NEW ZEALAND DATA SHEET

1 PRODUCT NAME

Duro-Tuss Phenylephrine PE Dry Cough + Nasal Decongestant

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each 15 mL of the medicine contains 15 mg pholcodine and 10 mg phenylephrine hydrochloride as active ingredients.

Excipients with known effect:
Methyl hydroxybenzoate, propyl hydroxybenzoate, saccharin sodium and sorbitol.

For full list of excipients, see section 6.1 List of excipients.

3 PHARMACEUTICAL FORM

Oral solution.

Clear red, slightly viscous liquid with odour of raspberry and custard.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Temporary relief of a dry cough and clearing a blocked or runny nose.

4.2 Dose and method of administration

For oral administration.

Age	Dosage	How often
Adults & children 12 years & over	10 – 15 mL	Every 6 hours as required (Maximum 4 times a day)
Children 6 – 11 years	5 – 10 mL	
Children under 6 years	Do not use	

4.3 Contraindications

- Children under the age of 6 years.
- Hypersensitivity to pholcodine, phenylephrine hydrochloride or any of the excipients listed in section 6.1 List of excipients.
- Patients in, or at risk of developing respiratory failure or during acute asthma attacks, as it may depress respiration.
- Patients with chronic bronchitis, COPD, bronchiolitis or bronchiectasis due to sputum retention.
- Patients with renal or hepatic failure.
- Patients taking monoamine oxidase inhibitors (MAOIs) or within 14 days of stopping such treatment (see also see 4.5 Interaction with other medicines and other forms of interaction).

4.4 Special warnings and precautions for use

Use with caution in patients with liver or renal disease.

Pholcodine should be used with caution in patients with chronic or persistent cough, asthma, including an acute asthma attack, or where cough is accompanied by excessive secretions.

Severe cutaneous adverse reactions (SCARs) including acute generalised exanthematous pustulosis (AGEP), which can be life-threatening or fatal, have been reported in patients treated with

pholcodine-containing products, most likely in the first week. Patients should be advised of the signs and symptoms and monitored closely for skin reactions. If signs and symptoms suggestive of these reactions appear, Duro-Tuss Phenylephrine PE Dry Cough + Nasal Decongestant should be withdrawn immediately.

Cross-reactivity leading to serious allergic reactions (anaphylaxis) have been reported between pholcodine and Neuromuscular Blocking Agents (NMBAs). A precise at-risk period of time between the exposures of pholcodine and NMBAs has not been determined. Clinicians should be aware of this potential in case of future anaesthetic procedures involving NMBAs.

Use of pholcodine with alcohol or other central nervous system (CNS) depressants may increase the effects on the CNS and cause toxicity in relatively smaller doses.

This product should not be used by patients taking other sympathomimetics such as decongestants, appetite suppressants and amphetamine-like psychostimulants.

Caution should be exercised in patients with cardiovascular disease, hypertension, diabetes, hyperthyroidism, prostatic enlargement, raised intraocular pressure (i.e., glaucoma), phaeochromocytoma and occlusive vascular disease (e.g., Raynaud's Phenomenon).

Due to the phenylephrine content of this product, it should be used with caution in patients taking beta-blockers or other anti-hypertensives, antidepressants or ergot alkaloids (e.g. ergotamine and methysergide).

Concomitant use of Duro-Tuss Phenylephrine PE Dry Cough + Nasal Decongestant with other medicines intended to treat the symptoms of the common cold is not recommended.

This product contains sorbitol which may have a laxative effect or cause diarrhoea in some people.

4.5 Interaction with other medicines and other forms of interaction

Pholcodine:

Do not use in patients taking MAOIs or within 14 days of stopping treatment.

Interaction with neuromuscular blocking agents (anaphylaxis) has been reported (see 4.4 Special warnings and precautions for use).

The reduction in blood pressure caused by antihypertensives may accentuate the hypotensive effects of pholcodine. Diuretics may have the same effect.

