

## 'Specials' Alternatives Guidance

The guidance document contains a list of commonly prescribed medicines and alternative methods of administration for patients with swallowing difficulties, feeding tubes or for patients prescribed unlicensed 'specials' medication. Each entry takes into account alternative medicines, formulations, cost and licensing. This list is not exhaustive and will be reviewed and updated accordingly.

### **Is a 'special' really needed?**

Consider [deprescribing](#), 'drug holidays', alternative treatments, and licensed administration of oral formulations. 'Specials' should be reserved for those who truly cannot take tablets or capsules in their solid form.

This guide has been produced to provide prescribers with information to support prescribing and to inform product choice. Where alternative suggestions for administration have been offered, evidence and clinical experience detailed in reputable sources e.g., NEWT guidelines (peer reviewed guidelines designed to support administration of medication to patients with enteral feeding tubes or swallowing difficulties) have been referenced confirming that formulation manipulation of this nature can take place without compromising the effectiveness of the medicine.

### Please note:

- This document is subject to clinical interpretation and judgement on an individual basis and the specific needs and best interests of the individual patient should be taken into account.
- Administering medicines via a route other than that included in the Summary of Product Characteristics (SPC) e.g., via a feeding tube or manipulating licensed products other than described in the product SPC renders a product unlicensed.
- Many medicines are routinely administered for off-licence indications with sound clinical evidence to support their use in these indications.
- Consideration should be given to encouraging children to swallow oral solid dose forms (tablets or capsules) where possible. [Medicines for Children](#) has useful guides on how to give medicines, including giving [tablets](#) and [capsules](#). [KidzMed](#) is an e-Learning resource from Health Education England for healthcare professionals teaching children to swallow pills.

For formulary statuses of medications please refer to local prescribing information.

### **Administration notes:**

*Note: Individual monographs below may include more details regarding administration.*

**Crushing tablets:** Crush tablet (do one at a time, do not do different medicines together) using a suitable device (e.g., tablet crusher, pestle and mortar, or between two metal spoons) and transfer into a medicine cup/pot. Mix well with 15 to 30ml water and administer to the patient immediately. Rinse the device with water and administer this also. Take care to ensure the whole dose is administered.

**Opening capsules:** Gently ease open the capsule to release its contents into a medicine cup/pot (do one at a time, do not do different medicines together). Mix with 15 to 30ml water and administer to the patient immediately. Rinse the medicine cup/pot with water and administer this also. Take care to ensure the whole dose is administered.

**Enteral administration:** Licensed oral formulations are only licensed if administered via the oral route. All other routes are unlicensed unless specified in the monograph. Specialist Pharmacy Service (SPS) useful link on how enteral feeding tubes affect medicines: <https://www.sps.nhs.uk/articles/how-enteral-feeding-tubes-affect-medicines/>

*Food or thickened fluids:* Specialist Pharmacy Service (SPS) useful link: [Why and how medicines are given with soft food or thickened fluid – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice](#)

A suite of resources on [Swallowing difficulties – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice](#)

If additional support to manage alternatives routes of administration is required, please contact the NHS Hertfordshire and West Essex Integrated Care Board Pharmacy and Medicines Management Team (HWE ICB PMOT): [hweicbhv.medicinesoptimisationteam@nhs.net](mailto:hweicbhv.medicinesoptimisationteam@nhs.net)

Drug	Alternative
Alendronic Acid	<p><a href="#">HWE ICB: Osteoporosis - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Assess clinical need - consider withholding if swallowing difficulty/feeding tube is temporary. Do not crush the tablets, risk of oesophageal damage (NEWT, May 2017)</li> <li>Alendronic acid 70mg effervescent tablets sugar free (LICENSED)</li> <li>Alendronic acid 70mg/100mL oral solution unit dose sugar free (LICENSED, LESS COST-EFFECTIVE)</li> </ul>
Allopurinol	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water, (UNLICENSED*, LOW COST) (NEWT, December 2015)</li> <li>Allopurinol oral <b>suspension</b> 100mg/5mL or 300mg/5mL (UNLICENSED, HIGH COST)</li> </ul>
Alogliptin	<p><a href="#">HWE ICB: Dipeptidyl peptidase-4 inhibitors (Gliptins) - Prescribing guideline</a>  <a href="#">NICE NG28 Visual summary on choosing medicines for type 2 diabetes in adults - Prescribing pathway</a></p> <ul style="list-style-type: none"> <li>Review indication and consider switch to <a href="#">sitagliptin</a> liquid (LICENSED) or alternative anti-diabetic agents.</li> </ul> <p><a href="#">HWE ICB: Switching to Sitagliptin for adults with Type 2 Diabetes Mellitus (T2DM) - Prescribing guideline</a>  <a href="#">HWE ICB: Sitagliptin - Patient Letter</a></p>
Amiodarone (oral)	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water. May have a bitter taste so can be mixed with juice if desired. (UNLICENSED*, LOW COST) (NEWT, February 2019)</li> <li>Amiodarone 100mg/5ml oral suspension (UNLICENSED, HIGH COST - MOST COST-EFFECTIVE STRENGTH)</li> </ul>
Amitriptyline Hydrochloride	<p><a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a> and <a href="#">Patient information</a>  <a href="#">HWE ICB: Neuropathic pain - Prescribing guideline</a>  <a href="#">HWE ICB: Amitriptyline - Irritable bowel syndrome (IBS) 2nd line unlicensed - Green</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Crushed tablets have a bitter taste. (UNLICENSED*, LOW COST) (NEWT, October 2018)</li> <li>Amitriptyline oral solution sugar free 25mg/5ml or 50mg/5ml (LICENSED, HIGH COST)</li> </ul>
Amlodipine	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Give immediately as drug is light sensitive (UNLICENSED*, LOW COST) (NEWT, February 2019)</li> <li>Amlodipine 5mg/5ml oral solution sugar free, Amlodipine 5mg/5ml oral suspension sugar free, Amlodipine 10mg/5mL oral solution sugar free (LICENSED, HIGH COST)</li> </ul>
Amoxicillin	<p><a href="#">HWE ICB: Infections in Primary Care - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Amoxicillin oral suspension, 125mg/5mL sugar free or 250mg/5mL sugar free (LICENSED). Shelf life is 7 days once reconstituted.</li> </ul>
Apixaban	<p><a href="#">HWE ICB: DOACs - Anticoagulation - Atrial fibrillation (AF) guidance - Prescribing guideline</a>  <a href="#">HWE ICB: DOAC (best value DOAC - 1st line generic apixaban &amp; rivaroxaban) - Treatment for non-valvular atrial fibrillation - Green; Treatment of deep vein thrombosis (DVT) or pulmonary embolism (PE) and prevention of recurrent DVT and PE - Amber initiation; VTE prophylaxis following hip and knee surgery - Red</a>  <a href="#">HWE ICB: DOACs - Anticoagulation - counselling checklist - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water, glucose 5%, apple juice, or apple puree for administration to patients with swallowing difficulties (LICENSED)</li> <li>Crush and disperse tablets in 60mL water or 60mL 5% glucose (LICENSED) via nasogastric (NG) tube only, UNLICENSED* for all other routes) (NEWT, Jan 2025 and SPC, 2024)</li> </ul>
Aripiprazole (oral)	<p><a href="#">HWE ICB: Aripiprazole - Moderate to severe manic episodes in adolescents with bipolar I disorder - Red - NICE TA292</a></p> <ul style="list-style-type: none"> <li>Aripiprazole orodispersible tablets sugar free (LICENSED, HIGH COST)</li> <li>Aripiprazole 1mg/mL oral solution (LICENSED, VERY HIGH COST)</li> </ul>
Atenolol	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, March 2019)</li> <li>Atenolol 25mg/5mL oral solution sugar free (LICENSED, HIGH COST)</li> </ul>
Atorvastatin	<p><a href="#">NHS - Lipid management pathway - Statin intolerance - Prescribing pathway</a>  <a href="#">NHS - Lipid management pathway - Primary and secondary prevention - Prescribing pathway</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water or soft food for administration. Tablets are not very soluble, and a residue may be left, potentially blocking enteral feeding tubes. Flush well after dosing and take care to ensure the complete dose is administered. Give immediately as the drug is light sensitive. (UNLICENSED*, LOW COST) (NEWT, May 2024)</li> <li>Atorvastatin 10mg or 20mg sugar free chewable tablets (LICENSED, HIGH COST)</li> <li>Atorvastatin 10mg/5ml oral <b>solution</b> (UNLICENSED, MOST COST-EFFECTIVE STRENGTH)</li> </ul>
Azathioprine	<p><b>AMBER PROTOCOL:</b> Shared Care Protocol for multi-system autoimmune disease: <a href="#">Hertfordshire protocol</a>, <a href="#">West Essex protocol</a>  <b>CYTOTOXIC – DO NOT CRUSH TABLETS</b> (NEWT, July 2023)</p> <ul style="list-style-type: none"> <li>Azathioprine 10mg/ml oral suspension sugar free (LICENSED, VERY HIGH COST) Note: Carers handling the suspension should wear gloves in case of contact with the medication.</li> </ul>
Baclofen	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">Baclofen - oral: Spasticity generalised in adults &amp; paediatrics with cerebral palsy - Green - NICE technology appraisal</a></p> <ul style="list-style-type: none"> <li>Baclofen 5mg/5mL or 10mg/5ml oral solution sugar free (LICENSED) At higher doses the sorbitol content of the liquid may cause diarrhoea.</li> <li>Crush and disperse tablets in water (UNLICENSED*) (NEWT, April 2019)</li> </ul>
Bendroflumethiazide	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, November 2018)</li> <li>Bendroflumethiazide 2.5mg/5ml oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Betahistine Hydrochloride	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, April 2019)</li> <li>Betahistine 8mg/5mL oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Bisoprolol Fumarate	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <ul style="list-style-type: none"> <li>Consider switching to <a href="#">atenolol</a> 25mg/5ml oral solution sugar free (LICENSED) where appropriate</li> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, April 2019)</li> <li>Bisoprolol 5mg/5ml oral <b>suspension</b> (UNLICENSED, HIGH COST - MOST COST-EFFECTIVE STRENGTH)</li> </ul>

