The management of patients with swallowing difficulties

Principles to apply when considering alternative formulations of medication

An electronic version of this document can also be viewed / downloaded from the North of Tyne and Gateshead Area Prescribing Committee Website at:


<table>
<thead>
<tr>
<th>Membership of the guideline development group</th>
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<tbody>
<tr>
<td>The following were consulted on the review of the 2014 approved guidance:</td>
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<th>Consultation Process</th>
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<tr>
<td>This guideline was shared with the following GP leads:</td>
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<tr>
<td>• Dr C Jewitt, NGCCG</td>
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</table>

Endorsed for use within North Tyneside, Northumberland, Newcastle and Gateshead by the North of Tyne and Gateshead APC September 2016

Review date

Medicines Use and Guideline Group recommended review date: September 2018

January 2017

Review date: January 2019
The management of patients with swallowing difficulties

Principles to apply when considering alternative formulations of medication

Q. How do I manage patient who can’t swallow tablets or capsules?

A. A stepwise approach should be followed for managing patients in the safest way possible by considering (see Figure 1):

(If viewing this document electronically click links to view supporting information and guidance)

- Is the medicine needed?
- Is there an alternative licensed formulation of the drug?
- Is there a suitable licensed formulation of another drug within the same therapeutic class?
- Could the medicine be administered in an alternative unlicensed way, for example by crushing/dispersing tablets or opening capsules?
- Only in circumstances where the medication needs of the individual patient cannot be met by any previous steps consider prescribing an unlicensed, specially prepared medication
- The prescription should be subject to regular review to assess the continuing need for both the drug and the formulation prescribed

Principles to be considered when prescribing or advising on an alternate medicine formulation

The choice of medicine or formulation for patients with swallowing difficulties, or who have a feeding tube, must be made on an individual patient basis taking into account:

- The patient's method of feeding
- The practicalities of administration can be managed
- The method of administration is safe and effective
- There are clear and explicit directions on the prescription describing how the dose should be manipulated e.g. “crush the tablet before dispersing in water and administering via PEG”
- The patient is aware of, and has consented to taking an unlicensed medicine or a licensed medicine in an unlicensed way – See Appendix 1 for patient information leaflets that can be used to obtain informed consent.
- Any additional legal responsibilities due to prescribing an alternative formulation or manipulating a medicine are taken into account
Figure 1: Stepwise approach should be followed for managing patients
Explanatory notes

Prescription medications should only be taken according to the directions of a prescriber. Medicines should usually be prescribed in accordance with the terms of their licence. Medicines used in a different way from that which the manufacturers have stated, are being used off-licence. This means the manufacturer does not accept responsibility for any harm caused by taking it in this way.

A person giving crushed tablets or opened capsules to a patient without directions from the prescriber, and without making the appropriate checks, could be held liable for any harm caused. Legal context

In summary, the law requires that the:

- Right medicine is given to the
- Right patient, at the
- Right time, using the
- Right dose, in the
- Right formulation

Relevant legislation and guidance

- Human Medicines
- Regulations 2012 Consumer
- Protection Act 1987 Disability
- Discrimination Act 1995 The
- Human Rights Act 1998
- Prescribing Specials Guidance for the prescribers of Specials Royal Pharmaceutical Society (April 2016)
- The Nursing & Midwifery Council (2007 and 2008)
- General Medical Council guidance (31st January 2013)
A stepwise approach is suggested for managing patients with swallowing difficulties in the safest way possible

Confirm that the medicine is still needed

- After clinically assessing or reviewing the patient, agree the proposed treatment plan with the patient, and ensure that the medicines required serve the patient’s need. Decisions should not be based primarily on cost or the convenience of health or social care professionals
- Unnecessary medication should be stopped
- If a medicine is required, check whether there are any suitable formulary-approved alternatives that might be preferred e.g. drugs that have a prolonged therapeutic effect and can be given once daily, may be preferable to those that need to be taken twice or three times a day

