

Abstracts – Invited Speakers

PL03.01

Overview for the Travel Medicine Specialist: Immunosuppression, Immunosuppressive Agents, and Drug Interactions

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As the number of immunosuppressed hosts grows and their health improves, so do their opportunities for foreign travel, perhaps for leisure, adventure, or to visit friends or relatives. The range of immunosuppression is broad, and understanding the extent of immunosuppression is important, as it has an impact on risk of infection, appropriate vaccine utilization, possible need for healthcare while traveling, and other factors. Data show that they tend to have minimal preparation prior to travel, with limited pre-travel vaccination, medications, education, and overall a poses greatly increased risk of travel related infections and complications. Enhancing the knowledge of the transplant recipients and the clinicians caring for them is likely to result in better safety and outcomes for these vulnerable patients. An overview of commonly used immunosuppressive agents will be given during this talk. A range of immunosuppressive agents from those used in solid organ transplant to the biologic agents and other disease modifying drugs used in rheumatology, dermatology, gastroenterology, and other disciplines will be covered. Timing of travel may be important; organ and bone marrow transplant recipients are considered the most immunosuppressed in the first year after transplant and for several months (or longer) after treatment for rejection. In general, delaying travel during these times is preferable, as recipients are at higher risk for infectious complications, are less likely to have a response to vaccines, and may have more medical complications in medically underserved regions. While travel to many places can be made relatively safe, travel to regions of yellow fever endemicity should usually be avoided. In addition, drug interactions can be very important in this population, and this knowledge is crucial for potentially adjusting doses and informing patients.

Abstracts – Invited Speakers

PL04.01

Changing Travel Patterns from Emerging Economies

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Over the past decade, enormous changes have been taking place in the emerging economies of the world. These social, economic and demographic changes have broad-ranging impacts on travel patterns, sometimes in novel and unexpected ways.

One major shift has been the increasing economic strength of non-Western countries.

As an example, 2010 saw Asia matching Europe for the first time in the number of millionaires (3 million) and it is fast catching up with the United States (3.1 million). With growing affluence, more people from emerging economies travel for recreation, education, work and volunteer activities.

Patterns of tourism from emerging economies are changing. Trends that bear watching include the rising popularity of theme park & gaming-related tours in Asia. Younger travelers from emerging economies are seeking more extreme adventure travel. Older travelers are also venturing to more exotic destinations. Unfortunately, many lack of awareness of travel risks and may not seek pre-travel advice.

Business relationships are changing between the emerging economies of the world. Bilateral trade networks between countries in Asia, Africa, South America, and the Middle East bring increased travel. Movement of workers in construction and engineering, domestic help, and the rapidly evolving information technology (IT) and financial services sectors present the full spectrum of travel risks to consider: occupational risks, long-term expatriation, pregnant travelers, travel with children, and visiting friends & relatives (VFR).

Patterns of medical travel are changing as infrastructure, accreditation and expertise continue to improve in the new medical hubs - Singapore, India, Thailand. Several other trends worth watching include travel between emerging economies for less expensive care or fewer legal restrictions in the areas of fertility treatment, surrogate births, and organ transplants.

Patterns of missionary, aid, humanitarian and military deployments are changing with tighter regional integration such as ASEAN (Association of South East Asian Nations). Aid efforts & volunteerism also rise with increasing levels of development and affluence, leading to more travel for literacy, healthcare & ecological projects, or missionary work.

These changing travel patterns from emerging economies pose tremendous challenges. Awareness by the travel medicine community of these changes is an important first step.

Abstracts – Invited Speakers

SY02.01

Through the Eyes of a Migrant: The Ecuadorian Experience

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Background: The Ecuadorian province of Azuay is the home of thousands of migrants who have made their way overland (“andando por la pampa” - walking across the plains) to Peekskill, New York. This is an arduous, expensive, clandestine migration, facilitated by human smugglers, and has become a norm in Azuay, a region in Ecuador suffering for years from a failing economy (in part due to the collapse of the Panama hat industry). It is the profound human dimensions of this story - the separation of families and the children left behind- that leaves the deepest impressions.

Objectives: The objectives of this symposium will be to understand the background of this story of migration, including health issues as well as the psychological stress associated with the new environment in New York and how a community, along the Hudson River, north of New York City, addresses some of these migrants' needs.

Methods: Migration studies typically focus on demographics, statistics and migration patterns. This symposium will uniquely focus on a very personal narrative, through the eyes of one migrant, representative of and woven into the migration story of the thousands who migrate from Azuay Ecuador to Peekskill, NY.