Bumetanide	<ul style="list-style-type: none"> <li>Consider switching to an alternative loop diuretic available as a licensed liquid, e.g., furosemide (LICENSED), if appropriate.</li> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, April 2019)</li> <li>Bumetanide 1mg/5ml oral solution sugar free (LICENSED, VERY HIGH COST)</li> </ul>
Candesartan Cilexetil	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a>  <a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a> and <a href="#">Patient information</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Or, tablets can be crushed and given with soft food (UNLICENSED*, LOW COST) (NEWT, October 2024)</li> </ul>
Captopril	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Or, tablets can be crushed and mixed with soft food (UNLICENSED*, LOW COST) (NEWT, July 2024)</li> <li>Give tablets sublingually, half dose and give twice as frequently (UNLICENSED, LOW COST) (NEWT, July 2024)</li> <li>Captopril 5mg/5ml or 25mg/5ml oral solution sugar free (LICENSED, HIGH COST)</li> </ul>
Carbamazepine	<p><a href="#">HWE ICB: Carbamazepine - Epilepsy - Green</a>  <a href="#">MHRA (Nov 2017)</a>: Care should be taken when switching between formulations in the treatment of epilepsy. A product change poses a risk of seizures.</p> <ul style="list-style-type: none"> <li>Carbamazepine 100mg/5ml oral suspension sugar free (LICENSED) Note: If changing from tablet formulations to the suspension preparation, give the same total daily dose but increase the frequency of administration. Carbamazepine MR tablet 400mg twice daily is equivalent to Carbamazepine liquid 200mg four times a day (NEWT, September 2024)</li> <li>Carbamazepine 125mg or 250mg suppositories (LICENSED, HIGH COST) Note: Carbamazepine 100mg tablet or liquid is equivalent to one carbamazepine 125mg suppository (NEWT, September 2024)</li> </ul>
Carbimazole	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, HIGH COST) (NEWT, November 2018)  Note: Consider using multiples of the 5mg tablets for the 10mg and 15mg doses as this is more cost-effective</li> <li>Carbimazole 10mg/5ml oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Carvedilol	<ul style="list-style-type: none"> <li>Consider switching to <a href="#">atenolol</a> 25mg/5ml oral solution sugar free (LICENSED, LOW COST), where appropriate</li> <li>Crush and disperse tablets in water. Use immediately. (UNLICENSED*, LOW COST) (NEWT, April 2019)</li> <li>Carvedilol 5mg/5ml oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Chlorphenamine Maleate	<p><a href="#">HWE ICB: Antihistamine - Position statement</a>  <a href="#">HWE ICB: Hay fever - Patient information</a>  <a href="#">HWE ICB: Over The Counter Medicines (OTC) - Prescribing guideline</a>  <a href="#">Over The Counter Medicines (OTC) - NHSE guidance</a>  <a href="#">HWE ICB: Hints and tips for anticholinergic burden (ACB) medication reviews - Primary Care prescribing resource</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <ul style="list-style-type: none"> <li>Chlorphenamine 2mg/5mL oral solution sugar free (LICENSED) (NEWT, August 2012) which can be purchased over-the-counter (OTC)</li> </ul>
Chlorpromazine	<p>Tablets should <b>not</b> be crushed (NEWT, November 2018)</p> <ul style="list-style-type: none"> <li>Chlorpromazine 25mg/5ml or 100mg/5ml oral solution (LICENSED)</li> </ul>
Ciclosporin eye	<p><a href="#">HWE ICB: Ciclosporin eye drops - Amber Initiation</a>  <a href="#">HWE ICB: Dry eye disease - Prescribing guideline</a></p> <p>To be initiated by specialist for severe keratitis in adult patients with dry eye disease as per NICE TA</p> <ul style="list-style-type: none"> <li>Ciclosporin 0.1% eye drops 0.3ml unit dose x 30 - prescribe as Ikervis® (LICENSED, HIGH COST, preservative free)</li> </ul>
Citalopram Hydrobromide	<ul style="list-style-type: none"> <li>Citalopram 40mg/mL oral drops sugar free (LICENSED). The required number of drops should be mixed with water, orange juice, or apple juice before administration  Note: 8mg (4 drops) is equivalent to 10mg Citalopram tablet (NEWT, November 2018)</li> <li>Crush and disperse tablets in water, but they may taste unpleasant (UNLICENSED*) (NEWT, November 2018)</li> </ul>
Clindamycin	<p><a href="#">HWE ICB: Infections in Primary Care - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Open capsules and disperse contents in water. Mix with juice or maple syrup to mask taste. (UNLICENSED*, LOW COST) (NEWT, December 2018)</li> <li>For paediatrics only - Clindamycin 75mg/5ml oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Clobazam	<p>Prescribe for epilepsy treatment <b>only</b>. <a href="#">MHRA guidance (Nov 2017)</a>: Care should be taken when switching between formulations in the treatment of epilepsy. A product change poses a risk of seizures.</p> <ul style="list-style-type: none"> <li>Crush and mix in apple sauce (LICENSED) (SPC, 2024)</li> <li>Crush and disperse tablets in water (UNLICENSED*) (NEWT, April 2019)</li> <li>Clobazam 10mg/5ml oral suspension sugar free (LICENSED, HIGH COST, MOST COST-EFFECTIVE PREPARATION)</li> </ul>
Clonidine	<p><a href="#">HWE ICB - Clonidine - Attention deficit hyperactivity disorder (ADHD) - RED drug</a>: Do not prescribe in primary care – Prescribing to be retained by Secondary care</p>
Clonazepam	<p><a href="#">HWE ICB: Clonazepam - Epilepsy - Amber Initiation</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">MHRA guidance (Nov 2017)</a>: Care should be taken when switching between formulations in the treatment of epilepsy. A product change poses a risk of seizures.</p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water. If giving via enteral tube, dilute in at least 30mL of water to prevent binding to the tube (UNLICENSED*, MORE COST-EFFECTIVE) (NEWT, October 2024)</li> <li>Clonazepam 500micrograms/5mL or 2mg/5mL oral solution sugar free (LICENSED, LESS COST-EFFECTIVE)  Shelf life is 28 days once opened. Clonazepam Oral Solution by Rosemont is suitable for use with some types of NG and PEG tubes (see <a href="#">SPC</a> for more information, 2024)</li> </ul>
Clopidogrel	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Or, tablets can also be crushed and mixed with soft food (UNLICENSED*, LOW COST) (NEWT, July 2024)</li> <li>Clopidogrel 75mg/5mL oral <b>solution</b> (UNLICENSED, HIGH COST)</li> <li>For paediatrics only - Clopidogrel 1mg/ml oral <b>suspension</b> (UNLICENSED, HIGH COST)</li> </ul>

Coal tar/Betamethasone (topical)	<ul style="list-style-type: none"> <li>Prescribe LICENSED options separately to be used together - Options include: Betamethasone valerate 0.025% cream/ointment (LICENSED) or Betamethasone valerate 0.1% cream/ointment (LICENSED) <b>plus</b> coal tar solution 5% cutaneous emulsion, coal tar 4% shampoo, coal tar 2.5% scalp lotion, coal tar extract 2% shampoo or coal tar 6% cream (LICENSED)</li> <li>Coal tar solution 5% in Betamethasone valerate 0.025% ointment (UNLICENSED, HIGH COST)</li> </ul>														
Co-Amoxiclav (Amoxicillin/Clavulanic Acid)	<p><a href="#">HWE ICB: Infections in Primary Care - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Co-amoxiclav oral suspension 125mg/31mg/5mL, 250mg/62mg/5mL sugar free or 400mg/57mg/5mL (LICENSED). Shelf life is 7 days once reconstituted.</li> </ul>														
Co-Beneldopa (Benserazide/Levodopa)	<p><a href="#">HWE ICB: Co-beneldopa - Parkinson's disease - Amber Initiation</a>  <a href="#">SPS guidance on Parkinson's disease medicines in swallowing difficulties</a></p> <p>Do <b>not</b> open modified release (MR) or immediate release (IR) capsules (except Madopar® brand)</p> <ul style="list-style-type: none"> <li>Co-beneldopa 12.5mg/50mg or 25mg/100mg dispersible tablets (LICENSED)</li> </ul> <p>Note: dispersible tablets have a faster onset of action and shorter duration of action than MR capsules and a direct substitution <b>cannot</b> occur. Seek advice from specialist.</p> <p>If changing from IR capsules to dispersible tablets, a direct changeover is acceptable, but the patient should be monitored for any change in effect as there may be an altered bioavailability. It may be appropriate to prescribe a small 'when-required' dose to cover any unexpected 'on-off' effects (NEWT, August 2024)</p> <p>The dispersible tablets can be crushed and given on soft food. As absorption of the medicine is affected by food, it is important that if this method of administration is chosen, it is used consistently (UNLICENSED*, LOW COST) (NEWT, August 2024)</p>														
Co-Careldopa (Carbidopa/Levodopa)	<p><a href="#">HWE ICB: Co-careldopa - Parkinson's disease - Amber initiation</a>  <a href="#">SPS guidance on Parkinson's disease medicines in swallowing difficulties</a></p> <p>The modified release tablets should <b>not</b> be crushed - seek advice from specialist for conversion to immediate release.</p> <ul style="list-style-type: none"> <li>Immediate release tablets can be crushed and dispersed in water (UNLICENSED*, LOW COST). If swallowing difficulty/feeding tube is long-term, consider switching to co-beneldopa dispersible tablet as per the dosing guidance in table 1 (NEWT, August 2024).</li> </ul> <p>Table 1: Conversion table</p> <table border="1"> <thead> <tr> <th>Sinemet® (co-careldopa)</th> <th>Madopar® (co-beneldopa)</th> </tr> </thead> <tbody> <tr> <td>Sinemet® 62.5mg tablet</td> <td>Madopar® 62.5mg disp. tablet</td> </tr> <tr> <td>Sinemet® 110mg tablet</td> <td>Madopar® 125mg disp. tablet</td> </tr> <tr> <td>Sinemet® Plus 125mg tablet</td> <td>Madopar® 125mg disp. tablet</td> </tr> <tr> <td>Sinemet® 275mg tablet</td> <td>2 x Madopar® 125mg disp. tablet</td> </tr> <tr> <td>Half Sinemet® CR 125mg tablet</td> <td>Seek advice from specialist</td> </tr> <tr> <td>Sinemet® CR 250mg tablet</td> <td>Seek advice from specialist</td> </tr> </tbody> </table> <p>A direct dose conversion may not be appropriate in all patients. Switching to Madopar® 62.5mg given up to four times a day as required by symptoms, then adjusted upwards according to patient requirements and toleration, may be more suitable for some patients.</p> <ul style="list-style-type: none"> <li>Co-careldopa 25mg/100mg/5mL oral suspension (UNLICENSED, HIGH COST – MOST COST-EFFECTIVE STRENGTH)</li> </ul>	Sinemet® (co-careldopa)	Madopar® (co-beneldopa)	Sinemet® 62.5mg tablet	Madopar® 62.5mg disp. tablet	Sinemet® 110mg tablet	Madopar® 125mg disp. tablet	Sinemet® Plus 125mg tablet	Madopar® 125mg disp. tablet	Sinemet® 275mg tablet	2 x Madopar® 125mg disp. tablet	Half Sinemet® CR 125mg tablet	Seek advice from specialist	Sinemet® CR 250mg tablet	Seek advice from specialist
Sinemet® (co-careldopa)	Madopar® (co-beneldopa)														
Sinemet® 62.5mg tablet	Madopar® 62.5mg disp. tablet														
Sinemet® 110mg tablet	Madopar® 125mg disp. tablet														
Sinemet® Plus 125mg tablet	Madopar® 125mg disp. tablet														
Sinemet® 275mg tablet	2 x Madopar® 125mg disp. tablet														
Half Sinemet® CR 125mg tablet	Seek advice from specialist														
Sinemet® CR 250mg tablet	Seek advice from specialist														
Codeine Phosphate	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICB: Opioid resources</a></p> <ul style="list-style-type: none"> <li>Codeine 15mg/5mL linctus sugar free or Codeine 25mg/5mL oral solution (LICENSED)</li> </ul>														
Co-Dydramol (Dihydrocodeine/Paracetamol)	<ul style="list-style-type: none"> <li>Change to individual products (see separate entries for <a href="#">dihydrocodeine</a> and <a href="#">paracetamol</a>).</li> </ul>														
Colecalciferol	<p><a href="#">Hertfordshire - Vitamin D – Resources, prescribing guideline and patient information</a>  <a href="#">West Essex - Vitamin D - Prescribing guideline and Patient information</a>  <a href="#">Over The Counter Medicines (OTC) - NHSE guidance</a></p> <ul style="list-style-type: none"> <li>DO NOT prescribe for maintenance / prophylaxis; patients to purchase over-the-counter (OTC).</li> <li>Treatment dose or safeguarding concerns - prescribe as Hux® D3 20,000unit capsules (UNLICENSED, LOW COST) or Thorens® 10,000units/ml oral drops (LICENSED)</li> </ul> <p>Note: One drop contains 200 units colecalciferol (vitamin D3). 5 drops (0.1ml) contains 1000 units colecalciferol (vitamin D3).</p> <ul style="list-style-type: none"> <li>If malabsorption/compliance issues with oral treatment in adults - ergocalciferol 300,000 units/ml give via intramuscular injection (LICENSED, HIGH COST)</li> </ul>														
Cyanocobalamin	<p><a href="#">HWE ICB: Vitamin B12 - Position statement</a></p> <p>RED: Not recommended for primary care prescribing. Prescribing responsibility to be retained in secondary care. Consider increasing dietary intake of vitamin B12</p> <ul style="list-style-type: none"> <li>For vitamin B12 deficiency prescribe hydroxocobalamin Injection BP 1mg/ml given intramuscularly (LICENSED)</li> <li>Patients to purchase low dose cyanocobalamin over-the-counter (OTC)</li> </ul>														
Cyclizine Hydrochloride	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICS End of Life Care Anticipatory Prescribing Guidance</a>  <a href="#">HWE ICB: Domperidone – Nausea vomiting in children - Prescribing guideline – Double Red</a></p> <ul style="list-style-type: none"> <li>Consider switching to an alternative anti-emetic e.g., Domperidone 1mg/1ml oral suspension sugar free (LICENSED, HIGH COST) or ondansetron oral solution sugar free /orodispersible tablets (LICENSED, HIGH COST)</li> <li>Crush and disperse tablets in water. May have a bitter taste. (UNLICENSED*, LOW COST) (NEWT, August 2019)</li> <li>Cyclizine 50mg/5mL oral <b>solution</b> (UNLICENSED, HIGH COST, MOST COST-EFFECTIVE PREPARATION)</li> </ul>														