1. Is there an alternative licensed formulation of the drug?

- Other formulations may include a licensed liquid, dispersible tablet, patch, suppository, oral powder or granules
- In order to be granted a license, a medicine must show evidence of efficacy and safety. Licensed medicines must also meet quality standards for manufacture and be accompanied by appropriate product information and labelling

NOTE - Adult patients who dislike swallowing large tablets or capsules can usually manage small tablets and capsules, or large tablets snapped in half (where appropriate and allowed by the license) and with encouragement, can manage most medicines. Alternative formulations should not be routinely considered for these patients, unless these options have been given an adequate trial.

Is there a suitable licensed formulation of another drug within the same therapeutic class?

- See Appendix 2 for further information on the MHRA recommended hierarchy for the use of unlicensed medicines

Could the medicine be administered in a different way?

- It may be possible to alter the licensed presentation of a medicine to allow administration e.g. crushing tablets or opening capsules and mixing with water or food immediately prior to administration
- BUT: Not all tablets and capsules are suitable for dispersing, crushing or opening for administration in soft food or via feeding tubes and it is important to check with a pharmacist, or the SPC, before prescribing this alternative method of administration
- If it is not possible to change a given formulation of the drug in this way, consider whether there is another drug within the same therapeutic class, available as a licensed formulation that may be crushed (or capsules opened)

If these steps have been taken, then prescribing an unlicensed special order medicine could be considered

- Where a special order medicine is required – those listed in the Drug Tariff, with a set tariff price, can be more cost-effective than non-tariff medicines
- Consult a pharmacist for advice on choice of unlicensed special order medicines
Review the prescription regularly to assess continuing need for the drug and the formulation

- Swallowing difficulties may resolve or a licensed alternative may become available. Examples of when a special might no longer be necessary:
  - As children grow they may be able to take licensed preparations
  - Patients who have had a stroke and have experienced difficulties swallowing may find that their dysphagia improves
  - The condition being treated may have resolved or if treating a side effect the medicine causing the original side effect may have been stopped

Overarching considerations when changing formulations

- Where alternative agents are recommended therapeutic equivalence cannot be implied
- Patients will require monitoring and possibly dose titration when switching between different agents
- Alternative specially prepared drugs (unlicensed specials) may have a lead time for acquisition that impacts on the immediate care of the patient

Is crushing tablets or opening capsules allowed?

- This should not be routine practice. It is preferable to use a product in the way it was licensed to be used
- Altering the form of medicine must only be undertaken under the guidance of an authorised prescriber
- The prescriber should take responsibility for using a medicine in a manner that is outside its licence and should specify the exact directions on the prescription, e.g. “crush, mix with water and administer”. These instructions should be added to the dispensing label
- A written direction to crush or disperse tablets or to open capsules should be documented in the patient’s care plan (where care staff are involved in administration)
- A pharmacist or Medicines Information service should be referred to and every effort must be made to ensure Health and Safety guidance is followed
- Practical advice on how to administer medication in unlicensed ways appears in Appendix 3 and the references below

Isn’t mixing medicines with food or drink covert administration?

A decision to undertake covert administration may be taken when it is deemed formally that the patient does not have capacity to make a decision and a best interests decision is made in line with the Mental Capacity Act (2005)

- It is important to tell the patient that their food or drink contains a medicine and obtain their consent to administer
- Food and drink may be used where appropriate to facilitate administration and/or make medicine more palatable, not to conceal it, unless this is in accordance with current guidance

What does the Care Quality Commission say about crushing tablets?

