Dumfries & Galloway Joint Formulary 2017

PRESCRIBE GENERICALLY WHERE POSSIBLE
**Aide Memoire for ALL PRESCRIBERS in NHS Dumfries and Galloway of our preferred drug choices/brands in line with the 2017 formulary**

This is a quick alphabetical reference guide to some of the most commonly prescribed drugs in NHS Dumfries and Galloway. Please refer to the full version of the formulary for further advice. Doses are only stated where relevant to a switch.

<table>
<thead>
<tr>
<th>Thinking of……..</th>
<th>Prescribe ………………</th>
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<tr>
<td>ACE Inhibitor</td>
<td>Lisinopril tablets; Ramipril CAPSULES</td>
</tr>
<tr>
<td>ARB</td>
<td>Losartan</td>
</tr>
<tr>
<td>Asacol MR® (mesalazine)400mg/800mg</td>
<td>Octasal 400mg (to a max of 2.4g daily for maintenance) Octasal® 800mg (to a max of 4.8g daily treatment dose)</td>
</tr>
<tr>
<td>Aspirin</td>
<td>Not indicated for primary prevention including the primary prevention of vascular disease in patients with diabetes (SIGN116)</td>
</tr>
<tr>
<td>Calcium supplements [ plus Vit D]</td>
<td>Adcal D3® caplets ; TheiCal® tablets (dissolves on the tongue where patient has swallowing difficulties)</td>
</tr>
<tr>
<td>Calcium channel blocker</td>
<td>Amlodipine</td>
</tr>
<tr>
<td>Cimetidine</td>
<td>Ranitidine</td>
</tr>
<tr>
<td>Co-codamol 12.8/500 or 15/500</td>
<td>Zapain® [Co-codamol 30/500 tablets] or prescribe codeine 15mg and paracetamol separately. Alternatively can prescribe one zapan 30/500 and one paracetamol</td>
</tr>
<tr>
<td>COX II Inhibitors</td>
<td>NSAIDs and COX II inhibitors are associated with increased risk of thrombotic events. Lowest dose and shortest time period to control symptoms should be used. Review regularly.</td>
</tr>
<tr>
<td>Diclofenac 1% gel/Voltarol® gel</td>
<td>Ibuprofen 5% gel</td>
</tr>
<tr>
<td>Doxazosin MR</td>
<td>Doxazosin</td>
</tr>
<tr>
<td>Durogesic®/Fentanyl patches</td>
<td>Consider Morphine* MR [Zomorph® capsules]. Prescribe Matrifien® patches if fentanyl needed.</td>
</tr>
<tr>
<td>Dry Powder Inhalers</td>
<td>Easyhalerin®</td>
</tr>
<tr>
<td>Dipyridamol &amp; aspirin</td>
<td>Clopidogrel</td>
</tr>
<tr>
<td>Effervescent analgesia (co-codamol 8/500, 30/500 and paracetamol 500mg)</td>
<td>Non-soluble analgesia where possible Effervescent preparations are high in salt.</td>
</tr>
<tr>
<td>Ezetimibe®</td>
<td>As per SMC recommendations; only for secondary prevention in patients who have failed to reach target cholesterol levels despite treatment with titrated/optimised statins alone. It may also be considered as monotherapy where statins are inappropriate or poorly tolerated.</td>
</tr>
<tr>
<td>Ferrous Preparations</td>
<td>Ferrous fumarate 305mg od or bd (Galf®3) or 322mg od or bd (Fersaday®); stocked by DGR</td>
</tr>
<tr>
<td>Flixonas® (fluticasone)/Nasonex® Nasal sprays</td>
<td>Beclometasone first line Mometasone (generic) second line</td>
</tr>
<tr>
<td>Gaviscon® liquid</td>
<td>Peptac® liquid</td>
</tr>
<tr>
<td>GnRH analogues</td>
<td>Prostap 3 DCS®</td>
</tr>
<tr>
<td>Losec Mups® or omeprazole liquid</td>
<td>Lansoprazole oro dispersible tablets</td>
</tr>
<tr>
<td>Orlstat</td>
<td>Monitor weight. Discontinue treatment after 12 weeks if 5% of initial body-weight is not lost. Available to buy from community pharmacies under strict protocol.</td>
</tr>
<tr>
<td>Oxycodone (IV, tablets)*</td>
<td>Morphine* MR (Zomorph® capsules)</td>
</tr>
<tr>
<td>Paracetamol IV</td>
<td>Paracetamol tablets, liquid</td>
</tr>
<tr>
<td>PPIs</td>
<td>Omeprazole, lansoprazole CAPSULES</td>
</tr>
<tr>
<td>Prednisolone EC Tablets</td>
<td>Prednisolone Plain tablets</td>
</tr>
<tr>
<td>Risedronate</td>
<td>Alendronate</td>
</tr>
<tr>
<td>Rosuvastatin</td>
<td>Atorvastatin</td>
</tr>
<tr>
<td>Seretide Evohaler® 125</td>
<td>Fostair®</td>
</tr>
<tr>
<td>Statin for Primary Prevention</td>
<td>Simvastatin 40mg</td>
</tr>
<tr>
<td>Tramadol MR tablets</td>
<td>Tramadol MR capsules (Marol)</td>
</tr>
<tr>
<td>Triptan</td>
<td>Sumatriptan</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>Valupak 100iu/daily or, Stexerol® 25000iu/once a month) see guidance for treatment regimen (6 weeks 50,000iu/week)</td>
</tr>
</tbody>
</table>

NB Check individual BNF profiles for licensed drug indications, contra-indications and other relevant information

* Please refer to palliative care guidelines as oxycodone may be considered first choice under specific circumstances
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Introduction
This is the twelfth paper version of the Dumfries & Galloway Joint Formulary which has involved collaboration across primary and secondary care. The recommendations seek to enable a seamless approach to care epitomised by a single healthcare provider namely NHS Dumfries & Galloway. By listing medicines, offering prescribing notes and treatment guidance, it is hoped that the joint formulary will guide prescribers in meeting the needs of the majority of patients, wherever they are receiving treatment in D & G.

The Scottish Medicines Consortium (SMC) provides advice to NHS Boards and their Area Drug and Therapeutics Committees (ADTCs) across Scotland about the status of all newly licensed medicines, all new formulations of existing medicines and any major new indications for established products. Medicines not accepted for use in Scotland by the SMC will not be included in the formulary and Prescribers may be asked to justify their use of such medicines. Local decisions can be found at http://www.dgprescribingmatters.co.uk/documents.asp?doccategoryID=1, updated monthly.

Black triangle drugs will also not, in general, be included in the formulary unless there is no alternative for a previously unmet need.

The D & G joint formulary does not of course take away prescriber’s rights to determine what is clinically most appropriate for their patients, nor their responsibility for that decision. There will always be additions and deletions to be made; improvements to the electronic format; audits of compliance to be carried out and public access to be enabled if the formulary is to remain a ‘live’ and relevant document.

Feedback on the content can be made to any member of the Prescribing Support Team or the Area Drug and Therapeutics Committee as listed.

We hope you find the Joint Formulary useful

Angus Cameron
Medical Director

Chief Pharmacist
Formulary Committee is a sub group of NHS Dumfries & Galloway Area Drug & Therapeutics Committee

**MEMBERSHIP OF THE AREA DRUGS & THERAPEUTICS COMMITTEE (ADTC)**

(ALPHABETICAL ORDER)

- **Wendy Ackroyd**: Lead Clinical Pharmacist, Mental Health
- **Dr Ewan Bell**: Associate Medical Director, DGRI, Chair
- **Dr Angus Cameron**: Medical Director
- **Dr Andrew Carnon**: Consultant in Public Health
- **Dr Linsey Batchelor**: Consultant Microbiologist, DGRI
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- **Dr David Strachan**: GP representative, Dumfries & Upper Nithsdale

Our thanks go to all consultants, pharmacists, nurses, procurement and data analyst (Sandra Grant) involved in updating the formulary and to Dr Glidden Chalmers, Greyfriars Medical Centre for representing his colleagues on the formulary committee. Thanks also to Nikki Cameron and Dr Jennifer Dillett for their contributions as well as the ADTC locality pharmacist representatives. The post of Chief Pharmacist is currently under recruitment.

This abbreviated drug list only includes the names of those drugs suggested as first or second choice in the Dumfries & Galloway Joint Formulary. Drugs recommended as first choice are shaded in grey. Users should refer to the BNF for further detail and more specific information.

The most up to date version of the Dumfries & Galloway Joint Formulary is maintained in electronic form at: [www.dgprescribingmatters.co.uk](http://www.dgprescribingmatters.co.uk)

For more information contact: Dr Paul Beardon paul.beardon@nhs.net
Tel: 01387 244366

**Key**
- **Drug name shaded grey**: recommended first choice drug
- ® Prescribe by brand name
- Number pre-fix at titles indicates the relevant section of the British National Formulary e.g. 4.1 Dementia
Use of non-formulary drugs
Prescribers are asked to choose from the formulary in the first instance. This will be appropriate for the majority of patients, the majority of time. Adherence to the formulary will be monitored. However, non-formulary choices are suitable when first and second choices have been considered and there is justifiable reason for choosing a non-formulary drug, e.g. contra-indications. The formulary is not designed to contain all medicines that will be required by all patients in every situation.

Generic names have been used for most drugs throughout the formulary to ensure that when a generic drug is available it is prescribed. This will ensure that the cost and risk reduction benefits of this approach are obtained. There are a few occasions where generic prescribing is not considered appropriate (modified release preparations, inhalers and combination products e.g. HRT) and it is recommended that prescribing is by brand name.

Strengths have only been mentioned where relevant.

Disclaimer
Unless otherwise stated, the doses where given are for adults with normal hepatic and renal function. Practitioners are advised to consult Medicines for Children for advice on prescribing for children. While every effort has been made to ensure that the information contained within this formulary is accurate, no responsibility or liability can be accepted by those involved in its production for any loss, injury or damage which is suffered as a consequence of any errors, omissions or inaccuracies contained within it. In particular, those prescribing drugs should always check the suitability of the drug and dosage based on the information provided by the manufacturer.

Where there are more than one choice of medication and no indication of preference either in the formulary or Aide Memoire (page 2), guidance of the current most cost effective choice will at times be given via the point of prescribing GP EMIS/Vision tool (ScriptSwitch), Nostrum or www.dgprescribingmatters.co.uk website
1: GASTRO-INTESTINAL SYSTEM

1.1 Inflammatory bowel disease

Acute exacerbation of inflammatory bowel disease

Oral treatment:
- Octasa® (Mesalazine MR) EC tabs 800mg (to max of 4.8g)
- Salofalk® tablets 500mg (to max of 3g)
- Salofalk® granules sachets 3g daily
- Pentasa® (mesalazine SR) 1g tabs, 2g sachets (to max of 4g) given once daily

Local treatment:
- Asacol® 1g foam enema
- Pentasa® 1g enema
- Prednisolone foam enema
- Hydrocortisone foam enema
- Mesalazine suppositories

Systemic treatment:
- Prednisolone plain

Maintenance of remission of inflammatory bowel disease

- Octasa® (Mesalazine MR 400mg)
- Salofalk® granules sachets
- Pentasa® (Mesalazine SR 500mg/1g tabs, 2g sachets)

See BSG guidance at:

Steroid dependent inflammatory bowel disease

- Azathioprine (specialist use only)
- Mercaptopurine (unlicensed specialist use only)
- Methotrexate (unlicensed specialist use only)

2.2 Constipation

Acute constipation
- Bisacodyl
- Docusate sodium
- Lactulose
- Glycerin suppositories

Chronic constipation
- CosmoCol®
- Laxido®
- Laxido® paediatric
- Ispaghula husk SF sachet
- Lactulose

Linaclotide - specialist initiation only for irritable bowel syndrome with constipation as predominant feature

Faecal loading of rectum
- Micolette® Micro-enema

3. Diarrhoea

- Oral rehydration therapy for acute diarrhoea (Dioralyte®)
- Loperamide tabs
- Codeine phosphate

4. Disorders of gastric acid & duodenal ulceration

4.1 Dyspepsia

Antacids and alginate

- Peptac® SF liquid (10-20mls)
- Co-magaldrox SF 195/220 per 5ml suspension (Mucogeal®)
- Gaviscon® Infant SF Sachets

4.2 Gastric and duodenal ulceration

H2-receptor antagonists:
- Ranitidine tabs

Proton pump inhibitors:
- Omeprazole caps (for 40mg give 2x20mg)
- Lansoprazole caps

Patients with dysphagia
- Lansoprazole orodispersible tabs

I/V PPI Esomeprazole 40mg vial

4.3 Gastro-oesophageal reflux disease
http://www.dgprescribingmatters.co.uk/documents/GORD%20Guidance%20final%20March%202009.pdf

Treatment with PPI for 4-8 weeks

4.4 Ulcers associated with Helicobacter pylori

First choice (for 1 week only):
- Omeprazole caps
  + Amoxicillin
  + Clarithromycin

Second choice (in eradication failure or penicillin allergy for 1 week only):
- Omeprazole caps
  + Metronidazole
6. Gastro-intestinal smooth muscle spasm

**Antispasmodics**
- Hyoscine butylbromide 10mg tabs up to max adult dose of 80mg
- Mebeverine 135mg

see BNF chapter 4 section 4 Nausea

**Motility stimulants**
- Domperidone – **maximum daily dose is 30mg maximum treatment duration should not exceed 1 week**
- **MHRA warning** – increased risk of serious ventricular arrhythmias or sudden cardiac death in patients older than 60 years.

Metoclopramide – maximum daily dose is 30mg or 0.5mg per kg bodyweight
- **MHRA warning** – only licensed for short term use up to 5 days due to risk of potentially serious neurological side effects.

Erythromycin 250mg qds may be initiated by specialist (unlicensed use)

7 Liver disorders and related conditions

7.2 Oesophageal varices
- Terlipressin (hospital use only)

8 Obesity
- **Diet and lifestyle changes**
  - Orlistat (see BNF for restrictions)

9 Rectal and anal disorders

**Ano-rectal preparations**
- Scheriproct® ointment/suppositories

**Anal fissures**
- Rectogesic® 0.4% ointment (ADTC approved)

10 Reduced exocrine insufficiency
- (Pancreatic)
  - Creon® caps

11. Stoma Care
- See Appendix 1
2: CARDIOVASCULAR SYSTEM

1 Arrhythmias
To be initiated on specialist advice

Class 1 membrane stabilising drugs:
Flecainide

Class 2 beta-blockers:
Atenolol
Bisoprolol

Class 3 anti-arrhythmic agents:
Sotalol
Amiodarone

Class 4 calcium-channel blockers:
Verapamil
Diltiazem

Other anti-arrhythmics:
Atropine
Digoxin

Supraventricular arrhythmias:
Univer® (Verapamil)

2 Bleeding disorders
Antifibrinolytic drugs and haemostatics
Tranexamic acid for menorrhagia

3 Blood clots
3.2 Thromboembolism
Secondary prevention of cardio-vascular disease or myocardial infarction:
Aspirin dispersible 75mg
(co-prescribe omeprazole if dyspeptic)

Post stroke/TIA:
Clopidogrel 75mg
See anti-platelet guidance (Appendix 3) at
http://www.dgpprescribingmatters.co.uk/document-categories.asp?doccategoryID=6&subcategory=Cardiovascular

Parenteral anticoagulants
Prophylaxis of DVT:
Enoxaparin

Treatment of DVT and PE:
Dalteparin

Unstable angina and non-Q-wave MI:
Fondaparinux

Oral anticoagulants
Warfarin

4 Blood pressure conditions
Hypertension (see Appendix 2)
Angiotensin-converting enzyme inhibitors
Lisinopril
Ramipril (caps)
Post stroke / prevention of vascular events in at risk patients
Ramipril (caps)
Perindopril erbumine < 55 years
please note use CCB Amlodipine > 55 years

Angiotensin-II receptor antagonists (can be used in hypertension where ACE blockade of the renin angiotensin system is necessary but ACE is not tolerated)
Losartan
Diabetic nephropathy in type 2 diabetes mellitus:
Losartan
Combined ACEI/ARB with diuretic not recommended

Beta-adrenoceptor blocking drugs
Atenolol
Bisoprolol

Amlodipine for palpitations, anxiety (for migraine prophylaxis see 4.5.1)

Calcium-channel blockers

Please note XL preparations are given once daily
Hypertension:
Amlodipine
Adipine MR/XL ® (Nifedipine)
Thiazides
Bendroflumethiazide
Indapamide
Alpha-adrenoceptor blocking drugs (see BNF 7.1.2)
Doxazosin
Doxazosin MR may be prescribed when patient experiences side effects with doxazosin but it is more expensive

5 Heart Failure
Heart failure and prophylaxis after myocardial infarction:
ACE
Ramipril (caps)
Lisinopril
titrate to recommended dose
ARB
Candesartan
Beta-blocker
Bisoprolol 1.25mg and titrate to 10mg
Carvedilol starting dose 3.125mg titrate to 25mg bd or 50mg bd if > 85kg (Used once daily for patients with varices)
Nebivolol titrate to 10mg
Ivabradine added if NSR > 75 beats/minute on maximum beta-blocker therapy

Aldosterone Antagonists
Spironolactone
Eplerenone (Specialist initiation only cardiologists & heart failure nurses and if intolerant of spironolactone due to painful gynaecomastia)
Sacubitril/Valsrartan (Specialist initiation only cardiologists & heart failure nurses). Ensure ACE Inhibitors are STOPPED 48 hours prior to initiation.

6 Hyperlipidaemia
(See treatment guidelines for primary & secondary prevention http://www.dgprescribingmatters.co.uk/documents/Cholesterol%20guidelines%202011.pdf
Primary Prevention
Simvastatin 40mg
Bezafibrate MR 400mg (for diabetic patients only –SIGN 116)
Secondary Prevention
Atorvastatin
Simvastatin
Pravastatin 40mg (where potential drug interactions with other statins)
First-line adjunct therapy in patients not meeting target on atorvastatin 80mg
See local guidance as above
Questran®

7 Myocardial ischaemia
Nitrates
Glyceryl trinitrate
Isosorbide mononitrate
(MR preparations are more cost effective; prescribe generically as MR 25/50mg caps or 60mg tabs)
Mononax 40mg®
Beta blocker
Bisoprolol
CCB (Patients not receiving beta-blocker)
Zemtard® XL (Diltiazem)
Angitil SR® (Diltiazem)
Univer® (Verapamil)
Nicorandil (Not first line but may be considered as add-on treatment or if intolerant to standard initial treatment)
Ivabradine(for intolerance to beta-blockers for NSR >75)

Acute coronary syndrome
Aspirin dispersible 75mg + Ticagrelor 90mg BD (see local guidance for duration of treatment see Appendix 3)
Sympathomimetics (secondary care)
Sympathomimetics:
Adrenaline
Inotropic sympathomimetics:
Dobutamine
Dopamine
Vasoconstrictor sympathomimetics:
Noradrenaline acid tartrate
Fibrinolytics
Acute myocardial infarction:
Tenecteplase
Stroke thrombolysis
Alteplase

8 Oedema
Loop diuretics
Furosemide
Bumetanide
Combined diuretics (not recommended)
3: RESPIRATORY SYSTEM
BA - breath activated
DP - dry powder
MDI – metered dose inhaler

Reminder: Before initiating a new drug therapy or increasing doses, check compliance with existing therapies, inhaler technique and eliminate trigger factors

See Chapter 4.8.2 for smoking cessation advice

1 Airways disease

Asthma

Short-acting beta<sub>2</sub>-agonist bronchodilators
- Salbutamol CFC Free (MDI)
- Salamol Easi-Breathe® (BA)
- Easyhaler salbutamol® (DP)
- Salbutamol nebulises

Long-acting beta<sub>2</sub>-agonist bronchodilators
- Easyhaler Formoterol® (DP)
- Salmeterol (MDI)

Antimuscarinic bronchodilators
- Mild symptoms of COPD: see local guidance
- Ipratropium bromide CFC free MDI (can be used with a spacer device)

Moderate-severe symptoms of COPD:
- Tiotropium (Respinimat®)
- Incruse Ellipta® ▼ (DP)
- Aclidinium Genuair® ▼ (DP)

Discontinue ipratropium if starting tiotropium or aclidinium

LABA/LAMA Combination
- Spiolto Respimat®
- Anoro Ellipta®
- Duaklir Genuair®

Theophylline preparations
- Oral: Uniphyllin Continus®
- Slo-Phyllin® (paediatric use)
- Injection (hospital only):
  - Aminophylline

Corticosteroids (inhaled)
- Prescribe by BRAND (products are not bioequivalent) – see Table 1
- Avoid inhaled corticosteroids in COPD unless frequent exacerbations (≥2 per year)
- Therapy should be reviewed every three months with a view to stepping down or up as per national guidance

Combination ICS/LABA – see table 1 for dose categories
- Fostair® MDI/Nexthaler (DP) – COPD and asthma including Fostair MART asthma therapy. Fostair is twice as potent as standard beclometasone see BNF.
- DuoResp Spiromax® (DP) – for COPD or asthma therapy including MART
  - Relvar Ellipta® for COPD
  - Seretide 50® MDI - asthma in children (125 and 250 are more costly than first line choices)

<table>
<thead>
<tr>
<th>Table 1, showing total daily dose categories in asthma</th>
<th>(Check licenses for different age groups, maintain at lowest possible ICS dose) BTS/SIGN guideline September 2016.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ICS</strong></td>
<td><strong>Low dose</strong></td>
</tr>
<tr>
<td>Clenil Modulite MDI</td>
<td>400mcg</td>
</tr>
<tr>
<td>Qvar MDI or Easi-breathe (BA)</td>
<td>200mcg</td>
</tr>
<tr>
<td>Easyhaler beclometasone (DP)</td>
<td>400mcg</td>
</tr>
<tr>
<td>Easyhaler budesonide (DP)</td>
<td>400mcg</td>
</tr>
</tbody>
</table>

Combination inhalers
- Fostair MDI or Nexthaler (DP) | 100/6 one puff twice a day | 100/6 two puffs twice a day | 200/6 two puffs twice a day |
- DuoResp Spiromax (DP) | 200/6 one puff twice a day | 200/6 two puffs twice a day or 400/12 one puff twice a day | 400/12 two puffs twice a day |
- Relvar Ellipta (DP) formulary for COPD only | 92/22 one puff daily | 184/22 one puff daily |

MDIs can be used with spacer devices to improve lung deposition

Drug delivery devices
- Volumatic®
- Aerochamber Plus® device for use with pressurised aerosol Type 3 149ml
- Medi Peak Flow Meter® (Medicare plus international) standard (60-800 litres/minute) and low range 30-400 litres/minute

Leukotriene receptor antagonists
- Montelukast
Oral corticosteroids
Prednisolone plain

Links to National guidelines:
Asthma:
COPD:
https://www.nice.org.uk/guidance/cg101

See also:
Patient information: http://mylungsmylife.org/
Local guidelines:

2 Allergic conditions
Antihistamines
Chlorphenamine (sedating)
Cetirizine (non-sedating)
Loratadine
Promethazine
Fexofenadine for itching associated with skin complaints

Allergic emergencies
Jext® (adrenaline)
Chlorphenamine
Hydrocortisone

3 Conditions affecting sputum viscosity
Carbocisteine if excessive mucus production, consider adding 750mg three times daily (for 4 weeks then review, and stop or reduce to twice daily)
4: CENTRAL NERVOUS SYSTEM

1  Dementia
Initiation by hospital only: repeat prescribing in Primary Care

Donepezil Patients need to be monitored every 6 months and treatment should be stopped when appropriate in accordance with NICE TA guidance 217.

