**NEEMMC GUIDELINES FOR TABLET CRUSHING**

**AND ADMINISTRATION VIA ENTERAL FEEDING TUBES**

Please follow the guidelines in order, as shown in the chart

(i.e. number 1 is the first 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.**

For more information on the administration via different tubes,

please contact Medicines Information on 01206 742161.

|  |  |  |
| --- | --- | --- |
| **Drug** | **Key code** | **Information** |
| ACETAZOLAMIDE | 1. A
2. D
 | Diamox 250mg tablets disintegrate very quickly in 10ml of water.Diamox injection 500mg can be given via a feeding tube. |
| ACICLOVIR | 1. C
2. A\*
 | \* Dispersible tablets available |
| ALENDRONIC ACID |  | Caution: Alendronic acid tablets should only be crushed and dispersed in water if administered via a feeding tube, NOT orally (very irritant). Once-weekly formulation should be used.  |
| ALFACALCIDOL | 1. C\*2. D | \* Oral drops available (1 drop=100 nanograms).One-Alpha injection can be administered orally or via a feeding tube. |
| ALFUZOSIN | A | Beware of sudden hypotensive effect if giving crushed tablets. Monitor BP and ensure patient is lying down prior to administering the dose.Do not crush slow release preparations. |
| 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. C2. A\* | \* Capsules may be opened and contents dispersed in water. |
| AMILORIDE | 1. B
2. C\*
 | \* Oral solution available. |
| AMINOPHYLLINE |  | Convert to theophylline: Slo-Phyllin MR capsules can be opened and pellets can be taken orally or via a tube. Do not crush pellets. |
| AMIODARONE | 1. B2. E |  |
| AMITRIPTYLINE | 1. C
2. B
3. E
 | Tablets do not disperse readily but can be crushed and dispersed in water. |
| AMLODIPINE | B |  |
| AMOXICILLIN | C |  |
| ANASTROZOLE | B |  |
| APIXABAN | B | Crush the tablets and mix with water. *(Ref. Bristol-Myers Squibb-Pfizer information)* |
| ARIPIPRAZOLE |  | 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. Film coat may clog tube. |
| ATOMOXETINE | B | Capsules can be opened and contents mixed with water, fruit juices, milk or yogurt. *(Eli Lilly information)* |
| ATORVASTATIN | B |  |
| ATROPINE | B |  |
| AZATHIOPRINE | 1. A\*
2. E
 | \* Do not crush tablets. 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
 |  |
| BENZHEXOL | C |  |
| BETAHISTINE | 1. B
2. E
 |  |
| 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 |  | Tablets are enteric coated. Crushed tablets are very irritant. Use suppositories. |
| BISOPROLOL | B | Some brands may need to be crushed. |
| BROMOCRIPTINE | A | Also, capsules can be opened. |
| BUMETANIDE | 1. B
2. D
 |  |
| BUPROPION |  | Tablets are slow release and should not be crushed (increased risk of adverse effects including seizures).*(Ref. GlaxoSmithKline, Zyban SPCs, Jan 09)* |
| BUSPIRONE | B |  |
| CABERGOLINE | B |  |
| CALCIUM RESONIUM |  | When mixed with water, the resulting paste is too thick to administer via a feeding tube. Rectal route should be used (dose 30g). |
| CALCIUM SALTS | A | Effervescent tablets available. |
| CALCIUM FOLINATE | 1. B2. D\* | Tablets need to be crushed. \* Pharmacia and Mayne brands of injections can be administered orally. |
| 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 |  |
| CHLOROTHIAZIDE | 1. B2. E |  |
| CHLORPHENAMINE | 1. C
2. A
 |  |
| CHLORPROMAZINE | 1. C
2. B\*
 | \* Risk of sensitization. Wear gloves if crushing tablets. |
| CHLORTALIDONE | A |  |
| CICLOSPORIN | C | Interact with PVC feeding tubes, so dilute the dose in equal amount of water. Monitor plasma levels.Can be mixed with orange or apple juice to improve taste. |
| CIMETIDINE | 1. C\*
2. A
3. D
 | \* Stop enteral feed prior to administration. Flush tube before and after.Effervescent tablets available. |