- The CQC inspects providers to ensure they are meeting the essential standards of quality and safety to comply with the section 20 regulations of the Health and Social Care Act 2008
- Providers have to demonstrate that people receive medicines in a safe way and that staff are trained and competent
- The CQC guidance refers to the document “The handling of medicines in social care”, RPSGB, 2007, which says “normally tablets should not be crushed and capsules should not be opened either to make them easier to swallow or to hide them from the patient because this may affect the way that the medicine works”

- The RPSGB document advises that registered nurses administering medicines must comply with the most recent guidance published by the Nursing and Midwifery Council

- The NMC gives advice on crushing medication in its Standards for Medicines Management 2010 and says “medicinal products should not routinely be crushed unless a pharmacist advises that the medication is not compromised by crushing, and crushing has been determined to be within the patient’s best interest.” But, ultimately the decision to prescribe rests with the prescriber

**What is a liquid special?**

- This is a special order medicine made to satisfy an individual patient’s specific needs

- Manufacturers of special-order products must hold a Manufacturer’s Specials Licence (MS) and may make batch-prepared products (with a certificate of analysis) or individual bespoke preparations (with a certificate of conformity)

- Manufacturing sites are inspected for compliance with Good Manufacturing Practice.

- Extemporaneous products can be either made by pharmacists or more usually by special manufacturers outside of their MS licence. There is no guarantee that these meet Good Manufacturing Practice

- A manufacturing licence means that the facilities of the supplier have reached a minimum standard. It does not mean that the product is licensed in any way

**Isn’t it better to give a liquid special?**

- Liquid specials are not licensed products and have not been assessed for safety, quality and efficacy by regulatory authorities

- When prescribing unlicensed medicines the prescriber must:
  - Be satisfied that there is no licensed equivalent suitable. A common example of where this is poor in practice is the use of quetiapine liquid requested by a consultant and prescribed without checking whether the use of another atypical antipsychotic available as a licensed liquid could be prescribed instead
  - Be satisfied there is sufficient evidence or experience to demonstrate safety and efficacy
  - Take responsibility for prescribing the medicine and for overseeing the patient’s care, monitoring, and any follow up treatment, or ensure that arrangements are made for another suitable doctor to do so
  - Take suitable records where you are not following common practice

- Other factors to consider
  - It can take longer to obtain a special order medicine
  - Specials are often considerably more expensive than licensed formulations
  - They may have short shelf-lives
  - Specials may need to be stored in a fridge
  - The formulations may vary between manufacturers so the patient might not get exactly the same formulation each time
  - It may not be convenient for patients to carry around several bottles of liquid medicines on a daily basis
- Liquid specials should only be prescribed where there is no suitable licensed alternative as they may increase the risk to both patient and prescriber with prescribers assuming greater liability for their use.

However there are some situations where the prescriber may judge a special to be appropriate, e.g. for children, to achieve the lower strengths and doses required.

Consider the patient’s method of feeding:

- Patients requiring liquid feeds may take oral liquid medicines, dispersible tablets or solid preparations dispersed in water prior to administration. For patients who require thickened fluids, liquids can be thickened with a small amount of a thickening agent such as *Thick and Easy* maize starch and maltodextrin powder.

- Patiens able to tolerate a soft-food diet may be able to swallow crushed tablets or the contents of capsules administered with food.

- Patients with enteral feeding tubes can have some oral medications administered via this route.

- Speech and language therapy dysphagia practitioners (SALT) may be involved in assessing individuals and advise on adaptation to the formulation of their medication. SALT involvement may be separate from a general eating and drinking assessment. It should be noted where a person is on a particular consistency for their meals they may or may not need an adaptation to their medication. The initiation of or changes to medication should be based on any official recommendations in relation to the identified swallowing difficulty that may be set out in the patient’s care plan, where this is in place, or may require further advice from SALT.

Practical considerations

- Consider who will be administering the medicine (the patient themselves, a parent or carer), their manual dexterity and ability to follow instructions to administer the medicine correctly.

- The needs of patients and carers should be considered. It may not be practical for a patient to store or carry several bottles of liquid medicines. Some liquid medicines require fridge storage.

- NHS healthcare professionals have a duty to make the best use of public resources; cost as well as clinical suitability and product quality must be considered when choosing appropriate preparations.

