

# Medication Pass Fundamentals: Part 3

(Additional Routes of Med  
Administration, Medication Errors)



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# Objectives

Describe preparation and administration of medications through the following routes:

- Enteral
- Inhaled
- Topical
- Transdermal
- Subcutaneous injections
- Suppositories

Describe safety and common medication errors with each route

Describe med pass observation: facility goals and approach

Review State survey and associated F-tags

Perform Error rate calculation for med pass

Review key take away points from 3-part series

# Enteral: Preparation

1. Verify order to administer via tube and to crush medications is present
2. Check “Should Not Crush” list prior to crushing medications
3. Finely crush medications (see 2nd video in series for information on crushing)
4. Shake suspensions, dilute liquids and solid doses
5. Prepare each medication to be given separately through the tube, do not cocktail unless otherwise ordered by the prescriber
6. Ensure a clean surface is available and gather all administration supplies including multiple sets of gloves and plenty of paper towels or clean washcloths





# Enteral: Preparation

7. Provide privacy for the resident by closing door or pulling curtains
8. Explain the procedure
9. Place resident in proper position by elevating the head of the bed to 35-40 degrees
10. Check date on the syringe that will be used for checking placement and administering medications and flushes, follow facility policy for how long syringes can be kept
11. Perform hand hygiene and put on gloves
12. To protect resident's privacy and skin, use a clean barrier



# Enteral: Preparation

13. If enteral feedings are being administered at the time of medication administration, stop the feeding by clamping the administration tube
14. This is a good time to double check that are not giving any medications that will interact with the enteral formula

For example, when giving Dilantin (phenytoin) suspension, tube feedings should be held 1 hour before and after administration



# Enteral: Administration

1. Check tube placement in accordance with facility policy
2. Prior to giving the 1st medication, flush with 15-30 mL room temperature water, or per facility policy/as orders dictate
  - Purified or distilled water is preferred
3. May flush with less water if orders for fluid restriction are present. The prescriber should specify the amount of water to be used in the orders.
4. Administer each medication separately
5. Ensure all drug is emptied from the medication cup
6. Allow medications to flow down the medication syringe into the tube via gravity



# Enteral: Administration

8. Flush with 5-10 mL of room temperature water after each individual medication is given or as ordered
9. Alternative volumes for flushing in between medications may be appropriate for certain residents; this should be specified in the orders for that resident
10. Flush with 15-30 mL of room temperature water after completion of all medications, or per facility policy
11. Restart the enteral feeding as ordered
12. Clean medication syringe and return to storage location
13. Dispose of gloves properly, perform hand hygiene, cleanse stethoscope with alcohol
14. Re-adjust head of bed for resident preference/needs

# Enteral: Pointers

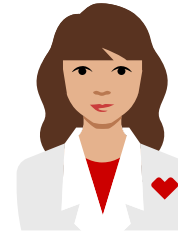


Not all medications that can be taken orally can be given by tube:

- Extended-release preparations (XL, XR, CD, CR, ER, SA, etc.)
- Some immediate release preparations (e.g., sublingual tablets, Prevacid Solutabs)



Be sure have an order to give the medication via tube



Check the “Should Not Crush” list/check with the pharmacist



Consider asking the prescriber for alternative dose forms when gel capsules must be drained to administer the medication (time consuming and not as accurate)

# Enteral: Pointers

## **Dilute both solid and liquid medications to:**

Increase safety and absorption  
Decrease risk for diarrhea and clogged tubing (e.g., secondary to high osmolality, excipients, sweeteners, etc.)

