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QUESTION

1. **WRITE ON A NAMED BACTERIA PROTEIN SYNTHESIS INHIBITOR STATING ITS MECHANISM OF ACTION, INDICATOR FOR USE, TOXICITY AND ADVERSE EFFECTS.**

ANSWERS

The synthesis of proteins in bacteria is essentially a two stage process involving transcription (the synthesis of a messenger RNA intermediate using one strand of the duplex DN as the template) and translation (the decoding of the information in the messenger RNA into an ordered arrangement of amino acids to form a polypeptide). The DNA strand that acts as the template for the messenger RNA IS is known as the anticoding or template strand, and the DNA strand that bears sequence The DNA strand that acts as the template for the messenger RNA IS is known as the anticoding or template strand, and the DNA strand that bears the same sequence (except for the replacement of thymine by uracil) is known as the coding strand.

TETRACYCLINES

TETRACYCLINE- is an antibiotic that fights infection caused by bacteria. Tetracycline is used to treat many different bacterial infections of the skin, intestines, respiratory tract, urinary tract, genitals, lymph nodes, and other body systems.

MECHANISM OF ACTION

Prevents bacterial protein synthesis by binding to the 30S ribosomal subunit.

EFFECTS

Bacteriostatic activity against susceptible bacteria

TOXICITIES

Gastrointestinal upset, hepatotoxicity, photosensitivity, deposition in bone and teeth.

CLINICAL APPLICATIONS

Infections caused by mycoplasma, chlamydiae, rickettsia, some spirochetes

*malaria * H pylori * acne