

# Terbutaline

## GENERIC NAME

Terbutaline

## TRADE NAME

Brethine

## DESCRIPTION

Terbutaline (Brethine) is a short-acting, selective beta-2 agonist that is used for the treatment and prevention of bronchospasm in both adult and pediatric patients. It is effective for managing bronchospasm due to asthma and is also used in cases of COPD-related bronchospasm in adults. It has a shorter duration of action compared to albuterol.

## HOW SUPPLIED

Subcutaneous injection solution: 1 mg/mL

## INDICATIONS

- Treatment of bronchospasm associated with COPD
- Treatment of bronchospasm due to asthma exacerbation

## CONTRAINDICATIONS

- Known hypersensitivity to terbutaline or its components

## MECHANISM OF ACTION

Terbutaline is a selective beta-2 adrenergic agonist with minimal effects on beta-1 receptors and no significant alpha receptor activity. It targets beta-2 receptors located on the bronchiolar smooth muscle, leading to bronchodilation. This action helps relax the bronchial smooth muscle and improves airflow in the lungs.

## SIDE EFFECTS

- Injection site reaction
- Nausea
- Insomnia
- Anxiety
- Rash
- Headache
- Vomiting
- Dizziness
- Drowsiness
- Tremor

## AUTHORIZATION

**EMT:** Not authorized

**EMT-I:** Not authorized

**Paramedic:** Standing order

## DOSAGE

Patient Type	Route	Dosage	Maximum Dosage
Adult	Subcutaneous (SQ)	0.25 mg; may repeat once after 15 minutes if no significant improvement	0.5 mg total within a 4-hour period
Pediatric	Subcutaneous (SQ)	0.01 mg/kg (maximum single dose of 0.25 mg); may repeat once after 15 minutes if no significant improvement	0.25 mg maximum per single dose

## Administration Notes:

- Administer subcutaneously in the upper arm, thigh, or abdomen.
- Monitor the patient for potential side effects, particularly tremors, dizziness, and increased heart rate.
- Do not exceed the maximum dosage limits to avoid increased risk of side effects.
- Reassess the patient after administration and consider additional interventions if symptoms persist.

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Revision #1

Created 15 November 2024 00:10:59 by James Anderson

Updated 15 November 2024 00:11:54 by James Anderson