THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH

TANZANIA MEDICINES AND MEDICAL DEVICES AUTHORITY

PUBLIC ASSESSMENT REPORT FOR CEFTAZIDIME PENTAHYDRATE 1 G POWDER FOR SOLUTION FOR INJECTION OR INFUSION

Version number 1.0
8 November 2023

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1. Introduction

Ceftazidime Pentahydrate is a generic medicine of Ceftazidime Pentahydrate powder for solution for injection or infusion. Ceftazidime Pentahydrate is a cephalosporin medicine belonging to J01DD02- Anti-bacterials for systemic use: Third generation cephalosporins group. Ceftazidime Pentahydrate exerts is activity by inhibiting bacterial cell wall synthesis following attachment to penicillin binding proteins (PBPs) resulting to the interruption of cell wall (peptidoglycan) biosynthesis, which leads to bacterial cell lysis and death. Ceftazidime Pentahydrate is approved in Tanzania for use in adults and children.

1.1 Product details

Registration number	TAN 20 HM 0382
Brand name	Ceftazidime Pentahydrate
Generic name, strength and form	Ceftazidime (as pentahydrate) I g with Sodium carbonate
ATC classification	J01DD02- Anti-bacterials for systemic use: Third-generation cephalosporins
Distribution category	POM
Country of origin	China
Associated product	Sodium carbonate (128 mg per gram of ceftazidime)
Marketing Authorization Holder	Guilin Pharmaceutical (Shangai) Co. Ltd Rm, 1101, Bldg B, #1289 Yishan Road., Shanghai 200233, P.R. China. China Telephone: 0086-21-60133941 E-mail: oversaes@guilinpharma.com
Local Technical Representative	Guilin Pharmaceuticals Tanzania P.O.Box 23145, plot No. 70, Keko Mwanga Dar es Salaam- Tanzania. Country: Tanzania Telephone: +225784227992/+255712735158 Telefax: N/A E-mail: alben.guilipharma@gmail.com

1.2 Assessment procedure

The application for registration of Ceftazidime Pentahydrate was submitted on 16/02/2019. The product underwent full assessment. Assessment was completed in 3 rounds of evaluation. Ceftazidime Pentahydrate was registered on 25/09/2020.

1.3 Information for users

Visual description of the finished product	White to pale yellow powder
Primary packing material	10ml moulded low borosilicate glass vial,

	stoppered by butyl rubber stopper and sealed with aluminium plastic flip-off seal
Secondary packing materials	Box and carton 10 vials /box, 80 boxes/carton.
Shelf-life and storage condition	36 months. Store in a cool, dry place below 30°C away from light Shelf life after reconstitution or dilution: 3 days at 2-8°C or 12 hours at 25°C after reconstitution or dilution with sterile water for Injection, 0.9% Sodium Chloride Injection, 5% dextrose injection or 1% lidocaine injection.
Route of administration	I.M & I.V use
Therapeutic indications	Ceftazidime for injection is indicated for the treatment of the infections listed below in adults and children including neonates (from birth). • Nosocomial pneumonia • Broncho-pulmonary infections in cystic fibrosis • Bacterial meningitis • Chronic suppurative otitis media • Malignant otitis externa • Complicated urinary tract infections •Complicated skin and soft tissue infections • Complicated intra-abdominal infections • Bone and joint infections • Peritonitis associated with dialysis in patient on CAPD. Treatment of patients with bacteraemia that occurs in association with, or is suspected to be associated with, any of the infections listed above. Ceftazidime may be used in the management of neutropenic patients with fever that is suspected to be due to a bacterial infection. Ceftazidime may be used in the peri-operative prophylaxis of urinary tract infections for patients undergoing transurethral resection of the prostate (TURP)

2. Labelling and product information

Summary of product characteristics
The SmPC included all the relevant information to ensure correct and safe use of the medicine by healthcare providers. The complete SmPC can be accessed here.

Package insert/leaflet
The package insert is confirmed to be derived from the SmPC and contains sufficient data for the end user. Since the product is POM, the package insert contains simplified information for patients.

