

MOC GUIDELINES FOR TABLET CRUSHING IN PATIENTS WITH SWALLOWING DIFFICULTIES

Please follow the guidelines in order, as shown in the chart
(i.e. number 1 is the preferred choice of which form to administer the drug in).

KEY TO DRUG ADMINISTRATION GUIDELINES

- A** Tablet will disperse in 1-2 minutes.
- B** Tablet will disperse in greater than 2 minutes.
- C** Liquid preparation available.
- D** Dilute reconstituted injection with 30-60ml of water before administering.
- E** Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital, Tel: 01206 745962).

Note: It is an unlicensed use to crush tablets, open capsules and make extemporaneous suspensions. However, using tablets within these guidelines is covered by the Trust for legal/vicarious liability.

**Please be aware that these guidelines are not intended
for use in patients with enteral feeding tubes.**

For information on the administration via enteral feeding tubes,
please contact Medicines Information on 01206 742161.

Drug	Key code	Information
ACETAZOLAMIDE	1. A 2. D	Or consider giving by parenteral injection, if appropriate.
ACICLOVIR	1. A* 2. C	* Dispersible tablets available. Dispersed in at least 50ml of water prior to administration.
ALENDRONIC ACID		Do NOT crush tablets for oral administration (very irritant). Tablets can only be crushed and dispersed in water if administered via a feeding tube. Once-weekly formulation should be used.
ALFACALCIDOL	C	Oral drops available (1 drop=100 nanograms).
ALFUZOSIN	A	Do not crush slow release preparations. Beware of sudden hypotensive effect if giving crushed tablets.
ALLOPURINOL	1. B 2. E	
ALVERINE		Content of capsules is very bitter, and might numb the tongue and throat. Consider changing to mebeverine liquid.
AMANTADINE	1. A* 2. C	* Capsules may be opened and contents dispersed in water.
AMILORIDE	1. B 2. C	
AMINOPHYLLINE		Convert to theophylline: Slo-Phyllin MR capsules can be opened and pellets can be taken orally. Do not crush the pellets.
AMIODARONE	1. B 2. E	
AMITRIPTYLINE	1. C 2. B	Tablets do not disperse readily but can be crushed and dispersed in water.
AMLODIPINE	B	
AMOXICILLIN	C	

- A** Tablet will disperse in 1-2 minutes.
- B** Tablet will disperse in greater than 2 minutes.
- C** Liquid preparation available.
- D** Dilute reconstituted injection with 30-60ml of water before administering.
- E** Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)

