

The management of patients with swallowing difficulties

Principles to apply when considering alternative formulations of medication

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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

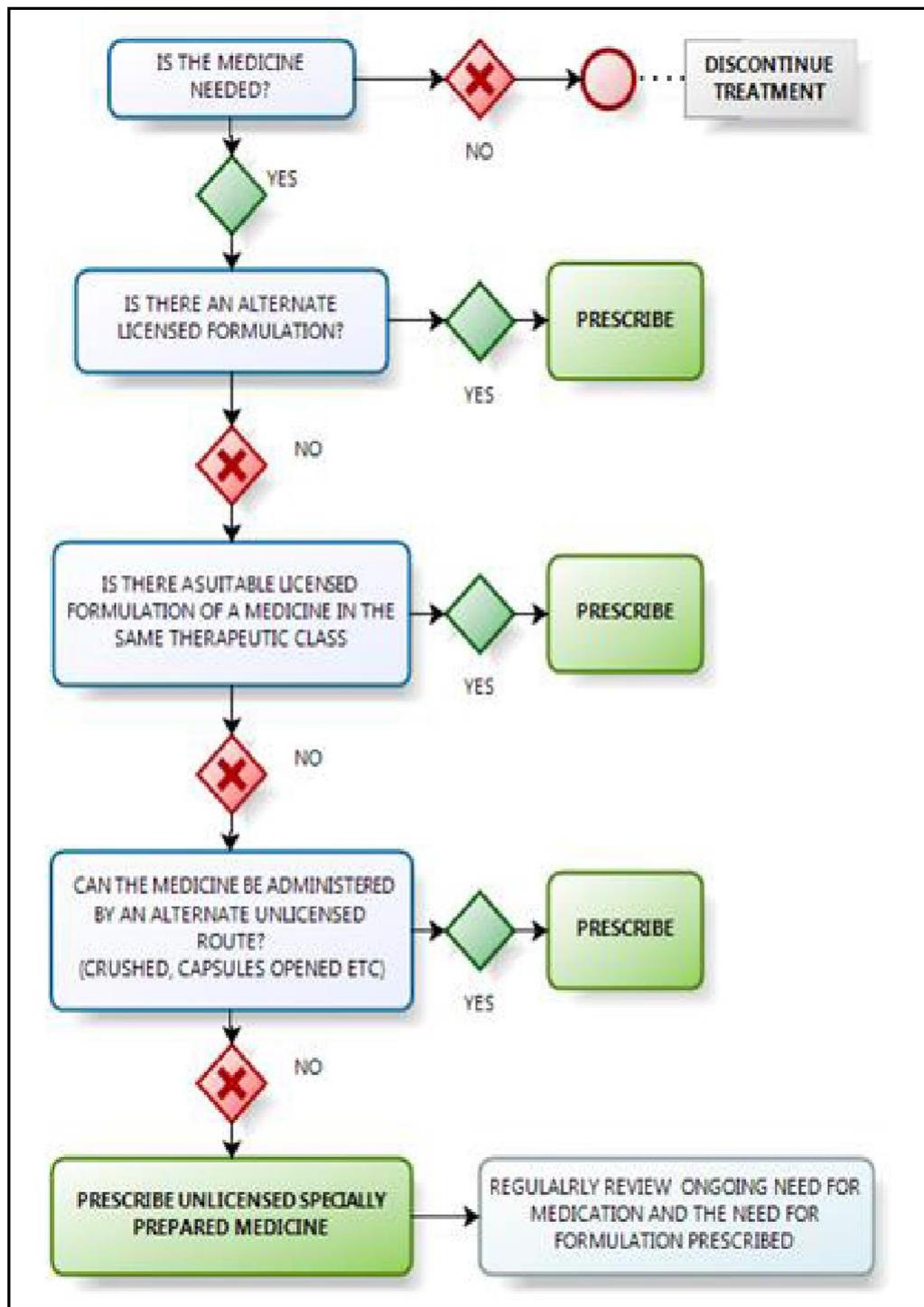
Principles to be considered when prescribing or advising on an alternate medicine formulation

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

**Swallowing difficulties includes patients who may or may not have been assessed by Speech and language therapy dysphagia practitioners (SaLT) or simply has issues swallowing solid dosage formulations that requires a different formulation*

