

Guide for Crushing Oral Medication for Residents with Swallowing Difficulties in Residential Aged Care

Medicine	Funded brand	Form	Administration if swallowing difficulties
ACICLOVIR	Lovir	Tablet	Soluble, dispersible ⁴ Swallow whole or disperse in at least 50mL of water ³
ALENDRONATE, ALENDRONATE <i>with</i> COLECALCIFEROL	Fosamax Fosamax Plus	Tablet	Do not divide, crush, chew or disperse ^{3,4} Mucous membrane irritant ^{1,4} Alternate bisphosphonate available as injection ³
ALLOPURINOL	Allopurinol-Apotex	Tablet	Scored, may be halved ³
	DB-Allopurinol	Tablet	Scored, may be halved ³
ALUMINIUM HYDROXIDE	Alu-Tab	Tablet	Film coated. Can crush; mix powder with 5-10mL water, and give immediately. ⁴ If aspiration risk, may crush and mix with yoghurt (if appropriate). ⁴
AMIODARONE	Cordarone-X	Tablet	May crush ⁴
AMITRIPTYLINE	Arrow- Amitriptyline	Tablet	Film coated ³ No information
AMLODIPINE	Apo-Amlodipine	Tablet	May be crushed but use immediately, it is very light-sensitive ⁴ Do not halve ³
AMOXICILLIN	Apo-Amoxi	Capsule	Alternative route available ³ Oral liquid form available ³
AMOXICILLIN/ CLAVULANIC ACID	Augmentin	Tablet	Film coated ³ Can crush, but use immediately (clavulanic acid is sensitive to moisture) ⁴ Alternative route available ³ Oral liquid form available ³
ARIPIPRAZOLE	Abilify	Tablet	Swallow whole ³ Do not crush or chew ⁶
	Aripiprazole Sandoz		Swallow whole ³
ANASTRAZOLE	Rolin	Tablet	Film coated ³ Do not halve ³
ASCORBIC ACID	Cvite	Tablet	No information
ASPIRIN EC	Ethics Aspirin EC	Tablet	Enteric coated, swallow whole; ⁷ do not divide, crush, chew or disperse ^{4,7} Soluble, dispersible tablet available ⁷
ASPIRIN (dispersible)	Ethics Aspirin	Tablet	Soluble, dispersible; dissolve in water before taking ⁷

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Developed and maintained by Bernadette Rehman, Clinical Pharmacist, Residential Aged Care, Waitemata District Health Board, New Zealand and Angela Lambie, Quality Use of Medicines Pharmacist, Waitemata District Health Board, New Zealand

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ATENOLOL	Mylan Atenolol	Tablet	Film coated, may be halved ³
ATORVASTATIN	Lorstat	Tablet	Film coated; 20mg, 40mg and 80mg may be halved but the divided portion should be swallowed whole, not chewed ³
AZATHIOPRINE	Imuran	Tablet	Film coated ³ Do not break, crush or chew ^{3,4} May disperse in 5-10mL water, in a closed system such as an oral dispenser. Will disperse within 5 minutes ⁴ Follow guidelines for handling cytotoxic medicines if dispersing ³
BACLOFEN	Pacifen	Tablet	No information
BENDROFLUAZIDE	Arrow-Bendrofluazide	Tablet	Do not halve ³
BETAHISTINE	Vergo 16	Tablet	No information
BEZAFIBRATE	Bezalip	Tablet	Film coated tablet, swallow whole ³
BEZAFIBRATE SR	Bezalip Retard	Tablet	Sustained release, film coated ³ Do not divide, crush, chew or disperse ⁴
BISACODYL EC	Lax-Tab	Tablet	Enteric sugar coated; swallow whole ³ Do not divide, crush, chew or disperse ⁴ Alternative route available, suppositories available ³
BISOPROLOL	Bosvate	Tablet	Can be halved, but the divided portion should be swallowed whole and not chewed ³
BROMOCRIPTINE	Apo-Bromocriptine	Tablet	No information
BUMETANIDE	Burinex	Tablet	May be crushed ⁴
BUSPIRONE	Orion Buspirone	Tablet	Can be divided into equal doses ³
CALCITRIOL	Calcitriol-AFT	Capsule	No information
CALCIUM CARBONATE	Arrow-Calcium	Tablet	No information
CALCIUM CARBONATE EFFERVESCENT	Calsource	Tablet	Dissolve in water ⁷
CANDESARTAN	Candestar	Tablet	No information
CARBAMAZEPINE	Tegretol	Tablet	May disperse in water ⁴ Alternative route available, oral liquid form available ⁷
CARBAMAZEPINE CR	Tegretol CR	Tablet	Controlled release, film coated ³ Do not divide, crush, chew or disperse ⁴ May be halved ³
CARBIMAZOLE	Neo-Mercazole	Tablet	May be crushed ⁴

