NEW ZEALAND DATA SHEET

1. PRODUCT NAME

INCRUSE® ELLIPTA® Umeclidinium (as bromide), 62.5 micrograms, powder for inhalation

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each delivered dose (the dose leaving the mouthpiece of the inhaler) contains 55 micrograms umeclidinium (equivalent to 65 micrograms of umeclidinium bromide). This corresponds to a pre-dispensed dose of 62.5 micrograms of umeclidinium (equivalent to 74.2 micrograms umeclidinium bromide).

Excipient with known effect:

Each delivered dose contains approximately 12.5 mg of lactose (as monohydrate).

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

3. PHARMACEUTICAL FORM

Powder for Inhalation

White powder in a grey inhaler (Ellipta) with a light green mouthpiece cover and a dose counter.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Incruse Ellipta is indicated as a long-term once daily maintenance bronchodilator treatment to relieve symptoms in adult patients with chronic obstructive pulmonary disease (COPD).

4.2 Dose and method of administration

Dose

Adults

Incruse Ellipta (umeclidinium 62.5 micrograms) should be taken as one inhalation once daily by the orally inhaled route.

Incruse Ellipta should be taken at the same time every day.

Do not use Incruse Ellipta more than once every 24 hours.

Special populations

Elderly population

No dosage adjustment is required in patients over 65 years (see 5.2 Pharmacokinetics properties—Special patient populations).
Renal impairment

No dosage adjustment is required in patients with renal impairment (see 5.2 Pharmacokinetics properties – Special patient populations).

Hepatic impairment

No dosage adjustment is required in patients with mild or moderate hepatic impairment. Incruse Ellipta has not been studied in patients with severe hepatic impairment (see 5.2 Pharmacokinetics properties– Special patient populations).

Paediatric populations

This product should not be used in children.

Method of administration

Incruse Ellipta is for oral inhalation use only.

4.3 Contraindications

Incruse Ellipta is contraindicated in patients with severe milk-protein allergy or who have demonstrated hypersensitivity to either umeclidinium or any of the excipients.

4.4 Special warnings and precautions for use

Asthma

The use of Incruse Ellipta has not been studied in patients with asthma, and is not recommended in this patient population.

Deterioration of Disease

Incruse Ellipta is intended for the long-term maintenance treatment of COPD. It should not be used for the relief of acute symptoms, i.e. as rescue therapy for the treatment of acute episodes of bronchospasm. Acute symptoms should be treated with an inhaled short-acting bronchodilator. Increasing use of short-acting bronchodilators to relieve symptoms indicates deterioration of control and patients should be reviewed by a physician.

Paradoxical Bronchospasm

As with other inhalation therapies, administration of Incruse Ellipta may produce paradoxical bronchospasm that may be life threatening. Treatment with Incruse Ellipta should be discontinued if paradoxical bronchospasm occurs and alternative therapy instituted if necessary.

Cardiovascular Effects

Cardiovascular effects, such as cardiac arrhythmias e.g. atrial fibrillation and tachycardia, may be seen after the administration of muscarinic receptor antagonists, including Incruse Ellipta. Therefore, Incruse Ellipta should be used with caution in patients with severe cardiovascular disorders, particularly cardiac arrhythmias.
Antimuscarinic Activity

Consistent with its antimuscarinic activity, Incruse Ellipta should be used with caution in patients with narrow-angle glaucoma or urinary retention.

Excipients

Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take Incruse Ellipta.

4.5 Interaction with other medicines and other forms of interaction

Clinically significant drug interactions mediated by umeclidinium at clinical doses are considered unlikely due to the low plasma concentrations achieved after inhaled dosing.

Interaction with P-glycoprotein inhibitors

Umeclidinium is a substrate of P-glycoprotein (P-gp) transporter. The effect of the P-gp transporter inhibitor verapamil (240 mg once daily) on the steady-state pharmacokinetics of umeclidinium was assessed in healthy volunteers. No effect of verapamil was observed on umeclidinium C\text{max}. An approximately 1.4-fold increase in umeclidinium AUC was observed.