Dabigatran	<p><a href="#">HWE ICB: DOACs - Anticoagulation - Atrial fibrillation (AF) guidance - Prescribing guideline</a>  <a href="#">HWE ICB: DOAC (best value DOAC - 1st line generic apixaban &amp; rivaroxaban) - Treatment for non-valvular atrial fibrillation - Green; Treatment of deep vein thrombosis (DVT) or pulmonary embolism (PE) and prevention of recurrent DVT and PE - Amber initiation; VTE prophylaxis following hip and knee surgery - Red</a>  <a href="#">HWE ICB: DOACs - Anticoagulation - counselling checklist - Prescribing guideline</a></p> <p>Do <b>not</b> open the capsules as this may greatly affect the oral bioavailability of the drug, with a risk of increased side effects (i.e., bleeding) (NEWT, July 2024)</p> <ul style="list-style-type: none"> <li>Consider switch to alternative DOAC – <a href="#">apixaban</a> or <a href="#">rivaroxaban</a>. See individual entries.</li> <li>Dabigatran granules can be administered with either soft food (mashed carrots, mashed banana, or apple sauce) or apple juice. The medicine should be given immediately, or within 30 minutes after mixing. Soft food should be at room-temperature. Do not mix dabigatran granules with milk products (LICENSED, VERY HIGH COST)</li> </ul>
Dexamethasone	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Crush with care to avoid inhalation of dust by the carer (UNLICENSED*, LOW COST) (NEWT, December 2018)</li> <li>Dexamethasone soluble tablets sugar free (LICENSED, HIGH COST)</li> <li>Dexamethasone 2mg/5mL or 20mg/5ml (LICENSED); 10mg/5mL oral solution sugar free (LICENSED, VERY HIGH COST) by Rosemont is licensed for use with some types of NG and PEG tubes. Shelf life after first opening the container is 3 months for 2mg/5ml oral solution (see <a href="#">SPC</a> for further information, 2023) and shelf life is one month once opened for 10mg/5ml oral solution (see <a href="#">SPC</a> for more information, 2023)</li> </ul>
Dexamfetamine	<p><a href="#">West Essex - Attention deficit hyperactivity disorder (ADHD) shared care protocol children and young people (methylphenidate, lisdexamfetamine, dexamfetamine, atomoxetine or guanfacine) - Amber protocol</a>  <a href="#">West Essex (EPUT) - Attention deficit hyperactivity disorder (ADHD) shared care protocol - Amber protocol</a>  <a href="#">Hertfordshire - Attention deficit hyperactivity disorder (ADHD) shared care protocol - Amber protocol</a></p> <p>Enteral tube administration</p> <ul style="list-style-type: none"> <li>No information on administration via enteral feeding tubes (NEWT, July 2023)</li> </ul> <p>For swallowing difficulties:</p> <ul style="list-style-type: none"> <li>Amfexa® tablets: The tablet score lines enable division of the tablet into four parts only to facilitate breaking for ease of swallowing and not to divide into equal doses. For division, the tablet is placed onto a hard surface with its cross- scored, convex side downwards and is then pushed carefully with the index finger at the centre of its top side. (LICENSED) (<a href="#">SPC</a>, 2024)</li> <li>Dexamfetamine 5mg/5ml oral solution sugar free (LICENSED, HIGH COST)</li> </ul>
Diazepam	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <ul style="list-style-type: none"> <li>Diazepam 2mg/5ml oral <b>solution</b> sugar free (LICENSED, HIGH COST). Dilute with water if being administered via a feeding tube (UNLICENSED*, NEWT, October 2024)</li> <li>Diazepam 5mg or 10mg rectal tubes (LICENSED, LOW COST)</li> </ul>
Diclofenac Sodium	<p><a href="#">HWE ICB: PPIs and NSAIDs - Gastroprotection - Prescribing guideline</a></p> <p>Diclofenac treatment should only be initiated after careful consideration for patients with significant risk factors for cardiovascular events (<a href="#">MHRA</a>, December 2014)</p> <p>Do not crush / open the enteric-coated or the modified-release preparations (NEWT, October 2024)</p> <ul style="list-style-type: none"> <li>If NSAID is required, consider <a href="#">ibuprofen</a> or <a href="#">naproxen</a> (see individual entries)</li> <li>Diclofenac suppositories (LICENSED, LOW COST)</li> <li>Diclofenac 50mg/5ml oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Digoxin	<ul style="list-style-type: none"> <li>Crush tablets and mix with water (UNLICENSED*, LOW COST) (NEWT, September 2019)</li> <li>Digoxin 50micrograms/mL oral solution. Note: one 62.5microgram tablet is equivalent to 50micrograms/mL (LICENSED, LESS COST-EFFECTIVE) (NEWT, September 2019)</li> </ul>
Dihydrocodeine Tartrate	<p><a href="#">HWE ICB: Opioid resources</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <p>Do <b>not</b> crush the modified release tablets (NEWT, December 2018)</p> <p>Consider alternative analgesic such as codeine 15mg/5ml linctus sugar free or codeine 25mg/5ml oral solution or tramadol orodispersible/soluble tablets sugar free (LICENSED)</p> <ul style="list-style-type: none"> <li>Dihydrocodeine 10mg/5mL oral suspension (UNLICENSED, VERY HIGH COST)</li> </ul>
Diltiazem (topical)	<p><a href="#">HWE ICB: Diltiazem ointment 3rd line - Anal fissures - Green</a>  <a href="#">HWE ICB: Anal fissure - Prescribing pathway</a></p> <ul style="list-style-type: none"> <li>Consider if Glyceril Trinitrate (GTN) 0.4% rectal ointment is clinically appropriate (LICENSED)</li> <li>Diltiazem 2% ointment or cream (UNLICENSED)</li> </ul>
Diltiazem Hydrochloride (oral)	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <p>Diltiazem capsules/tablets should be prescribed by brand as bioavailability differs between preparations.</p> <ul style="list-style-type: none"> <li>Open modified release (MR) capsules and mix contents with soft food for administration. Do not crush the capsule contents. May block tubes (UNLICENSED*, LOW COST) (NEWT, July 2019)</li> <li>Switch MR preparation to diltiazem 60mg modified-release tablets total daily dose to be divided to three times daily. Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, July 2019)</li> <li>Diltiazem 60mg/5ml oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Docusate Sodium	<p><a href="#">HWE ICB: Opioid Induced Constipation - Prescribing pathway</a>  <a href="#">HWE ICB: Over The Counter Medicines (OTC) - Prescribing guideline</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <p>Do not open the capsules. Docusate has an unpleasant taste (NEWT, September 2011)</p> <ul style="list-style-type: none"> <li>Docusate 100mg/5mL (MOST COST-EFFECTIVE), 12.5mg/5mL or 50mg/5mL oral solution sugar free (LICENSED). Note: Docusate 12.5mg/5mL or 50mg/5mL oral solution sugar free can be purchased over-the-counter (OTC)</li> </ul>



Donepezil Hydrochloride	<p><a href="#">Hertfordshire: Acetylcholinesterase (AChE) inhibitor - Alzheimer's disease dementia - Amber Initiation - Prescribing support document</a></p> <p><a href="#">West Essex: Donepezil - Alzheimer's disease - Amber protocol - Shared care protocol</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Strong, bitter taste (UNLICENSED*, LOW COST) (NEWT, December 2015)</li> <li>Donepezil 5mg or 10mg orodispersible tablets sugar free (LICENSED, HIGH COST)</li> <li>Donepezil 1mg/mL oral solution sugar free (LICENSED, HIGH COST). Shelf life is 2 months once opened.</li> </ul>
Doxazosin Mesilate	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <p><a href="#">HWE ICB: Doxazosin (prolonged release) - Hypertension, benign prostatic hyperplasia (BPH) - Double Red</a> Modified release tablets - <b>DOUBLE RED</b>: Not recommended for secondary or primary care prescribing.</p> <p><a href="#">HWE ICB: Doxazosin Prolonged-Release Patient Information Leaflet - Hypertension, benign prostatic hyperplasia (BPH)</a></p> <ul style="list-style-type: none"> <li>Assess ongoing clinical need and switch to alternative: Benign prostatic hyperplasia – consider <a href="#">finasteride</a> or <a href="#">tamsulosin</a> (see individual entries for administration information).</li> <li>Doxazosin 1mg/5mL oral <b>solution</b> or 4mg/5mL oral <b>suspension</b> (UNLICENSED, HIGH COST)</li> </ul>
Doxycycline Hyclate	<p><a href="#">HWE ICB: Infections in Primary Care - Prescribing guideline</a></p> <p><a href="#">HWE ICB: COPD treatment guidelines</a></p> <p>Do <b>not</b> open the capsules as the contents are an irritant.</p> <ul style="list-style-type: none"> <li>Doxycycline 100mg dispersible tablets sugar free (LICENSED) Note: when given via enteral tubes, doxycycline binds to calcium ions reducing absorption, so prescribe at the higher end of the standard dosage range (NEWT, September 2019)</li> </ul>
Edoxaban	<p><a href="#">HWE ICB: DOACs - Anticoagulation - Atrial fibrillation (AF) guidance - Prescribing guideline</a></p> <p><a href="#">HWE ICB: DOAC (best value DOAC - 1st line generic apixaban &amp; rivaroxaban) - Treatment for non-valvular atrial fibrillation - Green; Treatment of deep vein thrombosis (DVT) or pulmonary embolism (PE) and prevention of recurrent DVT and PE - Amber initiation; VTE prophylaxis following hip and knee surgery - Red</a></p> <p><a href="#">HWE ICB: DOACs - Anticoagulation - counselling checklist - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water or mix with apple puree for swallowing difficulties or crush and disperse in water for enteral tube administration. Administer immediately. (LICENSED) (NEWT, June 2021 and SPC, 2024)</li> </ul>
Enalapril Maleate	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Or, the tablets can be crushed and mixed with soft food for administration. The crushed tablets may have a bitter after-taste. (UNLICENSED*, LOW COST) (NEWT, July 2024)</li> <li>Enalapril 10mg/5mL oral <b>suspension</b> (UNLICENSED, HIGH COST)</li> <li>Enalapril 5mg/5mL oral solution sugar free (LICENSED, VERY HIGH COST)</li> </ul>
Esomeprazole	<p><a href="#">HWE ICB: Proton pump inhibitors - paediatric - Prescribing guideline</a></p> <p><a href="#">HWE ICB: PPI deprescribing algorithm - Gastroprotection - Prescribing support document</a></p> <p><a href="#">HWE ICB: PPIs and Anticoagulants, Antiplatelets, Corticosteroids, NSAIDs - Gastroprotection - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Consider switching to <a href="#">lansoprazole</a> orodispersible tablets. See individual entry.</li> <li>Disperse the gastro-resistant tablets in water and the micro-granules will remain for administration. Do not crush the micro-granules (NEWT, July 2019) (LICENSED, LOW COST)</li> <li>Esomeprazole 10mg gastro-resistant granules sachets for oral suspension (LICENSED, HIGH COST)</li> </ul>
Ezetimibe	<p><a href="#">NHS - Lipid management pathway - Statin intolerance - Prescribing pathway</a></p> <p><a href="#">NHS - Lipid management pathway - Primary and secondary prevention - Prescribing pathway</a></p> <ul style="list-style-type: none"> <li>Consider an alternative lipid lowering agent</li> </ul>
Felodipine	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <p>Do <b>not</b> crush modified-release (MR) tablets (NEWT, October 2024)</p> <ul style="list-style-type: none"> <li>Review indication. Consider switching to <a href="#">amlodipine</a> (see individual entry)</li> </ul>
Ferrous Fumarate	<ul style="list-style-type: none"> <li>Ferrous fumarate 140mg/5mL oral solution (LICENSED)</li> </ul>
Ferrous Sulfate	<ul style="list-style-type: none"> <li>Convert to appropriate dose of ferrous fumarate oral solution. Note: ferrous sulfate 200mg tablets three times a day, is equivalent to 10mL twice daily of ferrous fumarate 140mg/5mL oral solution (LICENSED) (NEWT, April 2017) (See <a href="#">BNF</a> for more information on elemental iron content and dose conversion)</li> <li>Ferrous sulfate 60mg/5ml oral solution (UNLICENSED)</li> </ul>
Fexofenadine Hydrochloride	<p><a href="#">HWE ICB: Antihistamine - Position statement</a></p> <p><a href="#">HWE ICB: Hay fever - Patient information</a></p> <p><a href="#">HWE ICB: Over The Counter Medicines (OTC) - Prescribing guideline</a></p> <p><a href="#">Over The Counter Medicines (OTC) - NHSE guidance</a></p> <ul style="list-style-type: none"> <li>Consider switching to alternative antihistamine in liquid form e.g. Loratadine 5mg/5ml oral solution (LICENSED), which can be purchased over-the-counter (OTC)</li> <li>Crush and disperse tablets in water (UNLICENSED*) (NEWT, June 2014)</li> <li>Fexofenadine 180mg/5ml oral suspension (UNLICENSED, VERY HIGH COST)</li> </ul>
Finasteride	<ul style="list-style-type: none"> <li>Place the tablet in the barrel of an oral or enteral syringe. Draw water up into the syringe and allow the tablet to disperse (in order to minimise carer contact with the medication). If giving via enteral feeding tube, flush well after each dose as the drug is insoluble (UNLICENSED*, LOW COST). Note: women who are, or who may become pregnant should not handle crushed, broken, or dissolved tablets (NEWT, June 2017)</li> </ul>
Fluoxetine	<ul style="list-style-type: none"> <li>Open capsules and disperse contents in water (UNLICENSED*) (NEWT, September 2022)</li> <li>Fluoxetine 20mg dispersible tablet sugar free – dispersible and scored (LICENSED)</li> <li>Fluoxetine 20mg/5ml oral solution (LICENSED, HIGH COST)</li> </ul>
Folic Acid	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, July 2015)</li> <li>Folic acid 2.5mg/5mL oral solution sugar free (LICENSED, HIGH COST, MOST COST-EFFECTIVE STRENGTH)</li> </ul>
Furosemide	<ul style="list-style-type: none"> <li>Furosemide sugar free oral solution (prescribe as Frusol®) 20mg/5ml, 40mg/5ml and 50mg/5ml (LICENSED) (NEWT, January 2019)</li> </ul>

