Care of the Patient with Asthma

1.00 Contact Hour

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Outcomes

≥92% of participants will know how to help and respond to asthmatic attacks.

Objectives

After completing this course, the participant will be able to:

1. Discuss asthma.
2. Identify signs and symptoms of asthma.
3. Discuss potential triggers of an asthma attack.
4. Identify how a CNA can help a person with asthma.
5. Discuss what symptoms to report to the nurse.

Introduction

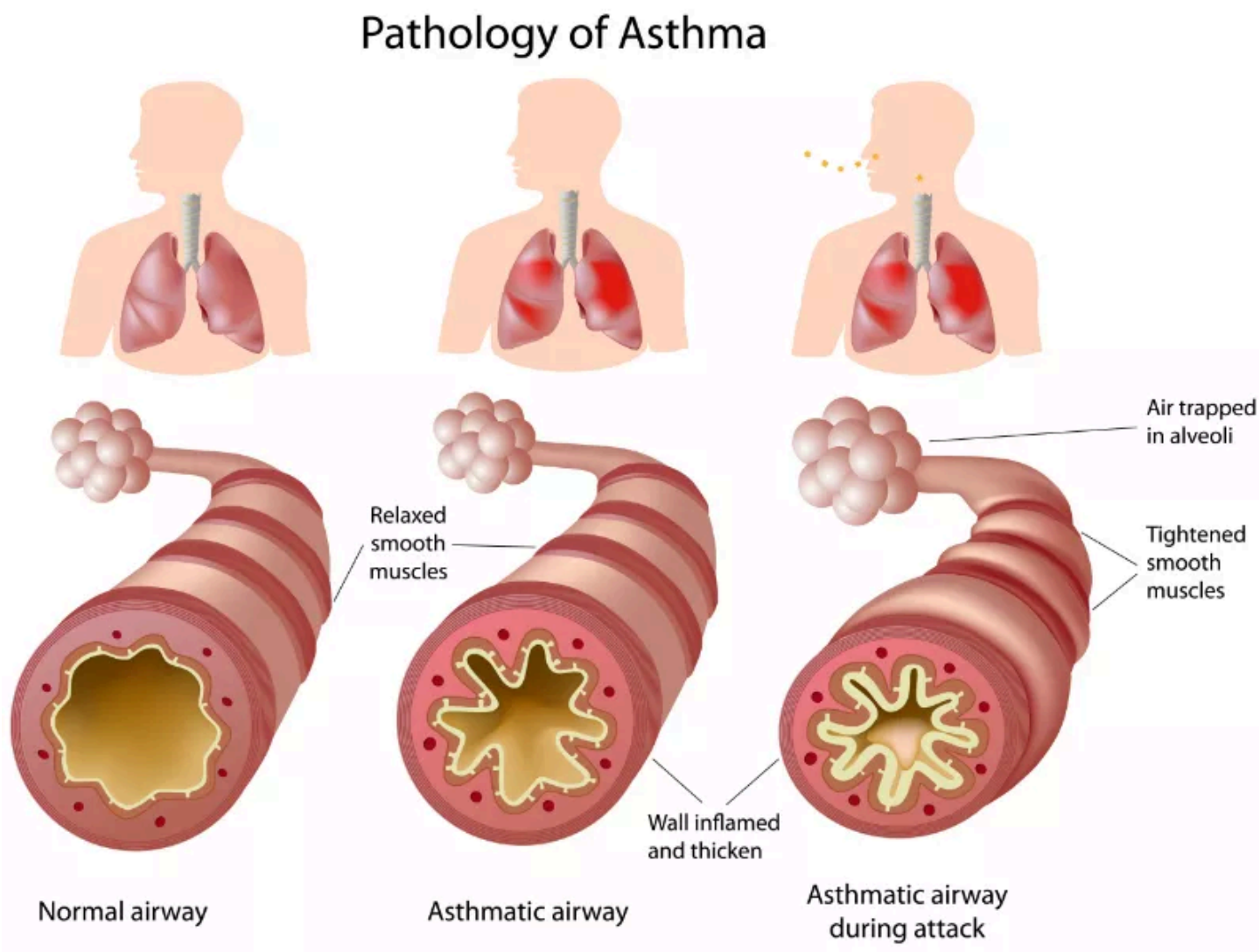
Asthma is a chronic respiratory disease and can appear at any age. There is no cure for asthma. Sometimes, asthma goes away by itself as a child grows up. Asthma is always there, but asthma attacks only occur when something irritates the lungs (Centers for Disease Control and Prevention [CDC], 2023). The goal is to manage the symptoms so that patients with asthma can be as active as possible. The patient and caregivers should understand the disease and know how to avoid triggers that can start an asthma attack.

What is Asthma?

