State-of-the-Art Lectures

STOA1 Antimicrobial Resistance and the Spread of Bacteria that are Resistant to Cheap First-Line Drugs
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STOA2 What Have We Learned on the Social and Psychological Fronts in SARS and Human Swine Influenza
Joseph J.Y. Sung*. Department of Medicine and Therapeutics, Prince of Wales Hospital, The Chinese University of Hong Kong, Hong Kong, China

STOA3 Global Strategy in the Usage of Antibiotics
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The kind and severity of infectious diseases, the host, the accessibility of drugs and the resistance patterns of causative microbes are the main drivers for the modern use of antibiotics. Although advances in rapid etiologic diagnosis, clinical severity indexes and susceptibility/resistance profiles have been made, major deficiencies still exist in vaccination and other preventive measures, immediate bedside diagnosis, preservation of host defenses and other functions, universal availability of quality antimicrobials, appropriate use of currently available antibiotics and development of newer, more active ones. Research is required in all those areas as well as in veterinary medicine and agriculture to determine the exact contribution that each sector provides to the development of antimicrobial resistance. A global strategy for the optimal use of these apparently non-renewable resources may be drafted now, but implementation will need a concerted global effort that extends beyond the practice of medicine.

STOA4 Viral Hepatitis B in China: The Research Findings and Clinical Application
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Chronic hepatitis B infection is a very important health problem in China, which is carrying an enormous economic and social burdens. The major routes of chronic hepatitis B infection in China are mother-infant vertical transmission and early childhood horizontal transmission. After more than 10 years implementation of universal vaccination against hepatitis B in newborns and safety injection in health care settings, the prevalence of HBsAg in general population has decreased from 9.75% to around 7%. In China, patients with hepatitis are cared by either hepatologists or physicians of infectious diseases. The Chinese Society of Hepatology, and Chinese Society of Infectious Diseases jointly issued an evidence-based guideline on the prevention and treatment of chronic hepatitis B in 2005. This guideline concisely describes the virology, epidemiology, natural history and prevention, as well as diagnosis and management of chronic hepatitis B. It also highlights the importance of active viral replication in disease progression in chronic HBV infection and explicitly states the necessity of antiviral therapy in patient care. The cornerstone of anti-hepatitis B therapy is optimal use of interferons or nucleos(t)ide analogs in those patients with actively viral replication and elevated serum transaminase levels. Through an independent continue medical educational agency, a panel of selected speakers were trained to give well-formatted talks on the key points of the guideline in over 60 major cities across China. This educational campaign among health care providers has greatly improved the awareness and the stand of care for antiviral therapy.

STOA5 Refractory MRSA Infection in Hospital
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Infections due to methicillin-resistant Staphylococcus aureus (MRSA) are increasingly serious in recent decades in both community and hospital settings. Glycopeptides (vancomycin and teicoplanin) represent the gold standard for therapy of invasive infections caused by MRSA. However, the problems with glycopeptides use in the management of MRSA infection are notably rising. These include MIC creep, emergence of vancomycin-intermediate and -resistant MRSA (VISA and VRSA), increasing reports of clinical failures among specific patient populations, toxicity, inadequate dosing for serious infections, underscore the need for alternative therapies. Older agents with favorable in vitro potency available in oral and/or intravenous forms include trimethoprim-sulfamethoxazole, rifampin, fusidic acid, fosfomycin, and clindamycin. However, limited clinical data exist to support their routine use as initial therapy in the treatment of invasive disease. Newer treatment options for MRSA include linezolid, quinupristin-dalfopristin, daptomycin, ceftriaxone, tigecycline, and nemonoxacin. With the exception of linezolid, these newer agents require intravenous administration. Combination therapy is mandatory for selected invasive diseases refractory to standard monotherapies. These diseases include endocarditis, meningitis, septic arthritis, prosthetic device infections, and other recalcitrant MRSA Infections. Some novel agents are under investigation, consisting of ortavancin, dalbavancin, telavancin, and ceftobiprole. Daptomycin is a promising antibiotic for the treatment of patients with right-sided endocarditis and bacteremia. However, development of hematogenous spread of MRSA...