2  Mental health disorders
2.1 Anxiety
Acute anxiety state
   Diazepam (2mg tds titrate up to 15-30mg daily - short term treatment only - ensure appropriate review)

Generalised anxiety disorder
   First line – Individualised self help (CBT based) / Psycho education
   Second line – High intensity psychological intervention / CBT
   Third line – SSRI: Sertraline is recommended by NICE as the preferred choice although it is unlicensed for this indication.
   Escitalopram and Paroxetine are also recommended and are licensed

Antipsychotics should not be used

Note: Pregabalin has not been approved by SMC for use in anxiety – this may only be used under Specialist initiation following approval by the Exceptional Circumstances Committee through the Individual Patient Treatment Request (IPTR) process

2.2  Attention deficit hyperactivity disorder (ADHD):
Treatment initiated by secondary care.
Where MR/XL methylphenidate is prescribed Matoride® XL is the preferred choice

2.3  Bipolar disorder and mania
https://www.nice.org.uk/guidance/cg38

These treatments must only be initiated under specialist advice
   Priadel® (Lithium) Prescribe by brand name
   Sodium valproate (not in women of childbearing potential)
   Olanzapine, Risperidone, Quetiapine

Treatment of bipolar depression
   Note: Antidepressants are often ineffective
   Psychological interventions
   Olanzapine (+/- Fluoxetine)
   Quetiapine
   Priadel® (Lithium) Prescribe by brand name
   Lamotrigine

2.4 Depression
For mild to moderate depression, refer to self help service – drug treatment is not a 1st line option.
See http://www.moodjuice.scot.nhs.uk/

Drug treatment of depression
http://www.dgpscribingmatters.co.uk/documen t-categories.asp?doccategoryID=6&subcategory=Central+Nervous+System

First line:
   Citalopram
   Fluoxetine
   Sertraline

Second line:
   Alternative SSRI from above

Third line:
   Venlafaxine standard release NOT XL
   Mirtazapine

Recurrence of depression:
   previously successful anti-depressant

Antidepressants for treatment of anxiety disorders see 2.1

Obssessive-compulsive disorder
   Fluoxetine (high dose most effective given as multiples of 20mg caps)

Panic disorder (consider self-help and CBT, not benzodiazepines)
   Sertraline
   Citalopram

2.6 Psychoses and schizophrenia
Quetiapine standard release should be used in most cases Quetiapine XL is NOT recommended

Treatment of acute psychoses
As per SIGN Guidance - Seek specialist advice

Treatment of acute psychoses by specialists in secondary care
   Any antipsychotic appropriate to the patient’s needs

Antipsychotics for older patients
   Risperidone - only licensed for a maximum of 6 weeks use in the
management of Behavioural and Psychological Symptoms of Dementia (BPSD)

Note antipsychotic depot injections
Secondary care only

3 Movement disorders
3.2 Parkinson’s disease
Drugs used in idiopathic Parkinson’s disease and related disorders are on specialist advise only

Dopaminergic drugs used in Parkinson’s disease
Dopamine- agonists FINALISE PRICING AND SPECIFY BRAND

- Ropinirole
- Pramipexole
- Ropinirole XL prescribe as Ipinnia XL®
- Pramipexole MR prescribe as Opryme XL®

In patients who are nil by mouth or who have absorption problems, Rotigotine patches may be considered as a treatment option

Dopamine containing drugs
- Co-beneldopa (Madopar®)
- Co-careldopa (Sinemet®)
- Stanek® (Co-careldopa/Entacapone)

COMT inhibitor
- Entacapone

MAOB inhibitor
- Selegiline

4 Nausea and labyrinth disorders
Drugs used in nausea and vertigo
Concurrent vomiting:
Buccal Prochlorperazine

Gastric stasis:
- Metoclopramide (licensed for 5 days except palliative care where longer use may be appropriate)
  - maximum daily dose is 30mg or 0.5mg per kg bodyweight
  - MHRA warning – only licensed for short term use up to 5 days due to risk of potentially serious neurological side effects.
- Domperidone

maximum daily dose is 30mg maximum treatment duration should not exceed 1 week

MHRA warning – increased risk of serious ventricular arrhythmias or sudden cardiac death in patients older than 60 years.

Motion sickness: Recommend patient purchases OTC treatment from community pharmacy

Opioid-induced:
- Haloperidol – see Scottish Palliative Care Guidelines at http://www.palliativecareguidelines.scot.nhs.uk/

Nausea & vomiting in pregnancy:
- Cyclizine

Drug treatment of labyrinthine, vertigo
- Cinnarizine
- Prochlorperazine – acute treatment
- Betahistine

5 Pain
Analgesics
Dysmenorrhoea see p352 (BNF 70)
Musculoskeletal and joint pains (including gout) see chapter 10
Migraine, see chapter 4.5.1
https://cks.nice.org.uk/migraine

Step 1: mild pain
- Paracetamol + NSAID (Ibuprofen or Naproxen)
- Refer to section 10.4 for topical NSAIDs

Step 2: moderate pain
- Codeine
- Dihydrocodeine

Consider combinations as appropriate
- Co-codamol (Zapain®) 30/500 ± NSAID (Ibuprofen or Naproxen)
- Tramadol (for short term use only).
- Initiate at low dose. Avoid concurrent use with co-codamol.
- Please note that MR preparations are less suitable due to cost.
- Tramace® needs ADTC approval prior to use as not SMC approved

Step 3: severe pain
- OPIATES SHOULD BE PRESCRIBED BY BRAND
  - Morphine is 1st line
Morphine should be first choice opiate unless there are specific indications for an alternative opiate

Oxycodone
Standard release: Shortec® Capsules
Modified release: Longtec® Tablets
Opiate of choice for patients with significant renal impairment/clinical indication for patch: Buprenorphine low dose patch (Butec®)

Matrifen® Transdermal Patches are the 1st line Fentanyl preparation
12 micrograms = 45mg oral Morphine daily
Breakthrough pain relief is not appropriate in non-malignant pain (refer to SIGN 136)

See Appendix 5 for management of non-malignant chronic pain with opiates for palliative care only
Preparation should be selected on the basis of SIGN 106 and Scottish Palliative Care Guidance
http://www.palliativecareguidelines.scot.nhs.uk/
Morphine remains the first line opiate for oral/parenteral use

5.1 Antimigraine drugs

Treatment of the acute migraine attack

Mild to moderate migraine
Aspirin
Paracetamol
Ibuprofen
Metoclopramide maximum daily dose is 30mg or 0.5mg per kg bodyweight
MHRA warning – only licensed for short term use up to 5 days due to risk of potentially serious neurological side effects.

The combination of an analgesic and metoclopramide can be as effective as a triptan

Severe migraine
Sumatriptan tablets

Consider the possibility of drug-induced headache (especially with codeine)

Migraine prophylaxis
Atenolol
Propranolol
(Amitriptyline – unlicensed use)

Nausea due to migraine
Metoclopramide – see MHRA warning
Dopemidone – maximum daily dose is 30mg maximum treatment duration should not exceed 1 week
MHRA warning – increased risk of serious ventricular arrhythmias or sudden cardiac death in patients older than 60 years.

Drug treatment of cluster headache acute attacks
Sumatriptan subcutaneous

Prophylaxis - see specialist

5.2 Neuropathic Pain (see Appendix 6)

Amitriptyline (titrate to adequate dose)
Gabapentin (titrate dose up to at least 1200mg a day)
Duloxetine
Pregabalin (prescribe as Alzain®) see patent restrictions till July 2017 and SMC advice.

6 Seizures
6.1 Epilepsy
Please refer to Appendix 7 for advice on which antiepileptic drugs require to be prescribed by BRAND NAME
Specialist advice only:
Carbamazepine MR (prescribe by BRAND)
Sodium valproate MR (use with caution in women of childbearing potential due to risk of teratogenicity) Episenta® is recommended brand

Lamotrigine
Levetiracetam

6.2 Status epilepticus
Step 1 (in community):
Midazolam buccal/nasal (Buccolam)* Lorazepam injection
If neither of the above are available/working then diazepam rectal solution as per SIGN143
Step 2 (in hospital):
Midazolam buccal (Buccolam)* Lorazepam injection
Step 3 (in hospital):
Phenobarbital injection
Phenytoin injection
Step 4 admit to ITU
7 Sleep Disorders

7.1 Insomnia

Non-pharmacological treatment
Sleep hygiene and consider dosing schedule of concurrent medication
Pharmacological options
Acute prescriptions only- short term relief of symptoms, max 4 weeks – seek specialist advice for insomnia in children
Hypnotics started in hospital should not normally be continued on discharge (except palliative care)

Zopiclone (NICE advises to use drug with lowest acquisition cost)
Zolpidem
Note: Sedating antidepressants are NOT appropriate to use as hypnotics

For further advice and recommendations on the management of insomnia and the use of hypnotics see local guidance

CNS stimulants: secondary care advice only
Narcolepsy: seek specialist advice

8 Drugs used in substance dependence

8.1 Alcohol dependence
See local guidance for inpatient alcohol withdrawal
Alcohol withdrawal symptoms
Outpatients:
Chlordiazepoxide
Lorazepam in special patient groups e.g. liver impairment, respiratory depression, frail elderly

Inpatients:
Diazepam
Lorazepam in special patient groups e.g. liver impairment, respiratory depression, frail elderly

Refer to alcohol withdrawal policy http://www.dgprescribingmatters.co.uk/

Maintenance of abstinence
Disulfiram – ECG and baseline LFTs with 8gt & AST needed. Repeat LFTs are required at 4 weeks and then every 3 months. These should be carried out by the GP. Ongoing need should be assessed every 6 months.
Acamprosate calcium (in combination with counselling, review annually for need to continue)
(Note: Baclofen is unlicensed in abstinence and is restricted to Specialist initiation only.)

Controlled drinking
Baclofen (unlicensed and is restricted to Specialist initiation only)
Topiramate (unlicensed and is restricted to Specialist initiation only)
Nalmefene (Specialist initiation only)
Naltrexone (unlicensed and is restricted to Specialist initiation only)

Vitamin supplementation
Pabrinex® (2 pair TDS IV for 5 days is preferred treatment or if giving IM 1 pair daily for 5 days as per local guidance & NICE)
Thiamine 50mg QDS
Stop at 6 months if abstinent

8.2 Nicotine dependence
Unaided quit attempts have a very low probability of success (1-2%) therefore, all smokers should be offered a referral to either the Smoking Matters service or a Community Pharmacy to receive structured behavioural support along with pharmacotherapy during their quit attempt.

Step 1: smoking cessation support based on assessment of patient’s motivation to quit

Step 2: Nicotine patch (plus cessation support)
16 hour patch
Nicorette Invisipatch® 25mg, 15mg, 10mg
24 hour patch

* licensed for 3 months – 18 years
Nicotinell® 21mg, 14mg, 7mg  
Niquitin CQ® 21mg, 14mg, 7mg

Other NRT products may also be used at Step 2, either individually or, in highly addicted smokers who have a previous failed quit attempt using just one single NRT preparation, in combination with NRT patches and smoking cessation support from either the Smoking Matters service or a Community Pharmacy. These preparations are:-
Chewing gum
Inhalator
Lozenges
Microtabs (sublingual)
Mouthspray
Nasal Spray

Step 3: Varenicline (plus cessation support)
Suicidal thoughts and behaviour have been reported in patients taking Varenicline. Patients should be advised to discontinue treatment and seek prompt medical advice if they develop depression or suicidal thoughts. Patients with a history of psychiatric illness should be monitored closely while taking Varenicline

National Policy is due in Spring 2017, please see http://www.dgprescribingmatters.co.uk for latest advice

8.3 Opiate dependence
Symptomatic relief of acute withdrawal symptoms / intoxication
Lofexidine

Substitute maintenance
A drug diary and urine sample is required prior to commencing treatment. Referral to NHS D&G Drug and Alcohol Service should be made.
Methadone 1mg/1ml mixture (higher concentrations should not be used in order to reduce the risk of prescribing/dispersing errors)
Buprenorphine sublingual – specialist initiation only
Suboxone® – specialist initiation only

Relapse prevention
Naltrexone – specialist initiation only
5: INFECTION  
(See Guideline Appendix 8)

This section advises on 1st and 2nd choice anti-infective agents for the treatment of common infections in general practice. Hospital doctors should refer to the Secondary Care Adult Antibiotic Guidelines on the intranet homepage under Clinical Guidelines and Procedures. Different antibiotic policies can be found in different hospitals due to local variations in resistance and antibiotic susceptibility.

1 Amoebic Infection  
2 Bacterial infection  
3 Fungal infection  
4 Helminth infection  
5 Protozoal infection  
6. Viral infection
6: ENDOCRINE SYSTEM

**Anti-diuretic hormone disorders**
Posterior pituitary hormones and antagonists – specialist use only

1.1 Diabetes insipidus
Desmopressin nasal spray
Desmopressin tablets
Desmopressin injection

1.2 Syndrome of inappropriate antidiuretic hormone secretion
refer to specialist services

3 Corticosteroid responsive conditions
Corticosteroids replacement therapy
Hydrocortisone
Fludrocortisone

Prednisolone
Dexamethasone soluble
Methylprednisolone sodium succinate

4 Diabetes mellitus and hyperglycaemia
3.1 Diabetes mellitus
Note: Oral hypoglycaemic agents which cause <5mmol/mol reduction in HbA1c after 6 months should be discontinued and alternative tried
For local guidance see Appendix 9
Biguanides
Metformin maximum recommended dose is 2g daily
Metformin MR – a trial of up to 6 months could be considered in patients with severe GI side effects who would otherwise discontinue immediate release Metformin
Be aware of possibility of Vit B12 deficiency associated with treatment with Metformin

Combination tablets containing metformin + a DPP4i or an SGLT2i may offer a lower tablet burden and lower cost option for patients suitable for the fixed doses.

Sulfonylureas
Gliclazide 80mg tablets
Glimepiride

Dipeptidylpeptidase-4 inhibitors (DPP4i)
Patients should be counselled to report any signs of acute pancreatitis
Sitagliptin - dose must be adjusted in moderate to severe renal impairment

Linagliptin - requires no dosage adjustment in renal failure and can be used in end stage renal failure

**SGLT2 inhibitors**
Empagliflozin
Dapagliflozin

Gliptazones-
Pioglitazone is contra-indicated in patients with heart failure, active bladder cancer or a past history of bladder cancer. Use with caution in patients with other cardiovascular diseases and in the elderly. Advise patient of risk of osteoporosis and bladder neoplasia. Investigate macroscopic haematuria.

Incretin mimetics (see NICE guidance)
Specialist initiation only based on restrictions imposed by SMC. Patients should be counselled to report any signs of acute pancreatitis.
Exenatide once weekly (Bydureon®)
Liraglutide (for lower eGFR 30-60ml/min)

**Insulins**
Insulin should be initiated on specialist advice only. Choice depends on the particular needs of the individual patient, taking into account lifestyle, age, preference and capabilities. Type of insulin, device and needle size should be specified. Care should be taken to write the brand name in full. When prescribing insulin on a discharge or out-patient prescription, the word unit must be typed/written in full.

**Short acting insulins**
Humalog® Kwikpen pre-filled pen
Humalog® cartridges 3ml
Humalog® 10ml vial
Novorapid® Flexpen pre-filled pen
Novorapid® Penfill cartridges 3ml
Novorapid® 10ml vials
Humulin S® 3ml cartridges
Apidra® Solostar pre-filled pen
Apidra® 10ml vial

**Intermediate and long acting insulins**
Humulin I® Kwikpen pre-filled pen
Humulin I® cartridges 3ml
Insulatard® Penfill cartridge 3ml
Insulatard® Innolet
Insulin Analogues – for restricted use as per SMC
Abasaglar® Kwikpen pre-filled pen
Abasaglar® Kwikpen cartridge 3ml
Levemir® Flexpen pre-filled pen
Levemir® Innolet pre-filled pen
Levemir® penfill cartridge 3ml
Lantus® Solostar pre-filled disposable pen
Lantus® injection cartridge 3ml

Biphasic insulins
Novomix® 30 Flexpen pre-filled pen
Novomix® 30 Penfill cartridges 3ml
Humalog® Mix25 Kwikpen pre-filled pen
Humalog® Mix25 cartridge 3ml
Humalog® Mix50 Kwikpen pre-filled pen
Humalog® Mix50 cartridge 3ml
Humulin M3® Kwikpen pre-filled pen
Humulin M3® cartridge 3ml
Insuman Comb® 15 cartridge 3ml

3.2 Diabetes mellitus, diagnosis and monitoring

Blood monitoring
Meters cannot be prescribed; strips to be read only with the appropriate meter
Meter for Type 1 diabetics under review
Freestyle InsuLinx® (Abbott) – for patients who carbohydrate count
Nexus® (GlucoRx) (Type 2)
Accuchek Performa Nano (Type 2)
Nexus Voice® (GlucoRx) – for patients with visual impairment
Freestyle Optium® (Abbott) (Paediatrics only)

Blood glucose test strips
Type 1 strips to be confirmed
FreeStyle Lite®
GlucoRx Nexus®
Performa®
Freestyle Optium®

Blood ketone test strip
Blood testing for ketones should only be undertaken on specialist advice
To be confirmed (supply 10/prescription, pregnant women may need more)
Type 1 to be confirmed
Freestyle Optium B-Ketone®

Meters & strips under review at time of print
Please visit www.dgprescribingmatters.co.uk
for up-to-date information on changes

Urine testing for ketones
Ketostix®

Hypodermic equipment
Injection devices
NovoPen® 5 re-useable pen blue/silver 3ml 1-60units for use with Penfill cartridges
HumaPen® Savvio re-useable pen 3ml 1-60units for use with Humulin and Humalog cartridges
ClikSTAR® re-usable pen blue/silver 3ml 1-80units for use with Lantus, Apidra and Insuman cartridges

Lancets
GlucoRx lancets
Unistix ComforTouch® lancets (type a/b)
To be confirmed Type 1
FastClix Lancets
Vitrex

N.B. Health professionals must only use single use devices:

Unistix ComforTouch® lancets (type a/b)
Vitrex

Needles
BD Viva®

Omnican® needles (existing patients only)
BD Autosheild Duo® – for use by health professionals only

Sharps Containers
Sharps bins should be provided for patients
SharpSafe® container 1 litre

3.3 Hypoglycaemia

Treatment for hypoglycaemia must not routinely be prescribed
Fruit juice/sugared drinks or soft jelly sweets
Choice of treatment if appropriate depends on the clinical situation and includes
Rapilos® Gel (glucose oral gel)
Glucojuice® for renal patients (pay & report)
Glucagon injection (GlucaGen® hypokit) (reserved for insulin-treated patients at high risk of a hypoglycaemic attack who have a relative, carer or health professional who is able to reconstitute and administer correctly when required.)