SY02.02

Bolivians Immigrants in Geneva, Switzerland: Health and Life Stories

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Objective: Millions of Latino Americans recently migrated to Western Europe. Geneva harbours 5-10'000 Bolivians. We aim at describing their socio-economical and medical characteristics with an emphasis on Chagas disease and their life experiences in Geneva.

Methods: Geneva University Hospitals (HUG) facilitate access to care to immigrants. Data were collected among Bolivian immigrants consulting at the HUG since 2007.

Results: This group of immigrants is fairly homogeneous, consisting of young- to middle-aged women with intermediate to high educational level, originating from the lower middle-class of affluent Bolivian provinces. They work undocumented in the domestic industry with wages 25-50% of the median income in Geneva. The average length of stay in Switzerland is 5 years. Less than 5% have the mandatory health insurance, thus experience difficulty accessing to preventive and curative care. Most don't speak French but develop a survival communication kit. They face constant economical stress to pay for their family in Bolivia, for their debts to come to Switzerland and because of the expensive cost of living in Geneva. A "second wave" of immigrants is arriving following the Spanish economical crisis and adds to the local congestion in the labor market. Regarding health, Chagas disease (CD) is a complex issue alongside with mental disorders, metabolic and gastro-intestinal problems. Many immigrants fear knowing their status for CD because of the fatality associated. Self-medication, self-care and telemedicine with Bolivia are frequent. Immigrants, talk about being trapped in Europe, difficulties in coping with the constant fear of deportation, the lack of control over one's destiny and the emotional distress related to motherhood after leaving their own children at home to care for others'children. These factors impact on immigrants' way of life with a trend to sedentarity and weight gain. Alternatively, Geneva is considered as safe, economically attractive and offers opportunity for health.

Conclusions: Bolivian immigrants live often in vulnerable conditions in Geneva and face a complex set of life experiences that impact on their health. Socio-economical, cultural and medical factors interplay. Comprehensive approaches are necessary to understand and adapt to their needs. Chagas disease emerges as an important health problem in Europe.

Abstracts – Invited Speakers

SY03.01

Yellow Fever: The Changing Landscape of Epidemiology and Vaccination

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Yellow fever (YF) is a threat to residents of and travelers to endemic regions of the South American and African tropics and to countries receptive to introduction and spread of the virus. This review will elucidate the factors responsible for the intermittent ebb and flow of YF virus activity in the endemic regions, the encroachment upon bordering areas, and the risk to non-endemic countries. Colleagues will subsequently expand upon this theme in the Symposium and describe why and how the geographic risk and recommendations for travel vaccination have recently been revised. In the last few years there have been major advances in our understanding of the live, attenuated 17D vaccine, why it is so effective at eliciting long-lasting immunity, why it sometimes causes serious adverse events, and how it can be harnessed as a vector for foreign genes. These features will be examined, and discussed in the context of the practice of travel medicine. Finally some new developments toward the development of safer vaccines and non-vaccine prophylactic approaches will be described.

Abstracts – Invited Speakers

SY03.02

Updates on Revisions of Yellow Fever Risk Mapping and Vaccine Recommendations 2010-2011: A CDC Perspective

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Because of recent reports of rare but fatal adverse events associated with yellow fever (YF) vaccine and the changing epidemiology of YF virus, criteria for designating countries at risk for YF and YF vaccine recommendations for international travel needed to be reassessed. In addition, travel medicine specialists at the World Health Organization (WHO) and the U.S. Centers for Disease Control and Prevention (CDC) were interested in harmonizing YF maps and vaccine recommendations. Therefore, in 2008, WHO convened a working group of international travel medicine experts (TMWG), including those from CDC, to systematically review factors important for the transmission of YF virus, update YF risk maps, revise and harmonize YF vaccination recommendations, and establish criteria for adding or removing countries from the list of areas with risk for YF virus transmission. The TMWG convened by teleconference regularly from September 2008 to December 2010 and systematically reviewed each country that has been documented to have YF virus activity. Sources used to determine YF risk included published articles, unpublished data, official case reports from national or international health organizations (e.g., WHO), and expert opinion. Changes were recommended for YF risk areas in the following countries: Democratic Republic, Eritrea, Ethiopia, Kenya, São Tomé and Príncipe, Somalia, United Republic of Tanzania, Argentina, Brazil, Colombia, Ecuador, Panama, Paraguay, Peru, Trinidad and Tobago, and Venezuela. The working group's assessment and use of standardized criteria to determine risk areas has provided the framework for the revised YF vaccination maps and recommendations that will be published in the 2012 CDC Health Information for International Travel and 2011 WHO International travel and Health publications. To our knowledge, this was the first systematic review to use internationally established and vetted criteria that was applied to all countries with documented YF virus circulation.