Gabapentin	<p><a href="#">HWE ICB: Gabapentin - Epilepsy - Amber initiation</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICB: Dependence forming medicine - Pain - ECF FAQs - Primary Care prescribing resource</a>  <a href="#">HWE ICB: Neuropathic pain - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Open capsules and disperse capsule contents in water and give immediately (gabapentin has limited stability in water). Contents can be sprinkled on food or given in fruit juice to mask their unpleasant taste. (UNLICENSED*, LOW COST) (NEWT, October 2019)</li> <li>Gabapentin 50mg/mL oral solution sugar free (LICENSED, HIGH COST). Shelf life is one month once opened</li> </ul>														
Gliclazide	<p><a href="#">NICE NG28 Visual summary on choosing medicines for type 2 diabetes in adults - Prescribing pathway</a></p> <p>Do not crush the modified-release (MR) tablets; convert dose to immediate-release (IR). Note: 30mg MR is equivalent to 80mg IR. Switching from MR to IR tablets should be done with careful blood monitoring.</p> <ul style="list-style-type: none"> <li>Crush and disperse the IR tablets in water or orange juice (UNLICENSED*, LOW COST) (NEWT, February 2020)</li> <li>Gliclazide 80mg/5mL oral suspension (UNLICENSED, HIGH COST - MOST COST-EFFECTIVE STRENGTH)</li> </ul>														
Griseofulvin	<p><a href="#">HWE ICB: Infections in Primary Care - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Review indication and switch to alternative antifungal e.g., <a href="#">terbinafine</a> (see separate entry) (NEWT, December 2024)</li> </ul>														
Haloperidol	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICS End of Life Care Anticipatory Prescribing Guidance - Palliative Care</a>  <a href="#">HWE ICB: Behavioural and Psychological Symptoms of Dementia (BPSD) - Primary Care prescribing resource</a></p> <ul style="list-style-type: none"> <li>Haloperidol 10mg/5ml oral solution sugar free (LICENSED, MORE COST-EFFECTIVE)</li> <li>Haloperidol 5mg/5ml oral solution sugar free (LICENSED, LESS COST-EFFECTIVE)</li> <li>Haloperidol 200micrograms/ml oral solution sugar free (LICENSED, HIGH COST)</li> </ul>														
Hydrocortisone	<p><a href="#">HWE ICB: Hydrocortisone granules in capsules (Alkindi®) - Adrenal insufficiency - Double Red</a>  <a href="#">HWE ICB: Hydrocortisone modified-release tablets (Plenadren®) - Adrenal insufficiency - Double Red</a></p> <ul style="list-style-type: none"> <li>Crush and disperse immediate release (IR) tablets in water (UNLICENSED*, LOW COST) (NEWT, September 2023) Note: 20mg tablets can be halved and dispersed in water for a 10mg dose.</li> <li>Hydrocortisone dispersible tablets sugar free (LICENSED, HIGH COST)</li> <li>Hydrocortisone soluble tablets sugar free (LICENSED, HIGH COST)</li> <li>Hydrocortisone 5mg/5ml or 10mg/5mL oral solution (LICENSED, VERY HIGH COST)</li> </ul>														
Hydroxychloroquine Sulfate	<p><a href="#">HWE ICB: Hydroxychloroquine - Rheumatoid arthritis, discoid and systemic lupus erythematosus, and dermatological conditions caused or aggravated by sunlight - Amber initiation</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, March 2021)</li> <li>Hydroxychloroquine 200mg/5mL oral suspension (UNLICENSED, HIGH COST)</li> </ul>														
Hyoscine Butylbromide	<p><a href="#">HWE ICB: Hyoscine butylbromide - Irritable bowel syndrome (IBS) 1st line - Green</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICS End of Life Care Anticipatory Prescribing Guidance - Palliative Care</a></p> <ul style="list-style-type: none"> <li>Use 20mg/1ml solution for injection ampoules orally (UNLICENSED*, LOW COST) (NEWT, January 2020)</li> <li>Hyoscine butylbromide 10mg/5mL oral suspension (UNLICENSED, HIGH COST)</li> </ul>														
Ibuprofen	<p><a href="#">Over The Counter Medicines (OTC) - NHSE guidance</a>  <a href="#">HWE ICB: PPIs and NSAIDS - Gastroprotection - Prescribing guideline</a>  <a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <ul style="list-style-type: none"> <li>Ibuprofen 100mg/5ml or 200mg/5ml oral suspension sugar free (LICENSED) Note: 100ml pack size can be purchased over-the-counter (OTC)</li> </ul>														
Indapamide	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <p>Do <b>not</b> crush the modified-release (MR) tablets; convert dose to immediate-release (IR). Note: 1.5mg MR is equivalent to 2.5mg IR. (BNF)</p> <ul style="list-style-type: none"> <li>Crush and disperse IR tablets in water (UNLICENSED*, LOW COST) (NEWT, March 2020)</li> </ul>														
Irbesartan	<ul style="list-style-type: none"> <li>Crush and disperse immediate release (IR) in water. Or, the tablets can be crushed and given with food. (UNLICENSED*, LOW COST) (NEWT, July 2024)</li> </ul>														
Isosorbide Mononitrate	<p>Do <b>not</b> open capsule contents and do <b>not</b> crush the modified release (MR) tablets (note: if scored, they can be halved) (NEWT, December 2019).</p> <p>MR preparations can be converted to twice daily immediate release (IR) preparations (morning and lunchtime – see below). Most patients can be changed initially on a milligram per milligram substitution of their total daily dose where available preparations allow (PrescQIPP Bulletin 85 Isosorbide Mononitrate Prescribing 2.0, November 2015)</p> <table border="1"> <thead> <tr> <th>Dose of isosorbide mononitrate MR</th> <th>Dose of isosorbide mononitrate IR</th> </tr> </thead> <tbody> <tr> <td>25mg once daily</td> <td>10mg twice daily</td> </tr> <tr> <td>40mg once daily</td> <td>20mg twice daily</td> </tr> <tr> <td>60mg once daily</td> <td>30mg twice daily</td> </tr> <tr> <td>60mg once daily</td> <td>40mg twice daily (monitor for symptom control and adjust dose as required)</td> </tr> <tr> <td>100mg once daily</td> <td>50mg twice daily</td> </tr> <tr> <td>120mg once daily</td> <td>60mg twice daily</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>The IR tablets can be crushed and dispersed in water (UNLICENSED*, LOW COST) (NEWT, December 2019). They may have an increased rate of absorption and therefore increased side effects. Consider reducing the dose and giving doses more frequently if this occurs.</li> <li>Isosorbide mononitrate 20mg/5mL oral suspension (UNLICENSED, HIGH COST)</li> <li>Consider use of glyceryl trinitrate transdermal patches (LICENSED, HIGH COST)</li> </ul>	Dose of isosorbide mononitrate MR	Dose of isosorbide mononitrate IR	25mg once daily	10mg twice daily	40mg once daily	20mg twice daily	60mg once daily	30mg twice daily	60mg once daily	40mg twice daily (monitor for symptom control and adjust dose as required)	100mg once daily	50mg twice daily	120mg once daily	60mg twice daily
Dose of isosorbide mononitrate MR	Dose of isosorbide mononitrate IR														
25mg once daily	10mg twice daily														
40mg once daily	20mg twice daily														
60mg once daily	30mg twice daily														
60mg once daily	40mg twice daily (monitor for symptom control and adjust dose as required)														
100mg once daily	50mg twice daily														
120mg once daily	60mg twice daily														



Lamotrigine	<p><a href="#">HWE ICB: Lamotrigine - Epilepsy - Amber initiation</a>  <a href="#">MHRA guidance (Nov 2017)</a>: Care should be taken when switching between formulations in the treatment of epilepsy. A product change may pose a risk of seizures.</p> <ul style="list-style-type: none"> <li>Lamotrigine dispersible tablets sugar free (LICENSED) (NEWT, January 2019)</li> </ul>
Lansoprazole	<p><a href="#">HWE ICB: PPI deprescribing algorithm - Gastroprotection - Prescribing support document</a>  <a href="#">HWE ICB: PPIs and Anticoagulants, Antiplatelets, Corticosteroids, NSAIDs - Gastroprotection - Prescribing guideline</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <ul style="list-style-type: none"> <li>Lansoprazole 15mg or 30mg orodispersible tablets (LICENSED) (NEWT, November 2024). For dosing in paediatrics see <a href="#">HWE ICB: Proton pump inhibitor - paediatric - Prescribing guideline</a></li> </ul>
Levetiracetam	<p><a href="#">HWE ICB: Levetiracetam - Epilepsy - Amber initiation</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">MHRA guidance (Nov 2017)</a>: Care should be taken when switching between formulations in the treatment of epilepsy. A product change may pose a risk of seizures.</p> <ul style="list-style-type: none"> <li>Levetiracetam 100mg/mL oral solution sugar free (LICENSED)</li> </ul>
Levomepromazine	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICS End of Life Care Anticipatory Prescribing Guidance - Palliative Care</a></p> <ul style="list-style-type: none"> <li>Consider switching to alternative antipsychotic if appropriate (e.g., <a href="#">haloperidol</a>, <a href="#">chlorpromazine</a>, <a href="#">sulpiride</a> available as LICENSED liquids). Contact specialist for advice/review.</li> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, March 2020)</li> <li>For nausea and vomiting – Use one quarter of a scored 25mg tablet for 6.25mg dose. Levomepromazine 2.5mg/5ml oral suspension (UNLICENSED, HIGH COST, MOST COST-EFFECTIVE STRENGTH)</li> <li>Levomepromazine hydrochloride 25mg/5ml oral solution sugar free (LICENSED, VERY HIGH COST)</li> </ul>
Levothyroxine Sodium	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED* LOW COST) (NEWT, June 2021). Patients taking capsules (UNLICENSED, HIGH COST) due to lactose or galactose intolerance - Switch to levothyroxine sodium tablets and note for dispenser for lactose free tablets (Teva, Aristo or Glenmark) (LICENSED, LOW COST)</li> <li>Levothyroxine oral solution sugar free 50micrograms/5mL or 100micrograms/5mL (LICENSED, HIGH COST)</li> </ul>
Linagliptin	<p><a href="#">HWE ICB: Dipeptidyl peptidase-4 inhibitors (Gliptins) - Prescribing guideline</a>  <a href="#">NICE NG28 Visual summary on choosing medicines for type 2 diabetes in adults - Prescribing pathway</a>  <a href="#">HWE ICB: Sitagliptin - Primary Care prescribing resource</a></p> <p>Review indication and consider switch to <a href="#">sitagliptin</a> liquid (LICENSED) or alternative anti-diabetic agents  <a href="#">HWE ICB: Switching to Sitagliptin for adults with Type 2 Diabetes Mellitus (T2DM) - Prescribing guideline</a></p>
Liothyronine	<p><a href="#">HWE ICS - Amber protocol - Shared Care Protocol for Liothyronine in a selected cohort of adults with hypothyroidism</a>  <a href="#">HWE ICB: Liothyronine - Position Statement - Hypothyroidism - Amber protocol - Position statement</a>  <a href="#">HWE ICB: Liothyronine – Information for Patients</a>  <a href="#">HWE ICB: Liothyronine Review Algorithm - Primary Care prescribing resource</a></p> <ul style="list-style-type: none"> <li>Switch to liothyronine 20microgram tablets; these can be halved or quartered for part-dosing (UNLICENSED*, HIGH COST) (Common practice advised by local specialists).</li> <li>Alternatively, tablets can be dissolved/dispersed in 20 mL of water for 10 minutes, in a small measuring cup. For part dosing, use a suitable oral syringe to withdraw the amount of liquid corresponding to the dose prescribed (5mL for a 5mcg dose; 10 mL for a 10mcg dose) (LICENSED, HIGH COST) (<a href="#">SPC</a>, 2024)</li> </ul>
Liquid paraffin 50%/ Emulsifying ointment 50%	<ul style="list-style-type: none"> <li>Switch to alternative emollient e.g., White soft paraffin 50% / Liquid paraffin 50% ointment (LICENSED).</li> </ul>
Lisdexamfetamine	<p><a href="#">West Essex - Attention deficit hyperactivity disorder (ADHD) shared care protocol children and young people (methylphenidate, lisdexamfetamine, dexamfetamine, atomoxetine or guanfacine) - Amber protocol</a>  <a href="#">West Essex - Attention deficit hyperactivity disorder (ADHD) shared care protocol - Amber protocol</a>  <a href="#">Hertfordshire - Attention deficit hyperactivity disorder (ADHD) shared care protocol - Amber protocol</a></p> <ul style="list-style-type: none"> <li>For swallowing difficulty, capsules can be opened and the entire contents emptied and mixed with a soft food such as yogurt or in water / orange juice. A spoon may be used to break compacted powder apart in the soft food or liquid. The contents should be stirred until completely dispersed and consumed immediately (LICENSED) (<a href="#">SPC</a>, 2024)</li> </ul>
Lisinopril	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Or, the tablets can be crushed and given with soft food (UNLICENSED*, LOW COST) (NEWT, August 2024)</li> <li>Lisinopril 20mg/5mL oral <b>suspension</b> (UNLICENSED, HIGH COST)</li> <li>Lisinopril 5mg/5mL oral solution sugar free (LICENSED, VERY HIGH COST). Shelf life is 30 days once opened. (<a href="#">SPC</a>, 2024)</li> </ul> <p>The solution is absorbed to a lesser extent than tablets, monitor blood pressure (BP) and consider dose alteration if necessary (NEWT, August 2024)</p>
Lithium Carbonate	<p><a href="#">West Essex: Lithium - Amber protocol - Shared care protocol</a>  <a href="#">Hertfordshire - Lithium - Amber protocol - Share care protocol</a>  <a href="#">HWE ICB: Lithium Primary Care action plan - Prescribing resource</a></p> <ul style="list-style-type: none"> <li>Seek advice from specialist.</li> </ul>
Loperamide Hydrochloride	<p><a href="#">HWE ICB - Loperamide - Diarrhoea - Green</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <ul style="list-style-type: none"> <li>Capsules can be opened, and the contents mixed with water, jam or yoghurt (UNLICENSED*, LOW COST) (NEWT, November 2024)</li> <li>Loperamide 2mg orodispersible tablets sugar free (LICENSED, HIGH COST)</li> <li>Loperamide 25mg/5mL oral <b>suspension</b> (UNLICENSED, MOST COST-EFFECTIVE PREPARATION)</li> </ul>

