ESCMID Postgraduate Education Course

Individualized Medicine in Infectious Diseases: a Practical Approach

Tübingen, Germany
3 – 4 June 2016

Course Objectives

Participants of this course will:

• Understand the pharmacokinetic and epidemiologic heterogeneity in patient populations, including those traditionally excluded from clinical studies such as the critically ill, the elderly, those with renal insufficiency, the obese, and female patients
• Understand the clinical implications of variations in local epidemiology, microbiota, and regional perceptions regarding antimicrobial use
• Explore the clinical evidence for recommended durations of antimicrobial therapy
• Identify existing tools for individualized diagnostics and therapy, such as:
  – Point-of-care diagnostics
  – Therapeutic drug monitoring of antimicrobials
  – Web-based software for individualized dosing with Bayesian adaptive feedback
  – Non-antibiotic approaches to therapy, such as delayed prescription, vaccination and antibody therapy
• Explore the cognitive biases that can impede accurate diagnosis in various populations
• Explore the ethical dilemmas in antimicrobial decision-making (the individual versus society)
**Course Programme**

**Friday, 3 June 2016**

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<tr>
<th>Time</th>
<th>Session</th>
<th>Topic</th>
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| 08:45 | Registration | **Course Venue** Universitätsklinikum Tübingen  
Otfried-Müller-Strasse 1 2  
72076 Tübingen  
Germany |
| 09:00 | Introduction: “Patients like mine” – problems & solutions.  
Angela Huttner | **Course Venue** Universitiesklinikum Tübingen  
Otfried-Müller-Strasse 1 2  
72076 Tübingen  
Germany |
| 09:10 | Individualized epidemiology  
Dominique Monnet | Know your local epidemiology and the tools for keeping tabs on it.  
Dominique Monnet |
| 09:40 | Know your patient’s risks I: sex-based and other differences in infectious disease pathogenesis and immunity.  
Marylyn Addo | Know your patient’s risks I: sex-based and other differences in infectious disease pathogenesis and immunity.  
Marylyn Addo |
| 10:10 | Know your patient’s risks II: learning your patient’s pharmacokinetics – as much as possible.  
William Hope | Know your patient’s risks II: learning your patient’s pharmacokinetics – as much as possible.  
William Hope |
| 10:40 | Coffee break | Coffee break |

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| 11:00 | Rapid diagnostic testing in infectious diseases: where are we now?  
Sushith Malothra-Kumar | Rapid diagnostic testing: can it make an infectious disease diagnosis?  
Pierre-Yves Bochud |
| 11:30 | Genetic testing: can it make an infectious disease diagnosis?  
Pierre-Yves Bochud | Genetic testing: can it make an infectious disease diagnosis?  
Pierre-Yves Bochud |
| 12:00 | Cognitive bias and accurate diagnosis: what are our stumbling blocks?  
Mical Paul | Cognitive bias and accurate diagnosis: what are our stumbling blocks?  
Mical Paul |
| 12:30 | Lunch | Lunch |

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Angela Huttner | Alternate strategies in the age of resistance: delayed prescription, vaccines, antibodies.  
Angela Huttner |
| 14:00 | Individualized infection control measures: are they possible?  
Andreas Widmer | Individualized infection control measures: are they possible?  
Andreas Widmer |
| 14:30 | Coffee break | Coffee break |

**Session 1**

**Individualized epidemiology**

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<tr>
<th>Time</th>
<th>Workshop 1</th>
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<td>15:00</td>
<td>Interactive session: proposals for research projects on individualized therapy in infectious diseases to be discussed with experts (I)</td>
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**Saturday, 4 June 2016**

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| 09:00 | Special populations: the immunosuppressed, the critically ill, and others.  
Andrew Ullman | Special populations: the immunosuppressed, the critically ill, and others.  
Andrew Ullman |
| 09:30 | Duration of therapy: from arbitrary numbers to biomarker- and algorithm-based guidance.  
Werner Albrich | Duration of therapy: from arbitrary numbers to biomarker- and algorithm-based guidance.  
Werner Albrich |
| 10:00 | Individualized PK/PD approaches to antimicrobial therapy.  
William Hope | Individualized PK/PD approaches to antimicrobial therapy.  
William Hope |
| 10:30 | Coffee break | Coffee break |
| 11:00 | The impact of antimicrobial resistance on clinical daily prescribing.  
Evelina Feccenni | The impact of antimicrobial resistance on clinical daily prescribing.  
Evelina Feccenni |

**Session 2**

**The "swampy lowlands": where guidelines meet the complexity of today’s populations**

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| 11:30 | "Omics": myths and real-life applications.  
Silke Peter | "Omics": myths and real-life applications.  
Silke Peter |
| 12:00 | Guidelines and evidence in infectious diseases: where do they come from and how applicable are they?  
Beneditk Huttner | Guidelines and evidence in infectious diseases: where do they come from and how applicable are they?  
Beneditk Huttner |
| 13:00 | Lunch break | Lunch break |

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| 14:00 | Will individualization of care diminish the evidence base?  
Marc Bonten | Will individualization of care diminish the evidence base?  
Marc Bonten |
| 14:30 | The individual versus society: ethical dilemmas in antimicrobial decision-making.  
Leonard Leibovici | The individual versus society: ethical dilemmas in antimicrobial decision-making.  
Leonard Leibovici |
| 15:00 | Coffee break | Coffee break |

**Session 3**

**Improving care for your patient and future ones**

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**Organization**

**Course Venue**  
Universitätsklinikum Tübingen  
Otfried-Müller-Strasse 1 2  
72076 Tübingen  
Germany

**Registration Procedure**  
Register now online on the ESCMID website at www.escmid.org/education. Registration deadline is 20 May 2016.

**Registration Fee**  
EUR 400 for ESCMID members (Full Membership/Young Scientist Membership)  
EUR 450 for all others

**Attendance Grants**  
ESCMID provides a number of attendance grants for ESCMID “young scientist members”. The grant covers the registration fee. Travel and accommodation are not included.

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