Target Audience
Up to 45 clinical microbiologists, clinicians, infectious disease physicians, internal medicine doctors, molecular biologists, pathologists, forensic physicians, students and trainees interested in the clinical, molecular and forensic diagnosis of life-threatening infections.

Faculty Members
Laurent Andreoletti, Reims, France
Iva Butić, Zagreb, Croatia
Dundica Cekinovic, Rijeka, Croatia
Marta Cohen, Sheffield, United Kingdom
Marc Ellot, Paris, France
Amparo Fernández-Rodríguez, Madrid, Spain
Margareta Ieven, Antwerp, Belgium
Despoina Koulenti, Athens, Greece
Ivan-Christian Kurott, Zagreb, Croatia
Aleksa Markotic, Zagreb, Croatia
Nicola Petrosillo, Rome, Italy
Antonio Oliver, Palma de Mallorca, Spain
Jordi Rello, Barcelona, Spain
John W. A. Rossen, Groningen, Netherlands
Veroniek Saegeman, Sint-Niklaas, Belgium
Marija Santini, Zagreb, Croatia
Jean Paul Stahl, Grenoble, France

Organisers
- ESCMID Study Group for Forensic and Postmortem Microbiology – ESGFOR
- Croatian Society for Biosafety and Biosecurity
- ESCMID Study Group for Genomic and Molecular Diagnostics – ESGMD
- European Society of Pathology (ESP)
- SEPAF Sociedad Española de Patología Forense
- ESCMID Study Group for Antimicrobial Resistance Surveillance – ESGARS
- ESCMID Study Group for Bloodstream Infections, Endocarditis and Sepsis – ESGBIES
- ESCMID Study Group for Infectious Diseases of the Brain – ESGIB
- ESCMID Emerging Infections Task Force (EITaF)
- CIBERES – Spanish Network of Respiratory Infections Diseases of the ISCIII (Instituto de Salud Carlos III)

Course Coordinators
- Amparo Fernández-Rodríguez, Madrid, Spain
- Veroniek Saegeman, Sint-Niklaas, Belgium
- Aleksa Markotic, Zagreb, Croatia
- Marta Cohen, Sheffield, United Kingdom
- Jacob Moran-Gilad, Beer Sheva, Israel
- Jordi Rello, Barcelona, Spain
- Antonio Oliver, Palma de Mallorca, Spain
- Winfried V. Kern, Freiburg, Germany
- Jean Paul Stahl, Grenoble, France
- Eskild Petersen, Aarhus, Denmark
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Bacterial myocarditis, H&E staining showing polymorphonuclears and bacteria, courtesy Dr. R. Mosquera. Instituto Nacional de Toxicología y Ciencias Forenses, Madrid, Spain
Course Objectives
This post-graduate education course is composed of crosscutting modules on the diagnosis and challenges of life-threatening infections caused by classical and emerging pathogens.

Topics are sepsis and respiratory infections in both the community and the ICU, antimicrobial resistance, viruses causing life-threatening infections, fulminating infection patterns, preparedness in outbreak settings, microbiological sampling and molecular diagnostic techniques.

The objectives are to provide an update on the clinical signs and the pathophysiological mechanisms observed and to assess the range of diagnostic assays available.

The course will include a practical approach with clinical and forensic case discussions and with visual material. At the end of the course, all participants will have acquired key tools for the early diagnosis of life-threatening infections and they will understand the importance of the interaction between microbiological and pathological results. They will have learned those pathological and microbiological findings to be aware of in the search for the aetiology of sudden deaths.

Course Programme

Thursday, 10 October 2019
13:00 Registration and snack
14:15 Welcome introduction

Roundtable: Unexpected deaths due to infection in the community and in the ICU
14:30 Sepsis, septic shock and unexplained deaths in the community – epidemiology, risks and perspectives for early recognition. Manja Santini
15:00 Severe pathogens at the ICU: clinical cases with interactive discussion. Despoina Koulenti

Antibiotic resistance and mortality
15:30 Deaths due to antibiotic resistance. Spyros Psounaras
16:00 Global priority pathogens list of antibiotic resistant bacteria: useful to prevent deaths? Jordi Bello
16:30 Coffee break

Forensic microbiology in the 21st century I
17:00 How to organize postmortem microbiology in a routine clinical laboratory? Veroniek Saegeman
17:30 Interpretation of post-mortem microbiology: a new perspective. Amparo Fernández-Rodríguez
18:00 Case discussion in two scenarios: sudden child death and unexpected adult death.
19:00 End of the day

Friday, 11 October 2019

Roundtable: Severe infections with fatal outcome: prediction and prevention already possible?
08:30 Genetic susceptibility to severe infections. Bundico Cekinović
09:00 The pathologist’s perspective: how many of these deaths are preventable? Marta Cohen
09:30 The microbiologist’s perspective: Shotgun metagenomics on blood in life-threatening infections. John Rossen
10:00 Molecular diagnosis and laboratory preparedness. Ivan-Christian Kurott
10:30 Coffee break

Autopsy of unexpected deaths: microbiology sampling and safety
11:00 Sampling recommendations in unexpected deaths due to infection the forensic perspective. Amparo Fernández-Rodríguez
11:30 Presentation of a video about how to take these microbiological samples in a paediatric autopsy. Marta Cohen
12:00 Biosafety at the autopsy room. How to deal with highly virulent pathogens? Alemka Markotić
12:30 Lunch
13:30 Case discussion by participants
14:30 Interactive cases. How can we excel on the use of molecular techniques to identify pathogens responsible for severe infections and minimise dissemination.
16:00 Social Programme

Saturday, 12 October 2019

Pathogens involved in life threatening infections
08:30 Infection outbreaks causing high number of fatalities: are we prepared? Nicola Petrisollo
09:00 Emerging pathogens and death. Alemka Markotić

Viruses involved in life threatening infections
09:30 Epidemiology and diagnosis of encephalitis and meningitis with fatal outcome. Jean Paul Stahl
10:00 The role of viruses in sudden cardiac death. Post-mortem diagnosis of severe cardiovascular infections. Laurent Andreoletti
10:30 Coffee break

Forensic microbiology in the 21st century II
11:00 Viral pathogens discovery (In silico detection of emerging pathogens). Marc Eloit
11:30 Improving autopsy microbiology: new techniques and new challenges. Juan Daniel Prieto Cuadra
12:00 New technologies to early diagnose severe respiratory tract infections. Margareta Leven
12:30 New technologies for diagnosing bloodstream infections. Ana Blatic
13:00 Conclusions and farewell Lunch

Organization
Course Venue
Palace Hotel Zagreb, Trg J.J. Strossmayera 10
10000 Zagreb, Croatia
www.palace.hr

Registration Procedure
The registration form can be found on the ESCMID website at www.escmid.org/education. Registration deadline is 10 August 2019.

Registration Fee
EUR 550 for ESCMID members
EUR 650 for all others

Attendees Grants
ESCMID provides a number of attendance grants for ESCMID “young scientist members”. The grant covers the registration fee. Please apply via the ESCMID website at www.escmid.org/education before 30 June 2019. Applicants will be informed about their acceptance by 19 July 2019.

CME Accreditation
The organizers of the course will apply for European CME accreditation through EACCME.