**Do not push medications through the tube**

**Do not use ice water as it can cause discomfort**

**Keep air out of tube**

**Do not lay any apparatus on the resident's bed or unclean surface**

# Enteral: Pointers

If tube is clogged, first reposition, then you may try gentle pressure, warm water

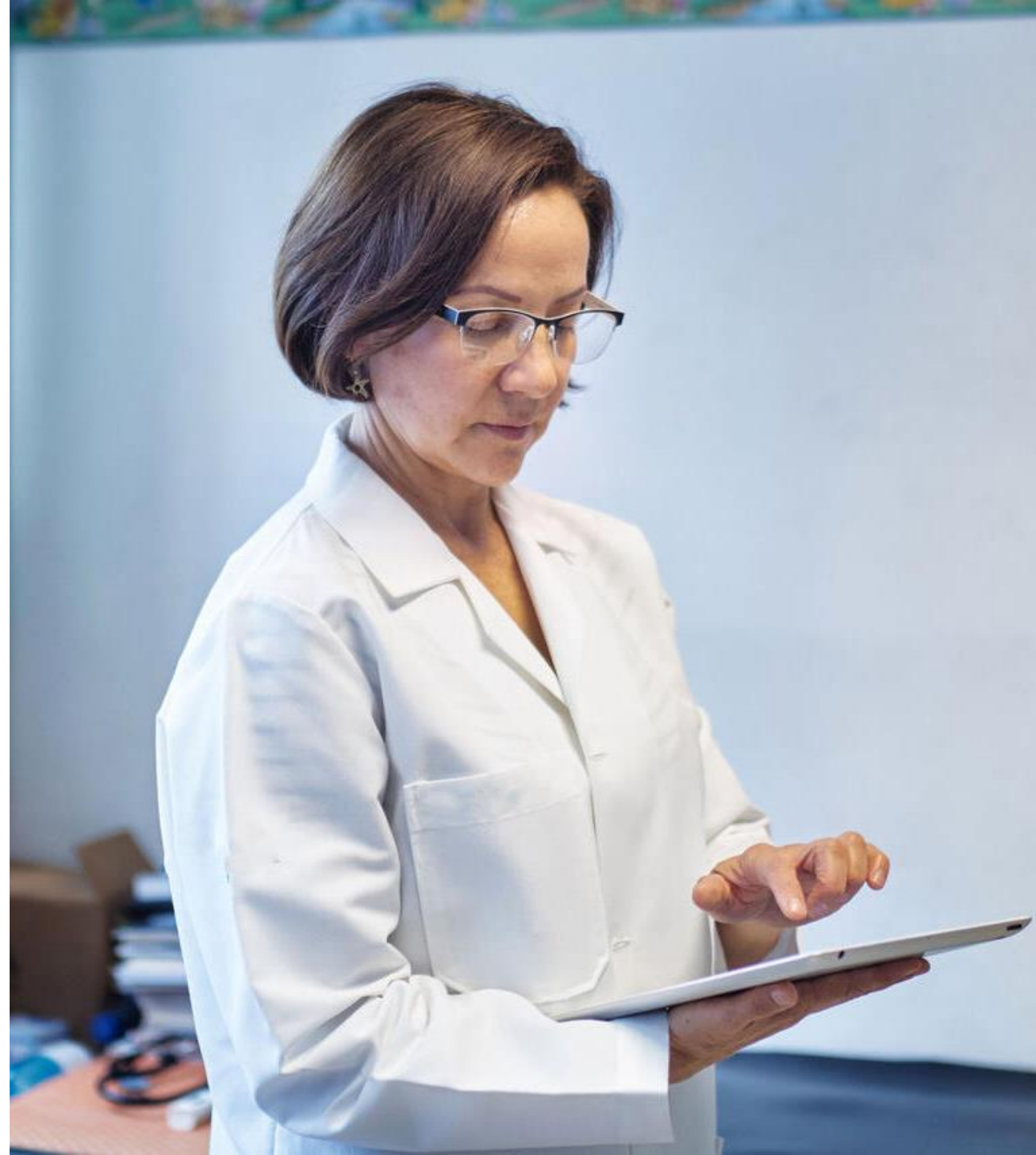
Document and report clogged tubes

A measure of last resort is enzymatic removal (e.g., pancrealipase tablet + sodium bicarbonate mixed with water) with a provider's order

Avoid cranberry juice and carbonated beverages as a remedy, they can worsen the problem by precipitating protein from formulas

# Guidance to Surveyors on Enteral Medication Administration

- For administering medications via tube, the standard of practice is to administer each medication separately and flush the tubing between each medication.
- An exception would be if there is a prescriber's order that specifies a different flush schedule for an individual resident, for example because of a fluid restriction
- Failure to flush before and in between each medication is considered a single medication error for each occurrence and would be included in the calculation for medication errors exceeding 5%