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 license. 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 interest's 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. NB: currently the use of thickening agents such as maize starch and maltodextrin powder are not licensed for use in children and infants under 3 years of age and so thickeners such as carobel or 'natural thickeners' should be used instead. As these are not labelled with IDDSI standard of information, consultation with the child's SALT therapist will be required in order to ensure the safest consistency is achieved
- Patients 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. If children are fed through nasogastric tube the level of viscosity of medication may need to be checked given the internal diameter is finer than those used for an adult
- 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 VIII B 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
- The supply of unlicensed medicinal products (“specials”) MHRA Guidance Note 14: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/373505/The_supply_of_unlicensed_medicinal_products_specials_.pdf
- Pharmaceutical issues when crushing, opening or splitting oral dosage forms – Royal Pharmaceutical Society, June 2011
http://www.medicinesmanagementstoke.nhs.uk/documents/RPS_Pharmaceutical_Issues_when_Crushing_Opening_Splitting_sdosageforms_june_2011.pdf
- Good medical practice- General Medical Council, updated on 29 April 2014: http://www.gmc-uk.org/guidance/ethical_guidance/prescriptions_faqs.asp
- Specials Prescribing Optimisation Tool (SPOT) . Bulletin 97 | April 2015. PrescQIPP NHS: Available at; <https://www.prescqipp.info/specials-prescribing-optimisation-tool/send/171-specials-prescribing-optimisation-tool/1910-spot-specials-prescribing-optimisation-tool-list>
- East of England NHS Collaborative Procurement Hub / NHS East of England – Information and Guidance on the Prescribing and Use of Unlicensed Pharmaceutical Specials: http://www.eoecph.nhs.uk/Pharmaceutical_Specials.pdf
- Prescribing Specials – Five guiding principles for prescribers (National Prescribing Centre) <https://www.prescriber.org.uk/2011/07/guiding-principles-for-prescribing-specials/>
- Prescribing Specials Guidance for the prescribers of Specials April 2016. Royal Pharmaceutical Society Available at: <http://www.rpharms.com/support-pdfs/professional-standards---prescribing-specials.pdf>
- The fundamental standards; CQC: <https://www.cqc.org.uk/content/fundamental-standards>
- Royal Pharmaceutical Society – The Handling of Medicines in Social Care: <http://www.rpharms.com/social-care-settings-pdfs/the-handling-of-medicines-in-social-care.pdf>
- Standards for Medicines Management - Nursing & Midwifery Council. <http://www.nmc-uk.org/Documents/NMC-Publications/NMC-Standards-for-medicines-management.pdf>
- 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](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 license. This means that it has been issued with a product license 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.

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

Drug	Presentation	Comments
Alendronate	<ul style="list-style-type: none"> 70mg effervescent tablet Requires NOT less than 120ml water to dissolve Oral solution Oral solution (special) 	<p>REVIEW CLINICAL NEED. Usual administration directions apply to liquid. Tablets should not be crushed. NB: safety warnings & new restrictions. Once-yearly IV zoledronic acid may be considered. Administration: the patient to be able to sit or stand upright for a period of at least 30 minutes following oral dosing.</p>
Allopurinol	<ul style="list-style-type: none"> Tablets disperse in water Sugar-free oral suspension (special) 	100mg tablets disperse within 1min without crushing. 300mg tablets take longer to disperse so crushed before dispersing in water. Give Immediately
Amlodipine	<ul style="list-style-type: none"> Lic. 5mg/5ml oral SF soln. Tablets disperse in water 	Most tablet brands will disperse in water easily Take immediately as light sensitive.
Atorvastatin	10mg & 20mg chewable tablet	The tablets can be crushed and mixed with water for administration, not very soluble and a residue may be left, potential to block the tubing
Bendroflumethiazide	Tablets disperse in water	The tablets will disperse readily in water Can also be crushed & mixed with food.
Bisoprolol	Crush & disperse in water	Give immediately.
Candesartan	Crush mix with water	Without crushing they disperse in around five minutes, faster if crushed
Carbimazole	Tablets disperse in water	Take immediately.
Citalopram	Oral drops	NB: Not bio-equivalent to the tablets. 8mg (4 drops) of liquid may be considered therapeutically equivalent to a 10mg tablet.
Clonazepam	Lic. oral solution 0.5mg/5ml or 2mg/5ml	
Clopidogrel	Crush & disperse in water	Most brands disperse in 1 to 5 mins
Co-beneldopa (Madopar®)	62.5mg & 125mg dispersible tablets	NB dispersible tablets have faster onset of action than MR capsules; dose & frequency may need adjustment needed. MR capsules should not be opened.
Co-careldopa (Sinemet®)	IR Tablets disperse in water	Dose & frequency may need adjusting. Do not crush CR formulations.
Cyclizine	Crush tablets & disperse in water by shaking for 5 minutes.	Give immediately as light sensitive or consider alternative anti-emetic. NB: bitter taste. Injection also available.
Diltiazem	60mg generic prep. not MR & can be crushed. MR preps can be opened & administered without crushing	MR tablets should not be crushed except for 60mg MR tablet, which will crush & disperse in water. Convert once or twice-daily modified-release preparations to TDS doses of the generic preparation
Dipyridamole	Suspension 50mg/5ml or M/R capsules can be opened & the granules mixed in soft food or cold liquid.	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
Donepezil	Orodispersible tablet Oral solution	The film-coated tablets can be crushed and mixed with water for administration, have a strong, bitter taste