SY03.02

Yellow Fever Vaccination in Australia

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Australia has been free of yellow fever throughout its recorded history, although yellow fever cases were recorded on vessels arriving in Australian Ports about 100 years ago. The Australian Government has responsibility for the control of quarantinable diseases, including yellow fever, under the Quarantine Act 1908. The Commonwealth Government has delegated a number of quarantine responsibilities to State and Territory health authorities including the designation of approved yellow fever vaccine centres (YFVC's) within their jurisdictions. This state-based administration can and has resulted in considerable variation between states as to how the approval process is managed. Until 1987, there were no private travel medicine clinics in Australia and the yellow fever vaccine was only administered at state government run vaccination clinics, so there was little need for designation protocols. With the advent of private travel medicine clinics, these private clinics began lobbying to be designated YFVC. This precipitated a need to develop protocols for designation. There are now more than 700 designated YFVC giving more than 40,000 doses of yellow fever vaccine annually. While the procedures for designation have also changed over the last 20 years and protocols have been put in place by various state and territory governments, the provision of quality advice in travel medicine is not currently a requirement to be a YFVC. Various travel medicine groups and organizations in Australia are currently advocating for a link to formal accreditation and reaccreditation process as well as stringent clinic based criteria for YFVCs, which has begun to occur elsewhere in the southern hemisphere.

Abstracts – Invited Speakers

SY04.01

Water Related (non-enteric) Bacterial and Parasitic Infections

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Water has been long known as an important vehicle for intestinal diseases, and recently its role as an important route of extra-intestinal infection has been increasingly recognized. A variety of pathogens are acquired through occupational, recreational, and even therapeutic contact with water. The nature of the non-enteric waterborne diseases can be divided to two types: superficial, involving damaged or previously intact skin and mucosae, and systemic, often serious febrile infections that may lead to significant morbidity and mortality.

As adventure tourism expands, more and more travelers are exposed to fresh water recreational activities.

Among the wide spectrum of pathogens which dwell in fresh water and infect travelers, the 2 most common are leptospira and schistosoma infections.

Leptospirosis is thought to be the most common zoonosis globally. While the incidence of locally acquired leptospirosis in industrialized nations is declining, several national reports illustrate the increasing importance of travel related leptospirosis. For example, a recent report from Israel showed that among all leptospirosis cases diagnosed in Israel, travel related cases have increased from 26% to 83% during the last decade.

Leptospirosis is often missed or misdiagnosed due to the non-specific clinical presentation and the complexity of diagnosis. Therefore a high level of suspicion is required to diagnose the disease. The lecture will describe the epidemiologic and clinical features that may aid clinicians when travel associated leptospirosis is suspect.

Other rare bacterial infections will be discussed too.

Among the parasitic infections, schistosomiasis is by far the most common water related infection acquired by travelers during fresh water contact. Schistosomiasis is typically encountered in travelers returning from Africa (not only Sub-Saharan Africa) and increasingly seen in travelers from SE Asia (mainly Laos), where *S. mekongi* dwells.

Other parasitic infections acquired by water contact, which are rarely seen in travelers will be mentioned as well.

In summary, travelers to tropical areas should be educated about the risks of fresh water exposure and physicians treating returning travelers must be aware of the different infections caused by exposure to fresh water sources.

Abstracts – Invited Speakers

SY04.03

Marine and Aquatic Injuries

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A traveler can be injured by a spectrum of marine and aquatic hazards.

Natural hazards include the physical dangers of currents, waves, storms, tsunamis, floods.

A lot of injuries, such as drowning and hypothermia, are activity related and can occur during diving, surfing, white-water boating, swimming, sailing.

Chemical hazards such as pollution or toxic substances are less frequent for the traveler.

Biological hazards are caused by harmful aquatic inhabitants.

Several organisms can cause serious and life threatening injuries. The distinction between venomous and non-venomous stings or bites is often unclear. Secretions from skin glands enter the wounds and fragments of the spine are left in the wounds producing inflammatory reactions. Many wounds are contaminated with marine bacteria. Administration of antibiotics should be started if there is any sign of infection.

Hazardous marine life can be divided into five groups: stingers, stickers, scrapers, shockers and snappers. The division is useful in describing the various mechanisms of injury and also the relevant treatment.

The venom of the *stingers* (jelly fish) is denatured by vinegar. Box jellyfish and Physalia pose lethal risk after envenoming. Specific antivenin is available for Chironex fleckeri.