# Enteral: Common Errors

- Failure to correctly position resident
- Failure to administer each medication separately
- Failure to give all the medication (e.g., some left in the cup)
- Failure to flush after each medication
- Failure to follow fluid restrictions
- Giving medications with enteral formula
- Failure to address medication timing issues, drug-drug or drug-enteral formula interactions (e.g., hold feedings and time medications correctly)
- Failure to respect resident's right to privacy



# Enteral: Common Errors

## Infection control

- Not using gloves appropriately
- Not performing hand hygiene
- Failure to re-perform hand hygiene and re-glove after they have been contaminated
- Setting the supplies/syringe on an unclean surface
- Not cleaning syringe after use
- Not cleansing stethoscope after use



# Inhalers: Preparation

1. Review medication order, if inhaler contains a steroid bring extra water and an empty cup for resident to rinse mouth
2. Ensure inhaler has open date if needed and that medication is not expired
3. Attach spacer if ordered
4. Ensure privacy by closing door or pulling curtain
5. Explain procedure, demonstrate if necessary
6. Have resident sit or elevate head of bed
7. Perform hand hygiene and put on gloves





## Inhalers: Preparation

8. Assemble unit per directions
9. Remove mouthpiece cover, and inspect mouthpiece for presence of foreign objects

**Metered dose inhalers (MDI):** shake unit to disperse medication, prime the inhaler if it has not been used in a while or has been dropped (see manufacturer's instructions)

**Dry powder inhalers:** prepare dose in the apparatus (e.g., HandiHaler, Diskus)

# Inhalers: Administration

1. Have resident exhale fully
  - Place mouthpiece in front of mouth, in mouth, or use a spacer according to manufacturer's recommendations and prescriber orders
2. Have resident inhale slowly and deeply through mouth, if using an MDI depress medication canister fully
3. Have resident hold breath for 10 seconds or according to manufacturer's recommendations (or as long as possible)
4. Have resident exhale slowly through pursed lips





# Inhalers: Administration

5. If more than one puff of a medication is required wait at least one minute between puffs or as ordered by prescriber or per manufacturer's recommendations
6. If multiple, different inhaled medications are used, wait 2-5 minutes between medications or per manufacturer's recommendations
7. Gargling or rinsing mouth after spraying will reduce drug absorption from the oral mucosa, this is mandatory if the preparation contains a steroid (e.g., Advair) to prevent a fungal infection, such as thrush
8. Wipe the mouthpiece before storing medication
9. If used, clean spacer once weekly with luke warm water and a mild detergent and allow to air-dry. Spacers should be replaced per facility policy or at least every 6-12 months
10. Properly dispose of gloves and perform hand hygiene



# Nebulizers: Preparation

1. Follow facility policy for drug monitoring before and after treatment
2. Review medication order, if nebulizer contains a steroid bring extra water and an empty cup for resident to rinse mouth
3. Ensure resident privacy by closing door or pulling curtain
4. Explain the procedure
5. Have resident sit or elevate head of bed
6. Perform hand hygiene and put on gloves
7. Assemble unit per directions



# Nebulizers: Administration

1. Place machine on firm, flat surface
2. Add prescribed medication and dilutant, if needed, to nebulizer cup
3. Have patient hold mouthpiece between lips with gentle pressure or use facemask as ordered
4. Turn on either compressed air or oxygen as ordered
5. Instruct resident to breath normally
6. Monitor throughout treatment, resident should not be left with nebulizer running unless self-administration order is present



# Nebulizers: Administration

7. Continue the treatment until mist is no longer coming out of the mouthpiece/facemask or per prescriber order if time limit is set
  - Tap nebulizer cup occasionally during treatment to ensure all medication is nebulized
8. At completion of treatment allow resident to rinse mouth as needed
9. Clean apparatus in accordance with device instructions and facility policy
10. Properly dispose of gloves and perform hand hygiene