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CARVEDILOL	Carvedilol Sandoz	Tablet	May be dispersed, will disperse within 5 min with shaking ⁴
CEFACLOR	Ranbaxy-Cefaclor	Capsule	Alternative route available, oral liquid form available ³
CELIPROLOL	Celol	Tablet	Film coated ³ No information
CETIRIZINE	Zista	Tablet	Film coated; may be halved ³
CICLOSPORIN	Neoral	Capsule	Swallow whole, ³ do not crush, chew or open ⁴ Alternative route available, oral liquid form available ³
CILAZAPRIL	Apo-Cilazapril	Tablet	Film coated ³ May be divided ³
	Zapril		
CILAZAPRIL/ HYDROCHLOROTHIAZIDE	Apo-Cilazapril/ Hydrochloro- thiazide	Tablet	Film coated; do not chew, swallow whole with glass of water ³
CIPROFLOXACIN	Cipflox	Tablet	Film coated ³ The 500mg strength may be halved ³ Alternative route available, oral liquid form available ³
CITALOPRAM	PSM Citalopram	Tablet	Film coated ³ No information
CLINDAMYCIN	Clindamycin ABM	Capsule	Swallow whole with a large glass of water ³ Oesophageal irritant ³
CLOMIPRAMINE	Apo-Clomipramine	Tablet	Film coated; do not halve ³
CLONAZEPAM	Paxam	Tablet	May be crushed ⁴ may be halved ³ Alternative route available, oral liquid form available ³
CLONIDINE	Clonidine BNM	Tablet	Alternative route available transdermal patch available ³
	Catapres		May be dispersed in water ⁴ May be halved ³ Alternative route available, oral liquid form available ³
CLOPIDOGREL	Arrow - Clopid	Tablet	Film coated ³ Insoluble in water ³
CLOZAPINE	Clozaril	Tablet	No information
	Clopine		May be crushed, but poorly soluble ⁴ May be halved ³ Oral liquid form available (Clopine only) ³
CODEINE PHOSPHATE	Codeine phosphate PSM	Tablet	No information
COLCHICINE	Colgout	Tablet	May be dispersed in water ⁴