Based on the magnitude of these changes, no clinically relevant drug interaction is expected when umeclidinium is co-administered with P-gp inhibitors.

Interaction with CYP2D6 inhibitors

Umeclidinium is a substrate of CYP2D6. The effect of a CYP2D6 poor metaboliser genotype on the steady-state pharmacokinetics of umeclidinium was assessed in healthy volunteers (CYP2D6 normal metabolisers and CYP2D6 poor metabolisers). No clinically meaningful difference in systemic exposure to umeclidinium (500 micrograms) was observed following repeat daily inhaled dosing to normal and CYP2D6 poor metaboliser subjects.

4.6 Fertility, pregnancy and lactation

Pregnancy (Category B1)

There is a limited amount of data from the use of Incruse Ellipta in pregnant women. Embryo-foetal development was unaffected by umeclidinium in rats treated at up to 278 micrograms/kg/day by inhalation (estimated to yield 50 times the plasma AUC in patients at the maximum recommended human dose of 62.5 micrograms per day) and in rabbits treated at up to 306 micrograms/kg/day by inhalation or up to 180 micrograms/kg/day subcutaneously (yielding 35 and ~200 times the plasma AUC in patients).

Incruse Ellipta should only be used during pregnancy if the expected benefit to the mother justifies the potential risk to the foetus.

Breast-feeding

It is unknown whether umeclidinium is excreted in human milk. A risk to breastfed newborns/infants cannot be excluded.
A decision must be made whether to discontinue breastfeeding or to discontinue Incruse Ellipta therapy taking into account the benefit of breastfeeding for the child and the benefit of therapy for the woman.

**Fertility**

There are no data on the effects of Incruse Ellipta on human fertility. Studies in rats showed no effects of umeclidinium on male or female fertility at doses producing very large multiples of the systemic exposure in patients.

**4.7 Effects on ability to drive and use machines**

Umeclidinium bromide has no or negligible influence on the ability to drive and use machines.

**4.8 Undesirable effects**

**Summary of the safety profile**

The safety profile of Incruse Ellipta was evaluated from 1663 patients with COPD who received doses of 62.5 micrograms or greater for up to one year. This includes 576 patients who received the recommended dose of 62.5 micrograms once daily.

The adverse reactions identified from the four pivotal studies and the long term safety study (which involved 1,412 patients who received Incruse Ellipta) are presented in the table below.

**Tabulated summary of adverse reactions**

Adverse drug reactions (ADRs) are listed below by MedDRA system organ class and by frequency. The following convention has been used for the classification of adverse reactions:

- **Very common:** ≥1/10
- **Common:** ≥1/100 to <1/10
- **Uncommon:** ≥1/1000 to <1/100
- **Rare:** ≥1/10000 to <1/1000
- **Very rare:** <1/10000
### MedDRA System organ class

<table>
<thead>
<tr>
<th>Adverse reaction(s)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infections and infestations</strong></td>
<td></td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td>Common</td>
</tr>
<tr>
<td>Sinusitis</td>
<td>Common</td>
</tr>
<tr>
<td>Nasopharyngitis</td>
<td>Common</td>
</tr>
<tr>
<td>Upper Respiratory Tract Infection</td>
<td>Common</td>
</tr>
<tr>
<td><strong>Cardiac Disorders</strong></td>
<td></td>
</tr>
<tr>
<td>Atrial Fibrillation</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Supraventricular tachycardia</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Tachycardia</td>
<td>Common</td>
</tr>
<tr>
<td><strong>Respiratory, Thoracic and Mediastinal Disorders</strong></td>
<td></td>
</tr>
<tr>
<td>Cough</td>
<td>Common</td>
</tr>
<tr>
<td><strong>Gastrointestinal Disorders</strong></td>
<td></td>
</tr>
<tr>
<td>Constipation</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Dry mouth</td>
<td>Uncommon</td>
</tr>
</tbody>
</table>

### Clinical trial data

Table 1 shows all adverse events that occurred with a frequency of greater than 1% in either of the groups receiving Incruse Ellipta in the four 24-week well-controlled studies where the rates in either of the groups receiving Incruse Ellipta exceeded placebo by greater than 1%.