# Inhalers and Nebulizers: Common Errors

- Using an expired product
- Failure to have resident wait between puffs
- Failure to have resident rinse mouth after steroid
- Failure to clean apparatus after use
- Failure to observe resident during treatment
- Failure to shake HFA inhalers





# Inhalers and Nebulizers: Common Errors

## Infection control

- Not wearing gloves appropriately
- Not sanitizing hands
- Setting the inhaler on an unclean surface
- Not changing tubing per order
- Using tubing that has been contaminated, such as dropped or dragged on floor



# Topicals

- Have resident in a private location, explain the procedure
- Perform hand hygiene and put on gloves
- Position and drape resident as needed
- Inspect condition of skin, wash affected areas with solvent or non-drying soap
- Pat skin dry or allow to air dry
- Prepare topical agent (some treatments will have to be prepared at the cart, outside of room)

<b>Lotion</b>	Shake lotion vigorously; pour into hand, let warm to body temperature
<b>Cream</b>	Squeeze or remove with tongue blade, use new tongue blade for each scoop; rub between hands to soften
<b>Ointment</b>	Place dollop of ointment between hands, use new tongue blade for each scoop of ointment; rub to soften.
<b>Powder</b>	Dust powder lightly with dispenser and apply between skin folds
<b>Aerosol spray</b>	Shake vigorously; hold at recommended distance to apply, ensure resident's eyes and face are protected



## Topicals

- Apply topical agent to affected area
- Apply lotion, cream or ointment with long smooth strokes that follow direction of hair growth
- Re-position resident and cover skin with dressing if ordered by prescriber
- Dispose of soiled supplies properly
- Perform hand hygiene

# Topicals: Common Errors

- Infection control
  - Forgetting hand washing
  - Forgetting gloves
  - Preparing or applying the product in an undesignated area
  - Failure to use a new tongue blade for each scoop of medication
  - Touching the applicator to an unclean surface
- Privacy and dignity





# Topical Transdermal

- Ensure privacy by closing door or pulling curtain
- Explain procedure to resident
- Perform hand hygiene and put on gloves
- Initial and date patch prior to applying to resident and not on the portion containing the medication
- Remove old patch and clean skin with clear water, allow to dry completely. Do not touch the medication side of the patch with bare hands
- Apply new patch to intact skin and rotate sites as recommended by manufacturer
- If a patch becomes loosened, replace with new patch or apply Tegaderm™ if recommended by manufacturer
- Properly dispose of gloves and old patch, perform hand hygiene

*Note: different patches have different application sites and schedules, check manufacturer's directions*

# Topical Transdermal: Fentanyl (Duragesic)

- Place on non-irritated skin on upper torso (e.g., chest, back, flank, or upper arm)
- Clip (do not shave) hair at application site prior to application
- Firmly press the transdermal system in place with the palm of the hand for 10 to 20 seconds, ensure the contact is complete, especially around the edges
- Fentanyl patches should only be covered with Biocclusive or Tegaderm see-through dressings if needed, no other bandage should be used.
- **The remaining fentanyl in a used patch is a potential vehicle of abuse and accidental overdose and warrants implementation of adequate disposal policies\***
- Document drug administration and removal per Schedule II drug policy and procedure
- Replace every 72 hours, or as directed by prescriber





# Topical Transdermal: Fentanyl (Duragesic)

## Fentanyl Disposal:

- Fold used or unused patch so that the adhesive side of the system adheres to itself then the system should be flushed down the toilet immediately upon removal, if state permits
- If flushing is not permitted, dispose in a manner that prevents access by staff, residents and visitors, but is compliant with federal and state regulations as well as facility policies, i.e., Drugbuster
- Two nurses should witness and document the disposal of used patches
- Destruction and associated documentation of unused Schedule II drugs should be completed per federal and state regulations



# Topical Transdermal: Common Errors

- Failure to dispose of product properly
- Failure to remove old patch
- Failure to date and initial patch prior to application
- Failure to rotate sites
- Failure to change patch on the correct schedule
- Infection control
  - Not wearing gloves appropriately
  - Not sanitizing hands



