

Module 11A

Instructor's Guide

Medication Administration

How to Pass Meds Safely and Without Error

Slide 2

	By the end of this Module, you will be able to:
Define	Define what constitutes a medication error
Identify	Identify solid and liquid oral dose forms
Explain	Explain how to use the equipment for giving oral dose forms
Explain	Explain how to give oral, sublingual, and buccal drugs

Slide 3

What are medication errors?

How do they occur?

How can you prevent them?

Points to Ponder (group discussion)

Encourage students to explore and discuss medication errors, what they are, how they could occur, and how to prevent them. Encourage them to throw ideas out and discuss them, and on the next slide you will give them more information about this topic.

Slide 4



Medication Errors

- What is a Medication Error?
 - Didn't follow the Nine Rights
 - **Preventable**
- Includes things such as wrong med pass routine, expired meds, missed dose, giving too much, wrong time, wrong rate, wrong med, etc.
- Can cause harm
- Unsure? Ask! It is **always** ok to ask.
- Avoid distractions

A medication error occurs when a **preventable** event happens during the administration process.

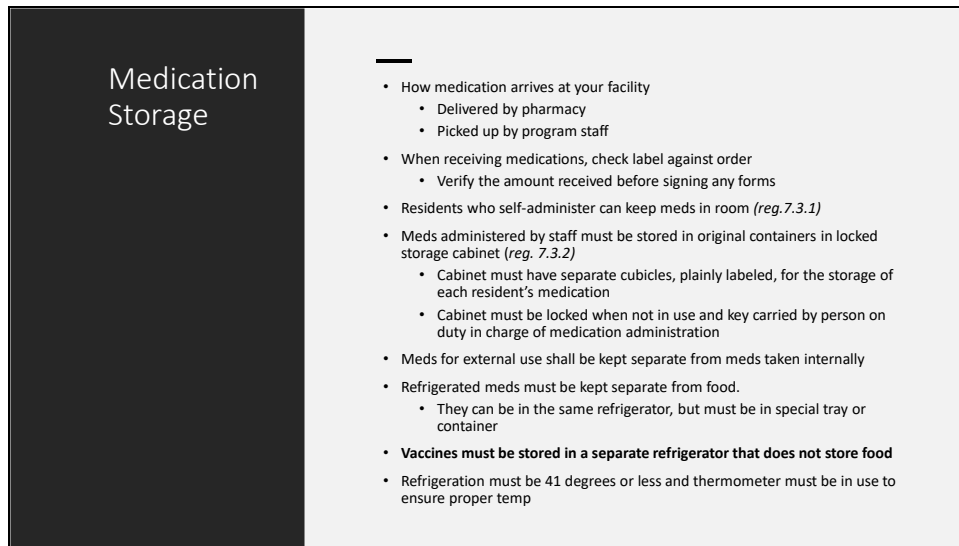
This typically arises when a CRMA does not follow the nine rights of safe medication administration.

This could include errors such as following the wrong med pass routine, giving expired medications, giving too little or skipping a dose of medication, overdose (i.e., giving too much medication), giving the medication at the wrong time or at the wrong rate.

Medication errors are **preventable** and can harm the person you support. Following the nine rights of safe medication administration will help prevent you from making a medication error.

And remember, if you are ever unsure about what to do in any medication situation, it is **always** ok to ask. Never feel like you don't want to ask because you should already know the answer, don't worry that you're asking a "stupid question", don't just guess what you should do – always ask if you are unsure. This will help prevent medication errors.

And make sure to avoid distractions – distractions are a leading cause of medication errors. They

A slide titled "Medication Storage" with a dark background on the left and a light background on the right. The title is in white text on the dark background. The right side contains a bulleted list of regulations and procedures for medication storage.