ANASTROZOLE	B	
APIXABAN	B	The tablets can be crushed and dispersed in water, glucose 5%, apple juice, or apple puree.
ARIPIRAZOLE		Orodispersible tablets available.
ASCORBIC ACID	A	Effervescent tablets available.
ASPIRIN	A	Convert enteric coated tablets to dispersible aspirin.
ATENOLOL	1. C 2. B	Most tablets are film coated, which do not disperse readily in water.
ATOMOXETINE	1. B 2. C	Capsules can be opened and contents mixed with water, fruit juices, milk or yogurt. (<i>Eli Lilly information</i>)
ATORVASTATIN	B	
ATROPINE	B	
AZATHIOPRINE	1. A* 2. E	* Do not crush tablets. Disperse tablets in 10 ml water in the barrel of a syringe. Cytotoxic, wear gloves.
BACLOFEN	1. C 2. B	
BALSALAZIDE	B	Capsules can be opened and sprinkled in water or on food. Capsule contents will stain.
BENDROFLUMETHIAZIDE	1. B 2. E	
BETAHISTINE	B	
BETAMETHASONE	A	Soluble tablets available.
BEZAFIBRATE	B	Do not crush MR forms (Bezalip Mono™), change to equivalent dose of normal release tablet and crush (bezafibrate MR 400mg OD equivalent to bezafibrate 200mg TDS).
BICALUTAMIDE		Tablets can be crushed, but are practically insoluble in water.
BISACODYL		Change to suppositories. Do not crush as bisacodyl has an irritant effect on the stomach.
BISOPROLOL	B	Some brands may need to be crushed.
BROMOCRIPTINE	A	Tablets dissolve in water and capsules can be opened. Protect from light.
BUMETANIDE	1. B 2. C	
BUSPIRONE	B	
CABERGOLINE	B	
CALCIUM RESONIUM		Consider using the rectal route (dose 30g).
CALCIUM SALTS	A	Effervescent tablets available.
CALCIUM FOLINATE	1. B 2. D	
CANDESARTAN	B	
CAPECITABINE	B	Tablets can be dispersed or crushed in 200ml of lukewarm water. Can be mixed with blackcurrant or raspberry juice to mask bitter taste.
CAPTOPRIL	1. B 2. E	
CARBAMAZEPINE	1. C* 2. A	* Suspension may bind to PVC feeding tubes. Dilute in water to prevent this. Do not crush slow release preparations. Suppositories can be used for 7 days (when changing from oral to suppositories, the dose must be increased by 25%).
CARBIMAZOLE	B	
CARVEDILOL	B	Monitor blood pressure.
CELECOXIB		Contents of capsule can be mixed with water, pudding or apple sauce.
CETIRIZINE	C	
CHLORAL HYDRATE	C	
CHLORDIAZEPOXIDE	B	Open the capsules and mix the contents with water.
CHLOROTHIAZIDE	1. B 2. C	
CHLORPHENAMINE	1. C 2. A	

- A Tablet will disperse in 1-2 minutes.
 B Tablet will disperse in greater than 2 minutes.
 C Liquid preparation available.
 D Dilute reconstituted injection with 30-60ml of water before administering.
 E Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)

CHLORPROMAZINE	1. C 2. B*	* Risk of sensitization. Wear gloves if crushing tablets.
CHLORTALIDONE	A	
CICLOSPORIN	C	Can be mixed with orange or apple juice to improve taste.
CIMETIDINE	1. C 2. A 3. D	Effervescent tablets available.
CINNARIZINE	B	
CIPROFLOXACIN	1. C* 2. B	Stop enteral feed prior to administration. Flush tube before and after.
CITALOPRAM	1. C 2. B	Drops available (4 drops=8mg liquid is equivalent to 10mg tablet).
CLARITHROMYCIN	C	Suspension and sachets are available.
CLINDAMYCIN		Capsules can be opened and mixed with water or food.
CLOBAZAM	1. A 2. C	
CLOMIPRAMINE	1. A 2. E	Capsules can be opened and contents mixed with water.
CLONAZEPAM	1. A 2. C	
CLONIDINE	1. B 2. D*	* Catapres™ injection can be given orally
CLOPIDOGREL	B	Crush tablets and give with water or in food.
CLOZAPINE	1. E 2. C	
CO-AMILOFRUSE	1. B 2. E	Or change to amiloride liquid and furosemide liquid.
CO-AMILOZIDE	A	
CO-AMOXICLAV	C	
CO-CODAMOL	A	Dispersible and effervescent tablets available.
CODEINE	C	
CO-BENELDOPA	A	Use dispersible tablets.
CO-CARELDOPA	A	Do not disperse slow-release tablets.
CO-DYDRAMOL		Convert to dihydrocodeine liquid and paracetamol liquid, or co-codamol effervescent tablets.
CO-PHENOTROPE	B	
COLCHICINE	A	
CO-TRIMOXAZOLE	C	
CYCLIZINE	B	Crushed tablets have a bitter taste. Protect from light. Consider switching to an alternative antiemetic or giving by parenteral route.
CYCLOPHOSPHAMIDE	E	Cytotoxic, wear gloves. Or consider giving by parenteral injection.
DABIGATRAN		Must not be crushed or opened. Prescribe an alternative.
DANTROLENE		Open capsules and disperse contents in water or acidic fruit juice.
DAPSONE	B	Disperse in plenty of water. Protect from light.
DESMOPRESSIN	B	Or convert to sublingual tablets or to intranasal administration where possible for long-term therapy.
DEXAMETHASONE	1. C 2. B 3. E	
DIAZEPAM	1. C 2. B	Or consider changing to suppository or injection.
DICLOFENAC	A	Dispersible tablets available. Do not crush enteric-coated or slow-release tablets. Suppositories also available.
DIGOXIN	1. C 2. B	
DIHYDROCODEINE	1. C 2. B	Do not crush the modified-release tablets.

