



**HUMANITAS EDU**

**SIMULATION CENTER**

**Workshop**

**CLUE**  
**Cardio-Lung**  
**Ultrasound and**  
**hEmodynamics**  
**in critical care**

**2 - 3 dicembre 2022**

**Director:**

**Prof. M. Cecconi**

**Co-Directors:**

**Dr. RM Bragato - Dr. E. Giustiniano**

**Humanitas University**

Via Rita Levi Montalcini 4,  
20072 Pieve Emanuele (MI)  
Building A

## Objectives

The objective of the CLUE course is to improve bedside ultrasound skills to assess, monitor and treat patient during hemodynamic instability. While focused on the cardiovascular function (i.e. the heart) the course takes a 360-degree approach to the problem. Clinical assessment as well as the importance of heart lung interactions are explained in detail. Practical ultrasound skills are taught in very interactive way over the two days. On top of this CLUE gives the participants the extra skill to learn and integrate advanced hemodynamic monitoring in between echocardiographic assessments. In this way a patient can be assessed, treated and monitored continuously during the different phases of hi-s/her resuscitation and stabilization.

Experts in the field, a high degree of interaction with a 1 to 2 ratio between tutors and delegates for the hands on and simulation parts makes this one of the most practical courses on the topic in Europe.

## FACULTY

<b>Briani M.</b>	(Humanitas Research Hospital - Coronary Care Unit, Milano)
<b>Bertoldi L.</b>	(Humanitas Research Hospital - Coronary Care Unit, Milano)
<b>Bragato R.</b>	(Humanitas Research Hospital - Chief Echocardiography Unit, Milano)
<b>Brusa S.</b>	(Humanitas Research Hospital - Dept. Anesthesia and ICU and Luzzato Simulation Center, Milano)
<b>Cecconi M.</b>	(Humanitas University - Chief Dept Anesthesia and ICU, Milano)
<b>Corrada E.</b>	(Humanitas Research Hospital - Coronary Care Unit, Milano)
<b>Curzi M.</b>	(Humanitas Research Hospital - Echocardiography Unit, Milano)
<b>Del Pozo A. C.</b>	(Humanitas University - Luzzato Simulation Center, Milano)
<b>Donghi V.</b>	(Humanitas Research Hospital - Echocardiography Unit, Milano)
<b>Fazzari F.</b>	(Humanitas Research Hospital - Echocardiography Unit, Milano)
<b>Fusilli N.</b>	(Humanitas Research Hospital - Dept. Anesthesia and ICU, Milano)
<b>Giustiniano E.</b>	(Humanitas Research Hospital - Dept. Anesthesia and ICU, Milano)
<b>Lungu R.</b>	(Humanitas Research Hospital - Dept. Anesthesia and ICU, Milano)
<b>Mantovani R.</b>	(Humanitas Research Hospital - Echocardiography Unit, Milano)
<b>Messina A.</b>	(Humanitas University - Dept. Anesthesia and ICU, Milano)
<b>Nisi F.</b>	(Humanitas Research Hospital - Dept. Anesthesia and ICU, Milano)
<b>Pagnotta P.</b>	(Humanitas Research Hospital - Operative Cardiology Unit, Milano)
<b>Piccioni F.</b>	(Humanitas Research Hospital - Dept. Anesthesia and ICU, Milano)
<b>Piccirillo F.</b>	(Humanitas Research Hospital - Dept. Anesthesia and ICU, Milano)
<b>Protti A.</b>	(Humanitas University - Dept. Anesthesia and ICU, Milano)

## PROGRAM

### FRIDAY

#### 08.15-08.45

Registration and check of pre-test answered

#### 08.45-09.00

Welcome and presentation of the Workshop days  
(M. Cecconi - RM Bragato - E. Giustiniano)

### THE ADVANCES FOR THE AFTERNOON

**Chairmen:** M. Cecconi - E. Giustiniano

#### 09.00-09.30

The US, the main thoracic echocardiographic windows  
(V. Donghi)

#### 09.30-10.00

Lung US in ICU: the normal and pathological pictures  
(R. Lungu)