Pholcodine may enhance the sedative effect of CNS depressants including alcohol, barbiturates, hypnotics, narcotic analgesics, sedatives and tranquillisers (phenothiazines and tricyclic antidepressants).

Phenylephrine hydrochloride:

Phenylephrine should be used with caution in combination with the following drugs as interactions have been reported:

Monoamine oxidase inhibitors	Hypertensive interactions occur between sympathomimetic amines such as phenylephrine and monoamine oxidase inhibitors (See 4.3 Contraindications).
Sympathomimetic amines	Concomitant use of phenylephrine with other

	sympathomimetic amines can increase the risk of cardiovascular side effects
Beta-blockers and other antihypertensives (including debrisoquine, guanethidine, reserpine, methyldopa)	Phenylephrine may reduce the efficacy of beta-blocking drugs and antihypertensive drugs. The risk of hypertension and other cardiovascular side effects may be increased (See 4.4 Special warnings and precautions for use).
Tricyclic antidepressants (eg amitriptyline)	May increase the risk of cardiovascular side effects with phenylephrine (See 4.4 Special warnings and precautions for use).
Digoxin and cardiac glycosides	Increase the risk of irregular heartbeat or heart attack.
Ergot alkaloids (e.g. ergotamine and methysergide)	Concomitant use of phenylephrine may cause increased risk of ergotism (See 4.4 Special warnings and precautions for use).

4.6 Fertility, pregnancy and lactation

Use in Pregnancy – Phenylephrine - Category B2

(Drugs which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human foetus having been observed).

Phenylephrine studies in animals are inadequate or may be lacking, but available data show no evidence of an increased occurrence of foetal damage.

Pholcodine - Category AThe safety of pholcodine during pregnancy and lactation has not been established. Risk vs benefit must be considered before using pholcodine during pregnancy or lactation. There is a risk of gastric stasis in the mother during labour which may lead to inhalation pneumonia. Teratogenic effects in humans have not been documented but controlled studies have not been done, nor have studies in animals been documented for pholcodine.

Use in lactation: It is not known whether pholcodine is excreted in breast milk or whether it has a harmful effect on the breastfeeding infant. Phenylephrine may be excreted in breast milk.

Therefore, Duro-Tuss Phenylephrine PE Dry Cough + Nasal Decongestant is not recommended during pregnancy unless it is considered essential by the physician.

4.7 Effects on ability to drive and use machines

This medicine can impair cognitive function and can affect a patient's ability to drive safely or operate machinery.

Patients should therefore exercise caution before driving or use of machinery until they know Duro-Tuss Phenylephrine PE Dry Cough + Nasal Decongestant does not adversely affect their performance.

4.8 Undesirable effects

The following side effects may be associated with the use of pholcodine:

Nervous system disorders: Occasional drowsiness, dizziness, excitation, confusion

Respiratory, thoracic and mediastinal disorders: Sputum retention

Gastrointestinal disorders: Vomiting, gastrointestinal disturbances (nausea and constipation)

Skin and subcutaneous tissue disorders: Skin reactions including rash.
Acute generalized exanthematous pustulosis (see 4.4 Special warnings and precautions for use).

Immune system disorders: Hypersensitivity reactions and anaphylaxis.

The following adverse events have been observed in clinical trials with phenylephrine and may therefore represent the most commonly occurring adverse events:

Psychiatric disorders: Nervousness

Nervous system disorders: Headache, dizziness, insomnia

Cardiac disorders: Increased blood pressure

Gastrointestinal disorders: Nausea, vomiting

Adverse reactions identified during post-marketing use are listed below.

Body System	**Undesirable Effect**	**Frequency**
Eye disorders	Mydriasis, acute angle closure glaucoma, most likely to occur in those with closed angle glaucoma	Rare
Cardiac disorders	Tachycardia, palpitations	Rare
Skin and subcutaneous disorders	Allergic reactions (e.g. rash, urticaria, allergic dermatitis)	Rare
Renal and urinary disorders	Dysuria, urinary retention. This is most likely to occur in those with bladder outlet obstruction such as prostatic hypertrophy.	Rare
Immune system disorders	Hypersensitivity	Rare

Reporting of suspected adverse reactions
Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Healthcare professionals are asked to report any suspected adverse reactions https://nzphvc.otago.ac.nz/reporting/

4.9 Overdose

Pholcodine

Pholcodine is thought to be of low toxicity, but the effects in overdosage will be potentiated by simultaneous ingestion of alcohol and psychotropic drugs. A toxic dose in children is reported to be about 200 mg.