- A Tablet will disperse in 1-2 minutes.
- B Tablet will disperse in greater than 2 minutes.
- C Liquid preparation available.
- D Dilute reconstituted injection with 30-60ml of water before administering.
- E Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)

DILTIAZEM	B*	*The 60mg generic tablets can be crushed. The MR capsules can be opened and the contents mixed with soft food for oral administration. The capsule contents should not be crushed.
DIPYRIDAMOLE	1. C 2. B	Tablets may be crushed. Slow-release capsules may be opened and granules dispersed in water. Do not crush granules.
DOCUSATE SODIUM	C	
DOMPERIDONE	1. C 2. B	Suppositories are also available.
DONEPEZIL	B	Crush tablet before suspending in water
DOSULEPIN	B	Crush tablets and disperse in water.
DOXAZOSIN	A	Do not crush modified release tablets. Change to normal release.
DOXEPIN		Capsules may be opened and the contents mixed with water.
DOXYCYCLINE	A*	* Dispersible tablets available. Do NOT open capsules as the contents are irritant.
DUTASTERIDE		Do NOT open capsules as the contents are irritant. Change to finasteride (see below).
EDOXABAN		Tablets can be crushed and mixed in apple puree. (Ref. Daiichi Sankyo UK)
ENALAPRIL	B	
ENTACAPONE	B	May be given in jam, honey, or orange juice. Caution: will stain surrounding objects orange. Wear gloves.
EPLERENONE		Tablets can be crushed and mixed in apple sauce. (Ref. Pfizer)
ERYTHROMYCIN	C	Erythromycin ethylsuccinate is the only liquid preparation available. When switching from erythromycin stearate tablets, the dose has to be doubled.
ESCITALOPRAM	1. B 2. C	Tablets can be crushed and dispersed in water, orange or apple juice. Bitter taste. To be taken immediately.
ETHAMBUTOL	B	
ETIDRONATE DISODIUM	B	
ETOPOSIDE	E	
EZETIMIBE	B	
FERROUS SULFATE		Switch to sodium feredetate liquid –Sytron™ (10ml equivalent to 200mg ferrous sulfate tablet).
FESOTERODINE		Tablets are modified-release and film-coated. Consider swapping to oxybutynin.
FEXOFENADINE	B	
FINASTERIDE	B	Wear gloves. Not to be handled by women who are or might be pregnant.
FLAVOXATE	B	Tablets are very hard to crush. They have a bitter taste.
FLECAINIDE	1. A 2. E	Caution, crushed tablets have a local anaesthetic effect.
FLUCLOXACILLIN	C	
FLUCONAZOLE	C	Or capsules can be opened and contents mixed with water.
FLUDROCORTISONE	A	
FLUOXETINE	C	Or capsules can be opened and dispersed in water.
FLUPENTIXOL	B	
FLUVASTATIN	B	Open capsules and disperse in water. Do not open slow-release capsules.
FOLIC ACID	1. C 2. B	
FUROSEMIDE	1. C 2. A	
FUSIDIC ACID/ SODIUM FUSIDATE	C	500mg sodium fusidate tablet is equivalent to 750mg oral suspension.
GABAPENTIN		Open capsule and disperse in water or fruit juice, or sprinkle on food.
GALANTAMINE	1. A 2. C	Tablets dissolve in water. Slow-release capsules can be opened and contents mixed with water, orange juice or yogurt. Do not crush. (Ref. Shire Pharmaceuticals Ltd Medical Information)
GLIBENCLAMIDE	1. B	Monitor blood glucose levels.

