Ohio | Department of Developmental Disabilities
Office of MUI/Registry Unit
John R. Kasich, Governor
John L. Martin, Director

Health and Welfare Alert
Oral Medications for those with Dysphagia
Alert # 59-09-15

Purpose

The purpose of this Alert is to provide education and resources about the risks of giving oral medications when someone has difficulty swallowing. This Alert focuses on what precautions should be taken when administering medications via gastro/jejunostomy feeding tubes and why some medications should never be given this way.

All DD Employees are required to be trained, annually, on identification and reporting of Major Unusual Incidents and Unusual Incidents prior to direct contact. This training includes the review of any **Health and Welfare Alerts** released since the previous calendar year's training.

For questions / comments, please contact the MUI/Registry Unit at (614) 995-3810.

It can be an unsafe practice to give oral medications to individuals with dysphagia, difficulty swallowing. Individuals with neuromuscular diseases, structural changes in the mouth and throat, poor saliva production or who are treated with psychotropic medications are at risks of developing dysphagia. Impaired swallowing can lead to a number of serious consequences, such as aspiration, upper airway blockage, choking, malnutrition, dehydration and increased mortality.

Better communication among all team members about medications and swallowing recommendations will lead to greater individual safety. The team members include the individual and others like family members, nursing providers, service providers, speech/ language pathologist, pharmacists, health care providers and physicians.

A lack of communication was identified as the key contributing factor to adverse outcomes such as choking and other adverse events.

If an individual diagnosed with dysphagia (or has any difficulties with swallowing) is prescribed oral medications, the prescriber must be contacted to discuss the potential adverse effects of administration and possible alternate methods of administration.

Whenever an individual is using a gastro/ jejunostomy tube for nutrition or hydration, review of the best medication administration route for them must be done.

PRECAUTIONS:

Administering Medications via Gastro - and Jejunostomy Feeding Tubes: Why NOT ALL Medications Can Be Given Through This Route.

Medication errors can be the result of administering medications that are incompatible with administration via a tube. Errors also occur from preparing the medications improperly, and/or administering a drug using improper administration techniques. This can lead to a blocked feeding tube, reduced drug effect, or drug toxicity. These potential adverse outcomes can lead to patient harm or even death.

Incompatible route

Do not assume an oral medication intended to be taken by mouth can be safely administered through a feeding tube. The drug's physical and chemical properties control its release and absorption. These very specific delivery mechanisms may be altered or destroyed if the drug is administered through a feeding tube, reducing its effectiveness or increasing the risk of toxicity.

Improper absorption

Drug absorption depends on the drug's ability to dissolve and move through the intestine's linings. There are some drugs that are not properly absorbed when administered through the jejunostomy tube.

Medications intended to be taken by mouth must be prepared specially for feeding tube (enteral) administration. Tablets must be crushed and diluted, capsules must be opened so the contents can be diluted, and even many liquid forms of drugs should be further diluted before being administered via feeding tube.

Many immediate-release tablets can be safely crushed into a fine powder and diluted prior to administration. But, sublingual (normally given under the tongue), enteric- coated (a special coating to protect the throat and stomach), and extended/delayed-release medications should not be crushed. In addition to destroying the drug's protective coating, it can lead to clogged feeding tubes. Crushed sublingual or extended/ delayed-release medications can lead to dangerous and erratic blood levels as well as dangerous side effects.

Improper administration technique

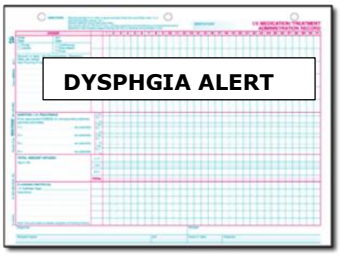
Most caregivers rely primarily on their own experience regarding the preparation and administration of medications; few rely on pharmacists, nutritionists, or printed guidelines. This has resulted in a variety of improper techniques and an overall lack of consistency. The most common improper administration 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. Compatibility between feeding formula and drugs can result in blocking the feeding tube. Consult a pharmacist with any questions about compatibility. Drugs should be given individually and there should always be proper flushing of the tube before, between, and after each drug to help avoid problems.

What steps can be performed to decrease risk of inappropriate medication administration via feeding tube?

1. **Establish route suitability** - Providers administering medications via the feeding tube should consult with a pharmacist to ensure the medication(s) will be properly dissolved and absorbed.
2. **Establish drug and dosage form suitability** - Providers should ensure that the form of the drug is appropriate for enteral (feeding tube) administration. Use only immediate-release solid dosage forms or liquid dosage forms. If in doubt, contact ordering physician.
3. **Don't mix medications with feeding formulas** - Medication(s) should not be added directly to the feeding formula. Mixing drugs with the formula could cause drug-formula interactions, leading to tube blockages, absorption issues, and changes in bowel function.
4. **Flush** - Any tube feeding should be stopped and the tube flushed with at least 15 mL of water before and after administering each medication.
5. **Administer separately** - Each medication should be administered separately through the feeding tube.
6. **Flush again** - The tube should be flushed again with at least 15 mL of water to ensure drug delivery and clear the tube.

Safety precautions for those with dysphagia should include:

- "Dysphagia Alert" designation on the Medication Administration Record;
- Notification of the pharmacy of the Dysphagia Alert, in the event that oral medications are ordered;
- The self-medication administration assessment annually and with changes in swallowing and
- Communication with physicians so that the swallowing issues are considered with medication administration, as well as ensuring that all physicians are aware the individual has a feeding tube.



Resources:

Improving Care at the Front Lines. Safe Medication Swallowing in Dysphagia: A Collaborative Improvement Project. Lawrence D. Jackson, Jane Little, Edward Kung, Evelyn M. Williams, Krystyna Siemiatkowska and Suzanne Plowman. Retrieved from: http://www.longwoods.com/content/19660

Preventing errors when administering drugs via an enteral feeding tube. Joseph Boullata, PharmD, RPh, BCNSP. Retrieved from: http://www.ismp.org/newsletters/acutecare/articles/20100506.asp

Preventing Errors When Drugs Are Given Via Enteral Feeding Tubes. Matthew Grissinger, RPh, FASCP. Retrieved from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3875244/

The Ohio Department of Developmental Disabilities
MUI Registry Unit
1800 Sullivant Avenue
Columbus, Ohio 43222
☎ 614-995-3810
www.dodd.ohio.gov