



## Antibiotic Resistance

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The concept of using antibiotic as a medicine seems to be ancient. For example, ancient Egyptians used mouldy bread to treat infected wounds. Then it was discovered by Alexander Fleming. Penicillium fungi moulds produce penicillin which is first known antibiotic. After that the process of fermentation of microorganisms is used to produce antibiotics in container contain a suitable growth media. Semisynthetic ways may be used in antibiotics large scale production such as quinolone class [1-3].

The major use of antibiotics is for treatment of bacterial infections by inhibition growth or activity of the bacteria. They are used in both veterinary and human medicine. There are also other purposes of using them. Antibiotics may added to food of animals as promote their growth which is nonmedical use. Antibiotic is a life-saving in patients with bacterial pneumonia. Normally patients who experienced spleen removal or whose spleen doesn't work properly use antibiotic which is known as antibiotic prophylaxis. Antibiotic prophylaxis is recommended for those have a high possibility for being infected. In surgery carries a high risk of infection we used them to prevent the contamination [4,5]. On the other hand the unwise increasing of antibiotic exposure led to appearance of strains that resist antibiotics so it would have little effect on those pathogenic bacteria. The resistant bacterial cells can transfer their resistant genes to other cells.

Many habits may worsen the risks of antibiotic resistance. Using lower concentration of the antibiotics which is responsible for bacterial growth or activity inhibition. Another cause of resistance phenomenon. Using it as growth promoter in animals which reared for production leads to transfer of resistance genes to strains of bacteria that infect human [6-9].

Here are some of the most dangerous antibiotic resistant bacteria. Neisseria Gonorrhoea which is Responsible for the sexually-transmitted infection gonorrhoea was reported that is able to resist penicillin's, tetracyclines and quinolone antibiotics and recently has showed resistant to third generation cephalosporins because of all of that, it is officially regarded to be "multi-drug re-

sistant" bacteria. Pseudomonas aeruginosa that in the near future could be untreatable and life-threatening. Staphylococcus aureus is methicillin-resistant is emerged to cause serious problems. Helicobacter pylori normally live in stomach, when flares up it cause stomach ulcer problem which needs antibiotic treatment currently it fails to fight it [10].

Excessive use of them can also disrupt intestinal flora which is needed to keep digestion smooth and regularity of colon peristalsis. In addition to that it was proven that the side effects of antibiotic can last up to 42 days after last dose.

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