### Table 1 Adverse Events with >1% Incidence and greater than Placebo by 1% with INCURSE ELLIPTA in Subjects with COPD

<table>
<thead>
<tr>
<th>Preferred Term</th>
<th>Number (%) of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respiratory, Thoracic and Mediastinal Disorders</strong></td>
<td></td>
</tr>
<tr>
<td>Cough</td>
<td>Placebo (N=623) UMEC 62.5 (N=487) UMEC 125 (N=698)</td>
</tr>
<tr>
<td></td>
<td>24 (4)       16 (3)      34 (5)</td>
</tr>
<tr>
<td>Infections and Infestations</td>
<td></td>
</tr>
<tr>
<td>Upper respiratory tract infection</td>
<td>Placebo (N=623) UMEC 62.5 (N=487) UMEC 125 (N=698)</td>
</tr>
<tr>
<td></td>
<td>21 (3)       23 (5)      25 (4)</td>
</tr>
<tr>
<td>Viral upper respiratory tract</td>
<td>1 (&lt;1)       7 (1)       1 (&lt;1)</td>
</tr>
<tr>
<td>Vascular Disorders</td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td>Placebo (N=623) UMEC 62.5 (N=487) UMEC 125 (N=698)</td>
</tr>
<tr>
<td></td>
<td>10 (2)       10 (2)      19 (3)</td>
</tr>
<tr>
<td>Contusion</td>
<td>1 (&lt;1)       7 (1)       4 (&lt;1)</td>
</tr>
<tr>
<td>Immune System Disorders</td>
<td></td>
</tr>
<tr>
<td>Arthralgia</td>
<td>Placebo (N=623) UMEC 62.5 (N=487) UMEC 125 (N=698)</td>
</tr>
<tr>
<td></td>
<td>9 (1)        12 (2)      11 (2)</td>
</tr>
</tbody>
</table>

52 week study

In a long-term safety study, 336 subjects (n=227 umeclidinium 125 micrograms, n=109 placebo) were treated for up to 52 weeks with umeclidinium 125 micrograms or placebo. The demographic and baseline characteristics of the long-term safety study were similar to those of the efficacy studies. In addition to the adverse events listed in Table 3, the
adverse events reported in subjects receiving umeclidinium 125 micrograms with a frequency of greater than 1% and exceeding the rate in subjects receiving placebo by greater than 1% in this study were: nasopharyngitis (umeclidinium 125 micrograms 9%, placebo 5%), supraventricular extrasystoles (umeclidinium 125 micrograms 3%, placebo <1%), supraventricular tachycardia (umeclidinium 125 micrograms 3%, placebo <1%), rhythm idioventricular (umeclidinium 125 micrograms 2%, placebo 0%), and urinary tract infection (umeclidinium 125 micrograms 2%, placebo 0%).

Post-marketing data

<table>
<thead>
<tr>
<th>MedDRA System organ class</th>
<th>Adverse reaction(s)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immune system disorders</td>
<td>Hypersensitivity reactions including:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rash, urticaria and pruritus</td>
<td>Uncommon</td>
</tr>
<tr>
<td></td>
<td>Anaphylaxis, angioedema</td>
<td>Rare</td>
</tr>
<tr>
<td>Eye disorders</td>
<td>Vision blurred</td>
<td>Rare</td>
</tr>
<tr>
<td></td>
<td>Eye pain</td>
<td>Rare</td>
</tr>
<tr>
<td></td>
<td>Glaucoma</td>
<td>Rare</td>
</tr>
<tr>
<td>Nervous system disorders</td>
<td>Dysgeusia</td>
<td>Common</td>
</tr>
<tr>
<td>Renal and urinary disorders</td>
<td>Urinary retention</td>
<td>Rare</td>
</tr>
<tr>
<td></td>
<td>Dysuria</td>
<td>Rare</td>
</tr>
</tbody>
</table>

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 via: [http://nzphvc.otago.ac.nz/reporting](http://nzphvc.otago.ac.nz/reporting)

4.9 Overdose

No data from clinical studies are available regarding overdose with Incruse Ellipta.