| CINNARIZINE | B |  |
| CIPROFLOXACIN | 1. C\*
2. B
 | \* Do not dilute suspension further. Stop enteral feed prior to administration. Flush tube before and after. |
| CITALOPRAM | 1. C2. 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. E
 |  |
| CLOMIFENE | B | *Ref. Wockhardt Medical Information* |
| CLOMIPRAMINE | 1. A2. E | Capsules can be opened and contents mixed with water. |
| CLONAZEPAM | 1. A
2. C
3. E
 |  |
| CLONIDINE | 1. A (Catapres) B (Dixarit)
2. D\*
 | \* Catapres™ injection can be given orally |
| CLOPIDOGREL | B | Crush tablets and give with water or in food. |
| CLOZAPINE | E |  |
| CO-AMILOFRUSE | 1. B
2. E
 | Or change to amiloride liquid and furosemide liquid. |
| CO-AMILOZIDE | 1. A2. E |  |
| CO-AMOXICLAV | C |  |
| CO-CODAMOL | A | Dispersible and effervescent tablets available. |
| CODEINE | C |  |
| CO-BENELDOPA | A | Dispersible tablets available. |
| CO-CARELDOPA | A | Do not disperse slow-release tablets. |
| CO-DYDRAMOL |  | No liquid/dispersible tablets available. Convert to dihydrocodeine liquid and paracetamol liquid. |
| CO-PHENOTROPE | B |  |
| COLCHICINE | A |  |
| CO-TRIMOXAZOLE | C |  |
| CYCLIZINE | 1. B2. E |  |
| CYCLOPHOSPHAMIDE | 1. E
2. D\*
 | \* Cytotoxic, wear gloves. |
| DABIGATRAN |  | Must not be crushed or opened. Prescribe an alternative. |
| DANTROLENE |  | Open capsules and disperse contents in water or acidic fruit juice. |
| DASATINIB | E |  |
| DEMECLOCYCLINE | B | Open capsule and disperse contents in water. |
| DESMOPRESSIN | B | 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
 | \*Interact with PVC feeding tube, so dilute dose of suspension with equivalent amount of water.Suppositories and injections available. |
| DICLOFENAC | A | Dispersible tablets available. Do not crush enteric-coated or slow-release tablets.Suppositories also available. |
| DIGOXIN | 1. C
2. B
 |  |
| DIHYDROCODEINE | 1. C2. B | Do not crush the modified-release tablets. |
| DILTIAZEM | 1. B\*
2. E
 | \* Open slow-release capsule and disperse content in water. Do not crush the pellets. Do not crush slow-release tablets. |
| DIPYRIDAMOLE | 1. C
2. B
3. D
 | 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. Risk of blocking tubes. |
| DOXAZOSIN | 1. A
2. E
 | 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). |
| ENALAPRIL | 1. B
2. E
 |  |
| ENTACAPONE | B | 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 | B | Tablets can be crushed and dispersed in water, orange or apple juice. Bitter taste. To be taken immediately.*(Ref. Lundbeck Medical Information)* |
| ETHAMBUTOL | B |  |
| ETIDRONATE DISODIUM | B | Stop enteral feed 2 hours before and after administration. Flush tube before and after. |
| ETOPOSIDE | E |  |
| EZETIMIBE | B |  |
| FERROUS SULFATE | B or: | Switch to sodium feredetate liquid –Sytron™ (10ml equivalent to 200mg ferrous sulfate tablet).Modified release iron tablets should be changed to the equivalent normal release strength and dose first.  |
| FEXOFENADINE | B |  |
| FINASTERIDE | B | Wear gloves- Not to be handled by women who are or might be pregnant. |
| FLAVOXATE | EB | Tablets are very hard to crush. |
| FLECAINIDE | 1. A
2. E
 |  |
| FLUCLOXACILLIN | C | Stop enteral feed 30min to 1h before and after administration. Flush tube. |
| 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 | 1. B2. E |  |
| 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. |
| GALANTAMINE | 1. C2. A | 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
2. E
 | Monitor blood glucose levels. |
| GLICLAZIDE | 1. B
2. E
 | Monitor blood glucose levels. |
| GLIPIZIDE | B | Or consider switching to insulin. |
| GLYCOPYRRONIUM | 1. B2. D | Tablets disperse in water. The injection can be given orally. |
| GRANISETRON | 1. C2. B |  |
