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This document was last reviewed and updated on [09-Dec-2020]. Additional information may have become available since that time. Please refer to the published medical literature and the current prescribing information to identify potential update requirements.

## **Enerzair® Breezhaler® (QVM 149 or IND/GLY/MF) and Atecura® Breezhaler® (QMF149 or IND/MF) – Accidental Ingestion of Capsules**

### **Overview**

#### *Indications*

- Atecura® Breezhaler® (Indacaterol acetate plus mometasone furoate) is indicated as a maintenance treatment of asthma in adults and adolescents 12 years of age and older not adequately controlled with inhaled corticosteroids and inhaled short-acting  $\beta_2$ -agonists.<sup>1</sup>
- Enerzair® Breezhaler® (Indacaterol acetate plus mometasone furoate plus glycopyrronium bromide) is indicated for maintenance treatment of asthma and to reduce asthma exacerbations, in adults not adequately controlled with a maintenance combination of inhaled corticosteroid (ICS)/ long-acting  $\beta_2$ -agonist.<sup>2</sup>

Medication errors can occur during any pharmacological therapy,<sup>3</sup> however, they are particularly frequent with inhalational devices used at home owing to the requirement of specific training for optimal use.<sup>4</sup> In the global strategy for the diagnosis, management, and prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2020, healthcare professionals are encouraged to assess patients' inhaler technique regularly along with patient adherence to treatment regimen.<sup>5</sup> This document discusses safety considerations in the event of accidental ingestion of Atecura® Breezhaler® or Enerzair® Breezhaler® powder capsules.

### **Summary**

- Enerzair® Breezhaler® and Atecura® Breezhaler® are for oral inhalation use only. The capsules must not be swallowed. The capsules must be administered only using the inhaler provided with each new prescription.<sup>1-3</sup>
- Healthcare professionals are encouraged to assess patients' inhaler technique regularly to improve therapeutic outcomes and patient adherence.<sup>5</sup>
- *Patient Instruction*
  - Patients should be instructed on how to administer the medicinal product correctly.
  - Patients who do not experience improvement in breathing should be asked if they are swallowing the medicinal product rather than inhaling it. The capsules must only be removed from the blister immediately before use.<sup>1,2</sup>
  - After inhalation, patients should rinse their mouth with water without swallowing.<sup>1,2</sup>
- Ingestion of capsule is a potential risk in the form of medication error noted in clinical study report (CSR). It is an inherent risk with inhalational devices, which require specific training for correct use.<sup>3,4,6-8</sup> The clinical development program of Enerzair® Breezhaler® and Atecura®

Breezhaler®, consisting of the IRIDIUM,<sup>6</sup> PALLADIUM<sup>7</sup> and QUARTZ<sup>8</sup> studies present some data on the medication error: device interchangeability or swallowing of capsules.<sup>6-8</sup>

- No subgroup analysis has been performed in patients enrolled in IRIDIUM, PALLADIUM & QUARTZ and reported medication error: device interchangeability or swallowing of capsules.<sup>6-8</sup>

## Information from the Label

Table 1 presents the active substances per capsule and equivalences.

**Table 1.** Active substance per capsule and equivalence<sup>9,10</sup>

<b>Brand (Drug)</b>	<b>Each capsule contains:</b>	<b>Equivalent to:</b>
Energair® Breezhaler® (150/50/80 µg) <sup>9</sup>	173 µg indacaterol acetate 63 µg glycopyrronium bromide 80 µg mometasone furoate	150 µg indacaterol 50 µg glycopyrronium 80 µg mometasone furoate
Energair® Breezhaler® (150/50/160 µg) <sup>9</sup>	173 µg indacaterol acetate 63 µg glycopyrronium bromide 160 µg mometasone furoate	150 µg indacaterol 50 µg glycopyrronium 160 µg mometasone furoate
Aectura® Breezhaler® (150/80 µg) <sup>10</sup>	173 µg indacaterol acetate 80 µg mometasone furoate	150 µg indacaterol 80 µg mometasone furoate
Aectura® Breezhaler® (150/160 µg) <sup>10</sup>	173 µg indacaterol acetate 160 µg mometasone furoate	150 µg indacaterol 160 µg mometasone furoate
Aectura® Breezhaler® (150/320 µg) <sup>10</sup>	173 µg indacaterol acetate 320 µg mometasone furoate	150 µg indacaterol 320 µg mometasone furoate

Abbreviations: µg, micrograms.

