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## Antibiotics resistance in pediatrics

**Wael Mohamed Abdelaal**  
 NMC Royal Hospital, UAE

All drugs are poisons. Only proper usage and proper dosage determine what is therapy and what is poison. Antibiotics are powerful medicines that fight against bacterial infection. Before the 1930s there were no treatments for bacterial infections, following the discovery of penicillin industry started searching for more antibiotics in nature. In his 1945 Nobel prize lecture, Fleming warned of the dangers of antimicrobial resistance: The time may come when penicillin can be brought by anyone in the shops. Then there is the danger that the ignorant man may easily underdose himself and by exposing his microbes to non-lethal quantities of the drug make them resistant. Many bacteria have developed the ability to become resistant to antibiotics. These bacteria are now a major threat in our hospitals.

### Mechanisms Of Resistance

#### *Enzymatic inhibition:*

First is alteration of bacterial membranes: Outer membrane permeability, Inner membrane permeability and Rapid ejection of the drug [efflux] or reduced drug influx.

#### *Bypass of antibiotic inhibition:*

Alteration of target sites, Altered ribosomal target sites and altered cell wall precursor targets and Altered target enzymes

**How antibiotic resistance can be prevented:** Antibiotics should be the last line of defence NOT the first, Most common infections will get better by themselves through time, bed rest, liquid intake and healthy living, Only take antibiotics prescribed by a doctor, If prescribed antibiotics, finish the course and lastly Do not use other people's or leftover antibiotics they be specific for some other infection.

### Biography

Wael Mohamed Abdelaal has graduated in Egypt completed his PhD 2009 from Ain Shams University faculty of Medicine. He had a lot of researches and has published many papers in reputed journals in the field of neonatal anemia and neonatal sepsis and his area of interest is Pediatrics hematology and infection. He was working in Zagazig university hospital (Egypt), Alsbah hospital (Kwyaat) and Hamd medical corporation (Qatar). Currently he is working in NMC Royal hospital UAE.

