What is it?

- Asthma is a condition involving narrowing of the bronchial airways, which changes in severity over short periods of time.
- It is a common, chronic condition, which features acute episodes or attacks.
- Asthma can be a life-threatening condition, but in most cases it can be controlled by drug treatment.

Incidence

- Asthma has a familial tendency.
- There are nearly 74,000 emergency hospital admissions for asthma each year.
- Approximately 5.1 million people in the UK are currently being treated for asthma.
- One in eight children and one in thirteen adults suffer from asthma.
- Approximately eight million people in the UK have, at some time, been diagnosed with asthma — about one in seven of the UK population.
- Currently, 1,500 people die from asthma each year; over a third of them are under the age of 65.

Signs and symptoms

- Wheezing.
- Coughing, especially at night.
- Shortness of breath.
- Tightness in the chest.

Risk factors for acute attacks

The exact cause of asthma is not clear, although factors contributing to an asthma attack include:

- Viral infections such as colds or flu;
- Allergies, including house dust, house dust mites, pets or pollen;
- Exercise;
- Emotional stress;
- Irritants such as tobacco smoke or air pollution;
- Changes in the weather.

Management

- There is no cure for asthma, but there are many effective medications to help control the condition.
- There are many different types of devices to deliver asthma medication, including metered dose inhalers and dry powder inhalers.
- Spacer devices can be used to improve drug delivery.
- The British Thoracic Society (BTS) and the Scottish Intercollegiate Guidelines Network (SIGN) provide evidenced-based guidelines for managing asthma.
- The guidelines recommend a step-by-step approach and do not recommend any specific products.

Nursing implications

- Effective nursing care for patients with asthma involves: identifying when there are problems with control; solving problems to regain control; and maintaining control.
- Patients should have a written self-management plan explaining how to manage their asthma on a daily basis and what to do if their asthma worsens.
- At medication reviews, ask patients to demonstrate their ability to use their asthma device.
- Encourage patients to clean their teeth after using steroid inhalers to remove traces of steroid and avoid problems such as oral thrush.
- Patients requiring treatment via a nebuliser for an acute episode should have their medication reviewed.
- Patients with asthma should be advised against taking beta-blockers, aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs).
- Patients with asthma often have other atopic conditions, such as hay fever and eczema, which need to be considered in holistic asthma management.

Further information

World Asthma Day on 6 May aims to raise awareness of asthma and its impact on the lives of people who have the condition.

Websites

- National Asthma Campaign: www.asthma.org.uk
- National Respiratory Training Centre: www.nartc.org.uk
- British Thoracic Society: www.brit-thoracic.org.uk
- Asthma resources and information www.breathingline.co.uk

Summary of stepwise asthma management in adults

**Step 1:** Mild intermittent asthma
- Inhaled short-acting $\beta_2$ agonist as required

**Step 2:** Regular preventative therapy
- Add inhaled steroid 200-800mg/day
- Start with a dose that is appropriate for the severity of disease

**Step 3:** Add-on therapy
- 1. Add inhaled long-acting $\beta_2$ agonist (LABA)
- 2. Assess control of asthma:
- Review LABA, inhaled steroid, dose and other therapies

**Step 4:** Persistent poor control
- Consider trials of:
- Increasing inhaled steroid up to 2000µg/day
- Addition of a fourth drug such as leukotriene receptor antagonist, SR theophylline, $\beta_2$ agonist tablet

**Step 5:** Continuous or frequent use of oral steroids
- Use daily steroid tablet in lowest adequate dose
- Maintain high dose inhaled steroid at 2000µg/day
- Consider other treatments to minimise use of steroid tablets. Refer for specialist

*BDP or equivalent