Global scientific community meet in Europe to tackle infectious diseases

16 MAY 2009 HELSINKI: Europe’s largest conference on infectious diseases and clinical microbiology opens today in Helsinki with more than 8,000 experts ready to share latest knowledge and practice to improve the fight against infectious diseases in Europe and around the world.

The aim of the European Congress on Clinical Microbiology and Infectious Diseases (ECCMID) is to bring together medical and scientific communities to share and discuss the newest scientific achievements and knowledge in diagnostics, surveillance and treatment. Organized by the European Society of Clinical Microbiology and Infectious Diseases (ESCMID), the conference looks to inform the development of effective approaches and strategies to protect and treat people.

“The very latest scientific achievements and findings in diagnostics and treatment of infectious diseases take centre stage at ECCMID 2009 at a time when the international community is dealing with the outbreak of influenza A H1N1*. Such a development underlines how much infectious diseases remain a key part of daily life and that new infections can appear at any time,” said Professor Cornaglia, President of ESCMID.

Speaking on the role of ECCMID, Professor Pentti Huovinen, President of the Congress and Professor at the National Institute for Health and Welfare in Finland, said: “This conference will pool European knowledge and experience – as well as from other parts of the world - to better understand the challenges we face and assist in devising improved and complementary strategies to address them. Such a coordinated and concerted approach brings a clear added value to the fight against infectious diseases”.

The issue of infection control remains a high priority for the European medical community as global efforts to reduce the spread of hospital-acquired infections requires vigilance. Findings being released at ECCMID show how with concerted efforts (such as alcohol hand rubs, medicated soap, effective information resources and patient empowerment materials) hospital acquired infections, such as MRSA (Methicillin-Resistant *S. aureus*), can be reduced by half. Screening all hospital admissions is also shown to reduce levels of MRSA by as much as 70%.

“Such initiatives clearly demonstrate that the spread of disease can be greatly reduced and lives saved,” said Professor Didier Pittet of the Faculty of Medicine and University of Geneva Hospitals, who is being given the ESCMID Award for Excellence in Clinical Microbiology and Infectious Diseases in Helsinki.

Other trends being highlighted at ECCMID include the increasing appearance of infection caused by bacteria producing ESBLs (extended-spectrum beta-lactamases) which are resistant to the most common antibiotics (such as penicillins and cephalosporins) and were previously only seen in high-risk settings such as intensive care units. Now, data shows that these bugs are progressively spreading to all other hospital wards as well as outpatients, making treatment of infections increasingly difficult even within the community.
Even more worrisome seems to be the increasing appearance of bacteria producing MBLs (metallo-beta-lactamases), resistant to an even wider range of antibiotics and often causing serious infection such as sepsis and hospital-acquired pneumonia virtually untreatable with currently available drugs. Data presented at ECCMID show that these bugs are progressively spreading across Europe, with the highest prevalence being reported from the Mediterranean area (Greece, Israel and Italy).

Discussions on antibiotic resistance will feature at ECCMID, raising questions about the fears of overusing antibiotics. Data being released at the conference show that appropriate antibiotic usage and infection control measures can actually limit or even reverse the resistance trends. Yet there is also data showing that for the first time most of the European *E. coli* - a most common cause of community-acquired infections, such as cystitis, but usually not listed among the ‘bad bugs’ - showed resistance to one or more of the antibiotics commonly used for treatment, with multi-drug resistance increasing as much as from 5% to 30%.

In the field of diagnostics, scientists have been developing a range of molecular tools and tests which are changing the face of medicine. As findings shared at ECCMID will outline, this includes a new molecular technique that can detect a wide range of viruses that cause influenza and a new molecular screening approach for identifying bacterial gut infections. "Such work will help assist in swifter and more accurate diagnosis and improved treatment for patients, something we in the medical community are committed to," said Professor Didier Raoult of the Marseille School of Medicine and ESCMID Executive Committee Member.

Europeans still suffer and die from infectious diseases;

- Every year approximately 4 million people catch healthcare-associated infections causing 37,000 deaths
- 81, 600 TB cases were reported in 2006 - 72% of which were focused in Kazakhstan, Romania, the Russian Federation, Turkey, Ukraine and Uzbekistan
- 25 to 50 million people catch seasonal influenza annually in the EU, with 40,000 to 200,000 deaths
- In 2007 there were some 48,892 newly diagnosed cases of HIV infection in the WHO European Region. Between 2000 and 2007, the annual rate of HIV infection has almost doubled (from 39 to 75 per million population)
- There has been an upsurge of measles in EU countries in 2007/2008 (over 5,600 cases reported in 2008)

*A late breaker session at ECCMID on influenza A H1N1 is being co-organized by ESCMID and The Lancet (Sunday 17 May, 6:15pm Lecture Hall 1, Ground Floor, Helsinki Fair Centre). Video highlights from the session will be available next week from www.escmid.org and www.TheLancet.com/H1N1-flu.

Contact: Claire Hoffman (Email: claire.hoffman@bartley-robbs.co.uk Tel: +44 7977 440 353) or visit www.escmid.org/news_discussion/press/

ESCMID is a non-profit organization whose mission is to improve the diagnosis, treatment and prevention of infection-related diseases. This is achieved by promoting and supporting research, education, training, and good medical practice.

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1. European Centre for Disease Control (ECDC)
2. WHO Regional Office for Europe
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4. WHO Regional Office for Europe
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