Asian Transplantation Week 2023
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Conrad Seoul, Korea
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Date & Time, Place : November 16 (Thu), 15:00-16:30, Room 5F-2
Session Title : Key issues: when the patient is febrile after transplantation

Must Know Issues Before Using Antibiotics Empirically

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In the realm of organ transplantation, characterized by intentional immune suppression, the prudent and informed prescription of antibiotics emerges as a pivotal consideration. Empirical antibiotics, often the initial treatment step for potential infections in transplant recipients, necessitate a thorough comprehension of several critical factors. The present lecture provides an in-depth exploration of the intricate realm of empirical antibiotic decision-making. The process of selecting empirical antibiotics commences with anatomical diagnosis, entailing the identification of the specific organ afflicted by infection. Anatomical diagnosis hinges primarily upon the medical history and clinical examination of the patient, which are further reinforced by basic diagnostics tests including routine blood and urine analyses, as well as chest radiography. Infections following solid organ transplantation frequently encompass surgical site infections, pneumonia, urinary tract infections, and catheter-related infections. Subsequent to anatomical diagnosis, the next critical step is the estimation of the probable causative microorganisms. This estimation should be grounded in the specific anatomical diagnosis and local epidemiological data on causative microorganisms. Furthermore, prudent consideration must be given to domestic or in-hospital antibiotic resistance profiles, which significantly influence treatment decisions. Amidst a spectrum of empiric antibiotics, the selection of the most appropriate agent hinges upon various patient-specific factors. These considerations encompass the patient's prevailing state of immunocompromise, any concurrent impairment in renal or hepatic function, and a comprehensive evaluation of their allergy history. In cases involving central nervous system infections, opting for antibiotics capable of penetrating the blood-brain barrier is imperative. Conversely, infections localized to structures like bones, the prostate, eyes, or those culminating in abscess formation may necessitate source removal or direct antibiotic administration at the site of infection. Prior to the administration of empirical antibiotics, the acquisition of appropriate samples for microbiological studies is of utmost importance. This ensures accurate identification of the causative microorganism and facilitates tailored antibiotic therapy, optimizing patient care. The issue of antibiotic resistance is an urgent and formidable challenge, significantly impacting the effectiveness of crucial therapeutic interventions for infectious diseases. Therefore, using empirical

antibiotics judiciously, especially in immunocompromised transplant recipients, becomes not just a clinical decision but a moral obligation.