Lorazepam	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICS End of Life Care Anticipatory Prescribing Guidance - Palliative Care</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, March 2020)</li> <li>Give tablets sublingually but the patient must have a sufficiently moist mouth for absorption to occur (UNLICENSED*) (NEWT, March 2020)</li> <li>Lorazepam 1mg/5mL or 500micrograms/5mL oral <b>solution</b> (UNLICENSED, HIGH COST)</li> <li>Lorazepam 1mg/mL oral solution sugar free (LICENSED, VERY HIGH COST)</li> </ul>
Losartan Potassium	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Or, the tablets can be crushed and given with soft food. (UNLICENSED*, LOW COST) (NEWT, August 2024)</li> <li>Losartan 50mg/5mL oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Lymecycline	<p><a href="#">HWE ICB: Infections in Primary Care - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Consider switching to <a href="#">doxycycline</a> (LICENSED) (see individual entry)</li> </ul>
Magnesium	<p>Calculate mmol of magnesium and switch to alternative magnesium salt. Magnesium preparations may not be interchangeable due to differences in bioavailability, therefore caution should be exercised when switching preparations to ensure tolerability and to maintain therapeutic effect. (<a href="#">BNF</a>)</p> <ul style="list-style-type: none"> <li>Magnesium aspartate 243mg (10mmol magnesium) oral powder sachets (LICENSED) or Magnesium glycerophosphate Chewable Tablets sugar free 97.2mg (4mmol) (LICENSED)</li> <li>Magnesium glycerophosphate 121.25mg/5ml (5mmol/5ml) oral solution (LICENSED)</li> </ul> <p>Note: Review indication for prescribing magnesium supplementation and should be purchased over-the-counter (OTC) if patients are asymptomatic or have sufficient magnesium levels.</p>
Mebeverine Hydrochloride	<p><a href="#">HWE ICB: Mebeverine - modified release (MR) - Irritable bowel syndrome (IBS) - Double Red</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <p>Consider an alternative for the symptomatic relief of irritable bowel syndrome and or/other indications. Contact specialist for advice on modified release (MR) capsules. Mebeverine 135mg tablet is equivalent to mebeverine 150mg liquid (NEWT, September 2024)</p> <ul style="list-style-type: none"> <li>In combination with a bulk-forming laxative: Ispaghula husk 3.5g / Mebeverine 135mg effervescent granules sachets sugar free (LICENSED)</li> <li>Mebeverine 50mg/5mL oral suspension sugar free (LICENSED, VERY HIGH COST)</li> </ul>
Melatonin	<p><a href="#">HWE ICB: Melatonin - Insomnia - Learning disability in adults and paediatrics - Amber initiation - Prescribing support document</a>  <a href="#">HWE ICB: Melatonin - Insomnia - product options in adult and paediatric patients with learning disabilities - Amber initiation - Prescribing guideline</a>  <a href="#">HWE ICB: Melatonin - Insomnia - Neurodevelopmental Disorders in patients under the age of 18 years - Amber initiation - Prescribing support document</a>  <a href="#">HWE ICB: Melatonin - Insomnia - product options in neurodevelopmental disorders in patients aged 2 to under 18 years - Amber initiation - Prescribing guideline</a>  <a href="#">HWE ICB: Melatonin - Insomnia adults excluding learning disabilities - Double Red</a>  <a href="#">HWE ICB: Melatonin (Slenyto) - Insomnia - Double Red</a></p> <ul style="list-style-type: none"> <li>Crush and disperse Adaflex® tablets in water (LICENSED). (See <a href="#">SPC</a> for more information, 2024)</li> <li>For children 3 years and over – Ceyesto® 1mg/ml oral solution. Ceyesto® is the liquid preparation of choice as it has been risk assessed as suitable for use in children 3 years and over. Ceyesto® can be considered sugar, sodium and ethanol free and can be administered via a silicone gastric, duodenal or nasal feeding tube. Note: Ceyesto® has a 1-month expiry once opened (LICENSED).</li> </ul>
Memantine	<p><a href="#">Hertfordshire - Alzheimer's disease dementia - Amber initiation - Prescribing support document</a>  <a href="#">West Essex - Alzheimer's disease dementia - Amber protocol - Shared care protocol</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water. Crush well as they are film-coated. (UNLICENSED*, LOW COST) (NEWT, August 2015)</li> <li>Memantine 10mg/ml oral solution sugar free (LICENSED, HIGH COST)</li> <li>Memantine orodispersible tablets sugar free (LICENSED, HIGH COST)</li> </ul>
Mercaptopurine	<p><a href="#">Hertfordshire - Mercaptopurine - Multisystem autoimmune disease - Amber protocol - Share care protocol</a>  <a href="#">West Essex - Mercaptopurine - Multisystem autoimmune disease - Amber protocol - Share care protocol</a></p> <p><b>CYTOTOXIC – DO NOT CRUSH TABLETS</b></p> <p>Mercaptopurine 20mg/ml oral suspension (LICENSED, VERY HIGH COST). Shelf life is 56 days after first opening. (see <a href="#">SPC</a> for more information, 2024)</p> <p>Oral suspension and tablets are not bioequivalent with respect to peak plasma concentration; Specialist supervision is advised when switching formulations</p>
Mesalazine	<p><a href="#">HWE ICB: Mesalazine - Mezavant - Inflammatory bowel disease - Double Red</a></p> <ul style="list-style-type: none"> <li>Mesalazine MR granules sachets sugar free (LICENSED) can be used for patients with swallowing difficulties but not for enteral feeding. Prescribe as <i>Pentasa</i>® or <i>Salofalk</i>®</li> <li><i>Pentasa</i>® tablets will disperse in water, leaving small beads which must be administered intact (therefore suitable only for large-bore tubes). Do not crush. (UNLICENSED*) (NEWT, May 2020)</li> <li>Consider rectal route (enemas or suppositories) if appropriate to the location of the condition (NEWT, May 2020)</li> </ul>
Metformin	<p><a href="#">NICE NG28 Visual summary on choosing medicines for type 2 diabetes in adults - Prescribing pathway</a>  <a href="#">HWE ICB: Metformin - Diabetes type 2 - Primary Care prescribing resource</a>  <a href="#">HWE ICB: Deprescribing in Adults with Type 2 Diabetes - Primary Care prescribing resource</a></p> <p>Do not crush modified release (MR) tablets. Convert MR to immediate release (IR) tablets. Total daily MR dose (usually once or twice daily) to be converted to equivalent IR dose and given up to three times daily. Monitor blood glucose levels.</p> <ul style="list-style-type: none"> <li>Crush and disperse IR tablets in water (UNLICENSED*, LOW COST) (NEWT, September 2023)</li> <li>Metformin 500mg oral powder sachets sugar free (LICENSED)</li> <li>Metformin 500mg/5ml oral solution sugar free (LICENSED, HIGH COST, MOST COST-EFFECTIVE STRENGTH)</li> </ul>

Methotrexate	<p><a href="#">Hertfordshire: Methotrexate - Autoimmune disease - Amber protocol - Shared care protocol</a>  <a href="#">West Essex: Methotrexate - Autoimmune disease - Amber protocol - Shared care protocol</a>  <a href="#">HWE ICB: Methotrexate 2.5mg - Autoimmune disease - Amber protocol - Prescribing guideline</a>  <a href="#">HWE ICB: Methotrexate 10mg tablets - Autoimmune disease - Double Red</a></p> <p><b>CYTOTOXIC – DO NOT CRUSH TABLETS</b></p> <ul style="list-style-type: none"> <li>• Methotrexate 2mg/mL oral solution sugar free (LICENSED, HIGH COST)</li> <li>• Consider subcutaneous route of administration</li> </ul>
Methylphenidate immediate release preparation	<p><a href="#">West Essex - Attention deficit hyperactivity disorder (ADHD) shared care protocol children and young people (methylphenidate, lisdexamfetamine, dexamfetamine, atomoxetine or guanfacine) - Amber protocol</a>  <a href="#">West Essex - Attention deficit hyperactivity disorder (ADHD) shared care protocol - Amber protocol</a>  <a href="#">Hertfordshire - Attention deficit hyperactivity disorder (ADHD) shared care protocol - Amber protocol</a>  <a href="#">HWE ICB: Narcolepsy (tertiary centre only) some have agreed amber protocol - Amber initiation</a></p> <p>Enteral tube administration:</p> <ul style="list-style-type: none"> <li>• Crush the tablets and mix with water for administration (UNLICENSED*) (NEWT, January 2022)</li> </ul> <p>Swallowing difficulties:</p> <ul style="list-style-type: none"> <li>• Crush tablets and mix with water for administration (UNLICENSED*, LOW COST) (NEWT, January 2022)</li> <li>• Methylphenidate 5mg/5ml oral suspension (UNLICENSED, HIGH COST) (NEWT January 2022)</li> </ul>
Methylphenidate modified release preparations	<p><a href="#">West Essex - Attention deficit hyperactivity disorder (ADHD) shared care protocol children and young people (methylphenidate, lisdexamfetamine, dexamfetamine, atomoxetine or guanfacine) - Amber protocol</a>  <a href="#">West Essex - Attention deficit hyperactivity disorder (ADHD) shared care protocol - Amber protocol</a>  <a href="#">Hertfordshire - Attention deficit hyperactivity disorder (ADHD) shared care protocol - Amber protocol</a></p> <p>Concerta XL tablets and the branded generic bioequivalents (Affenid XL, Delmosart XL, Xagittin XL, Xenidate XL, Matoride XL)</p> <ul style="list-style-type: none"> <li>• Seek advice from specialist</li> </ul> <p>Equasym XL capsules</p> <ul style="list-style-type: none"> <li>• For swallowing difficulty, the capsule may be opened, and contents sprinkled onto a small amount (tablespoon) of apple sauce and given immediately. Drinking some fluids, e.g. water, should follow. Capsule contents must not be crushed or chewed. (LICENSED) (<a href="#">SPC</a>, 2024)</li> </ul> <p>Medikinet XL capsules</p> <ul style="list-style-type: none"> <li>• For swallowing difficulty, the capsule may be opened, and contents sprinkled onto a small amount (tablespoon) of apple sauce or yoghurt and given immediately. Drinking some fluids, e.g. water, should follow. Capsule contents must not be crushed or chewed. (LICENSED) (<a href="#">SPC</a>, 2024)</li> </ul> <p>Meflynate XL and Metyrol XL capsules</p> <ul style="list-style-type: none"> <li>• For swallowing difficulty, capsules can be carefully opened, and contents sprinkled over soft food (e.g. apple sauce) at room temperature and given immediately. Capsule contents should not be chewed or crushed. (LICENSED) (<a href="#">SPC</a>, 2024)</li> </ul>
Metolazone	<p><a href="#">HWE ICB: Metolazone - Oedema - Red - Decision document</a>  <a href="#">HWE ICB: Metolazone - Oedema - Patient information</a></p> <p><b>RED</b> drug: Do not prescribe in primary care – Secondary care only</p>
Metoprolol	<p>Do <b>not</b> crush modified release (MR) tablets</p> <ul style="list-style-type: none"> <li>• Consider switching to <a href="#">atenolol</a> or <a href="#">propranolol</a> (see individual entries). Refer to indications and dosing in the BNF to convert to immediate release (IR) tablets. IR tablets can be crushed and dispersed in water (UNLICENSED*, LOW COST) (NEWT, February 2019)</li> <li>• Metoprolol 12.5mg/5ml oral suspension (UNLICENSED, MOST COST-EFFECTIVE PREPARATION)</li> </ul>
Midazolam	<p><a href="#">HWE ICB: Midazolam (Buccolam) - Epilepsy (prescribe by brand) - Amber initiation - Prescribing guideline</a>  <a href="#">HWE ICB: Midazolam (Epistatus) - Epilepsy (prescribe by brand) - Amber initiation - Prescribing guideline</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICS End of Life Care Anticipatory Prescribing Guidance - Palliative Care</a></p> <p>Prescribe the same brand as at initiation as strengths vary.</p> <ul style="list-style-type: none"> <li>• Buccolam® oromucosal solution 10mg/2ml prefilled oral syringes – various dose sizes available, and Epistatus® oromucosal solution 10mg/1ml prefilled oral syringes</li> </ul>
Mirtazapine	<ul style="list-style-type: none"> <li>• Mirtazapine orodispersible tablets (LICENSED)</li> <li>• Crush and disperse tablets in water (UNLICENSED*, LOW COST). The tablets have a bitter taste and an anaesthetic effect on the mouth (NEWT, August 2020)</li> <li>• Mirtazapine 15mg/mL oral solution sugar free (LICENSED, HIGH COST). Shelf life is 42 days once opened.</li> </ul>
Montelukast	<p><a href="#">HWE ICB: Asthma - Children 5 to 19 years - Green - Prescribing guideline</a>  <a href="#">HWE ICB: Asthma - Adults 18 years and over - Green - Prescribing guideline</a>  <a href="#">HWE ICB: Asthma - Step down guidance - Green - Prescribing guideline</a>  <a href="#">HWE ICB: Allergic rhinitis pathway - Prescribing pathway</a></p> <ul style="list-style-type: none"> <li>• Montelukast chewable 4mg or 5mg tablets sugar free can be dispersed in water (LICENSED) (NEWT, February 2022)</li> <li>• Montelukast 4mg oral granules sachets sugar free (LICENSED, HIGH COST) can be administered either directly in the mouth, or mixed with a spoonful of soft food (<a href="#">SPC</a>, June 2024)</li> <li>• Montelukast 10mg tablets – for children the standard tablets can be crushed and mixed with a small amount of soft food such as yogurt, honey, or mashed potato. This should be swallowed straight away without chewing (UNLICENSED, LOW COST) (<a href="#">Medicines For Children</a>, October 2014)</li> </ul>
Naproxen	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICB: PPIs and NSAIDs - Gastroprotection - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>• Crush and disperse tablets in water (UNLICENSED*, LOW COST). Do <b>not</b> crush the enteric coated tablets. (NEWT, October 2021)</li> <li>• Naproxen 250mg/5ml oral suspension (LICENSED, HIGH COST, MOST COST-EFFECTIVE STRENGTH)</li> <li>• Naproxen 250mg effervescent tablets sugar free (LICENSED, HIGH COST)</li> </ul>