Medication Storage

- How medication arrives at your facility
 - Delivered by pharmacy
 - Picked up by program staff
- When receiving medications, check label against order
 - Verify the amount received before signing any forms
- Residents who self-administer can keep meds in room (*reg. 7.3.1*)
- Meds administered by staff must be stored in original containers in locked storage cabinet (*reg. 7.3.2*)
 - Cabinet must have separate cubicles, plainly labeled, for the storage of each resident's medication
 - Cabinet must be locked when not in use and key carried by person on duty in charge of medication administration
- Meds for external use shall be kept separate from meds taken internally
- Refrigerated meds must be kept separate from food.
 - They can be in the same refrigerator, but must be in special tray or container
- **Vaccines must be stored in a separate refrigerator that does not store food**
- Refrigeration must be 41 degrees or less and thermometer must be in use to ensure proper temp

Medications may arrive at your facility in two ways. They may be delivered by the pharmacy or picked up at the pharmacy by program staff. You need to follow the policies of your facility for further direction.

When receiving medications from the pharmacy you should check the label against the duly authorized licensed practitioner order. It may appear on your order form as a sticker from the prescription label or the complete written order. Verify the amount of medication received before signing any forms. All drugs must be stored in their original containers as they were received from the pharmacy.

The labels must be kept intact on all medications. If a label becomes difficult to read, call the pharmacy and ask that it be replaced with a legible label. CRMA's are not allowed to relabel medications.

Have students refer to the regulation packet they received on the first day of class.

Regulation 7.3 Medication storage:

7.3.1 Residents who self-administer medications and who handle their own medical regime may keep medications in their own room. To ensure the safety of

the other residents, the facility will provide a locked area/container, if necessary. *[Class III]*

7.3.2 Medications administered by the assisted living program, residential care facility, or private non-medical institutions shall be kept in their original containers in a locked storage cabinet. The cabinet shall be equipped with separate cubicles, plainly labeled, or with other physical separation for the storage of each resident's medications. It shall be locked when not in use and the key carried by the person on duty in charge of medication administration. *[Class III]*

7.3.3 Medications/treatments administered by the assisted living program, residential care facility or private non-medical institution for external use only shall be kept separate from any medications to be taken internally. *[Class III]*

7.3.4 Medications administered by the assisted living program, residential care facility or private non-medical institution, which require refrigeration, shall be kept safely stored and separate from food by placement in a special tray or container, except vaccines, which must be stored in a separate refrigeration unit that is not used to store food. Refrigeration shall be forty-one (41) degrees Fahrenheit or below. A thermometer shall be used to ensure proper refrigeration. *[Class III]*

Oral, Sublingual, and Buccal Drugs

Oral Drugs

Oral = by mouth

- Directly into GI tract

- Benefits
 - Common route, easy to administer
 - Noninvasive
- Limitations
 - Slow absorption
 - Might cause nausea
 - Can't be given in some situations
- Order for oral drug
 - PO, by mouth, orally



Oral drugs are given by mouth, which is the oral route. These drugs are given directly into the gastrointestinal tract, as opposed to into the blood stream or through the skin, for example.

The oral route is a common route for medication administration, and it has several advantages. For example, most drugs are available in an oral dose form, and oral drugs are easy to administer. Most people can swallow oral drugs easily, and oral drugs are noninvasive, meaning the skin is not pierced, and nothing is inserted into the body. And, if an adverse reaction occurs, it is possible to perform a procedure called a lavage to essentially wash the medication out of the stomach.

There are some challenges with oral medications, as well. For example, they have the slowest rate of absorption and the slowest onset of action. Some oral medications can also discolor and even damage the teeth. Others have an unpleasant taste or smell, and some cause nausea. Oral medications also can't be given if a person is vomiting or if they have difficulty swallowing.

In general, however, it is tolerated well by most people in most situations, and it is the most common route of administration that you will use as a CRMA.

A drug order written for oral administration will say "PO", it will say "by mouth", or it will say "orally".

Oral Dose Forms

- Capsule
 - Small cylindrical gelatin cap that holds powder, pellets, or liquid
- Tablet
 - Dried, compressed powdered drug
- Sublingual strip
 - Film that dissolves under tongue
- Lozenge
 - Slow-release candy-like disc that dissolves slowly in the mouth



Drugs come in four main forms: A Capsule, a tablet, a sublingual strip, and a lozenge

A capsule is a small, cylindrical gel cap that holds a drug in powder, liquid, or pellet form. This form is used for drugs that have an unpleasant taste or smell. The drug inside the capsule can absorb at a certain rate and can provide a continuous release of the drug.