Drug	Presentation	Comments
Doxazosin	Crush & disperse in water.	The standard tablets disperse readily in de-ionised water for administration (e.g. water for injection, water for irrigation). Most disperse within one minute. Do not use tap water, as the chloride ions in the water will cause the drug to precipitate out. Do not crush modified release (XL) tablets.
Enalapril	Tablets disperse slowly in water	Give immediately. The crushed tablets may have a bitter after-taste
Entacapone	Tablets disperse in water	Or crush & give in jam, honey or orange juice to mask bitter taste
Ferrous sulphate	Use ferrous fumarate syrup	Dose adjustment required when changing from sulphate to fumarate.
Fludrocortisone	Tablets disperse in water	They disperse within one minute
Fluoxetine	20mg or dispersible tablet Or 20mg/5ml liquid	The capsules have been opened and the contents dispersed in 120mL water. The capsule contents will dissolve in about 5 minutes
Gabapentin	50mg/ml liquid	The capsules have been opened and the contents dispersed in 120mL water. The capsule contents will dissolve in about 5 mins
Galantamine	Solution 4mg/1ml	Dilute with water prior to administration. The tablets can be crushed and mixed with water for administration. The drug is quite soluble
Gliclazide	Crush and disperse in water	Crush the tablets well (as the drug is practically insoluble) and mix with water or orange juice for administration Monitor blood glucose – risk of increased absorption. Do not crush MR preparations.
Irbesartan	Crush & disperse in water	Without crushing they disperse in around five minutes a; drug practically insoluble
Isosorbide mononitrate	Crush & disperse in water	Increased absorption may lead to increased side-effects. Do not crush modified release preparations. Consider switching to GTN patches/spray. Do not crush the modified-release tablets, can be halved, but not chewed, for easier administration
Levothyroxine	25mcg/5ml, 50mcg/5ml, 100mcg/5ml oral solution	The tablets can be crushed and mixed with water for administration
Lisinopril	Tablets disperse in water	Tablets disperse in one to five minutes
Lofepamine	70mg/5ml suspension	The tablets are not suitable for crushing
Lorazepam	Crush & disperse in water	The tablets may also be effective given sublingually, but be aware that the patient must have a sufficiently moist mouth for sublingual absorption to occur.
Losartan	12.5mg/5ml suspension	The tablets can be crushed and mixed with water for administration
Melatonin	Crush 2mg MR tablets or 5mg/5ml oral solution	The standard capsules can be opened and the contents mixed with water, milk, yogurt or fruit juice for administration. Circadin® can be crushed (note - this would change it from a modified-release tablet to an immediate-release one) and mixed in 15-30mL of water for administration through enteral feeding tubes. The tube should be flushed well after administration
Metformin	500mg/5ml SF solution	Tablets quite hard and not suitable for crushing
Midazolam	Buccolam® 10mg/2ml, 7.5mg/1.5ml, 5mg/1ml or 2.5mg/0.5ml now licensed	If 10mg/ml required prescribe as Epistatus® NB unlicensed strength.

Drug	Preparation	Comments
Multivitamins	Oral drops	Abidec® (contains peanut oil) or Dalivit® NB; review clinical need for vitamins under NHS expense
Naproxen	Non-MR tablets can be crushed & dispersed in water	The standard tablets can be crushed and dispersed in water for administration. Consider ibuprofen effervescent tablets or suspension.
Omeprazole	10mg, 20mg or 40mg dispersible tablets	Alternatively switch to lansoprazole FasTab® in patients with swallowing difficulties. Dispersion may block fine bore PEG/NG tubes
Olanzapine	5mg, 10mg, 15mg & 20mg orodispersible	For 2.5mg dose, halve the 5mg strength.
Perindopril erbumine	Tablets disperse in water	No information about arginine salt
Phenytoin	Suspension 30mg/5ml or 50mg chewable tablets (Infatabs)	Phenytoin suspension & capsules are not equivalent; 90mg suspension is approx. equivalent to 100mg tablets or capsules.
Pravastatin	Crush & disperse in water	REVIEW continued clinical need
Quetiapine	Oral suspension available	Quetiapine tablets are not soluble. The tablets can be crushed and mixed with water for administration. Flush well after administration
Quinine sulphate	Crush & disperse in water	REVIEW continued clinical need Large volume (200ml) of water needed. Sugar coating should dissolve.
Ramipril	2.5mg/5ml oral solution	The capsules can be opened, or tablets crushed and the contents dispersed in water for enteral tube administration. drug is poorly soluble
Sertraline	Crush & disperse in water	Take immediately. Consider alternative licensed SSRI e.g. citalopram/fluoxetine.
Simvastatin	20mg/5ml & 40mg/5ml liquid	REVIEW continued clinical need. Consider atorvastatin chewable instead. The tablets can be crushed and mixed with water for administration. Crush well as the drug is practically insoluble. Use immediately (light sensitive).
Spirolactone	Tablets can be crushed & mixed with water	Can take up to 5 minutes for tablets to completely disperse.
Thiamine	Crush and administer in water	
Topiramate	15mg, 25mg & 50mg sprinkle caps	The tablets can be crushed and dispersed in water for administration
Venlafaxine	Non MR tablets can be crushed & dispersed in water	Consider alternative licensed mirtazepine orodispersible tablets.
Warfarin	1mg/ml liquid	Effects of warfarin can be reduced by vitamin K in enteral feeds.
Zolpidem	Crush & disperse in water.	Consider alternative licensed hypnotic, such as temazepam.

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 gelatin 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