## Clinical Data

Ingestion of capsule is a potential risk in the form of medication error noted in clinical study report (CSR). It is an inherent risk with inhalational devices, which require specific training for correct use.<sup>6-8</sup>

Novartis has not performed any specific studies to evaluate the effect of components of the Energair® Breezhaler® and Aectura® Breezhaler® after the ingestions of capsules. However, Table 2 presents details on medication error: device interchangeability or swallowing of capsules reported during the Energair® and Aectura® Breezhaler® clinical development program.<sup>6-8</sup>

**Table 2.** Adverse events of special interest by risk category (Safety set)<sup>6-8</sup>

<b>IRIDIUM<sup>6</sup></b>					
	<b>QVM 149 150/50/160 µg N=616, exp.=583.8 yrs n (IR)</b>	<b>QVM 149 150/50/80 µg N=617, exp.=575.9 yrs n (IR)</b>	<b>QMF 149 150/320 µg N=613, exp.=578.9 yrs n (IR)</b>	<b>QMF 149 150/160 µg N=608, exp.=573.2 yrs n (IR)</b>	<b>S/F 50/500 µg N=618, exp.=575.6 yrs n (IR)</b>
<b>Risk (special interest AE)</b>					
<b>Medication error: Device interchangeability or Swallowing of capsules</b>	1 (0.2)	0	0	0	0
<b>PALLADIUM<sup>7</sup></b>					

	QMF 150/320 N=443, exp.=414.5 yrs n (IR)	QMF 150/160 N=437, exp.=415.3 yrs n (IR)	MF 800 N=440, exp.=414.8 yrs n (IR)	MF 400 N=443, exp.=402.9 yrs n (IR)	S/F 50/500 N=444, exp.=421.9 yrs n (IR)
<b>Risk (special interest AE)</b>					
<b>Medication error: Device interchangeability or Swallowing of capsules</b>	0	1 (0.2)	1 (0.2)	1 (0.2)	1 (0.2)
<b>QUARTZ<sup>8</sup></b>					
<b>Risk (special interest AE)</b>					
	QMF149 150/80 N=396 n (%)	MF 200 N=399 n (%)	-	-	-
<b>Medication error: Device interchangeability or Swallowing of capsules</b>	6 (1.5)	10 (2.5)	-	-	-
QVM: indacaterol, glycopyrronium and mometasone furoate fixed-dose combination, QMF: indacaterol acetate and mometasone furoate fixed-dose combination, MF: mometasone furoate, S/F: Salmeterol and fluticasone fixed-dose combination					

No subgroup analysis has been performed in patients enrolled in IRIDIUM, PALLADIUM & QUARTZ and reported medication error: Device interchangeability or swallowing of capsules.<sup>6-8</sup>

No conclusions can be made regarding the efficacy and safety of Enerzair and Atecura Breezhaler in these patients.<sup>6-8</sup>

## Literature Search

A search of the published medical literature on accidental ingestion of the indacaterol and mometasone furoate fixed-dose combination and indacaterol, glycopyrronium and mometasone furoate fixed-dose combination capsules did not identify any relevant information.

## Additional Information

For more information about the data available on accidental ingestion of Indacaterol/Glycopyrronium, indacaterol, and glycopyrronium bromide capsules, please refer to the GGD [Ultibro Breezhaler – Accidental Ingestion of Capsules \(Ultibro, Onbrez, and Seebri\)](#).

## References

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6. Novartis Data on File. **(Clinical Study Report of study CQVM149B2302 (IRIDIUM), 16-Sep-2019).**
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8. Novartis Data on File. **(Clinical Study Report of study CQVM149B2303 (QUARTZ), 05-Mar-2019).**
9. Enerzair® Breezhaler®. Core Data Sheet. Version 1.2. Effective Date 05-March-2020.
10. Aectura® Breezhaler®. Core Data Sheet. Version 1.2. Effective Date: 05-March-2020.