

Questionnaire

1. Which of the following tablets can be always crushed?
 - a. Modified - release tablet (eg. slow release)
 - b. Enteric-coated tablet
 - c. Film-coated tablet
 - d. Sublingual tablet

2. Which one is correct regarding the administration of drugs that interact with food via continuous feeding method?
 - a. The drug should be diluted
 - b. The feeding should be stopped 15-30 minutes before drug administration
 - c. The feeding should be stopped 2 hours before and after drug administration
 - d. The feeding should be stopped instantly before drug administration

3. Which of the following liquid formulations is more suitable for administration via feeding tubes?
 - a. Elixir
 - b. Syrup
 - c. Suspension
 - d. Simple solution without additives and sweeteners

4. As a nurse, which of the following techniques do you use in most cases to confirm the correct position of feeding tube in the patient's body when administering drugs?
 - a. pH testing
 - b. Auscultation method
 - c. Radiographic confirmation
 - d. I don't care to the tube position when administering drugs

5. Which one is preferred when administering solid drugs via feeding tubes?
 - a. Selection of an alternative route for drug administration (injection administration, rectal administration,)

- b. Selection of oral liquid preparation of the drug
 - c. Crushing the tablet, adding liquid to it and then administering it through the tube
 - d. Milling the tablet and then pouring the powder into the tube
6. Which of the following is the correct one according to the type of nutrition?
- a. In the continuous enteral feeding, the tube should be rinsed daily with 30 ml water.
 - b. In the bolus enteral feeding, the tube should be rinsed every 8 hours with 30 ml water.
 - c. In the continuous enteral feeding, the tube should be rinsed every 4 hours with 30 ml water.
 - d. Frequency of rinsing is not related to the type of feeding.
7. Which one is correct regarding diluting the drugs in patients with feeding tubes?
- a. Liquid preparations do not require dilution
 - b. The diameter of the tubes used for the patient does not affect the dilution of the drug.
 - c. In patients with renal impairment, the amount of fluid required for dilution should be accurately calculated.
 - d. Dilution of nutritional formulation causes diarrhea in patients.
8. Which one is correct regarding administration of Digoxin 0.25 mg tablet via feeding tube?
- a. It can be administered regardless of food (with or without food)
 - b. The drug interacts with food and should be taken apart from food.
 - c. The drug should not be crushed.
 - d. The drug can be crushed but due to other problems, it should not be administered via feeding tubes.
9. Which one is correct regarding administration of Captopril 25 mg tablet in patients with bolus enteral feeding?
- a. It can be administered regardless of food (with or without food).
 - b. The feeding should be stopped one hour before and after drug administration.
 - c. It should not be crushed.

d. It should not be administered via feeding tubes.

10. Which one is correct regarding administration of Sodium Valproate 200 mg tablet via feeding tube?

a. It should be dissolved in a large volume of water.

b. It is better to use the liquid dosage form.

c. The tablet can be crushed or halved.

d. It should not be administered via feeding tubes.

11. What do you think regarding administration of the drugs via feeding tubes with low diameters (< 8 french)?

a. The drug should be diluted with more than 30 ml water.

b. The rate of drug administration should be decreased.

c. The tube should be rinsed with larger volume of water after drug administration.

d. The diameter of the tube does not affect the drug administration.

12. Which of the following methods is preferred in the case of feeding tube occlusion?

a. Increasing the pressure inside the tube using a syringe

b. Rinsing the tube with warm water

c. Using anti-coagulants

d. Tube replacement

13. In the case of doubt how to administer a drug, who will you ask first?

a. The physician

b. The hospital pharmacist

c. The head nurse

d. Other colleagues

14. Which codes represent slow-release products (more than one answer can be chosen)?

a. XL

b. EC

- c. FC
- d. LA
- e. SC
- f. Retard
- g. Scored
- h. XR
- i. SR
- J. CR

15. What dosage forms of slow release products are available?

- a. Capsule
- b. Granule
- c. Injection
- d. Syrup
- e. Tablet

16. Which of the following drugs can be crushed when administered via feeding tubes?

- a. Theophylline 200 mg
- b. Aspirine 80 mg
- c. Ranitidin 150 mg
- d. Pantoprazole 20mg
- e. Enalapril Scored Tab 5mg
- f. Mycophenolate 500mg
- g. Ferrous sulfate EC