Symptoms and signs

An overdose of Incruse Ellipta will likely produce signs and symptoms consistent with the known inhaled muscarinic antagonist adverse effects (e.g. dry mouth, visual accommodation disturbances and tachycardia).

Treatment

If overdose occurs, the patient should be treated supportively with appropriate monitoring as necessary.

For advice on the management of overdose, please contact the New Zealand National Poisons Centre on 0800 POISON (0800 764 766).
5. PHARMOCOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Drugs for obstructive airway diseases, anticholinergic, ATC code: R03BB07

Mechanism of action

Umeclidinium is a long acting muscarinic receptor antagonist (also referred to as an anticholinergic). It is a quinuclidine derivative that is a muscarinic receptor antagonist with activity across multiple muscarinic cholinergic receptor subtypes. Umeclidinium exerts its bronchodilatory activity by competitively inhibiting the binding of acetylcholine with muscarinic acetylcholine receptors on airway smooth muscle. It demonstrates slow reversibility at the human M3 muscarinic receptor subtype in vitro and a long duration of action in vivo when administered directly to the lungs in pre-clinical models.

Pharmacodynamic effects

Improvement in lung function over placebo was seen at 15 minutes (the first time point assessed after dosing) and was maintained over 24 hours. There was no evidence for tachyphylaxis to the bronchodilator effect after repeated dosing of Incruse Ellipta 62.5 micrograms for up to 52 weeks.

In a 24-week, placebo controlled clinical efficacy study Incruse Ellipta 62.5 micrograms increased forced expiratory volume in one second (FEV₁) after the first dose on Day 1 with an improvement of 0.07 L at 15 minutes compared with placebo (p<0.001). The increase from baseline to peak FEV₁ over the first 6 hours post-dose at Day 1 was 0.23 L with umeclidinium 62.5 micrograms compared with 0.11 L for placebo. The increase from baseline to peak FEV₁ over the first 6 hours post-dose at Week 24 was 0.23 L with umeclidinium 62.5 micrograms compared with 0.10 L for placebo.

Cardiovascular effects

The effect of umeclidinium 500 micrograms on the QT interval was evaluated in a placebo and moxifloxacin controlled QT study of 103 healthy volunteers. Following repeat doses of 500 micrograms once daily for 10 days, no clinically relevant effect on prolongation of QT interval (corrected using the Fridericia method) was observed.

Clinical efficacy and safety

Placebo Controlled Studies

The efficacy of Incruse Ellipta administered once daily was evaluated in two placebo controlled clinical studies, in adult patients with a clinical diagnosis of COPD; a 12-week study (AC4115408) and a 24 week study (DB2113373).

In the 12-week study, Incruse Ellipta demonstrated statistically significant and clinically meaningful improvements in measures of lung function (as defined by change from baseline trough FEV₁ at Week 12, which was the primary efficacy endpoint compared with placebo (see Table 2). The bronchodilatory effects with Incruse Ellipta compared with placebo were evident after the first day of treatment and were maintained over the 12-week treatment period.
Table 2. Primary efficacy endpoint at Week 12 (Study AC4115408)

<table>
<thead>
<tr>
<th>Study AC4115408</th>
<th>Trough FEV1 (L)</th>
<th>Difference from Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline (SD)</td>
<td>Change from baseline (SE)</td>
</tr>
<tr>
<td>Incruse Ellipta 62.5 micrograms OD (n= 69)</td>
<td>1.26 (0.57)</td>
<td>0.12 (0.03)</td>
</tr>
<tr>
<td>Placebo (n=68)</td>
<td>1.21 (0.43)</td>
<td>-0.01 (0.03)</td>
</tr>
</tbody>
</table>

Abbreviations: CI= confidence interval; FEV1= forced expiratory volume in 1 second; L= litres; n= number randomized to treatment; OD= once daily; SD= standard deviation; SE= standard error.