Container labels
The product label information is presented in English. Details in the secondary pack label include:
Brand name: Ceftazidime for injection
Composition: Ceftazidime (as Pentahydrate) 1 g
Pack size: 10 vials
Manufacturing details: batch number, manufacturing date, expiry date
Storage conditions: Store in a cool, dry place below 30°C away from light
Manufacturer address: Reyoung Pharmaceutical Co., Ltd, No. 1 Ruyaing Road, Yiyuan county, Shandong Province. China
Unique identifier: N/A
Special warnings/precautions or instructions for use: None

The details of the primary pack include:
Brand name and strength: Ceftazidime for Injection
Manufacturing details: batch number, manufacturing date, expiry date
Name of manufacturer: Reyoung Pharmaceutical Co., Ltd

The content of the primary and secondary labels was aligned to the requirements of the Part V of the Compendium: Guidelines on Format and Content of Product Labels for Medicinal products. The label contains sufficient information for proper identification of the medicine and post marketing follow up of the product.
Describe any approved deviation to the requirements and the justification for the deviation.

3. Scientific discussion

Quality of Active Pharmaceutical Ingredient(s)

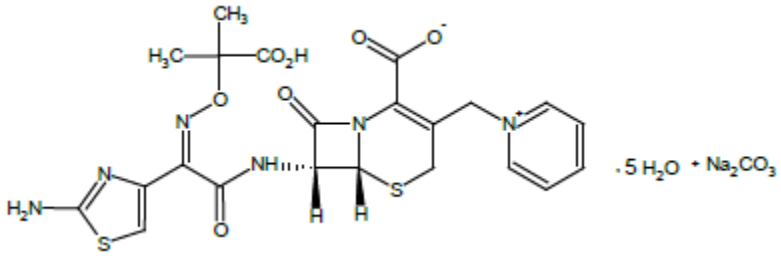
Information on quality of the API was submitted in form of full details.

General properties
Ceftazidime pentahydrate API is compendia in USP/BP.

Molecular formula: $C_{22}H_{22}N_6O_7S_2 \cdot 5H_2O$ ＋$(Na_2CO_3)n$

Chemical name: Pyridinium,1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, hydroxide, inner salt, pentahydrate, [6R[6α,7β (Z)]]-. 1-[[(6R,7R)-7-[2-(2-amino-4-thiazolyl)glyoxylamido]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en–3-yl]methyl]pyridinium hydroxide, inner salt, 72-(Z)-[O(1-carboxy-1-methylethyl) oxime], pentahydrate

Structure:



Critical physico-chemical properties of the API were freely soluble in water and in methanol, practically insoluble in acetone.

Manufacture

The API manufacturing site, Qilu Antibiotics Pharmaceutical Co., Ltd. No.849 Dongjia Town, Licheng District, Jinan, Shandon Province, China was noted to comply with WHO GMP requirements as evidenced by the GMP certificate issued by China Food and Drug Administration.Ceftazidime pentahydrate API is manufactured by chemical synthesis using conventional techniques. Sufficient controls of quality of materials and in-process checks were employed throughout the manufacturing process.

Specifications

The API specifications were set as per BP standards and ICHQ3A. The parameters monitored during quality control are: appearance, identification, pH, loss on drying, clarity of solution, absorbance(425nm), Particulate contamination:visible particles, Sub-visible particles, bacterial endotoxins, sterility, pyridine, sodium carbonate, residual solvent, assay, related substances. Compliance to these specifications were established via batch analysis data and stability studies.

Stability and container closure system

The re-test period of Ceftazidime pentahydrate API is 36 months when packed in sterile aluminum tin and stored at below 25°C.

Quality of the Finished Pharmaceutical Product

Formulation

Ceftazidime Pentahydrate (Ceftazidime for Injection) is a white or pale yellow powder containing 1 g of Ceftazidime as Ceftazidime pentahydrate per vial. The product is packed as 1g in 10 mL glass vial, stoppered with butyl rubber stopper and capped with aluminum seal with flip-off cap. Ceftazidime Pentahydrate contains Ceftazidime (as Pentahydrate) with Sodium Carbonate.

Manufacture

The finished product was manufactured at Reyoung Pharmaceutical Co., Ltd, No. 1 Ruyaing Road, Yiyuan county, Shandong Province. Country: China. The compliance of the site to TMDA GMP standards was confirmed through site inspection on 20 and 21 October 2021.

Specifications

The FPP is compendia in BP/USP. The manufacturer controls the quality of the finished product as per BP/USP and ICHQ3B requirements. The parameters monitored during quality control are: characters, identification, pH, loss on drying, uniformity of dosage unit constituted solution, completeness and clarity of solution, visible particles, particulate matters, bacterial endotoxins, sterility pyridine, sodium carbonate, related substances, assay. Compliance to the standard was established using batch analysis data and stability data.