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COLECALCIFEROL	Vit.D3	Capsule	Soft gelatin capsule ³ No stability data about withdrawal of capsule contents ^{4,6}
CO-TRIMOXAZOLE	Trisul	Tablet	Alternative route available, oral liquid form available ³
CYCLIZINE	Nauzene	Tablet	Can be divided into equal doses ³ Alternative route available ³
CYCLOPHOSPHAMIDE	Cycloblastin	Tablet	Do not divide, crush, chew or disperse ⁴ Cytotoxic, occupational health and safety risk to staff ²
DABIGATRAN	Pradaxa	Capsule	Do not crush, chew or open ⁴ Bioavailability increases by 75% when pellets are taken without the capsule shell ¹
DEXAMETHASONE	Dexamethsone	Tablet	Disperse and give within 1-5min, with or soon after food ⁴
DIAZEPAM	Arrow-Diazepam	Tablet	Can be divided into equal doses ³ Alternative route available, suppositories available ³
DICLOFENAC EC	Diclofenac Sandoz	Tablet	Enteric coated; do not crush, divide or chew ^{3,4} Alternative route available, suppositories available, dispersible tablet available ³
DICLOFENAC SR	Apo-Diclo SR	Tablet	Slow release. Swallow whole, do not divide, crush, chew or disperse ³ Alternative route available, suppositories available ³
DIGOXIN	Lanoxin	Tablet	May be crushed ⁴ Alternative route available oral liquid form available ³
	Lanoxin PG		
DIHYDROCODEINE TARTRATE LA	DHC Continus	Tablet	Long- acting; swallow whole ³ Do not divide, crush, chew or disperse ³
DILTIAZEM	Dilzem	Tablet	Film-coated; ³ may be crushed ⁴
DILTIAZEM CD	Apo-Diltiazem CD	Capsule	Controlled delivery; do not crush or chew ³
DIPYRIDAMOLE SR	Pytazen SR	Tablet	Sustained release; swallow whole ³ Do not divide, crush, chew or disperse ³
DOCUSATE & SENNA	Laxsol	Tablet	Film coated, sugar free ⁷ Do not divide, crush, chew or disperse ⁷
DOCUSATE SODIUM	Coloxyl	Tablet	May be crushed ⁴ Do not disperse (takes longer than 5min) ⁴
DOMPERIDONE	Prokinex	Tablet	No information
DONEPEZIL	Donepezil-Rex	Tablet	Film coated ³ No information
DOTHIEPIN (DOSULEPIN)	Dopress	Tablet	Film coated ³ No information
		Capsule	No information
DOXAZOSIN	Apo-Doxazosin	Tablet	No information
DOXEPIN	Anten	Capsule	No information

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DOXYCYCLINE	Doxine	Tablet	Film coated ³ Crushing may cause oesophageal irritation ³
	Doxy-50		Do not crush; contents are irritant to mucous membranes and may cause oesophageal ulceration if crushed. May disperse (tablets will disperse within 2-5 min) ⁴
ENALAPRIL	Ethics Enalapril	Tablet	Do not divide ³
ENTACAPONE	Entapone	Tablet	Film coated ³ No information
ERYTHROMYCIN	E-Mycin	Tablet	Film coated ^{3,4} Alternative route available oral liquid form available ³
ESCITALOPRAM	Apo-Escitalopram	Tablet	Film coated ³ Disperses rapidly in water ⁴ Crushed tablets have unpleasant taste ⁴
EZETIMIBE	Ezetimibe-Sandoz	Tablet	No information
FEBUXOSTAT	Adenuric	Tablet	Film-coated, immediate release ³
FELODIPINE ER	Plendil ER	Tablet	Extended release ³ Do not divide, crush, chew or disperse ^{3,4}
	Felo 5 ER		Extended release ³ Do not divide, crush or chew ³
FERROUS FUMARATE	Ferro-tab	Tablet	Swallow whole ⁷ Alternative route available, oral liquid form available ⁷
FERROUS FUMARATE <i>with</i> FOLIC ACID	Ferro-F-tabs	Tablet	Film coated; ⁴ do not divide, crush, chew or disperse ⁴ Alternative route available, oral liquid form available ⁷
FERROUS SULPHATE (long acting)	Ferrograd	Tablet	Film coated, modified release ⁴ Do not divide, crush, chew or disperse ⁴ Alternative route available, oral liquid form available ⁷
FERROUS FUMARATE <i>with</i> FOLIC ACID (long acting)	Ferro F	Tablet	Film coated ⁴ Swallow whole with a full glass of water ⁴
FINASTERIDE	Ricit	Tablet	Film coated ³ Women of child-bearing potential should not crush or handle broken tablets ³
FLECAINIDE ACETATE	Tambocor	Tablet	Disperse in water, and give immediately; will disperse in less than 1 minute ⁴
FLECAINIDE ACETATE CR	Tambocor CR	Capsule	Controlled release ³
FLUCLOXACILLIN	Staphlex	Capsule	Do not crush, chew or open; contents have a bitter taste ⁴ Alternative route available, oral liquid form available ³
FLUCONAZOLE	Mylan	Capsule	Swallow the capsules whole with a glass of water ³ Alternative route available, oral liquid form available ³
FLUDROCORTISONE ACETATE	Florinef	Tablet	May be dispersed in water; will disperse within 1 minute, give immediately after dispersing ⁴