- A Tablet will disperse in 1-2 minutes.
 B Tablet will disperse in greater than 2 minutes.
 C Liquid preparation available.
 D Dilute reconstituted injection with 30-60ml of water before administering.
 E Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)

	2. E	
GLICLAZIDE	1. B 2. E	Monitor blood glucose levels.
GLIPIZIDE	B	Or consider switching to insulin.
GLYCOPYRRONIUM	1. B 2. D	Tablets disperse in water. The injection can be given orally.
GRANISETRON	B	Or consider changing to ondansetron liquid/orodispersible tablet.
GRISEOFULVIN	E	Tablets are not soluble in water.
HALOPERIDOL	1. C 2. B	Or open capsule and disperse contents in water.
HYDRALAZINE	1. B 2. D 3. E	
HYDROCORTISONE	1. A 2. E	Do not disperse modified-release tablets.
HYDROXYCARBAMIDE	A	Use Siklos™ tablets dispersed in water immediately before administration. Or capsules can be opened and contents dissolved in water. Take immediately. Caution: Cytotoxic – wear gloves.
HYDROXYCHLOROQUINE	1. B 2. E	
HYDROXYZINE	1. C 2. B	
HYOSCINE BUTYLBROMIDE	1. B 2. D	Injection can be given orally, no dilution needed. Or consider giving by parenteral injection.
HYOSCINE HYDROBROMIDE		Consider changing to transdermal patches or parenteral injection.
IBUPROFEN	C	Granules are also available. Or consider using an alternative NSAID available as injection or suppositories (diclofenac).
IMIPRAMINE	B	
INDAPAMIDE	1. B 2. E	Do not crush slow release formulations, change normal release (1.5mg SR OD is equivalent to 2.5mg OD).
INDOMETACIN	C	Or use suppositories. Do not crush tablets or open capsules.
INDORAMIN	1. A 2. E	Tablets can be crushed and sprinkled onto soft food to mask the taste.
IRBESARTAN	B	Practically insoluble in water. Crush tablets and give with water or in food.
ISONIAZID	1. B 2. C	
ISOSORBIDE MONONITRATE	1. B 2. E	Do not crush slow release formulations. Change to normal release preparations and increase frequency to BD. Monitor blood pressure.
ISOSORBIDE DINITRATE	E	Or change to isosorbide mononitrate and crush tablets.
ITRACONAZOLE	C	
LABETALOL	1. B 2. D	Crushed tablets taste unpleasant and are sensitive to oxidation. Mix the required dose of injection with orange juice to disguise the bitter taste.
LAMOTRIGINE	A	Dispersible tablets available.
LANSOPRAZOLE	A	Orodispersible tablets can be placed in the mouth where they will disperse to release gastro-resistant granules which will be swallowed with the patient's saliva. They can also be administered in water; the micro-granules should be swallowed without being crushed.
LERCANIDIPINE		Tablets do not dissolve in water. They can be crushed and mixed in water or be broken into pieces and taken with food.
LEVAMISOLE	B	Tablets can be crushed and mixed with water.
LEVETIRACETAM	1. C 2. B	Sachets also available. Tablets can be crushed and dispersed in water, orange juice or sprinkled on food. Crushed tablets taste unpleasant.
LEVOFLOXACIN	B	The tablet can be crushed, but the flaky coating makes crushing difficult.
LEVOMEPRMAZINE	A	

- A Tablet will disperse in 1-2 minutes.
 B Tablet will disperse in greater than 2 minutes.
 C Liquid preparation available.
 D Dilute reconstituted injection with 30-60ml of water before administering.
 E Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)