4 Disorders of bone metabolism
Osteoporosis
See chapter 8 for bisphosphonates used in malignant disease
For further advice refer to local guidance
Prevention and treatment of postmenopausal osteoporosis

Early menopause or under 60 years with no contraindications

HRT see 6.8.1

Calcium & Vitamin D Supplements
Calcium & Vitamin D products are at 9.2.4

Dietary sources
Adcal D3® caplets – 2 tabs twice daily
TheiCal-D3 tabs once daily (dissolves on tongue for those with swallowing difficulties)

Treatment of osteoporosis
See local treatment protocols on Hippo or at link below

NB Early menopause or under 60 years with no contraindications HRT
http://www.dgpscribingmatters.co.uk/document-categories.asp?doccategoryID=6&subcategory=Endocrine+System

Post menopausal osteoporosis
Alendronic acid 70mg (once weekly)
Risedronate sodium 35mg (once weekly)
Ibandronic acid 150mg (second line – once monthly)

Specialist initiation only
Denosumab 60mg/ml© 6 monthly s/c injection as per shared care protocol
[Serum calcium to be performed 2 weeks after first injection]

Corticosteroid-induced osteoporosis
(treatment and prevention)
Alendronic acid 70mg (once weekly)
Risedronate sodium 35mg (once weekly)
(see local treatment protocol for advice on addition of calcium and vitamin D3 as above)

Male osteoporosis
Specialist referral should be considered
Alendronic acid 70mg (once weekly)
Risedronate sodium 35mg (once weekly)

Treatment of Vitamin D deficiency
See Vitamin D deficiency guidance see Appendix 11

5 Dopamine responsive conditions
Dopamine-receptor agonists
Treatment of hyperprolactinaemia:
Quinagolide in light of recent MHRA advice this should be drug of choice unless not tolerated/effective
Cabergoline no longer first line therapy due to possibility of pulmonary fibrosis/cardiac valvulopathy
Bromocriptine recommended for women planning a pregnancy

6 Gonadorelin responsive conditions
Nafarelin

Acromegaly somatostatin analogues (see BNF 8.2.5)
Octreotide
Lanreotide

7 Hypothalmic and anterior pituitary hormones
7.4 Growth hormone disorders
Specialist use only
Genotropin MiniQuick® injection

8 Sex hormone responsive conditions
8.1 Female sex hormone responsive conditions
HRT for menopausal symptoms
Patients should receive the lowest dose required to manage symptoms
It is recommended to start with a low dose preparation and titrate up where necessary. Seek further guidance at
http://www.menopausematters.co.uk/
(a) women who have not had a hysterectomy
Sequential combined (oral):
Elleste-Duet®
Prempak C®
Femoston®
Sequential combined (transdermal):
Evorel Sequi®
FemSeven Sequi®
Continuous combined (oral):
Kliovance®
Femoston Conti®
Premique®
Premique Low Dose®
Tibolone
Continuous combined (transdermal)
   Evorel Conti®
   FemSeven Conti®

Women who have had a hysterectomy or have an up-to-date Mirena insitu (licence 4yrs national recommendation is 5 years)
Unopposed estrogens (oral):
   Elleste-Solo®
   Premarin®

Unopposed estrogens (transdermal):
   Estradot® patches
   Evorel® patches
   FemSeven® patches
   Oestrogel®

For vaginal atrophy see Chapter 7.6.3

8.3 Male sex hormone responsive conditions
Testosterone gel (Tostran®) multi-dose dispenser
Testosterone gel (Testogel®) sachets

Specialist use only
Testosterone injection (Nebido®)

Anti-androgens
Finasteride

9 Thyroid disorders

9.1 Hyperthyroidism
Antithyroid drugs
To be initiated on specialist advice
   Carbimazole
Propylthiouracil –Patients should be counselled re risk of hepatitis (see SPC)

Beta-blockers
Propranolol

9.2 Hypothyroidism
Levothyroxine

Hypoparathyroidism
   Alfacalcidol
   Sandocal® 1000
7 GENITO-URINARY SYSTEM

1 Bladder and urinary disorders

1.1 Urinary frequency, enuresis and incontinence

Oxybutynin (including oxybutynin MR 5mg ONLY – MR 10mg is more expensive than other MR preps, do not use for frail, elderly females, as per NICE guidance)
Tolterodine MR (prescribe as Neditol XL 2mg or 4mg®)
Trospium 60mg (Regurin XL) Note: take before food
Propiverine 15mg (Detrunorm®)
Solifenacin
Mirabegron
See national guidance
https://www.nice.org.uk/guidance/cg97/chapter/1-guidance (men)
https://www.nice.org.uk/guidance/cg171 (women)

1.2 Urinary retention

alpha-blockers
Tamsulosin MR caps(Pamsvax®)
Alfuzosin
Doxazosin

5α-reductase inhibitors
Finasteride
Dutasteride

1.3 Urological pain

Alkalisation of urine:
Potassium citrate

2. Bladder instillations and urological surgery

Bladder infection, dissolution of blood clots and maintenance of indwelling urinary catheters
Sodium chloride 0.9%

2 Contraception (refer to sexual health guidelines at

3.1 Combined oral contraceptives

Rigevidon®
(monophasic 2nd generation COC)
Gedarel® 30/150 and 20/150
Millinette® 30/75 and 20/75
(3rd generation COCs)
Loestrin®

Emergency contraception
Copper IUD should be offered first line
Levonorgestrel 1.5mg 0-71hrs
Ulipristal acetate 30mg 72-120hrs

3.2 Contraception, devices

Intra-uterine devices
TT 380® Slimline 10 year IUD
Short uterus – Mini TT 380® Slimline (5 year)
Narrow os – Nova-T® 380 (5 year)
Narrow os and short uterus – CU-Safe® T 300 (5 year)

Diaphragms/caps
Seek advice from sexual health on the most cost effective product at the time of prescribing

3.3 Contraception, oral progesterone-only

Desogestrel (12 hour window)

3.4 Contraception, parenteral progestogen-only

Methoxyprogesterone acetate 150mg/1ml (Depo-Provera®)
Methoxyprogesterone acetate 104mg/0.65ml (Sayana Press®) for self-administration

Contraceptive implants
Etonogestrel (Nexplanon®)

Hormone releasing intra-uterine systems
Mirena® (5 years – see guidance once over age 45)
Jaydess®▼ (3 years – suitable for shorter uterus and narrow cervical os)

3.5 Contraception, spermicidal

Gygel® (Not recommended for use alone, for use with diaphragm/cap only)

4 Erectile and ejaculatory conditions
Prescription must be endorsed ‘SLS’ by the prescriber. Only allowed on the NHS as per criteria listed in BNF chapter 7.4.1

**Sildenafil tablets**
Vardenafil tablets 10mg (oro-dispersible tablet, 10mg has same bioavailability as 20mg f/c, only to be used where poor response to sildenafil due to cost difference)
Alprostadil injection (Caverject Dual Chamber®)
Alprostadil urethral application (Muse®)

**Guidance states that no more than 8 per 4 week period should be prescribed**

6 Vaginal and vulval conditions

6.3 Vaginal atrophy

**Ovestin®**
Vagifem 10mcg®
Ortho-Gynest®
Estring® (vaginal ring)

Symptom control
Hyalofemme
Replens

**Dysmenorrhoea**
Ibuprofen
Paracetamol

**Menorrhagia**
Tranexamic acid
combined oral contraceptive (see 7.3.1)
Mirena®

**Frequent irregular periods**
Contraception not required:
Norethisterone (Note: since it is converted to ethinylestradiol, confers similar CVD and VTE risk)
Medroxyprogesterone acetate

Contraception required:
combined oral contraceptive
Mirena®

**Endometriosis**
combined oral contraceptive
(Consider continuous use- see 7.3.1)

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**Medroxyprogesterone acetate**
Mirena®
Decapeptyl SR®

**Lichen sclerosis**
ClobaDerm® ointment (Clobetasol propionate 0.05%)
Nerisone Forte 0.3%® ointment

**Infertility**
To be initiated and prescribed on specialist advice see HIPPO

**Premenstrual syndrome**
no drug treatment or refer to https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg48/

**Galactorrhoea**
no treatment

**Polycystic ovarian syndrome**
Metformin may be prescribed (unlicensed use)

Oligomenorrhoea:
combined oral contraceptive (see 7.3.1)
Medroxyprogesterone acetate
8: MALIGNANT DISEASE

1 Immune system
1.1. Immune system disorders and transplantation
   - Azathioprine
   - Mycophenolate mofetil (MMF)

   corticosteroids
   - Dexamethasone soube tabs
   - Prednisolone

Calcineurin inhibitors and related drugs
   - Tacrolimus (prescribe by brand name to ensure continuity of drug delivery)
   - Ciclosporin (prescribe by brand name to ensure continuity of drug delivery)

1.2 Multiple sclerosis
   - on specialist advice

2 Malignant disease

2.5 Hormone responsive malignancy
   - on specialist advice

Prostate cancer
   - Anti-androgen:
     - Bicalutamide
     - Flutamide

   Gonadorelin analogue:
     - Triptorelin (Decapeptyl SR 11.25/22.5mg®) - 3/6 monthly IM injection
     - Leuprolelin
     - Goserelin

   Progestogens:
     - Medroxyprogesterone acetate
     - Megestrol acetate

   Somatostatin analogues:
     - Short-acting:
       - Octreotide
     - Long-acting:
       - Lanreotide
       - Octreotide depot (Sandostatin LAR)

2.6 Hormone responsive breast cancer
   - on specialist oncology advice

Neo-adjuvant therapy of postmenopausal breast cancer (for up to 6 months)
   - Letrozole (post-menopausal)
   - Tamoxifen +/- Goserelin (pre- or peri-menopausal)

Adjuvant therapy
   - (given for 5 years after local treatment)

Postmenopausal breast cancer:
   - Low risk: no treatment or Tamoxifen (5yrs)
   - Intermediate risk: Tamoxifen (5yrs) then Letrozole (4yrs)
   - High risk: Letrozole (5yrs)
   - Anastrozole if intolerant to Letrozole

Premenopausal breast cancer:
   - Tamoxifen (5yrs) +/- Goserelin (2yrs)
   - Exemestane (switch after 2-3 yrs of Tamoxifen, if confirmed menopause, to total of 5yrs)

Extended adjuvant therapy (4 years after completion of 5 years Tamoxifen only)
   - Letrozole

Metastatic breast cancer
   - (continued until disease progression)

Pre-menopausal
   - Tamoxifen +/- ovarian suppression
   - Letrozole +/- ovarian suppression

Post-menopausal
   - Letrozole
   - Exemestane
   - Tamoxifen

Bisphosphonates used in malignant disease
   - for bisphosphonates used in osteoporosis, see 6.4
   - Hypercalcaemia of malignancy (as per SCAN guidance)
   - Zoledronic acid
   - Disodium pamidronate (if GFR < 30ml/min after adequate hydration)
   - Prevention of skeletal related events in patients with breast cancer and multiple myeloma on the advice of an oncologist/haematologist:
     - For multiple myeloma:
       - Sodium Clodronate (Clasteon®)
       - Zoledronic Acid
       - Disodium Pamidronate
     - For Breast Cancer: Ibandronic acid (oral)
       - Zoledronic acid
9: BLOOD and NUTRITION
1 Blood and blood-forming organs
1.4 Anaemias, iron deficiency
   Ferrous fumarate
   Oral iron with folic acid
   Ferrous fumarate/folic acid capsules

Parenteral iron
   local guideline available on HIPPO
   Venofer® (Iron sucrose)
   Cosmofer® (Iron dextran)
   IMonofer® (Iron isomaltoside 1000)

1.5 Anaemias, megaloblastic
Vitamin B12 deficiency
   Hydroxocobalamin
Folate deficiency
   Folic acid

Drugs for renal anaemia
   Supplied from secondary care

1.7 Neutropenia and stem cell mobilisation
   Hospital use only
   Filgrastim
   Lenograstim

2 Fluids and electrolytes
   Oral potassium in drug induced hypokalaemia consider addition of amiloride as potassium-sparing diuretic
     Sando-K® effervescent tabs
     Kay-Cee-L® syrup

Potassium removal
   (for mild to moderate hyperkalaemia)
     Calcium polystyrene sulphonate
     (Calcium Resonium®)

Oral sodium and water
   Sodium depletion (e.g. salt-losing bowel, renal disease):
     Sodium chloride m/r
   Oral rehydration therapy:
     Dioralyte®

Oral bicarbonate
   Chronic acidotic states:
     Sodium bicarbonate
   Hyperchloraemic acidosis:
     Potassium bicarbonate

5 Nutrition
   Oral Nutritional Supplements (ONS) should not be used as first line treatment for malnutrition. Food fortification via dietary measures should be encouraged first. ONS should ideally be prescribed on the recommendation of a Registered Dietician and should always have an ACBS indication.

Standard ACBS indications:
   • Disease-related malnutrition.
   • Short bowel syndrome.
   • Intractable malabsorption.
   • Pre-operative preparation of patients who are malnourished.
   • Proven inflammatory bowel disease (IBD).
   • Following total gastrectomy.
   • Bowel fistula.

Other products may be prescribed as advised by Dietitian

Oral Nutritional Supplements (for use in adults)

First Line Product:
   Complan Shake sachets 57g [all flavours]
   (reconstitute with 200ml whole milk)

Starter Pack:
   Complan. Shake Sample Pack

Second Line Products:
   Starter Packs:
     Fortisip Compact Starter Pack (6 x 125ml bottles mixed flavours)
     Fortijuce Starter Pack (4 x 200ml bottles mixed flavours)
     Fortisip Range Starter Pack (10 x 200ml bottles mixed range of ONS and flavours)
     Ensure Plus Commence (10 x 220ml bottles mixed range of ONS and flavours)

Milk based:
   Fortisip Compact (low volume, 125ml bottle)
   Fortisip Bottle (200ml bottle)
   Ensure Plus Milkshake Style (220ml bottle)

Juice based:
   Fortijuce (200ml bottle)
   Ensure Plus Juce (220ml bottle)

Yogurt Style:
   Fortisip Yogurt Style (200ml bottle)
   Ensure Plus Yogurt Style (220ml bottle)

Thickeners
   Nutilis clear®, (not suitable for children <1yr except for failure to thrive)
   Carobel Instant®

5.4 Special diets
   Coeliacs disease
ACBS indications: established gluten-sensitive enteropathies including steatorrhoea due to gluten sensitivity, coeliac disease and dermatitis herpetiformis only.
For recommended foods and quantities see link above.

Cow’s Milk Allergy and intolerance see guidance Appendix 10

Vitamin deficiencies

Vitamin B group

Vitamin B Co Strong for use in re-feeding syndrome for 10 days only
http://www.nice.org.uk/guidance/cg32

Vitamin C

Patients requiring Vitamin C should be encouraged to eat Vitamin C rich foods due to high cost of this product

Vitamin D and analogues
See guideline Appendix 11 for Investigation and treatment of Vitamin D deficiency in adults:

Stexerol-D3® 50,000IU (2x25,000 IU weekly for 6 weeks)
THEN maintenance is Stexerol-D3® given as 25,000IU monthly OR 1000 IU DAILY

Second line
Valupak® Vitamin D3 1,000IU tablets

If swallowing difficulties

InVita D3® oral drops 25,000IU
Loading is 2 x 25,000 IU vials oral drops per week for 6 weeks THEN maintenance is Invita D3 1 x 25,000IU oral drops per month indefinitely
Invita D3can be mixed with food or luke warm water
Alfacalcidol (renal patients)

Calcium supplements
Adcal®

Calcium and vitamin D supplements (see 9.6)

Vitamin K

Malabsorption syndromes (water-soluble preparation required):

Menadiol sodium phosphate
Fat soluble formula (not malabsorption)
Phytomenadione

Ergocalciferol 300,000 iu/ml i/m injection
- to be supplied by clinic. If deemed necessary can also be obtained as single ampoule from DGRI pharmacy.
10: MUSCULOSKELETAL SYSTEM

1 Arthritis

Disease-modifying anti-rheumatic drugs
Initiated in consultation with a specialist
methotrexate 2.5mg (Please note methotrexate should only be prescribed as multiples of the 2.5mg strength tablet once weekly)

2 Hyperuricaemia and gout
See guidance at http://ard.bmj.com/content/early/2016/07/25/annrheumdis-2016-209707.full

Acute attacks of gout
Naproxen
Prednisolone plain 30mg once daily for 5 days
Colchicine (Please note risk of serious interactions with Clarithromycin and also note dose to be adjusted in renal impairment)

Prophylaxis of gout
Titrated dose to achieve serum uric acid below 0.36 mmol/litre
Allopurinol
Febuxostat (SMC advises use only when treatment with Allopurinol is inadequate, not tolerated or contraindicated)

3 Neuromuscular disorders

3.1 Myasthenia gravis
Pyridostigmine bromide
Neostigmine

3.3 Spasticity
Baclofen
Dantrolene sodium
Diazepam – short term use for muscle spasm only

4 Pain and inflammation in musculoskeletal disorders

Non-steroidal anti-inflammatory drugs
NSAIDs should be considered in the treatment of patients with chronic non-specific low back pain. All NSAIDs and Cox-2 inhibitors carry a cardiovascular risk. Use the lowest effective dose for the shortest period of time. Consider topical non-steroidal NSAIDs for patients with OA in knee or hand joints. Patients with OA may only require intermittent treatment

Ibuprofen
Naproxen
Etoricoxib 30mg (for patients intolerant of NSAIDs)

Patients at high risk of serious gastro-intestinal adverse events or also requiring low dose aspirin for cardiovascular disease, add PPI see 1.4.3

5 Soft tissue and joint disorders
Systemic corticosteroids
Oral:
Prednisolone plain

Please refer to osteoporosis guidance for advice on bone protection for patients on steroids https://nos.org.uk/media/1582/glucocorticoids-steroids-and-osteoporosis-august-2014.pdf

Local corticosteroid injections
Methylprednisolone acetate (Depo-Medrone®)
Triamcinolone acetonide (Kenalog®)

Rubefacients and other topical anti-rheumatics
Diethylamine salicylate 10% cream (Algesal®) no evidence in OA. SIGN advice – should be considered in patients with MSK conditions if other pharmacological therapies have been ineffective.

Ibuprofen 5% gel
11: EYE

Generic preparations are ALWAYS preferred. Effective eye treatment depends on product tolerability and compliance. Where possible, products with less benzalkonium chloride (BAK,) have been selected. Please seek advice before ordering special manufacture preparations (marked “U” or cost £0 in EMIS) – licensed alternatives may be available.

1 Allergic and inflammatory eye conditions

1.1 Allergic conjunctivitis

Sodium cromoglicate 2% eye drops 13.5ml for prophylaxis
Otrivine-Antistin® eye drops for acute treatment

1.2 Inflammatory eye conditions

Corticosteroids

Prednisolone 0.5% (Predso®) 1% (Pred Forte®)
Betamethasone 0.1% eye drops/ointment
Prednisolone 0.5% minims (preservative free)
Dexamethasone 0.1% eye drops (Maxidex®
in combination with antibiotic
Maxitrol®
(Dexamethasone/Neomycin/Polymyxin)

1.3 Uveitis, anterior

Antimuscarinics

Cycloplentolate hydrochloride 1% eye drops

Atropine 1% eye drops/minims

2 Dry eye conditions

In a patient with mild dry eye, preserved drops are often well tolerated when used 4-6 times a day or less.

Mild dry eye
   Sno Tars (polyvinyl alcohol 1.4%)
   Hypromellose 0.3% eye drops
   Clinitas® Carbomer eye gel

Additional night ointment:
   Xaiilin Night®
   VitA-POS®
Moderate/Severe dry eye +/- requiring preservative-free (PF) preparation (best value product depends on frequency of use)

Artelac Rebalance 0.15% eye drops
Celluvisc 1% PF single use eye drops
Blink Intensive Tears PF single dose eye drops
Xaiilin Hydrate 0.3% eye drops

3 Eye infections

Bacterial conjunctivitis:

Chloramphenicol eye drops/ointment
(Minims when preservative free prep indicated)
Fusidic acid eye drops/gel (Gram +ve infections e.g. Staph aureus)
Ciprofloxacin eye drops/ointment (mainly for ulcers)

Chlamydia conjunctivitis:

Azithromycin (oral)

Herpes simplex corneal infection:
Initiate treatment followed by urgent referral to ophthalmology
Aciclovir eye ointment
Ganciclovir

Ophthalmic zoster:
Aciclovir tablets

Blepharitis:
Chloramphenicol 1% eye ointment
Fusidic acid eye drops/gel

Corneal ulcers:
Seek specialist advice

Corneal abrasions:
Chloramphenicol 1% eye ointment
Fusidic acid eye drops/gel
+ Ketaoral 0.5% eye drops
+/- Cycloplentolate hydrochloride 1% eye drops

4 Eye procedures

Antimuscarinics

Tropicamide 0.5% or 1% eye drops

Mydriatics
Phenylephrine 2.5% minims

Ocular diagnostic stains
Fluorescein 1% or 2% eye drops

4.1 Post-operative pain and inflammation

Local anaesthetics
Proxymetacaine 0.5% hydrochloride

NSAIDs
Ketorolac 0.5% eye drops
Nepafenac 1 mg/ml eye drops (restricted to specialist initiation, diabetic patients post-op cataract surgery)
5 Glaucoma and ocular hypertension
   treatment initiated in secondary care

prostaglandin analogues
   Latanoprost
   Latanoprost minims (Monopost® SMC
   restricted to proven sensitivity to BAK
   preservative)

carbonic anhydrase inhibitors
   Brinzolamide

beta-blockers

   Timolol 0.25% or 0.5% eye drops

   Timoptol®-LA only when once daily use is
   essential

alpha₂-agonists

   Brimonidine 0.2% eye drops

Combination products
Prostaglandin +beta-blocker
   Latanoprost/Timolol
Carbonic + beta-blocker
   Dorzolamide/Timolol
Alpha-agonist + beta-blocker
   Brimonidine/Timolol
Carbonic + alpha agonist
   Brinzolamide/Brimonidine

Miotics
   Pilocarpine 1% or 2%
   eye drops
12: EAR, NOSE and OROPHARYNX

1 Ear
1.1 Otitis externa
If red and swollen with minimal discharge:
  - Betamethasone 0.1% drops,
If purulent discharge – clean canal first
  - Betnesol N®
  - Sofradex®
  - Otomize®
If first choice is ineffective, send a swab for culture and sensitivity do not prescribe blindly more than once
If suspected fungal infection:
  - Clotrimazole 1% solution

1.2 Removal of ear wax
  - Olive oil
  - Sodium bicarbonate ear drops

2 Nose
2.2 Nasal inflammation, nasal polyps and rhinitis
  - Beclometasone dipropionate nasal spray
  - Mometasone nasal spray

2.3 Nasal staphylococcal infection
  - Naseptin® cream (contains peanut oil)
  - Fucidin Cream®
For MRSA disinfection regimens see HIPPO
  - Mupirocin nasal (Bactroban Nasal®)

3 Oropharynx
3.1 Dry mouth
  - Saliveze®
  - Biotene Oralbalance®
  - Salivix Pastilles®

3.2 Oral hygiene
  - Chlorhexidine gluconate mouthwash (for oral topical treatment only)
For MRSA disinfection regimens refer to HIPPO
  - Hydrogen peroxide mouth-wash BP
  - for Vincent’s infection