Stability and container closure system

Stability studies were conducted on 3 batches of the finished product stored at 30℃±2℃/75%±5% for 36 months and 40℃±2℃/75%±5% for 6 months. Based on the stability data presented, the approved shelf-life is 36 months when stored in 10 mL low-borosilicate glass molding, stopper with grey butyl rubber stopper and aluminium-plastic flip off seal at below 30℃.

Safety and efficacy information

Safety and efficacy of Ceftazidime Pentahydrate (Ceftazidime for Injection) was established through reliance on the innovator product.

4. Benefit-Risk Assessment and Conclusion

On basis ofthe data submitted, the current state of knowledge and compliance to Good Manufacturing Practice, the benefit of the product outweighs the risks associated with its use when used in accordance to the summary of product characteristics. Ceftazidime Pentahydrate is recommended for registration.

5. Post-approval updates

Variation applications

Reference number	Date submitted	Change requested	Recommendation	Granting date

Feedback from pharmacovigilance, post marketing surveillance and enforcement activities

Type of feedback	Impact	Response

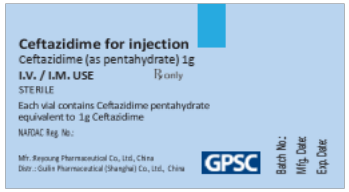
Re-registration applications

Application for renewal of registration was submitted on <DDMMYYYY>. The application was finalized in <number> rounds of evaluation. The product was confirmed to still be compliant to the standards of quality, safety and efficacy, hence registration was renewed on <DDMMYYYY>.