LEVOTHYROXINE	1. B 2. E	Tablets can be also given rectally.
LISINOPRIL	1. A 2. E	
LITHIUM	C	Tablets are slow release, so liquid preparation may have to be given more frequently. Monitor plasma lithium levels. Lithium carbonate 200mg= lithium citrate 509mg
LOFEPRAMINE	1. C 2. B	
LOPERAMIDE	1. C 2. B	Or open capsule and disperse contents in water.
LORAZEPAM	1. A 2. D*	The tablets may also be given sublingually. * Injection can be given sublingually.
LORATADINE	C	
LOSARTAN	A	
MAGNESIUM GLYCEROPHOSPHATE	1. B 2. C	Liquid is unlicensed manufactured special.
MEBEVERINE	1. C 2. B	
MEDROXYPROGESTERONE	B	
MEGESTROL	B	Crush tablets. Can be given in fruit juice or jam.
MELATONIN	1. B 2. C	Crushing or cutting Circadin™ MR tablets will destroy prolonged release properties. Capsules (unlicensed) can be opened and the contents mixed with water, milk, yogurt or fruit juice.
MELOXICAM	A	Suppositories are available and bioequivalent to tablets.
MESALAZINE	A*	* Pentasa™ tablets will disperse in water, leaving small beads which must be swallowed / administered whole. Also available as granules. The enteric-coated tablets are designed for release in the small intestine - do not crush. Consider rectal route if appropriate.
MESNA	D	For oral administration, the contents of an injection can be taken in a flavoured drink (orange juice or cola). May be stored in a refrigerator for up to 24 hours in a sealed container.
METFORMIN	C	
METHOTREXATE	C	Cytotoxic – wear gloves, handle with care.
METHYLDOPA	B	
METOCLOPRAMIDE	1. C 2. B	
METOLAZONE	1. B 2. E	
METOPROLOL	1. B 2. E	Do not crush slow release formulations.
METRONIDAZOLE	1. C 2. B	Suppositories also available. Or consider giving intravenously.
METYRAPONE	B	The capsules can be pierced and the contents mixed with water or sprinkled onto food.
MIDAZOLAM	D	Consider giving by parenteral injection, intranasal or buccal route. The injection may be diluted with apple or blackcurrant juice, chocolate sauce or cola, for oral administration. The injection can also be given rectally (bioavailability is approximately 50%).
MINOXIDIL	A	
MIRTAZAPINE	1. A 2. C	Orodispersible tablets melt on the tongue. They also disperse in water.
MISOPROSTOL	A	Poor stability. Consider changing to ranitidine or lansoprazole.
MONTELUKAST	A	Unstable in water, so give immediately.
MORPHINE	1. C 2. A*	* MST Continuous sachets available. Do not crush slow release formulations.

- A Tablet will disperse in 1-2 minutes.
 B Tablet will disperse in greater than 2 minutes.
 C Liquid preparation available.
 D Dilute reconstituted injection with 30-60ml of water before administering.
 E Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)

