

GREAT ADVANTAGES FOR WIDE CLINICAL APPLICATION

Cefabol® (cefotaxime)

3rd generation cephalosporin
with broad spectrum of antibacterial activity



Outstanding safety profile and high-performance therapy of severe infections:

- central nervous system infections, including meningitis and ventriculitis
- upper respiratory tract infections, including otitis media and sinusitis
- lower respiratory tract infections, including pneumonia, multiple bronchiectasis, exacerbation of chronic bronchitis, lung abscesses and pleural empyema
- non-complicated and complicated intra-abdominal infections including community-acquired and post-operative peritonitis
- urinary tract infections
- uncomplicated gonorrhea and disseminated gonococcal infections
- gynecological infections
- bacteremia/septicemia
- skin and skin structure infections
- bone and joint infections including septic arthritis and contiguous osteomyelitis

ABOLMED
PHARMACEUTICAL COMPANY

Cefabol®

(cefotaxime)

DESCRIPTION

Cefabol® (cefotaxime sodium) is a semisynthetic, broad spectrum 3rd generation cephalosporin antibiotic for parenteral use with high bactericidal effect against a wide spectrum of Gram-positive and Gram-negative aerobes as well as several anaerobes, including resistant to other antibiotics.

CLINICAL PHARMACOLOGY

Cefabol® quickly penetrates into many organs, tissues and fluids, including cerebrospinal fluid (the extent of its penetration into CSF increases in meningitis). High therapeutic drug levels (which are much more than inhibitory concentration for pathogens) can be determined in lungs, CSF, synovial and pericardial fluids, bones and joints, in skin and soft tissues, in kidneys, in organs of thoracic and abdominal cavities, in ascitic fluid, in middle ear and mucous membrane of sinuses. Concentrations in breast milk are low. **Cefabol®** is partially metabolized in liver. Approximately 20-36% of an intravenously administered dose of cefotaxime is excreted by the kidney as unchanged cefotaxime and 15-25% as the desacetyl derivative - desacetyl-cefotaxime, the major metabolite with own bactericidal activity. Two other urinary metabolites (M2 and M3) possess no bactericidal effect.

SPECTRUM OF ACTIVITY

Bactericidal action is mediated by inhibition of microbial cell wall components synthesis. **Cefabol®** is highly resistant to the majority of beta-lactamases of Gram-positive and Gram-negative microbes. **Cefabol®** is effective against:

Gram-positive aerobes

S. epidermidis, *S. aureus* - majority of strains, excluding methicillin-resistant ones, *Streptococcus* spp. (including *Str. pneumoniae*, *Str. pyogenes*, *Str. agalactiae* etc.), *Corynebacterium* spp. (excluding *C. jeikeium*)

Gram-negative aerobes

Acinetobacter spp., *B. pertussis*, *Citrobacter* spp., *Enterobacter* spp., *E. coli*, *H. influenzae* (including ampicillin-resistant strains), *H. parainfluenzae*, *Klebsiella* spp. (including *K. pneumoniae*), *M. morgani*, *N. gonorrhoeae* (including beta-lactamase-positive strains), *N. meningitidis*, *P. mirabilis*, *P. vulgaris*, *P. rettgeri*, *P. stuartii*, *S. marcescens*, *Shigella* spp., *Salmonella* spp. (incl. *S. typhi*), *Yersinia* spp. (incl. *Y. enterocolitica*)

Some strains of *P. aeruginosa* - could be sensitive.

Anaerobes

Bacteroides spp., including some strains of *B. fragilis* without beta-lactamases production, *Clostridium* spp. (most strains of *Cl. difficile* are resistant), *Fusobacterium* spp., including *F. nucleatum*, *Peptococcus* spp., *Peptostreptococcus* spp., *Propionibacterium* spp., *Veilonella* spp.

Resistant to Cefabol®:

Enterococci, methicillin-resistant staphylococci, group D streptococci, *L. monocytogenes*, *B. anthracis*, *B. cereus* and the majority of *B. fragilis* strains, *Cl. difficile*, the most strains of *P. aeruginosa*, *Pseudomonas* spp., *Chlamydia* spp., *Mycobacterium* spp., *Mycoplasma* spp.

INDICATIONS AND USAGE

Cefabol® is indicated for the treatment of patients with severe and moderate bacterial infections of various localization caused by susceptible bacteria, including patients with immune deficiency: **upper respiratory tract infections**, including otitis media and sinusitis; **lower respiratory tract infections**, including pneumonia, multiple bronchiectasis, exacerbation of chronic bronchitis, lung abscesses and pleural empyema; **central nervous system infections**, e.g., meningitis and ventriculitis; **non-complicated and complicated intra-abdominal infections**, including community-acquired and post-operative peritonitis; **urinary tract infections**; uncomplicated gonorrhea and disseminated gonococcal infections; **gynecological infections**, including pelvic inflammatory disease (PID), endometritis and pelvic cellulitis (when *C. trachomatis* is one of the suspected pathogens, appropriate anti-chlamydial coverage should be added); **bacteremia/septicemia**; **skin and skin structure infections**; **bone and joint infections** including septic arthritis and contiguous osteomyelitis. **Cefabol®** could be administered as monotherapy but also in combination with antibiotics of different groups (aminoglycosides, metronidazole, vancomycin).