3.4 Oral ulceration and inflammation
  - Difflam® (benzydamine oral rinse ± chlorhexidine gluconate)

3.6 Oropharyngeal fungal infections
  - Fluconazole capsules
  - Nystatin suspension
13: SKIN
Suggested quantities of emollients and steroids can be found in Chapter 13 of BNF
Potential skin sensitisers in emollients and topical steroids can be found in MIMS

1 Dry and scaling skin disorders
Emollient and barrier preparations

Epimax® cream (localised area)
ExoCrema®
Isomol Gel®
QV® cream
Liquid paraffin: white soft paraffin (50:50)
Hydromol® ointment
Other products as recommended by Dermatology

Products containing urea
Balneum® cream
Soap Substitutes
Please note these can be purchased cheaply over the counter:
Emulsifying ointment (can be held under warm/hot running water to give a foamy bath additive)
Epimax® cream
QV Gentle® wash

Emollient Bath Additives
Bath/shower emollients without antiseptic
Emulsifying ointment (can be held under warm/hot running water to give a foamy bath additive)
Hydromol® Bath and Shower
QV Gentle® Wash
Other products as recommended by Dermatology

Bath/shower products with antiseptic - for use where infection is present or a frequent complication
Dermol® 200 shower emollient
Dermol® 600 bath emollient

Barrier Preparations
Conotrane® cream

2 Infections of the skin
See Primary Care Antibiotic Guideline App
2.1 Bacterial skin infections
See MRSA decolonisation protocol on HIPPO
Fucibet® cream (for treatment of IMPETIGO only)

Reserve topical antibiotics for very localised lesions to reduce the risk of resistance.
Crystacide® 1% cream for localised areas
Any queries contact Dermatology

2.2 Fungal skin infections
Clotrimazole cream
Terbinafine cream 30g
Consider skin scrapping if first line treatment is unsuccessful (impact on lab to be considered)

2.3 Parasitic skin infections
Please refer to NHS Dumfries and Galloway Public Health Policies for any changes in advice.
Scabies:
Permethrin 5% cream
Malathion

Head lice:
Mousse, crème rinse and shampoo preparations are ineffective and should be avoided
NYDA®* /Hedrin® (dimeticonc)
Malathion**

* it has been shown that one application has a 94.9% cure rate; licensed from 2 years. For less than 2 years and pregnant/breastfeeding women, prescribe Hedrin.
** use aqueous solutions for children and those with asthma/eczema

Pubic lice:
Malathion (aqueous base)

2.4 Viral skin infections
Aciclovir cream (for herpes simplex)

Consider viral skin swab

3 Inflammatory skin conditions
3.1 Eczema and psoriasis
Ointments are recommended by Dermatology
As guided by ScriptSwitch for availability due to supply issues
Mild corticosteroid:
Hydrocortisone 1%

Moderately potent corticosteroid:
Beinovate-RD®
Eumovate®
Modrasone®
Potent corticosteroid:
- Betnovate®
- Locoid®
- Mometasone

Very potent corticosteroid:
- ClobaDerm® (clobetasol propionate 0.05%)
- Nerisone Forte® for 2 weeks reducing strength as condition responds

Steroids with antimicrobials (for short term use e.g. 7 days in infected eczema)
- Fucibet®

Preparations for atopic eczema
- Emollients see 13.1 ± antiseptic
- Topical corticosteroids see 13.3.1

Preparations for psoriasis
- Emollient see 13.1
- Mild/moderate topical corticosteroids for face/flexures see 13.3.1
- Silkis® (Calcitriol)
- Dovonex® 30g ointment (Calcipotriol)
- Dovobet® 60g gel/ointment (Betamethasone dipropionate 0.05%, Calcipotriol 50mcg)
- Enstilar® foam spray (Betamethasone dipropionate 0.05%, Calcipotriol 50mcg)
- Exorex® lotion (coal tar solution 5%)

Scalp Preparations
1st line
- Betacap® Scalp Application (Betamethasone valerate 0.1%)
- Diprosalic® Scalp Application (Betamethasone 0.05%, Salicylic acid 2%)
2nd line:
- Dovobet® gel (Betamethasone dipropionate 0.05%, Calcipotriol 50mcg)
3rd line:
- Sebco® (Coal tar 12%, Salicylic acid 2%)
4th line
- Clarelux® foam
- Synalar® gel

4 Perspiration
4.1 Hyperhidrosis
- Anhydrol Forte® (aluminium chloride hexahydrate 20%)

5 Photo damage

Sunscreen preparations - ACBS for skin protection in photodermatoses
- Sunsense Ultra® SPF 50+

Photodamage
- Mild: Diclofenac sodium 3% gel (Solareze®)
- Moderate/Severe: Fluorouracil 5% cream (Efudix®)
- Imiquimod 3.75% (Zyclara®)
- Imiquimod 5% (Aldara®)

[Picato® gel. Please note two strengths: ingenol mebutate 150mcg/g for use on the face and scalp, ingenol mebutate 500mcg/g for use below the neck only; for initiation by secondary care]

7 Rosacea and acne
7.1 Acne
See link to guidelines at: http://www.daprescribingmatters.co.uk/document_categories.asp?doccategoryID=6&subcategory=Skin

Topical treatment:
- Dalacin T® (Clindamycin 1%) topical solution
- Zineryt® solution (erythromycin/zinc); only prescribe 30mls unless large areas being treated to avoid waste.
- Duac® gel (benzoyl peroxide 3% or 5% with clindamycin 1%)
- Treclin® gel

Other products as recommended by Dermatology

Systemic treatment:
- Doxycycline
- Lymecycline
- Oxytetracycline

Erythromycin (for children under 12 and pregnant women)
An option in women is co-cyprindiol

Oral retinoids – dermatologist initiation only

7.2 Rosacea
- Rozex® cream/gel (Metronidazole 0.75%)
- Finacea® gel (Azelaic acid 15%)
- Oxytetracycline tablets
8 Scalp and hair conditions
Alphosyl® 2 in 1 shampoo
Selsun® shampoo
Ketoconazole shampoo

9 Skin cleanser, antiseptics and de-sloughing agents
see HIPPO for MRSA decolonisation protocol

10 Skin disfigurement
Camouflages - ACBS for disfiguring skin lesions
Dermacolor®

12 Warts and calluses
Please note some products can be purchased cheaply over the counter:
- Cuplex® gel (Lactic acid 40mg per 1g/Salicylic acid 110mg per 1g)
- Verrugon® ointment (Salicylic acid 500mg per 1g)
- Liquid nitrogen
- Anogenital Warts
- Podophyllotoxin 0.15% (Warticon®)
- Liquid nitrogen

Drugs Affecting the Immune Response
To be initiated by a dermatologist only

14: IMMUNOLOGICAL PRODUCTS AND VACCINES
For advice on immunological products/vaccines see the BNF and the green book

15: ANAESTHESIA
For advice on anaesthesia see BNF and secondary care specialist formulary and/or clinical handbook
Topical local anaesthetics
Ametop® (Tetracaine 4% gel); may be used with a Tegaderm® dressing
NHS D & G STOMA REFERENCE GUIDE FOR PRACTICE ADMIN STAFF
WHO ASSIST PATIENTS REQUIRING STOMA APPLIANCES ON PRESCRIPTION  AUGUST 2015

Patients should have the code 8DC added to their records to assist in identifying patients requiring supplies of stoma appliances.

There are three main types of stomas – Colostomy; Ileostomy and Urostomy. The aim of stoma appliance is to be leak-proof, odour proof, easy to apply and remove, secure and skin friendly. Patients may access their products through local pharmacies or through one of the home delivery companies (locally that is Fittleworth 01903 723089; BCA Direct 0800 854753 or Amcare 0800 885050; MediLink 0800 626388).

Prescriptions must be requested before the product is supplied!
The local formulary (see on the reverse) gives details of the products and the quantities which would be adequate for most patients on a monthly basis.

Colostomy: output is soft formed stool and usually moves twice a day but can vary from patient to patient. Stoma pouch (bag) is one or two piece system. Requirements are 60 per month (pack size 30 unless convex** then in 10s). Stoma can be permanent or temporary. If stoma is reversed then products should be removed from patient records.

**convex appliances may be used as advised by nurse specialist dependant on size of stoma.

Ileostomy: output varies between porridge like to watery consistency. Appliance is drainable and should be drained up to 4/5 times daily. One and two piece systems are available. Stoma pouches can be changed every 2nd day. Men are more likely to change every 2-3 days, ladies will change daily. Requirements are 30 per month (pack size 30 unless convex** then in 10s)

Urostomy: output is urine. Pouches are drainable with a tap and a night bag should be attached overnight. Requirements are 30 pouches per month (pack size 30 unless convex** then in 10s) plus 30 night drainage bags if using non drainable, 1 pack of 10 per month if drainable. Ladies tend to change daily – men every 2-3 days.

NHS D & G Stoma guidelines are available on the www.dgprescribingmatters.co.uk website.

STOMA ACCESSORIES
Accessory items additional to the stoma pouch may be necessary to prevent appliance leakage and maintain integrity of the skin surrounding the stoma.

Barrier Rings or Seals: are used to fill ‘dips’ or creases around the stoma or to prevent skin soreness and appliance leakage (mostly in Ileostomy/Urostomy patients). They can extend the wear time of the pouch and should be one seal per pouch change. Stoma paste can also be used to fill creases around the stoma.

Adhesive Remover Sprays/Wipes: used to remove bag and/or remove adhesive residue from around the stoma after the bag is removed. Should only have either one! Check with Stoma Nurse if both prescribed.

 Barrier Preparations: wipes/stick applicator/spray used as silicone skin protectors against faecal or urinary effluent. They should only be used if skin is prone to repeated soreness (more common in Ileostomy patients). Sprays are most cost effective. The need for these products should be assessed every 3 months. With all preparations advised to use only twice a week as excessive use will interfere with the adhesion of the appliance.

Flange Extenders/Adhesive Strips: come in a semi-circle shape or rectangular strip. They are used to ‘picture frame’ the pouch so that it adheres better to the skin and potentially increase the wear time. Not needed by everyone. Patient would need 1-4 semi-circle strips per pouch change.

Stoma Powder: to be used only if the skin is raw or broken prior to attaching the pouch. This has a long shelf life and the Stoma Nurse usually supplies from the hospital.

Deodorant Sprays or Drops: modern pouches do not allow odour through. Ordinary deodorants/air fresheners are sufficient to use when changing the pouch in public. Drops may help mask some of the odour if the patient finds the smell unpleasant on emptying the pouch.

Lubricating Agents that go into the Stoma Pouch: for colostomy patients, lubricate the inside of the pouch to allow the stool to drop to the bottom of the pouch and help with pancaking. They are also deodorants but should not be used solely for their deodorant property. Baby oil into the appliance is just as effective.

Thickening Agents or Absorbent Tablets/Sachets: may be required by patients with very liquid stools such as ileostomy patients or colostomy patients that have a looser output.

Hernia Belts/Pants: there is a high incidence of parastomal hernia formation among patients with stomas especially those with a colostomy. The hernia is caused by a weakness of the abdominal wall so that the bowel pushes through and causes an abdominal bulge around the stoma. Allocation is normally 3 per year but issued as one initially as patient needs to check for comfort

PLEASE NOTE: No additions or increase in quantities supplied should occur due to patient request, unless there is prior approval by stoma nurse. All changes require approval from stoma nurse specialist.

STOMA APPLIANCES FORMULARY

Appendix 1
<table>
<thead>
<tr>
<th>APPLIANCE</th>
<th>MANUFACTURER ORDER NO</th>
<th>QTY</th>
<th>PRICE</th>
<th>MONTHLY RECOMMENDED QTY</th>
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<tbody>
<tr>
<td><strong>ADHESIVE REMOVER SPRAYS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lift citrus adhesive remover spray</td>
<td>CD medical Ltd 300714</td>
<td>50mls</td>
<td>£6.40</td>
<td>2 sprays</td>
</tr>
<tr>
<td>Dansac Easi Spray</td>
<td>Salts Healthcare WA2</td>
<td>50mls</td>
<td>£6.57</td>
<td>2 sprays</td>
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<tr>
<td><strong>ADHESIVE REMOVER SWABS</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lift Medical Adhesive remover swabs</td>
<td>Opus Healthcare Ltd 5500</td>
<td>30 sachets</td>
<td>£8.85</td>
<td>1 box</td>
</tr>
<tr>
<td>Wipeaway remover spray</td>
<td>Salts Healthcare WA1</td>
<td>30 sachets</td>
<td>£8.99</td>
<td>1 box</td>
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<tr>
<td>Lift adhesive remover liquid</td>
<td>Opus healthcare 5501</td>
<td>100mls</td>
<td>£6.42</td>
<td>1 bottle</td>
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<tr>
<td><strong>SKIN PROTECTIVE WIPES/SPRAY</strong></td>
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<tr>
<td>LBF NO Sting barrier spray</td>
<td>Clinimed Ltd 3827</td>
<td>30mls</td>
<td>£5.89</td>
<td>1 spray</td>
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<tr>
<td>Clinishield Protective Wipes</td>
<td>Clinimed Ltd 3800</td>
<td>50 wipes</td>
<td>£14.17</td>
<td>1 box (every 2 months)</td>
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<tr>
<td>Sorbaderm spray</td>
<td>Aspen Medical Ltd 3020</td>
<td>28mls</td>
<td>£5.31</td>
<td>1 spray</td>
</tr>
<tr>
<td>Clinifilm Barrier Cream</td>
<td>CD Medical Ltd 300722</td>
<td>100g</td>
<td>£6.50</td>
<td>1 tube (every 3 months)**</td>
</tr>
<tr>
<td>Peri prep sensitive foam</td>
<td>Salts Healthcare PPS2</td>
<td>5 x 1ml</td>
<td>£3.91</td>
<td>1 pack per month Use once a week</td>
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<td><strong>SKIN FILLERS AND PROTECTIVES</strong></td>
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<tr>
<td>Orabase Powder</td>
<td>Convatec Ltd S103</td>
<td>30g</td>
<td>£2.06</td>
<td>1 (every 2 months)***</td>
</tr>
<tr>
<td>Orabase Paste</td>
<td>Convatec Ltd S106</td>
<td>25g</td>
<td>£2.31</td>
<td>1 per month if required***</td>
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<td><strong>EXTENDER/SECURITY STRIPS</strong></td>
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<tr>
<td>Hydroframe flange extenders</td>
<td>Clinimed Ltd WAF H33</td>
<td>20 strips</td>
<td>£13.15</td>
<td>1 pack</td>
</tr>
<tr>
<td>Brava Elastic Tape</td>
<td>Coloplast Ltd 12070</td>
<td>20 strips</td>
<td>£12.55</td>
<td>1 pack</td>
</tr>
<tr>
<td>Flange security tape</td>
<td>Ostomart Ltd DGW1</td>
<td>100 strips</td>
<td>£4.15</td>
<td>1 (every 2 months)</td>
</tr>
<tr>
<td>Flange security tape</td>
<td>Ostomart Ltd DGW2</td>
<td>100 strips</td>
<td>£7.19</td>
<td>1 (every 2 months)</td>
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<tr>
<td>SecuPlast Hydro</td>
<td>Salts Healthcare SPH1</td>
<td>30 strips</td>
<td>£11.74</td>
<td>1 pack</td>
</tr>
<tr>
<td><strong>PROTECTIVE WASHERS/RINGS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brava Mouldable 2m</td>
<td>Coloplast Ltd 12030</td>
<td>30</td>
<td>£53.94</td>
<td>1 box</td>
</tr>
<tr>
<td>Brava Mouldable 4.2m</td>
<td>Coloplast Ltd 12042</td>
<td>30</td>
<td>£54.99</td>
<td>1 box</td>
</tr>
<tr>
<td>SecuPlast seals thin</td>
<td>Salts Healthcare SMST</td>
<td>30</td>
<td>£49.48</td>
<td>1 box</td>
</tr>
<tr>
<td>SecuPlast seals standard</td>
<td>Salts Healthcare SMSS</td>
<td>30</td>
<td>£50.27</td>
<td>1 box</td>
</tr>
<tr>
<td>CoHesive Slims</td>
<td>Pelican 839005</td>
<td>30</td>
<td>£55.99</td>
<td>1 box</td>
</tr>
<tr>
<td><strong>DISCHARGE WASHERS/RINGS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convatec Diamonds sachets</td>
<td>CS Bullen Ltd TR105</td>
<td>100</td>
<td>£29.90</td>
<td>1 tub</td>
</tr>
<tr>
<td>AbsorbaGel</td>
<td>Opus Healthcare Ltd 9900</td>
<td>150</td>
<td>£45.79</td>
<td>1 box</td>
</tr>
</tbody>
</table>

*: Skin safe swabs cost £36.34 per pack avoid        **: use only a small amount sparingly
***: prescribe as an acute prescription
MANAGEMENT OF HYPERTENSION

CLINC BP >140/90mmHg
1. ABPM: record 2 readings/hour and use an average of at least 14 readings taken during usual waking hours to confirm diagnosis
2. HBPM: record 2 readings twice daily for at least 4 days (preferably 7) Discard readings on first day and use average of all remaining readings to confirm diagnosis
3. At any stage include education on lifestyle interventions
4. Provide patient education and support for adherence to drug treatment

**CLINIC**
- < 140/90
  - Normotensive: Check BP every 5 years

- ≥ 140/90
  - Should have ABPM (or HBPM)

- > 180/110
  - Consider starting treatment without ABPM (or HBPM)

**ABPM (or HBPM)**
- < 135/85
  - Normotensive: Check BP Every 5 years

- > 135/85
  - Treat if any of: Target organ damage, Established CVD, renal, diabetes, 10 yr CV risk >20% and < 80 yrs

**DRUG TREATMENT**

**STEP 1**
- A: ramipril/lisinopril < 55yrs
  - If ACE intolerant use losartan
  - OR
  - C: amlodipine > 55yrs (or of Afro-Caribbean ethnicity)

**STEP 2**
- A: ramipril/lisinopril OR losartan
  - +
  - C: amlodipine

**STEP 3**
- A: ramipril/lisinopril
  - +
  - C: amlodipine
  - +
  - D: bendroflumethiazide/indapamide

**STEP 4**
Resistant hypertension
- A: ramipril/lisinopril
  - +
  - C: amlodipine
  - +
  - D: bendroflumethiazide/indapamide
  - +
  - further diuretic OR a blocker OR B blocker if further diuretic contraindicated/ not tolerated or ineffectiv
PRESCRIBING GUIDANCE NOTES

1. Anti-platelet treatment is long-term i.e. no limit on duration of treatment
2. EC formulation of aspirin is not recommended
3. Patients with proven allergy or serious intolerance to aspirin should be prescribed clopidogrel
4. Omeprazole 20mg daily may be given in combination with prophylactic aspirin to patients with significant gastrointestinal disturbance due to aspirin, or those with a history of peptic ulcer disease.
5. Aspirin is recommended after an ischaemic stroke only if clopidogrel is contra-indicated or not tolerated.
6. MR dipyridamole monotherapy is recommended after an ischaemic stroke/TIA only if clopidogrel and aspirin are contra-indicated or not tolerated. Please note that dipyridamole may worsen angina (patients currently well on aspirin and dipyridamole will be able to continue on this combination if they prefer).
7. Clopidogrel is not licensed for use post TIA however local and national stroke consultants advise its use for this indication because TIA & ischaemic stroke are not separate disease entities (Ref ProFESS study)
8. Concomitant use of aspirin and clopidogrel is not licensed to prevent further events in stroke or peripheral arterial disease
9. This guidance does not apply to people with atrial fibrillation
As with warfarin, the decision to commence a DOAC should be based on an assessment of the risk of stroke using the CHADS2 score, as per the Quality and Outcomes Framework (QOF).

Warfarin is the 1st line choice anticoagulant in NHS Dumfries & Galloway

Patients who are allergic to warfarin and those, in whom a stable INR cannot be obtained despite good compliance with intended treatment, should be considered for treatment with a DOAC. Good compliance with warfarin treatment has previously been defined as being in the therapeutic INR range for at least 60% of the time.

To date, there is insufficient evidence available to conclusively recommend one DOAC over the others.

Key Considerations

The decision to commence a DOAC is one that is based on whether or not the benefits of anticoagulation outweigh the risks and is one that should be reassessed on a regular basis.

CAUTION: There is no means by which the level of anticoagulation can be checked or assessed.

The only DOAC so far with an antidote is dabigatran accessed through DGRI. Onset of anticoagulation with DOACs is rapid. Patients will be fully anticoagulated within 3 hours.

The anticoagulant effects of DOACs should wear off within 24 to 48 hours.

As with warfarin, patients should be advised to report any unexplained or unusual bleeding or bruising and to let other healthcare professionals know that they are receiving treatment with an anticoagulant prior to any procedures being carried out or any other medicines being prescribed for them or supplied or administered to them.

Patients should be followed up at regular intervals throughout their course of treatment with a DOAC to ensure the continued safe and effective use of the medicine.

Baseline U&Es must be checked prior to starting any of the DOACs. All 3 drugs are affected to some degree by changes in renal function and either contra-indications or dose adjustments are applicable to all 3 depending on the extent of renal impairment. These are summarised in Table 2 below.

Baseline liver function tests should be carried out prior to commencing treatment. Dabigatran and apixaban were not studied in patients with transaminase assays greater than twice the upper limit of normal and their use in this patient population therefore cannot be recommended. See the “Contraindications” section below for full advice on the use of DOACs in patients with hepatic impairment and liver disease.

Dabigatran must be protected from moisture and therefore must not be dispensed in a blister pack.

