Planning for the 12th ICID in Lisbon

by Tim Brewer MD, MPH • ISID Program Director

Planning for the 12th International Congress on Infectious Diseases has already begun, and the Program Committee is working with colleagues from around the world to create an exciting scientific program. The 12th ICID will be held in Lisbon, Portugal, from June 15–18, 2006. As with previous Congresses, the program will span advances from basic sciences to issues affecting the global control of infectious diseases. Subject areas under consideration include progress in immune modulation, antifungal therapy, antibiotic resistance, approaches to the diagnosis of infections, and global programs to combat HIV/AIDS. Tuberculosis, malaria, respiratory infections and infection control practices also will be featured. The international faculty will include many individuals at the forefront of scientific discovery, clinical practice and public health. From the bench to state-of-the-art management presentations, participants will come away with latest in infectious disease knowledge. The Society is delighted to have the Portuguese Society of Infectious Diseases and the Spanish Society for Infectious Diseases and Clinical Microbiology as collaborating organizations, and welcomes the European Society of Clinical Microbiology and Infectious Diseases as a cooperating organization for the 12th ICID.

Plan now to submit your abstract for consideration in scientific program. Abstracts are an important part of the Congress, and those abstracts accepted for poster presentation at the 12th ICID will be published as a supplement to the International Journal of Infectious Diseases. Additional opportunities to learn and to participate include meet-the-expert sessions, workshops and industry sponsored satellite symposia.

With 800 years of history forged by many different cultures, Lisbon is a spectacular site to hold a meeting. Castles, sandy beaches and beautiful mountains are nearby, as well restaurants representing cuisines from all over the world. The Committee hopes that you will join your colleagues from almost 100 different countries at the 12th ICID for what will be an educational, enjoyable experience.

ISID would like to acknowledge the following

COLLABORATING AND COOPERATING ORGANIZATIONS

12th International Congress on Infectious Diseases
Lisbon, Portugal • June 15–18, 2006

Collaborating Organizations:
Portuguese Society of Infectious Diseases (SPDI)
Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC)

Cooperating Organizations:
European Society of Clinical Microbiology and Infectious Diseases (ESCMID)
Turkish Microbiological Society (TMC)
Danish Society for Clinical Microbiology (DSKM)
ISID Small Grants Program Final Report
by Alex Owusu-Ofori, MB, ChB • Ghana

Report on a study of the epidemiology of blood-borne pathogens and needlestick injuries among health workers in Ghana.

Since 1984, when the first report of a health care worker (HCW) being infected with the human immunodeficiency virus (HIV) through a needle stick was published, several other reports and publications have established that health care workers are at risk of infection with hepatitis B (HBV), hepatitis C (HCV), and HIV through such injuries.

Industrialized countries have made significant progress in reducing the transmission of blood-borne pathogens to health care workers. Policies like the implementation of universal precautions, vaccinations against hepatitis B, and the enactment of the federal Needlestick Safety and Prevention Act are in place in the US. However, very little has been done in less developed countries, despite the fact that workers in developing countries are at higher risk of contracting these infections. The problem has been overlooked both by policy makers and by healthcare workers, possibly because there is very little documentation.

This study was aimed at assessing the frequency of needle–stick injuries and exposure to blood/body fluid among HCWs. Though medical and nursing students were included in this survey, data from their responses have not been included in this report. The response rate was about 50%, with about 2000 questionnaires being evaluable.

Blood/body fluid exposure and protection
Thirty-two percent of respondents reported having blood/body fluid spilled on their non-intact skin or mucous membrane within the past 12 months. The most common body fluid was blood, but urine, liquor/amniotic fluid, and vomitus were also common.

The most frequent procedure associated with blood/body fluid spills was setting up or disconnecting an IV line. Other events associated with a spill included patients who struggle, application of pressure to bleeding sites, and accidental spillage of specimen containers.

57.4% of HCW wore some form of protective clothing/equipment at the time of the last exposure.

Needlestick/sharp object injuries
The prevalence of needlestick/sharp object injuries was 32.4%; 72.3% were performing the procedure and 13.1% were assisting. Cleaning up after the procedure (7.0%) and disposing medical waste (5.9%) were also opportunities for injury.

Needles on syringes were the most frequent cause of sharp object injuries (66.9%). Other common sharps include suture needles (9.3%) and butterfly needles (6.7%).

More than half (54.9%) of HCWs reported not recapping needles, while 31.3% frequently recap needles with only one hand. Only 13.8% frequently recap with two hands. Recapping is a high-risk procedure and should be strongly discouraged.

