1.3.1 Summary of Product Characteristic (SmPC)

1.3.1.1 NAME OF THE FINISHED PHARMACEUTICALL PRODUCT

Axcel Cefuroxime-250mg Capsule

1.3.1.2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Ingredients:	Quantity per capsule
Active Ingredient:	
Cefuroxime axetil equivalent to Cefuroxime	437.50 mg 250 mg
Excipients:	
Sodium Lauryl Sulphate	15 mg
PVP-CL	20 mg
Sodium Starch Glycolate	22 mg
Lactose Hydrous	50.50 mg
Magnesium Sterate	5 mg

1.3.1.3 PHARMACEUTICAL FORM

Capsule

1.3.1.4 CLINICAL PARTICULARS

1.3.1.4.1 Therapeutic indications

Lower respiratory tract infection, eg. acute and chronic bronchitis and pneumonia. Upper respiratory tract infection eg. ear, nose and throat infections, such as otitis media, sinusitis, tonsillitis and pharyngitis. Genitourinary tract infections, eg. pyelonephritis, cystitis and urethritis. Skin and soft tissue infection eg. furunculosis, pyoderma and impetigo. Gonorrhoea, acute uncomplicated gonococcal urethritis and cervicitis.

1.3.1.4.2 Posology and method of administration

Dosage in adults:

Most infections will respond to 250mg bd. In mild to moderate lower respiratory tract infections e.g. bronchitis 250mg bd should be given. For more severe lower respiratory tract infections, or if pneumonia is suspected then 500mg bd should be given. For urinary tract infections a dose of 125mg bd is usually adequate; in pyelonephritis the recommended dose is 250mg bd. A single dose of one gram is recommended for the treatment of uncomplicated gonorrhoea.

* bd = twice a day

Sequential therapy :

Pneumonia:

1.5g Vaxcel Cefuroxime bd (iv or im) for 48-72 hours, followed by 500mg bd Axcel Cefuroxime-250 Capsule oral therapy for 7 days.

Acute exacerbations of chronic bronchitis:

750mg Vaxcel Cefuroxime bd (iv or im) for 48-72 hours, followed by 500mg bd Axcel Cefuroxime-250 Capsule oral therapy for 5-7 days. Duration of both parenteral and oral therapy is determined by the severity of the infection and the clinical status of the patient.

Dosage in children:

The usual dose is 125mg bd or 10mg/kg bd to a maximum of 250mg daily. For otitis media, in children less than 2 years of age the usual dosage is 125mg bd or 10mg/kg bd to a maximum of 250mg daily and in children over 2 years of age, 250mg bd or 15mg/kg bd to a maximum of 500mg daily. There is no experience in children under 3 months of age.

Elderly and patients with renal impairment :

No special precautions are necessary in patients with renal impairment or on renal dialysis or in the elderly at dosages up to the normal maximum of 1g per day. The usual course of therapy is seven day. Axcel Cefuroxime-250 Capsule should be taken after food for optimum absorption.

1.3.1.4.3 Method of administration

Oral administration

1.3.1.4.4 Contraindications

Patients known to be hypersensitive to cephalosporin antibiotic

1.3.1.4.5 Special warnings and precautions for use

Precautions: Cephalosporin antibiotics may in general be given safely to patients who are hypersensitive to penicillins, although cross-reactions have been reported. Special care is indicated in patients who have experienced an anaphylactic reaction to penicillin. As with other antibiotics, prolonged use of Cefuroxime may result in overgrowth of nonsusceptible organisms (eg. Candida, Enterococci, Clostridium difficile), which may require interruption of treatment. Cephalosporin antibiotics at high dosage should be given with caution to patients receiving concurrent treatment with potent diuretics such as frusemide, as these combinations are suspected of adversely affecting renal function. Clinical experience with Cefuroxime has shown that this is not likely to be a problem at the recommended dose levels.

Warnings: Before therapy with Cefuroxime is instituted, careful inquiry should be made to determine whether the patients has had previous hypersensitivity reactions to cephalosporins, penicillins, or other drugs. This product should be given cautiously to penicillin-sensitive patients. Antibiotics should be administered with caution to any patient who has demonstrated some form of allergy, particularly to drugs. If an allergy reaction to Cefuroxime occurs, discontinue the dug. Serious acute hypersensitivity reactions may require epinephrine and other emergency measure. Pseudomembranous colitis has been reported with nearly all antibacterial agents, including Cefuroxime, and may range in severity from mild to life threatening. Therefore, it is important to consider this diagnosis in patients who present with diarrhea subsequent to the administration of antibacterial agents.

1.3.1.4.6 Paediatric population (warnings and precautions warnings and precautions)

Not applicable

1.3.1.4.7 Interaction with other medicinal products and other forms of interaction

Concomitant oral administration of probenecid will increase the serum half-life of Cefuroxime. Drugs that reduce gastric acidity may result in lower bioavailability of Cefuroxime axetil compared with that of fasting state and tend to cancel the effects of postprandial absorption.

Drug-lab Interaction: A positive Coombs' test has been reported during treatment with cephalosporins this phenomena can interfere with cross-matching of blood. Cefuroxime does not interfere in enzyme based tests for glycosuria. Slight interference with cooper reduction methods (Benedict's Fehling's Clinitest) may be observed. However, this should not lead to false-positive results, as may be experienced with some other cephalosporins. Cefuroxime may cause false negative results in the ferricyanide test, it is recommended that either glucose oxidase or hexokinase method are used to determine blood/plasma glucose levels in patients receiving Cefuroxime. The antibiotic does not interfere the alkaline picrate assay for creatinine.