		Zomorph™ and MXL™ capsules can be opened. Do not crush the granules.
MOXONIDINE	B	
MULTIVITAMINS	1. C* 2. B	* Abidec (contains arachis oil) and Dalivit drops available.
MYCOPHENOLATE MOFETIL	C	Do not crush tablets - teratogenic.
NAFTIDROFURYL		Capsule contents can be used but can cause severe irritation/anaesthetic effect on oesophagus. Patient should drink 4-5 glasses of water after each dose.
NAPROXEN	B	Uncoated tablets can be crushed and dispersed in water. Do not crush slow release or enteric-coated formulations. Or switch to ibuprofen liquid.
NEOSTIGMINE	1. B 2. E	
NICORANDIL	A	
NIFEDIPINE	B	Crush or disperse Adalat Retard™ tablets in water and use immediately as light-sensitive. Do not crush Adalat LA™ tablets- convert to equivalent dose of Adalat retard™. Or consider changing to amlodipine.
NIMODIPINE	B	Use immediately as very light-sensitive.
NITROFURANTOIN		Some capsules can be opened. Do not crush tablets, nitrofurantoin is very irritant. Liquid preparation is very expensive, consider using an alternative.
NIZATIDINE	B	Open capsule and disperse contents in liquid. Consider changing to ranitidine liquid/effervescent.
NORETHISTERONE	B	
OFLOXACIN	B	The tablets can be crushed and mixed with water for injection. Or consider switch to ciprofloxacin (needs Microbiology approval).
OLANZAPINE	A	Orodispersible tablets can be placed on the tongue or dispersed in water, orange juice, apple juice, milk, or coffee. Wear gloves and protect the eyes, as it is very irritant.
OLMESARTAN		Consider changing to irbesartan and crush.
OLSALAZINE	B	The tablets can be crushed or the capsules opened and mixed with WARM water (250mg capsule should be dispersed in at least 12.5mL of water, and 500mg tablet should be dispersed in at least 25mL). Contents stain.
OMEPRAZOLE	1. B 2. E	Losec MUPS™ tablets can be dispersed in water, then mix this with orange / apple / pineapple juice, apple sauce, or yogurt for oral administration. Consider switching to lansoprazole Fastab™ which is licensed for enteral tube administration.
ONDANSETRON	1. C 2. A	Melt tablets and suppositories available.
ORPHENADRINE	C	
OSELTAMIVIR	1. C 2. B	Capsules can be opened and contents mixed with sweetened food product (chocolate syrup, honey, sugar dissolved in water, dessert toppings, sweetened condensed milk, apple sauce or yogurt) to mask the bitter taste. The mixture should be stirred and taken immediately.
OXPRENOLOL	B	Do not crush slow release preparations.
OXYBUTYNIN	1. C 2. B	Patches are also available. Do not crush MR tablets.
OXYCODONE	C	Controlled drug.
OXYTETRACYCLINE		Do not crush tablets for administration to patients with swallowing difficulties - risk of oesophageal ulceration and oesophagitis. Change to doxycycline.
PANCREATIC ENZYMES	B	Open capsule (Creon™, Nutrizyme™) and disperse contents in water or soft food. Granules must not be crushed.
PARACETAMOL	1. A 2. C	Dispersible tablets available. Suppositories also available.
PAROXETINE	1. C 2. B	The crushed tablets are bitter and have a slight local anaesthetic effect.
PENICILLAMINE	B	
PENICILLIN	C	

- A Tablet will disperse in 1-2 minutes.
 B Tablet will disperse in greater than 2 minutes.
 C Liquid preparation available.
 D Dilute reconstituted injection with 30-60ml of water before administering.
 E Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)