- The cost of special-order products can vary enormously between different suppliers. The Royal Pharmaceutical Society has prepared guidance for community pharmacists on the procurement and supply of special-order products which are now covered by Section VIIIIB of the Drug Tariff. Where possible, use specials that are included in the Drug Tariff, as there are no controls around the price of other specials and they can be very expensive – sometimes thousands of pounds per bottle.

Where can I obtain more information?

This is a complex topic and the above is only an overview of some of the issues. It is not intended to be a policy. Each patient’s circumstances should be individually considered and up-to-date information sought to determine the most appropriate option for them.

Healthcare professionals should seek advice from the relevant professional bodies and indemnity insurers.
Further information may be obtained from:

- Information on regional Medicines Information Services appears on inside cover of BNF. Handbook of Drug Administration via Enteral Feeding Tubes, White, R & Bradnam, V The NEWT Guidelines for administration of medication to patients with enteral feeding tubes or swallowing difficulties, Wrexham: North East Wales NHS Trust; 2010, Smyth, J, editor


- Good medical practice- General Medical Council, updated on 29 April 2014: http://www.gmc-uk.org/guidance/ethical_guidance/prescriptions_faqs.asp


- The fundamental standards; CQC: https://www.cqc.org.uk/content/fundamental-standards


- UKMi Medicines Q&A 339.2 Crushing tablets or opening capsules in a care home setting - Prepared by UK Medicines Information (UKMi) pharmacists for NHS healthcare professionals Date prepared: 19th December 2012: http://www.medicinesresources.nhs.uk/upload/NHSECrushing%20tablets%20or%20opening%20capsules%20in%20a%20care%20home%20setting%20FINAL[1].doc

- Managing medicines in care homes NICE guidelines [SC1] Published date: March 2014: https://www.nice.org.uk/Guidance/SC1

- RCSLT RESOURCE MANUAL FOR COMMISSIONING AND PLANNING SERVICES FOR SLCN Dysphagia © RCSLT 2009 (literature synthesis updated 2014): Available at: https://www.rcslt.org/speech_and_language_therapy/commissioning/resource_manual_for_commissioning_and_planning_services:
APPENDIX 1 – Patient leaflet
PATIENT INFORMATION LEAFLET – UNLICENSED MEDICINES

This information has been given to you because you have been prescribed an unlicensed medicine. A healthcare professional will go through this with you, explain what it all means and answer any questions you may have.

You have been given a medicine called:

FREQUENTLY ASKED QUESTIONS

What is different about your medicine?

The medicine prescribed for you is an unlicensed medicine. This means it has not been issued with a product licence from the Committee of Safety of Medicines (CSM). The reason is because the medicine you require is not commercially available in this country and is tailor made to your requirements or has been imported from another country where it is licensed. (Healthcare professional – please delete as appropriate).

Why do I need an unlicensed medicine?

This product has been carefully chosen by the prescriber as the best treatment available for you as there is no suitable alternative available.

How do I know this medicine is safe?

Any medicine carries a small amount of risk and you should always ensure you seek professional medical advice from your doctor or pharmacist. The dispensing pharmacist or dispensing doctor will ensure the quality of this medicine is of the highest standard available. If you experience any problems with this medicine please get in touch with your doctor or pharmacist.

HOW TO OBTAIN A FURTHER SUPPLY

If you require a further supply of this medicine, please go to your GP to obtain a prescription. Take this to your local pharmacy (chemist), along with this leaflet. Ask the Pharmacist to record below; where they sourced the medicine. This will help to ensure you can obtain future supplies easily and consistently. You will probably need to give the pharmacist one or two weeks to obtain the supply for you, so it is important that you do not let your supply run out before going to the GP.

Usual pharmacy to note where the medicine was sourced to help with future supplies if it needs to be obtained from a different pharmacy. E.g. in an emergency.
PATIENT INFORMATION LEAFLET – MEDICINES USED “OFF-LICENCE”

This information has been given to you because you have been prescribed a medicine which is being used in a different way to how the manufacturers intended e.g. at a higher than standard dose, or for a different condition to what the medicine is usually used for. A healthcare professional will go through this with you, explain what it all means and answer any questions you may have.