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FLUOXETINE	Arrow-Fluoxetine	Capsule	Swallow whole; soluble, dispersible tablet available ³
FLUOXETINE (dispersible)	Arrow-Fluoxetine	Tablet	Soluble, dispersible ³ May be swallowed whole, or broken in half for a 10mg dose, or dispersed in 100mL of water before drinking immediately ³
FOLIC ACID	Apo-Folic acid	Tablet	No information
FUROSEMIDE (FRUSEMIDE)	Diurin 40	Tablet	Oral liquid available ³
	Urex Forte		May disperse; halve prior to dispersing, will disperse within 5 min ⁴
GABAPENTIN	Apo-Gabapentin	Capsule	Capsule contents have an unpleasant taste. May open capsule and mix contents with apple sauce or orange juice. Give immediately (gabapentin hydrolyses rapidly) ⁴
	Arrow-Gabapentin		Swallow whole ³
	Neurontin		Do not divide, crush, chew or disperse ⁴ May open and mix contents with orange juice or apple sauce ⁴
	Nupentin		
GLICLAZIDE	Glizide	Tablet	May be halved ³
GLIPIZIDE	Minidiab	Tablet	Disperse in water; will disperse in 1 minute, give immediately after dispersing ⁴
HALOPERIDOL	Serenace	Tablet	May crush but slow to disperse ⁴ Alternative route available, oral liquid form available ³
HEXAMINE	Hiprex	Tablet	May crush but slow to disperse (longer than 5min) ⁴
HYDROXYCHLOROQUINE	Plaquenil	Tablet	Film coated tablets ³ May crush but slow to disperse (longer than 5 min) ⁴
HYDROXYUREA (HYDROXYCARBAMIDE)	Hydrea	Capsule	May open and empty contents into a glass of water and take immediately ^{3,4} Avoid inhaling powder, ³ exposure causes skin toxicities; wear gloves to administer ¹
HYOSCINE BUTYL BROMIDE	Buscopan	Tablet	Sugar coated; ³ can be crushed ⁴ Injectable form available ³
IBUPROFEN	Ibuprofen Relieve	Tablet	Film coated; swallow whole, do not chew, break, crush or suck – may cause oral discomfort and throat irritation ³ Oral liquid form available ³
IBUPROFEN SR	Brufen SR	Tablet	Sustained release ³
IMIPRAMINE	Tofranil	Tablet	Sugar coated ³ Can crush ⁴ but slow to disperse (longer than 5 min) ⁴
INDAPAMIDE	Dapa-Tabs	Tablet	Film coated; do not halve ³ May be crushed ⁴

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ISOSORBIDE MONONITRATE	Ismo 20	Tablet	Do not chew, may be divided along the score line ³
ISOSORBIDE MONONITRATE SR	Duride	Tablet	Sustained release; swallow whole ^{3,4} Do not crush, chew or disperse ⁴ May be divided (but each portion swallowed whole) ^{3,4} Immediate release preparations available ³
	Ismo 40 Retard		Slow release; swallow whole ³ Immediate release preparations available ³
IVERMECTIN	Stromectol	Tablet	No information
LABETALOL	Hybloc	Tablet	Film coated ³ No information
LAMOTRIGINE	Arrow-Lamotrigine	Tablet	Chewable, soluble, dispersible ^{3,4} May be chewed, dispersed in a small amount of water, or swallowed whole ^{3,4}
	Lamictal		
	Logem		
	Motrig		
LANSOPRAZOLE	Lanzol Relief	Capsule	Swallow whole, with a full glass of water, do not chew ³
LEFLUNOMIDE	Apo-Leflunomide		Film coated ⁴ Swallow whole, do not divide ³ May disperse using a closed system such as an oral dispenser; will disperse within 5 min of shaking ⁴
LETROZOLE	Letrole	Tablet	Film coated; swallow whole do not halve ³
	Letromyl		
LEVETIRACETAM	Everet	Tablet	Film coated; do not halve ³
LEVODOPA/CARBIDOPA	Sinemet	Tablet	May disperse in water and use immediately ⁴ Do not divide ³
	Kinson		May disperse tablet in 5-10mL water and give immediately ⁴ May be crushed ⁴
LEVODOPA/CARBIDOPA CR	Sinemet CR	Tablet	Controlled release ³ Do not divide, crush, chew or disperse ³ Immediate release preparations available ³
LEVODOPA/BENSERAZIDE (dispersible)	Madopar Rapid	Tablet	Soluble dispersible tablet ³ Disperse in 10mL water before taking ⁴
LEVODOPA/BENSERAZIDE (long acting)	Madopar	Capsule	Swallow whole, do not crush, chew or disperse ^{3,4} Soluble or dispersible tablet available ³
LEVODOPA/BESERAZIDE	Madopar HBS	Capsule	Modified release; swallow whole, do not crush, chew, disperse or open capsules ^{3,4} Immediate release and dispersible preparations available ³
LEVOMEPRMAZINE MALEATE	Nozinan	Tablet	Film coated ³ Injectable form available ³
LISINOPRIL	Ethics Lisinopril	Tablet	No information

