

# Briana's Breathing

**Planning Notes:**

- 1) **Teams:** 4-5 students
- 2) **Length:** 2-3 class periods (45-75 minutes each)
- 3) **Resources:** Student workbook; Computers/Internet for research and preparing presentation

**OVERVIEW:**

Briana, a fourteen-year-old African American female, was recently diagnosed with asthma and was prescribed an inhaler 3 months ago. Since then her symptoms have gotten worse. She has had four severe attacks in the past month, one of which sent her to the hospital. She needs a clear and effective action plan that she and her parents understand in order to improve her health outcomes.

**GOAL:**

Identify a comprehensive treatment plan (action plan) and communicate it to the patient using the teach-back method.

**ROLE:**

You are a group of health professionals who will develop an asthma treatment plan for adolescents.

Lesson 8.8, focusing on the teach back method will be an important preparation for this case study. Encourage students to use their workbook and notes!

**OBJECTIVE:**

Obj. 8.9: Create a clear and effective treatment plan and communicate this action plan and relevant health information using the teach-back method.

**DELIVERABLES:**

- 1) Asthma Action Plan
- 2) Teach-back method skit

**ASSESSMENT:**

The action plan and skit will both be graded on a rubric.

**NHES STANDARDS:**

- 6.12.1:** Assess health practices and overall health status  
**8.12.4:** Adapt health messages and communication techniques to a specific target audience



Hagerty Ryan, U.S. Fish and Wildlife Service

**Case Introduction:**

Urban pollution could be an asthma trigger

Briana is a 14-year-old African American teenager living with one younger sister (age 10) and two parents in an urban area with high poverty and unemployment rates. Her father is a steelworker and her mother is a secretary at the local elementary school. Briana was playing with friends in a park near her home three months ago when she was forced to stop running because she could not catch her breath. Her friends called her mom on her cell phone and she came immediately and took her to the Emergency Room, where they placed her on supplemental oxygen and administered medication to relax her airways (which were constricting). She went home a few hours later with a diagnosis of exercise-induced asthma and obtained a prescription at her local pharmacy for two inhalers to use in case of future attacks. She is supposed to keep one in her backpack or purse so that she has it wherever she goes but she lost it a few weeks ago.

Possible triggers: secondhand smoke, cats (pet dander), possible mold in basement, exercise/stress

In the past two months, Briana has had four more nerve-racking episodes. These asthma attacks didn't seem to follow a pattern, but were each triggered by various things. In one case, she was at a friend's house who is a cat owner. In another, she was in her basement folding laundry, another occurred on her walk to school on a day she was particularly late and in a rush. The final attack occurred when she was with her grandfather who is a smoker. Only one of these episodes was severe enough for her and her caregivers to decide to take her to the doctor, but each was "scary" enough to make her feel increasingly anxious about her breathing in the days and weeks that followed.

During her check up appointment, her pediatrician plans to determine whether or not to adjust her medication and plans to continue to educate her and her family about prevention and triggers, managing symptoms, and dealing with severe attacks. The pediatrician expects that the pharmacist will go over some of this crucial information as well.

Students can create information for this case study. Not all teams need to be working with exactly identical patient information. The skill in focus is being able to write a comprehensive treatment plan and convey information through the teach-back method.

**Subjective & Objective:**

Record the information from Briana's story in the appropriate sections of the SOAP note. Wherever there is MISSING information, you and your team should fill in details that are appropriate, aligned, and logical.

<b>SOAP Note</b>	
<b>Subjective:</b>	
<b>Signs &amp; Symptoms</b>	
<b>Allergies</b>	
<b>Medications</b>	
<b>Past medical history</b>	
<b>Last oral intake</b>	
<b>Events leading to injury or illness</b>	
<b>Frequency</b>	
<b>Associated Symptoms</b>	
<b>Radiation</b>	
<b>Character</b>	
<b>Onset</b>	
<b>Location</b>	
<b>Duration</b>	
<b>Exacerbating Factors</b>	
<b>Relieving Factors</b>	

<b>Objective:</b>	
Measurements	
Vital Signs	
Exam Results	
Lab Results	

**Assessment:**

Write a short summary of the patient's situation. For your differential diagnosis, instead of diagnosing the disease (we know she has asthma), list three possible reasons her symptoms may be worsening. Then, your final diagnosis will include the factors responsible for worsening her symptoms (you may determine it is more than one factor!). Support your conclusion with evidence and reasoning,

