

Communicable disease

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Current Infectious Disease in the United States of America (U. S. A) Communicable diseases also referred to as infectious or transmittable diseases are usually illness to an individual that results from an infection. There are various agents that cause infections and these include; bacteria, viruses, nematodes such as the ringworms, prions, arthropods such as the ticks, prions, and macroparites such as the well-known roundworms. The human body responds or reacts in different ways as a sign of its immune system fighting off the infection and this can either be through the inflammation of various body parts which is followed by a great ability of adaptive response (Beltz, 2011).

Chain of infections and its factors

A chain of infections is usually made up of 6 causing factors, these are; the infectious agent which are usually the disease causing organisms, the reservoir which is the natural environment the pathogens need for their survival, the portal of exit which is the means by which the pathogens leave the reservoir which is the infected person, the means of transmission which is usually either direct or indirect i. e. physical contact, unprotected sex, the air, or parasites, the portal of entry which is either inhalation, penetration or ingestion, and finally the new host of whom the disease causing pathogens attack.

Types of Immunity

Immunity is the state of having total biological defense to fight disease as well as infections. There are two main types of immunity these are adaptive immunity and innate immunity. Innate immunity is the ability of one's body to defend itself against infections naturally and it's a form of body defense

one is born with. However, adaptive immunity that is usually subdivided into various categories is a form of immunity that one acquires after weakened disease causing pathogen is introduced into the body making the body develop adapt and develop immunity.

Acute Flaccid Myelitis among Children in the U. S. A (Miami Dade-a county in Florida)

In September 2014 onwards, the Center for Disease Control (CDC) as well as other partners have spent countless efforts in investigating reports among children in the USA that have developed sudden weakness in either one of their limbs. MRI scans reveal that children with such symptoms have an inflammation of the grey matter nerve cells that are usually in the spinal cord located in the vertebrae. This infectious disease is Acute Flaccid Myelitis.

From the month of August to April this year, CDC has verified reports of more than 118 children in over 34 states including Florida and the county of Miami Dade that have developed the disease. Majority of the children are about 7 years of age and due to the disease have been hospitalized and put under the support of breathing machines. It is reported that most of them develop fevers before the onset of the neurologic symptoms (In Scheld, 2014). The specific causes of factors leading to the chain of infections have been identified and a proper investigation of them closely links the infectious disease to illnesses caused by viruses, for example herpes viruses. The major possible cause of this infectious disease is enterovirus D68 abbreviated as (EV-D68). This is because there have been two reported cases of children that have developed neurologic diseases due to EV-D68

infection and this was confirmed through laboratory tests of their cerebral spinal fluids. The CDC along with its other partners is pursuing a joint but prolonged approach to explore the potential connection between the infectious disease and EV-D68 because this will help in establishing control, additionally, more testing of specimen is taking place to help establish whether there are other pathogens not previously recognized that cause the disease aiding in the development of a possible vaccine.

Works Cited

Beltz. (2011). Emerging Infectious diseases: A guide to disease, causative agents, and surveillance. San Francisco: Calif: Jossey-Bass.

In Scheld, I. W. (2014). Infections of the central nervous system. .