You have been given a medicine called:

FREQUENTLY ASKED QUESTIONS

What is different about your medicine?

The medicine prescribed for you being used outside of its licence. This means that it has been issued with a product licence from the Committee of Safety of Medicines (CSM), but not for the way it is being used for you. The reason is because there is no suitable licensed medicine commercially available in this country that is suitable for your treatment.

Why do I need to take an “off-licence” medicine?

This product has been carefully chosen by the prescriber as the best treatment available for you as there is no suitable alternative available.

How do I know this medicine is safe?

Any medicine carries a small amount of risk and you should always ensure you seek professional medical advice from your doctor or pharmacist. The Pharmacist will ensure the quality of this medicine is of the highest standard available. If you experience any problems with this medicine please get in touch with your doctor or pharmacist.

HOW TO OBTAIN A FURTHER SUPPLY

If you require a further supply of this medicine, please go to your GP to obtain a prescription and take this to your local pharmacy (chemist) in the usual way. It may help to show the pharmacist this leaflet.

This leaflet is adapted from Information and Guidance on the Prescribing and Use of Unlicensed Pharmaceutical Specials developed by East of England Collaborative Procurement Hub Specials Sourcing Group 2010
APPENDIX 2

The supply of unlicensed medicinal products ("specials") MHRA Guidance Note 14:
Guidance on the hierarchy for the use of unlicensed medicines

This hierarchy is provided for guidance only and each case should be considered on its individual merit.

1. An unlicensed product should not be used where a product available and licensed within the UK could be used to meet the patient’s special need.

2. Although MHRA does not recommend "off label" (outside of the licensed indications) use of products, if the UK licensed product can meet the clinical need, even "off-label", it should be used instead of an unlicensed product.

Licensed products available in the UK have been assessed for quality safety and efficacy. If used "off-label" some of this assessment may not apply, but much will still be valid. This is better than the use of an un-assessed, unlicensed product.

The fact that the intended use is outside of the licensed indications is therefore not a reason to use an unlicensed product.

It should be understood that the prescriber’s responsibility and potential liability are increased when prescribing off-label.

3. If the UK product cannot meet the special need, then another (imported) medicinal product should be considered, which is licensed in the country of origin.

4. If none of these options will suffice, then a completely unlicensed product may have to be used, for example, UK manufactured "specials", which are made in GMP inspected facilities, but which are otherwise un-assessed (GMP inspection of "specials" manufacturers is not product specific). There may also be other products available which are unlicensed in the country of origin.

5. The least acceptable products are those that are unlicensed in the country of origin, and which are not classed as medicines in the country of origin (but are in the UK). For example, the use of products from countries where they are classed as supplements, not pharmaceuticals, and may not be made to expected standards of pharmaceutical GMP. These should be avoided whenever possible.
### APPENDIX 3 Alternatives for patients unable to take solid oral dosage forms for commonly prescribed medicines

