



# Pharmacy Newscapsule

Wisconsin Department of Health Services  
Division of Quality Assurance

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## Tubes and Medication Administration

by Doug Englebert, R.Ph.

Administering medications through a gastrostomy (G) tube raises several questions: Can these medications be crushed? Do the medications come in a liquid? Can the medications be mixed together? Can the medications be given with the enteral formula? How long do you need to stop the enteral formula before giving the medications? Should we flush the tube between each medication?

Many of the considerations to answer these questions become individualized to the person receiving the medications and to the medications being used. However, there are some general practice standards that exist. The American Society of Parenteral and Enteral Nutrition (ASPEN) published a very good comprehensive practice recommendation that includes a section on medication administration.

One item to note is that the standard recommends that each medication should be given separately with flushes between each medication. While this practice is the standard, it is not always practical and clinically appropriate for each individual person. For example, some individuals may have fluid restrictions or behaviors that are exacerbated if it takes too long to administer the medications. Therefore, medications may often be combined and given together. This can be acceptable; however, a pharmacist, in conjunction with the physician and nurses, should individually assess the person and the drug regimen to determine the most appropriate plan of care related to medication administration through the G-tube.

CMS S&C Memo 13-02 addresses medication administration via tube and how a surveyor should view that practice. This memo subsequently is now included in Appendix PP of the State Operations Manual. Pieces of the CMS memo have led to some questions.

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### There is an APP for That!



The American Red Cross has many mobile apps available.

If you give blood, the Red Cross has an app for you.

The app lets you know the closest locations to donate blood, can allow you to schedule appointments, create a personalized donor card, and potentially even track the blood you donate.

Check it out!

The main question relates to exceptions to the following standards of practice. As indicated in the CMS memo and in previous issues of the Pharmacy Newscapsule, the standard of practice comes from ASPEN and recommends that one medication be administered at a time through the tube and that, after each medication, the tube should be flushed.

The CMS memo has been interpreted by some to mean that you must have a physician order to mix medications and that you can only do that for fluid restriction. This would be contrary to what was provided in the guidance in previous Pharmacy Newscapsules. In addition, it is not clear in the CMS memo that CMS intended that the only exception was for fluid restriction and that a physician order is required.

The DQA received clarification from CMS regarding administering medications via a tube. The following information is the clarification from CMS.

Please note the clarification does not directly conflict with previous DQA positions communicated in previous Newscapsules nor with S&C Memo 13-02. However, this clarification does stress that when going outside the standard of practice when mixing medications and flushing them all at once, the procedure must be critically evaluated and assessed. Assessment will include monitoring the specific medications for expected outcomes.

### **CMS Clarification**

*After careful review and research, it has been determined that caution must be exercised when considering going outside the standards of practice and the rationale should be included in the resident's record. As noted in the memo, we provided a reference to the ISMP newsletter located at <http://www.ismp.org/newsletters/acutecare/articles/20100506.asp> which discussed the issue of crushing medications and provided recommendations as follows:*

#### *Improper administration technique*

*Most nurses rely primarily on their own experience and that of coworkers for information regarding the preparation and administration of medications via an enteral feeding tube; few rely on pharmacists, nutritionists, or printed guidelines, which has resulted in a variety of improper techniques and an overall lack of consistency. The most common improper administration techniques include mixing multiple drugs together to give at once and failing to flush the tube before giving the first drug and between subsequent drugs.*

*Appropriate administration techniques must be used to prevent compatibility issues (between medications and the feeding formula) and tube occlusions. Information about drug compatibility with feeding formulas is limited and may not be applicable to different formulations of the same drug or drugs within the same class. For example, liquid morphine in a 2 mg/mL concentration decreases the pH of the feeding formula and results in a precipitate, but a 20 mg/mL concentration does not. Compatibility issues between the formula and drug can result in tube occlusions.*

*Compatibility between multiple drugs being administered together can also be a problem, particularly if two or more drugs are crushed and mixed together before administration. Mixing two or more drugs together, whether solid or liquid forms, creates a brand new, unknown entity with an unpredictable mechanism of release and bioavailability. Proper flushing of the tube before, between, and after each drug can help avoid problems".<sup>1</sup>*

