

## **The Proper Use of Antibiotics**

Antibiotics are the primary drug treatment for bacterial infection since 1940s. But overusing them and inappropriate use have resulted in the development of antimicrobial resistance strains of bacteria.

Appropriate antibiotic prescribing practice includes optimal selection, dose, and duration of treatment. It will prevent or slow the emergence of resistance among bacteria. A comprehensive infection control programme should be in place in hospitals as well as the primary care setting, to monitor bacterial resistance antibiotic usage, to establish practice guidelines and to set up an antibiotic resistance trend database.

Antimicrobial resistance is costly in both human and financial terms. It can result in increased morbidity, mortality and costs of health care. This is a global public health problem. Antimicrobial resistance not only confined to hospitals, but also involved out-patient settings and community. It is important to educate the public about the prevention of antimicrobial resistance development and also encourage the prescribers to adjust their practice accordingly.

### **What are bacteria and viruses?**

Bacteria are single cell, living microorganisms usually found all over the inside and outside of our bodies, except in the blood and spinal fluid. Viruses, on the other hand, cannot survive outside the body's cells. It causes illnesses by invading healthy cells and reproducing. Infections like colds, Flu, most coughs and bronchitis, sore throats (except for those resulting from strep throat) are caused by viruses.

### **What are antibiotics?**

Antibiotics are medicines that can stop some infections. But antibiotics can cause more harm than good when they are not used appropriately. Antibiotics only work against infections caused by bacteria. They do not work against any infections caused by viruses.

### **What is antibiotic resistance?**

Antibiotic resistance occurs when bacteria change in a way that reduces or eliminate the effectiveness of antibiotics. These resistant bacteria survive and cause more harm.

## **How do I know when I need antibiotics?**

Antibiotics should only be used when prescribed by a doctor to treat bacterial infections.

- **Colds and flu.** Viruses cause these illnesses. They cannot be cured with antibiotics.
- **Cough or bronchitis.** Viruses almost always cause these. However, if you have a problem with your lungs, bacteria may actually be the cause. Your doctor may prescribe an antibiotic to treat.
- **Sore throat.** Most sore throats are caused by viruses and don't need antibiotics. However, strep throat is caused by bacteria.
- **Ear infections.** Antibiotics are used for some, but not all ear infections.
- **Sinus infections.** Antibiotics are often used to treat sinus infections. A runny nose and yellow or green mucus do not necessarily mean you need an antibiotic.

**Patients/parents should not demand antibiotics when a doctor has determined they are not needed.**

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