

Medication Administration: Getting it right!



Standard Medication Administration Training Course Transcript

Lesson 2: Observation

Transcript

Title Slide

(no narration)

Welcome

Slide 1 - This is Lesson 2 of the Commonwealth of Pennsylvania Medication Administration Training Course, "Observation."

Lesson Objectives

Slide 2 - By the end of this lesson you will be able to:

- Describe your responsibilities for observing.
- Explain the differences between subjective and objective information and give examples of each.
- Discuss why you need to get to know the individuals that you support.

Slide 3 - Also, you will be able to:

- Describe how medications affect an individual's body.
- Explain what is meant by "desired effect," "no effect," and "unwanted or side effect."
- Recognize the symptoms of anaphylaxis and describe how to respond.

Summarize the importance of interactions between medications.

Medication Cycle

Slide 4- This lesson focuses on observation. Remember that in Lesson 1 you learned about the Medication Cycle. The Medication Cycle is a series of steps or actions that promote the safe administration of medication. To implement and carry out these actions, you need to understand each individual action and the part it plays in the overall cycle. Let's start our discussion with observation.

What is Observation?

Slide 5 - In the Medication Cycle, observation is your ability to recognize how medications affect an individual who receive services. To make sure that the medication is affecting the individual in the way it was intended, you must observe the individual to identify reactions to the medication. Observations are a combination of both objective and subjective information. It is your responsibility to use both types of information to provide a more complete picture of what is happening with the individual that you need to share with others who provide services to the individual. Let's discuss what is meant by objective and subjective information.

Observation - What is Objective Information?

Slides 6- Objective information is factual and often includes things that can be measured. This type of information is directly observable.

It is based on four of your five senses: Vision or sight, hearing, touch, or smell. Vision, or what you see, includes examples such as seeing that an individual appears to be sleepy, is sweating, has a high temperature (which you can see by using a thermometer), is walking unsteadily, or has a rash. You might see tears on the individual's face. Noisy breathing, screaming, or crying are examples of sounds you might hear an individual make. How something feels when you touch it also provides objective information. For example, a joint may be hot and swollen. The skin might be warm, cool, or sweaty to the touch. You might use your sense of smell to notice a foot or body odor.

Let's talk more about how the concept of observation of objective findings can help you share information about an individual. If you see an individual fall and you go to help that individual, what might you observe? You might observe a cut or abrasion on their arm, leg, or another site where they fell. The individual might be crying because it hurt to fall. The individual might have a bruise forming that you can see. When you touch the area, you might feel that it is swollen.

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Slide 7 - Remember, that each observation using objective information can involve more than one sense. Think about the **four** sense, sight, hearing, touch, or smell when you are observing an individual so that you can gather as much objective information as possible. The more senses that you use, the more complete the observation can be.

Observation – What is Subjective Information?

Slide 8 - Now, let's imagine that an individual that fell says to you, "I felt dizzy before I fell." You heard them say this, but this is NOT objective information because it is not something that you can verify or prove. You can't measure it or take a picture of it. You can only say that this individual stated this. What an individual tells you about how they feel is called subjective information.

Subjective information is as important as objective information when making observations.

Slide 9 - Your observations are based on the objective and subjective information that you gather. The best way to observe is to include both objective and subjective information. This does not include determining or making a guess about what is going on. If you observe that an individual has a swollen ankle, you will include that information in the observation. You would not include a determination that the ankle is sprained, because you are not sure this is true. Be careful not to incorrectly state your observation by including impressions of what you think the observations mean. Your role is to observe, not to determine the reason for what you observed or to diagnose a condition. You should only include what you have seen or experienced with one or more of your four senses as an objective observation. In the situation where the individual fell that we just discussed, take a minute to think about what your observation should include.

Slide 10 - Please complete this exercise and indicate whether the observation is using subjective or objective information. Click on A) for Subjective or B) for Objective. Then click "Check" to submit your answer and learn the correct answer. Click on "Check" again to go to the next exercise.

The individual fell.

- a) Subjective
- b) Objective

Slide 11 - The individual fell.

The answer is

- b) Objective. This is something that you observed.

Slide 12 - The individual told you that they are in pain.

- a) Subjective
- b) Objective

Slide 13 - The individual told you that they are in pain.

The answer is

- a) Subjective. The individual told you, but you did not observe it.

Slide 14 - The individual has a cut, an abrasion, and a swollen ankle.

- a) Subjective
- b) Objective

Slide 15 - The individual has a cut, an abrasion, and a swollen ankle.

The answer is

- b) Objective.

