TMDA/DMC/MRE/F/016 Rev #:02

#### THE UNITED REPUBLIC OF TANZANIA

#### **MINISTRY OF HEALTH**

#### TANZANIA MEDICINES AND MEDICAL DEVICES AUTHORITY

PUBLIC ASSESSMENT REPORT FOR CO-ANGINET (VALSARTAN 80 MG/ HYDROCHLOROTHIAZIDE 12.5 MG) FILM COATED TABLETS

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#### 1. Introduction

Co-Anginet® 80/12.5 is a generic medicine of CoDiovan forte 80/12.5 mg tablets, Novartis Pharma GmbH. Fixed combination antihypertensive agents i.e. valsartan, an angiotensin receptor blocker (ARB), and hydrochlorothiazide, a thiazide diuretic. Hydrochlorothiazide is a diuretic that produces smooth muscle cell relaxation and volume depletion. Hypokalaemia is a known side effect of thiazide diuretic therapy. The addition of an ARB to a thiazide diuretic has a potentially synergistic effect on blood pressure reduction by blocking the actions of angiotensin II at the AT1 receptor and also attenuates diuretic-induced hypokalaemia. Co-Anginet® is approved in Tanzania for use only in adult patients.

#### 1.1.Product details

Registration number	TAN 21 H 0405		
Brand name	Co-Anginet® 80/12.5		
Generic name, strength, and form	Each film-coated tablet contains Valsartan 80 mg and Hydrochlorothiazide 12.5 mg		
ATC classification	ATC Code- C09DA03 - Angiotensin II antagonists and diuretics combinations		
Distribution category	POM		
Country of origin	Jordan		
Associated product	Co-Anginet®80/25, Co-Anginet®160/12.5, Co-Anginet® 160/25		
Marketing Authorization Holder	United Pharmaceuticals Manufacturing Company Limited, Al Rageem Sahab, Amman-Jordan E-mail: samar.amaireh@mspharma.com		
Local Technical Representative	Wide Spectrum(Tanzania) limited Sikukuu Str, Kariakoo, P.O BOX 90518 Dar-es-Salaam, Tanzania E-mail:widespectrumtz@yahoo.com		

#### 1.2.Assessment procedure

The application for registration of Co-Anginet® 80/12.5 was submitted on 05 July 2017. The product underwent full assessment. Assessment was completed in 3 (three) rounds of evaluation and the product was registered on 09 October 2021.

#### 1.3.Information for users

Visual description of the finished product	Pink caplet biconvex film coated tablets with T14 on one side and plain on the other side
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Primary packing material	Alu/Alu Blister		
Secondary packing materials	A printed carton box		
Shelf-life and storage condition	36 months, Store up to 30°C		
Route of administration	Oral		
Therapeutic indications	Treatment of essential hypertension in adults. Valsartan/hydrochlorothiazide fixed-dose combination is indicated in patients whose blood pressure is not adequately controlled on valsartan or hydrochlorothiazide monotherapy.		

#### 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 <u>here</u>.

#### 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 full prescribing information as per SmPC.

#### Container labels

The product label information is presented in English. Details in the secondary pack label include:

Brand name: Co-Anginet® 80/12.5

Composition: Each film-coated tablet contains Valsartan 80 mg and Hydrochlorothiazide 12.5

mg

Pack size: 30 film-coated tablets

Manufacturing details: batch number, manufacturing date, and expiry date

Storage conditions: Store up to 30°C

Manufacturer address: physical address of release site

Unique identifier: Not applicable

Special warnings/precautions or instructions for use: See enclosed leaflet

The details of the primary pack include:

Brand name and strength: Co-Anginet® 80/12.5

Manufacturing details: batch number, manufacturing date and expiry date

Name of manufacturer: United Pharmaceuticals Manufacturing Company Limited,

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.

Mock labels are appended as annex I.

#### 3. Scientific discussion

#### **Quality of Active Pharmaceutical Ingredients**

Information on the quality of the APIs was submitted in form of DMFs.

#### **Valsartan**

#### **General Information**

Valsartan API is compendia in USP, Ph.Eur., and BP.

Molecular formula: C<sub>24</sub>H<sub>29</sub>N<sub>5</sub>O<sub>3</sub>

Chemical name:

N-[p-(o-1H-Tetrazol-5-ylphenyl) benzyl]-N-valeryl-L-valine Or

N-(1-Oxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-L-valine Or

(S)-N-(1-carboxy-2-methylprop-1-yl)-N-pentanoyl-N-[2'-(1H-tetrazol-5-yl)-biphenyl-4-ylmethyl] amine

Structure:

# **General properties**

The active substance hygroscopic powder, anhydrous ethanol, dichloromethane, water. The substance

is white to almost white freely soluble in sparingly soluble in practically insoluble in shows polymorphism and

stereoisomerism. The manufacturer consistently produces the correct isomer and the same polymorphic form.

Valsartan is a class II substance in the BCS classification system. It has a low aqueous solubility. Appropriate limits have been included in the active substance specifications to monitor the particle size and size distribution.

#### **Manufacture**

Valsartan API manufacturer is Jubilant Lifesciences Limited, 18,56,57&58 KIADB Industrial Area, Nanjagud 571 302, Mysore, Karnataka, India. The manufacturing complies with GMP requirements as evidenced by the GMP certificate issued by the Drugs Control Administration Government of Karnataka. Valsartan 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 in-house standards and ICHQ3A. The parameters monitored during quality control are: Appearance, identity (IR and Enantiomeric purity), particle size, enantiomeric purity (Ph. Eur), residual solvent (GC), assay (Ph. Eur), related impurities (Ph. Eur), water content (KF), sulphated ash (Ph. Eur), and nitrosamine impurities (NDEA and NDMA). Compliance to these specifications were established via batch analysis data and stability studies.

