OPEN ACCESS Freely available online

Journal of Infectious Diseases & Diagnosis

Commentary

A Brief Note on Classification and Treatment of Emerging Infectious Diseases

Vikram Verma*

Department of Nephrology and Preventive Medicine, New York, United States

DESCRIPTION

Infectious diseases usually referred to as Infectiology, is a medical speciality that focuses on the diagnosis and treatment of complex illnesses. An infectious disease specialist's specialty includes treating hospital-acquired and community-acquired illnesses, and is traditionally linked to travel medicine and tropical medicine.

An Emerging Infectious Disease (EID) is a disease whose prevalence has recently increased in the last 20 years and may continue to rise in the near future. Such illnesses have little regard for national borders. The minority of organisms capable of efficient human-to-human transmission can become important public and global concerns as possible epidemic or pandemic causes. They can have a variety of economic, societal, and therapeutic consequences.

At least a quarter of all human diseases are emerging illnesses. EIDs can be caused by newly discovered microorganisms, such as new virus species or strains like novel coronaviruses, HIV. As with new influenza strains, some EIDs evolve from a known virus. EIDs can also arise when an existing disease spreads to a new population in a different geographic region, as in West Nile fever outbreaks. Nosocomial (hospital-acquired) infections, such as methicillin-resistant *Staphylococcus aureus*, are a growing problem in hospitals because they are resistant to a wide range of medications. A growing source of concern is the development of novel syndemics as a result of undesirable synergistic interactions between developing diseases and other infectious and non-infectious disorders.

Scope

Infectious disease experts frequently consult with other doctors in cases of complicated infections, and they frequently treat patients with HIV/AIDS and other immune deficiencies. Although many common infections can be treated by doctors with no specialised training in infectious diseases, in circumstances where an infection is difficult to detect or manage, specialists may be sought. They may also be asked to assist in determining the source of an unknown fever. Infectious disease specialists can work in both hospitals (inpatient) and clinics (outpatient). In hospitals, infectious disease specialists assist in the rapid identification and treatment of acute infections by recommending suitable diagnostic tests to determine the source of the illness and appropriate treatments, such as prescription antibiotics to treat bacterial infections. The involvement of infectious disease specialists in certain types of infections may enhance patient outcomes. Infectious disease specialists can give long-term care to patients with chronic infections like HIV/AIDS in clinics.

Classification

Emerging infectious diseases is classified in two ways which is by time and how humans were involved in the emergence

- Newly emerging infectious diseases – diseases that were not previously described in humans, such as HIV/AIDS
- Re-emerging infectious diseases – diseases that have spread to new places or which previous treatments no longer control, such as methicillin-resistant
- Deliberately emerging infectious diseases – diseases created by humans for bioterrorism
- Accidentally emerging infectious diseases – diseases created or spread unintentionally by humans, such as vaccine-derived poliovirus

The World Health Organization has compiled a list of the most serious emerging infectious illnesses. The World Health Organization sponsored a workshop on pathogen priority in December 2015, with the goal of "accelerating R&D for serious emerging illnesses with the potential to cause a public health emergency and for which no, or insufficient, preventive and therapeutic options exist." As a consequence, the following six diseases were identified.

- Crimean–Congo Hemorrhagic fever
- Filovirus diseases (Ebola virus disease and Marburg virus disease)
- Highly pathogenic emerging Coronaviruses relevant to humans (MERS and SARS)
- Lassa fever
- Nipah virus infection
- Rift Valley fever

Correspondence to: Vikram Verma, Department of Nephrology and Preventive Medicine, New York, United States, E-mail: vverma@12umn.edu

Received date: May 05, 2021; **Accepted date**: May 19, 2021; **Published date**: May 26, 2021

Citation: Verma V (2021) A Brief Note on Classification and Treatment of Emerging Infectious Diseases. J Infect Dis Diagn. S3:003.

Copyright: © 2021 Verma V. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Investigations

To identify the microorganism that is causing an infection, infectious disease doctors use a variety of diagnostic procedures. Gram staining, blood cultures, serological tests, genotyping, and polymerase chain reaction are all common diagnostics.

Treatment

Antimicrobial agents are used by infectious disease professionals to treat infections. The antibiotic chosen is determined by the organism that is producing the infection. Antibiotics are used to treat bacterial infections, whereas antiviral and antifungal medications are used to treat viral and fungal infections, respectively.