

## Asthma Implementation and Education

Asthma implementation and education are both very important for ensuring adequate care of affected patients. Initially, it is important to treat patients with a severe asthma exacerbation with oxygen. They may also be prescribed corticosteroids, ipratropium or albuterol inhalers. Nebulizer treatments, pursed lip-breathing, and monitoring pulse oximetry are important implementations of treatment. Finally, education begins with teaching patients to carry their inhalers, rinse their mouths after, and avoid triggers.



PLAY PICMONIC

### Medication

#### Oxygen

##### O2-tank

Oxygen therapy for acute asthma aims to achieve oxygen saturations of at least 92%. However, the emergency oxygen guidance suggests a range of 94–98% for all situations if possible. Humidified oxygen is preferred.

#### Corticosteroids

##### Quarter-on-steroids

Systemic corticosteroids are often prescribed by healthcare providers for long-term treatment (for anti-inflammatory action to treat reversible airflow obstruction). These medications can be administered via nebulizer, but often come in metered-dose inhalers or in dry-powder inhalers.

#### Ipratropium (Anticholinergic)

##### Eye-patrol

Anticholinergics are given for relief of acute bronchospasm. Anticholinergics, like Ipratropium, are sometimes combined with Albuterol and given under the trade names Combivent or DuoNeb.

#### Albuterol

##### Ab-butter-troll

Treatment of asthma may be short term or long term. Short term treatments include. Short-acting  $\beta_2$  agonists are administered via inhaler for bronchodilation (albuterol or proventil).

### Implementation

#### Inhaler/nebulizer

##### Inhaler with Nebula-nebulizer

Implementation of treatments often begin with medicated dose inhalers for acute exacerbations, or nebulizer treatments. Often after severe attacks, incentive spirometry, is therapeutic to patients.

## Pulse Oximetry

### Pulse Ox

Patient O2 saturation should be monitored with pulse oximetry to make sure that they do not desaturate and become cyanotic. Caregivers should aim to keep patients above 95%.

## Pursed Lip Breathing

### Purse Lips

Patients are urged to use pursed-lip breathing exercises during exacerbations, as this improves ventilation, releases trapped air in the lungs, and keeps the airways open longer and decreases the work of breathing. Furthermore, this technique prolongs exhalation to slow the breathing rate and improves breathing patterns by moving old air out of the lungs, allowing for new air to enter the lungs.

## Education

### Carry Inhaler

#### Carried Inhaler

One educational goal is to help patients understand the importance of having treatment accessible. This means carrying an inhaler in order to immediately treat the exacerbation of symptoms.

### Rinse Mouth after Inhaler

#### Rinsing Mouth of Inhaler

The patient should be instructed to always rinse the mouth after using an inhaler to prevent an oral candidiasis overgrowth sometimes called thrush.

### Identify Trigger (Cold Air, Dander, Dust, Infection, Mold, Pollen, Smoke)

#### Identifying Cold-Dirty-DIMPS Trigger-man

Identifying what triggers lead to asthma is very helpful for patients. Thus, educating them on identifying and avoiding potential triggers is a mainstay of patient education.