Asthma is a chronic disease that affects how a person breathes. Narrowing of the airway passages or bronchial smooth muscle, along with inflammation, causes the person to wheeze, cough, tighten the chest, and cause shortness of breath (CDC, 2023). The symptoms can be mild or life-threatening. However, the disease has a significant impact on the lives of people who suffer from it.

The respiratory (pulmonary) system has passageways where air travels from the nose and mouth to the lungs. The trachea runs from the back of the mouth to about the shoulder and attaches to two other passageways. One of these goes to the right side and the other to the left side. These are called the bronchi. The bronchi enter each lung and branch off again into more passages called bronchial trees or bronchioles. These passages spread like tree roots in the lungs and reach out to all parts of the lungs. At the end of each passage are alveoli. Alveoli look like a bunch of grapes and hold air. The alveoli are where the air gets oxygenated into the blood. The oxygenated air is delivered to the body when we inhale. A by-product that our bodies produce is carbon dioxide. One of the ways the body gets rid of carbon dioxide is when we

exhale. The act of inhaling and exhaling is a process called ventilation. Respiration is when our body moves oxygen to where it is needed in the body and then releases carbon dioxide. Asthma is characterized by chronic airway obstruction and inflammation.



Pathology of Asthma

What Are the Signs and Symptoms of Asthma?

Asthma symptoms can differ from person to person and from the type of asthma. Some symptoms may only be irritating, while other symptoms can be life-threatening. It is important to keep in mind that symptoms should be treated as soon as they appear. Symptoms most commonly seen are coughing, wheezing, and shortness of breath (dyspnea). A cough can either be dry or produce mucus. A chronic cough should be reported to the nurse. Wheezing, on the other hand, is caused by the narrowing of the bronchioles. Wheezes are sometimes heard with or without a stethoscope. The patient may also complain of chest tightness and anxiety from not being able to breathe properly.

What Happens During an Asthma Attack?

When something irritates the lungs, the passageways in the lungs get inflamed. The muscles in the passageways spasm and the walls of the passageways thicken.

More mucous is produced. These changes cause the passageways to be very narrow, making it difficult to breathe. Oxygen cannot get in, and carbon dioxide cannot get out. If untreated, the attack can lead to respiratory failure and death. Not getting enough oxygen is called hypoxia.

Helping the Resident with Asthma

The main goal is to prevent asthma attacks and minimize risks. Once triggers have been identified, a plan can be developed with the patient to avoid them and how to handle an attack when it occurs. The resident's care plan should include how to avoid the triggers for that person. Help the resident avoid triggers and fix or report anything in the environment that may be a trigger. An example might be the exhaust from trucks running by the facility getting into the resident's room, triggering asthma attacks for the patient. Report this to the nurse. That resident needs to be moved. Residents with asthma should not participate in animal therapy if they are allergic to animals.

The resident should be able to recognize the signs and symptoms of an attack. They should know how to use the medication provided, what triggers to avoid, and when to seek medical attention (CDC, 2023). Avoiding triggers may be a problem if the resident has dementia or becomes confused.

Anyone can be subjected to an asthma attack at any age and for many reasons. We do not always know the reason. It may be a family trait. It may be a response to allergic reactions. It may be due to mold or dampness. As a few examples, asthma can occur from dust mites, secondhand tobacco smoke, and air pollution (CDC, 2018). A lung infection may also lead to asthma (CDC, 2023). Adult asthma can develop in females during childbearing years and may occur during or after pregnancy. Adults tend to have asthma for life once they develop the condition.

Allergies to animals or plants may trigger an attack. Exercise-induced asthma occurs after strenuous activity. Occupational asthma is caused by inhaling fumes, gases, or dust while at work. A person with allergies is more likely to develop occupational asthma. Nocturnal or nighttime asthma can also occur. This type of asthma is worse at night. It can be caused by the position while sleeping, hormones, circadian rhythms, night air, air conditioning, gastroesophageal reflux disorder, or allergy exposure. Other issues that can impact the development of asthma include obesity and coexisting diseases like chronic obstructive pulmonary disease (COPD) (CDC, 2023).

The patient usually has long-term medication, such as an inhaler, to reduce inflammation, which is taken daily. However, they can also use quick-relief inhalers during asthma attacks. The quick-relief medication relaxes the muscles of the airway, relieving symptoms. The patient should also know when to contact emergency services for needed help.

During an asthma attack, the patient should sit down, preferably in a semi-fowler position to help with breathing. The patient should try to relax as much as possible and breathe from their diaphragm. Remember that hypoxia can occur easily. Any signs of lips or nails turning blue are cyanosis and mean that they need medical attention. If the patient has an inhaler, they should use it to try to gain respiratory control (Mayo Clinic, 2022). Remember, the goal is to relieve hypoxia and airway obstruction or inflammation as soon as possible.