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<tr>
<th>Drug</th>
<th>Preparation</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td><strong>Alendronate</strong></td>
<td>70mg/100ml liquid Requires 100ml to be drunk followed by 30ml water 70mg effervescent tablet Requires NOT less than 120ml water to dissolve</td>
<td>REVIEW CLINICAL NEED. Usually administration directions apply to liquid. Tablets should not be crushed. Alternatives: Strontium ranelate sachets NB safety warnings &amp; new restrictions. Denosumab or annual bisphosphonate injection may be considered.</td>
</tr>
<tr>
<td><strong>Allopurinol</strong></td>
<td>Tablets disperse in water</td>
<td>Give immediately.</td>
</tr>
<tr>
<td><strong>Amlodipine</strong></td>
<td>Tablets disperse in water</td>
<td>Take immediately as light sensitive.</td>
</tr>
<tr>
<td><strong>Atorvastatin</strong></td>
<td>10mg &amp; 20mg chewable tablet</td>
<td>Give immediately.</td>
</tr>
<tr>
<td><strong>Bendroflumethiazide</strong></td>
<td>Tablets disperse in water</td>
<td>Can also be crushed &amp; mixed with food.</td>
</tr>
<tr>
<td><strong>Bisoprolol</strong></td>
<td>Crush &amp; disperse in water</td>
<td>Give immediately.</td>
</tr>
<tr>
<td><strong>Candesartan</strong></td>
<td>Tablets do not disperse readily, but will crush &amp; mix with water</td>
<td>Review &amp; consider switching to irbesartan or an ACEi such as ramipril which is available as a liquid.</td>
</tr>
<tr>
<td><strong>Carbamazole</strong></td>
<td>Tablets disperse in water</td>
<td>Take immediately.</td>
</tr>
<tr>
<td><strong>Citalopram</strong></td>
<td>Oral drops</td>
<td>Not bio-equivalent to the tablets. 8mg (4 drops) of liquid may be considered therapeutically equivalent to a 10mg tablet.</td>
</tr>
<tr>
<td><strong>Clonazepam</strong></td>
<td>Oral solution 0.5mg/5ml or 2mg/5ml</td>
<td></td>
</tr>
<tr>
<td><strong>Clopidogrel</strong></td>
<td>Plavix® tablets can be crushed &amp; dispersed in  water</td>
<td>Consider switching to aspirin.</td>
</tr>
<tr>
<td><strong>Co-beneldopa (Madopar®)</strong></td>
<td>62.5mg &amp; 125mg dispersible tablets</td>
<td>NB dispersible tablets have faster onset of action than MR capsules; dose &amp; frequency may need adjustment. MR capsules should not be opened.</td>
</tr>
<tr>
<td><strong>Co-careldopa (Sinemet®)</strong></td>
<td>Tablets disperse in water</td>
<td>Dose &amp; frequency may need adjusting. CR formulations should not be crushed.</td>
</tr>
<tr>
<td><strong>Cyclazine</strong></td>
<td>Crush tablets &amp; disperse in water by shaking for 5 minutes.</td>
<td>Give immediately as light sensitive or consider alternative anti-emetic. Injection also available.</td>
</tr>
<tr>
<td><strong>Diltiazem</strong></td>
<td>MR Capsules may be opened &amp; granules administered without crushing.</td>
<td>MR tablets should not be crushed except for 60mg MR tablet, which will crush &amp; disperse in water.</td>
</tr>
<tr>
<td><strong>Dipyriramole</strong></td>
<td>Suspension 50mg/5ml or M/R capsules can be opened &amp; the granules mixed in soft food or cold liquid.</td>
<td>Dose adjustment required when switching from modified release capsules. NB Current evidence only supports M/R preparations for the prevention of vascular events - the patient may need to be reviewed. Consider aspirin.</td>
</tr>
<tr>
<td><strong>Donepezil</strong></td>
<td>Orodispersible tablet</td>
<td>Do not crush modified release (XL) tablets.</td>
</tr>
<tr>
<td><strong>Doxazosin</strong></td>
<td>Crush &amp; disperse in water</td>
<td>Give immediately.</td>
</tr>
<tr>
<td><strong>Enalapril</strong></td>
<td>Tablets disperse slowly in water with stirring</td>
<td>Give immediately.</td>
</tr>
<tr>
<td><strong>Entacapone</strong></td>
<td>Tablets disperse in water</td>
<td>Or crush &amp; give in jam, honey or orange juice (tablets have a bitter taste).</td>
</tr>
<tr>
<td><strong>Ferrous fumarate</strong></td>
<td>Tablets disperse in water</td>
<td>Use ferrous fumarate syrup</td>
</tr>
<tr>
<td><strong>Flucloxacillin</strong></td>
<td>Tablets disperse in water</td>
<td>Take immediately as light sensitive</td>
</tr>
<tr>
<td><strong>Fluoxetine</strong></td>
<td>20mg or dispersible tablet Or 20mg/5ml liquid</td>
<td></td>
</tr>
<tr>
<td><strong>Gabapentin</strong></td>
<td>50mg/ml liquid</td>
<td></td>
</tr>
<tr>
<td><strong>Galantamine</strong></td>
<td>Solution 4mg/1ml</td>
