

# DAWAPHENICOL®

## Chloramphenicol capsules and suspension

### Composition

Each 5 ml contains 125 mg Chloramphenicol (as palmitate)  
Each capsule contains 250 mg Chloramphenicol (as the base)

### Pharmacology

Chloramphenicol is a bacteriostatic antibiotic with a broad spectrum of activity against both Gram-positive and Gram-negative bacteria, as well as some other organisms. Chloramphenicol is thought to enter sensitive cells by an active transport process. Within the cell it binds to the 50S subunit of the bacterial ribosome at a site adjacent to the site of action of the macrolides and clindamycin, and inhibits bacterial protein synthesis by preventing attachment of aminoacyl transfer RNA to its acceptor site on the ribosome, thus preventing peptide bond formation by peptidyl transferase.

### Clinical pharmacokinetics

Chloramphenicol is readily absorbed when given by mouth. Blood concentrations of 10 micrograms/mL or more may be reached about 1 or 2 hours after a single dose of 1 g by mouth, and blood concentrations of about 18.5 micrograms/mL have been reported after multiple 1-g doses. Chloramphenicol is widely distributed in body tissues and fluids; it enters the CSF, giving concentrations of about 50% of those existing in the blood even in the absence of inflamed meninges; it diffuses across the placenta into the fetal circulation, into breast milk, and into the aqueous and vitreous humours of the eye. It also enters the aqueous humour following topical application. Up to about 60% in the circulation is bound to plasma protein. The half-life of chloramphenicol has been reported to range from 1.5 to 4 hours; the half-life is prolonged in patients with severe hepatic impairment and is also much longer in neonates.

### Indications

It has been used in severe typhoid and other salmonella infections, although it does not eliminate the carrier state. Chloramphenicol is an alternative to a third-generation cephalosporin in the treatment of bacterial meningitis, both empirically and against sensitive organisms such as *Haemophilus influenzae*. It has been used in the treatment of severe anaerobic infections, particularly in brain abscesses, and in infections below the diaphragm where *Bacteroides fragilis* is often implicated; however, other drugs are usually preferred. Other bacterial infections in which chloramphenicol may be used as an alternative to other drugs include anthrax, ehrlichiosis, severe gastro-enteritis (including *Salmonella* enteritis, cholera, and *Yersinia* enteritis), gas gangrene, granuloma inguinale, severe *Haemophilus influenzae* infections (for example in epiglottitis), listeriosis, severe melioidosis, plague (especially if meningitis develops), pneumonia, psittacosis, Q fever, tularemia (especially when meningitis is suspected), and Whipple's disease.

### Dosage and Administration

Doses are expressed in terms of chloramphenicol base and are similar whether given by mouth or intravenously. Chloramphenicol palmitate 1.7 g and chloramphenicol sodium succinate 1.4 g are each approximately equivalent to 1 g of chloramphenicol base. For adults and children the usual dose is 50 mg/kg daily in divided doses every 6 hours; up to 100 mg/kg daily may be given in meningitis or severe infections due to moderately resistant organisms, although these higher doses should be reduced as soon as possible. It has been recommended that treatment should be continued after the patient's temperature has returned to normal for a further 4 days in rickettsial diseases and for 8 to 10 days in typhoid fever, to minimise the risk of relapse. Where there is no alternative to the use of chloramphenicol, premature and full-term neonates may be given daily doses of 25 mg/kg, in 4 divided doses, and full-term infants over the age of 2 weeks may be given up to 50 mg/kg daily, in 4 divided doses.

### Precautions

Chloramphenicol is contra-indicated in patients with a history of hypersensitivity or toxic reaction to the drug. It should never be given systemically for minor infections or for prophylaxis. Repeated courses and prolonged treatment should be avoided and it should not be used in patients with pre-existing bone-marrow depression or blood dyscrasias. Routine periodic blood examinations are advisable in all patients, but will not warn of aplastic anaemia. Use of chloramphenicol with other drugs liable to depress bone-marrow function should be avoided. Reduced doses should be given to patients with hepatic impairment. Neonates should never be given chloramphenicol systemically, unless it may be life-saving and there is no alternative treatment, because of the risk of the 'grey syndrome'. The use of chloramphenicol is best avoided during pregnancy. Chloramphenicol may interfere with the development of immunity and it should not be given during active immunisation.

### Adverse effects

The most serious adverse effect of chloramphenicol is bone-marrow depression, which is characterised by morphological changes in the bone marrow, decreased iron utilisation, reticulocytopenia, anaemia, leucopenia, and thrombocytopenia. Toxic manifestation—the 'grey syndrome'—characterised by abdominal distension, vomiting, ashen colour, hyperthermia, progressive pallid cyanosis, irregular respiration, and circulatory collapse followed by death in a few hours or days, has occurred in premature and other newborn infants receiving large doses of Chloramphenicol. Prolonged oral use of chloramphenicol may induce bleeding, either by bone-marrow depression or by reducing the intestinal flora with consequent inhibition of vitamin K synthesis.

### Drug interactions

Chloramphenicol is inactivated in the liver and may, therefore, interact with drugs that are metabolised by hepatic microsomal enzymes. It enhances the effects of coumarin anticoagulants, such as dicoumarol and warfarin, some hypoglycaemics such as chlorpropamide and tolbutamide, and antiepileptics such as phenytoin. The metabolism of chloramphenicol may be increased by inducers of hepatic enzymes such as phenobarbital or rifampicin. Chloramphenicol may decrease the effects of iron and vitamin B12 in anaemic patients and has occasionally impaired the action of oral contraceptives.

### Presentation

HDPE jars containing 1000 capsules  
60ml and 100ml bottles.

### Storage

Store in a cool dry place below 30°C and protected from direct light. Keep out of reach of children.

### Manufactured By:



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