<b>Assessment:</b>	
<b>Summary</b>	
<b>Differential Diagnoses</b>	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> </ol>
<b>Final Diagnosis</b>	<p><i>Claim:</i></p> <p><i>Evidence:</i></p> <p><i>Reasoning:</i></p>

**Research:**

Gather information about different treatment, symptom management, and prevention options for asthma. As Briana's healthcare team, your goal is that she and her family will take actions that will reduce the frequency and severity of asthma attacks, manage her illness, and enact appropriate treatment measures in the case of severe attacks. Be sure to address all three of these issues in your research.

Research Question	Owner/Source	New Information

**Plan:**

Create a plan for Briana using information you researched about the treatment and management of her asthma. First, brainstorm and take notes in the box below. Then complete the Asthma Action Plan in the handout.

<b>Plan:</b>	
<p style="text-align: center;"><b>Steps of Plan</b></p> <p><i>(Consider mental, social and physical health; short- and long-term needs, and follow-up care required)</i></p>	

The PDF of the Asthma Action Plan can be found in the lesson resource file. Each team should receive a printout of it and be responsible for filling it in as a team.

Asthma Action Plan:

Asthma Action Plan

Reference #3

For: \_\_\_\_\_ Doctor: \_\_\_\_\_ Date: \_\_\_\_\_  
 Doctor's Phone Number \_\_\_\_\_ Hospital/Emergency Department Phone Number \_\_\_\_\_

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**GREEN ZONE**

**Doing Well**

- No cough, wheeze, chest tightness, or shortness of breath during the day or night
- Can do usual activities

**And, if a peak flow meter is used,**

**Peak flow:** more than \_\_\_\_\_  
(80 percent or more of my best peak flow)

My best peak flow is: \_\_\_\_\_

Before exercise  \_\_\_\_\_  2 or  4 puffs \_\_\_\_\_ 5 to 60 minutes before exercise

**Take these long-term control medicines each day (include an anti-inflammatory).**

Medicine	How much to take	When to take it
_____	_____	_____
_____	_____	_____

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**YELLOW ZONE**

**Asthma Is Getting Worse**

- Cough, wheeze, chest tightness, or shortness of breath, or
- Waking at night due to asthma, or
- Can do some, but not all, usual activities

**-Or-**

**Peak flow:** \_\_\_\_\_ to \_\_\_\_\_  
(50 to 79 percent of my best peak flow)

**First** Add: quick-relief medicine—and keep taking your GREEN ZONE medicine.

\_\_\_\_\_ (short-acting beta<sub>2</sub>-agonist)  2 or  4 puffs, every 20 minutes for up to 1 hour  
 Nebulizer, once

**Second** If your symptoms (and peak flow, if used) return to GREEN ZONE after 1 hour of above treatment:  
 Continue monitoring to be sure you stay in the green zone.

**-Or-**  
 If your symptoms (and peak flow, if used) do not return to GREEN ZONE after 1 hour of above treatment:

Take: \_\_\_\_\_ (short-acting beta<sub>2</sub>-agonist)  2 or  4 puffs or  Nebulizer  
 Add: \_\_\_\_\_ (oral steroid) \_\_\_\_\_ mg per day For \_\_\_\_\_ (3–10) days  
 Call the doctor  before/  within \_\_\_\_\_ hours after taking the oral steroid.

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**RED ZONE**

**Medical Alert!**

- Very short of breath, or
- Quick-relief medicines have not helped, or
- Cannot do usual activities, or
- Symptoms are same or get worse after 24 hours in Yellow Zone

**-Or-**

**Peak flow:** less than \_\_\_\_\_  
(50 percent of my best peak flow)

**Take this medicine:**

\_\_\_\_\_ (short-acting beta<sub>2</sub>-agonist)  4 or  6 puffs or  Nebulizer  
 \_\_\_\_\_ (oral steroid) \_\_\_\_\_ mg

**Then call your doctor NOW.** Go to the hospital or call an ambulance if:

- You are still in the red zone after 15 minutes AND
- You have not reached your doctor.