# Subcutaneous Injections: Preparation

1. Ensure privacy by closing door or pulling curtain
2. Explain procedure to resident
3. Perform hand hygiene and put on gloves
4. Verify prescriber order and draw up medication
5. Select an appropriate injection site (check for tenderness, swelling or masses); rotate site from previous injection
6. Position and drape resident as needed
7. Clean site, with antiseptic/alcohol swab



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# Subcutaneous Injections: Administration

1. With non-dominant hand, spread skin tight or pinch skin around injection site
2. Position needle with bevel up in dominant hand
3. Insert needle in a quick motion at 45- or 90-degree angle to skin surface
4. After injection, remove needle, while placing antiseptic swab just above injection site
5. Use safety feature on syringe if applicable, never recap needles
6. Check site for bleeding or bruising
7. Dispose of equipment and gloves according to facility policy and use a sharps container as applicable
8. Perform hand hygiene







## Subcutaneous Injections: Insulin

- Ensure insulin is stored in refrigerator until open
- Ensure insulin has open date and is not expired before use
- **For insulin pens:**
  - Cleanse rubber septum with alcohol and allow to air dry prior to attaching pen needle
  - Prime pen with a 2 unit “air shot” prior to each administration, pen should be pointed straight up
- **For mixed insulin:**
  - Roll vials to mix insulin, do not shake, to avoid bubbles
  - Draw up in proper order
- Hold needle in place for 5 to 10 seconds after administration

# Subcutaneous Injections: Common Errors

- Recapping needles and improper disposal of needles
- Improper dosing (drawing up incorrect dose)
- **Infection control :**
  - Not wearing gloves appropriately
  - Not sanitizing hands
  - Not cleaning injection site, or placing injection outside of cleaned area
- **Insulin specific:**
  - Mixing insulins improperly; mixing basal insulin with any other insulin
  - Holding basal insulin based on blood glucose readings without a prescriber's order



- **Specific to insulin pens:**
  - Failure to prime the pen before each use with a 2 unit “air shot”
  - Using needle more than once
  - Failure to hold in place for 5-10 seconds after administration

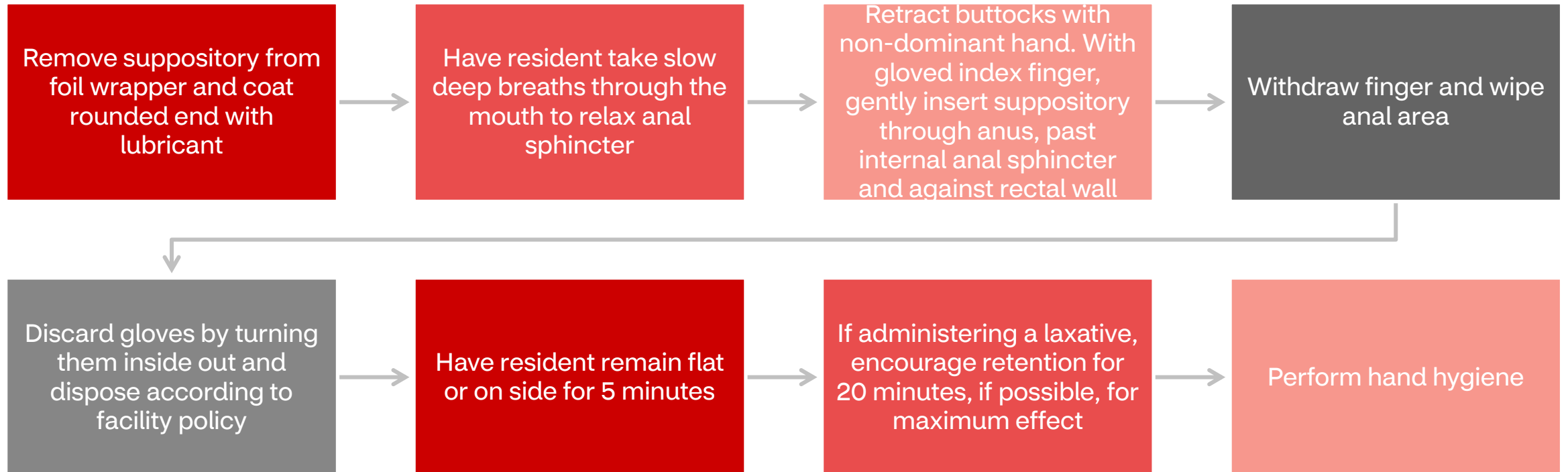


# Rectal Suppository

- Ensure privacy by closing door or pulling curtain
- Explain procedure to resident
- Perform hand hygiene and put on gloves
- Have resident lie on side with upper leg flexed upward
- Drape and position resident as needed