Incruse Ellipta demonstrated a statistically significant greater improvement from baseline in weighted mean FEV1 over 0-6 hours post-dose at Week 12 compared with placebo (0.17 L (p<0.001)).

The percentage of patients receiving Incruse Ellipta that responded with a minimum clinically important difference (MCID) of ≥1 unit Transition Dyspnoea Index (TDI) focal score at Week 12 was 38% (24/64) compared with 15% (8/53) for placebo. The odds of being a TDI responder vs. a non responder, was statistically significantly greater for Incruse Ellipta compared with placebo at Week 12 (Odds Ratio 3.4 (95% CI 1.3,8.4), p=0.009).

Incruse Ellipta demonstrated statistically significant improvements from placebo in the change from baseline in total score at Week 12 for the St. George’s Respiratory Questionnaire (SGRQ), a disease-specific health status measure (-7.90 units) (p<0.001). The percentage of patients receiving Incruse Ellipta that responded with a reduction of ≥4 units (MCID) in SGRQ total score at Week 12 was 44% (28/63) compared with 26% (14/54) for placebo. The odds of being a SGRQ responder vs. a non responder, was statistically significantly greater for Incruse Ellipta compared with placebo at Week 12 (Odds Ratio 2.44 (95% CI 1.08, 5.50), p=0.032).

In addition, patients treated with Incruse Ellipta required less rescue salbutamol over the 12-week treatment period than those treated with placebo (mean reduction of 0.7 puffs per day and the difference from placebo was statistically significant (p=0.025)).

In the 24-week study, DB2113373, Incruse Ellipta demonstrated statistically significant improvements in lung function (as defined by change from baseline trough FEV1 at Week 24, which was the primary efficacy endpoint compared with placebo (see Table 3). The bronchodilatory effects with Incruse Ellipta compared with placebo were evident after the first day of treatment and were maintained over the 24-week treatment period.
Table 3. Primary efficacy endpoint at Week 24 (Study DB2113373)

<table>
<thead>
<tr>
<th></th>
<th>Trough FEV₁ (L)</th>
<th>Difference from Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline (SD)</td>
<td>Change from baseline (SE)</td>
</tr>
<tr>
<td>Study DB2113373</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incruse Ellipta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62.5 micrograms OD (n= 418)</td>
<td>1.20 (0.49)</td>
<td>0.12 (0.01)</td>
</tr>
<tr>
<td>Placebo (n=280)</td>
<td>1.20 (0.47)</td>
<td>0.00 (0.02)</td>
</tr>
</tbody>
</table>

| Abbreviations: CI= confidence interval; FEV₁= forced expiratory volume in 1 second; L= litres; n= number randomized to treatment; OD= once daily; SD= standard deviation; SE= standard error.|

Incruse Ellipta demonstrated a statistically significant greater improvement from baseline in weighted mean FEV₁ over 0-6 hours post-dose at Week 24 compared with placebo (0.15L; p<0.001).

A statistically significant improvement from placebo in the TDI focal score at Week 24 was demonstrated for Incruse Ellipta (1.0 units) (p<0.001). The percentage of patients receiving Incruse Ellipta that responded with a minimum clinically important difference (MCID) of ≥1 unit TDI focal score at Week 24 was 53% (207/394) compared with 41% (106/260) for placebo. The odds of being a TDI responder vs. a non responder, was statistically significantly greater for Incruse Ellipta compared with placebo at Week 24 (Odds Ratio 1.6 (95% CI 1.2, 2.3), p=0.002).

A statistically significant improvement from placebo in the change from baseline in total score at Week 24 for the St. George’s Respiratory Questionnaire (SGRQ), a disease-specific health status measure, was also demonstrated for Incruse Ellipta (-4.69 units) (p<0.001). The percentage of patients receiving Incruse Ellipta that responded with a reduction of ≥4 units (MCID) in SGRQ total score at Week 24 was 44% (172/388) compared with 34% (86/254) for placebo. The odds of being a SGRQ responder vs. a non responder, was statistically significantly greater for Incruse Ellipta compared with placebo at Week 24 (Odds Ratio 1.6 (95% CI 1.2, 2.3), p=0.003).