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LITHIUM CARBONATE	Lithium Carbonate (Douglas)	Capsule	No information
LITHIUM CARBONATE	Lithicarb FC	Tablet	Film coated ^{3,4} Scored, can be halved ³ May be dispersed in cold water ⁴ Do not crush, chew or swallow with warm liquid ³
LITHIUM CARBONATE (long acting)	Priadel	Tablet	Modified release ³ Scored, may be halved ³ Do not, crush, chew or swallow with hot liquid ³
LOPERAMIDE	Diamide Relief	Capsule	No information
	Nodia	Tablet	Scored tablet, but do not halve, swallow whole ³
LORATADINE	Lorafix	Tablet	No information
LORAZEPAM	Ativan	Tablet	Disperse in water ⁴
LOSARTAN	Losartan Actavis	Tablet	Film coated; ³ do not halve ³
LOSARTAN AND HYDROCHLORTHIAZIDE	Arrow-Losartan & Hydrochlorothiazide	Tablet	Film coated ³ No information
MEBEVERINE	Colofac	Tablet	Sugar coated ³ Swallow whole with a full glass of water ³ Do not chew, has a very bitter taste ³ Slow to disperse ⁴
MEDROXYPROGESTERONE	Provera	Tablet	Will disperse within 1-2 minutes ⁴ Gloves and mask should be worn, women of child-bearing potential should not crush or handle broken tablets ⁴
MELATONIN (long acting)	Circadin	Tablet	Prolonged release; swallow whole ³
MESALAZINE (long acting)	Pentasa	Tablet	Prolonged-release; do not divide, crush or chew ⁷ May disperse in 50mL of cold water; stir and drink immediately ³ Alternative route available, suppositories available ³
MESALAZINE EC	Asacol	Tablet	Enteric coated; do not divide, crush, chew or disperse ³ Alternative route available, suppositories available ³
	Asamax		
METFORMIN	Metcheck	Tablet	Film coated; do not halve ³
	Metformin Mylan		
	Metformin Apotex		
METHADONE	Methatabs	Tablet	Alternative route available ³ Oral liquid form available ³
METHOTREXATE	Trexate	Tablet	Do not divide, crush, chew or disperse ³ Cytotoxic; crushing causes occupational health and safety risk ³