This is also something that you saw but you may have felt with your hands as well.

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Slide 16 - The individual is crying.

- a) Subjective
- b) Objective

Slide 17 - The individual is crying.

The answer is

- b Objective.

You saw the individual crying. You may have also seen tears and you may have heard the crying. You may have touched the tears if you helped the individual wipe their face.

Slide 18 - The individual told you that they felt lightheaded before they tripped.

- a) Subjective
- b) Objective

Slide 19 - The individual told you that they felt lightheaded before they tripped.

The answer is

- a) Subjective.

The individual told you about feeling lightheaded, but this is not something you could have observed.

Slide 20 - Your observations should include the type of information exemplified in the previous exercise.

You reviewed ways that subjective and objective details are critical to documenting, understanding, and responding to what happened.

If you included that you thought that the individual tripped, but you did not observe that, then tripping should not be included since it cannot be verified. However, if the individual told you that they tripped, then that is subjective information and should be included in your observation.

Slide 21 - The observations you make have a direct impact on the decisions that a health care practitioner makes about the treatment for the individual. If inaccurate or incomplete information is given, the health care practitioner could mistakenly prescribe medication to the individual that isn't needed, could increase, or decrease the dose of medication given to the individual incorrectly, or could mistakenly discontinue a medication that the individual needs.

Slide 22 - Let's do another check your understanding of objective and subjective information. Read the statement on the slide, and then indicate if it is objective or subjective information. Click Check to go to the next slide.

A temperature of 101 degrees Fahrenheit is:

- a) Subjective
- b) Objective

Slide 23 - A temperature of 101 degrees Fahrenheit is

The answer is

- b Objective

Slide 24 - The individual complaining of knee pain in the morning when they get up is:

- a) Subjective
- b) Objective

Slide 25 - The individual complaining of knee pain in the morning when they get up is:

The answer is

- a) Subjective

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Slide 26 - The individual throwing a waste basket at a staff member is:

- a) Subjective
- b) Objective

Slide 27 - The individual throwing a waste basket at a staff member is:

The answer is

- b Objective

Getting to Know Individuals

Slide 28 - Learning about the individuals for whom you provide services will help you to better identify changes in the individuals, including recognizing the effects of medication. In order to do this, you need to become knowledgeable about the individual's health, what is important to them and how they interact and communicate. Learning about their personality and their capabilities assists you to be a better observer.

Slide 29 - Safe medication administration is important for all individuals taking medications administered by another person. Though you may provide services to individuals with differing ages, abilities, and needs, your role and the skills you need to perform that role, including observation, are the same.

Slide 30 - It is important to learn as much as possible about the individuals that you support. You may provide services to an individual who cannot use words to communicate how a medication is affecting them. Individuals may not be able to say verbally that they are having a headache, blurred vision, ringing in the ears, or other unpleasant experiences. Instead, an individual may hit their head with their hand to indicate a headache. As you learn more about the individuals you support you will begin to learn specific things about them such as their non-verbal language or behavior and become more accurate and confident in knowing what they are trying to tell you.

Observing non-verbal expression or behavior is important when working with any individual; however, attention to behavior and body language may help when working with adults or children with behaviors such as refusals and aggression. Some challenging behaviors are related to how individuals communicate, while others may be associated with a physical or mental health condition. Dementia is often associated with challenging behavior related to confusion and memory loss. Dementia affects how individuals respond to others and the responses may be difficult to predict. This creates a particular problem and requires that you observe in a manner that considers these factors. When you are observing behavior, think about other factors such as the loss of the ability to hear or see well in some individuals as they age. These changes in perception can cause increased anxiety or confusion and lead to changes in behavior.

Slide 31 - Some individuals may exhibit difficulties with motor functioning such as walking or using their hands. Knowing about the individual's physical health conditions is important so that you can make detailed and accurate observations. Arthritis, strokes or cerebral palsy may limit an individual's ability to use both sides of the body equally. Progressive neurologic conditions such as Parkinson's disease, Huntington's disease, multiple sclerosis, or muscular dystrophy all contribute to difficulties performing motor skills. For some conditions this impacts how individuals take medication and for others some conditions may impact how individuals swallow. Swallowing problems, referred to as dysphagia, are common in many individuals that have motor problems regardless of age. For older individuals there are additional things like dry mouth that lead to or add to swallowing problems. It is important for you to watch for choking and aspirating for an individual with swallowing problems. You may have to use special procedures for the preparation and administration of medication in individuals. Now you have a sense of the kinds of characteristics that may impact your role in observation.

