

# Xofluza (baloxavir marboxil)



**NEW PRODUCT SLIDESHOW**

**MPR**

# Introduction

- **Brand name:** Xofluza
- **Generic name:** Baloxavir marboxil
- **Pharmacological class:** Polymerase acidic (PA) endonuclease inhibitor
- **Strength and Formulation:** 20mg, 40mg; tabs
- **Manufacturer:** Genentech
- **How supplied:** Tabs—2
- **Legal Classification:** Rx

# Xofluza



# Indication

- Treatment of **acute uncomplicated influenza** in patients who have been symptomatic for no more than 48hrs

# Limitations of Use

- Consider available information on drug susceptibility patterns for circulating influenza strains when deciding whether to use

# Dosage & Administration

- Start within 48 hours of symptom onset
- $\geq 12$  years:
  - **(40–<80kg)**: 40mg as a single dose
  - **( $\geq 80$ kg)**: 80mg as a single dose

# Considerations for Special Populations

- **Pregnancy:** No adequate data on developmental risks in pregnant women
- **Nursing mothers:** Consider mother's clinical need and potential adverse effects on breastfed infant
- **Pediatric:** <12yrs (or <40kg): not established
- **Elderly:** Insufficient number of patients studied

# Warnings/Precautions

- Potential secondary **bacterial infections**;  
treat appropriately

# Interactions

- **Avoid** co-administration with dairy products, calcium-fortified beverages, polyvalent cation-containing laxatives, antacids, or oral supplements (eg, calcium, iron, magnesium, selenium, or zinc)
- **May reduce efficacy** of live attenuated influenza vaccines

# Adverse Reactions

- Diarrhea
- Bronchitis
- Nasopharyngitis
- Headache
- Nausea

# Mechanism of Action

- Baloxavir marboxil is a prodrug that is converted to the active metabolite baloxavir via hydrolysis
- Baloxavir inhibits the endonuclease activity of the polymerase acidic protein, an influenza virus-specific enzyme in the viral RNA polymerase complex required for viral gene transcription, resulting in the inhibition of influenza virus replication

# Clinical Studies

- The efficacy and safety of Xofluza were evaluated in 2 randomized, controlled, double-blind clinical trials (**Trials 1 and 2**) in otherwise healthy patients with acute uncomplicated influenza

# Clinical Studies

- **Trial 1** was a placebo-controlled phase 2 dose-finding study comparing a single oral dose of Xofluza with placebo in 400 adults aged 20–64 years in Japan
- The predominant strain in patients who had influenza virus and received Xofluza was influenza A/H1N1 (63%), followed by influenza B (25%), and influenza A/H3N2 (12%)

# Clinical Studies

- **Trial 2** was a phase 3 active- and placebo-controlled study in 1,436 adults and adolescents aged  $\geq 12$  years in the US and Japan
- Adults aged 20–64 years received Xofluza or placebo as a single oral dose on Day 1 or oseltamivir twice daily for 5 days

# Clinical Studies

- Patients in the Xofluza and placebo arms received a placebo for the duration of oseltamivir dosing after their Xofluza or placebo dose
- Eligible patients had:
  - Axillary temperature of at least 38°C
  - At least 1 moderate or severe respiratory symptom (cough, nasal congestion, or sore throat)
  - At least 1 moderate or severe systemic symptom (headache, feverishness or chills, muscle or joint pain, or fatigue)

# Clinical Studies

- The **primary efficacy population** was defined as those with a positive rapid influenza diagnostic test (Trial 1) or positive influenza RT-PCR (Trial 2) at study entry

# Clinical Studies

- The **primary endpoint** for both trials was time to alleviation of symptoms, defined as the time when all 7 symptoms (cough, sore throat, nasal congestion, headache, feverishness, myalgia, and fatigue) had been assessed by the patient as “**none**” or “**mild**” for a duration of at least 21.5 hours

# Clinical Studies

- Treatment with Xofluza at the recommended dose in Trials 1 and 2 resulted in a **statistically significant shorter time** to symptom alleviation compared to placebo in the primary efficacy population

# Clinical Studies

- In **Trial 1**, the median time to symptom alleviation for Xofluza 40mg was 50 hours vs 78 hours in the placebo arm ( $P=0.014$ )
- In **Trial 2**, the median time to symptom alleviation for Xofluza 40mg or 80mg in adults was 54 hours vs 80 hours for placebo ( $P<0.001$ )
- In adolescents, the median time was 54 hours for Xofluza vs 93 hours in the placebo arm

# Clinical Studies

- No difference in the median time to symptom alleviation was found between Xofluza and oseltamivir-treated patients (both at 54 hours) in Trial 2
- For more clinical trial data, see full labeling

# New Product Monograph

- For more information view the product monograph available at:

<https://www.empr.com/xofluza/drug/34893/>