PERGOLIDE	B	The tablets can be crushed and administered in jam or yogurt.
PERINDOPRIL	A	
PHENELZINE	B	Consider an alternative.
PHENOBARBITAL	1. C 2. B	
PHENYTOIN	C	90mg phenytoin suspension is equivalent to 100mg tablet or capsule. Monitor plasma concentration.
PHYTOMENADIONE (Vitamin K)	D	Use Konakion™ MM Paediatric injection and give orally.
PIMOZIDE	B	
PIOGLITAZONE	B	Tablets are relatively insoluble. Crush.
PIROXICAM	A	Dispersible tablets available. Dissolve in at least 50ml of water as very irritant. Do not crush capsules. Consider changing to ibuprofen liquid.
PIZOTIFEN	B	
POTASSIUM	1. A 2. C	Use Sando K™ effervescent tablets or Kay-Cee-L™ syrup.
PRAMIPEXOLE	B	Light sensitive, give immediately.
PRAVASTATIN	B	
PRAZOSIN	B	Very poorly soluble in water.
PREDNISOLONE	B	Many brands of tablets disperse easily in water, with some dispersing almost immediately and others taking two to five minutes
PREGABALIN	1. C 2. B	Capsules can be opened and contents dispersed in water. Bitter taste.
PRIMIDONE	1. C 2. B	
PROCHLORPERAZINE	1. C 2. A	Buccal tablets and suppositories available.
PROCYCLIDINE	C	
PROMETHAZINE	C	
PROPRANOLOL	1. C 2. B	Do not crush slow release preparations. If converting from SR, give the total daily dose in 2 to 3 divided doses.
PROPYLTHIOURACIL	A	
PYRAZINAMIDE	B	Stop enteral feed half an hour before and after administration.
PYRIDOSTIGMINE	1. B 2. E	Or consider switching to parenteral neostigmine.
PYRIDOXINE	1. B 2. E	
QUETIAPINE	B	Film-coated tablets are poorly soluble in water. Manufacturer recommends crushing and mixing in yogurt. (Ref. AstraZeneca)
QUININE SULFATE	B	
RALTEGRAVIR	B	(Ref. MSD Medical Information)
RAMIPRIL	B	Tablets can be crushed. Capsules can be opened and contents dispersed in water. Capsule contents can be placed directly into the mouth, or mixed with apple juice/apple sauce, or spread onto bread. The capsule contents taste unpleasant.
RANITIDINE	1. C 2. B	Effervescent tablets available.
RASAGILINE	B	
RIFABUTIN	B	Contents of capsule can be emptied in small amount of water and flavoured.
RIFAMPICIN	C	Do not open capsules. Risk of contact sensitization.
RIFATER / RIFANAH		Use liquid form of each component separately (rifampicin, isoniazid and pyrazinamide).
RILUZOLE	B	Tablets can be crushed and given in a spoonful of sugar, food puree or yogurt. Crushed tablets can have an anaesthetic effect on the tongue.
RISPERIDONE	1. C 2. B	Orodispersible tablets available.
RIVAROXABAN	B	The tablets can be crushed and mixed with water or apple puree immediately

- A Tablet will disperse in 1-2 minutes.
 B Tablet will disperse in greater than 2 minutes.
 C Liquid preparation available.
 D Dilute reconstituted injection with 30-60ml of water before administering.
 E Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)

		prior to administration. Xarelto® tablets are licensed to be administered in this way.
ROPINIROLE	B	
SALBUTAMOL	1. C 2. B	Do not crush slow release tablets.
SELEGILINE	1. C 2. B	Oral lyophilisates available for buccal administration.
SENNA	C	
SERTRALINE	1. B 2. E	Poorly soluble in water. Take immediately after crushing, maybe better in yogurt. Has an anaesthetic effect on the tongue.
SILDENAFIL	1. B 2. E	
SIMVASTATIN	B	
SODIUM BICARBONATE	1. C 2. B	Capsules can be opened and contents mixed with water.
SODIUM VALPROATE	1. C 2. B	The crushable tablets can be crushed and mixed with soft food, e.g yogurt or jam. They have an extremely bitter taste. For patients who are stabilised on modified-release formulations, use the modified-release granules. Do not crush slow release tablets.
SOLIFENACIN		Crushing the tablets is not recommended as the powder released is irritant to the eyes. Consider switching to an alternative treatment available as a liquid (oxybutynin).
SOTALOL	B	
SPIRONOLACTONE	1. B 2. C	
STALEVO™	B	Use the separate components, or Stalevo™ tablets can be crushed and mixed with honey, jam, or orange juice for administration. They have a bitter taste.
SUCRALFATE	1. C 2. A	
SULFASALAZINE	1. C 2. B	Do not crush enteric-coated or slow release tablets. Consider using the suppositories or the enema for lower-bowel disease.
SULPIRIDE	1. C 2. B	
TACROLIMUS	1. A 2. E	Granules available. The capsules may be opened (can be difficult-wear a mask and gloves) and the contents mixed with water.
TAMOXIFEN	1. C 2. B	Caution - carcinogenic. Care should be taken when handling crushed or broken tablets. The crushed tablets can be mixed with jam or yogurt.
TAMSULOSIN MR		Capsules can be opened and modified-release granules mixed with water (not crushed). The mixture should be given immediately.
TELMISARTAN	B	
TEMAZEPAM	C	
TERBINAFINE	B	
TETRABENAZINE	B	
THEOPHYLLINE		Convert to parenteral aminophylline injection if appropriate. Use the special oral liquid (if available). Nuelin™ tablets can be crushed or Slo-Phyllin™ MR capsules can be opened and the pellets inside mixed with water or soft food (not chewed).
THIAMINE	1. B 2. E	
TICAGRELOR	B	
TIZANIDINE	B	
TOLBUTAMIDE	B	Monitor the patient's blood glucose.
TOLTERODINE	A	The tablets can be dispersed in water for administration.
TOPIRAMATE	1. B 2. C	The tablets can be crushed and dispersed in water. They taste bitter. The sprinkle capsules can be opened and contents mixed with soft food or water.
TRAMADOL		Use the soluble tablets, orodispersible tablets, oral drops, or the oral solution.