Reporting of injuries
Only 20% of injured HCW reported their injury to a supervisor. However, there is no documentation of these injuries nor any plan for risk assessment. This low level of reporting may reflect the absence of any ‘incentive’; in most cases nothing is done for these injured workers, and few had access to HIV post-exposure prophylaxis.

Hepatitis B
Hepatitis B vaccination is 95% effective in preventing chronic infections. Elsewhere in the world, all health workers are required to be immunized against Hepatitis B and infants routinely receive the vaccine as well. In Ghana, however, there is no clear policy on hepatitis B vaccination, even though the Ministry of Health occasionally makes the vaccine available through the various health institutions.

A majority of HCWs in Ghana have had no vaccination at all. Forty percent (813 respondents) received some form of hepatitis B immunization. This includes 37% who have been fully immunized by receiving three full doses, with or without a booster dose. Most (84.5%) vaccinated HCWs received the vaccine free from their employers through the Ministry of Health. Ten percent of the positive responders bought the vaccine themselves, while 2.9% received vaccine donated by the drug company.

A person who experiences one needle–stick injury from a needle used on a person infected with HBV, HCV, or HIV has 30%, 1.8%, and 0.3% risk of infection, respectively. If HCWs, whom a nation invests so much to train, are at such a high risk of being infected with these blood-borne pathogens, the implications are obvious. Care must be taken so that the near future will not see patients being cared for by chronically ill health care personnel.

I am most grateful to the ISID for supporting this study.
ISID Fellowship Program Final Report
by Fuad Mirzayev, MD, MPH • Azerbaijan

Multi-drug Resistant Tuberculosis / Azerbaijan

During the Soviet period, tuberculosis case notification rates in Azerbaijan were among the highest in the former USSR. Though they declined between 1963 and 1990, this trend was reversed after Azerbaijan gained independence and began a very difficult transitional period. Increasing socio-economic difficulties among large sectors of the population as well as crowd living conditions among internally displaced people and refugees contributed to the level of risk.

Tuberculosis rates have risen among all sectors of the society. However, in the prisons of Azerbaijan the disease staged a more dramatic comeback and by 1995 had become an enormous problem: approximately 20% of all inmates were sick or suffering from TB. This was considered an emergency by the Ministry of Justice (MOJ) and the International Committee of the Red Cross (ICRC), which was actively involved with the health care in prisons of Azerbaijan, and led to an active collaboration to treat TB within the Azerbaijani penitentiary system. A pilot project was initiated with a treatment program based on the DOTS (Directly Observed Treatment Short-course) protocols recommended by the WHO.

This successful small cooperative project developed into a full-fledged TB control program. Consequently, the TB-related death rate in the penitentiary system is now less than one-third the 1997 rate, and the number of cases is half what it was in 1997. Since 2002, the DOTS program has expanded into the civilian sector, with the financial and technical assistance of the German government and German Technical Cooperation agency (GTZ).

However, despite these achievements, there is a problem more difficult to control. More than 100 patients with multi-drug resistant tuberculosis (MDR TB) are in respiratory isolation in prisons, and more cases continue to be diagnosed. The death rate among such cases remains very high; 50% of all TB deaths in the penitentiary system are prisoners with MDR TB.

MDR TB cases are not being treated with second-line drugs, mainly because of their high cost; patients are merely waiting to die while receiving better food rations and symptomatic treatments. This most deadly form of TB is not being addressed, and it will not remain confined to the penal system, as prisoners are eventually released. A well-structured and strictly organized DOTS-Plus program can address this problem and is the only way to prevent misuse of second-line drugs.

During recent months, I have used my ISID Fellowship award to participate in a project called “Development of the strategy and elaboration of the detailed project for treatment of patients with Multi-Drug Resistant Tuberculosis (MDR-TB) in the specific context of Azerbaijan,” at Partners in Health, Harvard Medical School. This project was designed in response to a request from the authorities of the Republic of Azerbaijan for assistance in the preparation of an application to the Green Light Committee (GLC) of the World Health Organization (WHO). The GLC is a mechanism for reducing treatment costs through which established DOTS programs have better access to second-line anti-tuberculosis drugs.

Dr. Paul Farmer, an infectious disease physician with more than 20 years of experience developing and managing complex health interventions in resource-poor settings, has sponsored this project. Dr. Farmer and his team at Partners in Health/Program in Infectious Disease and Social Change at Harvard Medical School (PIH/HMS)—including experienced members of the GLC—strongly supported this research. Their assistance facilitated the transfer of essential technology to a setting where it is most needed. The comprehensive DOTS-Plus project tailored to this particular context encompasses treatment schemes, diagnostic procedures, and many other aspects of effective healthcare intervention. A report entitled “Integrated control of the Multi-Drug Resistant Tuberculosis with the focus on the Penitentiary system of the Republic of Azerbaijan” was submitted for the consideration and approval of the GLC.

