

Tetracycline*

Class: Tetracycline

Overview

Tetracycline is a short acting (4-8 hour dose interval) semi-synthetic tetracycline. Due to chelation with calcium in teeth and bone and the discoloration of permanent teeth, tetracycline should not be used in children less than seven to ten years of age. (See the general overview of Tetracycline class antibiotics.)

Resistance

See the discussion of resistance in the general *Overview* of Tetracyclines. Many organisms, especially those acquired in healthcare settings, have become resistant. Tetracycline was once the drug of choice for anaerobic bacteria, but many anaerobic bacteria have acquired resistance.

Effectiveness

Tetracycline, or tetracyclines in general, are used to treat systemic and local infections. They are effective against *Brucella* species, *Vibrio cholerae*, *Vibrio vulnificus*, *Mycobacterium marinum*, *Chlamydiae*, *Rickettsia*, Mycoplasmas such as *Mycoplasma pneumoniae*, and *Borrelia burgdorferi*. The drug is often used in veterinary medicine in the treatment of bronchopneumonia, bacterial enteritis, urinary tract infections, cholangitis, metritis, mastitis, prostatitis and pyodermas. Specific conditions commonly treated with tetracycline or its related compounds include infectious keratoconjunctivitis in cattle, chlamydiosis, heartwater, anaplasmosis, actinomycosis, actinobacillosis, eperythrozoonosis and hemobartonellosis. Tetracycline is also used to treat syphilis in penicillin-sensitive persons. Tetracycline is never the drug of choice for staphylococcal infections. This drug and its related compounds are also used as growth promoters in animal feeds.

***References available by request. Call the Infectious Disease Epidemiology Section, Office of Public Health, Louisiana Department of Health and Hospitals (504-219-4563)**