

Initial REMS approval: 06/2014

Most recent revision: 04/2016

NDA 022472 AFREZZA® (insulin human) Inhalation Powder

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RISK EVALUATION AND MITIGATION STRATEGY (REMS)

I. GOAL

The goal of the Afrezza REMS is to mitigate the risk of acute bronchospasm associated with Afrezza by:

- Informing healthcare providers that there is risk of acute bronchospasm associated with AFREZZA in patients with chronic lung disease
- Informing healthcare providers that acute bronchospasm has been observed with AFREZZA in patients with asthma and COPD
- Informing healthcare providers that AFREZZA is contraindicated in patients with chronic lung disease
- Informing healthcare providers of the need to evaluate patients for lung disease before starting on AFREZZA

II. REMS ELEMENTS

A. Communication Plan

MannKind Corporation will implement the following communication plan to healthcare providers likely to prescribe AFREZZA. The communication plan will include:

1. REMS Letters

MannKind Corporation will send a *REMS Letter for Healthcare Providers* and *REMS Letter for Professional Societies* within 60 days of this REMS approval (June 2014) and again after one year from the date of the REMS approval. If the commercial launch of AFREZZA occurs later than 90 days following REMS approval, an additional issuance of REMS Letters will be sent within 30 days of product launch. The REMS Letters will address the risk of acute bronchospasm in patients with chronic lung disease, including the fact that acute bronchospasm has been observed in patients with asthma and COPD using AFREZZA, that AFREZZA is contraindicated in patients with chronic lung disease, and that healthcare providers should evaluate all patients for lung disease (a detailed medical history, physical examination, and spirometry [FEV₁] to identify potential lung disease) before starting on AFREZZA.

REMS Letters will be distributed by electronic mail (email).

Email will be the primary method to disseminate the REMS Letters. If an email is marked as unopened, a second email will be sent within 14 calendar days. If the second email is marked as unopened, the REMS Letter will be mailed within 14 calendar days. If a healthcare

provider's or professional society's email address is not available or if the email is undeliverable, the REMS Letter will be mailed within 14 calendar days.

MannKind Corporation will make the *REMS Letter for Healthcare Providers* available via a link from the AFREZZA REMS website and through MannKind Corporation sales and medical representatives upon request for one year after the approval of the REMS (June 2014). A copy of or a link to the Prescribing Information (PI) and REMS Factsheet will accompany each REMS Letter for Healthcare Providers.

a. REMS Letter for Healthcare Providers

The intended audience for the *REMS Letter for Healthcare Providers* will be healthcare providers likely to prescribe AFREZZA and healthcare providers targeted by AFREZZA marketing activities.

b. REMS Letter for Professional Societies

MannKind Corporation will send the *REMS Letter for Professional Societies* to the following professional societies and organizations requesting the risk information in the letter be provided to their membership:

- American Diabetes Association
- American Association of Clinical Endocrinologists
- American Medical Association
- American College of Physicians
- Society of General Internal Medicine
- American Academy of Family Physicians
- National Medical Association
- Endocrine Society
- American College of Osteopathic Family Physicians
- American Association of Diabetes Educators
- American Association of Nurse Practitioners
- American Society of Health System Pharmacists
- American Pharmacists Association
- National Community Pharmacists Association
- American College of Clinical Pharmacy
- Association of Managed Care Pharmacy
- National Association of Managed Care Physicians

2. REMS Factsheet

A *REMS Factsheet* will be distributed with the REMS Letter for Healthcare Providers and made available to healthcare providers through MannKind Corporation sales and medical representatives during the initial discussion with healthcare providers during the first 12 months after approval of this AFREZZA REMS. If the commercial launch of Afrezza occurs later than 90 days after REMS approval, distribution of the *REMS Factsheet* will continue during the initial discussion with healthcare providers during the first 18 months after approval of the REMS.

3. REMS Website

The AFREZZA REMS website for healthcare professionals (www.AfrezzaREMS.com) will continue for the duration of the REMS. The REMS website will include the option to print versions of the PI, *REMS Letter for Healthcare Providers*, and the *REMS Factsheet*. The

Afrezza product website will include a prominent REMS-specific link to the Afrezza REMS Website.

4. Dissemination of REMS information at scientific meetings

The *AFREZZA REMS Factsheet* will be prominently displayed at relevant scientific meetings where MannKind Corporation has a presence (e.g., booth) for the duration of the REMS.

The following are part of the REMS and are appended:

- *AFREZZA REMS Letter for Healthcare Providers* (print version)
- *AFREZZA REMS Letter for Healthcare Providers* (email version)
- *AFREZZA REMS Letter for Professional Societies* (print version)
- *AFREZZA REMS Letter for Professional Societies* (email version)
- *AFREZZA REMS Factsheet*
- *AFREZZA REMS Website* (www.AfrezzaREMS.com)

B. Timetable for Submission of Assessments

MannKind Corporation will submit REMS Assessments to FDA at 18 months, 3 years, and 7 years from the date of the approval of the initial REMS (June 2014). To facilitate inclusion of as much information as possible while allowing reasonable time to prepare the submission, the reporting interval covered by each assessment should conclude no earlier than 60 days before the submission date for that assessment. MannKind Corporation will submit each assessment so that it will be received by the FDA on or before the due date.