Symptoms: These include nausea, drowsiness, restlessness, excitement, ataxia and respiratory depression.

Management: Treatment of overdose should be symptomatic and supportive. In cases of severe poisoning the specific narcotic antagonist nalaxone may be used.

Phenylephrine

Symptoms and Signs: Overdose is likely to result in effects similar to those listed under Adverse Reactions (see 4.8 Undesirable effects. Additional symptoms may include irritability, restlessness,

hypertension, and possibly reflex bradycardia. In severe cases confusion, hallucinations, seizures and arrhythmias may occur.

Treatment: Treatment should be as clinically appropriate. Severe hypertension may need to be treated with an alpha blocking drug such as phentolamine.

Information for children:
Nalaxone has been used successfully to reverse central or peripheral opioid effects in children (0.01mg/kg body weight). Another treatment option is activated charcoal (1g/kg body weight) if more than 4mg/kg has been ingested within 1 hour, provided the airway can be protected.

For advice on the management of overdose please contact the National Poisons Centre on 0800 POISON (0800 764766).

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: R05DA Opium alkaloids and derivatives

Pholcodine is a cough suppressant with mild sedative but little analgesic or euphorigenic activity. It suppresses the cough reflex by a direct central action, probably in the medulla or pons.

Phenylephrine hydrochloride is a sympathomimetic agent with mainly direct effects on adrenergic receptors (predominantly alpha-adrenergic activity) producing nasal decongestion.

5.2 Pharmacokinetic properties

Absorption

Phenylephrine is irregularly absorbed from the gastrointestinal tract.

For pholcodine, the maximum plasma concentrations are attained at 4 to 8 hours after an oral dose.

Distribution

Pholcodine is protein bound to the extent of 23.5%.

Metabolism

Phenylephrine undergoes first-pass metabolism by monoamine oxidases in the gut and liver; orally administered phenylephrine thus has reduced bioavailability.

Pholcodine is metabolised in the liver but undergoes little conjugation. There is little or no metabolism of pholcodine to morphine.

Elimination

Phenylephrine is irregularly absorbed from the gastrointestinal tract. It undergoes first-pass metabolism by monoamine oxidases in the gut and liver; orally administered phenylephrine thus has reduced bioavailability. It is excreted in the urine almost entirely as the sulphate conjugate.

Pholcodine elimination half-life ranges from 32–43 hours and volume of distribution is 30–49 L/kg.

5.3 Preclinical safety data

There are no preclinical data of relevance which are additional to that already included.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Citric acid
Hyetellose
Purified water
Saccharin sodium
Methyl hydroxybenzoate
Propyl hydroxybenzoate
Sorbitol
Glycerol
Amaranth
Custard flavour 052940 A
Raspberry flavour 580004 A

6.2 Incompatibilities

Not applicable

6.3 Shelf life

24 months

6.4 Special precautions for storage

Store at or below 30°C.

6.5 Nature and contents of container

Amber PET bottle with polypropylene CRC tamper evident wadded cap.
Pack size: 100 and 200 mL

6.6 Special precautions for disposal

No special requirements

7 MEDICINE SCHEDULE

S3 – Pharmacist Only medicine

8 SPONSOR

iNova Pharmaceuticals (New Zealand) Limited
C/- Simpson Grierson,
88 Shortland Street
AUCKLAND 1141
Telephone: 0508 375 394

9 DATE OF FIRST APPROVAL

16 March 2023

10 DATE OF REVISION OF THE TEXT

16 March 2023

SUMMARY TABLE OF CHANGES

Section changed:	**Summary of new information:**
All	New data sheet