Contraindications to NOAC treatment

All 3 DOACs share some of the same contraindications and these are detailed below. Interactions specific to each DOAC are summarised in Table 1 on page 2. Common interactions:-

1. Hypersensitivity to the active ingredient or any excipients
2. Active clinically significant bleeding
3. Presence of lesion or condition considered to be a significant risk for major bleeding
   • Concomitant treatment with any other anticoagulant except under condition of switching treatment to or from another anticoagulant or when unfractionated heparin is being given at doses appropriate to maintain an open central venous or arterial catheter.
Table 1 - Contraindications

<table>
<thead>
<tr>
<th>Drug</th>
<th>Contraindications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apixaban</td>
<td>Liver disease associated with coagulopathy and clinically relevant bleeding risk; Whilst not defined as a contra-indication, use where CrCl is &lt; 15ml/min is not recommended</td>
</tr>
<tr>
<td>Dabigatran</td>
<td>Hepatic impairment or liver disease expected to have any impact on survival; Concomitant treatment with systemic ketoconazole, ciclosporin, itraconazole, tacrolimus and dronedarone; Patients with severe renal impairment (defined in the SPC as CrCl &lt; 30ml/min); Prosthetic heart valves requiring anticoagulant treatment</td>
</tr>
<tr>
<td>Rivaroxaban</td>
<td>Liver disease associated with coagulopathy and clinically relevant bleeding risk including cirrhotic patients with Child Pugh B and C; Pregnancy and breast-feeding; Whilst not defined as a contra-indication, use where CrCl is &lt; 15ml/min is not recommended</td>
</tr>
</tbody>
</table>

Table 2 – Dosage adjustments

<table>
<thead>
<tr>
<th>Drug</th>
<th>Reason for dose adjustment</th>
<th>Adjustment required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apixaban</td>
<td>eGFR = 15 to 29ml/min</td>
<td>Reduce dose to 2.5mg twice daily</td>
</tr>
<tr>
<td></td>
<td>Serum creatinine = 133µmol/l AND age ≥80 OR bodyweight ≤60kg</td>
<td>Reduce dose to 2.5mg twice daily</td>
</tr>
<tr>
<td></td>
<td>eGFR &lt; 15ml/min</td>
<td>Contraindicated</td>
</tr>
<tr>
<td>Dabigatran</td>
<td>Age ≥80 OR patients also on verapamil</td>
<td>Reduce dose to 110mg twice daily</td>
</tr>
<tr>
<td></td>
<td>eGFR = 30 to 50ml/min</td>
<td>Consider reducing dose to 110mg twice daily in those at high risk of bleeding. Decision should be made at prescriber’s discretion.</td>
</tr>
<tr>
<td></td>
<td>eGFR &lt; 30ml/min</td>
<td>Contra-indicated</td>
</tr>
<tr>
<td>Rivaroxaban</td>
<td>eGFR = 15 to 49ml/min</td>
<td>Reduce dose to 15mg once daily</td>
</tr>
<tr>
<td></td>
<td>eGFR &lt;15ml/min</td>
<td>Contra-indicated</td>
</tr>
</tbody>
</table>

Table 3 – Switching patients from warfarin to a NOAC and vice-versa

<table>
<thead>
<tr>
<th>Drug</th>
<th>Switching from warfarin</th>
<th>Switching to warfarin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apixaban</td>
<td>Stop warfarin. Apixaban should be started once INR &lt; 2</td>
<td>Commence warfarin at normal initiation dose. Give apixaban and warfarin together for 2 days then check INR before next scheduled dose of apixaban. Dose warfarin as per INR. Continue concomitant treatment until INR &gt; 2 with daily INR check prior to administration of apixaban with dosing of warfarin as per result</td>
</tr>
<tr>
<td>Dabigatran</td>
<td>Stop warfarin. Dabigatran should started once INR &lt; 2</td>
<td>CrCl≥ 50ml/min – Give warfarin and dabigatran together for 3 days before stopping dabigatran CrCl 30 to 49ml/min – Give warfarin and dabigatran together for 2 days before stopping dabigatran In both cases, check INR 2 days after stopping dabigatran and dose warfarin accordingly</td>
</tr>
<tr>
<td>Rivaroxaban</td>
<td>Stop warfarin. Rivaroxaban should be started once INR &lt; 3</td>
<td>Commence warfarin at normal initiation dose. Give rivaroxaban and warfarin together for 2 days then check INR before next scheduled dose of rivaroxaban. Dose warfarin as per INR. Continue concomitant treatment until INR &gt; 2 with daily INR check prior to administration of rivaroxaban with dosing of warfarin as per result</td>
</tr>
</tbody>
</table>

Key interactions

All 3 DOACs have some common interactions and these include: ketoconazole, itraconazole, voriconazole, posaconazole, phenytoin, carbamazepine, phenobarbitone, rifampicin, St John’s Wort, antiplatelet agents and other anticoagulants. Further to that, dabigatran has significant interactions listed with verapamil, ticagrelor, amiodarone, clarithromycin, SSRIs and SNRIs. In addition to the common significant interactions, rivaroxaban also has a significant interaction listed with HIV protease inhibitors. The majority of these interactions are mediated through cytochrome P450 enzymes.
Suggestions for the Safe and Effective Prescribing of Opioids for the Management of Chronic Non-Malignant Pain: initiation, monitoring and tapering

Patients may be managed by the General Practitioner and/or the Pain Specialist. This guideline is to aid primary care and secondary care teams in managing patients, who have chronic pain, with opioids. This guidance should be used in conjunction with local and/or national guidance on the assessment of pain and with reference to British Pain Society Guidelines. See website for referenced guideline, tools and treatment algorithm http://chronicpainscotland.org/healthcare-professionals/assessment-tools/

Key Points

- The aim of using opioids in the short to medium term is to support the rehabilitation and restoration of physical and mental function of patients
- Clinical evidence has demonstrated that opioids can be useful in the management of chronic somatic, visceral and neuropathic pain
- Opioids can also have untoward effects in terms of tolerance, dependence and addiction

Before initiating opioids consider the following:

- What is the cause (diagnosis) of persistent pain in your patient?
- Has a bio psychosocial assessment been made?
- Have other appropriate methods of pain management been tried? (e.g. other medications, graded exercises, psychological methods)
- Does your patient have neuropathic pain? (Refer to local neuropathic pain guidelines)
- Would a trial of opioids be suitable for this patient? (see below)

1. There are no chronic pain conditions in which opioids are completely contraindicated, however the following are situations where they are not recommended or where closer monitoring would be required. Consideration should be given to using the ‘Opioid Risk Tool’ to assess for potential high risk/dependent patients. If patients are assessed as moderate to high risk closer monitoring will be required.

<table>
<thead>
<tr>
<th>Not Recommended</th>
<th>Potential High Risk/Dependent Patients Requiring Closer Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No previous improvement with opioids in the past</td>
<td>• Mental Health Disorders</td>
</tr>
<tr>
<td>• Sleep Apnoea</td>
<td>• Depression and Anxiety Related to Pain</td>
</tr>
<tr>
<td>• No Clinical Evidence for Long Term Effectiveness in</td>
<td>• Previous or Existing Addiction to Any Substance</td>
</tr>
<tr>
<td>• Headache</td>
<td>• Serious Mental Health Issues or Addiction in the Family</td>
</tr>
<tr>
<td>• Non Specific Low Back Pain</td>
<td></td>
</tr>
<tr>
<td>• Fibromyalgia</td>
<td></td>
</tr>
<tr>
<td>• Unexplained Persistent Pain</td>
<td></td>
</tr>
</tbody>
</table>

2. Initiation of Opioids

Prior to the commencement of opioid therapy, it is essential that appropriate informed consent is obtained from the patient and if necessary family/carers.

The discussion should include:

- A clear explanation of the advantages and disadvantages of opioid therapy, which should include short term and long term side-effects,

Long Term Effects of Opioids:

- Suppression of the immune system
- Suppression of pituitary hormones leading to hypogonadism
- Low bone mass and risk of fractures
- Possible effect on cognitive function
Agreeing achievable patient specific goals. This may include an agreed expected reduction in pain score (30%), improvement in sleep pattern and functional ability.

An explanation of the concept of an Opioid Trial and what circumstances would surround the discontinuation of opioid medication.

Complete the 1st page of the ‘Progress Note’ Pain Assessment & Documentation Tool (PADT) to record baseline levels of the pain score and functional ability. 
http://www.healthinsight.org/Internal/assets/SMART/PADT.pdf

3. Opioid Trial
Anticipated length of trial would be 6 weeks. Expectation: 30% improvement in pain an significant improvement in functional ability

Discontinue all Step 2 analgesia and replace with Step 3 during the trial however continue with Step 1 analgesia paracetamol/NSAIDs

Stop All STEP 2 Analgesia
Single or combination analgesics containing:
- Codeine
- Dihydrocodeine
- Tramadol
- Low Dose Buprenorphine Patches (Buteo®)
Indicated in non-malignant chronic pain of moderate intensity when an opioid is necessary for obtaining adequate analgesia in elderly patients over 65 years

<table>
<thead>
<tr>
<th>1st Line</th>
<th>Morphine Sulphate Sustained Release</th>
<th>Starting Dose</th>
<th>Titration</th>
<th>Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd Line</td>
<td>Oxycodone Sustained Release</td>
<td>10mg BD</td>
<td>Increase by 10-20mg BD Every 2 weeks</td>
<td>60mg BD</td>
</tr>
<tr>
<td>3rd Line or if issues with GI absorption</td>
<td>Fentanyl (Equivalent to 45mg morphine in 24 hours)</td>
<td>Increase by 12mcg/hr every 2 weeks</td>
<td>25mcg/hr (Equivalent to ~80mg morphine in 24 hours)</td>
<td></td>
</tr>
</tbody>
</table>

Commence STEP 3 Analgesia

Use a single agent by the oral route, using sustained release preparations. If no contraindication, first line choice is sustained release Morphine Sulphate SR 10mg BD (Zomorph®) in opioid naïve patients. For patients already on reasonable dose step 2 analgesics, convert using opioid conversion chart, then reduce total daily dose by 25% as a safety precaution.

Tapentadol (Step 3 opioid) is to be initiated only on the recommendations of the pain clinic after morphine MR has been tried.

If Morphine Sulphate SR is not tolerated despite treatment of side effects, recommence trial using sustained release Oxycodone SR

Oral route is preferred, however if the patient has problems with swallowing or GI absorption. Transdermal Fentanyl preparations should be used, recognizing that titration will take longer than oral preparations.

Increase dose every 2 weeks until required pain relief has been achieved or side effects are intolerable or until 60mg BD Morphine Sulphate SR or equivalent is reached. Consider referral to the Pain Specialist Clinic.

Reassess the patient 1-2 weekly

Ensure most cost effective brands are used as identified from local formularies.
4. Regular Assessment
Use PADT tool for ongoing assessment (http://www.healthinsight.org/Internal/assets/SMART/PADT.pdf)

Assessment should include;

- **Ongoing Efficacy** – carry out recordings of pain score, side effects and functional assessment (quality of life).
  
  *If the opioid trial is not successful, discontinue opioid by tapering dose, reducing by 10-20mg of morphine/day or equivalent every 2 weeks.*

- **If opioid trial is successful, continue with monitoring of dose, pain score, function and side effects every 3 months initially until does is stable, then every 6 months. Consider weaning opioids every 6 months to see if dose is still optimal**

- Avoid using short acting opioids for breakthrough pain

- **Keep daily dose of long acting opioid as low as possible**

- **Measure sex hormones if patient reporting symptoms of hypogonadism and if abnormal seek advice from local endocrine clinic**

- **Observe for signs of drug abuse. Refer to British Pain Society for further advice**
  
  [http://www.rcoa.ac.uk/faculty-of-pain-medicine/opioids-aware](http://www.rcoa.ac.uk/faculty-of-pain-medicine/opioids-aware)

- **Opioid rotation** (switch from one opioid to another) should be considered if poor opioid responsiveness or unacceptable adverse effects. Gradually reduce current opioid while starting alternative opioid (starting dose of opioid is the same as in opioid naïve patient) – dose to be amended weekly. Aim to reduce final dose as part of rotation.

---

<table>
<thead>
<tr>
<th>Referral to a pain specialist is recommended for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Patients with previous mental health problems, dependency or addiction</td>
</tr>
<tr>
<td>• Difficulty tapering or problem drug use</td>
</tr>
<tr>
<td>• Patients with opioid sensitive pain who require dose higher than 60mg Morphine Sulphate Tablets BD or equivalent</td>
</tr>
<tr>
<td>• Opioid insensitive problematic pain</td>
</tr>
<tr>
<td>• Diagnostic difficulties</td>
</tr>
</tbody>
</table>

5. Treatment of Side Effects – further information

**Constipation**

The majority of patients taking opioids for moderate to severe pain will develop opioid induced constipation; tolerance does not develop to this side effect. Guidelines suggest that the best prophylactic treatment for opioid induced constipation is a combination of a stimulant laxative and a stool softener. Refer to local formularies

**Nausea/Vomiting**

Nausea and vomiting are common when starting on opioids but generally tolerance develops after 5-10 days. It is recommended that patients commencing on an opioid for moderate to severe pain should have access to prophylactic anti-emetics to be taken if required. Refer to local formularies for treatment of choice

**Itch**

Opioid induced itch occurs in around 1% of those who receive a systemic opioid. It is thought to be caused by a central mechanism rather than by histamine release, therefore in some cases antihistamines are not effective. Emollients should be used liberally if the patient has dry skin. Trial of a sedating antihistamine such as chlorphenamine or hydroxyzine is suggested, if this is not effective after a few days it should be stopped

6. Renal Impaired patients

For those patients with renal impairment, the likelihood of opioid toxicity with any opioid increases and the following guiding principles should be followed when prescribing opioids;

- Use the smallest effective dose/frequency
- Titrte carefully and monitor for adverse effects
- It should be noted there is no advantage in using Oxycodone over Morphine in Stage 1-3 renal impaired patients
- In patients with stage 4/5 kidney disease - consult with the local renal specialist before commencing opioid treatment. General advice would be to avoid long acting preparations and where they are used, delay their introduction until the patient’s dose requirements are fully established
- If there are clinical concerns consult local renal specialists
Combination therapies may be considered
Failure to respond after an appropriate dose for several weeks should result in a trial of a different compound
Fibromyalgia: amitriptyline and pregabalin are recommended by SIGN and also fluoxetine (20-80mg daily dose)
Potential risk of side effects should be discussed prior to trials of all drugs used in neuropathic pain

**Algorithm for Management of Neuropathic Pain**

- **Initial Assessment for diagnosis neuropathic pain**
  - Neuro-anatomically plausible distribution of pain symptoms and history suggestive of relevant disease or lesion (e.g. diabetes and stocking distribution of pain)
  - Altered pain sensation (e.g. allodynia, hyperalgesia)
  - Areas of numbness or burning
  - Continuous or intermittent evoked or spontaneous pain
  - Consider using neuropathic pain assessment tools like LANSS or PAINDETECT

<table>
<thead>
<tr>
<th>1st line management (choice depends on patient factors and physician preference)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amitriptyline</strong></td>
</tr>
<tr>
<td>Start at 10 mg at night time increase at 10 mg increments per week up to dose with maximum benefit and least side effects</td>
</tr>
<tr>
<td>Maximum dose – 125 mg</td>
</tr>
<tr>
<td>TCA should not be used on their own for chronic low back pain</td>
</tr>
<tr>
<td><strong>Gabapentin</strong></td>
</tr>
<tr>
<td>Start at 300 mg at night time and build up in 300 mg increments per week (through the day to make it 3 times a day ) up to a dose that gives maximum benefit with least side effects</td>
</tr>
<tr>
<td>Minimum effective dose – 1200mg/day</td>
</tr>
<tr>
<td>Maximum recommended dose – 3600 mg/day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2nd line management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pregabalin</strong> (Alzain®) (if amitriptyline or gabapentin is not effective or not tolerated)</td>
</tr>
<tr>
<td>Start at 75 mg twice a day and build up to a dose with maximum benefit with least side effects</td>
</tr>
<tr>
<td>Minimum effective dose no less than 300 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3rd line management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alternative TCA – Imipramine</strong> in doses between 25-75mg/daily may be used to reduce side effects</td>
</tr>
<tr>
<td>SNRI antidepressants – Duloxetine 60 mg/day up to 120 mg/day</td>
</tr>
<tr>
<td>Carbamazepine – Start at 100-200 mg daily and increase by 100-200 mg increments biweekly to a maximum of 1600mg/daily in divided doses</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4th line management – Topical agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidocaine 5% plaster can be used for post herpetic neuropathic pain to be applied for 12 hrs and off for 12 hrs.</td>
</tr>
<tr>
<td>Maximum dose – 3 patches each time</td>
</tr>
<tr>
<td>Capsaicin 0.075% cream could be used 3-4 times a day for 3-4 weeks</td>
</tr>
</tbody>
</table>
### 5th line management
Consider opioids – for patients who do not respond or tolerate other treatments. See Appendix 5
Please remember to wean patient off opioids if not effective

---

**Consider the following special situations**

<table>
<thead>
<tr>
<th>Red Flags</th>
<th>Referral to specialist care</th>
<th>CRPS – the 4 pillars of management</th>
</tr>
</thead>
</table>
| - Diagnostic uncertainty  
- Patient has severe pain  
- Pain significantly limits daily activities  
- Underlying health condition has deteriorated | - Failure of medical management  
- Consideration of Qutenza and other interventions  
- Consideration of MDT assessment and management | - Patient information and education  
- Medication and procedures  
- Physical and vocational rehabilitation  
- Psychological intervention |

Do not forget self-management resources – Pain Association, Pain Concern and NHS inform

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### References
2. BRITISH PAIN SOCIETY [www.britishpainsociety.org](http://www.britishpainsociety.org)
Antiepileptic Drugs: MHRA advice on switching between different manufacturer’s products for a particular drug

Advice for prescribers:

- Different AEDs vary considerably in their characteristics, which influences the risk of whether switching between different manufacturers’ products of a particular drug may cause adverse effects or loss of seizure control.
- AEDs have been divided into three categories to help healthcare professionals decide whether it is necessary to maintain continuity of supply of a specific manufacturer’s product. These categories are detailed below.
- If it is felt desirable for a patient to be maintained on a specific manufacturer’s product, this should be prescribed either by specifying a brand name, or by using the generic drug name and name of the manufacturer (otherwise known as the Marketing Authorisation Holder).
- Please report on a Yellow Card any suspected adverse reactions to AEDs (www.mhra.gov.uk/yellowcard).
- This advice relates only to AED use for treatment of epilepsy; it does not apply to their use in other indications (e.g., mood stabilisation, neuropathic pain).

Additional advice for pharmacists:

- Dispensing pharmacists should ensure the continuity of supply of a particular product when the prescription specifies it. If the prescribed product is unavailable, it may be necessary to dispense a product from a different manufacturer to maintain continuity of treatment of that AED. Such cases should be discussed and agreed with both the prescriber and patient (or carer).
- Usual dispensing practice can be followed when a specific product is not stated.

- **Category 1** – phenytoin, carbamazepine, phenobarbital, primidone.
  - For these drugs, doctors are advised to ensure that their patient is maintained on a specific manufacturer’s product.
- **Category 2** – valproate, lamotrigine, perampanel, retigabine, rufinamide, clobazam, clonazepam, oxcarbazepine, eslicarbazepine, zonisamide, topiramate.
  - For these drugs, the need for continued supply of a particular manufacturer’s product should be based on clinical judgement and consultation with patient and/or carer, taking into account factors such as seizure frequency and treatment history.
- **Category 3** – levetiracetam, lacosamide, tiagabine, gabapentin, pregabalin, ethosuximide, vigabatrin.
  - For these drugs, it is usually unnecessary to ensure that patients are maintained on a specific manufacturer’s product unless there are specific reasons such as patient anxiety and risk of confusion or dosing errors.
Aims
- to provide a simple, empirical approach to the treatment of common infections
- to promote the safe, effective and economic use of antibiotics
- to minimise the emergence of bacterial resistance in the community

Principles of Treatment
1. This guidance is based on the best available evidence but professional judgment should be used and patients should be involved in decisions
2. Prescribe an antibiotic only when there is likely to be a clear clinical benefit
3. Do not prescribe an antibiotic for viral sore throat, simple coughs and colds
4. Limit prescribing over the telephone to clinically appropriate cases
5. Lower threshold for antibiotics in immunocompromised or those with multiple morbidities; consider culture and seek advice
6. Use simple generic antibiotics first whenever possible
7. The use of antibiotics associated with a higher risk of developing Clostridium Difficile infection, MRSA and resistant UTIs (e.g., cephalosporins, co-amoxiclav, quinolones and clindamycin) is inappropriate when effective alternatives are available
8. Avoid widespread use of topical antibiotics (especially those agents also available as systemic preparations)
9. In pregnancy AVOID tetracyclines, aminoglycosides, quinolones, and high dose metronidazole. Short-term use of trimethoprim (theoretical risk in first trimester in patients with poor diet, as folate antagonist) or nitrofurantoin (at term, theoretical risk of neonatal haemolysis) is unlikely to cause problems to the foetus
10. Where a ‘best guess’ therapy has failed or special circumstances exist, microbiological advice can be obtained from duty microbiologist  ☏: Microbiology Dept 01387 241560
11. For the management of MRSA please refer to the D&G Infection Control Manual at:
   Good practice guidance for screening, treatment and management of patients with MRSA
### UPPER RESPIRATORY TRACT INFECTIONS: Consider delayed antibiotic prescriptions

