

Postgraduate course Programme

Implementation of New Rapid Diagnostic and Antimicrobial Susceptibility Testing Methods for Bloodstream Infections

Istanbul, Türkiye
15 – 17 October 2025



Implementation of New Rapid Diagnostic and Antimicrobial Susceptibility Testing Methods for Bloodstream Infections

Istanbul, Türkiye



Faculty Members

Switzerland	Adrian Egli
Spain	Antonio Oliver
Türkiye	Bahar Madran
France	Brigitte Lamy
Germany	Cansu Çimen Van Dijck
Türkiye	Cansel Vatansever
Sweden	Erika Matuschek
Türkiye	Fusun Can
Türkiye	K. Erhan Palaoğlu
Switzerland	Laurent Poirel
Türkiye	Meltem Kaya Ayaş
Türkiye	Murat Akova
Sweden	Onur Karatuna
Türkiye	Önder Ergönül
United Kingdom	Riina Rautemaa-Richardson
Türkiye	Serap Şimşek Yavuz
Türkiye	H. Selçuk Özger
Greece	Spyros Pournaras
Türkiye	Şiran Keske
France	Thierry Naas
Türkiye	Yeşim Beşli

Implementation of New Rapid Diagnostic and Antimicrobial Susceptibility Testing Methods for Bloodstream Infections

Istanbul, Türkiye



Day 1 Wednesday, 15 October 2025

08:00 – 08:15	Registration and short breakfast
08:15 – 08:30	Welcome and presentation of the course <i>Yeşim Beşli and Önder Ergönül</i>
Basic concepts and epidemiology of bloodstream infections <i>Chair: Brigitte Lamy</i>	
08:30 – 09:00	Current epidemiology and burden of bloodstream infections <i>Serap Şimşek Yavuz</i>
09:00 – 09:30	Changing landscape of invasive fungal infections <i>Riina Rautemaa-Richardson</i>
09:30 – 10:00	Definition of sepsis and usage of biomarkers <i>Selçuk Özger</i>
10:00 – 10:30	Break
Diagnosis and management of sepsis: current practice and future directions <i>Chair: K. Erhan Palaoğlu</i>	
10:30 – 11:00	Optimization of blood culture strategy <i>Brigitte Lamy</i>
11:00 – 11:30	How to introduce new laboratory tests in the diagnosis of bloodstream infections: Definition of the case to be tested, evaluation of the new technology against the gold standard, debate <i>Spyros Pournaras</i>
11:30 – 12:00	Use of bioinformatics and machine learning in diagnosis and treatment of sepsis <i>Adrian Egli</i>
12:00 – 12:30	How to use rapid microbiological tests in bloodstream infections from the perspective of diagnostic stewardship, antimicrobial stewardship and infection control <i>Şiran Keske</i>
12:30 – 13:30	Lunch
Parallel workshop: best practices across the blood culture pathway	
13:30 – 15:00	Participants will be divided into three groups and rotate through the stations below (30 min/station)
	Demonstration of proper technique for blood culture collection <i>Bahar Madran</i>
	Indicators of good blood culture practices <i>Brigitte Lamy and Yeşim Beşli</i>
	Antimicrobial susceptibility testing - for which positive blood cultures? <i>Şiran Keske and Onur Karatuna</i>
15:00 – 15:30	Break

Implementation of New Rapid Diagnostic and Antimicrobial Susceptibility Testing Methods for Bloodstream Infections

Istanbul, Türkiye



Current approaches in antimicrobial susceptibility testing and detection of resistance

Chair: Antonio Oliver

15:30 – 16:00	Value of MALDI-TOF MS in rapid antimicrobial susceptibility testing <i>Adrian Egli</i>
16:00 – 16:30	EUCAST rapid antimicrobial susceptibility testing (RAST) <i>Erika Matuschek</i>
16:30 – 17:00	Phenotypic antimicrobial susceptibility testing versus molecular drug resistance testing <i>Laurent Poirel</i>
17:00 – 17:30	Strengths and weaknesses of current antimicrobial susceptibility testing methods and challenges in rapid antimicrobial susceptibility testing <i>Onur Karatuna</i>
17:30 – 17:45	Summary and debrief

Day 2 Thursday, 16 October 2025

Technical Workshop: Hands-on training on rapid identification and AST methods (Part 1)

08:30 – 10:45	<p>Participants will be divided into three groups and rotate through the stations below (45 min/station)</p> <p>Rapid bacterial identification directly from positive blood culture bottles using MALDI-TOF MS <i>Adrian Egli and Meltem Kaya Ayaş</i></p> <hr/> <p>Use of lateral flow immunochromatographic assay (LFIA) in detection of key resistance mechanisms <i>Thierry Naas and Yeşim Beşli</i></p> <hr/> <p>EUCAST rapid AST (RAST) directly from positive blood culture bottles <i>Onur Karatuna</i></p>
---------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