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**DANGER SIGNS** ■ Trouble walking and talking due to shortness of breath

■ Lips or fingernails are blue

➔

■ Take  4 or  6 puffs of your quick-relief medicine AND

■ Go to the hospital or call for an ambulance \_\_\_\_\_ NOW!  
(phone)

See the reverse side for things you can do to avoid your asthma triggers.

How To Control Things That Make Your Asthma Worse

This guide suggests things you can do to avoid your asthma triggers. Put a check next to the triggers that you know make your asthma worse and ask your doctor to help you find out if you have other triggers as well. Then decide with your doctor what steps you will take.

**Allergens**

**Animal Dander**

Some people are allergic to the flakes of skin or dried saliva from animals with fur or feathers.

The best thing to do:

- Keep furred or feathered pets out of your home.
- If you can't keep the pet outdoors, then:
  - Keep the pet out of your bedroom and other sleeping areas at all times, and keep the door closed.
  - Remove carpets and furniture covered with cloth from your home. If that is not possible, keep the pet away from fabric-covered furniture and carpets.

**Dust Mites**

Many people with asthma are allergic to dust mites. Dust mites are tiny bugs that are found in every home—in mattresses, pillows, carpets, upholstered furniture, bedcovers, clothes, stuffed toys, and fabric or other fabric-covered items.

Things that can help:

- Encase your mattress in a special dust-proof cover.
- Encase your pillow in a special dust-proof cover or wash the pillow each week in hot water. Water must be hotter than 130° F to kill the mites. Cold or warm water used with detergent and bleach can also be effective.
- Wash the sheets and blankets on your bed each week in hot water.
- Reduce indoor humidity to below 60 percent (ideally between 30–50 percent). Dehumidifiers or central air conditioners can do this.
- Try not to sleep or lie on cloth-covered cushions.
- Remove carpets from your bedroom and those laid on concrete, if you can.
- Keep stuffed toys out of the bed or wash the toys weekly in hot water or cooler water with detergent and bleach.

**Cockroaches**

Many people with asthma are allergic to the dried droppings and remains of cockroaches.

The best thing to do:

- Keep food and garbage in closed containers. Never leave food out.
- Use poison baits, powders, gels, or paste (for example, boric acid). You can also use traps.
- If a spray is used to kill roaches, stay out of the room until the odor goes away.

**Indoor Mold**

- Fix leaky faucets, pipes, or other sources of water that have mold around them.
- Clean moldy surfaces with a cleaner that has bleach in it.

**Pollen and Outdoor Mold**

What to do during your allergy season (when pollen or mold spore counts are high):

- Try to keep your windows closed.
- Stay indoors with windows closed from late morning to afternoon, if you can. Pollen and some mold spore counts are highest at that time.
- Ask your doctor whether you need to take or increase anti-inflammatory medicine before your allergy season starts.

**Irritants**

**Tobacco Smoke**

- If you smoke, ask your doctor for ways to help you quit. Ask family members to quit smoking, too.
- Do not allow smoking in your home or car.

**Smoke, Strong Odors, and Sprays**

- If possible, do not use a wood-burning stove, kerosene heater, or fireplace.
- Try to stay away from strong odors and sprays, such as perfume, talcum powder, hair spray, and paints.

**Other things that bring on asthma symptoms in some people include:**

**Vacuum Cleaning**

- Try to get someone else to vacuum for you once or twice a week, if you can. Stay out of rooms while they are being vacuumed and for a short while afterward.
- If you vacuum, use a dust mask (from a hardware store), a double-layered or microfilter vacuum cleaner bag, or a vacuum cleaner with a HEPA filter.

**Other Things That Can Make Asthma Worse**

- Sulfites in foods and beverages: Do not drink beer or wine or eat dried fruit, processed potatoes, or shrimp if they cause asthma symptoms.
- Cold air: Cover your nose and mouth with a scarf on cold or windy days.
- Other medicines: Tell your doctor about all the medicines you take. Include cold medicines, aspirin, vitamins and other supplements, and nonselective beta-blockers (including those in eye drops).

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Encourage students to make sure the health professional is addressing Briana directly (for at least part of the discussion) as the essential participant in the future of her health

**Final Presentation:**

Prepare a 2-4 minute role play depicting the portion of a care visit in which Briana and her parents are receiving instructions from a healthcare professional (i.e. a pharmacist, pediatrician, etc.). Use the teach-back method in the communication between health care professional and patient/family.

