



# Benzapen<sup>®</sup>

Benzathine Penicillin  
*Narrow spectrum penicillin*

## COMPOSITION

Benzapen<sup>®</sup> 12 lac injection: Each vial contains Benzathine penicillin (sterile, lecithin coated and buffered) BP 12,00,000 units.

## PHARMACOLOGY

Benzapen<sup>®</sup> injection is a depot preparation of benzathine penicillin with the same mode of action as that of benzylpenicillin. Penicillin kills bacteria by interfering with the synthesis of the bacterial cell wall.

Benzathine penicillin is very slowly absorbed from intramuscular depots. It is hydrolysed to benzylpenicillin and produces sustained but low levels of penicillin in the blood for an average 4 weeks period.

Benzathine penicillin is partially metabolized to inactive penicilloic acid in the liver in the same manner, as is benzylpenicillin. Once benzylpenicillin is released from its repository forms, it is excreted by the kidney. About 70 to 80% of injected penicillin can be recovered in the urine and about 20% are excreted by the biliary system into the gastrointestinal tract.

Benzapen has bactericidal action against many gram-positive bacteria and some gram-negative bacteria and against some spirochetes and actinomycetes.

## INDICATION

1. The treatment of penicillin-sensitive infections where initial high blood levels are not required.
2. The prophylaxis of penicillin-sensitive secondary infections especially in children. It is particularly valuable in continuous prophylaxis against rheumatic fever and streptococcal infections.
3. Prophylaxis of streptococcal impetigo
4. Treatment of acute otitis media
5. Treatment of syphilis
6. Treatment of diphtheria carriers

## DOSAGE AND ADMINISTRATION

Treatment of infection: 0.3 to 1.2 million units repeated every five to seven days.

Prophylaxis of rheumatic fever: 1.2 million units every three weeks.

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### *Specific dosage schedule :*

Treatment of group-A  $\beta$ -haemolytic streptococcal infections: A single intramuscular dose of 600,000 units.

Prevention of rheumatic fever: Monthly injection of a single dose of 1.2 million units is the most effective regimen for preventing further attacks of rheumatic fever.

Treatment of acute otitis media: A single injection of 600,000 units.

### Treatment of syphilis :

Early syphilis- 2.4 million units as a single dose.

Late syphilis- 2.4 million units weekly for three successive weeks.

Neurosyphilis- Benzylpenicillin, intravenously, 2 to 4 million units every 4 hours for 10 days, followed by benzathine penicillin intramuscularly, 2.4 million units weekly for three successive weeks.

Congenital syphilis : Asymptomatic infants with normal cerebrospinal fluid, intramuscularly 50,000 units per kg in a single dose.

Primary and secondary syphilis have been treated with single injections of 2.4 million units of long acting benzathine penicillin (Benzapen) weekly for 2 to 4 weeks with satisfactory results.

### **CONTRAINDICATION AND PRECAUTION**

1. Penicillin hypersensitivity history
2. Small babies whose mothers have a hypersensitivity history
3. Penidural Injection should not be used in very small infants because of its local irritant effect.
4. Benzathine penicillin should not be used if there is a significant supportive focus or if there is concern for adequate diffusion to the site of infection.

### **SIDE EFFECT**

The toxicity of penicillins is generally low, but in a small number of patients penicillin can cause sensitization and allergic reactions. Acute, life-threatening anaphylactic reactions are rare, but they do occur.

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Intramuscular injection of benzathine penicillin can cause moderate burning discomfort, local pain, and deep muscle soreness and tenderness at the site of injection, lasting for one to three days in about 10% of patients. Some patients had low-grade fever (102°F) associated with local pain and tenderness. This febrile reaction disappeared within 24 to 48 hours.

### **DRUG INTERACTION**

No potentially hazardous interactions have been described.

### **USE IN PREGNANCY AND LACTATION**

Benzapen<sup>®</sup> injection should not be administered during pregnancy unless in the judgment of the physician such administration is clinically justifiable. Special care should be taken in the first three months of pregnancy.

As penicillin appears in breast milk, it is probably best for a mother to stop breast-feeding while being given penicillin to avoid exposing the infant to the drug unnecessarily.

### **STORAGE CONDITION**

Store in a cool and dry place.

### **HOW SUPPLIED**

Benzapen<sup>®</sup> injection: Box containing 5 blister pack, each containing one vial and one 5 ml ampoule of Water for Injection.