Hot water immersion is the treatment of choice for injuries caused by *stickers* (lion-, scorpion-, stonefish, stingray). The venom is thermolabile. There is an antivenin for stonefish. Cone shells, blue ringed octopus, sea snakes inject the venom through small puncture wounds. These venoms are complex and heat stable. Paralysis dominates the clinical picture. Apply a pressure/immobilization bandage as soon as possible. If specific sea-snake antivenin is not available, try polyvalent land-snake antivenin.

Scrapers (corals) cause direct trauma to the skin. Some types of coral and marine hydroids have nematocysts with potential for envenoming. All marine animals' surfaces are colonised by bacteria and any trauma to the skin may therefore be complicated by an infection. Apply vinegar to neutralize any venom and destroy viable stinging cells. Clean the area with a mild antiseptic.

Shockers (electric ray and eel) generate electrochemical energy and can deliver electric shocks. Treatment is usually not needed as the shock very rarely results in any serious disability unless the victim aspirates water or loses consciousness.

Snapper (sharks, game fish) attacks and fatalities are rare, and occur when somebody is mistaken as a food source or intrudes into territory.

Conclusion: The treatment of marine animal injury follows the same basic principles that apply to other traumatic injuries sustained on land. However, the aquatic environment can complicate matters. Injuries may occur in remote areas with little medical supplies or out at sea. The best way to approach marine animal injury is to apply three basic rules of treatment: Remove the cause, Treat the effects, Prevent further complications.

Abstracts – Invited Speakers

SY05.01

Common intestinal protozoa: what are the options?

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Intestinal protozoa, especially *Giardia lamblia*, *Cryptosporidium*, *Entamoeba histolytica*, and *Cyclospora cayatanensis*, are common causes of traveler's diarrhea. Clinical manifestations range from asymptomatic carriage to severe infections associated with dehydration, weight loss, and malabsorption. Although some infections will spontaneously resolve, others may lead to persistent diarrhea and prolonged morbidity.

The first line treatment of giardiasis usually consists of metronidazole or tinidazole. The latter drug (or alternatives such as ornidazole and secnidazole) is preferable given the shorter duration of treatment and lower prevalence of side effects. Nitazoxanide is a broad-spectrum anti-parasitic drug that can also be used as first or second line therapy for *G. lamblia* infections. For treatment failures, options include combination therapy or mono-therapy with a number of alternative antimicrobial agents including quinacrine, furazolidone, albendazole, and paromomycin. Mild to moderate intestinal amebiasis can be treated with metronidazole or tinidazole followed by a luminal agent such as iodoquinol or paromomycin. Severe intestinal or extra-intestinal disease (e.g. hepatic amebic abscesses) should be treated with high dose metronidazole or tinidazole followed by a course of an antiluminal agent.

Management of cryptosporidiosis is more challenging given the lack of effective drugs for treatment of this infection. In addition to oral rehydration therapy, nitazoxanide has been shown to be relatively effective for treatment in immunocompetent patients; however, its activity in HIV-infected patients with low CD4 counts is more limited. Cyclosporiasis can be managed with trimethoprim/sulfamethoxazole (TMP-SMX). In sulfa-allergic patients, a fluoroquinolone such as ciprofloxacin can be used although these drugs tend to be slightly less effective than TMP-SMX.

While *Blastocystis hominis* is frequently encountered in fecal ova and parasite examinations of returning travelers with diarrhea, its role as a pathogen has been the subject of much debate. In the absence of other identified enteropathogens, treatment with high dose metronidazole, iodoquinol, or TMP-SMX may lead to resolution of symptoms.

Treatment failures are not uncommon during the management of gastrointestinal protozoa. In addition, acquired lactose intolerance frequently occurs and thus a low lactose diet should be advised. Confirming the persistence of the organism in fecal examinations should be done before trying second line treatment options.

SY05.02

Malaria: How to Treat Severe Malaria in Industrialized Countries

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Severe malaria is a relevant risk for travellers. Large multicenter trials in South-East Asia have demonstrated improved survival for IV-artesunate as compared to quinine for the treatment of severe malaria. For patients with severe malaria in Europe, quinine is still the mainstay of treatment and IV-artesunate has not been evaluated systematically in this group of patients. IV-artesunate, however, may offer benefits for treatment of severe malaria with regard to lower toxicity and a more rapid parasite clearance also for patients in industrialized countries.

Data of IV-artesunate use in non-immune European patients is only available from two case series. In a case series of 25 patients returning from malaria-endemic regions with severe malaria treated in five different European centers, all patients survived the infection and treatment with i.v.-artesunate was effective and induced a rapid clearance of parasitaemia. In six patients from five different treatment centers, a prolonged, but self-limiting episode of hemolysis after clearance of parasitemia was observed. After exclusion of other causes, a review of treatment data suggests that this phenomenon might have been related to treatment with IV-artesunate. The recurring haemolysis peaked during the third week after the first dose of IV-artesunate and resolved spontaneously between the 3rd and 5th week. Three patients required transfusion of red cells.

