



IU

INTERNATIONAL UPDATE

The ICU of The Future

Rome, Italy, December 11-14, 2022



The ICU of the Future

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Sunday, December 11, 2022

17:00	<i>Registration</i>
17:30	Welcome – Aim of the meeting Jean-Louis Vincent (Brussels, Belgium)
17:45	Pandemic preparedness – déjà vu all over again Lennie Derde (Utrecht, Netherlands)
18:00	What is artificial intelligence? What we need to know before this meeting Azra Bihorac (Gainesville, USA)
18:15	The different facets of the hospital of the future Maurizio Cecconi (Milan, Italy)
18:30	How information will circulate in the future Derek C Angus (Pittsburgh, USA)
18:45	Discussion – Questions to be raised during the meeting The entire faculty
19:00	<i>End of the day</i>

Monday, December 12, 2022

Session 1: the ICU of the future

08:30	The ICU will be the heart of the hospital Maurizio Cecconi (Milan, Italy)
08:45	ICUs will be without borders Marlies Ostermann (London, UK)
09:00	The new ICU will be co-designed by patients and relatives Erik Koomen (Utrecht, Netherlands)
09:15	Discussion

Session 2: monitoring of the future

09:30	Progress in vital signs monitoring Maurizio Cecconi (Milan, Italy)
09:45	Short to medium term prediction of vital sign values David Tscholl (Zurich, Switzerland)
10:00	Monitoring will be totally non-invasive Marlies Ostermann (London, UK)
10:15	Discussion
10:30	Break
10:50	How individual dynamic profiles will facilitate treatment Julia Wendon (London, UK)
11:05	New frontiers for sepsis recognition Derek C Angus (Pittsburgh, USA)
11:20	Discussion

Session 3: quality of care

11:35	Team work Julia Wendon (London, UK)
11:50	Communication Lioudmila Karnatovskaia (Rochester, USA)
12:05	Cognitive aids David Tscholl (Zurich, Switzerland)
12:20	Better alarm systems Erik Koomen (Utrecht, Netherlands)
12:35	Discussion

Final comments

12 :45	What I learned this morning Vincent Liu (Oakland, USA) & Azra Bihorac (Gainesville, USA)
13:00	Lunch

Session 4: technical development

13:45	Decision support-based ICU care Erik Koomen (Utrecht, Netherlands)
14:00	User-centered visualization technologies will increase situational awareness David Tscholl (Zurich, Switzerland)
14:15	Discussion

Session 5: the impact of artificial intelligence

14:30	How it will change our world Vincent Liu (Oakland, USA)
14:45	How we will deal with challenges and biases Erik Koomen (Utrecht, Netherlands)
15:00	Discussion
15:15	Break

Session 6: the future from a management perspective

15:35	The hospital director Jacques Creteur (Brussels, Belgium)
15:50	The hospital manager Julia Wendon (London, UK)
16:05	The healthcare manager Derek C Angus (Pittsburgh, USA)
16:20	Discussion

Session 7: the industry perspective

16:35	Presentations
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Round table discussion

17:05	What we need from the industry (Integration of devices, better alarms, integration of the information, closed loops systems...) Moderator: Jacques Creteur (Brussels, Belgium) Derek C Angus (Pittsburgh, USA), Vincent Liu (Oakland, USA), Erik Koomen (Utrecht, Netherlands), Lennie Derde (Utrecht, Netherlands)
17:35	End of the day

Session 8: ICU staffing issues

08:30	Enough ICU doctors? Jacques Creteur (Brussels, Belgium)
08:45	Enough nurses? Jean-Louis Vincent (Brussels, Belgium)
09:00	Digital tools and robotic assistance will decrease staffing requirements Marlies Ostermann (London, UK)
09:15	Discussion

Session 9: how we will prevent and manage

09:30	Sepsis Vincent Liu (Oakland, USA)
09:45	Organ failure Azra Bihorac (Gainesville, USA)
10:00	Renal failure Marlies Ostermann (London, UK)
10:15	Discussion
10:30	Break
11:00	Respiratory failure Jean-Louis Vincent (Brussels, Belgium)
11:15	Liver failure Julia Wendon (London, UK)
11:30	Delirium Lioudmila Karnatovskaia (Rochester, USA)
11:45	Discussion

Final comments

12 :00	What I learned this morning Maurizio Cecconi (Milan, Italy) & Lennie Derde (Utrecht, Netherlands)
12:30	Lunch

Session 10: fewer syndromes, more phenotypes

13:30	How artificial intelligence will identify phenotypes Azra Bihorac (Gainsville, USA)
13:45	We'll no longer talk about 'AKI' Marlies Ostermann (London, UK)
14:00	Will we still speak about 'sepsis' and 'ARDS'? Jean-Louis Vincent (Brussels, Belgium)
14:15	My comments Derek C Angus (Pittsburgh, USA)
14:30	Discussion
14:45	Break

Session 11: fusion care and research

15:15	Implementation research and delivery science Vincent Liu (Oakland, USA)
15 :30	Embedding research into clinical practice Derek C Angus (Pittsburgh, USA)
15 :45	Novel trial designs to allow individualized care Lennie Derde (Utrecht, Netherlands)
16 :00	Discussion

Session 12: future of clinical trials

16 :15	When big data meet big trials Maurizio Cecconi (Milan, Italy)
16 :30	Will we use more Bayesian analyses Derek C Angus (Pittsburgh, USA)
16 :45	Platform trials are here to stay Lennie Derde (Utrecht, Netherlands)
17 :00	Discussion

Final comments

17:15	What I learned this afternoon Julia Wendon (London, UK) & David Tscholl (Zurich, Switzerland)
17:00	End of the day

Wednesday, December 14, 2022

08:30	The impact of ageing populations John Muscedere (Kingston, Canada)
08:45	Progress, prevention, patient's preferences... will the number of ICU patients decrease? Jacques Creteur (Brussels, Belgium)
09:00	We will understand the connection of microbiome to disease susceptibility Lioudmila Karnatovskaia (Rochester, USA)
09:15	Discussion

Round table discussions

09:30	The hospital of the future <i>Moderator:</i> Julia Wendon (London, UK) Jacques Creteur (Brussels, Belgium), Maurizio Cecconi (Milan, Italy), Derek C Angus (Pittsburgh, USA), David Tscholl (Zurich, Switzerland)
10:00	The risks to be avoided <i>Moderator:</i> Lennie Derde (Utrecht, Netherlands) Marlies Ostermann (London, UK), Lioudmila Karnatovskaia (Rochester, USA), Vincent Liu (Oakland, USA), Erik Koomen (Utrecht, Netherlands)

Session 13: the distant future

10:30	The future of AI in critical care Vincent Liu (Oakland, USA)
10:45	Pervasive intelligence in the ICU – the next frontier Azra Bihorac (Gainesville, USA)
11:00	Discussion
11:10	General discussion: remaining questions The entire faculty
12:00	End of the day

End of the meeting