Nicorandil	<ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, May 2010)</li> </ul>
Nifedipine	<p>Use of immediate release (IR) nifedipine capsules for blood pressure control is not recommended due to the risk of rebound hypertension and tachycardia.</p> <p><u>For blood pressure control</u></p> <ul style="list-style-type: none"> <li>Consider alternative methods of blood pressure control, e.g., switching to <a href="#">amlodipine</a> (see separate entry) (NEWT, January 2021)</li> <li>Modified release (MR) capsules (e.g., <i>Coracten</i><sup>®</sup>) can be opened and contents given, do not crush contents (UNLICENSED*, LOW COST) (NEWT, January 2021) (Dosing is brand specific - BNF, 2020)</li> </ul> <p><u>For other indications</u></p> <ul style="list-style-type: none"> <li>IR capsules can be bitten, and the contents administered sublingually (UNLICENSED*, LOW COST) (NEWT, January 2021)</li> <li>Nifedipine 10mg/5mL oral suspension (UNLICENSED, HIGH COST, MOST COST-EFFECTIVE STRENGTH)</li> </ul>
Nitrofurantoin	<p><a href="#">HWE ICB: Infections in Primary Care - Prescribing guideline</a>  <a href="#">HWE ICB: Urinary Tract Infections (UTI) - Recurrent - adult - Prescribing guideline</a></p> <p>Do <b>not</b> open modified release (MR) capsules.</p> <ul style="list-style-type: none"> <li>Open 50mg or 100mg immediate release (IR) <b>capsules</b> and disperse contents in water (UNLICENSED*, LOW COST). Crush and disperse IR <b>tablets</b> in water for enteral feeds only (UNLICENSED*, LOW COST) (NEWT, December 2024)</li> <li>Nitrofurantoin 25mg/5mL oral suspension sugar free (LICENSED, VERY HIGH COST)</li> </ul>
Olanzapine	<p><a href="#">HWE ICB: Behavioural and Psychological Symptoms of Dementia (BPSD) - Primary Care prescribing resource</a></p> <ul style="list-style-type: none"> <li>Olanzapine orodispersible tablets sugar free (LICENSED, HIGH COST). The tablet can be placed on the tongue or dispersed in water, orange juice, apple juice, milk, or coffee. Olanzapine may be irritant to the skin and eyes, so take precautions to avoid contact (e.g. wear gloves) (NEWT, August 2022)</li> <li>Olanzapine 2.5mg/5mL oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Omeprazole	<p><a href="#">HWE ICB: Proton pump inhibitors - paediatric - Prescribing guideline</a>  <a href="#">HWE ICB: PPI deprescribing algorithm - Gastroprotection - Prescribing support document</a>  <a href="#">HWE ICB: PPIs and Antiplatelets - Gastroprotection - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Consider switching to <a href="#">lansoprazole</a> (see individual entry). Omeprazole dispersible gastro-resistant tablets consider switching to lansoprazole orodispersible tablets</li> <li>Omeprazole dispersible gastro-resistant tablets (LICENSED) - Disperse tablet in water. Can then mix with orange / apple / pineapple juice, apple sauce, or yogurt (NEWT, January 2023)</li> <li><b>DOUBLE RED</b>: not for prescribing in primary or secondary care – Omeprazole suspension and solutions sugar free (LICENSED)</li> </ul>
Ondansetron	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <ul style="list-style-type: none"> <li>Ondansetron orodispersible films sugar free (LICENSED, HIGH COST)</li> <li>Ondansetron orodispersible tablets (LICENSED, VERY HIGH COST)</li> <li>Ondansetron 4mg/5ml oral solution sugar free (LICENSED, VERY HIGH COST)</li> </ul>
Oxybutynin	<p><a href="#">HWE ICB: Hyperhidrosis Management - Clinical Pathway</a>  <a href="#">HWE ICB - Hyperhidrosis - Decision document</a>  <a href="#">HWE ICB: Management of Adult Urinary Incontinence for Primary Care clinicians - Prescribing guideline</a> – review and consider alternatives</p> <p>Do <b>not</b> crush the modified release (MR) tablets (NEWT, August 2020)</p> <ul style="list-style-type: none"> <li>Crush and disperse immediate release (IR) tablets in water (UNLICENSED*, LOW COST) (NEWT, August 2020)</li> <li>Oxybutynin 3.9mg/24hours transdermal patches (LICENSED, HIGH COST)</li> <li>Oxybutynin oral solution 2.5mg/5ml or 5mg/5ml sugar free (LICENSED, VERY HIGH COST)</li> </ul>
Pantoprazole	<p><a href="#">HWE ICB: PPI deprescribing algorithm - Gastroprotection - Prescribing support document</a></p> <p>HWE ICB: Proton pump inhibitors - paediatric - Prescribing guideline</p> <ul style="list-style-type: none"> <li>Consider switching to another proton pump inhibitor which is available in a suspension or dispersible form, e.g., <a href="#">lansoprazole</a> or <a href="#">omeprazole</a>. See separate entries (NEWT, January 2015)</li> </ul>
Paracetamol	<p><a href="#">HWE ICB - Over The Counter Medicines (OTC) - Prescribing guideline</a>  <a href="#">Over The Counter Medicines (OTC) - NHSE guidance</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICS End of Life Care Anticipatory Prescribing Guidance - Palliative Care</a>  <a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a>  <a href="#">HWE ICB: Migraine treatment in adults - Patient information</a></p> <ul style="list-style-type: none"> <li>Paracetamol 250mg/5ml oral suspension sugar free (LICENSED). Note: 200ml pack size can be purchased over-the-counter (OTC).</li> <li>Paracetamol 1g effervescent tablets sugar free (LICENSED). Note: These contain high amounts of sodium (NEWT, April 2022).</li> <li>Paracetamol 1g suppositories (LICENSED, HIGH COST)</li> </ul>
Paroxetine Hydrochloride	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICB - Selective serotonin reuptake inhibitors (SSRIs) - Irritable bowel syndrome (IBS) 3rd line unlicensed - Green</a>  <a href="#">HWE ICB - Selective serotonin reuptake inhibitors (SSRIs) - Narcolepsy (tertiary centre only) some have agreed amber protocol - Amber initiation</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablet in water (UNLICENSED*, LOW COST). The crushed tablets are bitter and have a slight local anaesthetic effect. (NEWT, September 2024)</li> </ul>
Perindopril Arginine	<p><a href="#">HWE ICB: Perindopril arginine - Heart failure, hypertension and prophylaxis of CV events - Double Red - Prescribing guideline</a>  <a href="#">HWE ICB: Perindopril Arginine Patient information leaflet</a>  <a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <p>Switch perindopril <i>arginine</i> to perindopril <i>erbumine</i>. Perindopril arginine 2.5mg is equivalent to 2mg <a href="#">perindopril erbumine</a>. See separate entry. (NEWT, August 2014)</p>

Perindopril Erbumine	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, January 2021)</li> <li>Perindopril erbumine 4mg/5mL oral <b>solution</b> (UNLICENSED, HIGH COST)</li> </ul>
Phenobarbital	<p><a href="#">HWE ICB: Phenobarbital - Epilepsy - Amber initiation</a>  <a href="#">MHRA guidance (Nov 2017)</a>: Care should be taken when switching between formulations in the treatment of epilepsy. A product change poses a risk of seizures. <b>Seek specialist advice.</b></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*) (NEWT, January 2021)</li> <li>Phenobarbital 15mg/5ml elixir. The elixir contains 38% alcohol (LICENSED).</li> <li>For children only: Use <b>ethanol-free</b> 50mg/5mL solution (150ml) or suspension (100ml) (UNLICENSED, HIGH COST)</li> </ul>
Pilocarpine (eye)	<ul style="list-style-type: none"> <li>Confirm whether patient requires preservative free - For preservative free prescribe generically as Pilocarpine nitrate 2% eye drops 0.5ml unit dose preservative free (LICENSED, VERY HIGH COST)</li> </ul>
Pioglitazone	<p><a href="#">NICE NG28 Visual summary on choosing medicines for type 2 diabetes in adults - Prescribing pathway</a>  <a href="#">HWE ICB: Deprescribing in Adults with Type 2 Diabetes - Primary Care prescribing resource</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, August 2019)</li> </ul>
Pizotifen	<p><a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a>  <a href="#">HWE ICB: Migraine treatment in adults - Patient information</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, December 2024)</li> <li>Pizotifen 250micrograms/5ml oral <b>suspension</b> (UNLICENSED, HIGH COST)</li> </ul>
Potassium Chloride	<ul style="list-style-type: none"> <li>Sando-K® (12mmol) effervescent tablets or Kay-Cee- L syrup® 5mmol/5ml (LICENSED)</li> </ul>
Potassium Permanganate	<ul style="list-style-type: none"> <li><b>NOT FOR ORAL USE.</b> Dissolve one potassium permanganate 400mg tablets for cutaneous solution (Permitabs®) (LICENSED) in four litres of water to provide a 0.01% (1 in 10 000) solution. See guidance in <a href="#">BNF</a></li> </ul>
Pravastatin Sodium	<p><a href="#">NHS - Lipid management pathway - Primary and secondary prevention of CVD - Prescribing pathway</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water or soft food for swallowing difficulties or crush and disperse in water for enteral tube administration. Give immediately. (UNLICENSED*, LOW COST) (NEWT, August 2024)</li> </ul>
Prednisolone	<p><a href="#">HWE ICB: Prednisolone enteric coated - All indications - Double Red</a>  <a href="#">HWE ICB: Allergic rhinitis - Prescribing pathway</a>  <a href="#">HWE ICB: COPD treatment guidelines - Decision document</a>  <a href="#">HWE ICB: Steroid card - FAQs - Primary Care prescribing resource</a></p> <ul style="list-style-type: none"> <li>Disperse tablets in water (UNLICENSED*, LOW COST). Do <b>not</b> crush the enteric-coated tablets due to the risk of tube blockage. <a href="#">HWE ICB: All indications - soluble tablet - Patient information</a></li> <li>Prednisolone oral solution (LICENSED, HIGH COST) in clinical exceptions:  Patients with fine-bore enteral feeding tubes  Exact dose needed  Patients or carers unable to disperse tablets in water  Lactose intolerance</li> <li>Consider using rectal preparations e.g., Prednisolone 20mg/100ml rectal solution (if appropriate to the location of the condition) (LICENSED) (NEWT, November 2021)</li> </ul>
Pregabalin	<p><a href="#">HWE ICB: Neuropathic pain - Prescribing guideline</a>  <a href="#">HWE ICB: Neuropathic Pain Drug Titration and Review - Clinical pathway</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICB: Dependence forming medicine - Pain - ECF FAQs - Primary Care prescribing resource</a>  <a href="#">HWE ICB: Opioid Deprescribing - Pain - long-term prescribing for non-cancer, chronic pain in adults - Position Statement</a>  <a href="#">HWE ICB: Opioid reduction tool - Primary care prescribing resource</a>  <a href="#">HWE ICB: Opioid - Pain - review letter - Primary Care prescribing resource</a></p> <p><a href="#">MHRA guidance (Nov 2017)</a>: Care should be taken when switching between formulations in the treatment of epilepsy. A product change poses a risk of seizures.</p> <ul style="list-style-type: none"> <li>Open capsule and dissolve contents in water (UNLICENSED* LOW COST). The capsule contents may have an unpleasant taste (NEWT, March 2021)</li> <li>Pregabalin 20mg/mL oral solution sugar free (LICENSED, HIGH COST)</li> </ul>
Prochlorperazine Maleate	<p><a href="#">HWE ICB - Over The Counter Medicines (OTC) - Prescribing guideline</a>  <a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a>  <a href="#">HWE ICB: Migraine treatment in adults - Patient information</a></p> <ul style="list-style-type: none"> <li>Prochlorperazine 3mg buccal tablets (LICENSED, HIGH COST)</li> </ul>
Procyclidine Hydrochloride	<p><a href="#">HWE ICB: Procyclidine - Parkinson's disease - Green</a></p> <ul style="list-style-type: none"> <li>Procyclidine 2.5mg/5ml oral solution sugar free (LICENSED) or 5mg/5mL oral solution sugar free (LICENSED, MORE-COST EFFECTIVE STRENGTH)</li> </ul>
Promethazine Hydrochloride	<p><a href="#">HWE ICB: Position Statement on Promethazine in Primary Care</a>  <a href="#">HWE ICB - Over The Counter Medicines (OTC) - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Promethazine 5mg/5mL oral solution sugar free (LICENSED). Shelf life is 28 days once opened.</li> </ul>
Propranolol Hydrochloride	<p><a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a>  <a href="#">HWE ICB: Migraine treatment in adults - Patient information</a></p> <p>Do <b>not</b> crush/open modified release (MR) preparations, switch to immediate release (IR) preparation. Seek specialist advice. (NEWT, October 2019)</p> <ul style="list-style-type: none"> <li>Propranolol 10mg/5mL, 40mg/5mL or 50mg/5mL oral solution sugar free (LICENSED)</li> </ul>
Quetiapine	<p><a href="#">HWE ICB: Behavioural and Psychological Symptoms of Dementia (BPSD) - Primary Care prescribing resource</a></p> <p>Do <b>not</b> crush modified release (MR) preparations – convert to immediate release (IR). Switch from MR to IR tablets at the equivalent daily dose; to maintain clinical response, dose titration may be required (BNF, 2024).</p> <ul style="list-style-type: none"> <li>Crush and disperse IR tablets in water or add to soft food. Crushed tablets taste bitter (UNLICENSED*, LOW COST) (NEWT, October 2019)</li> <li>Quetiapine 25mg/5mL oral suspension (UNLICENSED, HIGH COST, MOST COST-EFFECTIVE STRENGTH)</li> <li>Quetiapine 20mg/ml oral suspension sugar free (LICENSED, VERY HIGH COST)</li> </ul>