# Rectal Suppository: Administration



# Vaginal Suppositories, Creams and Gels

- Ensure privacy by closing door or pulling curtain
- Explain procedure to resident
- Perform hand hygiene and put on gloves
- Position resident in the dorsal recumbent position (lying on back) and drape as needed
- **Suppositories:** With gloved hands, remove suppository from wrapper and lubricate
  - Use dominant hand to gently retract labial folds and insert suppository with forefinger, directing suppository first downwards toward spine, then up and back towards cervix



- **Creams and gels:** Squeeze tube to fill applicator
  - Insert applicator as directed for medication administration
  - Wash applicator with warm soapy water if to be reused
  - Remove and discard gloves according to facility policy
  - Provide sanitary pad
- Perform hand hygiene

# Suppositories, Creams, Gels: Common Errors

- Administering an expired product
- Improper storage of suppository
- Refrigerated vs. non-refrigerated
- Infection control:
  - Not wearing gloves appropriately
  - Not sanitizing hands
  - Setting applicator or unwrapped suppository on bed sheets or other unclean surface prior to administration



# Safety and Medications

## Medication Error<sup>1</sup>

**A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer.**

**Such events may be related to professional practice, health care products, procedures and systems, including:**

- Prescribing order communication
- Product labeling, packaging and nomenclature
- Compounding
- Dispensing
- Distribution
- Administration
- Education
- Monitoring
- Use

# Medication Errors: State Operations Manual (SOM)2

## Medication Error - The observed preparation or administration of drugs or biologicals not in accordance with:

- Prescriber's orders
- Manufacturer's specifications regarding the preparation and administration of the drug or biological
- Accepted professional standards and principles which apply to professionals providing services

## The facility must ensure that:

- It is free of medication error rates of 5 percent or greater [F759]
- Residents are free of any significant medication errors [F760]

Actual harm or  
significant potential  
for harm

**Significant**

Lower likelihood of  
resulting in harm

**Non-Significant**



# Medication Errors: Significant and Non-Significant Examples

Drug Order	Error	Significance
Ibuprofen (Motrin) 400mg by mouth three times a day	Missed morning dose	Non-significant
Digoxin (Lanoxin) 0.125mg by mouth daily	Missed dose	Significant
Natural Tears 2 Drops in both eyes three times a day	Gave 3 drops instead of 2 in each eye during morning dose	Non-significant
Insulin glargine (Lantus) 20 units sub-Q nightly	Gave 40 units instead of 20 units	Significant
Multivitamin one tablet by mouth daily	Gave to wrong resident, resident has no orders	Non-significant
Warfarin (Coumadin) 5 mg by mouth every evening	Gave to wrong resident, resident has no orders	Significant
Miralax 17 g by mouth every morning with 8 ounces of water	Gave 2 hours early	Non-significant
Glipizide (Glucotrol) 10 mg by mouth a half-hour before AM meal	Gave 2 hours early	Significant

# F-Tags Often Cited in Relation to Med Pass<sup>2,3</sup>

## **F550/583**

- Resident Rights/Privacy and Dignity

## **F658**

- Professional Standards of Quality

## **F697**

- Quality of Care

## **F755**

- Pharmacy Services

## **F757-758**

- Unnecessary Drugs

## **F759-760**

- Medication Errors

## **F761**

- Storage, Labeling and Controlled Medications

## **F880**

- Infection Control

# Medication Errors: ISMP / TJC / AHRQ

**No one makes a medication error on their own: it is the process, the organization and all the issues associated that ultimately cause med errors**

<http://www.ismp.org/> Institute for Safe Medication Practices

<http://www.jointcommission.org/> The Joint Commission (formerly JCAHO)