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METHYLPREDNISOLONE	Medrol	Tablet	Do not halve ³
METOCLOPRAMIDE	Metoclopramide Actavis	Tablet	Film coated; may be divided ³ Alternative route available ³
METOPROLOL SUCCINATE CR	Betaloc CR	Tablet	Controlled release ³ May be halved, but must not be chewed or crushed ³
METOPROLOL TARTRATE	Apo-Metoprolol	Tablet	No information
METOPROLOL TARTRATE (long acting)	Slow-Lopresor	Tablet	Slow release; do not divide, crush, chew or disperse ³
METRONIDAZOLE	Trichozole	Tablet	Swallow whole, do not chew ³ Crushing will cause unacceptable taste ² Do not divide or disperse 100mg strength but can halve 200mg ³ Alternative route available ³ Oral liquid form available ³
MIDODRINE	Gutron	Tablet	No information
MIRTAZAPINE	Apo-Mirtazapine	Tablet	Film coated; do not chew ³ May be crushed ⁴
MOCLOBEMIDE	Apo-Moclobemide	Tablet	Film coated ³ No information
MORPHINE SULPHATE	Sevredol	Tablet	Film coated, do not chew but may halve ³ Crushing will cause unacceptable taste ² Alternative route available ³ Oral liquid form available ³
MORPHINE SULPHATE (long acting)	m-Eslon	Capsule	Modified release ³ May be opened, and microgranules given with soft food or liquids. Do not chew or crush granules, this will cause rapid release of morphine and toxic concentrations ³
MORPHINE SULPHATE (long acting)	Arrow-Morphine LA	Tablet	Long acting; swallow whole, do not chew ³
MULTIVITAMINS	Mvite	Tablet	No information
MULTIVITAMIN RENAL	Clinicians Renal Vit	Capsule	No information
NAPROXEN	Noflam	Tablet	Can be halved and the halves swallowed whole ³
NAPROXEN SR	Naprosyn SR	Tablet	Slow release; do not divide, crush, chew or disperse ^{3,4} Immediate release formulation available ³
NEFOPAM	Acupan	Tablet	Film coated ³
NIFEDIPINE (long acting)	Adalat Adalat oros Adefin XL Nyefax Retard	Tablet	Controlled release ³ Do not divide, crush, chew or disperse; ^{3,4}
NITROFURANTOIN	Nifuran	Tablet	No information

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NORFLOXACIN	Arrow-Norfloxacina	Tablet	Film coated ³ No information
NORTRIPTYLINE	Norpress	Tablet	Film coated ³ No information
OLANZAPINE	Zypine	Tablet	Film coated; swallow whole, do not halve ³ Dispersible tablets available ³
OLANZAPINE (dispersible)	Zypine ODT	Tablet	Orodispersible ³ Do not halve, place in mouth whole to disperse in saliva, followed by a glass of water ³
OMEPRAZOLE	Omeprazole Activis	Capsule	May open capsule and contents swallowed with liquid or mixed in fruit juice, yoghurt or water, dispersed for 30minutes before drinking. The pellets must not be crushed or chewed ³ Alternative route available ³ Oral liquid form available ⁷
ONDANSETRON	Apo-Ondansetron	Tablet	Film coated, do not halve ^{3,4}
ONDANSETRON (dispersible)	Ondansetron DRLA	Tablet	Orally disintegrating ³ Do not halve; place on top of tongue to disperse, then swallow ³
ORPHENADRINE CITRATE	Norflex	Tablet	May be crushed ⁴
OXAZEPAM	Ox-Pam	Tablet	Swallow whole with water ³
OXYBUTYNIN	Apo-Oxybutynin	Tablet	No information Oral liquid available ⁷
OXYCODONE	OxyNorm	Capsule	Swallow whole, do not open, chew or crush ³ Alternative route available ³ Oral liquid form available ³
OXYCODONE (long acting)	Oxycodone controlled release (BNM)	Tablet	Controlled release; swallow whole ³ Do not open, chew or crush ³ Alternative route available ³ Oral liquid form available ³
PANTOPRAZOLE EC	Panzop Relief	Tablet	Enteric coated; swallow whole, do not chew ³ Do not divide, crush, or disperse tablet ³
PARACETAMOL	Pharmacare	Tablet	Alternative route available; suppositories available ³ Oral liquid form available ³
PARACETAMOL & CODEINE	Relieve	Tablet	May be divided ³
PAROXETINE	Apo-Paroxetine	Tablet	Film coated; swallow whole ³
PERHEXILINE	Pexsig	Tablet	May crush; ⁴ slow to disperse, longer than 5min ⁴
PHENYTOIN	Dilantin	Capsule	Swallow whole with at least half a glass of water ³ Alternative route available, oral liquid form available (but check bioequivalence) ²

