SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT
Do-Do Chesteze

2 QUALITATIVE AND QUANTITATIVE COMPOSITION
Ephedrine hydrochloride 18.3 1mg
Theophylline 100.00mg
Caffeine 30.00mg
For excipients see 6.1

3 PHARMACEUTICAL FORM
Tablet

4 CLINICAL PARTICULARS
4.1 Therapeutic indications
To relieve bronchial cough, wheezing, breathlessness and other symptoms of asthmatic bronchitis, also to clear the chest of mucus following upper respiratory tract infection.

4.2 Posology and method of administration
Adults: One tablet. Do not take more than one tablet in 4 hours or more than 4 tablets in 24 hours.

Children:
over 12 years: One tablet. Do not exceed 3 tablets daily, with an interval of at least 4 hours between each tablet.

2 - 12 years: Not recommended unless advised by a doctor.

under 2 years: Do not use.

Route of administration: For oral use.

4.3 Contraindications
Hypersensitivity to any of the constituents. Prostatic hypertrophy, hyperthyroidism, hypertension, ischaemic heart disease and cardiac disease.
Use in patients taking MAO inhibitors or within 14 days of stopping treatment.

4.4 Special warnings and precautions for use
Precaution should be used in patients with diabetes, glaucoma, liver disease, fever, epilepsy and breast feeding.

The product label includes the following warning:

WARNING: Do not exceed the stated dose. Asthmatics should consult their doctor before using this product.

Do not take with any other cough and cold medicine.

Keep all medicines out of the reach of children.

If symptoms persist consult your doctor.

CONTAINS THEOPHYLLINE

4.5 Interaction with other medicinal products and other forms of interaction
Caffeine, ephedrine hydrochloride and theophylline interact with several other drugs. The most important reactions are:

Ephedrine hydrochloride: Monoamine oxidase inhibitors, guanethidine

Theophylline: Frusemide, β-blockers (e.g. propranolol), isoprenaline, cimetidine, oral contraceptives, aminogluthethimide, carbamazepine, lithium, phenytoin, sulphipyrazone, rifampicin, erythromycin, ciprofloxacin and other quinoline antibiotics. The handling of theophylline may be influenced by age, smoking, diet and disease including hepatic dysfunction, heart failure, pneumonia, active viral infections and severe (irreversible) airway obstruction.

There are conflicting reports concerning potentiation of theophylline by influenza vaccine and physicians should be aware that the interaction may occur.

The concomitant use of theophylline and fluvoxamine should usually be avoided. Where this is not possible, patients should have their theophylline dose halved and plasma theophylline should be monitored closely.
Plasma concentrations of theophylline can be reduced by concomitant use of the herbal remedy St. John’s wort (Hypericum perforatum).

Xanthines can potentiate hypokalaemia resulting from β2 agonist therapy, steroids, diuretics and hypoxia. Particular caution is advised in severe asthma. It is recommended that serum potassium levels are monitored in such situations.

Caffeine: Cimetidine, oral contraceptives, ciprofloxacin.

4.6 Fertility, Pregnancy and lactation

Ephedrine hydrochloride: There is some evidence linking in vitro exposure to sympathomimetics (including ephedrine) to minor malformations. Therefore it is advised that the product is not given in pregnancy. The product label includes the warning “If you are pregnant or are receiving medicines from your doctor, consult him before using Do-Do”.

Theophylline: Animal studies have shown no hazard. There is no evidence of safety of theophylline-containing preparations in human pregnancy.

Caution should be used in patients who are breast feeding.

4.7 Effects on ability to drive and use machines

There is no evidence to suggest that the administration of Do-Do would interfere with a patient’s ability to drive.

4.8 Undesirable effects

Ephedrine hydrochloride: Anxiety, restlessness, tremor, tachycardia, arrhythmias, insomnia, dry mouth, cold extremities, difficulty in micturition.

Theophylline: Tachycardia, palpitations, nausea, gastrointestinal disturbances, insomnia, arrhythmias and CNS stimulation.

Caffeine: Insomnia, anxiety.
4.9 Overdose
The signs of overdose are: Vomiting, agitation, restlessness, dilated pupils and sinus tachycardia. In severe overdose the signs are: Arrhythmias, ventricular and supraventricular tachycardia, haematemesis may occur, hypochloremia and convulsions may occur, difficulty in micturition.

Treatment is symptomatic, including gastric lavage, supportive therapy, treatment of convulsions, sedation for restlessness and supportive treatment of hypokalaemia.

5 PHARMACOLOGICAL PROPERTIES
5.1 Pharmacodynamic properties
Ephedrine hydrochloride: Sympathomimetic amine. Relaxes bronchial muscle.

Theophylline: Relaxes smooth muscle and relieves bronchial spasm.

Caffeine: CNS stimulating activity.

5.2 Pharmacokinetic properties
Ephedrine hydrochloride (in Do-Do):
- Single dose mean AUC$^{24}$ 660 ($\pm$ 228) ng.h/ml
- Single dose mean Cmax 96 ($\pm$ 14) ng/ml
- Single dose median Tmax 1.0 h
- Repeat dose mean AUC$^{24/3}$ 480 ($\pm$ 280) ng.h/ml
- Repeat dose mean Cmax 95 ($\pm$ 21) ng/ml
- Repeat dose median Tmax 1.0 h
- Repeat dose mean KEL 0.215 ($\pm$ 0.020) h$^{-1}$

Theophylline (in Do-Do):
- Single dose mean AUC 33.09 ($\pm$ 12.69) $\mu$g.h/ml
- Single dose mean Cmax 3.03 ($\pm$ 0.61) $\mu$g/ml
- Single dose median Tmax 1.3 h
- Single dose mean KEL 0.107 ($\pm$ 0.030) h$^{-1}$
- Repeat dose mean AUC$^{24/3}$ 31.3 ($\pm$ 9.7) $\mu$g.h/ml
- Repeat dose mean Cmax 5.58 ($\pm$ 1.50) $\mu$g/ml
- Repeat dose median Tmax 1.0 h
- Repeat dose mean KEL 0.132 ($\pm$ 0.056) h$^{-1}$

Caffeine: After 100mg oral dose, peak plasma concentrations of 1.5 - 2$\mu$g/ml are obtained within 1 - 2 hours.
5.3 Preclinical safety data
No additional data.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients
Lactose
Maize starch
Starch 1500 (pre-gelatinised maize starch)
Colour brown (manufactured from the components red iron oxide (E172),
black iron oxide (E172), yellow iron oxide (E172), Alumina)
Alginic acid H/FD
Magnesium stearate
Stearic acid
Purified Talc Special

6.2 Incompatibilities
None.

6.3 Shelf life
5 years

6.4 Special precautions for storage
Protect from heat and moisture.

6.5 Nature and contents of container
PVC form pack

Pack sizes: 9 tablets

6.6 Special precautions for disposal and other handling
Medicines should be kept out of the reach of children.

7 MARKETING AUTHORISATION HOLDER
GlaxoSmithKline Consumer Healthcare (UK) Trading Limited,
980 Great West Road
Brentford
8 MARKETING AUTHORISATION NUMBER(S)
PL 44673/0172

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORITY
01 February 1998

10 DATE OF REVISION OF THE TEXT
14/07/2016