<td>Dilute with water prior to administration.</td>
</tr>
<tr>
<td><strong>Gliclazide</strong></td>
<td>Tablets disperse in water</td>
<td>Monitor blood glucose – risk of increased absorption. Do not crush MR preparations.</td>
</tr>
<tr>
<td><strong>Irbesartan</strong></td>
<td>Crush &amp; disperse in water</td>
<td></td>
</tr>
<tr>
<td><strong>Isosorbide mononitrate</strong></td>
<td>Tablets disperse in 20ml water – allow 5 mins to disperse then take immediately</td>
<td>Increased absorption may lead to increased side-effects. Do not crush modified release preparations. Consider switching to GTN patches/spray.</td>
</tr>
<tr>
<td><strong>Levethoxamine</strong></td>
<td>25mcg/5ml, 50mcg/5ml, 100mcg/5ml solution</td>
<td></td>
</tr>
<tr>
<td><strong>Lisinopril</strong></td>
<td>Tablets disperse in water</td>
<td>NB tablets disperse slowly.</td>
</tr>
<tr>
<td><strong>Lofepramine</strong></td>
<td>70mg/5ml suspension</td>
<td></td>
</tr>
<tr>
<td><strong>Lorazepam</strong></td>
<td>Crush &amp; disperse in water</td>
<td>If mouth moist enough may be given S/L.</td>
</tr>
<tr>
<td><strong>Losartan</strong></td>
<td>12.5mg/5ml suspension</td>
<td>Needs to be kept refrigerated.</td>
</tr>
<tr>
<td><strong>Melatonin</strong></td>
<td>Crush 2mg MR tablets or 5mg/5ml oral solution</td>
<td></td>
</tr>
<tr>
<td><strong>Metformin</strong></td>
<td>500mg/5ml solution</td>
<td></td>
</tr>
<tr>
<td><strong>Midazolam</strong></td>
<td>Buccolam® 10mg/2ml, 7.5mg/1.5ml, 5mg/1ml or 2.5mg/0.5ml now licensed</td>
<td>If 10mg/ml required prescribe as Epistatus® NB unlicensed strength.</td>
</tr>
<tr>
<td>Drug</td>
<td>Preparation</td>
<td>Comments</td>
</tr>
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</tr>
<tr>
<td>Multivitamins</td>
<td>Oral drops</td>
<td>Abidec® (contains peanut oil) or Dalivit® NB review clinical need for vitamins.</td>
</tr>
<tr>
<td>Naproxen</td>
<td>Non-MR tablets can be crushed &amp; dispersed in water</td>
<td>May take 5 minutes to completely disperse. Consider ibuprofen effervescent tablets or suspension.</td>
</tr>
<tr>
<td>Omeprazole</td>
<td>10mg, 20mg or 40mg dispersible tablets</td>
<td>Alternatively switch to lansoprazole FasTab® in patients with swallowing difficulties. Dispersion may block fine bore PEG/NG tubes.</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>5mg, 10mg, 15mg &amp; 20mg orodispersible</td>
<td>For 2.5mg dose, halve the 5mg strength.</td>
</tr>
<tr>
<td>Perindopril</td>
<td>Tablets disperse in water</td>
<td></td>
</tr>
<tr>
<td>Phenytoin</td>
<td>Suspension 30mg/5ml or 50mg chewable tablets (Infatabs)</td>
<td>Phenytoin suspension &amp; capsules are not equivalent; 90mg suspension is approx. equivalent to 100mg tablets or capsules.</td>
</tr>
<tr>
<td>Pravastatin</td>
<td>Crush &amp; disperse in water</td>
<td>REVIEW continued clinical need</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>Crush &amp; disperse in water</td>
<td></td>
</tr>
<tr>
<td>Quinine sulphate</td>
<td>Crush &amp; disperse in water</td>
<td>REVIEW continued clinical need. Large volume (200ml) of water needed. Sugar coating should dissolve.</td>
</tr>
<tr>
<td>Ramipril</td>
<td>2.5mg/5ml oral solution</td>
<td></td>
</tr>
<tr>
<td>Sertraline</td>
<td>Crush &amp; disperse in water</td>
<td>Take immediately. Consider alternative licensed SSRI e.g. citalopram/fluoxetine.</td>
</tr>
<tr>
<td>Simvastatin</td>
<td>20mg/5ml &amp; 40mg/5ml liquid</td>
<td>REVIEW continued clinical need. Consider atorvastatin chewable instead.</td>
</tr>
<tr>
<td>Spironolactone</td>
<td>Tablets can be crushed &amp; mixed with water</td>
<td>Can take up to 5 minutes for tablets to completely disperse.</td>
</tr>
<tr>
<td>Thiamine</td>
<td>Crush and administer in water</td>
<td></td>
</tr>
<tr>
<td>Topiramate</td>
<td>15mg, 25mg &amp; 50mg sprinkle caps</td>
<td></td>
</tr>
<tr>
<td>Venlafaxine</td>
<td>Non MR tablets can be crushed &amp; dispersed in water</td>
<td>Consider alternative licensed mirtazapine orodispersible tablets.</td>
</tr>
<tr>
<td>Warfarin</td>
<td>1mg/ml liquid</td>
<td>Effects of warfarin can be reduced by vitamin K in enteral feeds.</td>
</tr>
<tr>
<td>Zolpidem</td>
<td>Crush &amp; disperse in water</td>
<td>Consider alternative licensed hypnotic, such as temazepam.</td>
</tr>
<tr>
<td>Zopiclone</td>
<td>Tablets must not be crushed, change to alternative hypnotic e.g. temazepam liquid.</td>
<td></td>
</tr>
</tbody>
</table>