| 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
 |  |
| HYDROXYCARBAMIDE |  | 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. B2. D | Injection can be given orally, no dilution needed. |
| HYOSCINE HYDROBROMIDE | D | Transdermal patches also available. |
| IBUPROFEN | 1. C
2. B\*
 | Granules are available.\* Do not crush enteric-coated preparations. |
| IMIPRAMINE | 1. B2. E |  |
| 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 | Suppositories are available. |
| INDORAMIN | 1. A2. E |  |
| 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.Patches are available. |
| ISOSORBIDE DINITRATE | E | Or change to isosorbide mononitrate and crush tablets. |
| ISOTRETINOIN | E |  |
| ITRACONAZOLE | C |  |
| LABETALOL | 1. B
2. D
 |  |
| LAMOTRIGINE | A | Dispersible tablets available. |
| LANSOPRAZOLE | A | Oro-dispersible tablets available.Capsules can be opened and granules mixed with 8.4% sodium bicarbonate. |
| LERCANIDIPINE | B | 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. C2. B | Solution available is bitty and can clog tubes.Tablets can be crushed and dispersed in water or sprinkled on food. Taste bitter.Tablets can be given rectally. (*Ref. UCB Pharma)* |
| LEVOFLOXACIN | B | Stop enteral feed prior to administration. Flush tube before and after. Do not use low doses. |
| LEVOMEPROMAZINE | 1. A
2. E
 |  |
| LEVOTHYROXINE | 1. B
2. E
 | Tablets can be 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. C2. B | Or open capsule and disperse contents in water. |
| LORAZEPAM | 1. A
2. D\*
3. E
 | \* Injection can be given sublingually. |
| LORATADINE | C |  |
| LOSARTAN | A |  |
| MAGNESIUM GLYCEROPHOSPHATE | 1. B2. C | Liquid is unlicensed manufactured special. |
| MEBEVERINE | 1. C2. B |  |
| MEDROXYPROGESTERONE | 1. B
2. E
 |  |
| MEGESTROL | B | Crush tablets as they are not easily soluble in water.  |
| MELATONIN |  | Do not crush Circadin™ tablets. |
| MELOXICAM | A | Suppositories are available and bioequivalent to tablets. |
| MESALAZINE | A\* | \* Pentasa™ tablets disperse in water to give MR granules. Do not crush Asacol™ tablets, they are enteric-coated.Rectal preparations available. |
| MESNA |  | For oral administration, the contents of an injection can be taken in a flavoured drink (orange juice or cola) |
| METFORMIN | 1. C
2. B
3. E
 | Sachets available. Monitor blood glucose levels. |
| METHOTREXATE | C | Cytotoxic – wear gloves, handle with care. |
| METHYLDOPA | B |  |
| METOCLOPRAMIDE | 1. C
2. B
 |  |
| METOLAZONE | 1. B
2. E
 |  |
| METOPROLOL | 1. E
2. B
 | Do not crush slow release formulations. |
| METRONIDAZOLE | 1. C
2. B
 | Suppositories also available. |
| METYRAPONE | B | The capsules can be pierced and the contents mixed with water or sprinkled onto food. *(Ref. Alliance Pharmaceuticals)* |
| MIDAZOLAM | 1. C
2. D
 | Injection can also be given rectally. |
| MINOXIDIL | A |  |
| MIRTAZAPINE | 1. A2. C | Soltabs 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.Zomorph™ and MXL™ capsules can be opened. Do not crush the granules. |
| MOXONIDINE | A |  |
| 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. Can be given via PEG or NG tube with plenty of water. |
| NAPROXEN | 1. B2. E | If necessary, uncoated tablets can be crushed and dispersed in water immediately prior to administration.Do not crush slow release or enteric-coated formulations. Suppositories are available. |
| NEFOPAM | B |  |
| NEOSTIGMINE | 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™. |
| NIMODIPINE | 1. B\*
2. E
 | \* Use immediately as very light-sensitive. |
| NITRAZEPAM | 1. C
2. B
 |  |
| NITROFURANTOIN | 1. B
2. C
 | Do not crush slow release formulations. |
| NIZATIDINE | B | Open capsule and disperse contents in liquid. Consider changing to ranitidine liquid/effervescent. |
