

IMPROVING ORAL DRUG ADMINISTRATION IN PATIENTS WITH SWALLOWING PROBLEMS AND FEEDING TUBES

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INTRODUCTION

Correct administration of oral drugs in patients with swallowing problems and feeding tubes remains a challenge. Information regarding this route of administration is very scarce and also associated with reduced efficacy, increased toxicity and increased risk of tube obstruction due to an inadequate administration method.

AIM

To improve medication safety by developing a database, containing information on safe handling and administration of drugs in patients with swallowing problems and feeding tubes.

METHODS

To identify the issues and specific needs considering the administration of oral drugs in patients with swallowing problems and feeding tubes, the Royal Dutch Pharmacists Association (KNMP) initiated a working group. The working group, consisting of community and hospital pharmacists, a pharmacy assistant, a nurse and a dietician, identified the issues and specific needs considering the administration of oral drugs in patients with swallowing problems and feeding tubes.

Several local initiatives had already taken form, but there was a need for a more centralized approach. The KNMP initiated a project for a central database with practical advice and recommendations that can be consulted by all healthcare professionals in hospitals and nursing facilities. Interviews were held to make a selection of information needed for the database.

RESULTS

The working group identified several issues and specific needs considering the administration of oral drugs in patients with swallowing problems and feeding tubes (table 1). These subjects were the basis of the information contained within the individual monographs in the central database.

Table 1: Subjects in the individual drug monographs

- Information about handling or manipulation of the drug
- Pharmaceutical alternatives
- Therapeutical alternatives
- Enteral tube administration
- Food interactions
- Interaction tubing material
- Site of drug delivery
- Background information on the active substance for (hospital) pharmacists
- Health and safety

As a result a database was created, www.oralia.nl, with over 600 individual monographs containing practical advice and recommendations for safe drug administration in patients with swallowing problems and feeding tubes. The database is designed for all healthcare professionals, to provide all the available information in one resource with practical advice and recommendations for the safe handling and administration of drugs via enteral feeding tubes.

The most commonly used drugs in the Netherlands for, among others, the general population, children and the elderly were selected. The content of the individual monographs is mainly based on available product information, information supplied by drug companies, scientific publications and practical research.

The individual monographs contain guidance on the safe handling of specific drugs and formulations (figure 1). Wherever possible, a licensed formulation route should always be used, and the monographs point the user to alternative routes and drugs for consideration. Where alternative routes/formulations are not available, the monographs make recommendations for safe handling of the drug, including instructional video (figure 2).

CONCLUSIONS

Due to this study a database was developed which provides appropriate drug information with practical advice and recommendations for healthcare professionals like pharmacists and nurses. This can help to prevent or reduce medication errors and improve the medication safety, when handling and administering drugs to patients with swallowing problems and feeding tubes.

Figure 1: Example of a drug monograph

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metformine

To search

Metformin film-coated tablet 500-1000 mg

Metformin

Editing Information

• Tablet may be crushed

Alternatives

swallowing problems

Probe

Suitable method(s)

The method(s) shown do not present any technical objections or a major health risk for the nurse/carer. When there are several possibilities, it is preferable to let it disintegrate in water or a syringe. Crushing tablets results in more loss and more exposure to the relevant substance(s).

Disintegrate tablet in water

May take more than 5 minutes.

Mask the bad taste with, for example, lemonade or applesauce.

Disintegrate in a syringe

May take more than 5 minutes.

Mask the bad taste with, for example, lemonade or applesauce.

Crushing with a tablet crusher

Mask the bad taste with, for example, lemonade or applesauce.

Crushing in mortar

Preferably use other method due to loss of drug.

Mask the bad taste with, for example, lemonade or applesauce.

Trade products in this group

trade product	breakline
Metformin hcl 1a pharma tablet film coated 500mg	no
Metformin hcl 1a pharma tablet film coated 850mg	Yes, the breakline is only intended to facilitate breaking for easier swallowing and not for dividing into equal doses.
Metformin hcl aurobindo tablet 500mg	no
Metformin hcl aurobindo tablet 850mg	no
Metformin hcl aurobindo tablet 1000mg	Yes, the tablet can be divided into equal doses.
Metformin hcl cf tablet 1000mg	Yes, the tablet can be divided into equal doses.
Metformin hcl mylan tablet 500mg	no

Figure 2: Example of instructional video

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metformine

To search

Disintegrate tablet in water

01:06

Required Tools

• plastic measuring cup of at least 25 ml

• disposable cup

• plastic stirrer

Method

1. Prepare the necessary tools.

2. Get the right medication.

3. Measure about 20 ml of water into a plastic measuring cup.

4. Pour the water into a disposable cup.

5. Transfer the tablet into the disposable cup.

6. Stir with a stirring rod and, if necessary, allow the tablet to completely disintegrate for a few minutes, stirring occasionally.

7. The liquid can now be taken directly from the disposable cup or if desired diluted with some lemonade syrup.

8. Then check if there are any medicine residues left in the disposable cup.

9. If so, add about 10 ml of water to the disposable cup and stir again.

10. Have the liquid taken from the cup again.

For www.oralia.nl, scan the QR-code.
Please note that the website is in Dutch.

Username: FIP-Sevilla
Password: 20092022

Acknowledgements
This study was conducted in collaboration with the members of the working group and the cooperation of the professional associations: Dutch association of dieticians, NVZA and V&VN.