Clindamycin

Clindamycin is a bacteriostatic antibiotic commonly used to treat infections with anaerobic bacteria. It is a bacterial protein synthesis inhibitor that binds to the 50S ribosomal subunit and inhibits ribosomal translocation, similar to macrolides. These antibiotics are typically used to treat anaerobic infections above the diaphragm, like those caused by organisms such as *Bacteroides fragilis* and *Clostridium perfringens*, while metronidazole is commonly used to treat anaerobic infections below. Common indications for use include aspiration pneumonia caused by the entrance of oral or gastric contents into the bronchial tree and lung abscesses.

PLAY PICMONIC

Mechanism of Action

Bacteriostatic

Bacteria-shocked

Bacteriostatic antibiotics limit the growth of bacteria by interfering with bacterial protein production, DNA replication, or other aspects of metabolism while not necessarily directly harming the organism. Upon removal of the bacteriostatic agent, the bacteria can regrow as opposed to bactericidal agents that directly kill bacteria.

Binds 50S Ribosomal Subunit

50S-rapper

Clindamycin is a bacteriostatic antibiotic commonly used to treat infections with anaerobic bacteria. It is a bacterial protein synthesis inhibitor that binds to the 50S ribosomal subunit and inhibits ribosomal translocation, similar to macrolides. Other antibiotics that bind to the 50S subunit include chloramphenicol, macrolides, lincomycin, and linezolid.

Blocks Translocation

50S-rapper Blocking Train-loco

Clindamycin inhibits protein synthesis by interfering with the elongation of the polypeptide chain of bacterial proteins and the translocation of the ribosomal subunit.

Indications

Anaerobic Infections above the Diaphragm

Ant-robe above Diaphragm-trampoline

Clindamycin is typically used to treat anaerobic infections above the diaphragm, however, it can be used for other types of infections. Metronidazole is generally used to treat anaerobic infections below the diaphragm.

Aspiration Pneumonia

Aspirating-ass Spraying Water on Nude-Mona

Aspiration pneumonia is a bronchopneumonia that is caused by the entrance of oral or gastric contents into the bronchial tree. It is commonly caused by an incompetent swallowing mechanism such as multiple sclerosis, stroke or intoxication. Generally, the right middle and lower lung lobes are the most common sites of infiltration due to larger caliber and more vertical orientation of the right mainstem bronchus. Clindamycin is commonly used in

the treatment of aspiration pneumonia for coverage of anaerobic organisms.

Lung Abscess

Abscess guy in Lungs

A lung abscess is a pus filled cavity in the lung commonly caused by aspiration pneumonia. Generally, the right middle and lower lung lobes are the most common sites of infiltration due to larger caliber and more vertical orientation of the right mainstem bronchus. Clindamycin tends to be reserved for penicillin-allergic patients in such cases.

Side Effects

Can Cause Pseudomembranous Colitis

Sumo-man-bra Colon-on-fire

Clindamycin is associated with pseudomembranous colitis, an infection of the colon characterized by foul smelling diarrhea, fever, and abdominal pain caused by Clostridium difficile infection. Clindamycin is known to be an antibiotic that can precipitate pseudomembranous colitis due to a broad spectrum that can destroy normal gut flora, allowing the gut to be overrun with C. difficile.

Sign up for FREE at picmonic.com