IV-artesunate is a valuable and effective alternative to quinine for the treatment of severe malaria also for non-immune European patients and should not be withheld in patients where the benefit of improved survival may outweigh the risk of potential adverse reactions. The efficacy and safety profile of i.v.-artesunate should be prospectively evaluated, particularly with regard to signs of persistent or recurring haemolysis after parasitological cure. According to the data currently available, a set of parasitological and clinical criteria may help to better define the group of patients who may benefit most from either treatment with i.v.-artesunate or from conventional treatment with IV-quinine.

Abstracts – Invited Speakers

SY06.01

Humanitarian Aid Workers and Missionaries: How Can We Increase Psychological Resilience?

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What is resilience and where does it come from? What are the factors influencing the ability of mission and aid workers to cope on the field and how can they be helped to develop this ability further? This presentation will look at these questions from both an individual and social perspective, drawing on various sources including research findings, published accounts of individual and group experiences and clinical practice in organisations such as InterHealth and others.

SY06.02

Migrants and Refugees: How Can Mental Health Problems be Identified and Addressed

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Globalisation is transforming the premises structuring the field of migrant and refugee mental health. On one hand, the fluidity of transnational networks challenge the concepts of cultural shock and its associated discontinuity. On the other hand, the mounting international tensions and the tightening of migratory policies accentuate feelings of distrust and increase discrimination experiences. These trends complexify the profiles of migrant and refugee mental health, transforming the traditional landscapes of risk and protection factors. This presentation will illustrate the impact of those transformations for migrant and refugee family mental health and outline implications for intersectorial intervention and prevention.

SY08.01

Epidemiology of Chagas Disease in the Immigrant Population Outside of the US

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Chagas disease is a parasitic disease produced by *Trypanosoma cruzi* and naturally transmitted by triatomine vectors. It is endemic in Latin America, affecting millions of people and being the leading cause of cardiomyopathy. After the 1990's, migration from Latin-America to the rest of the world moved the disease beyond its geographical limits, where other ways of transmission (blood and organ donations and mother-to-child) can still spread the infection. In 1981, the first probable case of congenital transmission of Chagas disease in Europe was described in a child born in 1975 in Romania.

Since 2000, increasing numbers of cases have been reported in many European countries. Australia and Japan have also reported cases in the past decades. In Europe, Spain is the country with the largest number of immigrants from Latin America, ranking second to United States globally. Thus, Spain is the most European affected country with an estimate of 40,000-65,000 infected migrants.

The majority of patients attended in Europe are Bolivian immigrants in the fourth decade of their lives, who are capable to transmit the infection through blood transfusion, organ transplantation or congenital transmission.

Chagas disease represents an emerging global public health challenge, and the non-endemic countries have been adapting their guidelines and regulations to this situation. In Europe, most of the countries have no policy regarding screening to prevent transmission through blood transfusion, organ transplantation, or mother-to-child. Only Spain and France have a national regulation for screening of *T. cruzi* infection in at-risk groups in blood banks. In Spain, the activity of tissue banks is also regulated by law. The detection of congenital cases of Chagas disease relies on the initiative of health professionals or is carried out according to consensus documents elaborated by working groups.

Diagnosis of *T. cruzi* infection is done mostly in specialized Tropical Medicine or International Health Centers. Nevertheless, many primary health care centers can detect the infection. Several European countries, such as Spain, France and Switzerland, have also developed tailored screening activities in non-clinical settings for at-risk population.

Abstracts – Invited Speakers

SY09.01

Global TravEpiNet: A Web-Based Data Collection Tool for Travel Medicine

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Objectives: To describe the Global TravEpiNet, a web-based data collection tool for travel medicine

Methods: The Global TravEpiNet surveillance network was established by the Centers for Disease Control and Prevention in 2008 to collect data on demographics, pre-travel medical care and health advice provided to U.S. international travelers seen at travel medicine clinics. Nineteen clinics across the continental United States and Hawaii are currently members of the Global TravEpiNet consortium. Data are entered using a secure, web-based tool that simultaneously provides a note for the medical record. More than 13,000 records have been collected from the inception of the consortium to the present.

Results/Conclusions: Global TravEpiNet represents the largest network of providers systematically collecting pre-travel health data for U.S. international travelers. Data from Global TravEpiNet provide insight into the types of travelers, travel destinations and duration, and pre-travel health care of this epidemiologically significant population and will facilitate devising risk-reduction strategies for U.S. international travelers.