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Next, we will discuss how you can learn about these characteristics for the individuals for whom you provide services. There are a few tools and methods you can use to find out more information about the individual.

Slide 32 - There are written records for all individuals. These records may be medical in nature, or they may be in the form of a plan or other document outlining program goals. Whether it is called an Individual Plan, an Individual Education Plan, or a Nursing Care Plan, each of these types of documents can provide you with valuable information about the individual such as medical diagnoses, assessments, and interventions.

Slide 33 - You can learn more information about an individual by talking to the individual and by talking to friends and family of the individual. Asking questions about what the individual likes or dislikes, what the individual can tell you about how the medication makes them feel, and many other similar types of questions will help you get to know that individual. It is also important to ask about what may lead to changes in the individual's behavior or how the individual responds to different situations. Using the previously mentioned resources will help you learn more about the individual and will help to make your observations more meaningful.

Observations and Effects of Medication & Scenarios

Slide 34 - The purpose of learning about observation in this lesson is to learn how it relates to medication administration. Think about the reason that you take medication. In an earlier lesson, we talked about what medication is and some of the different uses for medication. Have you ever had a headache? If you haven't, do you know someone that has? What did the individual do? Did they take medication to make the headache go away? Did the headache go away? If it did, then that was the **desired** effect. The reason you take a medication is so that it will have the desired effect.

Slide 35 - You take medication for a specific reason, also called the desired effect. In the headache example, pain relief was the desired effect. Sometimes individuals don't get the desired effect when they take medication. If you take the headache medication but you continue to have a throbbing headache, then the medication did not give you the desired effect. There may be many reasons for this, such as not giving the medication enough time to work. If someone gets no effect from a drug, it doesn't necessarily mean that the drug won't work. It could mean that it is not working at that dose. The important observation is the medication did not have the desired effect. In this case, the headache did not go away. If a medication does not provide the desired effect, this is called **no effect**.

Slide 36 - Responses to medication may be physical, such as lowering blood pressure or body temperature. Or responses may be behavioral like a decrease in pacing related to treating anxiety. Most individuals respond to medications in similar ways. In addition to the desired effect, an individual may have an unwanted effect, which is often called a side effect. All medications have many possible side effects. Even if the desired effect is achieved, an unwanted or side effect may also occur.

Slide 37 - Some individuals are more likely to develop side effects such as those on higher doses of medication, those who are on more than one medication or those individuals who are elderly.

Slide 38 – Now that you have been introduced to different types of effects of medications, let's look at some exercises to see if you can identify what type of effect the individual in the scenario experienced. Mary recently has been diagnosed with depression. Her doctor put her on Sertraline, a type of antidepressant, to treat her depression. After taking the medication for a while, she began to feel less depressed. One sunny day she went outside to work in her garden. After half an hour she noticed that her skin was turning bright red.

What type of effect did Sertraline have on Mary?

Transcript

What was the effect? Click on the effect and click [Submit].

- a) Desired effect
- b) No Effect
- c) Unwanted effect or side effect
- d) Both A and C

Slide 39 – The answer is

- d Both A and C.

Mary had **both** the desired effect, treatment of her depression and an unwanted side effect, sensitivity to sunlight.

Slide 40 – Isabella did not participate in any activities on Thursday because she was experiencing symptoms of a sinus infection. The health care practitioner prescribed amoxicillin. When she started taking the medication, the infection began to improve but Isabella was unable to return to her activities on Friday because she had a constant upset stomach. What type of effect did the amoxicillin have on Isabella?

- (a) Desired effect
- (b) No Effect
- (c) Unwanted effect or side effect
- (d) Both A and C

Slide 41 – The answer is

- d. Desired Effect and an Unwanted Side effect.

The desired affect was an improvement in the infection. Isabella’s infection started to improve but she had an upset stomach. She experienced an unwanted side effect from the amoxicillin.

Slide 42 – Matt went camping and came back with an itchy red rash. The doctor identified an allergic reaction and ordered Benadryl (generic name: diphenhydramine) to treat the allergic reaction and decrease the itching. He took two tablets for a couple of days but continued to itch. Matt also reported feeling tired. What was the effect of the Benadryl (diphenhydramine) on Matt?

- a) Desired effect
- b) No Effect
- c) Unwanted effect or side effect
- d) Both b) and c)

Slide 43 - The answer is

- d) Both No Effect as well as Unwanted Side Effect

The desired effect was a decrease in itching. Matt did not have the desired effect. The Benadryl provided no effect. Benadryl makes some individuals feel sleepy. Sleepiness from Benadryl is an unwanted effect or side effect. Matt did experience this side effect. Sleepiness or sedation is an example of a common side effect from Benadryl.