<table>
<thead>
<tr>
<th>ILLNESS</th>
<th>COMMENTS</th>
<th>DRUG</th>
<th>DOSE</th>
<th>DURATION OF Tx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute sore throat</td>
<td>Avoid antibiotics as 90% resolve in 7 days without, and pain only reduced by 16 hours 2A+. Patients with 3 of 4 center criteria (history of fever, purulent tonsils, cervical adenopathy, absence of cough) 3A+ or history of otitis media may benefit more from antibiotics – consider 2 or 3 day delayed or immediate antibiotics 1A+. Number Needed to Treat (NNT) with antibiotics to prevent 1 episode of Quinsy is &gt;4000 4B+. NNT to prevent 1 episode of otitis media is 200 2A+.</td>
<td>Evidence indicates that penicillin 500 mg for 7 days is more effective than 3 days. Twice daily higher dose can also be used. 6A+. QDS may be more appropriate if severe. 7D.</td>
<td>Phenoxyymethylenicillin 5B+</td>
<td>500 mg QDS Or 1g BD (QDS in severe infections)</td>
</tr>
<tr>
<td>Acute Otitis media (child doses)</td>
<td>Optimise analgesia 2,3B. Target antibiotics appropriately – Otitis Media resolves in 60% of cases within 24 hours without antibiotics: they only reduce pain at 2 days [NNT=15] and do not prevent deafness 4A+. Consider 2 or 3-day delayed 1A+ or immediate antibiotics for pain relief in the following instances: • &lt; 2yrs with bilateral acute otitis media (NNT=4) or bulging membrane and 24 marked symptoms 5A+. • All ages with otorrhea [NNT=3] 6A+. NNT with an antibiotic to prevent one case of mastoiditis is &gt;4000 7B. Haemophilus is an extracellular pathogen, thus macrolides, which concentrate intracellularly, are less effective treatment.</td>
<td>Amoxicillin 8A+</td>
<td>&lt;1 yr 125 mg TID 1-5 yrs 250 mg TID &gt;5 yrs 500 mg TID</td>
<td>5 days 10A+</td>
</tr>
<tr>
<td>Acute Otitis externa</td>
<td>Important to exclude an underlying chronic otitis media before commencing treatment. Many cases recover after thorough cleansing of the external ear canal by suction or dry mopping. Cure rates similar at 7 days for topical acetic acid or antibiotic +/- steroid 1A+. If cellulitis, or disease extending outside ear canal, start oral antibiotics based on previous sensitivities, if available, and also send a swab for culture 2A+. Do not prescribe blindly more than once.</td>
<td>1st line: Betamethasone 0.1% drops 2nd line: Neomycin sulphate with corticosteroid 3A+.</td>
<td>Apply 2 to 3 drops every 3 to 4 hours; reduce frequency when relief obtained 3 drops three TID</td>
<td>7 days Continue for at least 14 days after infection clears</td>
</tr>
<tr>
<td>ILLNESS</td>
<td>COMMENTS</td>
<td>ILLNESS</td>
<td>COMMENTS</td>
<td>ILLNESS</td>
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</tr>
<tr>
<td><strong>UPPER RESPIRATORY TRACT INFECTIONS (Continued)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhinosinusitis acute sc or chronic CKS</td>
<td>Avoid antibiotics as 80% resolve in 14 days without, and they only offer marginal benefit after 7 days NNT=15 2.2A+</td>
<td>amoxicillin 4A+, 7A</td>
<td>500 mg TID</td>
<td>7 days 9A+</td>
</tr>
<tr>
<td></td>
<td>or doxycycline or phenoxytetracycline 6B+</td>
<td>or doxycycline or phenoxytetracycline 6B+</td>
<td>1G if severe 1GD</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td>Use adequate analgesia 4B+</td>
<td></td>
<td>200 mg stat/100 mg OD</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td>Consider 7-day delayed or immediate antibiotic when purulent nasal discharge NNT=8 1.5A+</td>
<td>In persistent infection, an agent with anti-anaerobic activity should be considered 6B+</td>
<td>500mg QID</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td>Only for use in persistent symptoms:- co-amoxiclav 6B+</td>
<td></td>
<td>625mg TID</td>
<td>7 days</td>
</tr>
</tbody>
</table>

| **LOWER RESPIRATORY TRACT INFECTIONS** | | | | |
| Acute cough, bronchitis CKS NICE 69 | Systematic reviews indicate antibiotics are of little benefit in otherwise healthy adults. 1.4A+ | amoxicillin or doxycycline | 500 mg TID | 5 days 5 days |
| | Consider 7-14 day delayed antibiotic with symptomatic advice/leaflet 1.5A+ | | 200 mg stat/100 mg OD | 5 days |
| | Consider immediate antibiotics if >80 years with ONE of the following OR >65 years with TWO of the following:- hospitalisation in past year, taking oral steroids, diabetic, congestive heart failure. | | | |
| Acute exacerbation of COPD NICE 12 GOLD | Antibiotics not indicated in absence of purulent/mucopurulent sputum | 1st line:- Amoxicillin 2nd line:- doxycycline | | |
| | Treat exacerbations promptly with antibiotics if purulent sputum and increased shortness of breath and/or increased sputum volume 1.3B+ | Penicillin allergy:- doxycycline or clarithromycin if doxycycline contraindicated | 500 mg TID | 5 days |
| | In penicillin allergy use clarithromycin if doxycycline contraindicated | If resistance risk factors:- doxycycline | 200 mg stat/100 mg OD | 5 days |
| | Risk factors for antibiotic resistant organisms include co-morbid disease, severe COPD, frequent exacerbations, antibiotics in last 3m | | | |

Note: Low doses of penicillins are more likely to select out resistance. Quinolones are not to be used first line due to poor activity against pneumococcal infections and association with a higher risk of causing Clostridium Difficile. All quinolones must be reserved for proven resistant organisms.
### LOWER RESPIRATORY TRACT INFECTIONS (Continued)

<table>
<thead>
<tr>
<th>ILLNESS</th>
<th>COMMENTS</th>
<th>DRUG</th>
<th>DOSE</th>
<th>DURATION OF TX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community-acquired pneumonia – treatment in the community</td>
<td>Use CURB65 score to help guide and review: 1. Each score 1: 2. Confusion (new) (MSQ&lt;8); 3. Urea &gt;7mmol/l (if available); 4. Respiratory rate &gt;30/min; 5. BP systolic &lt;90 or diastolic ≤ 60; 6. Age ≥ 65 years 7. Score ≥ 0: suitable for home treatment; 8. Score = 1-2: consider hospital assessment or admission 9. Score = 3-4: urgent hospital admission 10. If no response in 48 hours consider admission or add clarithromycin first line or a tetracycline to cover Mycoplasma infection (rare in over 65s) 11. In delayed admission/life threatening cases, give immediate parenteral benzylpenicillin or amoxicillin 1g orally before admission and seek risk factors for Legionella and Staph. aureus infection</td>
<td>If CURB 65=0: Amoxicillin A+ or doxycycline D or clarithromycin A-</td>
<td>500 mg TID 200 mg stat / 100 mg OD 500 mg BD</td>
<td>7 days 7 days 7 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If CURB65=1 at home: Amoxicillin A+ AND clarithromycin A- or Doxycycline alone</td>
<td></td>
<td>500mg TID 500mg BD 200mg stat / 100mg OD</td>
</tr>
</tbody>
</table>

### MENINGITIS

<table>
<thead>
<tr>
<th>Suspected meningococcal disease</th>
<th>HPA</th>
<th>Transfer all patients to hospital immediately. Administer benzylpenicillin prior to admission, unless definite history of anaphylaxis. B NOT allergy (i.e. rash) Ideally IV but IM if a vein cannot be found</th>
<th>IV or IM benzylpenicillin</th>
<th>Adults and children 10 yr and over: 1200 mg Children 1 - 9 yr: 600 mg Children &lt;1 yr: 300 mg</th>
<th></th>
</tr>
</thead>
</table>

Prevention of secondary cases: Only prescrible following advice from Public Health Doctor: 9 am – 5 pm: 01387 272726 Out of hours: Contact on-call doctor via DGRI switchboard : 01387 246246

### URINARY TRACT INFECTIONS

<table>
<thead>
<tr>
<th>UTI quick reference guide ESBL CKS SIGN 88</th>
</tr>
</thead>
</table>

**Note:** In the elderly (>65 years), do not treat asymptomatic bacteriuria; it is common but is not associated with increased morbidity. In the presence of a catheter, antibiotics will not eradicate bacteriuria; only treat if systemically unwell or pyelonephritis likely. Do not use prophylactic antibiotics for catheter changes unless history of catheter-change-associated UTI.

<table>
<thead>
<tr>
<th>Lower UTI in non-pregnant women</th>
<th>HPA QRG SIGN CKS CKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 33% of symptomatic women have no identifiable bacterial infection</td>
<td>15</td>
</tr>
<tr>
<td>Severe (≥ 3 symptoms): treat empirically</td>
<td>1,2C</td>
</tr>
<tr>
<td>Mild (≤ 2 symptoms): use dipstick to guide treatment and send MSU for culture</td>
<td>3A-</td>
</tr>
<tr>
<td>Consider the use of delayed prescriptions in women with mild symptoms</td>
<td>16, 17, 18, 19</td>
</tr>
<tr>
<td>There is also evidence that ibuprofen plus general advice about maintaining fluid intake is non-inferior to using ciprofloxacin and can provide resolution of symptoms without the need for antibiotics</td>
<td>19</td>
</tr>
<tr>
<td>Nitrofurantoin should be used with caution in the elderly and is contraindicated in individuals with an eGFR &lt;30ml/min.</td>
<td></td>
</tr>
<tr>
<td>Trimethoprim</td>
<td>6B+ or nitrofurantoin MR7B+, 8C, 9B+</td>
</tr>
<tr>
<td></td>
<td>200 mg BD 100 mg BD</td>
</tr>
<tr>
<td>3 – 5 days (consider a delayed prescription in women presenting with mild symptoms)</td>
<td></td>
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</tbody>
</table>

**2nd line** - Perform culture in all treatment failures. Amoxicillin resistance is common, therefore ONLY use if culture confirms susceptibility. Multi-resistant ESBL E. Coli is increasing but often remain sensitive to nitrofurantoin, pivmecillinam and fosfomycin. Evidence that addition of co-amoxiclav to pivmecillinam may prevent treatment failure 13
# Urinary Tract Infections (Continued)

<table>
<thead>
<tr>
<th>ILLNESS</th>
<th>COMMENTS</th>
<th>DRUG</th>
<th>DOSE</th>
<th>DURATION OF Tx</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UTI in men</strong>&lt;br&gt;SIGN 88&lt;br&gt;HPA</td>
<td>Consider prostatitis and send pre-treatment MSU 1,4C OR if symptoms mild/non-specific, use -ve dipstick to exclude UTI 5C</td>
<td><strong>Uncomplicated UTI</strong>&lt;br&gt;Trimethoprim OR Nitrofurantoin MR</td>
<td>200mg BD OR 100mg BD</td>
<td>7 days 7 days</td>
</tr>
<tr>
<td></td>
<td>Men with uncomplicated UTI can be treated with trimethoprim or nitrofurantoin</td>
<td><strong>Signs and symptoms suggestive of prostatitis</strong>&lt;br&gt;Ciprofloxacin OR Ofloxacin</td>
<td>500mg BD OR 200mg BD</td>
<td>28 days 28 days</td>
</tr>
<tr>
<td></td>
<td>Men with symptoms suggestive of prostatitis (abrupt onset of voiding symptoms, distressing but poorly localised pain and systemic symptoms such as fever and malaise) should be treated with a quinolone.</td>
<td><strong>2nd line:-</strong>&lt;br&gt;Trimethoprim</td>
<td>200mg BD</td>
<td>28 days</td>
</tr>
<tr>
<td></td>
<td>&lt;10% of men who receive a diagnosis of prostatitis have a proven bacterial infection 14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For more advice see: <a href="http://www.scottishmedicines.org.uk/.../sapg/Advice_on_antibiotic_use_in_recurrent_UTI_in_men_and_prostatitis_2015.pdf">www.scottishmedicines.org.uk/.../sapg/Advice_on_antibiotic_use_in_recurrent_UTI_in_men_and_prostatitis_2015.pdf</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UTI in pregnancy</strong>&lt;br&gt;HPA QRG&lt;br&gt;CKS&lt;br&gt;SIGN 88</td>
<td>Send MSU for culture and sensitivity and start empirical antibiotics 1A. A repeat urine culture should be performed 7 days after the completion of the antibiotic course as a test of cure.</td>
<td><strong>1st trimester</strong>&lt;br&gt;Nitrofurantoin</td>
<td>100 mg BD</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td>Asymptomatic bacteriuria in pregnancy should be treated with an antibiotic</td>
<td><strong>2nd trimester</strong>&lt;br&gt;Nitrofurantoin or trimethoprim</td>
<td>100 mg BD OR 200 mg BD</td>
<td>7 days 7 days</td>
</tr>
<tr>
<td></td>
<td>Short-term use of nitrofurantoin in pregnancy is considered safe 3C. Likewise, trimethoprim is considered safe 2C except in women with established folate deficiency, low dietary folate intake or on a folate antagonist medication (e.g. antiepileptic or proguanil) and it should be avoided in such individuals 2,3</td>
<td><strong>3rd trimester</strong>&lt;br&gt;trimethoprim</td>
<td>200mg BD</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td>Due to the availability of effective alternatives, nitrofurantoin is preferred over trimethoprim in the 1st trimester (antifolate effect), while in the 3rd trimester, trimethoprim is preferred over nitrofurantoin (potential for neonatal haemolysis)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UTI in children</strong>&lt;br&gt;HPA QRG&lt;br&gt;CKS&lt;br&gt;NICE</td>
<td>Child &lt; 3 months: refer urgently for assessment 1A</td>
<td>Trimethoprim 1A or nitrofurantoin MR 1A+</td>
<td>See BNF for dosage</td>
<td>3 days 1A+</td>
</tr>
<tr>
<td></td>
<td>Child ≥ 3 months: use positive nitrite to start antibiotics 1A+. Send pre-treatment MSU for culture and sensitivity for all</td>
<td>If susceptible, amoxicillin 1A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ILLNESS</td>
<td>COMMENTS</td>
<td>DRUG</td>
<td>DOSE</td>
<td>DURATION OF Tx</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>Acute pyelonephritis</td>
<td>If admission not needed, send MSU for culture and sensitivities and start antibiotics 1C If no response within 24 hours, admit 2C.</td>
<td>Ciprofloxacin 3A- OR Co-Amoxiclav If susceptible, trimethoprim</td>
<td>500 mg BD 625mg 200 mg BD</td>
<td>7 days 3A- 14 days 14 days</td>
</tr>
<tr>
<td>Recurrent UTI in women (≥ 3 infections per year OR ≥2 in 6 months)</td>
<td>Try simple measures to prevent further infections, i.e. better hydration, urge initiated voiding and postcoital voiding if appropriate, cranberry products Post coital prophylaxis is as effective as prophylaxis taken nightly 1. The use of “standby” antibiotics may be a useful method of avoiding daily prophylactic antibiotics in recurrent UTI 3A+. Where continued problems exist, consider renal tract ultrasound and post void bladder residual volume scan and in new presentations in post-menopausal women, also consider referral for cystoscopy.</td>
<td>Nitrofurantoin MR or trimethoprim or methenamine hippurate take cranberry juice consider the use of standby trimethoprim or nitrofurantoin at usual treatment doses to be taken at first sign of UTI symptoms Stat post coital 2B+, 3C or od at night 1A+ Review need at 6 months</td>
<td>100mg BD 100 mg 1g BD</td>
<td>2B+, 3C od at night 1A+</td>
</tr>
<tr>
<td>Catheter Infection</td>
<td>Treat empirically if symptomatic. 60% of cases are sensitive to trimethoprim Asymptomatic colonisation is common and should not be treated – consider other inflammatory markers e.g. WBC, CRP Change catheter after 24 hours of antibiotic treatment Do not give prophylactic antibiotics to prevent catheter associated UTI</td>
<td>1st line: Trimethoprim 2nd line: Ciprofloxacin</td>
<td>200mg BD 500mg BD</td>
<td>7 days 7 days</td>
</tr>
</tbody>
</table>
### Gastrointestinal Infections

#### Clostridium Difficile

Stop unnecessary antibiotics and/or PPIs.  
If any severity markers present (Temp >38.5; WCC >15; creatinine >1.5 x baseline, albumin<25g/l, ileus, colonic dilatation), discuss with microbiologist.  
Do not give concurrent antimotility agents.  
For patients who do not respond to 1st line antibiotic after 5 days treatment, consider need for admission for IV fluid replacement and surgical assessment.  
See Health Protection Network guidance.

<table>
<thead>
<tr>
<th>1st line:</th>
<th>2nd line:</th>
<th>Recurrences:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metronidazole</td>
<td>Vancomycin</td>
<td>Discuss with microbiologist. Prolonged or pulsed treatment with vancomycin or fidaxomycin may be required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1st line antibiotic after 5 days</th>
<th>400mg TID</th>
<th>10 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd line antibiotic after 5 days</td>
<td>125mg QID</td>
<td>10 to 14 days</td>
</tr>
</tbody>
</table>

#### Gastroenteritis

The aim of antibiotic therapy in gastroenteritis is to treat those with invasive *Salmonella* infection to prevent life-threatening complications – this can be predicted by those with dysenteric symptoms plus another risk factor such as achlorhydria, age>65years, immunosuppression, inflammatory bowel disease or vascular disease. Antibiotics increase the risk of haemolytic uraemic syndrome in *E. Coli 0157* and have a small effect on reducing duration in non-life threatening *Campylobacter* but where antibiotic treatment is deemed to be indicated, **clarithromycin 500mg bd for 7 days** is recommended.

#### Traveller’s diarrhoea

Limit prescription of antibacterial to be carried abroad as standby treatment to people travelling to remote areas and for those in whom an episode of infective diarrhoea could be dangerous. Recommended treatment is **azithromycin 500mg** given as a **stat dose** in view of increasing resistance to ciprofloxacin and the C. Diff risk associated with quinolones. In all cases, this should be supplied via private prescription.

#### Threadworms

<table>
<thead>
<tr>
<th>Age group</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2 years</td>
<td>mebendazole</td>
</tr>
<tr>
<td>2 years</td>
<td>2.5ml spoonful</td>
</tr>
<tr>
<td>3 months to 2 yrs</td>
<td>100mg 1C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age group</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5ml spoonful</td>
<td>100mg 1C</td>
</tr>
<tr>
<td>2 years</td>
<td>2.5ml spoonful</td>
</tr>
<tr>
<td>3 months to 1 yr</td>
<td>2.5ml spoonful</td>
</tr>
<tr>
<td>1yr – 2yrs</td>
<td>5ml spoonful</td>
</tr>
<tr>
<td>Stat</td>
<td>Stat, repeat after 2 weeks</td>
</tr>
</tbody>
</table>

*Health Protection Network guidance* for 1st line: *Metrionidazole*   
2nd line: *Vancomycin*   
Recurrences: Discuss with microbiologist. Prolonged or pulsed treatment with vancomycin or fidaxomycin may be required.

*In all cases, this should be supplied via private prescription.*
The following guidelines are recommended for further information:

- **BASHH guidelines**
- **FSRH and BASHH guidelines on management of women of reproductive age attending non-genitourinary setting complaining of vaginal discharge**
- **West of Scotland Sexual Health MCN guidelines**

### Acute and chronic prostatitis

<table>
<thead>
<tr>
<th>BASHH</th>
<th>CKS</th>
<th>SIGN 88</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send MSU for culture and start antibiotics</td>
<td><strong>1C</strong></td>
<td><strong>1C</strong></td>
</tr>
<tr>
<td>Quinolones achieve higher prostate levels however; trimethoprim also achieves good prostate levels</td>
<td><strong>2</strong></td>
<td><strong>2</strong></td>
</tr>
<tr>
<td>Trimethoprim is associated with a lower risk of causing C. Diff infection than quinolones and is preferred in the treatment of Chronic Bacterial Prostatitis for this reason.</td>
<td><strong>3</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

### Acute

- **1st line:** Ciprofloxacin **1C** OR Ofloxacin **200mg BD**
- **2nd line:** Trimethoprim **200mg BD**

### Chronic

- **Trimethoprim** **200mg BD**

<table>
<thead>
<tr>
<th>Duration</th>
<th>14 days usually however can give 28 days in severe illness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14 days usually however can give 28 days in severe illness</td>
</tr>
<tr>
<td></td>
<td>4 to 6 weeks</td>
</tr>
</tbody>
</table>