*As discussed in the ISMP Medication Safety Alert, each facility should work with an interdisciplinary team of: nurses, pharmacists, nutritionists, and physicians to develop protocols for administering drugs through enteral feeding tubes. Protocols should address using appropriate dosage forms, preparing drugs for enteral administration, administering each drug separately, diluting drugs as appropriate, and flushing the feeding tube before, between, and after drug administration.*

<sup>1</sup> *The key reference noted is The Enteral Nutrition Practice Recommendations, a comprehensive guide developed by an interdisciplinary task force in 2009, is available on the American Society for Parenteral and Enteral Nutrition's (A.S.P.E.N.) Web site, [www.nutritioncare.org/safety](http://www.nutritioncare.org/safety). A step-by-step guide of safe recommendations follows; however, the A.S.P.E.N. resource is of greatest value if employed in its entirety.*

The key clarification from CMS is that the decision to go outside of the ASPEN standards requires a multidisciplinary approach specific to each resident or patient. The team's evaluation and decision should be documented in each patient or residents chart.

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## **Medication Disposal** by Doug Englebert, R.Ph.

A question that has been coming up lately regards the proliferation of various products for disposal. Some examples include equipment (e.g., shredders), stand-alone, self-contained sinks; and, jugs filled with chemicals. Typically, state licensure or federal certification rules for facilities --- like nursing homes, assisted living, and hospitals --- do not specify HOW to dispose of medications. There are, however, other federal, state, and local laws that may impact how medications are to be disposed. Those include laws from the Environmental Protection Agency, Department of Natural Resources, and the Drug Enforcement Administration.

Many products for disposal may have marketing statements indicating they are compliant with all of these laws. However, it may not always be apparent that these disposal products are compliant or that these products require users to ensure compliance by what they place in the containers.

For example, some medications are considered hazardous waste like warfarin. Placing hazardous waste in one of the jugs of chemicals just means that the jug of chemicals has now become hazardous and a hazardous waste hauler must be utilized to destroy the jug.

As surveyors, we are verifying that facilities have looked at their drug disposal system and considered the security of medications waiting for disposal or the security of the products that have been disposed of but are sitting in a jug of chemicals. In addition, procedures for disposal should have been developed that include looking at what medications require disposal and the proper methods of disposal. Oftentimes, that means working with the pharmacist, waste haulers, and even the residents/patients and physicians to possibly schedule medication changes that reduce waste.

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## Consultant Corner by Doug Englebort, R.Ph.

### 1. If someone takes the plastic overwrap off of an intravenous solution, how long is the solution good?

The dating for the solution is based on variables, like plastic type, solution type, and volume of solutions. In most cases you can check with the manufacturer to determine the dating. Facilities that have this practice should have procedures in place to date these products.

### 2. When a nurse opens a bottle of eye drops, what is the expiration that is required to be put on the bottle?

For eye drops, the dating is manufacturer-specific. For example, Xalatan® is six weeks. You need to verify each manufacturer. Most are the stamped expiration date from the manufacturer, but some are less.

### 3. Does a Residential Care Apartment Complex (RCAC) need a registered nurse?

The pertinent rules state this:

- DHS 89.13(22) "Medication management" means oversight by a nurse, pharmacist or other health care professional to minimize risks associated with use of medications. Medication management includes proper storage of medications; preparation of a medication organization or reminder system; assessment of the effectiveness of medications; monitoring for side effects, negative reactions and drug interactions; and delegation and supervision of medication administration.
- DHS 89.23(2)(a)2.c. Nursing services: health monitoring, medication administration and medication management.
- DHS 89.23(4)(a)2. Nursing services and supervision of delegated nursing services shall be provided consistent with the standards contained in the Wisconsin nurse practice act. Medication administration and medication management shall be performed by or, as a delegated task, under the supervision of a nurse or pharmacist.

So, if a RCAC is providing medication management or medication administration, the RCAC must have a registered nurse who will complete the tasks themselves or delegate the task. A pharmacist is not able to delegate tasks per the pharmacist practice act in Wisconsin. In addition, a LPN under the nurse practice act is not allowed to delegate.