Slide 44 - A rarer, but important, type of side effect that we may see with a medication is called a paradoxical effect or paradoxical reaction. This term is used when the side effect from the medication is the opposite of what the expected effect would be. Examples would include when an individual takes a medication that is intended to be calming and the individual has increased anxiety or agitation. Another example would be when an individual takes a pain medication, but experiences increased pain as a side effect.

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Slide 45 – Sergio, experienced severe nasal congestion and was treated with a nasal decongestant prescribed by his health care practitioner. After several days the congestion worsened rather than improved. What type of effect did the decongestant have on Sergio?

- a) Desired effect
- b) Paradoxical Effect
- c) Unwanted effect or side effect
- d) Both A and C

Slide 46 - The answer is

- b) Paradoxical effect.

Sergio, experienced a paradoxical effect because the decongestant should have decreased the congestion but instead increased it.

Slide 47 - Simone was experiencing a burning sensation during urination. She went to her doctor who diagnosed her with a urinary tract infection. Her doctor prescribed Bactrim. After 4 days of taking Bactrim, Simone reported a decrease in burning sensation while urinating. She also complained of a new itchy rash on her arm.

What type of effect did Bactrim have on Simone?

- a) Desired effect
- b) No effect
- c) Unwanted effect or side effect
- d) Both A and C

Slide 48 - The answer is

- d)Both A and C, desired effect and unwanted or side effect.

The Bactrim had a desired effect on Simone because she is reporting less burning. The Bactrim also had an unwanted effect or side effect on Simone as she began to experience a new red itchy rash.

Slide 49 – Yvonne, a 75-year-old woman with chronic lung disease, developed coughing and fever. She went to see her doctor who diagnosed pneumonia and put her on an antibiotic, Keflex. She took the medication and began having severe difficulty breathing. She was taken to the emergency room for treatment.

What type of effect did Keflex have on Yvonne?

- a) Desired effect
- b) Paradoxical Effect
- c) Unwanted effect or side effect
- d) Both B and C

Slide 50 – The answer is

- c. Unwanted effect or side effect.

Yvonne had an unwanted, side effect known as anaphylaxis.

Slide 51 – Anaphylaxis is a severe life-threatening allergic reaction. To recognize anaphylaxis, it may begin with severe itching of the eyes or face and, within minutes, progress to more serious symptoms. These symptoms include swallowing and breathing difficulties, abdominal pain, cramps, vomiting, diarrhea, hives, and angioedema (swelling similar to hives, but the swelling is beneath the skin instead of on the surface).

Slide 52 – The condition can quickly result in an increased heart rate, sudden weakness, a drop in blood pressure, and dilated blood vessels. In severe cases, an individual can go into shock. If anaphylactic shock isn't treated immediately, it can be fatal.

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Slide 53 – Food is generally the most common cause of anaphylaxis. Common food triggers include nuts, shellfish (shrimp, lobster), dairy products, egg whites, and sesame seeds. Wasp or bee stings are also typical causes. Medications, especially antibiotics, can be a common cause of anaphylaxis.

Slide 54 – Epinephrine via an injection is the most common and rapidly effective treatment for anaphylaxis. Epinephrine can quickly reverse the symptoms. It is typically administered through an auto-injection device, often injected into the thigh. Prior to administering the epinephrine auto-injector you must be trained according to your agency policy. It is important to have documentation of allergies to specific antibiotics and medications for the individual. If you are traveling with the individual, it is important to carry an epinephrine injection kit with you as well. If you are with an individual having symptoms of anaphylactic shock, administer the epinephrine auto injection and call 9-1-1 immediately. CPR and other lifesaving measures may be required.

Slide 55 – Individuals may have other, less serious reactions. For example, some individuals develop side effects with a very small dose of medication while others display side effects only after the dose is increased. Some side effects are noticeable, quickly, while others develop over time. Sometimes side effects are an indication that the medication level in the individual’s blood is too high. This can happen when an individual is taking too much medication, or it can happen if an individual becomes ill and cannot remove the medication from their body as effectively as they could in the past. We have talked about a range of side effects from different medications such as the common side effect for diphenhydramine, sleepiness. We have looked at paradoxical effects like anxiety, irritability and decreased sleep with diphenhydramine. We’ve looked at side effects that range in severity from a mild rash to a life-threatening emergency such as the allergic reaction to an antibiotic. Thus, unwanted effects or side effects differ depending on the medication involved and the particular individual taking the medication. In every instance, observation is critical to identify and address side effects.