- A Tablet will disperse in 1-2 minutes.
- B Tablet will disperse in greater than 2 minutes.
- C Liquid preparation available.
- D Dilute reconstituted injection with 30-60ml of water before administering.
- E Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)

TRANDOLAPRIL		Open capsules and disperse contents in water or fruity squash. Consider changing to lisinopril liquid.
TRANEXAMIC ACID	1. B 2. C 3. D	
TRAZODONE	C	Or capsules can be opened.
TRIFLUOPERAZINE	C	
TRIHEXYPHENIDYL	1. C 2. B	
TRIMETHOPRIM	C	Avoid crushing – risk of 3 rd party exposure to the powder.
TRUVADA™ (Tenofovir and emtricitabine)	B	Tablets can be dispersed in 100ml water, orange juice or grape juice.
URSODEOXYCHOLIC ACID	1. B 2. C	
VALPROATE SEMISODIUM (VALPROIC ACID) Depakote™		Gastro-resistant tablets should not be crushed, risk of GI disturbances. Consider changing to sodium valproate liquid - caution: they are not directly interchangeable.
VALSARTAN		Open capsules and disperse contents in water. Monitor blood pressure.
VANCOMYCIN	D	
VENLAFAXINE	B	Tablets are water-soluble, or can be mixed with jam. MR capsules can be opened and contents sprinkled onto soft food (not chewed).
VERAPAMIL	1. C 2. B 3. D	Do not crush slow release preparations. If changing form a slow release preparation, divide the dose into 3 equal daily doses.
VIGABATRIN	A	Sachets available; or tablets can be crushed and dispersed in water.
VITAMIN B COMPOUND	B	Or consider switching to Pabrinex™ injection.
VITAMIN E	C	
WARFARIN	1. B 2. E	Monitor INR closely.
ZINC	A	Effervescent tablets available.
ZOPICLONE		Tablets are very hard to crush and have bitter taste. Consider changing to temazepam liquid.

Note: We are aware that Rosemont makes a number of suspensions which are not included in this table. In a hospital setting where swallowing difficulties are often temporary, such suspensions are not always cost-effective.

References

1. R. White, Handbook of Drug Administration via Enteral Feeding Tubes, online, Accessed April 2018.
2. The NEWT Guidelines for administration of medication to patients with enteral feeding tubes or swallowing difficulties, online, April 2018 update.
3. Non-Sterile Preparative Services, Colchester General Hospital. List of Extemporaneous products prepared by Prep. Services, Accessed April 2018.

Prepared April 2018 © Medicines Information, Pharmacy Department, Colchester Hospital Foundation University NHS Trust, 2018. All rights reserved. Not to be reproduced in whole or in part without the permission of the copyright owner.

- A Tablet will disperse in 1-2 minutes.
 B Tablet will disperse in greater than 2 minutes.
 C Liquid preparation available.
 D Dilute reconstituted injection with 30-60ml of water before administering.
 E Oral solution/suspension can be prepared by local pharmacy or Non Sterile Preparative Services (Colchester General Hospital)