Tablets are a dried, powdered drug compressed into a small circular disk. Many tablets are scored so that they can be divided into smaller doses. Some have a coating which causes them to be dissolved in the small intestine, rather than in the stomach. Tablets with a coating should not be crushed or chewed. A caplet is a dried medicine powder, but instead of being compressed into a circular tablet, it is compressed into the shape of a capsule.

Sublingual strips or film is a strip of medication that is placed under the tongue, where it dissolves very quickly. This type of medication works well for people who have difficulty swallowing.

Lozenges are flat discs that contain medication with a flavored base, and they are held in the mouth where they dissolve slowly, causing the medication to release slowly as the lozenge is sucked on.



The equipment used to administer drugs is determined by the form of the dose that has been ordered:

A soufflé cup is a small paper (or sometimes plastic) cup that is used for administering solid form drugs such as tablets and capsules. These cups are disposable and are only used once, and therefore prevent contamination while handling and administering medications.

A medicine cup is a plastic cup with measurement markings imprinted on the side. This is used for administering liquid medications. Check the measurement scale on the cup carefully before administering medication, as one side of the cup typically shows markings for ounces, and the other side for milliliters. Make sure you are pouring to the correct line for the dose ordered. Also make sure to place the medicine cup on a hard, flat surface for accuracy. This equipment is only good for doses larger than 1 teaspoon. For smaller doses, you will use an oral syringe.


The oral syringe is a plastic measuring device that has three parts, the tip, the barrel, and the plunger. Measurements are marked on the barrel. To withdraw a liquid, pull back on the plunger. To give liquid medication, push the plunger forward. Oral syringes are used for medications measuring .1 mL to 15 mL. Choose the correct syringe for the amount of medication ordered. Note that this is different from a syringe used to give an injection – a needle will not fit in the tip of an oral syringe.

A medicine dropper is a small plastic or glass tube with a hollow rubber squeeze ball at one end. Measurements are marked on the tube. Drops vary in size from dropper to dropper, so it is very important that you only use the dropper that was supplied by the manufacturer for the drug ordered. Once you draw the medication into the tube, do not turn the dropper upside down – this

causes some medication to go into the bulb at the top, and the person receives less medication than what was ordered. Also, do not transfer the drug into another container (i.e., do not squirt the medication in the dropper into a medicine cup before administering), because this results in part of the drug remaining in the dropper and the person receives less medication than the amount ordered.

Many liquid drugs are ordered using a teaspoon as the unit of measure. In hospitals and nursing centers, a teaspoon measure is converted into a metric measure. For example, 1 teaspoon equals 5 mL. If 2 teaspoons are ordered, you administer 10 mL of the drug. For home administration, an oral syringe, medicine cup, or measuring teaspoon (the kind used for baking) are used. Never use a kitchen spoon (the kind for eating with) to measure medication.

Slide 9




Medication Error Alert – Oral Syringes

- Always use an oral syringe to give oral drugs by syringe
- Oral syringes cannot be connected to an IV port or catheter
- Medication errors arise if a parenteral syringe is use for an oral drug
- If oral drug is in parenteral syringe, it could be delivered by IV
- **AVOIDABLE ERROR**

For safety, always make sure to use an oral syringe when administering an oral drug by syringe. Do not use a parenteral syringe (the kind the attaches to a needle, IV, or catheter). Medication errors have occurred when a parenteral syringe was used for oral drugs. If an oral drug is put in a parenteral syringe, a CRMA or nurse could accidentally give an oral drug by IV, for example, if the drug is left on the cart or if more than one drug was prepared. Only put oral medications in oral syringes, never in parenteral syringes.


Slide 10



Oral Drug Administration

- Follow the Nine Rights of Medication Administration (see Medication Safety Module)
- Avoid distractions
- Prevent drug errors
- Prevent infection
- Follow the procedure outlined on the following slides

Note that distractions are a major cause of medication errors. Tuning out distractions is an important factor in the prevention of medication errors.