<http://www.ahrq.gov/> Agency for Healthcare Research and Quality

# Medication Error Calculation: State Operations Manual (SOM)<sup>2</sup>

Medication Error Rate (%) = \_\_\_\_\_

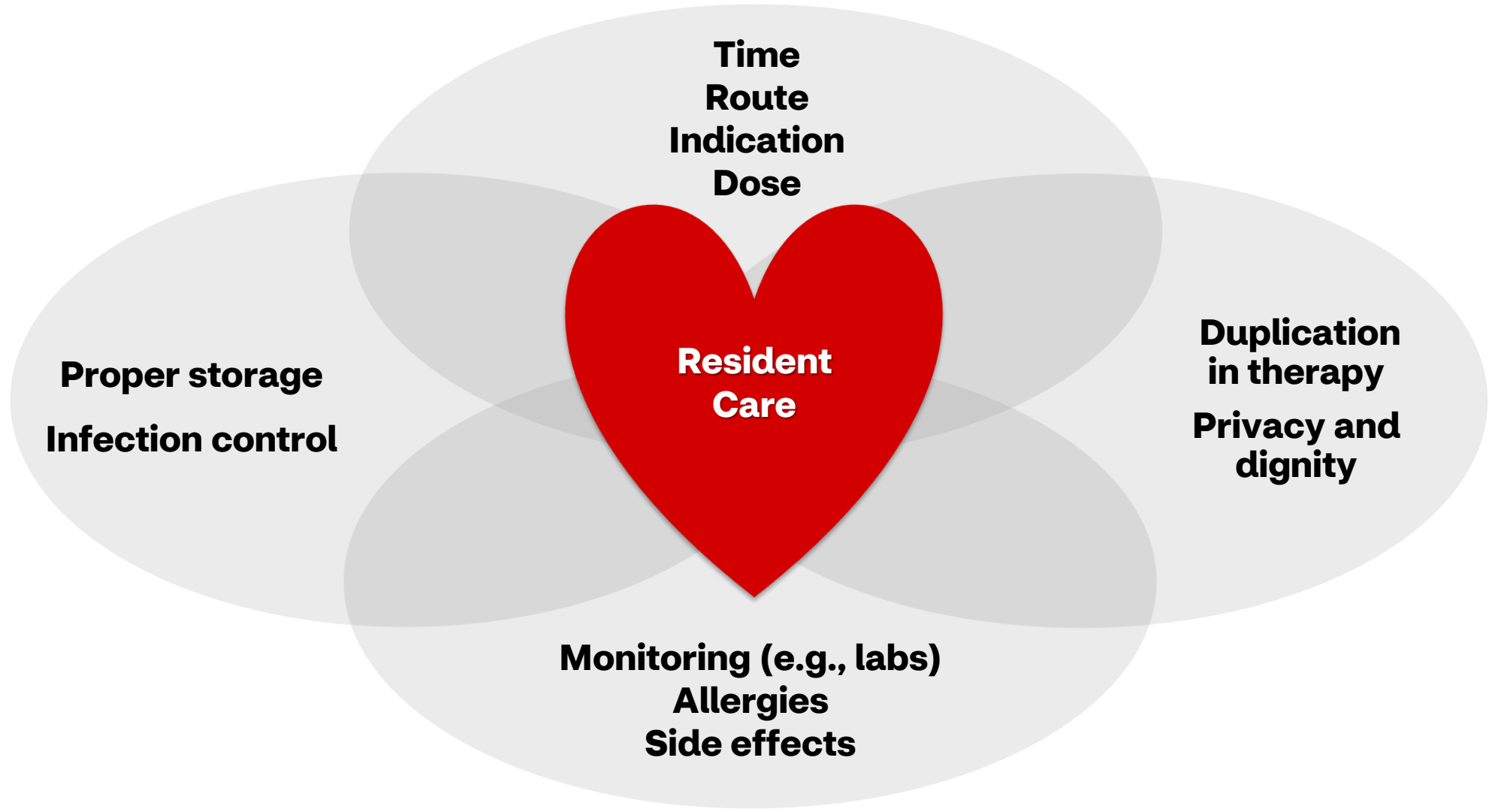
Number of Errors Observed

\_\_\_\_\_ ÷ \_\_\_\_\_ X 100

Opportunities for Errors \_\_\_\_\_

(doses given and doses ordered, but not given)