### Bacterial vaginosis

<table>
<thead>
<tr>
<th>BASHH</th>
<th>CKS</th>
<th>HPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral metronidazole is as effective as topical treatment <strong>1A</strong> but is cheaper</td>
<td><strong>1A</strong></td>
<td></td>
</tr>
<tr>
<td>Less relapse with 7 day than 2g stat at 4 wks <strong>3A</strong></td>
<td><strong>3A</strong></td>
<td></td>
</tr>
<tr>
<td>Pregnant/breastfeeding: avoid 2g stat <strong>3A</strong></td>
<td><strong>3A</strong></td>
<td></td>
</tr>
<tr>
<td>Treating partners does not reduce relapse <strong>5B</strong></td>
<td><strong>5B</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>metronidazole</th>
<th><strong>400 mg BD</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>or metronidazole 0.75% vag gel</td>
<td><strong>5 g applicatorful at night</strong></td>
</tr>
<tr>
<td>or clindamycin 2% cream</td>
<td><strong>5 g applicatorful at night</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration</th>
<th>7 days <strong>1A</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 nights <strong>1A</strong></td>
</tr>
<tr>
<td></td>
<td>6 nights <strong>1A</strong></td>
</tr>
<tr>
<td>GENITAL TRACT INFECTIONS (Continued)</td>
<td>BASHH</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Chlamydia trachomatis</strong></td>
<td>BASHH</td>
</tr>
<tr>
<td>Current partner(s) require treatment and previous partner(s) require testing. Assistance is available from Sexual Health. Patients should be encouraged to have blood tests for HIV, syphilis and where relevant hepatitis. Patients under 25 should be offered a test of re-infection at 3-6 months.</td>
<td><strong>Genital and Pharyngeal</strong></td>
</tr>
<tr>
<td>Pregnancy or breastfeeding: azithromycin is the most effective option.</td>
<td><strong>Male</strong></td>
</tr>
<tr>
<td>Due to a lower rate in pregnancy, test for cure no earlier than 3 weeks after completion of treatment.</td>
<td><strong>Female</strong></td>
</tr>
<tr>
<td>All men with rectal Chlamydia and women with rectal Chlamydia and one of the following:-</td>
<td></td>
</tr>
<tr>
<td>• Rectal symptoms</td>
<td></td>
</tr>
<tr>
<td>• Inguinal lymphadenopathy</td>
<td></td>
</tr>
<tr>
<td>• HIV</td>
<td></td>
</tr>
<tr>
<td>• Who are a contact of lymphogranuloma venereum (LGV)</td>
<td></td>
</tr>
<tr>
<td>Should be referred to Sexual Health for management</td>
<td>Rectal Chlamydia</td>
</tr>
<tr>
<td>Test for cure in rectal Chlamydia no earlier than 3 weeks after completion of therapy.</td>
<td></td>
</tr>
<tr>
<td><strong>Epididymo-orchitis</strong></td>
<td>BASHH</td>
</tr>
<tr>
<td>In men &lt; 35 years old infection likely to be due to a sexually transmitted pathogen. BASHH guidelines for gonorrhoea now recommend the need to provide antibiotic cover for gonorrhoea unless it can be actively excluded.</td>
<td>Likely sexually transmitted pathogen and gonorrhoea not excluded:</td>
</tr>
<tr>
<td>In men &gt;35 years, infection is usually caused by an enteric organism but sexual history is essential to assess risk of gonorrhoea infection.</td>
<td>ceftriaxone</td>
</tr>
<tr>
<td>A painful swollen testicle in an adolescent boy or a young man should be managed as torsion until proven otherwise but if an infective cause cannot be excluded, antibiotics should be prescribed in addition to the emergency surgical referral.</td>
<td><strong>Male</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Female</strong></td>
</tr>
<tr>
<td>Likely infection due to enteric organisms:</td>
<td></td>
</tr>
<tr>
<td>Ofloxacin</td>
<td></td>
</tr>
<tr>
<td>Or Ciprofloxacin</td>
<td></td>
</tr>
<tr>
<td>ILLNESS</td>
<td>COMMENTS</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>GENITAL TRACT INFECTIONS (Continued)</td>
<td>BASHH</td>
</tr>
<tr>
<td>Genital herpes BASHH 2014</td>
<td>Recurrences are generally self limiting and cause more minor symptoms. Management strategies include supportive therapy only, episodic antiviral treatment or suppressive antiviral therapy.</td>
</tr>
<tr>
<td></td>
<td>Short course therapy in recurrent disease Aciclovir</td>
</tr>
<tr>
<td></td>
<td>Suppressive therapy in recurrent disease: Aciclovir</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>External Anogenital warts WoS Sexual Health MCN guidelines</td>
<td>Choosing not to treat is an option at any site. Cryotherapy is also an option for a small number of lesions. Podophyllotoxin cream and solution have similar efficacy and costs. The cream may be easier for patients to apply especially to less accessible lesions. Although commonly used for peri-anal lesions podophyllotoxin use is off licence. The use of podophyllotoxin and imiquimod have similar response rates but imiquimod is often reserved for refractory lesions because it is 3 times more expensive. <strong>DO NOT</strong> use podophyllotoxin or imiquimod in pregnancy.</td>
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<td></td>
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</tr>
<tr>
<td>Gonorrhoea</td>
<td>Discuss urgently with Sexual Health D&amp;G for recommendations regarding management which includes the latest national advice on choice of antibiotics. A patient's identity does not have to be released.</td>
</tr>
<tr>
<td>ILLNESS</td>
<td>COMMENTS</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td>Pelvic Inflammatory Disease (PID) <strong>BASHH</strong></td>
<td>A low threshold for empirical treatment is recommended because of the potential for long term sequelae. Not all patients are suitable for outpatient treatment. Always test for Chlamydia and gonorrhoea. Refer to Sexual Health for partner notification (current partner as a minimum needs chlamydia treatment) If high risk of gonorrhoea (GC) PID beware of using quinolones due to high levels of resistance. GC is more likely to be found in young adults, when there is a history of previous GC, a known contact of GC, females with a male partner who has sex with men, sex took place overseas and in those with severe symptoms. If high risk of GC and severe symptoms discuss with gynaecology. If high risk of GC but symptoms not severe discuss with Sexual Health if available otherwise with gynaecology. 27% of all gonorrhoea isolates now resistant to ciprofloxacin.</td>
</tr>
</tbody>
</table>

| Syphilis | Refer urgently to Sexual Health D&G | | | |

| Trichomoniasis **BASHH 2014** | Refer to Sexual Health D&G. Treat partners simultaneously \(^1\B^+\). In pregnancy and breastfeeding avoid 2g single dose metronidazole \(^2\B^+\). | Metronidazole | 400mg BD Or 2g | 5 to 7 days Stat |

| Vaginal candidiasis **BASHH 2007 IUSTI 2011 FSRH 2012** | All topical and oral azoles give 75% cure, \(^1\A^+\). In pregnancy avoid oral azoles and use longer courses of intravaginal treatment | fluconazole or clotrimazole pessary or clotrimazole 10% cream or clotrimazole 500mg pessary + clotrimazole 2% topical cream **Pregnancy:** Clotrimazole \(^3\A^+\) or miconazole 2% cream | 150mg orally 500mg pessary 5g vaginal cream Pessary – 1 x 500mg Topical Cream - apply sparingly to surrounding area 100mg pessary at night 5g intravaginally at night Or 5g intravaginally BD | stat stat stat 2-3 times a day until resolution of symptoms 6 nights 10 to 14 nights 5 Nights |
## SKIN / SOFT TISSUE INFECTIONS

**Impetigo**
- For extensive, severe, or bullous impetigo, use oral antibiotics 1C
- Reserve topical antibiotics for very localised lesions to reduce the risk of resistance 1,5C, 4B+
- Reserve Mupirocin for MRSA.
  - if penicillin allergic: oral clarithromycin 1,2,3C
  - topical fusidic acid 3B+
  - MRSA only: mupirocin 3A+
  - oral flucloxacillin 1,2,3C
  - co-amoxiclav 4C

**Eczema**
- If no visible signs of infection, use of antibiotics (alone or with steroids) encourages resistance and does not improve healing 1B
- In eczema with visible signs of infection, use treatment as in impetigo 2C

**Cellulitis**
- If patient afebrile and healthy other than cellulitis, use oral flucloxacillin alone 1,2C
- If river or sea water exposure, discuss with microbiologist
- If febrile and ill, admit for IV treatment 1C
  - if penicillin allergic: clarithromycin 1,2,3C

**Leg ulcers**
- Bacteria will always be present. **Antibiotics do not improve healing unless active infection**1A+
- Culture swabs and antibiotics are only indicated if there is evidence of clinical infection such as inflammation/redness/cellulitis; increased pain; purulent exudate; rapid deterioration of ulcer or pyrexia 2C.
- Sampling for culture requires cleaning then vigorous curettage and aspiration. Culture swabs should be sent pre-treatment 3C and treatment reviewed following culture results
  - First line: Flucloxacillin
  - Penicillin allergic: Clarithromycin

**Animal bite**
- Surgical toilet most important 1C
- Assess tetanus and rabies risk 2C
- Antibiotic prophylaxis advised for – puncture wound; bite involving hand, foot, face, joint, tendon, ligament; immunocompromised, diabetics, elderly, asplenic. If bite is from an animal living in an aquatic environment then consider adding in **ciprofloxacin 500mg bd** to cover pseudomonas infection. For all other animal bites, contact Consultant Microbiologist for advice
- Antibiotic prophylaxis advised 3A-
- Assess HIV/hepatitis B & C risk 1C
  - First line animal & human prophylaxis and treatment co-amoxiclav
  - if penicillin allergic: metronidazole PLUS doxycycline (animal/human) or metronidazole PLUS clarithromycin (human) and review at 24&48hrs 7C

**Human bite**
- Treat whole body from ear/chin downwards and under nails. In individuals under 2 yrs of age and the elderly include the face and scalp. Treat all household and sexual contacts within 24 hours 1C
  - Permethrin 5%
  - If allergic to permethrin: malathion 0.5%

**Scabies**
- Treat whole body from ear/chin downwards and under nails. In individuals under 2 yrs of age and the elderly include the face and scalp. Treat all household and sexual contacts within 24 hours 1C
  - Permethrin 5%
  - If allergic to permethrin: malathion 0.5%

---

**Notes:**
- All for 7 days
- If slow response, continue for a further 7 days 1C
- For 7 days
- If slow response continue for a further 7 days 1C
- All for 7 days
- If slow response, continue for a further 7 days 1C
- All for 7 days
- If slow response, continue for a further 7 days 1C
<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
<th>Treatment</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dermatophyte infection of the proximal fingernail or toenail</strong></td>
<td>Take nail clippings: Start therapy only if infection is confirmed by laboratory. Terbinafine is more effective than azoles. Idiosyncratic liver reactions occur only rarely with oral antifungals. For children, seek specialist advice.</td>
<td>Terbinafine 6A+&lt;sup&gt;1&lt;/sup&gt;</td>
<td>6 – 12 weeks 3 – 6 months</td>
</tr>
<tr>
<td><strong>Dermatophyte infection of the skin</strong></td>
<td>Pulsed itraconazole monthly is recommended for infections with candida and non-dermatophyte moulds.</td>
<td>Itraconazole 6A+&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Chickenpox &amp; Shingles</strong></td>
<td>If pregnant seek urgent specialist advice re treatment and prophylaxis. Chickenpox: Immunocompromised patients, including those on steroids, are considered high risk and specialist advice should be sought in these cases. A low threshold for treatment is advised in all adults but treatment is especially warranted if it can be started within 24 hours in Asian patients, obese patients, smokers, secondary household cases and those with an extensive rash and/or oral rash. Treatment should also be started in these patients beyond 24 hours if they are unwell, febrile and new lesions are still appearing. Shingles: treat if &gt;50 yrs and within 72 hrs of rash (PHN rare if &lt;50yrs); or if active ophthalmic or Ramsay Hunt or eczema, severe pain, severe skin rash or prolonged prodromal pain.</td>
<td>1st line, both indications: acyclovir 3B+, 5A+&lt;sup&gt;6&lt;/sup&gt;; 2nd line, shingles only: Valaciclovir 10B+&lt;sup&gt;10&lt;/sup&gt; or Famciclovir 11B+&lt;sup&gt;11&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Cold sores</strong></td>
<td>Cold sores resolve after 7–10 days without treatment. Topical antivirals applied prodromally reduce duration by 12–24 hrs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MRSA</strong></td>
<td>Colonisation with MRSA is common and does not require treatment unless there is active infection.</td>
<td>Doxycycline 100mg BD</td>
<td>7 days</td>
</tr>
<tr>
<td><strong>EYE INFECTIONS</strong></td>
<td>Conjunctivitis</td>
<td>Treat if severe, as most viral or self-limiting. Bacterial conjunctivitis is usually unilateral and also self-limiting; it is characterised by red eye with mucopurulent, not watery, discharge; 65% resolve on placebo by day five. Fusidic acid has very little Gram-negative activity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>If severe: chloramphenicol 0.5% drop and 1% ointment. Second line: fusidic acid 1% gel.</td>
<td>2 hourly for 2 days then 4 hourly (whilst awake) at night.</td>
</tr>
</tbody>
</table>
# Grading of guidance recommendations

The strength of each recommendation is qualified by a letter in parenthesis

<table>
<thead>
<tr>
<th>Study design</th>
<th>Recommendation grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good recent systematic review of studies</td>
<td>A+</td>
</tr>
<tr>
<td>One or more rigorous studies, not combined</td>
<td>A-</td>
</tr>
<tr>
<td>One or more prospective studies</td>
<td>B+</td>
</tr>
<tr>
<td>One or more retrospective studies</td>
<td>B-</td>
</tr>
<tr>
<td>Formal combination of expert opinion</td>
<td>C</td>
</tr>
<tr>
<td>Informal opinion, other information</td>
<td>D</td>
</tr>
</tbody>
</table>
Treatment Guidance for the Management of Type 2 Diabetes

This document should be used in conjunction with the individual treatment guidance

Aims of Drug Treatment

- To alleviate hyper-glycaemic symptoms
- To improve control of glucose and lipids, while avoiding hypoglycaemia
- To avoid excessive weight gain where possible
- To prevent long term complications of diabetes

When to consider tablets

- Type 2 diabetes with inadequate control after at least 12 weeks appropriate diet
- Possibly sooner if symptoms troublesome or if not overweight (BMI < 25)

Avoid in females who are pregnant or planning a pregnancy – refer to secondary care

Dosage Alteration

Changes in dosage should be gradual; in general, dosage adjustments should be made no sooner than at intervals of 8-12 weeks

Target HbA1c

For the majority of patients with diabetes it is accepted that the target HbA1c is 48-53mmol/mol (6.5-7.0%). Some of the more common reasons for setting different targets are discussed further in the guidelines on the individualisation of HbA1c targets.

Medications which cause <5mmol/mol (0.5%) fall in HbA1c in 6 months should be discontinued and an alternative considered.

Drugs

Metformin

First line agent in overweight individuals and may also be effective for normal weight individuals. Studies suggest may be weight neutral or help with weight loss. UKPDS showed improvement in cardiovascular and all cause mortality when metformin was used as part of intensive therapy.

It is unlikely to cause hypoglycaemia. Be aware of possibility of Vit B12 deficiency associated with treatment with metformin

Discontinue Metformin if GFR <30mL/min. Consider dose reduction when GFR falls to <45mL/min.

Contra- indicated in acute cardiac / respiratory failure, other severe acute illnesses and chronic alcohol abuse.

GI side effects are experienced in up to 25% of patients, but this can be alleviated by titrating no sooner than every 2 weeks. Only 5% cannot tolerate it. Metformin should be started in low dose and built up gradually in 2 or 3 divided doses to a dose of 1g BD or 850mg BD with or after food, to a usual max of 2g/day. A trial of Metformin MR could be considered in those patients with severe GI side effects who would otherwise discontinue immediate release metformin
**Sulphonylureas/postprandial glucose regulators**

In general second line to metformin (sulphonylureas are 1st-line in patients with weight loss and osmotic symptoms)

Carries a significant risk of hypoglycaemia. Causes weight gain of 1-2kgs

Can be combined with all other oral agents and insulin

**Post prandial regulators** (nateglinide/repaglinide) have little outcome data to support their use and are therefore **not routinely recommended** in Dumfries and Galloway

**DPP-IV inhibitors (gliptins)**

DPP-IV inhibitors break down GLP-1 in vivo, so these drugs enhance the effect of naturally produced GLP-1

Oral agents but less potent than incretin mimetics (see below). Gliptins are usually stopped when incretin mimetics are started

Weight neutral. **Patients should be counselled to report any signs of acute pancreatitis**

The HbA1c reduction seen with these agents is 0.6 – 0.7%; less than is seen with metformin or sulphonylureas. They represent an alternative to other third-line agents

Gliptins are formulary third-line agents to be used in addition to a SU and/or metformin or as monotherapy where neither an SU nor metformin can be tolerated. Sitagliptin, Saxagliptin, vildagliptin and alogliptin are all licensed for use with pioglitazone. The gliptins are licensed for use (with or without metformin) in addition to insulin when stable dose of insulin has not provided adequate glycaemic control. Dose must be adjusted except where stated in moderate to severe renal disease. Hypoglycaemia attributable to gliptins is not common (similar to placebo)

Sitagliptin & Saxagliptin can be used in moderate to severe renal impairment (at appropriate licensed doses)

Linagliptin

reduces the risk of cardiovascular events and of death from any cause when it was added to standard care versus placebo. The patients studied were at high risk of a cardiovascular outcome. Empagliflozin is non-inferior to a sulphonylurea when used in combination with metformin

Dapagliflozin, is associated with significantly greater weight loss when compared to gliptins and

**SGLT2 Inhibitor**

The sodium glucose co-transporter 2 (SGLT2) inhibitors work by reversibly inhibiting the SGLT2 located in the kidney to reduce glucose re-absorption and increase glucose excretion. The degree of antihyperglycaemic effect is dependent upon blood glucose levels and glomerular filtration rate. Initiation and dosing is dependent on renal function. Due to their mode of action, adverse effects of SGLT2 inhibitors include genital mycotic infections, UTIs and adverse effects associated with osmotic diuresis.

Empagliflozin, Dapagliflozin and Canagliflozin are currently restricted for a) use as dual therapy with metformin where diet & exercise does not provide adequate glycaemic control and a SU is inappropriate, b) as triple therapy with metformin and a SU and c) in combination with Insulin (see www.scottishmedicines.org.uk for full SMC restrictions)

Empagliflozin has been associated with a lower rate of cardiovascular events and of death from any cause when it was added to standard care versus placebo. The patients studied were at high risk of a cardiovascular outcome. Empagliflozin is non-inferior to a sulphonylurea when used in combination with metformin

Dapagliflozin, is associated with significantly greater weight loss when compared to gliptins and
Glitazones (thiazolidinediones) - Pioglitazone

May be an alternative to either Metformin (if not tolerated) or gliclazide (if concern about hypos) or gliptin (if not tolerated) or SGL T2 (if not tolerated). This drug is now 4th line after metformin/sulphonylureas, gliptins and SGLT2. Pioglitazone may be used with metformin or a sulphonylurea as dual therapy or with both metformin and a sulphonylurea as triple therapy

In patients treated with sulphonylureas and metformin, pioglitazone should be considered as an alternative to insulin only when there is fear of insulin, the use of insulin would affect employment or it is anticipated that large insulin doses would be required

Pioglitazone is licensed in the UK for use with insulin but because of the risk of fluid retention this should only occur in exceptional cases and under close specialist supervision

Pioglitazone promotes average weight gain of 3-4kg

Pioglitazone is contraindicated in patients with a history of heart failure. Patients should be monitored for signs of heart failure; treatment should be discontinued if any deterioration in cardiac status occurs

Pioglitazone is associated with an increased risk of bladder cancer; pioglitazone should not be used in patients with active bladder cancer, a past history of bladder cancer, or in those with uninvestigated macroscopic haematuria. The risk of bladder cancer increases with age

Pioglitazone has been associated with an increased risk of fracture, particularly in women. Although the numbers experiencing fractures in the trials is very small, it is recommended that the glitazones be avoided in those with high fracture risk

Incretin mimetics

The incretin hormones (GLP-1, GIP) are produced by the small intestine in response to meals. They act on the pancreas to promote insulin secretion in a glucose–regulated manner. So in effect they are like sulphonylureas, except that they only promote insulin secretion when the glucose is high. The incretins also act centrally to decrease appetite, and they slow gastric emptying causing early satiety and so may help to promote weight loss as well as improve glycaemic control

Two types of drug utilise this pathway; GLP-1 mimetics and DPP-4 inhibitors (gliptins)

Incretin mimetics: Exenatide

GLP-1 mimetics are injectable agents that lower HbA1c and cause weight loss (approx 4kg on average in 1 year)

Approved by SMC for use in patients with type 2 diabetes on maximal oral therapy who might otherwise need insulin. Exenatide (Byetta) is also approved for use as an adjunct to basal insulin

Despite favourable effects on weight and HbA1c there is as yet no outcome data to show reduction in morbidity and mortality

Individuals who are thought suitable candidates for an incretin mimetic should be referred to secondary care
In general could be considered for those with a BMI >35 kg/m², with a desire to lose weight, usually <10yrs from diagnosis and in whom addition of insulin therapy will affect employment, in those with a fear of insulin or in those who are deemed likely to require very high insulin doses.

GLP-1 should only be continued where the patient’s HbA1c falls by ≥1% in the first 6 months and their weight falls by ≥5% in the first 12 months.

**Insulin Treatment in type 2 diabetes**

**Please refer to individual targets information**

Once daily bedtime nPH insulin (ie Humulin I, Insulatard, Insuman Basal) should be used when adding insulin to metformin and/or sulphonylurea therapy. Basal insulin analogues should be considered only if there are concerns regarding hypoglycaemia risk or difficulty in self administration.

Intensifying Insulin Treatment in type 2 Diabetes can be achieved by adding prandial insulin. Ideally metformin therapy is continued as an insulin sparing therapy and a decision usually made to discontinue SU.

**Quick Guide to Blood Glucose Monitoring Equipment**

<table>
<thead>
<tr>
<th>Patient</th>
<th>Meter</th>
<th>Test Strip</th>
<th>Lancet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I</td>
<td>Under review</td>
<td>Under review</td>
<td>Unilet ComforTouch</td>
</tr>
<tr>
<td>Type I Carb Counting</td>
<td>Freestyle InsuLinx (Abbott)</td>
<td>Freestyle Lite</td>
<td>Unilet ComforTouch</td>
</tr>
<tr>
<td>Type II</td>
<td>GlucoRx Nexus</td>
<td>GlucoRx Nexus</td>
<td>GlucoRx</td>
</tr>
<tr>
<td>Visually Impaired</td>
<td>Nexus Voice</td>
<td>GlucoRx Nexus</td>
<td>GlucoRx</td>
</tr>
</tbody>
</table>

**NOTES**

- Type 2 patients not on insulin - only those on oral sulphonylureas should definitely be testing due to the recognised risk of hypoglycaemia
- If patient is using a insulin pump please check with Diabetes Centre re BGM/strips
- If patient is visually impaired or has dexterity problems a Unistix 3 lancet may be considered

**Healthcare Professionals** should be using a CareSensN meter – strips have the same name and are available through PECOS 3457546, £6.91.