The administration of **Cefabol®** preoperatively reduces the incidence of certain infections in patients undergoing surgical procedures that may be classified as contaminated or potentially contaminated (abdominal or vaginal hysterectomy, gastrointestinal and genitourinary tract surgery), or intraoperatively - in patients undergoing cesarean section (after clamping the umbilical cord).

CONTRAINDICATIONS

Cefabol® is contraindicated in patients who have shown immediate hypersensitivity reactions to cefotaxime or the cephalosporin class of antibiotics.

PRECAUTION

Pregnancy Category B. **Cefabol®** should be used during pregnancy only if clearly needed. Caution should be exercised when **Cefabol®** is administered to a nursing woman.

Drug Interactions: Increased nephrotoxicity has been reported following concomitant administration of cephalosporins and aminoglycoside antibiotics, cephalosporins with potent diuretics such as furosemide.

ADVERSE REACTIONS

Cefabol® is generally well tolerated. Adverse reactions are infrequent and include: local reactions (phlebitis, pain and/or inflammation at the site of injection); hypersensitivity (urticaria, rash, pruritus, drug fever, headache, or a change in Coombs' test); diarrhea or loose stools, nausea and vomiting; mild transient elevations of liver function; transient elevations of the BUN and serum creatinine; reversible neutropenia, slight decreases in neutrophil count, WBC, platelets, hemoglobin or hematocrit and transient eosinophilia. Most of these adverse reactions are mild or moderate in severity and self-limiting in nature.

DOSAGE AND ADMINISTRATION

In adults and children with body weight more than 50 kg with infections of urinary tract and other non-complicated infections, the recommended daily dose is 2 g IV or IM divided into two equal doses. In moderate infections, 1 gram every 8 hours IV or IM may be required. In severe infections or infections caused by less sensitive organisms, the total daily dose and/or frequency may be increased up to 2 g every 6-8 h IV. In infections commonly needing antibiotics in higher dosage (e.g. **bacterial meningitis or septicemia**), a 2-grams doses should be given at 6 to 8-hour interval. In life-threatening infections, doses up to 2 g every 4 hours (i.e., 12 g/day) may be needed. Duration of the treatment is individually determined. In cases of uncomplicated gonococcal infections in males and females, 0.5 gram IM (single dose) is quite enough. In adult males with rectal gonorrhea, the recommended dose is a single 1 g given IM. In cases of disseminated gonococcal infection, the recommended dosages are 1 gram in adults and 25 to 50 mg/kg in children given IV twice a day. Treatment duration is no less than 7 days (10-14 days in meningitis).

In patients with renal impairment the dosage regimen depends on creatinine clearance (Cl_{creat}) value (see the table).

DOSAGES IN PATIENTS WITH RENAL IMPAIRMENT

Cl _{creat} >50 mL/min	Cl _{creat} 10-50 mL/min	Cl _{creat} <10 mL/min
1-2gm q6-8h	1-2gm q8-12h	1-2gm q24h

In newborns and premature children younger than 1 week old, the daily dose of 100 mg/kg is divided into 2 IV injections. **In newborns 2-4 week old**, the daily dose of 100-150 mg/kg is divided into 3 IV injections. **In children** with body weight less than 50 kg, administration of 50 to 100 mg/kg/day in equally divided doses every 6 to 8 hours has been successful for most infections susceptible to **Cefabol®**. **For the treatment of meningitis and other severe infections**, the recommended total daily dose is 100 to 200 mg/kg intravenously in divided doses every 6 to 8 hours.

For prevention of infectious complications in post-operative period, a single 1-gram dose of **Cefabol®** administered intravenously just before surgery (approximately one-half hour before the initial incision) is recommended. Injection may be repeated 8 and 16 hours after the initial dose if necessary. For patients undergoing **cesarean section**, either a single 1 gram dose administered intravenously as soon as the umbilical cord is clamped or a 3-dose regimen consisting of 1 gram given intravenously as soon as the umbilical cord is clamped followed by 1 gram 6 and 12 hours after the initial dose is recommended.

HOW SUPPLIED

Cefabol® is available in sterile dry powder form in vials containing sterile cefotaxime sodium equivalent to either 500 mg or 1 gram of cefotaxime for intramuscular and intravenous administration (package of 50 vials). Store for 2 years at or below a room temperature of 25°C (77°F). **Cefabol®** is manufactured by ABOLmed Ltd., Russia