Help the patient to remain calm and reassure them that you are staying with them until they feel better. Explain to the patient that anxiety and agitation will be better if they can try to relax their breathing. If possible, monitor vital signs. Breathing heavily during an attack can drain energy from the patient and cause dehydration. Once the attack has passed, the patient may be dehydrated. Offer fluids to help maintain their fluid balance.

A patient with asthma may have a limited quality of life. Several things cause a poor quality of life. First is the patient's inability to sleep. Lack of sleep can be an issue for a child who has to get up and go to school or those who must be to work on time. Physical activity can be limited as well, putting the patient at a greater risk of developing medical issues, including obesity and depression (Mayo Clinic, 2022).

What to Report to the Nurse?

Report to the nurse when the symptoms are getting worse. Signs include:

- Increased difficulty breathing
- More or louder wheezing
- The medications are not controlling the attacks as well as before
- The patient is waking up more at night
- Missing normal activities, school, or work
- Not able to speak complete sentences (Mayo Clinic, 2022)

A child may report that their chest hurts or they cannot catch their breath. These signs should be discussed with the nurse. If you observe the patient showing signs of inability to breathe, cyanosis, drowsiness, or confusion, this can signify a medical emergency and should be reported immediately (Mayo Clinic, 2022).

Any signs or symptoms of worsening or inadequate breathing during an attack should also be immediately reported to the nurse. These signs and symptoms may include:

- Little or no movement of the chest
- Breathing movement is in the abdomen, not the chest
- Slow or rapid respiratory rate
- Gasping for air or shallow breaths
- Difficulty breathing (Dyspnea)
- Coughs up secretions
- Blue or gray coloring in nails, mucus membranes, ear lobes, tongue, lips, or skin
- Noisy breathing
- Nasal flaring
- Muscles above the rib cage are retracted (Mayo Clinic, 2022)

Case Study

Mr. Thompson is a 65-year-old male who was recently discharged from the hospital with a diagnosis of pneumonia. You are assigned as his CNA. When you enter the room, he is having difficulty breathing. When talking to him, you notice he coughs several times and has trouble catching his breath. You also notice his fingernails have a slight blue tint to them. You also notice, at times, that he almost makes a musical sound when he breathes out. You further notice that he appears anxious and upset. You see his inhaler on a cabinet across the room. You ask him if he wants his inhaler. He nods yes.

Mr. Thompson is in distress. You give him the inhaler. You immediately turn on the call light and report to the nurse that he is having difficulty breathing. You will also tell the nurse that he is currently having problems catching his breath and coughing. You will stay with Mr. Thompson and try to help him be calm and quiet. You can help him relax his breathing by having him breathe with you slowly.

Conclusion

Asthma can be scary when the patient is not able to breathe correctly. Remember that asthma is a serious condition that needs to be controlled and treated. Helping patients identify triggers and develop a plan of action is a good way for them to maintain control over this disease. The patient should be taught to recognize their symptoms and use their inhalers. This disease disrupts the patient's quality of life. It can affect work, school, and social activities. The patient needs to be active but understand that they need more breaks than the average person to regain their breath. Other issues that may need to be addressed are respiratory illnesses. Pneumonia, pneumothorax, and bronchitis can develop from excessive attacks or environmental triggers such as smoke. It is important to understand when to report to the nurse.

Implicit Bias Statement

CEUFast, Inc. is committed to furthering diversity, equity, and inclusion (DEI). While reflecting on this course content, CEUFast, Inc. would like you to consider your individual perspective and question your own biases. Remember, implicit bias is a form of bias that impacts our practice as healthcare professionals. Implicit bias occurs when we have automatic prejudices, judgments, and/or a general attitude towards a person or a group of people based on associated stereotypes we have formed over time. These automatic thoughts occur without our conscious knowledge and without our intentional desire to discriminate. The concern with implicit bias is that this can impact our actions and decisions with our workplace leadership, colleagues, and even our patients. While it is our universal goal to treat everyone equally, our implicit biases can influence our interactions, assessments, communication, prioritization, and decision-making concerning patients, which can ultimately adversely impact health outcomes. It is important to keep this in mind in order to intentionally work to self-identify our own risk areas where our implicit biases might influence our behaviors. Together, we can cease perpetuating stereotypes and remind each other to remain mindful to help avoid reacting according to biases that are contrary to our conscious beliefs and values.

References

- CDC. (2023). Learn How To Control Asthma. CDC. Visit Source.
- Home Charastics and Asthma Triggers, CDC. (2018). [CDC]. Visit Source.
- Mayo Clinic. (2022). Asthma. Mayo Clinic. . Visit Source.

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