Editorial Note on Medical Microbiology & Diagnosis – Diagnosis and treatment of Infectious Disease

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Editorial

Infectious diseases are caused by several microorganisms. Different types of laboratory tests are useful for identification of microorganism are stained and examining, cultured, tested for antibodies to organism and testing for genetic material. Other sample tests like sputum, stool and swabs are also sent for testing. Drugs that are used in treatment are clindamycin, cipro oral, metronidazole, ciprofloxacin, tetracyclin, gentamycin, amphotericin B and many more. Infectious diseases are disorders caused by organisms such as bacteria, viruses, fungi or parasites. Many organisms live in and on our bodies. They are normally harmless or even helpful, but under certain conditions, some organisms may cause disease.

Many infectious diseases have similar signs and symptoms. Samples of body fluids can sometimes reveal evidence of the particular microbe that's causing the illness. This helps the doctor tailor treatment.

Blood tests: A technician obtains a sample of blood by inserting a needle into a vein, usually in the arm.
Urine tests: This painless test requires you to urinate into a container. To avoid potential contamination of the sample, you may be instructed to cleanse your genital area with an antiseptic pad and to collect the urine midstream.
Throat swabs: Samples from the throat, or other moist areas of the body, may be obtained with a sterile swab.
Stool sample: You may be instructed to collect a stool sample so a lab can check the sample for parasites and other organisms.
Spinal tap (lumbar puncture): This procedure obtains a sample of the cerebrospinal fluid through a needle carefully inserted between the bones of the lower spine. You'll usually be asked to lie on your side with your knees pulled up toward your chest.

Treatment depends on which microorganism causes the infection.

If bacteria cause a disease, treatment with antibiotics usually kills the bacteria and ends the infection. Viral infections are usually treated with supportive therapies, like rest and increased fluid intake. Sometimes people benefit from antiviral medications like oseltamivir phosphate (Tamiflu®).

Doctors treat fungal and parasitic infections with antifungal medications, like fluconazole (Diflucan®), and antiparasitic drugs, such as mebendazole (Emverm®).

In all cases, doctors treat specific symptoms of infectious diseases according to the latest medical guidelines. Talk with your doctor about your symptoms to explore possible treatment options.

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