Quinine Sulfate	<ul style="list-style-type: none"> <li>Crush and disperse tablets well in a large volume (e.g., 200mL) of water. The crushed tablets have a bitter taste which may be masked by mixing with syrup (UNLICENSED*, LOW COST) (NEWT, October 2019)</li> <li>Quinine sulfate oral suspension 200mg/5mL and 300mg/5mL (UNLICENSED, HIGH COST)</li> </ul>																		
Ramipril	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <ul style="list-style-type: none"> <li>Open capsule and disperse contents in water. The contents can be placed onto bread or mixed with apple juice/apple sauce or can be placed directly into the mouth, though taste unpleasant (UNLICENSED*, LOW COST) (NEWT, August 2024)</li> <li>Crush and disperse tablets in water, alternatively the crushed tablets can be given with soft food (UNLICENSED*, LOW COST) (NEWT, August 2024)</li> <li>Ramipril 10mg/5ml oral suspension (UNLICENSED, VERY HIGH COST)</li> <li>Ramipril 2.5mg/5mL oral solution sugar free (LICENSED, VERY HIGH COST). Shelf life is one month once opened.</li> </ul>																		
Risperidone	<p><a href="#">HWE ICB: Behavioural and Psychological Symptoms of Dementia (BPSD) - Primary Care prescribing resource</a></p> <ul style="list-style-type: none"> <li>Risperidone 1mg/mL oral solution sugar free (LICENSED)</li> <li>Risperidone orodispersible tablets sugar free. Dissolve on tongue or disperse in water (LICENSED, HIGH COST)</li> </ul>																		
Rivaroxaban	<p><a href="#">HWE ICB: DOACs - Anticoagulation - Atrial fibrillation (AF) guidance - Prescribing guideline</a>  <a href="#">HWE ICB: DOAC (best value DOAC - 1st line generic apixaban &amp; rivaroxaban) - Treatment for non-valvular atrial fibrillation - Green; Treatment of deep vein thrombosis (DVT) or pulmonary embolism (PE) and prevention of recurrent DVT and PE - Amber initiation; VTE prophylaxis following hip and knee surgery - Red</a>  <a href="#">HWE ICB: DOACs - Anticoagulation - counselling checklist - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water or apple puree for swallowing difficulties. Crush and disperse tablets in water for administration via nasogastric (NG) tube (LICENSED) <b>Not</b> suitable for administration via enteral feeding tubes terminating beyond the stomach (i.e., in the duodenum or jejunum) (NEWT, September 2023; SPC 2024)</li> <li>Rivaroxaban 1mg/ml granules for oral suspension sugar free (LICENSED, HIGH COST)</li> </ul>																		
Rivastigmine	<p><a href="#">Hertfordshire - Alzheimer's disease dementia - Amber initiation - Prescribing support document</a>  <a href="#">West Essex - Alzheimer's disease dementia - Amber protocol - Shared care protocol</a></p> <ul style="list-style-type: none"> <li>The capsules can be opened, and the contents dispersed in water for administration (UNLICENSED*, LOW COST) (NEWT, February 2021)</li> <li>Rivastigmine 4.6mg/24 hours, 9.5mg/24 hours, 13.3mg/24 hours transdermal patches (LICENSED, HIGH COST). The patch may be suitable for patients with long term swallowing difficulties (NEWT, February 2021)</li> <li>Rivastigmine 2mg/mL oral solution sugar free (LICENSED, HIGH COST)</li> </ul>																		
Ropinirole Hydrochloride	<p><a href="#">HWE ICB: Ropinirole - Parkinson's disease - Amber initiation</a>  Do not crush the modified release (MR) tablets. Switch MR tablets to immediate release (IR) tablets (<a href="#">SPC</a>, 2023)</p> <table border="1"> <thead> <tr> <th>Ropinirole MR tablets Total daily dose</th> <th>Ropinirole IR tablets Total daily dose</th> </tr> </thead> <tbody> <tr> <td>2mg</td> <td>0.75 - 2.25mg</td> </tr> <tr> <td>4mg</td> <td>3 - 4.5mg</td> </tr> <tr> <td>6mg</td> <td>6mg</td> </tr> <tr> <td>8mg</td> <td>7.5 - 9mg</td> </tr> <tr> <td>12mg</td> <td>12mg</td> </tr> <tr> <td>16mg</td> <td>15 - 18mg</td> </tr> <tr> <td>20mg</td> <td>21mg</td> </tr> <tr> <td>24mg</td> <td>24mg</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Crush and disperse the IR tablets in water for administration via enteral feeding tubes. Crushed tablets may also be mixed with soft food for patients with swallowing difficulties. (UNLICENSED*, LOW to HIGH COST BASED ON STRENGTH) (NEWT, November 2024)</li> </ul>	Ropinirole MR tablets Total daily dose	Ropinirole IR tablets Total daily dose	2mg	0.75 - 2.25mg	4mg	3 - 4.5mg	6mg	6mg	8mg	7.5 - 9mg	12mg	12mg	16mg	15 - 18mg	20mg	21mg	24mg	24mg
Ropinirole MR tablets Total daily dose	Ropinirole IR tablets Total daily dose																		
2mg	0.75 - 2.25mg																		
4mg	3 - 4.5mg																		
6mg	6mg																		
8mg	7.5 - 9mg																		
12mg	12mg																		
16mg	15 - 18mg																		
20mg	21mg																		
24mg	24mg																		
Rosuvastatin Calcium	<p><a href="#">NHS - Lipid management pathway - Statin intolerance - Prescribing pathway</a>  <a href="#">NHS - Lipid management pathway - Primary and secondary prevention of CVD - Prescribing pathway</a></p> <ul style="list-style-type: none"> <li>Crush and disperse tablets in water or mix with soft food for patients with swallowing difficulties (UNLICENSED*, LOW COST) (NEWT, August 2024)</li> <li>Capsules can be opened, and contents administered in applesauce or chocolate/vanilla flavoured pudding. Do not chew. (UNLICENSED*, LOW COST) (NEWT, August 2024)</li> </ul>																		
Salicylic Acid Ointment (topical)	<ul style="list-style-type: none"> <li>Initiation by specialist for hyperkeratotic conditions only. Review ongoing clinical need.</li> <li>Alternatives include: Urea 10%/ Lactic acid 5% cream (Udrate®), Salicylic acid 12% / Lactic acid 4% gel (Salatac®), Salicylic acid 16.7% / Lactic acid 16.7% paint (Salactol®), Salicylic acid 26% gel (5g) or solution (10ml), Salicylic acid 40% medicated plasters (Scholl Verruca Removal System) (ALL LICENSED, LOW COST)</li> <li>Salicylic acid 2% products are available OTC</li> <li>Salicylic acid 5%, 10% and 20% in emulsifying ointment (UNLICENSED, HIGH COST)</li> </ul>																		
Sertraline Hydrochloride	<ul style="list-style-type: none"> <li>Consider switching to SSRI with suitable formulations e.g., <a href="#">citalopram</a> or <a href="#">fluoxetine</a> (LICENSED) (See individual entries).</li> <li>Crush and disperse tablets in water or mix with food. They have a bitter taste and an anaesthetic effect on the tongue – take care with hot foods after administration (UNLICENSED*, LOW COST) (NEWT, July 2024)</li> </ul>																		
Simvastatin	<p><a href="#">NHS - Lipid management pathway - Statin intolerance - Prescribing pathway</a>  <a href="#">NHS - Lipid management pathway - Primary and secondary prevention of CVD - Prescribing pathway</a></p> <ul style="list-style-type: none"> <li>Crush and disperse in water or mix with soft food for patients with swallowing difficulties. Give immediately. (UNLICENSED*, LOW COST) (NEWT, August 2024)</li> <li>Simvastatin 20mg/5mL or 40mg/5mL oral suspension sugar free (LICENSED, HIGH COST). Shelf life is one month once opened.</li> </ul>																		