PRESENTATION PLANNING		
Team Member	Portion of Presentation	Notes



**Rubric:**

**Obj. 8.9:** Create a clear and effective treatment plan and communicate this action plan and relevant health information using the teach-back method.

Needs Improvement	Emerging Mastery	Partial Mastery	Mastery
<p><b>Treatment Plan:</b> -MISSING 2 or more of the following: Medication(s), Action plan for dealing with symptoms, and Environmental Factors contributing to asthma</p> <p><b>Role Play:</b> <i>-0 or 1 of the 6 following elements are present:</i> Verbal communication demonstrates plain language, slow pace, short statements, and focuses on key ideas. Understanding is evaluated using teach-back method effectively; re-teaching occurs if patient does not understand</p>	<p><b>Treatment Plan:</b> -Medication(s), Action plan for dealing with symptoms, and Environmental Factors contributing to asthma poorly identified and not explained sufficiently in written form</p> <p><b>Role Play:</b> <i>-2 or 3 of the 6 following elements are present:</i> Verbal communication demonstrates plain language, slow pace, short statements, and focuses on key ideas. Understanding is evaluated using teach-back method effectively; re-teaching occurs if patient does not understand</p>	<p><b>Treatment Plan:</b> -Medication(s), Action plan for dealing with symptoms, and Environmental Factors contributing to asthma partially identified and explained sufficiently in written form</p> <p><b>Role Play:</b> <i>-4 or 5 of the 6 following elements are present:</i> Verbal communication demonstrates plain language, slow pace, short statements, and focuses on key ideas. Understanding is evaluated using teach-back method effectively; re-teaching occurs if patient does not understand</p>	<p><b>Treatment Plan:</b> -Medication(s), Action plan for dealing with symptoms, and Environmental Factors contributing to asthma appropriately and comprehensively identified and clearly explained in written form</p> <p><b>Role Play:</b> -Verbal communication demonstrates plain language, slow pace, short statements, and focuses on key ideas. Understanding is evaluated using teach-back method effectively; re-teaching occurs if patient does not understand</p>

**Post-Case Wrap-up Questions:****Module 8 Learning Objectives:**

**Obj. 8.1:** Identify the roles pharmacist and pharmacy technicians play in providing health care.

**Obj. 8.2:** Differentiate between the four main pharmacy services.

**Obj. 8.3:** Differentiate between types of medication obtained at a pharmacy.

**Obj. 8.4:** Identify causes and effects of the painkiller abuse problem.

**Obj. 8.5:** Differentiate between the four principles of ethics in pharmacy.

**Obj. 8.6:** Apply effective communication & cultural competency skills to community pharmacy situations.

**Obj. 8.7:** Identify factors that influence patient medication adherence.

**Obj. 8.8:** Demonstrate the teach-back method to communicate health information.

ANSWER THE FOLLOWING QUESTIONS ON A SEPARATE SHEET OF PAPER.

**Obj. 8.1:** Briana comes to the pharmacy with her mother to refill a prescription for her inhaler. Would her interactions be different based on whether the pharmacist or pharmacy technician was helping customers at the time? If so, how? If not, why not? Be sure to explain the differing roles of a pharmacist and pharm tech in your answer.

**Obj. 8.2:** Briana needs an inhaler. Which type(s) of pharmacy is she most likely to visit to get her inhaler? Why?

**Obj. 8.3:** Is Briana's medication most likely to be over-the-counter, prescription, or pharmacist-controlled? Why?

**Obj. 8.4:** Briana's male cousin abuses prescription painkillers. Explain three possible factors that might influence his problem and three possible effects.

**Obj. 8.5:** Describe a scenario where Briana and her father are speaking with a pharmacy technician who DOES NOT display the **four principles of ethics** in pharmacy. What does the tech say, do, or convey to demonstrate a lack of the principles?

**Obj. 8.6:** Describe a scenario where Briana and her father are speaking with a pharmacist who DOES NOT display **cultural competency** in pharmacy. What does the pharmacist say, do, or convey to demonstrate a lack of the cultural competency?

**Obj. 8.7:** Name five factors that might influence Briana's compliance with the action plan.

**Obj. 8.8:** Write a script showing the teach-back method between a pharmacist and a person obtaining a prescription for ear drops for their babies. (You can make up the details!)