Treatment with Incruse Ellipta lowered the risk of a COPD exacerbation compared with placebo (analysis of time to first exacerbation; Hazard Ratio 0.6, p=0.035, risk reduction 40%).

Supporting efficacy studies

In two 12-week, placebo controlled studies (200109 and 200110), the addition of umeclidinium to fluticasone furoate/vilanterol (FF/VI) (100/25 micrograms) once daily in adult patients with a clinical diagnosis of COPD, resulted in statistically significant and clinically meaningful improvements in the primary endpoint of trough FEV₁ at Day 85 compared to placebo plus FF/VI (124 mL (95%CI 93, 154, p<0.001) and 122 mL (95%CI 91, 152, p<0.001)).
In two 12-week, placebo controlled studies (AC4116135 ad AC4116136), the addition of umecridinium to fluticasone propionate/salmeterol (FSC) (250/50 micrograms) twice daily in adult patients with a clinical diagnosis of COPD, resulted in statistically significant and clinically meaningful improvements in the primary endpoint of trough FEV₁ at Day 85 compared to placebo plus FSC (147 mL (95%CI 107, 187, p<0.001) and 127 mL (95%CI 89, 164, p<0.001)).

5.2 Pharmacokinetic properties

Absorption

Following inhaled administration of umecridinium in healthy volunteers, C_{max} occurred at 5 to 15 minutes. The absolute bioavailability of inhaled umecridinium was on average 13% of the dose, with negligible contribution from oral absorption. Following repeat dosing of inhaled umecridinium, steady state was achieved within 7 to 10 days with 1.5 to 2-fold accumulation. Umeclidinium systemic exposure following inhaled administration was dose proportional.

Distribution

Following intravenous administration to healthy subjects, the mean volume of distribution was 86 litres. In vitro plasma protein binding in human plasma was on average 89%.

Biotransformation

In vitro studies showed that umecridinium is metabolised principally by the enzyme P450 CYP2D6 and is a substrate for the P-glycoprotein (P-gp) transporter. The primary metabolic routes for umecridinium are oxidative (hydroxylation, O-dealkylation) followed by conjugation (glucuronidation, etc), resulting in a range of metabolites with either reduced pharmacological activity or for which the pharmacological activity has not been established. Systemic exposure to the metabolites is low.

Elimination

Plasma clearance following intravenous administration was 151 litres/hour. Following intravenous administration, approximately 58% of the administered radiolabelled dose (or 73% of the recovered radioactivity) was excreted in faeces by 192 hours post-dose. Urinary elimination accounted for 22% of the administered radiolabelled dose by 168 hours (27% of recovered radioactivity). The excretion of the drug-related material in the faeces following intravenous dosing indicated secretion into the bile. Following oral administration to healthy male subjects, total radioactivity was excreted primarily in faeces (92% of the administered radiolabelled dose or 99% of the recovered radioactivity) by 168 hours post-dose. Less than 1% of the orally administered dose (1% of recovered radioactivity) was excreted in urine, suggesting negligible absorption following oral administration. Umeclidinium plasma elimination half-life following inhaled dosing for 10 days averaged 19 hours, with 3% to 4% drug excreted unchanged in urine at steady-state.

Special patient populations

Elderly

A population pharmacokinetic analysis showed that pharmacokinetics of umecridinium are similar between COPD patients 65 years and older and those younger than 65 years of age.
**Renal impairment**

Subjects with severe renal impairment (creatinine clearance <30 mL/min) showed no evidence of an increase in systemic exposure to umeclidinium (C\text{max} and AUC), and no evidence of altered protein binding between subjects with severe renal impairment and healthy volunteers.