Sitagliptin	<p><a href="#">HWE ICB: Dipeptidyl peptidase-4 inhibitors (Gliptins) - Prescribing guideline</a>  <a href="#">NICE NG28 Visual summary on choosing medicines for type 2 diabetes in adults - Prescribing pathway</a>  <a href="#">HWE ICB: Switching to Sitagliptin for adults with Type 2 Diabetes Mellitus (T2DM) - Prescribing guideline</a>  <a href="#">HWE ICB: Sitagliptin - Primary Care prescribing resource</a></p> <ul style="list-style-type: none"> <li>• Sitagliptin 100mg/5ml oral solution sugar free (LICENSED, HIGH COST)</li> </ul>
Sodium Bicarbonate	<ul style="list-style-type: none"> <li>• Switch to 500mg sodium bicarbonate capsules (6mmol sodium/capsule). Open capsules and disperse contents in water (UNLICENSED*, LOW COST) (NEWT, February 2021)</li> <li>• Sodium bicarbonate 420mg/5ml (1mmol/ml) oral solution sugar free (Prescribe as Thamicarb®). Product has 3 days (100ml), and 7 days (500ml) shelf life once opened (LICENSED, VERY HIGH COST)</li> </ul>
Sodium Chloride (eye)	<p>Review ongoing clinical need</p> <ul style="list-style-type: none"> <li>• Available over the counter. Promote self-care.</li> <li>• Sodium chloride 5% eye ointment preservative free (LICENSED, HIGH COST) or sodium chloride 5% eye drops (LICENSED, LOW COST).</li> </ul>
Sodium Valproate	<p><a href="#">MHRA National Patient Safety Alert: Valproate: organisations to prepare for new regulatory measures for oversight of prescribing to new patients and existing female patients (NatPSA/2023/013/MHRA)</a>  <a href="#">MHRA Drug Safety Update: Valproate use in men: as a precaution, men and their partners should use effective contraception</a>  <a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a>  <a href="#">HWE ICB: Migraine treatment in adults - Patient information</a>  <a href="#">MHRA guidance (Nov 2017)</a>: Care should be taken when switching between formulations in the treatment of epilepsy. A product change poses a risk of seizures.</p> <ul style="list-style-type: none"> <li>• Sodium valproate 200mg/5mL oral solution sugar free (LICENSED)</li> <li>• Sodium valproate 100mg crushable tablets (LICENSED) can be mixed with soft food e.g., yoghurt or jam to mask the bitter taste.</li> <li>• For patients who are stabilised on modified-release formulations, use sodium valproate modified release (MR) granules sachets (LICENSED, LESS COST-EFFECTIVE) for swallowing difficulty only (NEWT, September 2024). Granules can be mixed with soft food or a cold drink and should be swallowed whole without chewing.</li> </ul>
Solifenacin	<p><a href="#">HWE ICB: Management of Adult Urinary Incontinence for Primary Care clinicians - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>• Consider <a href="#">tolterodine</a> immediate release tablets can be crushed and dispersed in water (UNLICENSED*, LOW COST). (See individual entry).</li> <li>• Oxybutynin 3.9mg/24hours transdermal patches (LICENSED, HIGH COST)</li> <li>• Solifenacin 1mg/ml oral <b>suspension</b> sugar free (LICENSED, HIGH COST)</li> </ul>
Sotalol Hydrochloride	<ul style="list-style-type: none"> <li>• Consider alternative licensed beta-blocker preparation</li> <li>• Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, April 2021)</li> <li>• Sotalol 25mg/5mL oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Spironolactone	<p><a href="#">HWE ICB: Hypertension guidelines in adults</a></p> <ul style="list-style-type: none"> <li>• Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, December 2019)</li> <li>• Spironolactone oral suspension 5mg/5mL, or 25mg/5mL (UNLICENSED, HIGH COST)</li> </ul>
Sulfasalazine	<p><a href="#">HWE ICB: Sulfasalazine - Gastroenterology / Rheumatology - Amber protocol - Shared care protocol</a></p> <ul style="list-style-type: none"> <li>• Sulfasalazine 500mg suppositories (if appropriate to the location of the condition) (LICENSED, LOW COST)</li> <li>• Sulfasalazine 500mg (non-enteric coated) tablets can be crushed for administration and mixed in 15-30mL of water or a small amount of soft food. (UNLICENSED*, LOW COST) (NEWT, December 2024)</li> <li>• Sulfasalazine 250mg/5mL oral suspension sugar free (LICENSED, HIGH COST). Shelf life is 28 days once opened.</li> </ul>
Sulpiride	<ul style="list-style-type: none"> <li>• Sulpiride 200mg/5ml oral solution sugar free (LICENSED)</li> </ul>
Sumatriptan Succinate	<p><a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a>  <a href="#">HWE ICB: Migraine treatment in adults - Patient information</a></p> <ul style="list-style-type: none"> <li>• Sumatriptan 10mg or 20mg nasal spray unit dose (LICENSED, HIGH COST) Zolmitriptan is the first line nasal spray. Sumatriptan is only to be used on advice of specialists when zolmitriptan is not tolerated.</li> </ul>
Tamsulosin Hydrochloride	<ul style="list-style-type: none"> <li>• Tamsulosin 400microgram modified release (MR) capsules can be opened and contents mixed with water. Swallow granules whole. Do <b>not</b> chew (UNLICENSED*, LOW COST) (NEWT, May 2017). Note: tablets are modified release (MR) and should not be crushed.</li> <li>• Consider switching to <a href="#">finasteride</a> 5mg tablets (see individual entry)</li> <li>• Tamsulosin 400micrograms/5mL oral <b>solution</b> (UNLICENSED, HIGH COST)</li> </ul>
Terbinafine (oral)	<p><a href="#">HWE ICB: Infections in Primary Care - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>• Crush and disperse 250mg tablets in water (UNLICENSED*, LOW COST) (NEWT, April 2021)</li> <li>• Terbinafine 250mg/5ml oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Thiamine Hydrochloride	<p><a href="#">Hertfordshire - Vitamin B compound &amp; compound strong - Position statement - Vitamin insufficiency - Prescribing guideline</a>  <a href="#">West Essex: Vitamin B compound &amp; compound strong - Position statement - Vitamin insufficiency - Prescribing guideline</a>  <a href="#">West Essex: Vitamin prescribing &amp; bariatric surgery - Vitamin insufficiency - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>• Crush and disperse the tablets in water (UNLICENSED*, LOW COST) (NEWT, May 2020)</li> <li>• Thiamine 100mg/5mL oral <b>solution</b> (UNLICENSED, HIGH COST)</li> </ul>
Tolterodine	<p><a href="#">HWE ICB: Management of Adult Urinary Incontinence for Primary Care clinicians - Prescribing guideline</a></p> <ul style="list-style-type: none"> <li>• Crush and disperse immediate release (IR) tablets in water. Give immediately. (UNLICENSED*, LOW COST) (NEWT, February 2021)</li> <li>• For swallowing difficulty, modified release (MR) capsules contain time-release beads which can be removed from the capsule and administered orally whole (UNLICENSED*, LOW COST). Note: beads are <b>not</b> to be chewed (NEWT, February 2021)</li> <li>• Tolterodine 2mg/5mL oral suspension (UNLICENSED, HIGH COST)</li> </ul>

Topiramate	<p><a href="#">HWE ICB: Topiramate - Epilepsy - Amber initiation</a>  <a href="#">HWE ICB: Migraine treatment adults - Prescribing guideline</a>  <a href="#">HWE ICB: Migraine treatment in adults - Patient information</a>  <a href="#">MHRA Drug Safety Update (June 2024) - Topiramate (Topamax): introduction of new safety measures, including a Pregnancy Prevention Programme</a>  <a href="#">MHRA guidance (Nov 2017)</a>: Care should be taken when switching between formulations in the treatment of epilepsy. A product change poses a risk of seizures.</p> <ul style="list-style-type: none"> <li>• Sprinkle capsules can be opened, and contents sprinkled on food or mixed with water for administration (LICENSED) (NEWT, November 2023)</li> <li>• Crush and dispersed tablets in water for administration. The crushed tablets have a bitter taste. (UNLICENSED*, LOW COST) (NEWT, November 2023)</li> <li>• Topiramate 25mg/5ml oral suspension (UNLICENSED, LOW COST)</li> <li>• Topiramate 50mg/5ml or 100mg/5ml oral suspension sugar free (LICENSED, HIGH COST)</li> </ul>
Tramadol Hydrochloride	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <ul style="list-style-type: none"> <li>• Tramadol 50mg soluble tablets or orodispersible tablets sugar free (LICENSED) (NEWT, June 2021)</li> <li>• Tramadol 100mg/mL oral drops. Dilute drops with water first. Note: a dose of 50mg is equivalent to 20 drops (LICENSED, LESS COST-EFFECTIVE) (<a href="#">SPC Tramadol 100mg/ml oral drops, July 2024</a>)</li> <li>• Tramadol 50mg/5ml oral solution sugar free (LICENSED, LESS COST EFFECTIVE)</li> </ul>
Tranexamic Acid	<p><a href="#">HWE ICB: Heavy Menstrual Bleeding (HMB) - Primary Care - Clinical pathways</a>  <a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a></p> <ul style="list-style-type: none"> <li>• Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, June 2021)</li> <li>• Tranexamic acid 500mg/5ml oral suspension (UNLICENSED, HIGH COST)</li> </ul>
Trihexyphenidyl (formerly known as benzhexol)	<p><a href="#">HWE ICB: Trihexyphenidyl (Benzhexol) - Parkinson's disease - Green</a></p> <ul style="list-style-type: none"> <li>• Crush and disperse tablets in water (UNLICENSED*, LOW COST) (NEWT, June 2021)</li> <li>• Trihexyphenidyl 5mg/5ml oral solution (LICENSED, HIGH COST)</li> </ul>
Ursodeoxycholic acid	<ul style="list-style-type: none"> <li>• Crush and disperse tablets in water (UNLICENSED*, LOW to HIGH COST BASED ON STRENGTH) (NEWT, April 2021)</li> <li>• Ursodeoxycholic acid 250mg/5ml oral suspension sugar free (LICENSED, HIGH COST)</li> </ul>
Venlafaxine	<p><a href="#">HWE ICB: Venlafaxine - Narcolepsy (tertiary centre only) some have agreed amber protocol - Amber initiation</a></p> <p>Do not crush modified (MR) tablets, switch total daily dose to immediate (IR) tablets and give in divided doses</p> <ul style="list-style-type: none"> <li>• Crushed IR tablets can be administered in jam for patients with swallowing difficulties, or in water for patients with enteral tubes (UNLICENSED*, LOW COST) (NEWT, October 2023)</li> <li>• Venlafaxine 75mg/5mL oral <b>solution</b> sugar free (LICENSED, HIGH COST).</li> </ul>
Vitamin E capsules	<ul style="list-style-type: none"> <li>• Purchase multivitamins over-the-counter (OTC)</li> <li>• Alpha tocopheryl acetate 500mg/5ml oral suspension (LICENSED, HIGH COST)</li> </ul>
Warfarin Sodium	<p><a href="#">HWE ICB: DOACs - Anticoagulation - Atrial fibrillation (AF) - Prescribing guideline</a></p> <p>Adult patients – consider switch to DOAC – <a href="#">edoxaban</a>, <a href="#">apixaban</a> or <a href="#">rivaroxaban</a> where appropriate (see separate entries)</p> <ul style="list-style-type: none"> <li>• Crush and disperse tablets in water. Crushed tablets may also be mixed with soft food for patients with swallowing difficulties. (UNLICENSED*, LOW COST) (NEWT, August 2024). Monitor INR.</li> <li>• Warfarin 1mg/mL oral suspension sugar free (LICENSED, HIGH COST)</li> </ul>
Zolpidem	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICB: Opioid Deprescribing - Pain - long-term prescribing for non-cancer, chronic pain in adults - Position Statement</a></p> <p>Do not prescribe long term – consider clinical need for hypnotic</p> <ul style="list-style-type: none"> <li>• Crush and disperse in water (UNLICENSED*, LOW COST) (NEWT, June 2021)</li> </ul>
Zopiclone	<p><a href="#">HWE ICB: Palliative Care Formulary – Prescribing Guideline</a>  <a href="#">HWE ICB: Opioid Deprescribing - Pain - long-term prescribing for non-cancer, chronic pain in adults - Position Statement</a></p> <p>Do not prescribe long term – consider clinical need for hypnotic</p> <ul style="list-style-type: none"> <li>• Do not crush zopiclone tablets (NEWT, June 2021). Consider <a href="#">zolpidem</a> tablets (see separate entry).</li> <li>• Zopiclone 3.75mg/5ml or 7.5mg/5ml oral <b>solution</b> (UNLICENSED, HIGH COST)</li> </ul>

**\*Manipulation of a licensed product in this way will be outside of the product’s marketing authorisation. However, there is evidence and clinical experience detailed in reputable sources (e.g., NEWT) confirming that formulation manipulation of this nature can take place without compromising the effectiveness of the medicine. Some formulations should not usually be crushed, and this has been taken into account in the advice outlined above. Decisions should be made on an individual basis and the specific needs and best interests of the individual patient taken into account. Manipulating medicines in this way will, often, render them ‘off-label’, so the patient should be made aware of this.**

The prescribing of unlicensed / off-label products carries additional responsibilities for the prescriber. See the [General Medical Council's Prescribing guidance: prescribing unlicensed medicines](#) for further information.

**References**

British National Formulary (BNF). (2024). Accessed online: <https://bnf.nice.org.uk/>

NEWT Guidelines for administration of medication to patients with enteral feeding tubes or swallowing difficulties. Wrexham Maelor Hospital - Pharmacy Department. Accessed via [www.newtguidelines.com](http://www.newtguidelines.com)

NHS Business Services Authority (NHSBSA). Drug Tariff (Dec 2024, Jan 2025). Accessed via [www.nhsbsa.nhs.uk/pharmacies-gp-practices-and-appliance-contractors/drug-tariff](http://www.nhsbsa.nhs.uk/pharmacies-gp-practices-and-appliance-contractors/drug-tariff)

Specialist Pharmacy Service (SPS) Preparing medicines for administration to adults with swallowing difficulties (March 2022) Accessed via: [Swallowing difficulties – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice](#)

Summary of Product Characteristics (various monographs), Electronic Medicines Compendium. Accessed via [www.medicines.org.uk](http://www.medicines.org.uk)

<b>Version</b>	2.0
<b>Developed by</b>	Radhika Kotecha (Lead Pharmaceutical Advisor), Hemaly Shah (Medicines Optimisation Pharmacist), Pharmacy and Medicines Optimisation Team, Hertfordshire and West Essex Integrated Care Board
<b>Date ratified</b>	v2.0 December 2024, v1.0 October 2023 Adapted for use at Herts & West Essex ICB (Primary Care Commissioning Committee). Prior to this, guidance was in use at Herts Valleys CCG (2017 – 2023)
<b>Review date</b>	December 2026