

Final Abstract Number: 36.001

Session: Plenary VI: Zika, MERS, Ebola, SARS and H1N1: Local and Global Responses to Viral Threats

Date: Saturday, March 5, 2016

Time: 14:30-15:16

Room: Hall 4 (Plenary Hall)

Zika, MERS, Ebola, SARS and H1N1: Local and global responses to viral threats



P.A. Tambyah

National University Health System, Singapore, Singapore

Abstract: We live in a world with the constant threat of emerging viral infections. In the last two decades, we have seen the highly publicised emergence of the Nipah Virus, SARS, MERS, the re-emergence of Ebola and the H1N1 2009 pandemic influenza together with a host of other emerging and re-emerging viruses including Zika, Chikungunya, Dengue. As clinicians, we are the front line of response to these threats and the key to the response has to be good surveillance and clinical management. High quality clinical microbiology support is critical as is both “shoe-leather” and molecular epidemiology. Only after the diagnosis has been clearly established and the epidemiology clarified, can quality clinical trials be considered for therapeutics and vaccines although the development could begin as soon as a novel pathogen is identified. We have learned many lessons from the responses both local and global to these new viral threats. One important one is the role of risk communication both among staff and the public. This is often ignored at our own peril as the responses of the community often have a disproportionate role in our work in controlling these infectious threats. Despite the billions of dollars poured into the prevention and control of these infections, most are without effective vaccines or therapeutics. There are also a number of emerging issues in pathogenesis and virulence which have yet to be answered. The task ahead is daunting but with good international collaboration, we have the opportunity to make a significant difference in the next emerging viral threat while not ignoring the current smouldering epidemics and endemic infections around us.

<http://dx.doi.org/10.1016/j.ijid.2016.02.182>

Type: Invited Presentation

Final Abstract Number: 37.001

Session: Sepsis and Other Infections in Critical Care

Date: Saturday, March 5, 2016

Time: 15:45-17:45

Room: Hall 2

Intensive care considerations in epidemics



P.A. Tambyah

National University Health System, Singapore, Singapore

Abstract: Intensive care units are often the focus of epidemics – these include novel emerging pathogens as well as endemic multi-resistant organisms or even less common environmental pathogens or common hospital acquired infections. The reasons for this are

because of the therapeutic agents used to treat their cancers or rheumatological conditions. They also have numerous invasive medical devices which can put them at risk of device associated infections and many outbreaks have been documented in intensive care units all across the world from breaks in infection control in the management of patients with invasive medical devices. In addition, many patients with severe acute emerging infections such as SARS, MERS or novel strains of influenza will present to intensive care units. These pose a challenge to intensivists and all the staff in intensive care units who have to ensure that the best medical care is provided to these patients without them becoming the foci of outbreaks within the intensive care units themselves. The World Health Organization’s Core Competencies for Infection Control are a good starting point for developing our own guidelines for infection control in our intensive care units to ensure that epidemics of infectious diseases are not allowed to spread in our ICUs and to provide the best possible clinical outcomes for our patients.

<http://dx.doi.org/10.1016/j.ijid.2016.02.183>

Type: Invited Presentation

Final Abstract Number: 37.002

Session: Sepsis and Other Infections in Critical Care

Date: Saturday, March 5, 2016

Time: 15:45-17:45

Room: Hall 2

Epidemiology of sepsis in low- and middle-income countries



V. Ramasubramanian

Apollo Hospitals, Chennai, India

Abstract: The burden of sepsis is high in low and middle income countries. This often results in a high mortality along with associated increase in hospital stay, morbidity and health-care related expenses. High costs of medical care related to sepsis often lead to termination of hospitalisation and discharge, apparently, against medical advice in these countries, where cost of medical treatment is usually borne by the individuals themselves. But those who can afford medical care often prefer to stay much longer and complete the entire treatment schedule in hospitals, as the infrastructure to ensure continuity of medical care is lacking in society.

There is, however, little data available on the epidemiology of sepsis in low and middle income countries. Studies are small and observational, mainly from patients admitted to corporate hospitals. These studies indicate that the burden of infections of suspected sepsis are either undifferentiated acute febrile illnesses related to tropical infections or gram negative infections related to urosepsis, skin and soft tissue infections or pneumonia. Data from prospective large scale studies are lacking.

One should also appreciate the fact that the epidemiology of sepsis in low and middle income countries is closely intertwined with the issue of antimicrobial resistance. Studies have also shown that there is a correlation between the warmer temperatures and the incidence of gram negative infections.

Finally, the problem of diagnosing sepsis and differentiating it from systemic inflammatory response is a major challenge in the developing world. Unless diagnostic modalities are improved, a true picture of the epidemiology of sepsis will be a mirage.

<http://dx.doi.org/10.1016/j.ijid.2016.02.184>