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PHOSPHATE	Phosphate-Sandoz	Tablet	Effervescent; can be dissolved in water ⁷
PIZOTIFEN	Sandomigran	Tablet	May crush; slow to disperse, longer than 5min ⁴
POTASSIUM CHLORIDE (long acting)	Span-K	Tablet	Sustained release; do not divide, crush, chew or disperse ^{3,4} Soluble or dispersible tablet available ³
POTASSIUM CHLORIDE/ POTASSIUM BICARBONATE/ POTASSIUM CARBONATE	Chlorvescent	Tablet	Effervescent, ⁷ soluble, dispersible ^{3,4} Dissolve in at least half a glass of water ⁴
PREDNISONE	Apo-Prednisone	Tablet	No information Prednisolone syrup available ⁷
PREGABALIN	Pregabalin-Pfizer	Capsule	Swallow whole with a full glass of water ³ Do not open capsules ^{6e}
PROCHLORPERAZINE	Nausafix	Tablet	Alternative route available ³ Buccal tablets available ⁷
PROMETHAZINE	Allersoothe	Tablet	Film coated ³ Alternative route available ³ Oral liquid available ⁷
PROPRANOLOL	Apo-propranolol	Tablet	Do not halve ³
PROPRANOLOL (long acting)	Cardinol LA	Capsule	Long acting; do not divide, crush, chew or disperse ³
PYRIDOSTIGMINE	Mestinon	Tablet	Can crush, slow to disperse, longer than 5 min ⁴
PYRIDOXINE	Apo-Pyridoxine	Tablet	May be crushed, or dispersed in water ⁴
	Vitamin B6 25		
QUETIAPINE	Quetapel	Tablet	Film coated; do not halve ³
QUINAPRIL	Arrow-Quinapril	Tablet	Film coated; swallow whole with a full glass of water, do not chew ³
QUINAPRIL/ HYDROCHLOROTHIAZIDE	Accuretic	Tablet	Film coated; swallow whole with a full glass of water, do not chew ³
QUININE SULPHATE	Q 300	Tablet	Film coated, swallow whole with a full glass of water, do not crush or chew ³
RALOXIFENE	Evista	Tablet	Film coated ³ tablets have unpleasant taste ¹ Avoid contact with skin; teratogenic potential ¹
RANITIDINE	Ranitidine Relief	Tablet	Film coated, swallow whole, crushing will cause bitter taste ³ Alternative route available, oral liquid form available ³
RISEDRONATE	Risedronate Sandoz	Tablet	Film coated, swallow whole with a glass of water and remain upright for 30min after swallowing ³ Do not chew or suck; potential for oropharyngeal irritation ³
RISPERIDONE	Risperidone (Actavis)	Tablet	Film coated; do not halve ³ Alternative route available, oral liquid form available ³
ROPINIROLE	Apo-Ropinirole	Tablet	Film coated ³ No information

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Medicine	Brand name	Form	Administration if swallowing difficulties
ROXITHROMYCIN	Arrow-Roxithromycin	Tablet	Film coated; swallow whole ³
SERTRALINE	Arrow-Sertraline	Tablet	Film coated ³ Do not halve 100mg strength but 50mg are scored and may be halved ³
SIMVASTATIN	Simvastatin Mylan	Tablet	Film coated ³ No information
SODIUM BICARBONATE	Sodibic	Capsule	May open and disperse contents in 10mL water, give immediately ⁴
SODIUM VALPROATE	Epilim Crushable	Tablet	May be crushed ^{3,4} but do not halve ³ Alternative route available, oral liquid form available ³
SODIUM VALPROATE EC	Epilim	Tablet	Enteric coated ³ Do not divide, crush, chew or disperse ⁴ Alternative route available, oral liquid form available ³
SOTALOL	Mylan	Tablet	No information
SOLIFENACIN	Vesicare	Tablet	Film coated; swallow whole ³ Crushed tablets may be irritant to eyes ⁴
	Mylan		Film coated; swallow whole ³
SPIRONOLACTONE	Spiractin	Tablet	May be dispersed in water, will disperse within 2-5 min ⁴
SULFASALAZINE	Salazopyrin	Tablet	May be crushed ⁴
SULFASALAZINE EC	Salazopyrin EN	Tablet	Enteric coated; do not divide, crush, chew or disperse ^{3,4} Immediate release tablet available ^{2,3}
SUMATRIPTAN	Apo-Sumatriptan	Tablet	Film coated; swallow whole with water, do not halve ³ Alternative route available ³ injectable form available ³
TAMSULOSIN (long acting)	Tamsulosin-Rex	Capsule	Modified release; swallow whole, do not crush or chew ³
TAMOXIFEN	Genox	Tablet	Women of child-bearing potential should not crush or handle broken tablets ⁴
TEMAZEPAM	Normison	Tablet	Do not halve ³ Tablet difficult to disperse ⁴
TENOXCAM	Tilcotil	Tablet	Film coated, do not chew but can divide ³
TERAZOSIN	Actavis	Tablet	May be halved ³
	Apo-Terazosin		Do not halve ³
TERBINAFINE	Deolate	Tablet	Scored ³
THEOPHYLLINE SR	Nuelin-SR	Tablet	Slow release; do not divide, crush, chew or disperse ^{3,4}
THIAMINE	Apo-Thiamine	Tablet	May be crushed ⁴
	Max Health		Uncoated ⁷ No information

