

Antibiotic Therapy

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Abstract

Drugs have been used for the treatment of infectious diseases since the 17th century. Antimicrobial drugs act in one of several ways: by selective toxicity, by inhibition of cell membrane synthesis and function, by inhibition of protein synthesis, or by inhibition of nucleic acid synthesis. Antibiotics are actually those antimicrobial substances which are active against bacteria for fighting bacterial infections, either by killing or inhibiting the growth of bacteria. Antibiotics are generally safe but they have many risks associated with their use like having hypersensitivity adverse reactions, anaphylactic shocks, allergic reactions etc. An ideal antimicrobial agent exhibits selective toxicity. Inhibition of cell wall synthesis, cell membrane functions, protein synthesis, nucleic acid synthesis and antimetabolite activity are the five basic mechanisms of antibiotic action against bacterial cells. Antibiotics can be divided into two classes based on their mechanism of action. Bactericidal antibiotics kill bacteria and bacteriostatic antibiotics inhibit their growth or reproduction. A large number of antibiotic types have been discovered in these previous years among which Penicillins, Tetracyclines, Cephalosporins, Quinolones, Lincomycins, Macrolides, Sulfonamides and so many are important to treat bacterial infections.

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Biography

Safa Hashim has completed her bachelor's degree in the field of Microbiology and is currently enrolled in Master's program from University Of Karachi, Pakistan. She is the Student Member-Global Outreach in American Society for Microbiology (ASM).