Oral Drug Administration General Rules

- Give the most important medication first (i.e., antibiotics, heart-related medication)
- Give solid drugs first, then liquid drugs
- Do not mix solid drugs with liquid drugs
- Stay with the person while they self-administer. Do not leave the drug at the bedside unless the doctor's order specifically says to do so
- Do not let the medication container touch any part of the administration equipment (the soufflé cup, medicine cup, or measuring spoon)
- Do not touch the inside of the medicine container or its cap, and set the cap down so that the inside of the cap is facing up to avoid contamination

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Slide 12

Dignity, Respect, and Quality of Life

- Knock before entering the person's room
- Address the person by name
- Introduce yourself by name and title
- Explain what you are about to do
- Protect the person's rights during the administration of medication
- Handle the person gently
- Remember the 9 Rights of Medication Administration
- Ask your supervisor if you have any questions
- Perform hand hygiene
- Collect the:
 - MAR
 - Water or other ordered liquid
 - Drinking Straw
 - Equipment (soufflé cup, medicine cup, oral syringe, measuring teaspoon, etc.)




Review quality of life considerations.

Slide 13

Solid Form Drug Administration General Rules

- Use the same soufflé or medicine cup for all of the person's tablets and capsules unless you have been instructed not to do so
- Use a separate cup for heart medication
- Use a separate cup for blood pressure medication
- If you are supporting a person who has trouble swallowing, verify that their medication can be crushed or cut or that their capsules can be opened
- To crush:
 - Wear gloves
 - Place in crusher and crush according to manufacturer instructions
 - Wash the crusher to remove any medication residue

(continued on next slide)



Solid Form Drug Administration General Rules (cont'd)

- To cut a scored tablet:
 - Wear gloves
 - Use a disposable pill cutter
 - Labeled with person's name – do not use the person's pill cutter to cut anyone else's pills
 - Wash and dry the pill cutter to remove pill residue after use if it is not disposable
- Do not mix a drug into food or fluids unless ordered to do so
- Do not give a drug with food unless ordered to do so
- Let the person drink a small amount of water **before** taking the drug
 - Makes swallowing easier
- Remind the person to place the drug far back on the tongue
 - Wear gloves if assisting
- Give the person fluids to swallow the drug, encourage them to drink a full glass to help the drug reach the stomach and to reduce the risk of stomach irritation
- Remind the person that lozenges should not be chewed



Liquid Form Drug Administration General Rules

- Do not dilute (do not add water or other fluid) unless ordered to do so
- Do not mix liquid drugs together. Pour each into a separate medicine cup or measuring spoon. If using an oral syringe, use a different syringe for each liquid
- Give cough syrup last if administering more than one liquid drug. Cough syrup coats and soothes the throat
- If you pour too much, do not pour the extra back into the bottle. Dispose of the drug according to agency policy



Oral Drug Administration: Safety and Comfort

- Safety
 - When crushed tablets or opened capsules are mixed with food, only mix it with a small amount of food. Use a teaspoon to give the drug (with food). The teaspoon should be about $\frac{1}{3}$ rd full with the food mixed with medicine (i.e., applesauce). This is a portion that is easy to swallow, although some people might need a smaller portion. The person must consume all of the food in order to get all of the drug that was mixed into it. If they don't eat all of the food that the drug was mixed with, they will receive a lower dose than what was ordered.
- Comfort
 - A crushed tablet or opened capsule does not have a pleasant taste. Mixing the drug with a small amount of food can help alleviate the discomfort of tasting an unpleasant medicine.

When not to give medication:

- No physician's order
- No MAR
- Pharmacy label is not legible. Follow supervisor directions or agency policy to ensure that the proper medication is being administered
- Resident exhibits dramatic change in status
- Any doubt about right resident, right drug, right dose, right time, or right route, get another staff member or notify administrator on-call

If one or more of the following required items is missing, do not give medications:

- ◆ No physician's order. Never give a medication without a physician's order.
- ◆ No MAR. Where is it?
- ◆ The pharmacy label is not legible. Note: This does not mean you just don't give the medication. You must take care of this situation if the resident is supposed to receive a particular medication. The point is not to give a medication if you're not sure what it is.
- ◆ Resident exhibits a dramatic change in status: If the resident is showing signs of seizures, unconsciousness, difficulty breathing or any other change which appears to be health-threatening, do not administer the medication. Follow the instructions given for reporting an emergency health-threatening situation. Call 911 or an ambulance and the doctor.

