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ies that may be encountered in these patients.

Drug-drug interaction and hepatotoxicity are amongst the difficul-
of opportunistic infections and provision of antiretroviral therapy.
region and can lead to additional challenges in the management
related mortality in the region (pneumocystis pneumonia, Karposi’s sarcoma and chronic gastro-enteritis) will be discussed,
but this presentation will not address HIV-associated tuberculosis.

http://dx.doi.org/10.1016/j.ijid.2016.02.044
Type: Invited Presentation

Final Abstract Number: 06.003
Session: HIV - Management of Opportunistic Infections in Low-and-
Middle-Income Countries
Date: Thursday, March 3, 2016
Time: 10:15-12:15
Room: G.01-03

Challenges in the management of opportunistic infections: Focus on Southeast Asia
A. Kamarulzaman
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Abstract: Late presenters into HIV care remain common in South East Asia. In an analysis of more than 3700 patients in an Asian observational cohort, more than 72% were late presenters i.e. presenting into HIV care for the first time with CD4 of < 200 cells/mm³ or with an AIDS defining illness. Consequently physicians in South East Asia continue to manage patients who present with a myriad of opportunistic infections including toxoplasmosis, CMV infection, disseminated fungal infections and tuberculosis. Advanced HIV infection also leads to an increased risk for immune reconstitution syndrome which may present as a diagnostic and or therapeutic challenge in these patients.

Apart from late presentation, substance use disorder and coinfections with hepatitis B and C are also relatively common in the region and can lead to additional challenges in the management of opportunistic infections and provision of antiretroviral therapy. Drug-drug interaction and hepatotoxicity are amongst the difficulties that may be encountered in these patients.

A further important consideration when managing patients with opportunistic infections is the optimal timing for the initiation of antiretroviral therapy. In recent years several large clinical trials have been performed to address this issue especially in relation to tuberculosis. These and data from observational studies would suggest that early initiation of antiretroviral therapy in the setting of active opportunistic infections confer survival benefits with the exception of tuberculous meningitis and cryptococcal meningitis.

Despite the advances that have been made in antiretroviral therapy and a global call for early and immediate initiation of treatment on diagnosis, a large majority of patients continue to present with late stage disease with opportunistic infections. Physicians in South East Asia and other low and middle income countries need to continue be equipped with the ability to diagnose and manage these infections effectively.

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Session: HIV - Management of Opportunistic Infections in Low-and-
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Date: Thursday, March 3, 2016
Time: 10:15-12:15
Room: G.01-03

The challenge of opportunistic infections: Focus on South America
J. Torres
Universidad Central de Venezuela, Caracas, Venezuela

Abstract: Some opportunistic diseases are either exclusive or more commonly observed in South American AIDS patients than in those from different parts of the world. Interactions between HIV and endemic parasitic and other locally prevalent pathogens occur frequently in South America. However, knowledge about the impact of these interactions has been accumulating only recently.

HIV infection may alter the natural history of tropical diseases in different ways. Diagnosis and treatment may be altered and an increased pathogen burden may augment morbidity and mortality. The impact that tropical diseases have on the course of HIV infection may also be deleterious. Many intercurrent infections increase the HIV viral load enhancing the progression of HIV disease and the risk of transmission of HIV to non-infected individuals. Similarly, chronic immunomodulation by pathogens, such as helminths and protozoa, may considerably accelerate the natural history of HIV infection.

Characteristics of coinfection in the region with HIV and some emblematic endemic pathologies, such as paracoccidioidomycosis, histoplasmosis, Chagas’ disease, visceral leishmaniasis, strongylodiasis and HTLV1, as well as some unique challenges posed by them, are reviewed in detail.

http://dx.doi.org/10.1016/j.ijid.2016.02.046
Type: Invited Presentation

Final Abstract Number: 07.001
Session: One Health and Emerging Infectious Diseases
Date: Thursday, March 3, 2016
Time: 10:15-12:15
Room: G.05-06