SY09.02

High Risk vs. Regular Travelers: What are the Risks?

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Travel medicine providers face challenges in identifying and managing high risk travelers. The focus of this presentation will be to describe a cohort of high risk travelers, including those at the extremes of age, those with chronic diseases or immunodeficiencies, and those who travel to higher risk destinations. Some barriers to management of these travelers will be discussed and some approaches to reducing their risks will be addressed.

SY13.03

Malaria: Where Are We Going ?

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The epidemiology of malaria transmission is changing rapidly worldwide. Some countries are declared malaria free, others see a marked reduction in transmission, even in sub-Saharan Africa. This evolution is multi-factorial: environmental changes, rapid urbanization, sustained (enforced) control measures, personal protection, etc. In view of this epidemiological transition how should malaria protection guidelines for travelers be adapted to respond to this new reality? How do protection strategies reflect the geographical heterogeneity of malaria transmission? Are we progressively moving from the *chemoprophylaxis to all dogma* to more personalized and adjusted recommendations according to travelers' profiles and types of travel? In low risk destinations should stand-by emergency treatment in case of fever be proposed to travelers? Should we broaden the number of destinations for which no antimalarial medication is prescribed and instead provide the travelers only with instructions on what to do in case of fever? All these options should be considered and carefully weighed according to the individual traveler's risk-taking behavior, his capacity to make the correct decision, detailed knowledge of local malaria risk, local access to medicine, the quality of locally acquired drugs, etc. We need to weigh all the pros and cons of a simple message approach (chemoprophylaxis for all), even in low transmission areas as opposed to more adjusted advice and protection recommendations according to travel specificities. Information technologies with easy, almost worldwide access to information, counseling and even consultation, may drastically change our approach to malaria protection of the traveler in the near future.

SY14.01

Pre-Deployment Preparations for Humanitarian Workers

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The field of humanitarianism has significantly evolved since the end of the Cold War. Whereas in the past humanitarian relief was largely ad hoc and un-coordinated, there is now a complex network of NGOs, states, and international organizations that are engaged in humanitarian work. Humanitarian response now employs 210,000 people and accounts for nearly \$15 billion in spending globally each year. Due to increased interest in working in the humanitarian sector there has been a surge of inexperienced and untrained people flowing into the field. The majority of responders to the Haiti earthquake in early 2010 were under 30 years old and for 90% it was their first disaster event. Consequently many mistakes were made in a poorly coordinated response effort. Without some common understanding of necessary knowledge, skills and common standards, the disaster victim is at the mercy of the vagaries of personal whim, political expediency and well meaning but possibly ineffectual action.

Recently, organizations and academic institutions have started to advocate for evidence-based practice, enhanced collaboration and standardized training of workers. Also, humanitarian work has become a career path and a livelihood rather than a volunteer position. As the field of humanitarianism moves towards greater accountability and professionalization, preparing for emergency and disaster relief work becomes a multi-step process. Here it is broken down into three domains: Professional preparation, organizational preparation and personal preparation.

Professional preparation must include training in humanitarian studies. For health workers it also involves having well-rounded medical abilities and knowledge while enhancing those skills that are principle to the mission. Other professional skills would include basic management, language, leadership and teaching skills.

Organizational preparation includes a pre-departure briefing, solid mission mandate, backup, security and logistical support.

Personal preparation should include an assessment of one's knowledge base, skills and attitudes. One must understand the local situation, conflict and culture as completely as possible. Packing and personal health must be deliberate.

Conclusion: The most relevant practical and planning issues concerning preparation for humanitarian deployment and professionalization of the field will be presented in addition to how to adapt in the dynamic environment of a disaster setting.

Abstracts – Invited Speakers

SY14.02

Preparing Health Care Workers for Resource Limited Settings, including HIV.

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Objective: To define and illustrate the main health risks and psychological difficulties faced by health care workers in resource limited settings, and particularly in the field of humanitarian assistance.

Methods: (i) insider's experience as a member of a humanitarian NGO; (ii) literature review; (iii) prospective compilation of field cases managed by a medical doctor in charge of staff health in an humanitarian NGO.

Results: Health care practitioners working in resource limited settings are frequently exposed to health risks, psychological stress, and moral tensions created by a number of new circumstances, such as: unfamiliar socio-cultural contexts, isolation from usual support networks, insecurity, exposure to environmental or health hazards, suboptimal living conditions, uneasy group dynamics, and difficult professional ethical choices. Based on a systematic compilation of 92 cases seen over an 8-months period (2010-2011), reportable health problems affected 10% of MSF expatriate staff, occurring mainly during their missions. Among the cases, 62% had medical issues; 21% required psychological support; 17% were due to occupational illnesses or accidents.