17. What do you do as a nurse, regarding a patient who has feeding tube?

17.1. I crush all drugs to avoid tube occlusion

- a. Always
- b. Often
- c. Sometimes
- d. Rarely
- e. Never

17.2. I open the capsules and administer their contents directly via tubes.

- a. Always
- b. Often
- c. Sometimes
- d. Rarely
- e. Never

17.3. I mix the drugs with food in order to facilitate drug administration.

- a. Always
- b. Often
- c. Sometimes
- d. Rarely
- e. Never

17.4. I rinse the tube before and after drug administration

- a. Always
- b. Often
- c. Sometimes
- d. Rarely
- e. Never

17.5. When administering multiple drugs via feeding tubes, I rinse the tube after administration of each drug and I repeat this procedure for all drugs.

- a. Always

- b. Often
- c. Sometimes
- d. Rarely
- e. Never

17.6. When administering multiple solid drugs via feeding tubes, I mix all of them with each other.

- a. Always
- b. Often
- c. Sometimes
- d. Rarely
- e. Never

18. Which of the following factors are important to you in choosing the volume of water used for the patient? (more than one answer can be chosen)

- a. The volume and the number of administered drugs.
- b. The size and the length of the tube.
- c. The type of administered drug for the patient.
- d. The general condition of the patient.

19. Based on your personal experience and working condition, which of the following items can promote the quality of nursing services regarding drug administration via feeding tubes? (more than one answer can be chosen)

- a. In-service training courses.
- b. Increased collaboration between nurses, physicians and pharmacists.
- c. Nurses' acquaintance with different dosage forms of drugs.
- d. Eliminating the existing hospital constraints in the selection of various drugs and routes of administration.

Check list for evaluation of nurse's practice which was filled by the researcher

nurse's code		date of filling form	
patient's age	patient's sex		disease
date of hospital admit	date of ICU admit		start date of enteral tube
kind of enteral tube	enteral tube material		size and length
patient's medication			
N	drug		administration route

medications which is administered orally

medication

preparation and administer of medication

1. Were the drugs crushed and mixed with each other?

Yes

No

2. Was the tube washed before the drug administration

Yes

No

3. Was the tube washed after the drug administration

Yes

No

4- Did the nurse pay attention to the type of water used for washing and did she decide on using or not using the sterile water considering the location of the tip of the tube?

Yes

No

5- Was the feeding stopped before and after the drug administration?

Yes

No

6- How long was the feeding stopped?

The feeding was started immediately

15-30 min

1-2 hours

More than two hours

The drug was mixed with food and was given to the patient

7- Was a special syringe used?

Yes

No

8- Were the safety conditions, such as wearing gloves and mask and using mortar with a special cup met when administering drugs via enteral feeding tubes?

Yes

No

9- Was there any regular schedule for administration of different drugs?

Yes

No

10- Does the patient have fluid restrictions?

Yes

No

11- Was it considered when diluting the drug?

Yes

No

12- Was the container used for crushing and preparing the drugs rinsed and dried?

Yes

No

13- Was the container rinsed after crushing and preparing drug in order to administer the entire medication to the patient?

Yes

No

14- Was some amount of the drug wasted when crushing? (remaining in the container, jumping, etc)

Yes

No

15- was the correct location of the tube checked?

Yes

No

16- Was the non-crushable drug crushed?

Yes

No

17- Was dilution performed for hypertonic drugs?

Yes

No

18- Did the nurse pay attention to the time interval between drugs and feeding in the case of food-drug interaction?

Yes

No

Form 3: Evaluation of oral drugs administered via enteral feeding tubes

1. The name of the drug

2. The dosage form

3. Was the drug crushable?

Yes

No

4. Was there a better alternative dosage form instead of the administered solid drug?

Yes

No

The alternative dosage forms:

5. Was there a better route of administration instead of the administered oral drug?

Yes

No

The alternative route of administration

6. Was dilution performed for hypertonic drugs?

There were no hypertonic drugs

Yes

No

How?

7. Should the drug be taken on an empty stomach?

Yes

No

8. Does the drug interact with food?

Yes

No