---|
| 1- Transpulmonary thermodilution | Olfa Hamzaoui 9H30-10H30 |
| 2- Pulmonary artery catheter | Jean-Louis Teboul (Paris) : 10H30-11H30 |
| 3- Uncalibrated and non-invasive devices | Frédéric Michard (Switzerland) 11H30-12H30 |

Afternoon: How to use echocardiography to manage shock

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|--|---|
| 1- The left ventricular systolic function | Michelle Chew (Sweden) 13H30-14H30 |
| 2- The right ventricle | Antoine Vieillard-Baron (Paris): 14H30-15H30 |
| 3- Diastolic LV function and filling pressures | Philippe Vignon P (Limoges) 15H30-16H30 |
| 4- Vexus protocol | Hatem Soleiman (UK) 16H30-17H30 |
| 5- Clinical cases and scenarios | Olfa Hamzaoui 60mns |

Day 2: Fluid therapy in critically ill patients

Morning: Assessment of fluid responsiveness

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|--|--|
| 1- Why and when? | JL Teboul (Paris) 9H30-10H30 |
| 2- How to do during mechanical ventilation? | |
| a. Applied physiology: Heart-lung interactions | Jean-Louis Teboul (Paris) 10H30-11H30 |
| b. Static and dynamic parameters | Rui Shi (China) 11H30-12H30 |
| 3- How to do during spontaneous breathing? | Sébastien Preau (Lille) 12H30-13H30 |

Afternoon

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|--|---|
| 1- Which solution should we choose? | Anders Perner (Danemark) 14H30-15H30 |
| 2- Effects of fluids on macro and microcirculation | Gustavo Ospina-Tascon (Colombia) |
| 15H30-16H30 | |
| 3- How to manage fluid accumulation? | Manu Malbrain (Belgium) 16H30-17H30 |
| 4- Wooclap | |



Session 3

Septic shock

February

Day 1

Morning

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|---|---------------------------------|
| 1- Hemodynamic disturbances in septic shock
9H30-10H30 | Jean-louis Teboul (Paris) |
| 2- Hemodynamic management of septic shock
11H30 | Jean-Louis Teboul 10H30- |
| 3- Septic cardiomyopathy: diagnosis and medical treatment
11H30-12H30 | Michelle Chew (Sweden) |

Afternoon

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|---|--|
| 1- Is there a place for ECMO? | Nicolas Bréchet (Paris) 13H30-14H30 |
| 2- Is there a place for hemoabsorption? | Marlies Ostermann (UK) 14H30-15H30 |
| 3- Targeted therapy | Gibot S (Nancy) 15H30-16H30 |

Day 2

Morning: Vasopressors in septic shock

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|---|---|
| 1- Norepinephrine: when, why, how much? | Olfa Hamzaoui (Reims) 9H00-10H00 |
| 2- What is in the pipeline? | Daniel De Backer (Belgium) 10H-11H |
| 3- Vasopressin: a good alternative? | Pierre Asfar (Angers) 11H-12H |
| 4- Place of steroids in septic shock | Djillali Annane (Paris) 12H-13H |

Afternoon: Clinical cases AT 14H00





Session 4

March

Day 1: Cardiogenic shock

Morning

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| 1- Cardiogenic shock: classification and diagnosis | Nadia Aissaoui (Paris) 9H-10H |
| 2- Hemodynamic monitoring | Olfa Hamzaoui 10H-11H |
| 3- Drug management of cardiogenic shock | Bruno Levy (Nancy) 11H-12H |

Afternoon

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|---|---|
| 1- ECLS for cardiogenic shock | Alain Combes (Paris) (Paris) 14H-15H |
| 2- Place of percutaneous angioplasty
15H-16H | Stephane Manzo Silbermann (Paris) |
| 3- Management of severe pulmonary embolism | Alain Mercat (Angers) 16H-17H |
| 4- Wooclap and clinical cases: Jean-louis Teboul and Olfa Hamzaoui: 60 minutes | |

Day 2

Morning: Hemorrhagic shock states

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|---|--------------------------------------|
| 1- Hemorrhagic shock: pathophysiology
9H-10H | Anatole Harrois (Kremlin Bicêtre) |
| 2- General management of shock due to GI hemorrhage | Gael Piton 10H-11H |
| 3- General management of shock due to severe polytrauma
12H | Marc Leone (Marseille) 11H- |
| 4- Blood transfusion in critically ill | Cécile Aubron (Brest) 12H-13H |

Afternoon: Clinical cases 14H





Session 5

Mai

Day 1:

Morning: Hemodynamic issues in patients with ARDS patients

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| 1- Cardio-vascular alterations | Jean-Louis Teboul 9H-10H |
| 2- How to manage fluids? | Olfa Hamzaoui 10H-11H |
| 3- Hemodynamic implications of prone position | Mathieu Jozwiak (Nice) 11H-12H |

Afternoon

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|---|--|
| 1- Hemodynamic consequences of severe asthma | Morgan Caplan (Reims) 14H-15H |
| 2- Intubation-induced cardiovascular collapse | Samir Jaber (Montpellier) 15H-16H |
| 3- Weaning-induced pulmonary edema | Jean-Louis Teboul (Paris) 16H-17H |
| 4- Shock states related to drug poisoning | Bruno Megarbane (Paris) 17H-18H |

Day 2

Morning:

Cardiac Arrest:

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|--|---------------------------------------|
| CPR: How to do in 2024 and what outcome? | Alain Cariou (Paris) 9H-11H |
| Treatment of Post resuscitation Syndrome | Mathieu Jozwiak (Nice) 11H-12H |

Afternoon:

Clinical cases and scenarios

Olfa Hamzaoui **60 mns**

Questions and answers (all the programme)