10:45 – 11:15 Break

Understanding antimicrobial resistance as a first step in treatment of sepsis

Chair: Laurent Poirel

11:15 – 11:45	Genetic diversity and biochemical properties of carbapenemases in <i>Enterobacterales</i> <i>Thierry Naas</i>
11:45 – 12:15	<i>Pseudomonas aeruginosa</i> antibiotic susceptibility profiles, genomic epidemiology, and resistance mechanisms <i>Antonio Oliver</i>
12:30 – 13:30 Lunch	
13:30 – 14:00	Epidemiology and resistance mechanisms in <i>Acinetobacter baumannii</i> <i>Thierry Naas</i>

Implementation of New Rapid Diagnostic and Antimicrobial Susceptibility Testing Methods for Bloodstream Infections

Istanbul, Türkiye



14:00 – 14:30 **Understanding resistance in *Enterococcus* spp.**
Cansu Çimen Van Dijck

Technical Workshop: Hands-on training on rapid identification and AST methods (Part 2)

14:30 – 16:45 **Participants will be divided into three groups and rotate through the stations below (45 min/station)**

Reading zone diameters of EUCAST rapid AST (RAST) plates after 6-8 hour incubation

Onur Karatuna and Meltem Kaya Ayaş

Rapid phenotypic AST using automated systems

Yeşim Beşli

Application of molecular diagnostics for bacteraemia

Cansel Vatansever

16:45 – 17:00 **Summary and Debrief**

19:00 – 21:00 Social Dinner

Day 3 Friday, 17 October 2025

Technical Workshop: Hands-on training on rapid identification and AST methods (Part 3)

08:30 – 10:00 **Participants will be divided into three groups and rotate through the stations below (30 min/station)**

Reading zone diameters of EUCAST RAST plates after 16-20 h incubation and interpretation of results

Onur Karatuna

Interpretation of results of screening tests for detection of resistance mechanisms using RAST and rapid tests

Yeşim Beşli

Interpretation of phenotypic and genotypic test results together - implications for patient management

Laurent Poiriel

10:00 – 10:30 Break

Treatment of sepsis in the era of antimicrobial resistance

Chair: Murat Akova

10:30 – 11:00 **Changing epidemiology of antimicrobial resistance in bacterial bloodstream infections**

Füsün Can

11:00 – 11:30 **Emerging threat of antifungal resistance**

Riina Rautemaa-Richardson

Implementation of New Rapid Diagnostic and Antimicrobial Susceptibility Testing Methods for Bloodstream Infections

Istanbul, Türkiye



11:30 – 12:00	Last line therapeutic choices in drug resistant bacteria <i>Önder Ergönül</i>
12:00 – 12:30	Review of current guidelines and challenges in treatment of sepsis <i>Murat Akova</i>
12:30 – 13:30	Lunch
Case-based workshop: Selecting the right antimicrobial treatment options in management of sepsis	
13:30 – 15:00	Participants will be divided into three groups and rotate through the stations below (30 min/station)
	Case study: management of sepsis in a setting with high levels of antimicrobial resistance <i>Şiran Keske</i>
	Case study: management of sepsis in a setting with low levels of antimicrobial resistance <i>H. Selçuk Özger</i>
	Case study: interpretation of antifungal susceptibility test results <i>Riina Rautemaa-Richardson</i>
Roundtable: how to bring phenotypic and molecular methods together to set up a comprehensive diagnostic workflow for bloodstream infections? <i>Chair: Spyros Pournaras</i>	
15:00 – 15:45	Interactive roundtable <i>Fusun Can, Murat Akova and Şiran Keske</i>
15:45 – 16:15	Break
Laboratory results shaping patient management <i>Chair: Fusun Can</i>	
16:15 – 16:45	Evaluation of blood culture results – how to separate true causes of sepsis from contaminants <i>Yeşim Beşli</i>
16:45 – 17:15	Implementation of EUCAST RAST in routine workflow: lessons learnt <i>Erika Matuschek</i>
17:15 – 17:45	What do to when there are no clinical breakpoints in the EUCAST table? <i>Onur Karatuna</i>
17:45 – 18:00	Concluding remarks and farewell <i>Önder Ergönül and Yeşim Beşli</i>

Implementation of New Rapid Diagnostic and Antimicrobial Susceptibility Testing Methods for Bloodstream Infections

Istanbul, Türkiye



Organisers



**Implementation of New Rapid Diagnostic and Antimicrobial
Susceptibility Testing Methods for Bloodstream Infections**
İstanbul, Türkiye



Sponsors and supporters

