

# **Hemodynamic management and monitoring of patients with shock**

## **Scientific Committee:**

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## Session 1

12/13 November

### Day 1: Basic cardio-vascular applied physiology and pathophysiology

#### Morning at 9 am

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

#### Afternoon at 13H30

- 1- **All you need to know about cardiac output**
- 5- Physiological determinants Michael Pinsky (USA)/ 13H30-14H30
- 6- Measurements: techniques, indications & limits Xavier Monnet (Kremlin Bicêtre) 14H30-15H30
- 2- **Wooclap (Olfa Hamzaoui and Jean-Louis Teboul) : 15H30-16H30**

### Day 2: Peripheral perfusion, microcirculation and tissue oxygenation markers

#### Morning

- 1- **Microcirculation** Daniel De Backer (Belgium): 9H30-10H30
- 2- **PCO2 gap** Jean-Louis Teboul (Paris): 10H30-11H30
- 3- **Mottling as a tool to guide management** Hafid Ait Oufella (Paris): 11H30-12H30

#### Afternoon

- 1- ScvO2 Olfa Hamzaoui : 13H30-14H30
- 2-Capillary refill time as a tool to guide management Glenn Hernandez (Chili): 14H30-15H30

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

**Jan Bakker (Rotterdam,**

**4- Wooclap**

## Session 2

10/11 December

### Day 1: Hemodynamic assessment in critically ill patients

#### Morning: Monitoring devices

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

#### Afternoon: How to use echocardiography to manage shock

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

### Day 2: Fluid therapy in critically ill patients

#### Morning: Assessment of fluid responsiveness

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

#### Afternoon

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

**Session 3**  
**Septic shock**  
**11/12 February**

**Day 1**

**Morning**

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

**Afternoon**

- |   |   |
|---|---|
| 1- Is there a place for ECMO?           | Nadia Aissaoui (Paris) <b>13H30-14H30</b> |
| 2- Is there a place for hemoadsorption? | Marlies Ostermann (UK) <b>14H30-15H30</b> |
| 3- Targeted therapy                     | Gibot S (Nancy) <b>15H30-16H30</b>        |

**Day 2**

**Morning: Vasopressors in septic shock**

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

**Afternoon: Clinical cases AT 14H00**

## Session 4

8/9 April

### Day 1: Cardiogenic shock

#### Morning

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

#### Afternoon

- |  |   |
|--|---|
| 1- ECLS for cardiogenic shock  | Alain Combes (Paris) (Paris) <b>14H-15H</b> |
| 2- Place of percutaneous angioplasty   | To be determined <b>15H-16H</b>             |
| 3- Management of severe pulmonary embolism   | Alain Mercat (Angers) <b>16H-17H</b>        |
| 4- Woolap and clinical cases: <b>Jean-louis Teboul and Olfa Hamzaoui: 60 minutes</b> |   |

### Day 2

#### Morning: Hemorrhagic shock states

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

#### Afternoon: Clinical cases 14H

**Session 5**  
**30 June and 1<sup>st</sup> of July**

**Day 1:**

**Morning: Hemodynamic issues in patients with ARDS patients**

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

**Afternoon**

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

**Day 2**

**Morning:**

**Cardiac Arrest:**

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

**Afternoon:**

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|-------------------------------------|-----------------------------|
| <b>Clinical cases and scenarios</b> | Olfa Hamzaoui <b>60 mns</b> |
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**Questions and answers (all the programme)**