#### 10.00-10.30 *Coffee break*

### HEMODYNAMIC MONITORING

**Chairmen:** F. Piccioni

#### 10.30-11.00

Basic Hemodynamics and recognizing shock  
(M. Cecconi)

#### 11.00-11.30

The left and right ventricles systolic and diastolic function  
(M. Curzi)

#### 11.30-12.00

Heart-Lung interaction  
(A. Protti)

#### 12.00-12.30

Hemodynamic monitoring in ICU: **clinical cases**  
(A. Messina)

### 12.30-13.00

Hemodynamic monitoring in operative room: predicting hypotension (**clinical cases**)  
(E. Giustiniano)

### 13.00-14.00 *Lunch*

Station	1-EchoCardio live	2 -Echo Lung live	3-EchoCardio Live/Simulator	4-Simulated case (Hemodynamics and US in critical cases) 17.00-18.00
14.00-15.00	A	B	C	3 participants in simulation room <b>2 cases</b>
15.00-16.00	C	A	B	
16.00-17.00	B	C	A	
<b>External Tutor</b> Giustiniano	Gr. Bragato	Piccirillo Lungu	Gr. Bragato	Brusa Fusilli Del Pozo

### 19.00

Debriefing - See you tomorrow

## SATURDAY

### HEART&LUNG: THE COVID-19 EXPERIENCE

**Chairmen:** F. Piccioni

#### 08.15-08.45

TTE in respiratory failure due to Covid-19 pneumonia.  
The experience in ward: **interactive cases**  
(F. Fazzari)

#### 08.45-09.15

Echo-lung during Covid-19 outbreak:  
**interactive clinical cases presentation**  
(F. Piccirillo)

#### 09.15-09.45

TTE in prone position during Covid-19 outbreak:  
a proposal for a new approach  
(E. Giustiniano)

#### 09.45-10.15 *Coffee break*

### ULTRASOUNDS IN CARDIOVASCULAR EMERGENCY

**Chairmen:** E. Corrada, M. Curzi

#### 10.15-10.45

Urgent Echocardiography in ward: **Two interactive cases** (R. Mantovani)

#### 10.45-11.15

Ultrasounds protocols in emergency  
(F. Nisi)

#### 11.15-11.45

How to orient yourself between the intra-aortic balloon pump, Impella and ECMO?  
(P. Pagnotta)

#### 11.45-12.45

**Ultrasounds assessment during management of mechanical circulatory support devices (MCS):**

##### 11.45-12.15

- choice and positioning of the device (M. Briani)

##### 12.15-12.45

- monitoring, escalation, de-escalation and weaning of MCS (L. Bertoldi)

#### 12.45-13.50 *Lunch*

Station	1-EchoCardio live	2 -Echo Lung live	3-EchoCardio Live/Simulator	4-Simulated case (Hemodynamics and US in critical cases) 17.00-18.00
14.00-15.00	A	B	C	3 participants in simulation room <b>2 cases</b>
15.00-16.00	C	A	B	
16.00-17.00	B	C	A	
<b>External Tutor</b> Giustiniano	Gr. Bragato	Piccirillo Lungu	Gr. Bragato	Brusa Fusilli Del Pozo

#### 18.00-18.15

Debriefing

#### 18.15-18.30

Post-test and Customer satisfaction



## ORGANIZING SECRETARIAT

**Humanitas EDU**

02.8224.2249

edu@hunimed.eu

## REGISTRATION

www.humanitasedu.it

Participation fee 350,00 € (VAT included)

Participation fee for residents (max 5) 175,00 € (VAT included)

## ECM

Amount of credits will be announced later

## TARGET

Maximum 18 participants:

Open to surgeons specializing in anesthesia and resuscitation, cardiology, internal medicine

## VENUE

Humanitas University,

Via Rita Levi Montalcini 4,

20072 Pieve Emanuele (MI) Building A

## WINFOCUS 2022

By registering to CLUE you will be part of one of the Italian POW!, you will be given access to the **Virtual Congress sessions of WF WCU '22** during the lunch break and a **free registration** to the entire Virtual Congress (Dec 3-4).



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**HUMANITAS EDU:**  
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