Effects of Medication Interactions

Slide 56 – Up to now, we have talked about the effects and side effects of single medications. In addition to individual medications having side effects, unwanted effects may result from the interaction of multiple medications. Some individuals with multiple chronic health conditions such as the elderly often take multiple medications and are more likely to have medication interactions.

Slide 57 – A medication interaction occurs when one medication affects how another medication acts. The level of one medication may increase the level of another medication and cause toxicity. The level of one medication may decrease the level of another medication and cause loss of its desired effect.

Slide 58 – There are additional ways that medications can affect the actions of other medications. Medications that work in the same way in the body may have an additive effect. For example, many seizure medications like Valproic acid (Depakote) and carbamazepine (Tegretol) are broken down in the liver. Alone, they each have the chance of causing liver problems, but together they have an even greater chance. Therefore, liver function tests that measure how the liver is working are done to follow the potential effects of some of the seizure medications. This impact on the liver is possible with any two drugs that are broken down in the liver.

Some combinations of medications can interfere with the activity of each other. For example, using antacids to treat heartburn while also taking digoxin, used to treat heart failure, can decrease the activity of the digoxin. Other compounds can also interfere with the activity of a medication.

Slide 59 – Food substances like dairy products and grapefruit juice commonly interfere with some medications. Taking tetracycline, which is an antibiotic, with dairy products such as milk blocks the antibiotic from being absorbed so that it cannot work effectively to treat the infection.

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Many herbal or dietary supplements such as St. John's Wort interact with medications like Coumadin, sometimes blocking their desired effect. It is important to read the instructions and warnings related to the medications that the individuals are taking.

We have seen that interaction with a medication can be caused by other medications, supplements or even foods. You have learned that medications may interact with other medications or foods and leave the medication with no effect or cause an unwanted or side effect. Observation is extremely important in helping to identify when there has been no effect or when side effects, as a result of interactions, have occurred.

Slide 60 – What can you do to avoid potential medication interactions? Make sure that all the health care practitioners that an individual sees know all the medication that the individual is taking, including vitamins and supplements. Ensure that the pharmacist filling a prescription knows all the medications the individual is taking. Fill all medications an individual takes at the same pharmacy whenever possible. Pharmacists can identify possible interactions and provide information about medications. Any changes that are observed should be reported as they might be due to an interaction.

Slide 61 – Let's take some time to check your understanding of the effects of medications. Please answer the following true and false questions. Click (A) for True and (B) for False. Then click submit to submit your answer. The correct answer will display. Click [Check or Continue] to go to the next slide.

A paradoxical effect is when an individual has symptoms after taking medications for a week.

- a) True
- b) False

Slide 62 – A paradoxical effect is when an individual has symptoms after taking medications for a week. The Answer is

- b) False

A paradoxical effect is when the individual experiences a side effect that is the opposite of what the expected effect would be.

Slide 63 – Anaphylaxis is a response to medication that requires emergency assistance.

- a) True
- b) False

Slide 64 – Anaphylaxis is a response to medication that requires emergency assistance.

The answer is

- a) True.

Anaphylaxis is a severe life-threatening allergic reaction that may begin with severe itching of the eyes or face and, within minutes, progress to more serious symptoms. If the individual is experiencing anaphylaxis, administer epinephrine auto injection and call 9-1-1.

Slide 65 – The desired effect is the response expected from a medication

- a) True
- b) False

Slide 66 – The desired effect is the response expected from a medication

The answer is

- a) True

You take medication for a specific reason, also called the desired effect.

Summary

Slide 67 – This lesson about Observation covered key points that included:

- Observation is an important responsibility and is used to identify responses to medications.

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- Accurate observation is crucial to communicate with the health care practitioner and obtain appropriate care.
- Getting to know the individuals for whom you provide services will help you better recognize changes in their physical condition or behavior.

Slide 68 –

- Medications have three possible effects: desired effect, no effect, and unwanted or side effects.
- Side effects can range from mild to life-threatening.
- Some important types of side effects for you to be aware of are medication sensitivity, toxicity, paradoxical responses, and allergic reactions including anaphylaxis.

Slide 69 –

- Anaphylaxis can be a severe, life-threatening, allergic reaction to a medication. It can be treated by administering an epinephrine auto-injector and calling 9-1-1 for emergency treatment.
- Medications can interact with each other, with food, and with herbal and other supplements. This interaction can affect how one or more of the medications work.

Next Step

Slide 70 – Now that you have completed the lesson, it's time to take the quiz. Please click on the link below to access the quiz.