# Facility Approach: Medication Pass Education and Observation

**The daily business of caring for residents in SNF, or ALF, is heavily reliant on medications as the primary mode of treatment.**

**It is important to:**





# Facility Approaches to Decrease Medication Errors

Facilities should adopt a consistent process to perform a med pass and continually monitor it on their own to achieve the safest environment and the lowest medication error rate possible by:



Lead by Walking  
Around



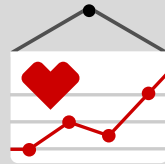
Peer Review and  
Shadowing



Report, Discuss and  
Correct Med Errors

# Facility Goal for Medication Pass

**Work together, with staff at all levels providing input to develop a facility culture that:**



**Increases resident safety**



**Decreases medication errors**

# Sample Monthly Schedule of Medication Administration Review for Clinical Staff

It is recommended that clinical management consistently review med pass techniques with current and new staff as an **internal quality assurance measure** to ensure competency.

Breaking tasks down month by month may help make this a manageable task, an example of a potential approach to this is below:

Policy/Procedure Review/Observation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Medication Administration</b>												
Administration of Eye Drops	X					X						
Administration of Eye Ointment	X						X					
Blood Glucose Monitoring Procedure		X						X				
Administration of Nasal Medication			X						X			
Administration of Metered Dose Inhaler			X							X		
Administration of Enteral Tube Medication				X							X	
Administration of Small Volume Nebulizer					X							X
Documentation review / policy and procedure	X	X	X	X	X	X	X	X	X	X	X	X
Other:												

# Medication Pass

## Summary of Key Points in the Process

Be Prepared and  
Minimize Interruptions

Apply Time  
Management skills,  
Clinical and Technical  
Expertise

Remember Infection  
Control, Monitoring and  
Follow-up

Respect Resident  
Rights, HIPAA  
Compliance

Demonstrate Proper  
Documentation

# Resources

1. National Coordinating Council for Medication Error Reporting and Prevention. <http://www.nccmerp.org/aboutMedErrors.html>
2. State Operations Manual (SOM), Appendix PP. Centers for Medicaid and Medicare Services. [https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap\\_pp\\_guidelines\\_ltcf.pdf](https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltcf.pdf)
3. CDC Website for Long Term Care Facilities <http://www.cdc.gov/longtermcare/>
4. Allen, JE. Nursing Home Administration. 7th Edition. 2016.
5. DHHS, CMS Center for Clinical Standards and Quality/Survey
6. Omniview: Omnicare Facility Procedural Manual and Medication Administration Policies
7. Centers for Medicare and Medicaid Services. State Operations Manual, Appendix PP Guidance to Surveyors. [https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap\\_pp\\_guidelines\\_ltcf.pdf](https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltcf.pdf)
8. DHHS, CMS Center for Clinical Standards and Quality/Survey & Certification Group Memorandum to State Survey Agency Directors. Clarification of guidance related to Medication Errors and Pharmacy Services. Ref: S&C: 13-02-NH. 11-02-12. <http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-13-02.pdf>
9. Bankhead R, Boulatta J, Brantley S, et al. Journal of Parenteral and Enteral Nutrition. A.S.P.E.N. Enteral Nutrition Practice Recommendations . 2009. 33 (122) <http://pen.sagepub.com>
10. Toedter-Williams, N. Medication Administration through enteral feeding tubes. Am J Health Syst Pharm. 2008;65(24):2347-2357 [http://www.medscape.com/viewarticle/585397\\_10](http://www.medscape.com/viewarticle/585397_10)
11. Duragesic Prescribing Information. Janssen Pharmaceuticals Inc. Revised April 2014.
12. <http://www.fda.gov/drugs/resourcesforyou/consumers/buyingusingmedicinesafely/ensuringsafeuseofmedicine/safedisposalofmedicines/ucm186187.htm>

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