1.3.1.4.8 Additional information on special populations

Not applicable

1.3.1.4.9 Paediatric population (indications)

Not applicable

1.3.1.4.10 Fertility, pregnancy and lactation

It should be administered with caution during the early months of pregnancy. Cefuroxime is excreted in human milk and should be caution when administered to nursing mother.

1.3.1.4.11 Effects on ability to drive and use machines

Not applicable

1.3.1.4.12 Undesirable effects

Gastroinstesinal disturbances, including diarrhea, nausea and vomiting, have occurred in some patients receiving Cefuroxime Axetil. As with other broad-spectrum antibiotics, there have been reports of pseudomembranous colitis. Headache has also been reported. There have been rare reports of erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis, thrombocytopenia, leucopenia, jaundice, haemolytic anemia and hypersensitive reactions including skin rashes, urticaria, pruritus, drug fever, serum sickness and very rarely anaphylaxis. Eosinophilia and transient increases of hepatic enzyme levels (ALT and AST) have been noted during Cefuroxime therapy.

1.3.1.4.13 Overdose

Overdosage of Cephalosporins can cause cerebral irritation leading to convulsions. Serum levels of Cefuroxime can be reduced by haemodialysis and peritoneal dialysis.

1.3.1.5 PHARMACOLOGICAL PROPERTIES

1.3.1.5.1 Pharmacodynamic properties

Cefuroxime is a bactericidal cephalosporin antibiotic which is resistant to most beta-lactamases and is active against a wide range of Gram-positive and Gram-negative organism. Cefuroxime, is a well-characterised and effective antibacterial agent which has broad-spectrum bactericidal activity against a wide range of common pathogens, including beta-lactamase- producing strains. Cefuroxime has good stability to bacterial beta-lactamase and consequently, is active against many ampicillin-resistant or amoxicillin-resistant strains. The bactericidal action of Cefuroxime results from inhibition of cell wall synthesis by binding to essential target proteins. Cefuroxime is usually active against the following organisms in vitro:

Aerobes, Gram-negative:

Haemophilus influenzae (including ampicillin- resistant strains); *Haemophilus parainfluenzae*; *Branhamella catarrhalis*; *Escherichia coli*; *Klebsiella* sp; *Proteus mirabilis*; *Proteus inconstans*; *Providencia rettgeri* and *Neisseria gonorrhoeae* (including penicillinase and non-penicillinase-producing strains). Some strains of *Morganella morganii*, *Enterobacter* sp and *Citrobacter* sp have been shown by in vitro tests to be resistant to Cefuroxime and other beta-lactam antibiotics.

Aerobes, Gram-positive :

Staphylococcus aureus (including penicillinase -producing strains but excluding methicillin-resistant strains); *Staphylococcus epidermidis*, *Streptococcus pneumoniae* (and other beta-

haemolytic Streptococci); Streptococcus Group B (*Streptococcus agalactiae*) and *Propionibacterium* sp. Certain strains of Enterococci, eg *Streptococcus faecalis*, are resistant. Anaerobes, gram-positive and gram-negative cocci (including *Peptococcus* and *Peptostreptococcus* sp); gram-positive bacilli (including *Clostridium* sp) and gram-negative bacilli (including *Bacteroides* and *Fusobacterium* spp). Most strains of *Bacteroides fragilis* are resistant. *Pseudomonas* sp, Campylobacter sp, *Acinetobacter calcoaceticus* and most strains of Serratia and *Proteus vulgaris* and *Clostridium difficile* are resistant to many cephalosporins including Cefuroxime.

1.3.1.5.2 Pharmacokinetic properties

Cefuroxime axetil is absorbed from the gastrointestinal tract and hydrolyzed rapidly in the intestinal mucosa and blood to release Cefuroxime in the circulation. In presence of food, the absorption of Cefuroxime axetil is enhanced. Peak plasma concentrations are reported about 2 to 3 hours after an oral dose. Up to 50% of Cefuroxime in the circulation is bound to plasma proteins and the plasma half-life is about 70 minutes and is prolonged in patients with renal impairment and in neonates. Cefuroxime distributed widely in the body including pleural fluid, sputum, bones, synovial fluid and aqueous humour. It crosses the placenta and has been detected in breast milk. Cefuroxime is excreted unchanged by glomerular filtration and renal tubular secretion, and high concentrations are achieved in the urine. Probenecid competes for renal tubular secretion with Cefuroxime resulting in higher and more prolonged plasma concentrations of Cefuroxime. Small amount of Cefuroxime are excreted in bile. Serum levels of Cefuroxime are reduced by dialysis.

1.3.1.5.3 Preclinical safety data

Not Applicable

1.3.1.6 PHARMACEUTICAL PARTICULARS

1.3.1.6.1 List of excipients

1. Lactose
2. Sodium Starch Glycollate
3. Sodium Lauryl Sulphate
4. PVP-CL
5. Magnesium Stearate

1.3.1.6.2 Incompatibilities

Not Applicable

1.3.1.6.3 Shelf life

3 years

1.3.1.6.4 Special precautions for storage

Store below 30°C. Protect from light.

1.3.1.6.5 Nature and contents of container

Available in 1x10's blister pack
Material: Aluminium blister pack
Closure and liner: Aluminium foil

1.3.1.6.6 Special precautions for disposal and other handling

Not Applicable

1.3.1.7 MARKETING AUTHORISATION HOLDER AND MANUFACTURING SITE ADDRESSES

Kotra Pharma (M) Sdn. Bhd.
1, 2 & 3, Jalan TTC 12,
Cheng Industrial Estate,
75250 Melaka, Malaysia.

1.3.1.8 MARKETING AUTHORISATION NUMBER

MAL20040894AZ

1.3.1.9 DATE OF FIRST REGISTRATION/RENEWAL OF THE REGISTRATION

30 May 2004

1.3.1.10 DATE OF REVISION OF THE TEXT

8 January 2018