The project and the treatment program it outlines will help to overcome the current upsurge in cases of MDR TB and foster cooperation between different sectors of the society, therefore benefiting an even higher number of existing and future patients. The project involved not only analyzing the data provided by the TB program in Azerbaijan and writing the proposal; it also included the concerted work of all partners in the ensuing treatment project. The partners in Azerbaijan include governmental agencies such as the Ministry of Health, the National TB control program, and the Ministry of Justice; and international organizations including the ICRC and the GTZ.

TB is the greatest single threat to the health of both prisoners and the civilian population in Azerbaijan. MDR-TB is the most striking aspect of the problem, and it will not remain confined to the penal system. Steps need to be taken to address the MDR-TB epidemic, curing prisoners who are ill, protecting those who are not, and ultimately benefiting society as a whole. My ISID fellowship contributed to the success of a project that will help eliminate the obstacles preventing seriously ill patients from receiving appropriate treatment.

I would like to thank ISID for supporting this work and facilitating the technical cooperation that will help to fight a very dangerous infectious disease. I am also grateful to Dr. Paul Farmer and his colleagues from Partners in Health for their thoughtful advice and vast experience, which they generously shared to support this project.
Swiss Society for Infectious Diseases (SSI)/ISID
Infectious Diseases Research Fellowship Program Final Report

by Andres Pascual, MD • Fundacion Centro de Estudios Infectologicos • Buenos Aires • Argentina

Development and validation of new laboratory methods for the measurement of blood levels of antimicrobial agents.

My Fellowship program jointly sponsored by the Swiss Society for Infectious Diseases (SSI) and the International Society for Infectious Diseases (ISID) was conducted in the Laboratory of the Infectious Diseases Service at the University Hospital in Lausanne, Switzerland under the direction of Dr. Oscar Marchetti and Prof. Thierry Calandra.

As a first research project, I developed a rapid HPLC method (simplified extraction from plasma and short analytical procedure) and a bioassay with extended analytical range (using an azole-hypersusceptible C. albicans mutant lacking multidrug-efflux transporters and calcineurin) for measurement of voriconazole blood levels. An abstract has been submitted to an international congress in 2004, and the manuscript is in the review process. As a second project, I developed a bioassay for the measurement of caspofungin blood levels using a C. albicans mutant with decreased resistance to cell wall stress. The manuscript is in preparation.

The SSI/ISID Fellowship continues with a clinical research project on pharmacokinetics/dynamics of antifungal agents in patients with invasive mycoses. The objective of this study is to assess the utility of monitoring antifungals blood levels in critically ill patients, in whom drugs pharmacokinetics/dynamics may be profoundly altered. Further, I am involved in the hospital's therapeutic drug monitoring program of antifungal agents, in clinical research projects in neutropenic cancer patients, and in clinical training in infectious diseases.

This Fellowship has been very important for my professional development. The acquisition of new scientific and clinical competences, and of theoretical/technical skills for the measurement and interpretation of blood levels of antimicrobial agents will open new career perspectives in my country.

Yours sincerely,
Andres Pascual, MD.

Working under the direction of Oscar Marchetti, MD, Thierry Calandra, MD, PhD and Patrick Francioli, MD.

The International Journal of Infectious Diseases is the official publication of the ISID.

The journal aims to provide a source of information relevant to professionals involved in the epidemiology, clinical diagnosis, treatment and control of infectious diseases with particular emphasis placed on those diseases that are most common in less-developed countries.

http://intl.elsevierhealth.com/journals/ijid

Andres Pascual, MD

Dr. Andres Pascual received his medical degree from the School of Medicine, National University of Cuyo in Mendoza, Argentina.

He completed his residency in pediatrics at the National Hospital “Prof. Alejandro Posadas” in Buenos Aires, and a post-residency fellowship in infectious diseases at the Fundacion del Centro de Estudios Infectologicos (FUNCEI) in Buenos Aires.
Recent ISID Program Awards

The ISID Small Grants Program is designed to fund pilot research projects by young investigators in developing countries. The goal is to support and foster the professional development of young individuals in the field of infectious diseases research by helping them to acquire additional skills and data to apply for other grants.