Aside from awareness about new environments, preparedness of health care workers entails the understanding of different technical requirements, depending on the local public health situation. Health workers trained in highly developed health systems with peer supervision and regulated working hours might thus face additional challenges to adapt to resource-limited settings. Another important source of difficulties is working outside ones usual professional competence. For example, high daily burden of cases, together with limited resources often require the application of a public health approach (including emergency triage), the use of simplified protocols, the delegation of medical tasks to nursing or ancillary personnel, and the assumption of novel programmatic or managerial functions by medical doctors, nurses or midwives. This is exemplified by the case of HIV/AIDS care in high prevalence countries.

Conclusions: Preparing health care workers for resource limited settings requires anticipation of the specific new circumstances and risks to which they will be exposed, and a holistic multidisciplinary approach including among others: occupational health, psychological preparation, human resource expertise, adequate pre-departure training, and counselling on ethical issues.

Abstracts – Invited Speakers

SY14.03

Traveling Students

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Objective: To analyze the healthcare needs of traveling university students.

Methods: Records of undergraduate and graduate students evaluated at the Travel Clinic at MIT between September 2009-August 2010 were reviewed.

Results: 4.7% of undergraduates (n=202) and 8.8% of graduate students (n=554) were seen for travel immunization visits. Appointments were clustered in December (32%) and May (13%). Vaccines administered included hepatitis A (39%), typhoid (36%), yellow fever (17%), IPV (16%), influenza (16%), Td/Tdap (6%), hepatitis B (4%), meningococcal (1%), Japanese encephalitis (< 1%) and varicella (< 1%). 42% were given malaria prophylaxis (doxycycline 31%, mefloquine 6%, atovaquone/proguanil 4%, chloroquine < 1%). Mean time between clinic appointment and travel date was 26 days. Mean duration of trips was 28 days. Destinations were Asia 42%, Latin America 29%, Africa 26%, Middle East 1%, Europe 1%, Oceania 1%. Only 2 students had travel-related illness that resulted in evaluation in the 3 months post-travel (cutaneous larva migrans and post-infectious irritable bowel).

Conclusions: Providing comprehensive travel advice and immunizations for students requires significant clinical and pharmacy resources of student health services. Requesting all prior immunization records other than the standard required immunizations (MMR, Td, hepatitis B, meningococcal) when incoming students submit health forms can help reduce need for immunizations when traveling. Organizing travel advice talks for groups of traveling students and proactively managing the scheduling of appointments can result in more efficient utilization of resources while alleviating the need for urgent appointments.

Abstracts – Invited Speakers

WS09

Pharmacists and Travel Medicine

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The overall goal of this workshop is to address current issues concerned with the role of pharmacists in the in the delivery of pre-travel health services.

The learning objectives from this workshop are to:

- Report on the international condition of pharmacist provided travel medicines services
- Describe various models of pharmacist provided pre-travel health services in the U.K. and U.S.
- Appreciate the issues related to carrying medicines for personal use across international borders, with consideration of international policy and practice.

The workshop will consist of a short discussion of the findings of a recent survey of pharmacy practice in travel medicine conducted by the Pharmacy Professional Group of the ISTM . This will be followed by an interactive session to examine different models of pharmacist provided travel medicine services, including pharmacist led travel clinics and the use of the internet. The final case study will consider the traveler carrying medicines across international borders, which is a question travellers frequently ask of pharmacists.

Abstracts – Invited Speakers

WS13

Preparation of Last Minute Travellers

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Method: Using case studies we will explore the characteristics and needs of travellers presenting with limited time before departure.

We will present a systematic approach to the management of these travellers.

We will include discussion on prioritization of immunizations, including if and how various vaccine schedules can be condensed.

All case studies will include strategies which enable travellers to minimize health risks.

Results: Our delegates will acquire information to assist them optimally manage last minute travellers in the available timeframe.

Overview of the session

Case study discussions

- Vaccines: General decision tool
- Malaria prophylaxis and self-treatment
- Essential medications for first aid kit
- Travel insurance
- Minimizing high risk behaviours
- Pre-existing medical conditions

Last Minute Traveller; cases for discussion

- 1) VFR aged 30, left Sudan aged 6 months, visiting dying mother in Khartoum, for one to three months, cannot anticipate how long he will stay, departs tomorrow.
- 2) Business traveller, aged 50, aircraft mechanic; always leaving last minute, multiple possible destinations, repeated short trips.
- 3) Backpacker, aged 19, going 'all over' India for three months in ten days time.
- 4) Travel consultant, aged 30, going to Bali resort for four days, in two days time.
- 5) Last minute to Haiti; Journalist going to report on the cholera outbreak, leaving in six days, for four days.
- 6) Last minute to Haiti; 22 year old woman going to look after her ill mother in an area not touched by the earthquake (she assumes the conditions would be 'good') leaves in three days.
- 7) Last minute to Haiti; 65 year old diabetic retiree, going to make funeral arrangements for his son, leaving in two days.
- 8) Tramping holiday to Austria and Eastern Europe in the summer for 6 weeks, aged 45, leaves in 3 weeks.