**Hepatic impairment**

Subjects with moderate hepatic impairment showed no evidence of an increase in systemic exposure to umeclidinium (C\text{max} and AUC), and no evidence of altered protein binding between subjects with moderate hepatic impairment and healthy volunteers. Incruse Ellipta has not been evaluated in subjects with severe hepatic impairment.

**Other patient characteristics**

A population pharmacokinetic analysis showed that no dose adjustment is required for umeclidinium based on the effect of age, race, gender, inhaled corticosteroid use, or weight. A study in CYP2D6 poor metabolisers showed no evidence of a clinically significant effect of CYP2D6 genetic polymorphism on systemic exposure to umeclidinium.

5.3 Preclinical safety data

**Genotoxicity**

Umeclidinium was not genotoxic in a standard battery of studies, comprising bacterial mutation assays, the mouse lymphoma tk assay and the rat bone marrow micronucleus test.

**Carcinogenicity**

Umeclidinium was not carcinogenic in 2-year inhalation studies in mice or rats at doses yielding systemic exposure levels (plasma AUC) up to 26 or 22 times the human clinical exposure of umeclidinium at the maximum recommended dose of 62.5 micrograms per day in the respective species.

**Effect on Laboratory Tests:**

Interactions with laboratory tests have not been established.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Lactose monohydrate (which contains milk protein)
Magnesium stearate

6.2 Incompatibilities

None reported.

6.3 Shelf life

2 years
In-use shelf-life
Following removal from the tray, the product may be stored for a maximum period of 6 weeks.

Write the date the inhaler should be discarded on the label in the space provided. The date should be added as soon as the inhaler has been removed from the tray.

6.4 Special precautions for storage
Store below 30°C.

If stored in the refrigerator, allow the inhaler to return to room temperature for at least 1 hour before use.

6.5 Nature and contents of the container
Incruse Ellipta is a moulded plastic inhaler with a light grey body, a light green mouthpiece cover and a dose counter, packed in a foil tray which contains a desiccant sachet. The tray is sealed with a peelable foil lid. The inhaler contains an aluminium foil laminate strip of either 30 or 7 regularly distributed blisters, each containing a white powder.

Not all pack sizes may be distributed in New Zealand.

6.6 Special precautions for disposal
Any unused medicine should be disposed of in accordance with local requirements.

7. MEDICINE SCHEDULE
Prescription Only Medicine

8. SPONSOR
GlaxoSmithKline NZ Limited
Private Bag 106600
Downtown
Auckland
New Zealand

Phone: (09) 367 2900
Facsimile (09) 367 2910

9. DATE OF FIRST APPROVAL
Date of publication in the New Zealand Gazette of consent to distribute the medicine: 19 February 2015.

10. DATE OF REVISION OF THE TEXT
11 April 2017

Summary table of changes

<table>
<thead>
<tr>
<th>Section changed</th>
<th>Summary of new information</th>
</tr>
</thead>
</table>

5
<table>
<thead>
<tr>
<th>All</th>
<th>Data sheet re-formatted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Update to the Product name to include information the amount of the active pharmaceutical ingredient</td>
</tr>
<tr>
<td>2</td>
<td>Addition of Qualitative and Quantitative Composition section</td>
</tr>
<tr>
<td>3</td>
<td>Addition of Pharmaceutical form section</td>
</tr>
<tr>
<td>4.7</td>
<td>Effects on the ability to drive and use machines updated</td>
</tr>
</tbody>
</table>
| 4.8                                                      | Addition of new subsection summarising the safety profile of the medicine  
Addition of new adverse reactions—Eye disorders and Renal and Urinary disorders—to the post marketing table  
Addition of new sub-section on the reporting of suspected adverse reactions |
| 5.1                                                      | Addition of Pharmacotherapeutic group details and ATC code        |
| 6.2                                                      | Addition of incompatibilities section                            |
| 6.6                                                      | Addition of Special precautions for disposal section             |
| 9                                                        | Addition of date of first approval                               |
| 10                                                       | Addition of Summary table of changes                             
Update the GSK trade mark statements                      |

INCRUSE and ELLIPTA are registered trade marks of the GSK group of companies.

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