The ISID Scientific Exchange Fellowship Program was established in 1992 to promote collaboration among researchers in different countries by enabling infectious disease researchers in the formative stage of their career to extend their research experience in institutions outside of their region. These awards are not restricted to physicians and are intended to support young scientists from developing countries in updating their knowledge of new, relevant laboratory techniques or in learning specific skills and techniques.

Spring 2004 ISID Small Grant Awardees

Samie Amidou • South Africa
Department of Microbiology, University of Venda for Science and Technology
Project: Molecular epidemiology of Entamoeba histolytica in the Venda region of South Africa, and anti-amebic activities of local medicinal plants.

Aleem Khan • India
The Meccan Medical College and Allied Hospitals
Project: Molecular genotyping of Helicobacter pylori strains associated with gastric and duodenal ulcers using whole genome fingerprinting: Andhra Pradesh, South India.

Cesar Henriquez Camacho • Peru
Instituto Medicina Tropical Alexander von Humboldt, Universidad Peruana
Project: Immune response in BALB/c mice to Bartonella bacilliformis infection.

2004 ISID Scientific Exchange Fellowships

Ikechukwu Okoli • Nigeria
Department of Applied Microbiology, Nnamdi Azikiwe University
Project: Molecular characterization of virulence factors of five isolates of Cryptotrichosporon anacardiense (CBS 9549, CBS 9550, CBS 9551, CBS 9552 and CBS 9553), a new basidiomyceteous yeast genus from Nigeria.
Dr. Okoli will conduct his research in collaboration with Yeshiva University, Albert Einstein College of Medicine in New York, USA.

Fuad Mirzayev • Azerbaijan
Project: Development of the strategy and elaboration of the detailed project for treatment of patients with Multi-drug Resistant Tuberculosis (MDR-TB) in the specific context of Azerbaijan.
Dr. Mirzayev will conduct his research in collaboration with Partners in Health in Boston, Massachusetts, USA.

For more information on all of the ISID Programs please see http://www.isid.org

Application Deadlines

Professional Development for Young Scientists From Developing Countries
ISID Scientific Exchange Fellowship
Applications are due March 1, 2005.

SSI/ISID Fellowship
(Swiss Society for Infectious Diseases/ISID Joint Infectious Diseases Research Fellowship)
Applications are due April 1, 2005.

Small Grants
Applications are due April 1, 2005.

HIV/AIDS Training
The next course will take place April/May 2005. Applications are due on October 15.
(Note change in date from December 1)
We are all grateful to be here...

After the first week of our training, the experience is unclassifiable. The providers are excellent. We are all grateful to be here as we share the experiences from our various countries. There is an enormous difference in HIV/AIDS management between my country as a whole and the program in which I work in particular compared to what I find here in terms of resources and accessibility.

Moreover, we are very lacking in research. Whatever we are learning here is based on research and we look forward to applying it in our different working context as much as we can. But I believe we need to go a step ahead by carrying out some basic research specific to our respective populations.

We are very lucky to have first hand information from world known names in HIV/AIDS. Thanks.

Sincerely,

Dr. SUME Gerald

Cameroon

Comments from 2004 HIV/AIDS Training Program participant, San Francisco

2004


2005


April 2–5. 15th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID). Location: Copenhagen, Denmark. Info: www.escmid.org

May 9–11. National Foundation for Infectious Diseases. Location: Baltimore, Maryland, USA. Info: http://www.nfid.org/conferences/


The Royal Society

Emerging infections: what have we learnt from SARS? Compiled and edited by Lord Robert May of Oxford, Professor Robin Weiss, Dr. Angela McLean and Sir John Pattison. Published July 2004. www pubs.royalsoc.ac.uk
ProMED-mail Report on Newly Independent States
by Nilufar Rakhmanova, MD, MPH • ProMED-mail moderator • Uzbekistan

After the break-up of the former Soviet Union, access to information on outbreaks of infectious diseases became extremely difficult. Lack of cooperation in the Newly Independent States among scientists and physicians, lack of resources, and sometimes politics in various countries had a negative impact on the ability to cope with infectious outbreaks.

Creation of a Russian-language ProMED-mail service is an encouraging initiative that would unite the efforts of scientists and physicians of former Soviet countries that used to work in a common system and speak a common language.

ProMED-mail currently has three contributors from the Newly Independent States: Vadim Melnik from Ukraine, Alexander Peredkov from Kyrgyzstan, and Nilufar Rakhmanova from Uzbekistan who are sending reports on outbreaks from their countries. These alerts allow scientists and others to assist in coping with the infections.

Russian ProMED-mail will enable all Russian speaking scientists and physicians from at least 15 independent states to have an access to information and cooperate.