#### Stability and container closure system

The re-test period of Valsartan API is 48 months when packed in double polythene bags followed by aluminium bag and HDPE drum respectively. After packing is complete the metallic ring closing the HDPE drum will be sealed with numbered stainless steel seals with storage condition 'The product should be kept in airtight containers below 25°C'.

#### **Hydrochlorothiazide**

#### **General Information**

Hydrochlorothiazide API is compendia in USP, Ph.Eur., and BP.

Molecular formula: C<sub>7</sub>H<sub>8</sub>CIN<sub>3</sub>O<sub>4</sub>S<sub>2</sub>

Chemical name:

6-chloro-3, 4-dihydro-2H-1, 2, 4-benzothiazine-7-sulphonsmide-1, 1- dioxide

Structure:

#### **General properties**

Hydrochlorothiazide is a white to almost white crystalline powder and is very slightly soluble in water. It has been adequately demonstrated that polymorphic form I is consistently manufactured.

Hydrochlorothiazide is a class II or IV substance in the BCS classification system. It has a low aqueous solubility. Appropriate limits have been included in the active substance specifications to monitor the particle size and size distribution.

#### Manufacture

Hydrochlorothiazide API manufacturer is IPCA Laboratories limited, Sejavta, District Ratlam (Madhya Pradesh) Pin: 457 002, India. The manufacturing complies with GMP requirements as evidenced by the GMP certificate issued by the Food and Drugs administration of Bhopal, India. Hydrochlorothiazide 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 in-house standards and ICHQ3A. The parameters monitored during quality control are: Description, identity (UV, TLC, IR and colour), particle size, chlorides (Ph. Eur), acidity or alkalinity (Ph. Eur), loss on dry (Ph. Eur), residual solvent (GC), assay (Ph. Eur), related impurities (Ph. Eur), and sulphated ash (Ph. Eur). Compliance to these specifications were established via batch analysis data and stability studies.

#### Stability and container closure system

The re-test period of Hydrochlorothiazide API is 60 months when packed in colorless Poly Bags in HMHDPE Container with storage condition 'Preserve in well closed container'.

#### **Quality of the Finished Pharmaceutical Product**

#### **Formulation**

Co-Anginet® 80/12.5 is a pink caplet biconvex film coated tablets with T14 on one side and plain on the other side.

Co-Anginet® 80/12.5 contains the Valsartan and Hydrochlorothiazide, and other ingredients listed here after: Microcrystalline cellulose, Cross Povidone, Colloidal silicon dioxide, Magnesium stearate, Yellow iron oxide, Black iron oxide, Red iron oxide. The quantities of all ingredients are confirmed to be in line with the recommendations of Handbook of Pharmaceutical Excipients, 8<sup>th</sup> Edition in terms of function and quantities.

#### Manufacture

The finished product manufacturers are United Pharmaceutical Manufacturing Company Limited, Al-Rageem- Sahab, Amman-Jordan. The compliance of the sites to TMDA GMP standards was confirmed through site inspection on 02 May, 2019.

#### **Specifications**

The FPP is compendia in USP. The manufacturer controls the quality of the finished product as per in-house standards and ICH requirements. The parameters monitored during quality control are: Description, identification (TLC and HPLC), average weight, weight variation, hardness, assay, disintegration, dissolution, uniformity of dosage units, related impurities, and microbial purity. Compliance to the standard was established using batch analysis data and stability data.

#### Stability and container closure system

Stability studies were conducted on a 6(six) batches of the finished product stored at  $30 \pm 2^{\circ}C$  & RH:  $75 \pm 5\%$  RH for 36 months and  $40 \pm 2^{\circ}C$  & RH:  $75\% \pm 5\%$  RH for 6 months. Based on the stability data presented, the approved shelf-life is 36 months when stored in Alu/Alu blister with storage condition 'Store up to  $30^{\circ}C$ '.

#### Safety and efficacy information

The biowaiver was approved based on additional strength.

Co-Anginet® 80/12.5 fulfilled the criteria for waiving an in-vivo bioequivalence study as per relevant TMDA guidance. Dissolution profiles of lower strength - Co-Anginet® 80/12.5 (80/12.5 mg Valsartan/ Hydrochlorothiazide) film-coated tablet was compared to Co-Anginet® 160/25 (160/25 mg Valsartan/ Hydrochlorothiazide) film-coated tablet. Less than 85% of the labelled amount of Valsartan and Hydrochlorothiazide had dissolved in all three media. Therefore, necessitating calculation of similarity factor f2, which was noted to be above 50.

#### 4. Benefit-Risk Assessment and Conclusion

On basis of the 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. Co-Anginet® 80/12.5 is recommended for registration.

#### 5. Post-approval updates

#### Variation applications

Reference number	D a t	Change requested	Recommendation	Granting date

# Feedback from pharmacovigilance, post marketing surveillance and enforcement activities

Type of feedback	Impact	Response
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## 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 labels;

Primary pack label;

# CO-ANGINET® 80/12.5 mg Valsartan / Hydrochlorothiazide 123 mm



Secondary pack label;