WS14

From Pruritus to Delusional Parasitosis

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Pruritus is a frequent cause of consultation after travel. The clinical approach includes a history of specific travel, description of the lesion, its pattern and distribution as well as the onset and associated symptoms. Specific cutaneous lesions have to be distinguished from skin changes secondary to pruritus (i.e., excoriation, lichenification, and impetiginization -especially secondary bacterial cutaneous infection).

Localized pruritic excoriated papules or plaques are usually due to arthropods bites or stings when appearing during or soon after travel. In some cases, pruritus is limited to a body area such as the face and extremities in ciguatera poisoning and most often the feet in cutaneous larva migrans.

In generalized involvement, scabies is the most important and may be limited to diffuse pruritus. Urticaria suggests the invasive phase of helminthic diseases such as strongyloidiasis ascariasis etc or acute viral hepatitis (HAV, HBV). The maculopapular rash of dengue fever and chikungunya may also be pruritic as well as the vesiculopustular rash of varicella. Filariasis including onchocerciasis and loiasis are most often seen in migrants from endemic countries.

Delusional parasitosis, is a stable, persistent delusional system, held with fanatical belief by an individual with a relatively intact personality who engages in the relentless pursuit of treatment of a nonexistent parasitic infection. Cutaneous symptoms are most frequent and usually consist of biting sensations or pruritus, visualization or sensation of parasites crawling under the skin, self-inflicted ulcerations, or visualization of “parasites” on inanimate objects in the home.. Fixed delusions must be clearly separated diagnostically from “misinterpretation” of symptoms or a “shakable” belief.

Successful management of these individuals requires development of a very strong doctor-patient relationship; our current approach is to rule out a secondary cause of DP by carrying out a variety of hematological and biochemical tests as well as the collection of specimens for parasite investigation. The key to management is to convince the patient that he or she has a “biochemical imbalance” for which a neuroleptic drug such as risperidone or loxepine will be effective. Successful management of such patients is extremely rewarding, especially if the patient is your relative.

Abstracts – Invited Speakers

WS18

Travel Medicine in the Military

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Maintaining the health of deployed military forces requires the application of core travel medicine principals. Unique to the armed forces, military physicians have an obligation to serve the needs of both the patient and the command. Medical threat assessments, “traveler” education, and counseling on immunizations, prophylaxis, the use of repellants, and other preventive measures are important pre-deployment tasks for military physicians. Recent military operations have seen multinational coalitions operating in concert across the globe. Health challenges faced by medical providers, often in austere conditions, include providing medical care to both deployed forces and, often, local populations. Pragmatic application of preventive medicine principles and management strategies for historically well-known military medical threats, as well as neglected tropical diseases, are skills essential to serving the needs of both patient and command. This workshop will review scenarios in the pre-deployment, deployment, post-deployment phases of operations. Case based scenarios will be presented and the audience will be challenged to participate actively. Topics to be discussed include: international vaccination policies, malaria chemoprophylaxis, leishmaniasis, field-hygiene and post-deployment syndromes.

WS19

Training to Essential Immunization Competencies in Travel Health

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Immunization is arguably the 'bread and butter' of pre-travel clinic visits. Yet, until recently, vaccine providers routinely entered into practice without the benefit of immunization specific education or experience, this was not without consequences. The pressures continue to mount: immunization practice standards have increased along with consumer expectations; the number of vaccines keeps growing and their use is becoming increasingly complicated, as is the traveller who needs them.

Today's vaccine providers and their employers recognise the need for quality immunization education. To answer this need, the health authorities in several nations have convened expert groups and developed minimum competencies for knowledge, skills and attitudes for immunization and these competencies dictate immunization education's curriculum. Fortunately, providers and their employers can now find an increasing array of resources to support quality immunization education.

This workshop will review common learning objectives from published core immunization competencies from expert bodies including the U.S Centers for Disease Control and Prevention (CDC), Public Health Agency of Canada (PHAC), and the United Kingdom Health Protection Agency (HPA).

We will explore select content and consider the consequences of inadequate training through discussion of scenarios.

The workshop will also consider the available immunization continuing education learning tools that travel health providers and their employers can access to help fill the training gap.