Mers-CoV: From camels to humans
Z. Memish
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Abstract: The Middle East respiratory syndrome coronavirus (MERS-CoV) is a novel enzootic beta coronavirus that was first described in September 2012. The clinical spectrum of MERS-CoV infection in humans ranges from an asymptomatic or mild respiratory illness to severe pneumonia and multi-organ failure; overall
mortality is around 37.5%. Bats harbor several beta coronaviruses that are closely related to MERS-CoV but more research is needed to establish the relationship between bats and MERS-CoV. The seroprevalence of MERS-CoV antibodies is very high in dromedary camels in Eastern Africa and the Arabian Peninsula. MERS-CoV RNA and viable virus have been isolated from dromedary camels, including some with respiratory symptoms. Furthermore, near-identical strains of MERS-CoV have been isolated from epidemiologically linked humans and camels, confirming intertransmission, most probably from camels to humans. Though inter-human spread within health care settings is responsible for the majority of reported MERS-CoV cases, the virus is incapable at present of causing sustained human-to-human transmission. Clusters can be readily controlled with implementation of appropriate infection control procedures. Phylogenetic and sequencing data strongly suggest that MERS-CoV originated from bat ancestors after undergoing a recombination event in the Spike protein, possibly in dromedary camels in Africa, before its exportation to the Arabian Peninsula along the camel trading routes. Amongst the important measures to control MERS-CoV spread are strict regulation of camel movement, regular herd screening and isolation of infected camels, use of personal protective equipment by camel handlers and enforcing rules banning all consumption of unpasteurized camel milk and urine.

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Type: Invited Presentation

Final Abstract Number: 07.002
Session: One Health and Emerging Infectious Diseases
Date: Thursday, March 3, 2016
Time: 10:15-12:15
Room: G.05-06

Climate change and other drivers of infectious diseases - Focus on Asia and the Pacific

D. Harley

College of Medicine, Acton, Australia

Abstract: Infectious disease epidemiology is determined by characteristics of host, agent, and environment. Climate is one important environmental influence on the incidence and distribution of infectious diseases. But climate interacts with host characteristics at individual and population levels, pathogen biology, and other facets of the biotic and abiotic environment.

This presentation will consider mechanisms via which climate influences infectious diseases and present empirical evidence for some associations. The interaction of climate with other environmental, as well as host and agent characteristics will then be discussed. Examples from Asia and the Pacific, including dengue and tuberculosis, will be used. The future for infectious diseases under climate change will be considered.

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Viral hemorrhagic fevers: Ebola and beyond

L. Blumberg

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Abstract: The viruses that cause the Viral Haemorrhagic Fevers (VHFs) are largely zoonotic. Consequently, the endemic areas for the various VHFs are limited to the distribution of their mammalian reservoirs and/or arthropod vectors. Ecological changes, agricultural and cultural practices, population migration and land use may have an affect on the emergence and occurrence of the VHFs. Consequently a ‘One Health’ approach is important in surveillance, response and control of outbreaks of Filoviruses (Marburg and Ebola), the Bunyaviridae (Crimean Congo haemorrhagic fever and Rift Valley fever) and Flaviviruses such as Kyasanur Forest fever. The 2013-2015 Ebola virus outbreak in West Africa (Guinea, Liberia and Sierra Leone) is the largest to date with 28,637 cases and 11,315 deaths. The likely index case was a child exposed to a bat in a remote part of Guinea. As is usual with Filovirus outbreaks, there was nosocomial amplification due to poor infection control in under-resourced health care settings as well as community spread due to direct contact with contaminated blood or body fluids in the context of providing care to sick family members in the community or during funeral rituals. Recent evidence strongly implicates fruit bats as the filovirus reservoir, with human infection likely from inadvertent exposure to infected bat excreta or saliva. Miners, spelunkers, forestry workers, and others with exposure in environments where bats typically roost are at risk. Non-human primates, especially gorillas and chimpanzees, and other wild animals may become infected through exposure to bats, and subsequently develop a severe and often fatal illness. They frequently serve as intermediate hosts that transmit filoviruses to humans through contact with their blood and bodily fluids, usually associated with hunting and butchering. Ebola Zaire virus has caused large die-offs of central chimpanzees and western lowland gorillas in central Africa. Crimean Congo hemorrhagic fever has a wide distribution in Africa, Asia and central Europe that coincides with the distribution of Hylomomma ticks. Livestock are the usual reservoir and specific high-risk occupations, including abattoir workers, veterinarians and farm workers, hunters, and taxidermists are infected through direct exposure to animal tissue or through tick exposure.

Kyasanur Forest disease, a tick-borne VHF endemic to South Asia was first reported from the Kyasanur Forest, Karnataka in India in March 1957 with an epizootic outbreak among monkeys. Preventive measures include protective clothing and tick control with an attenuated live vaccine now available.

A multi-sectoral approach is needed for VHF surveillance, response and control of outbreaks.

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