

# ADMINISTERING MEDICINES BY ENTERAL FEEDING TUBES; A PRACTICAL GUIDE

## UNLICENSED ROUTE

Most medicines, including liquids and soluble tablets, are not licensed for enteral tube administration. The prescriber and practitioner accept liability for adverse effects resulting from this route of administration.

## MEDICATION REVIEW & DISCHARGE PLANNING

- Ensure a medication review is conducted before discharge and appropriate formulations for tube administration identified.
- Ensure agreed feed and medication regimen are practical and available in a community setting. Confirm regimen suitability with patient and/or carer.
- Ensure necessary medicines information is provided to community pharmacist and GP by most reliable route.

## TUBE TIP POSITION

- Confirm medication delivery site in the GI tract, especially for tube with two or more exit sites.
- Check medicine is absorbed from site of delivery. Consult product information; <https://www.medicines.org.uk/emc>, <https://www.gov.uk/guidance/find-product-information-about-medicines>, or local medicines information service.
- Absorption can be reduced for jejunally administered medicines.

## TYPE OF WATER

- Type of water recommended depends on local water supply, clinical practice and exit site of the tube.
- Check local enteral feeding policy, or medicines information, for water to be used for medicine preparation or tube flushing.

## SYRINGE TYPE AND SIZE

- Do not use syringes intended for intravenous use due to the risk of accidental parenteral administration.
- Confirm tube is patent, do not apply excessive pressure.
- EnFit® (ISO 80369-3) syringes should be used for flushing and medicine administration.
- Select syringe size that can accurately measure the required volume for medicines and flushes, this may be a small size for paediatrics.

## TUBE BLOCKAGE

- Inadequate flushing is the most common cause of tube blockage.
- Using the wrong formulation of medication, e.g. granular suspensions, can also cause tube blockage.
- If the tube feels blocked, attempt withdrawal prior to further flushing.
- If flushing with warm water does not unblock the tube, do not apply excessive force. Seek advice from the enteral feeding team.

## PREFERRED FORMULATIONS

Liquids or soluble tablets are the preferred formulations to be administered via a feeding tube. There are some exceptions, and each medication should be checked.

- Some injections can be given via an enteral tube. A filter needle may be required for medicines in glass ampoules.
- **⚠** Crushing tablets or opening capsules should be considered as a last resort, and should be confirmed with local pharmacy team.

## INFECTION CONTROL AND SAFETY

- Wash hands according to 5 moments of hand hygiene.
- **⚠** Minimise exposure to medicine powder
- Protective clothing, e.g. gloves may be required.

## ⚠ MEDICINES THAT SHOULD NOT BE CRUSHED

- **Enteric Coated (EC):**  
The coating is designed to resist gastric acid to protect the medicine and/or reduce gastric side effects.
- **Modified/Slow Release (MR, SR, LA, XL):**  
These are tablets or capsules that are specifically designed to release the medicine over a long period of time. Crushing these will cause all the medicine to be released at once and may cause toxic side effects.
- **Cytotoxics, antibiotics & hormones:**  
These should not be crushed due to the risks to staff from exposure to the powdered medicine.

## INTERACTIONS

Interactions between feed and medicines can be significant. Always check with your pharmacist before administering any medication via a feeding tube. Where possible give dose during a break in the feeding regimen.

### Problem Medicines

(this list is not exhaustive)

- **Phenytoin, Digoxin and Carbamazepine:**  
Blood levels may be affected by feeds, these should be checked regularly. It may be necessary to increase the dose.
- **Antacids:** The metal ions in the antacids bind to the protein in the feed and can block the tube. Consider using alternative medicines.
- **Penicillins:** Feed may reduce the absorption; a higher dose may be needed. If possible stop feed 1 hour before and 2 hours after administration.
- **Other antibiotics:** Levels of antibiotics such as **ciprofloxacin, tetracyclines** and **rifampicin** can be significantly reduced by feed.
- Consider other alternatives or increase doses.

## STEP BY STEP GUIDE

1. Review all medication. Is it all really necessary?
2. Can the patient still take their medication orally?
3. Can an alternative route be used?
4. Do not add medication directly to the feed.
5. **💧** Flushing volumes may need to be reduced for fluid restricted or paediatric patients.

### STOP THE FEED

**💧** Flush the tube with at least 30ml of water

Do you need to allow a break before administering the medicine?

- Assemble medication and equipment needed e.g. syringes, tablet crusher.
- Prepare each medicine separately.
- Never mix medicine unless instructed by a pharmacist.

#### SOLUBLE/ DISPERSIBLE TABLETS

**💧** Dissolve in 10-15ml of water. Administer down tube.

#### LIQUIDS

Shake well. Viscous (thick) liquids – dilute with an equal amount of water immediately before administration. Administer down tube.

#### TABLETS

**⚠** Crush uncoated and sugar coated tablets using a tablet crusher or suitable device.

#### CAPSULES

**⚠** Open capsules and tip powder into medicine pot.

#### DO NOT CRUSH:

- Enteric Coated (EC) medicines.
- Modified release (MR, SR, LA, XL) medicines.
- Hormone preparation.
- Cytotoxic.

Always seek advice

**💧** Mix with 10-15ml of water. Administer down the tube.

Rinse tablet crusher/containers, and/or draw up water into the syringe used and flush this down tube. This ensures that the whole dose is given.

**💧** If more than one medicine is to be administered – flush between medicines with at least 10ml of water to ensure that the medicine is cleared from the tube.

**💧** Flush tube with at least 30ml of water following administration of last medicine

Do you need to allow a break before restarting the feed?

### RE-START THE FEED