PART 5: CHANGE HISTORY

Version number	Date	Description of update	Section(s) Modified	Approval date

Annex I: Mock up label



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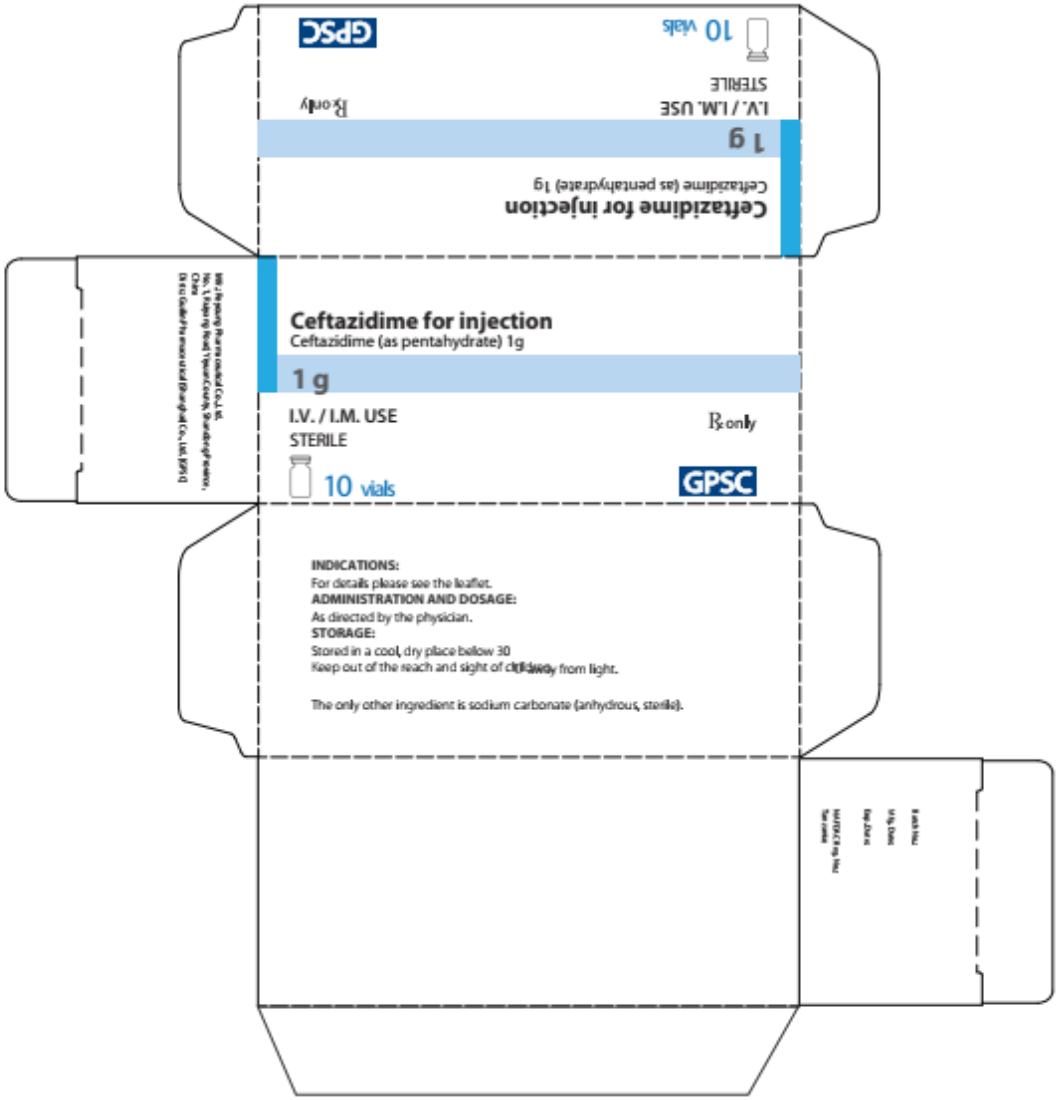
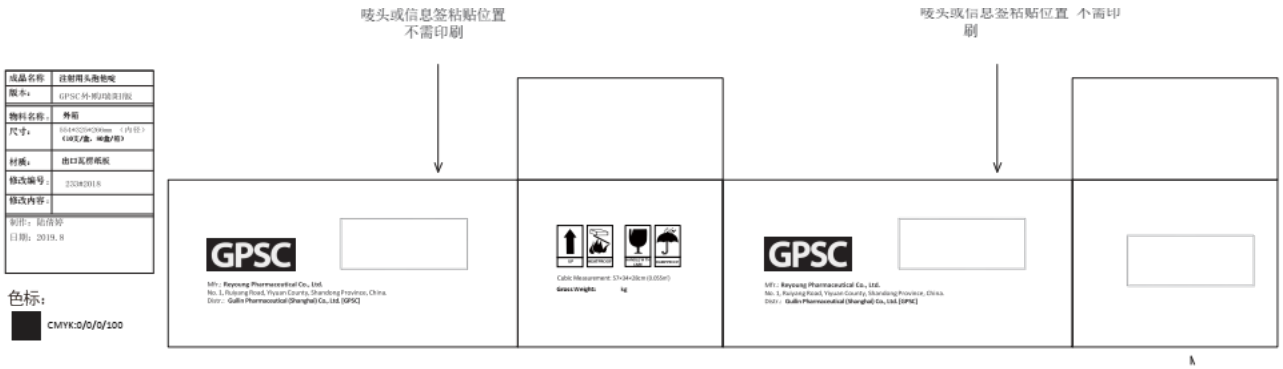
CMYK:70/15/0/0

CMYK:100/70/0/30


GPSC
10 vials
STERILE
I.V. / I.M. USE
℞ only
1 g
Ceftazidime for injection
Ceftazidime (as pentahydrate) 1g
Ceftazidime for injection
Ceftazidime (as pentahydrate) 1g
1 g
I.V. / I.M. USE
STERILE
℞ only
10 vials
GPSC
INDICATIONS:
For details please see the leaflet.
ADMINISTRATION AND DOSAGE:
As directed by the physician.
STORAGE:
Stored in a cool, dry place bellow 30
Keep out of the reach and sight of children away from light.
The only other ingredient is sodium carbonate (anhydrous, sterile).



唛头或信息签粘贴位置

成品名称	注射用头孢他啶
版本：	GPSC外贸瑞贸1版
物料名称：	信息贴
尺寸：	200*80mm
材质：	不干胶
修改编号：	233号/2018
修改内容：	字体调整，修改内容
制作：	陆倩婷
日期：	2018.11.13

色标：

CMYK:0/0/0/100

Ceftazidime for injection
Ceftazidime (as pentahydrate) 1g

I.V. / I.M. USE ℞only
STERILE

STORAGE: Stored in a cool, dry place below 30℃ away from light.

Batch No.:
Mfg. Date:
Exp. Date:
TMDA Reg. No.:
Tanzania:

10 Vials/ Box × 80 Boxes/Carton

Made in China

产品批号
生产日期
有效期至

外箱装量