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Medicine	Brand name	Form	Administration if swallowing difficulties
THYROXINE (Levothyroxine)	Eltroxin	Tablet	Swallow whole with a full glass of water, do not halve ³
	Mercury Pharma		Swallow whole ³
	Synthroid		May be crushed and suspended in 5-10mL water, or sprinkled on small amount of food (eg apple sauce), and given immediately ³
TICAGRELOR	Brilinta	Tablet	Film coated; can crush, mix with water, stir and drink immediately ³
TOLCAPONE	Tasmar	Tablet	Film coated; swallow whole, has bitter taste ³
TOLTERODINE	Arrow-Tolterodine	Tablet	Film coated ³ No information
TRAMADOL	Arrow-Tramadol	Capsule	Swallow whole with water ³
TRAMADOL SR	Tramal SR	Tablet	Sustained release; do not divide, crush, chew or disperse ^{3,4}
TRANEXAMIC ACID	Cyklokapron	Tablet	Film coated, ³ may be dispersed in water ⁴
TRIAZOLAM	Hypam	Tablet	Do not halve ³
TRIMETHOPRIM	TMP	Tablet	Swallow whole with water ³
VENLAFAXINE	Enlifax XR	Capsule	Extended release; do not crush, chew or disperse ³
VERAPAMIL	Isoptin	Tablet	Film coated, ³ may be crushed ⁴
VERAPAMIL	Verpamil SR	Tablet	Sustained release; do not halve ³ Immediate release tablets available ^{2,3}
VITAMIN B COMPLEX	Bplex	Tablet	No information
WARFARIN	Coumadin	Tablet	May be crushed ⁴
	Marevan		May be dispersed, will disperse within 5min ⁴
ZINC SULPHATE	Zincaps	Capsule	May open and disperse contents in water ⁴
ZOPICLONE	Zopiclone Actavis	Tablet	Film coated; may be halved ³

References

- Mitchell JF. ISMP (Institute for Safe Medication Practices) Oral Dosage Forms That Should Not Be Crushed January 2014 <http://www.ismp.org/tools/donotcrush.pdf> (Accessed 21-07-14)
- 8.1 Draft guidelines for modification of oral formulations. (Adapted from 'Guidelines for medication management in residential aged care facilities; Australian Pharmaceutical Advisory Council November 2002' and 'Australian Pharmaceutical Formulary and Handbook 18th edition and 19th edition'.)
- Medsafe Data Sheets and Consumer Medicines Information www.medsafe.govt.nz (Accessed October 2017)
- Society of Hospital Pharmacists of Australia. Don't rush to crush handbook. First edition; December 2011; ISBN 978-0-987-1103-3-6
- The Drugsite Trust. Docusate. www.drugs.com/mtm/docusate.html (Accessed 11-08-14)
- Direct correspondence with manufacturer
- New Zealand Formulary www.nzf.org.nz

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