| NORETHISTERONE | B |  |
| OFLOXACIN | B | Consider switch to ciprofloxacin (needs Microbiology approval). |
| OLANZAPINE | 1. A \*2. B \*\* | \* Orodispersible tablets (Velotabs).\*\* Dissolve in water, apple and orange juice, milk, or coffee. Wear gloves as very irritant to skin. Protect eyes. *(Ref. Lilly)* |
| OLMESARTAN |  | Consider changing to irbesartan and crush. |
| OLSALAZINE | B | Capsule contents can be dissolved in WARM water. Contents stain. |
| OMEPRAZOLE | 1. B2. E | Losec Mups™ disintegrate into small granules.Losec™ capsules can be opened and the granules flushed down the enteral tube. |
| ONDANSETRON | 1. C
2. A
 | Melt tablets available. |
| ORPHENADRINE | 1. C
2. B
 |  |
| OSELTAMIVIR | 1. C2. E | 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. *(Roche Ltd)* |
| OXCARBAZEPINE | 1. C2. B | The suspension can be diluted in water before administration via a fine bore tube to avoid blockage. |
| OXPRENOLOL | B | Do not crush slow release preparations. |
| OXYBUTYNIN | 1. C
2. B
 | Patches are also available. |
| OXYCODONE | C | Controlled drug. |
| OXYTETRACYCLINE | 1. E
2. B
 |  |
| PANCREATIC ENZYMES | B | Open capsule (Creon™, Nutrizyme™) and disperse contents in water. Granules must not be crushed. |
| PARACETAMOL | 1. A
2. C
 | Dispersible tablets available.Suppositories also available. |
| PAROXETINE | 1. C2. B |  |
| PENICILLAMINE | B |  |
| PENICILLIN | C | Stop enteral feed prior to administration. Flush tube before and after. Avoid low doses. |
| PERGOLIDE | B |  |
| PERINDOPRIL | A |  |
| PHENELZINE | B | Consider an alternative. |
| PHENOBARBITAL | 1. C
2. B
3. E
 |  |
| PHENYTOIN | C | 90mg phenytoin suspension is equivalent to 100mg tablet or capsule. Stop enteral feed 2 hours before and after administration. Flush tube with 60ml of water after phenytoin. Monitor plasma concentration. |
| PHYTOMENADIONE(Vitamin K) | 1. B
2. 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. |
| PIZOTIFEN | B |  |
| POTASSIUM | 1. A
2. C
 | Sando K™ effervescent tablets available.Kay-Cee-L™ syrup available. |
| PRAMIPEXOLE | B | Light sensitive, give immediately. *(Ref. Boehringer Ingelheim Ltd)* |
| PRAVASTATIN | B |  |
| PRAZOSIN | B | Very poorly soluble in water. |
| PREDNISOLONE | A | Dispersible tablets available. |
| PREGABALIN |  | Open capsule and dissolve contents in water. Bitter taste. *(Ref. Pfizer)* |
| PRIMIDONE | 1. A
2. C
3. E
 |  |
| PROCHLORPERAZINE | 1. C
2. A
 | Buccal tablets and suppositories available. |
| PROCYCLIDINE | 1. C
2. B
 |  |
| PROMETHAZINE | 1. C
2. B
3. D
 |  |
| 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
 | Stop enteral feed prior to administration. Flush tube before and after. |
| 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 | 1. B
2. E
 |  |
| RALTEGRAVIR | B | *(Ref. MSD Medical Information)* |
| RAMIPRIL | 1. B2. E | Tablets can be crushed. Capsules can be opened and contents dispersed in water. Monitor blood pressure. |
| RANITIDINE | 1. C
2. B
 | Effervescent tablets available. |
| 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).Rifater™ and Rifanah™ sachets can be imported via BR Pharma. |
| 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. C2. B | Orodispersible tablets available. |
| RIVAROXABAN | B | Can also be crushed and mixed with apple sauce. *(Ref. Bayer Ltd)* |
| ROPINIROLE | B |  |
| SALBUTAMOL | C | Do not crush slow release tablets. |
| SELEGILINE | 1. C
2. B
 | Oral lyophilisates available for buccal administration. |
| SENNA | 1. C
2. B
 |  |
| SERTRALINE | 1. B2. E | Poorly soluble in water. Take immediately after crushing, maybe better in yogurt. Has an anaesthetic effect on the tongue. |
| SILDENAFIL | 1. B2. E |  |
