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Beatrice Casini, Pisa, Italy
Maria Anna Coniglio, Catania, Italy
Birgitta de Jong, Stockholm, Sweden
Jeroen Den Boer, Haarlem, The Netherlands
Valeria Gaia, Bellinzona, Switzerland
Carolina Garcia-Vidal, Barcelona, Spain
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John Lee, London, United Kingdom
Susanne Lee, London, United Kingdom
Carmen Pelaz, Madrid, Spain
Gaetano Privitera, Pisa, Italy
Vincenzo Romano-Spica, Rome, Italy
Søren Anker Uldum, Copenhagen, Denmark

CME Accreditation

EACCME credits for fully qualified medical specialists.



Scientific picture: Legionella spp are gram-negative, non encapsulated, aerobic bacteria living in aquatic environments. They require specific culture media for detection and isolation. Water aerosols are the main source of exposure and Legionella pneumonia prevention is based on environmental contamination control

Course Coordinators

- Paola Borella, Modena, Italy
- Giuseppe Giammanco, Catania, Italy
- Susanne Lee, London, United Kingdom
- Carmen Pelaz, Madrid, Spain
- Søren Anker Uldum, Copenhagen, Denmark

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UNIVERSITY OF MODENA AND REGGIO EMILIA
Department of Diagnostic, Clinical and Public Health Medicine



«ETTORE MAJORANA» FOUNDATION AND
CENTRE FOR SCIENTIFIC CULTURE



SOCIETÀ ITALIANA di IGIENE MEDICINA
PREVENTIVA e SANITÀ PUBBLICA



ESCMID Postgraduate Education Course
45th Course INTERNATIONAL SCHOOL OF
EPIDEMIOLOGY AND PREVENTIVE MEDICINE

Infections by Legionella: Surveillance, Prevention and Control

2 - 5 April 2014, Erice, Italy



Organisers

- ESCMID Study Group for Legionella Infections (ESGLI)
- Dept. of Diagnostic, Clinical and Public Health Medicine, University of Modena and Reggio Emilia, Italy
- G. D'Alessandro School of Epidemiology and Preventive Medicine, Ettore Majorana Foundation and Centre for Scientific Culture, Erice, Italy

Supporter

- Italian Society of Hygiene

Course Objectives

The widespread environmental contamination and growth of legionellae in water systems and associated equipment, in both public and private buildings, represents a health risk for those exposed. Buildings which pose a significant risk, if adequate controls are not in place, include tourist accommodation, spa and health facilities. The problem can and needs to be faced by appropriate identification of risk and effective preventive and control strategies, as detailed in the recent revision of the European guidelines.

The main objective of the course is to increase the theoretical and practical knowledge and update on how to minimize the contamination and colonization of water systems by *Legionella*. Risk assessment of systems and surveillance, including investigations into potential sources of environmental contamination, before and after the appearance of single cases/clusters will be detailed. Clinical characteristic and diagnostic tests for detection of *Legionella* pneumonia will be examined. Preventive measures and strategies taking into consideration both the susceptibility of persons and environmental factors will be presented, together with new and traditional disinfection evidence based systems. Practical examples and exercises will be studied by small groups of participants.

Younger participants aiming to reach a skilled expertise for future employment in the sector are warmly invited to participate. The course aims also to expand cross working relationships and increase communication to improve the collaboration between the different professionals working in *Legionella* management, including clinicians, persons responsible for buildings, public health operators, researchers and persons involved in installation and maintenance of water and air distribution systems.

Course Programme

Wednesday, 2 April 2014

14:00 Arrival and registration

17:00 Opening ceremony. *Gaetano Maria Fara, Giuseppe Giammanco*
(Directors School of Epidemiology and Preventive Medicine, Erice, Italy)

17:20 Course presentation. *Paola Borella, Vincenzo Romano-Spica*

Keynote lectures

17:30 The etiological agent: *Legionella pneumophila* and other *Legionella* spp. *Valeria Gaia*

18:30–19:00 *Legionella* spp, from environmental source to man: environmental habitats and microbial ecology. *Jaana Kusnetsov*

Thursday, 3 April 2014

8:50 Presentation of ESCMID and ESGLI. *Jeroen Den Boer*

Risk factors and disease characteristics

09:00 Epidemiology of Legionnaires' Disease in Europe. *Birgitta de Jong*

09:20 Risk factors for environmental transmission from cooling towers and water systems. *John Lee*

09:40 Risk factors for legionellosis acquisition. *Jeroen Den Boer*

10:10 Diagnosis, clinical aspects and treatment. *Carolina Garcia-Vidal*

10:30 *Coffee break*

The laboratory in *Legionella* investigation

11:00 Environmental sampling in both routine and outbreak situations.

Paola Borella, Greta Ferranti

11:20 Isolation of *Legionella* spp from environmental and biological samples. *Carmen Pelaz*

11:40 Comparison of tests for diagnosis of infections.

Søren Anker Uldum

12:20 Molecular investigations in clinical diagnosis and epidemiology of *Legionella* spp. *Vincenzo Romano-Spica*

13:00 *Lunch*

15:00 Exercises (small groups)

- Risk factors for environmental contamination by *Legionella* and the identification of persons "at risk".

- Sampling, isolation techniques, identification and diagnostic tests.

Tutors (Claudia Bellucci, Maria Anna Coniglio, Valeria Gaia, Greta Ferranti)

16.30 *Coffee break*

17:00-19:00 Presentation and discussion of the work done.

All teachers

Course Programme

Friday, 4 April 2014

Management and control in community and health environments

09:00 Risk assessment and water safety plans in buildings.

Susanne Lee

09:45 Touristic accommodation: European Legionnaires' Disease Surveillance Network. *Birgitta de Jong*

10:30 *Legionella* risks from spa pools, hot tubs, leisure and health centres. *Susanne Lee*

11:00 *Coffee break*

11:30 Management and control in healthcare facilities.

Gaetano Privitera, Beatrice Casini

12:00 Control and disinfection systems: innovative and conventional procedures. *Maria Anna Coniglio, Paola Borella*

13:00 *Lunch*

15:00 Exercises (small groups)

Problem solving on nosocomial and community-acquired cases of legionellosis. *Tutors (Claudia Bellucci, Beatrice Casini, Maria Anna Coniglio, Greta Ferranti)*

16:30 *Coffee break*

17:00 Presentation and discussion of the work done.

All teachers

18:00 Round Table: Open issues on *Legionella* infections.

All teachers involved

19:00 Closing Ceremony

20:00 *Social dinner*

Saturday, 5 April 2014 (on voluntary basis)

9:00-10:00 Projects for the Future

10:00–18:00 Visit to an archaeological site