In all cases, first establish that a medicine is suitable for administration in the intended manner. This list is not exhaustive. Consult standard reference texts or contact your medicines optimisation team, practice pharmacist or medicines information centre for advice. Care staff may only administer medicines in an unlicensed manner on the instruction of the prescriber.

**A written direction to crush or disperse tablets or to open capsules must be documented in the patient’s care plan.**

It is good practice for these instructions to appear on the medication label.

**Crushing or dispersing tablets**

A large proportion of immediate-release tablets will disperse sufficiently in water to be suitable for administration. Modified release tablets are not suitable for crushing.

For medicines that are suitable for crushing, crush using a pestle and mortar, a tablet crusher or between two metal spoons. **Only crush medicines one tablet at a time; do not crush all the patient’s medicines together.** Crushing or dispersal should only be performed immediately before administration.

**Opening capsules**

Some hard gelatine capsules can be opened and their contents mixed with water or administered with food. Some capsules may be too small to manipulate. Capsules should only be opened immediately before administration.

**Administering medicines in soft food**

Crushed medicines or capsule contents may be administered with a small amount of cold soft food such as a teaspoon of yoghurt or jam. A small amount should be used to ensure the full dose is taken. Crushed tablets or capsule contents may taste very bitter; it can be helpful to mask the taste for patients taking these medicines orally by using strong flavours such as jam or blackcurrant cordial.

**Medicines should only be administered in food with the patient’s knowledge and consent. Hiding medication in food is considered ‘covert administration’ and is only condoned in certain circumstances.**

**Additional information is available for safe administration of medicines via feeding tubes – please speak to your practice pharmacist**

References are available for recommendations made within this aid.