| SIMVASTATIN | B |  |
| SODIUM BICARBONATE |  | Capsules can be opened and contents mixed with water.*(Ref. Focus Pharmaceuticals Ltd)* |
| SODIUM VALPROATE | 1. C
2. B
 | Do not crush slow release tablets. Monitor plasma levels. |
| SOLIFENACIN | A | *(Ref. Astellas Pharma)* |
| SOTALOL | 1. B
2. E
 |  |
| SPIRONOLACTONE | 1. C
2. B
3. E
 |  |
| STALEVO™ | B | Tastes bitter and forms an orange dye which may stain. Can be mixed with orange, apple or tomato juice, honey, jam or yoghurt. *(Ref. Orion Pharma)* |
| SUCRALFATE | 1. C
2. A
 | Stop enteral feed at least 1h prior to administration and for 1h after. Flush tube before and after. |
| SULFASALAZINE | 1. C
2. B
 | Do not crush enteric-coated or slow release tablets |
| SULPIRIDE | 1. C
2. B
 |  |
| TACROLIMUS | 1. A2. E | Granules available.The capsules may be opened (can be difficult) and the contents mixed with water. |
| TAMOXIFEN | 1. C2. B | Wear a mask if crushing tablets. |
| TAMSULOSIN MR |  | Capsules can be opened and modified-release granules mixed with water (not crushed). The mixture should be given immediately. |
| TELMISARTAN | B |  |
| TEMAZEPAM | 1. C2. B | Schedule 3 controlled drug. |
| TEMOZOLOMIDE |  | Capsules can be opened and contents mixed with 30g apple sauce or apple juice.Appropriate precautions against toxic dust are recommended: wearing gloves and mask. *(Ref. Schering Plough Ltd)* |
| TETRABENAZINE | B | Tablets can be crushed and mixed in water |
| THEOPHYLLINE |  | Slo-Phyllin MR capsules can be opened and the pellets found inside can be mixed with water and taken orally or administered via an enteral tube. |
| THIAMINE | 1. B
2. E
 |  |
| TIZANIDINE | B |  |
| TOLBUTAMIDE | B | Tablets do not mix well with water when crushed. |
| TOLTERODINE | A |  |
| TOPIRAMATE | B | Tablets do not disperse readily in water as they are film-coated, but will disintegrate if shaken in 10ml of water for 5 minutes.“Sprinkle capsules” can be opened and contents mixed with soft food. |
| TRAMADOL | A | Sachets, soluble and orodispersible tablets available. Capsules can be opened. |
| TRANDOLAPRIL |  | Open capsules and disperse contents in water. Consider changing to lisinopril liquid. |
| TRANEXAMIC ACID | 1. B
2. C
3. D
 |  |
| TRAZODONE | C | Capsules can be opened. |
| TRIFLUOPERAZINE | C | Capsules can be opened. |
| TRIMETHOPRIM | 1. C
2. B
 | Avoid crushing – risk of 3rd party exposure to the powder. |
| URSODEOXYCHOLIC ACID | 1. B
2. C
 |  |
| VALPROATE SEMISODIUM (VALPROIC ACID) |  | 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 | 1. D
2. E
 |  |
| VENLAFAXINE | B | Tablets are water-soluble.MR capsules can be opened and sprinkled onto soft food. |
| VERAPAMIL | 1. C
2. B
3. D
4. E
 | 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. |
| VITAMIN B COMPOUND  | B |  |
| VITAMIN E | C |  |
| WARFARIN | 1. B
2. E
 | Stop enteral feed at least 2h prior to administration and for 2h after. Flush tube before and after. Monitor INR closely. |
| ZINC | A | Effervescent tablets available. |
| ZOPICLONE | B | Crushed tablets have bitter taste. Tablets dissolve in acidic fruit juices (orange).*(Ref. Generics)* |

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, October 2014 update.
2. The NEWT Guidelines for administration of medication to patients with enteral feeding tubes or swallowing difficulties, online, March 2015 update.
3. The Royal Hospitals. Administering medicines Through Enteral Feeding Tubes, 2nd ed.
4. Medicines for Children, 2003.
5. Guy’s and St Thomas’, Paediatric Formulary, 9th ed.
6. Non-Sterile Preparative Services, Colchester General Hospital. List of Extemporaneous products prepared by Prep. Services, March 2014.

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