If you have any doubt that you have the right resident, right drug, right dosage, right time or right route, get assistance from another staff member or call the administrator on-call.

Emergency Situations

- When should I call the ambulance?
- Emergency = a **serious, unexpected** situation that **can be helped**, but something must be done **immediately** or the situation **will get worse**
- Examples:
 - Any respiratory condition where rate, rhythm, and depth of ventilations are too low
 - Any bleeding that cannot be controlled by direct pressure, elevation, ice, and immobilization. If pressure points or a tourniquet are necessary, a physician must evaluate the injury
 - Any seizure activity that is continuous or with short times between seizures
 - Any behavior that is harmful and/or dangerous to the resident, other residents, or staff
 - Ingestion of anything harmful, even if no symptoms are present

When in doubt, ship them out!

Medication administration is not without risks. Even when you have done everything properly there can be unexpected reactions to medication that result in a true emergency. If this happens, you must have a plan of action and be prepared to implement that plan.

EMERGENCIES

Everyone is concerned about, “**When should I call the ambulance?**” For instance, most people would have difficulty stating what the circumstances would have to be before they would make that call for assistance. It may help if you think through the following definition.


An emergency situation may be defined as a “**serious, unexpected** situation that **something can be done** about and **must be done immediately** or the situation **will get worse.**” Examples of possible emergency situations may include the following:

- Any respiratory condition that the rate, rhythm, and depth of ventilations are too high or too low.
- Any bleeding that cannot be controlled by direct pressure, elevation, ice, and immobilization. If pressure points or a tourniquet is necessary, a physician must evaluate the injury.
- Any seizure activity that is continuous or with short times between seizures.
- Any behavior that is harmful and/or dangerous to the resident, other residents, or staff.
- Ingestion of anything that may be harmful even if no symptoms are present.

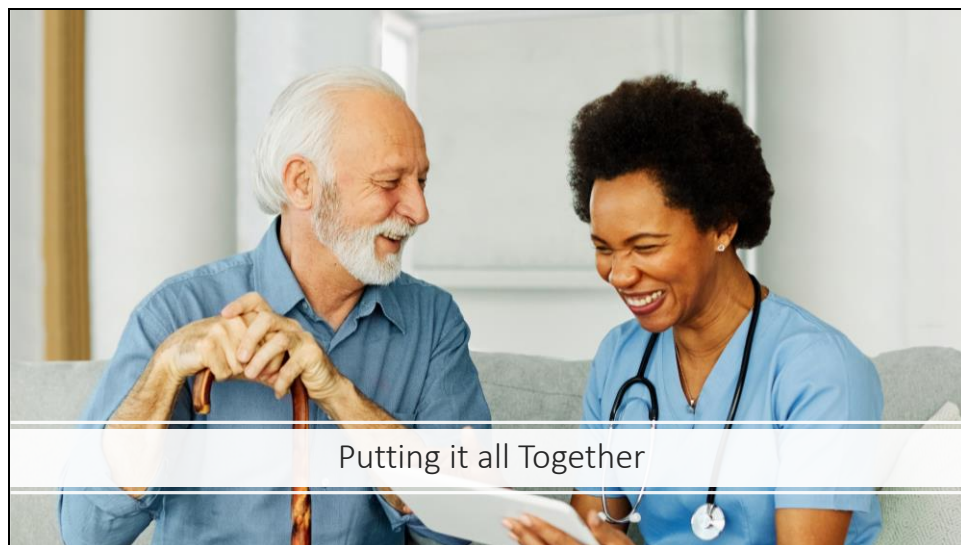
REMEMBER: “When in doubt, ship them out!”

Overdose and Poisoning

- Maine Poison Control
 - 1-800-222-1222
- Be prepared to tell them
 - What was taken
 - How much was taken
 - How long ago it was taken
 - Any symptoms you might be observing
- You can always call 911 first if you are unsure of what to do
- **DO NOT INDUCE VOMITING** unless directed to do so by a qualified health care professional



Review process to follow if overdose occurs or is suspected.



Now that you have learned the overview of Medication Administration, you are ready to learn about administering specific types of medication.

Instructors: Administer exams, alternating between Versions 1 and 2 as you pass them out.

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