Those not on Pecos should send their requisition to Procurement quoting the above product number. The needle is BD-Autoshield Duo needles (PECOS 3605615) and Sterilance Lite II lancets (18Gx1.8mm PECOS 143245, 28Gx1.8mm 143276, 26Gx1.8mm 143306, 21Gx2.2mm 143351, 26Gx2.4mm 143399).
**Blood Glucose Lowering Therapy in Type 2 Diabetes**

If HbA1c > individually agreed target (typically 53-58mmol/mol) and after trial of lifestyle measures (e.g. for 3 months), and if appropriate i.e. person not unduly symptomatic; HbA1c/BGs not unduly raised, commence blood glucose lowering treatment as follows:

**STEP ONE (monotherapy)**

- **Metformin**
  - First Line
  - OR
  - Sulphonylurea (Gliclazide, Glimepiride)
    - Not overweight
    - Metformin not tolerated or contraindicated
    - Rapid response needed because of symptoms
    - Provide education and advice on self-monitoring blood glucose
  - OR
  - SGLT2 Inhibitor (Empa-/Dapa-/Canagliflozin)
    - OR
    - DPP-4 Inhibitor (Sitagliptin/Linagliptin)
      - OR
      - ONLY IF METFORMIN OR SULPHONYLUREA NOT TOLERATED

**STEP TWO (dual therapy)** If HbA1c > individually agreed target after 3-6 months & on maximum tolerated dose, add:

- **Sulphonylurea**
  - First Line
  - OR SGLT2 Inhibitor (Empa-/Dapa-/Canagliflozin)
    - Consider if: May reduce Cardiovascular events
      - Risk of hypoglycaemia
      - Weight loss desirable
      - Normal renal function
      - Less than 75 years
      - Low risk of UTI/genital infection
  - OR DPP-4 Inhibitor (Sitagliptin/Linagliptin)
    - Consider if:
      - Risk of hypoglycaemia
      - Further weight gain undesirable
      - But watch suitability of individual choice in renal impairment
  - OR Pioglitazone - consider if:
    - Risk of hypoglycaemia
    - Marked insulin resistance
    - Avoid if risk factors for bladder cancer
    - May increase fracture risk in postmenopausal woman
    - Avoid in heart failure

**STEP THREE (triple therapy)** If HbA1c > individually agreed target after 3-6 months & on maximum tolerated does, continue dual therapy and add:

- **SGLT2 Inhibitor** (Empa-/Dapa-/Canagliflozin)
  - May reduce Cardiovascular events
- **DPP-4 Inhibitor** Check licence indications
- **GLP-1 Mimetic** (Exenatide MR/ Liraglutide/ Exenatide) *6month trial*
  - BMI >30 + weight loss desirable
  - Insulin unacceptable
  - May be less effective if Diabetes >10 year duration
- **Insulin**
  - Once daily long-acting human insulin, consider analogue insulin if risk of hypoglycaemia
- **Pioglitazone**

**STEP FOUR** If HbA1c > individually agreed target after 3-6 months add:

- Add or intensity insulin regime - once daily long acting or twice daily mix regime, addition of quick-acting to once daily, basal bolus regime
- Add SGLT2 or DPP4 Inhibitor or Pioglitazone Inhibitor to insulin therapy if inadequate control despite high doses of insulin

*consider referral to Diabetes Specialist Service for further advice*

NHS D & G formulary choices per class at this link: http://www.dgpscribingmatters.co.uk/
<table>
<thead>
<tr>
<th>Drug</th>
<th>Common &amp; Notable Adverse Drug Reactions</th>
<th>Cautions &amp; Contraindications (CI)</th>
<th>Hypoglycaemia?</th>
<th>Average HbA1c Reduction</th>
<th>Weight (kg)</th>
<th>Additional comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metformin</td>
<td>Glycosuria (fibrate slowly) Decreased vitamin 12 absorption (rare)</td>
<td>↓ dose if eGFR &lt;45ml/min, stop if eGFR &lt;30ml/min Withhold during vomiting, diarrhoea, fever, sweats – restarting when well (after 24-48hrs of normal eating &amp; drinking) CI – acute cardiac/respiratory failure and chronic alcohol abuse</td>
<td>No</td>
<td>1.6%</td>
<td>Neutral</td>
<td>J cardiovascular and all cause mortality</td>
</tr>
<tr>
<td>Sulphonylurea</td>
<td>Hypoglycaemia, weight gain</td>
<td>Drivers should be aware of risk of hypoglycaemia; advise on appropriate self-testing – leaflets available on Hippo</td>
<td>Yes</td>
<td>1.5%</td>
<td>↑ 1-2kg</td>
<td>Microvascular benefits Only effective where there is some residual pancreatic beta-cell activity</td>
</tr>
<tr>
<td>Glitazide</td>
<td>GL peripheral oedema, upper respiratory tract infections, Pancreatitis</td>
<td>↓ dose in renal impairment or use Linagliptin Counselling risk of acute pancreatitis – stop if suspected                                                                -------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>Unlikely</td>
<td>0.6-0.7%</td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td>Gliplins/DPP4 inhibitors</td>
<td>GL peripheral oedema, upper respiratory tract infections, Pancreatitis</td>
<td>GL peripheral oedema, upper respiratory tract infections, Pancreatitis Causes glucose to be excreted in urine resulting in side effects similar to poorly controlled diabetes; genitourinary tract infections. Urti, polyuria, upper respiratory tract infections Risk of Diabetic Ketoacidosis (DKA) with normal/near normal plasma glucose – counsel patients on how to recognize DKA Require good renal function for effect Do not start if eGFR &lt;45ml/min Caution if increased risk of volume depletion. Side effects increased as patient volume depleted/dehydrated – consider interrupting treatment if temporary Risk of DKA increased when low beta-cell function reserve, restricted food intake or severe dehydration, sudden reduction in insulin dose, surgery, alcohol abuse or increased insulin requirements due to acute illness. Yes, very common when used with insulin or GL otherwise unlikely</td>
<td>Unlikely</td>
<td>0.6-0.7%</td>
<td>1-2kg</td>
<td>Empagliflozin J cardiovascular events &amp; all cause mortality in higher risk patients J uric acid, J lipids/HDL J BP</td>
</tr>
<tr>
<td>Pioglitazone</td>
<td>Fluid retention, weight gain, fractures</td>
<td>↑ fracture risk Assess for risk of bladder cancer Stop if any deterioration in cardiac function CI – history of congestive cardiac failure, bladder cancer, uninvestigated macroscopic haematuria Onset (and offset) of treatment effect is 6-12 weeks.</td>
<td>Uncommon</td>
<td>0.9%</td>
<td>↑ 3-4kg</td>
<td>Improves insulin sensitivity, variable results in clinical trials can reduce cardiovascular events in patients with insulin resistance &amp; previous hx of stroke</td>
</tr>
<tr>
<td>GLP-1 agonist / incretin mimetics</td>
<td>Jappetite &amp; nausea, other GI upset Pancreatitis</td>
<td>Best initiated within first 10yrs of diagnosis Stop glipitin if using GLP-1 Injectable therapy – self-administer Counselling on symptoms of pancreatitis – stop if suspected Stop Exenatide m/ (Bydureon) if eGFR &lt;50ml/min* Stop Liaglutide if eGFR &lt;30ml/min*</td>
<td>Yes, particularly with sulphonylureas</td>
<td>1.6%</td>
<td>1-4kg</td>
<td></td>
</tr>
</tbody>
</table>
**Prescribing formula for Cow’s Milk Protein Allergy**

1. Infants with Cow’s Milk Protein Allergy should be trialled initially on an Extensively Hydrolysed Formula (EHF). If inadequate resolution of symptoms after a 2 week trial, Amino Acid Formula should be trialled.

2. Lactose intolerance is less common and infants should be trialled on a lactose free formula if this is suspected, for example following a G.I infection. Lactose free formula milks can be bought at slightly higher cost to standard infant formula and prescribers should not routinely prescribe.

3. Soya products should not be prescribed unless advised by a paediatric consultant or dietitian due to the increased incidence of soya sensitivity in infants with cow’s milk protein allergy.

4. Infants requiring specialist milks may be referred to a paediatric consultant or dietitian.

**Extensively Hydrolysed formulas (EHF):**

<table>
<thead>
<tr>
<th>Under 6 Months</th>
<th>Over 6 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td><strong>PIP Code</strong></td>
</tr>
<tr>
<td><strong>FIRST LINE</strong></td>
<td></td>
</tr>
<tr>
<td>Nutramigen 1 with LGG</td>
<td>400g</td>
</tr>
<tr>
<td></td>
<td>019-8861</td>
</tr>
<tr>
<td><strong>SECOND LINE</strong></td>
<td></td>
</tr>
<tr>
<td>SMA Althera</td>
<td>450g</td>
</tr>
<tr>
<td></td>
<td>378-7413</td>
</tr>
</tbody>
</table>

**Amino Acid formulas (AAF)**

<table>
<thead>
<tr>
<th>Under 1 Year</th>
<th>Over 1 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td><strong>PIP Code</strong></td>
</tr>
<tr>
<td><strong>FIRST LINE</strong></td>
<td></td>
</tr>
<tr>
<td>Neocate LCP</td>
<td>400g</td>
</tr>
<tr>
<td></td>
<td>329-0301</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SECOND LINE</strong></td>
<td></td>
</tr>
<tr>
<td>SMA Alfamino</td>
<td>400g</td>
</tr>
<tr>
<td></td>
<td>385-6416</td>
</tr>
</tbody>
</table>

**Amounts to be prescribed per month**

Range is 4-14 x 400g/450g (wide range dependant on age and size with highest requirement at 4-6 months)

**Stopping prescription formula**

Any child still prescribed EHF/AAF by 2 years of age can be weaned onto shop bought Cow’s milk substitute e.g. calcium enriched soya, oat, coconut or nut milk, if no concomitant allergy to these substances.
**Vitamin D Adult Prescribing Guideline (treatment of deficiency)**

**Background**
- Vitamin D deficiency is common in Scotland.
- Most people are asymptomatic.
- Osteomalacia is rare.
- Measurement of vitamin D is relatively expensive.

**When to measure serum vitamin D pre-treatment**
- Pre-treatment for osteoporosis
- Incident low trauma fracture
- eGFR < 30 if calcium low or PTH high
- Malabsorption syndromes
- Severe anorexia nervosa
- Confirmed hypocalcaemia (corrected calcium <2.10 mmol/l) on 2 consecutive measurements.
- Drug treatments that increase risk of deficiency or where deficiency requires treatment prior to initiation.

**How to interpret serum Vitamin D (25 OHD)**

<table>
<thead>
<tr>
<th>Level</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25 nmol/l</td>
<td>Deficient</td>
</tr>
<tr>
<td>25-50 nmol/l</td>
<td>Insufficient</td>
</tr>
<tr>
<td>&gt; 50 nmol/l</td>
<td>Adequate</td>
</tr>
</tbody>
</table>

**Treatment of vitamin D deficiency** *(serum 25OHD <25 nmol/l)*

**Loading dose**
- 50,000 i.u. Stexerol-D3 tablets per week for 6 weeks (2x25,000 i.u. tabs)
- OR
- If swallowing difficulties or aids compliance
  - 50,000 i.u. Invita D3 (2 x 25,000 i.u. vials oral drops per week for 6 weeks)

**Maintenance dose**
- 25,000 i.u. Stexerol-D3 once a month or 1000 i.u. Stexerol- D3 per day or equivalent
  - e.g. Valupak Vitamin D3 tablets 1000IU
  - OR
  - If swallowing difficulties or aids compliance
    - 25,000 i.u. Invita D3 (1 x 25,000 i.u. vial oral drops per month. **Maintenance treatment given indefinitely.**
    - (for those receiving active treatment for osteoporosis see *)

**Note**
- Check serum calcium after first 4 weeks of loading dose as can unmask hyperparathyroidism.
- Avoid loading dose if hypercalcaemia or known renal stone disease.

**Note**
- For at risk groups where measurement not required (e.g. pregnancy, breast feeding or poor sun exposure) recommend low dose supplements such as
  - Healthy start vitamins – includes Vit D3 400 i.u. per day
  - Valupak D3 1000 i.u. per day advise purchase

**Note**
- Marked seasonal variation with lowest levels in winter and spring. Patients insufficient in March and April are likely to become ‘adequate’ in summer and autumn by sun exposure alone.
Special Circumstances

Osteoporosis*

When to check Serum Vitamin D (25 OHD)

- All patients with confirmed or suspected osteoporosis should have a serum 25 OHD checked at baseline
- For those already receiving treatment for osteoporosis +/- calcium and vitamin D supplements measurement only required if new fracture or hypocalcaemia

How to treat deficiency

Loading dose course

- Given as above ideally prior to commencing bone treatment such as bisphosphonates
- If already taking calcium and vitamin D supplements these must be stopped whilst receiving loading dose vitamin D (6 week course)
- Repeat vitamin D level not required following loading course

Maintenance following loading dose course

- For those whose diet is low in calcium or absorption likely to be poor (consider if over 70 years, frail, housebound) recommend calcium and vitamin D (e.g. Adcal D3 2 caplets twice a day or TheiCal D3 once a day)
- Younger, fit, active patients (generally age 70 or less) whose diet is plentiful in calcium do not require additional calcium (long term excessive calcium may be harmful). For these patients prescribe Stexerol D3 25,000 i.u. monthly or 1000 i.u. daily
- No-one should be on a combination of calcium/Vit D and vitamin D other than those advised by osteoporosis team
- A useful tool for dietary calcium calculation can be found at www.cgem.ed.ac.uk/research/rheumatological/calcium-calculator

Chronic kidney disease

The treatment of vitamin D deficiency in patients with chronic kidney disease is with vitamin D3 as above. Alfacalcidol should be reserved for renal patients with eGFR < 30 ml/min who have secondary hyperparathyroidism as advised by renal unit.

Drug treatments that may cause or exacerbate deficiency

- Anti-convulsants, Corticosteroids, Cholestyramine, HAART, Rifampicin.
- Parental treatments for osteoporosis – recheck vitamin D prior to each IV Zolendronic acid and once a year if on Denosumab and compliance of supplementation uncertain.

Intra-muscular vitaminD

- For those with deficiency unable to take oral supplements (e.g. severe malabsorption or liver disease) recommend Ergocalciferol 300,000 units intramuscularly every 6 months. Because of potentially exorbitant costs and short shelf life ideally this is given in OPD.
  - If given in primary care obtain from hospital pharmacy by request on headed note paper.

When to repeat serum 25OHD

- Not required while on treatment unless specific circumstances (eg malabsorption, suspected poor compliance, new low trauma fracture, drug treatments that may cause deficiency). Levels plateau slowly - repeat testing in < 6months after starting treatment never indicated.
## Appendix 12

### Quick guide to first choice dressings and bandages

**Primary Care Wound Formulary** *(see separate Wound Formulary for Secondary Care)*

- Please use the brand name listed in column 2 when prescribing the dressings listed below
- Check that you are using the latest version with the most up to date dressing and pack sizes
- Also refer to wound care guideline chart

<table>
<thead>
<tr>
<th>Type of Dressing</th>
<th>First Choice Product</th>
<th>Drug Tariff sizes (All cms)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absorbent perforated with adhesive border</td>
<td>Premiropore</td>
<td>5 x 7, 10 x 10, 10 x 15, 10 x 25, 10 x 30</td>
<td>Light to moderate exuding wounds</td>
</tr>
<tr>
<td>Alginate</td>
<td>Activheal Flat</td>
<td>5 x 5, 10 x 10, 10 x 20</td>
<td>Light to moderate exuding wounds</td>
</tr>
<tr>
<td>Polyurethane foam film dressing sterile with adhesive border, without adhesive border and with silicone border</td>
<td>Activheal non-adhesive foam</td>
<td>5 x 5, 10 x 10, 20 x 20 10 x 17.8</td>
<td>Moderate to heavily exuding wounds</td>
</tr>
<tr>
<td></td>
<td>Activheal Foam Island (with adhesive)</td>
<td>10 x 10, 12.5 x 12.5, 15 x 15, 20 x 20</td>
<td>Moderate to heavily exuding wounds</td>
</tr>
<tr>
<td></td>
<td>Tegaderm Foam adhesive including heels/sacral areas</td>
<td>14.3 x 14.3 13.9cm circular (heel) Oval, sacral 10 x 11, 14.3 x 15.6, 19 x 22.2</td>
<td>For use on fragile skin only</td>
</tr>
<tr>
<td></td>
<td>Biatain Silicone Adhesive</td>
<td>7.5 x 7.5, 10 x 10, 12.5 x 12.5, 15 x 15</td>
<td>For wounds with excess exudates. Wear time depends on level of exudate. For lymphoedema and patients who have had vascular surgery.</td>
</tr>
<tr>
<td>Super absorbent/Protease modulating matrix</td>
<td>Kliniderm Superabsorbent</td>
<td>10 x 10 10 x 15 20 x 20 20 x 30</td>
<td>For wounds with excess exudates. Wear time depends on level of exudate. For lymphoedema and patients who have had vascular surgery.</td>
</tr>
<tr>
<td>Type of Dressing</td>
<td>First Choice Product</td>
<td>Drug Tariff sizes (All cms)</td>
<td>Comments</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------</td>
<td>--------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Thin Hydrocolloid (semi-permeable)</td>
<td>Comfeel Plus Transparent</td>
<td>5 x 7, 9 x 25, 10 x 10, 15 x 15</td>
<td></td>
</tr>
<tr>
<td>Hydrocolloid</td>
<td>Tegaderm Hydrocolloid</td>
<td>Oval: 10 x 12, 13 x 15</td>
<td>For sacrum, heels &amp; awkward to dress areas</td>
</tr>
<tr>
<td>Hydrofiber</td>
<td>KerraCel</td>
<td>5 x 5, 10 x 10, 15 x 15</td>
<td>More absorbent and suitable for moderate/heavily exuding wounds</td>
</tr>
<tr>
<td>Hydrofiber plus Foam</td>
<td>Aquacel Foam</td>
<td>5 x 5, 10 x 10, 15 x 15</td>
<td>Use instead of a hydrofiber plus a foam dressing. For use on highly exuding wounds. Ensure maximum wear time to maximise dressing efficiency</td>
</tr>
<tr>
<td>Hydrogel</td>
<td>Activheal Hydrogel</td>
<td>15g</td>
<td>5mm layer minimum with gel suitable for dry to moderately exuding wounds and in those where adherence is difficult to maintain</td>
</tr>
<tr>
<td>Hydrogel Sheet</td>
<td>Kerralite Cool</td>
<td>8 x 8, 11 x 11, 15 x 15, 6 x 6, 8.5 x 12, 12.5 x 18</td>
<td></td>
</tr>
<tr>
<td>Soft silicone wound contact dressing</td>
<td>Activheal Soft Silicone Wound Contact Layer</td>
<td>5 x 7.5, 10 x 10, 10 x 20, 15 x 15</td>
<td>14 day wear time</td>
</tr>
<tr>
<td>Absorbent perforated plastic film faced dressing</td>
<td>365 Non-adherent</td>
<td>5 x 5, 10 x 10, 10 x 20</td>
<td></td>
</tr>
<tr>
<td>Gauze impregnated dressing</td>
<td>Jelonet</td>
<td>10 x 10</td>
<td></td>
</tr>
<tr>
<td>Activated charcoal</td>
<td>Clinisorb</td>
<td>10 x 10, 10 x 20, 15 x 25</td>
<td>For the management of odour</td>
</tr>
<tr>
<td>Type of Dressing</td>
<td>First Choice Product</td>
<td>Drug Tariff sizes (All cms)</td>
<td>Comments</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------------------------</td>
<td>-----------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Vapour permeable with adhesive film</td>
<td>365 film</td>
<td>4 x 5, 6 x 7, 10 x 12, 10 x 15, 15 x 20</td>
<td></td>
</tr>
<tr>
<td>Cavity dressing</td>
<td>ActiveHeal Ribbon (alginate)</td>
<td>2cm x 30cm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KerraCel Ribbon (hydrofiber)</td>
<td>2.5cm x 45cm</td>
<td></td>
</tr>
<tr>
<td>Irrigation*</td>
<td>Irripod normal saline</td>
<td>20ml pods</td>
<td>*Not all wounds require cleansing. Only cleanse if visible debris and only consider antimicrobials if infection suspected.</td>
</tr>
<tr>
<td>Wound Cleansing Solution</td>
<td>Octenilin</td>
<td>350ml solution (2 minute soak required only; once opened, lasts 8 weeks)</td>
<td></td>
</tr>
<tr>
<td>Wound Cleansing Gel</td>
<td>Octenilin Gel</td>
<td>20ml</td>
<td>Reserved for chronic wounds only. Use Gel X for awkward areas (more viscous product)</td>
</tr>
<tr>
<td></td>
<td>Prontosan Gel X</td>
<td>250g</td>
<td></td>
</tr>
<tr>
<td>Antimicrobial Preparations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honey</td>
<td>ActiCure Alginate with honey</td>
<td>5 x 5, 10 x 10</td>
<td>Pure Manuka Honey</td>
</tr>
<tr>
<td></td>
<td>ActiCure knitted viscose with honey</td>
<td>5 x 5, 10 x 10, 10 x 20</td>
<td>Check if allergy/sensitivity to bee venom. Monitor diabetic patients.</td>
</tr>
<tr>
<td>Antibacterial Topical preparations</td>
<td>Flamazin 20g, 50g, 250g, 500g</td>
<td></td>
<td>Prescription only medication. Dependent on infection present from wound swab result</td>
</tr>
<tr>
<td></td>
<td>Polytex 4g, 20g</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metronidazole preparations</td>
<td>Anabact 15g, 30g</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flaminal Hydro (low to moderate exuding wounds)</td>
<td>15g, 50g</td>
<td>This is an enzyme alginogel product and may be used as an alternative to silver.</td>
</tr>
<tr>
<td></td>
<td>Flaminal Forte (for moderate to heavy exuding wounds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iodine Products</td>
<td>Iodosorb ointment</td>
<td>10g, 20g</td>
<td>For chronic exuding wounds. Do not apply more than 150g/week and for no longer than 3 months as a single course of treatment</td>
</tr>
<tr>
<td></td>
<td>Iodoflex Paste</td>
<td>5g, 10g, 17g</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Iodosorb Powder (Microbeads)</td>
<td>3g; slower delivery system suitable for highly exuding wounds*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Povitulle</td>
<td>5 x 5, 9.5 x 9.5</td>
<td>Do not use on heavily exuding wounds</td>
</tr>
</tbody>
</table>

* Not all wounds require cleansing. Only cleanse if visible debris and only consider antimicrobials if infection suspected. Reserves for chronic wounds only. Use Gel X for awkward areas (more viscous product).
<table>
<thead>
<tr>
<th>Type of Dressing</th>
<th>First Choice Product</th>
<th>Drug Tariff sizes (All cms)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver Alginate</td>
<td>Sorbsan Silver Ribbon</td>
<td>40cm/1g with probe 5 x 5</td>
<td>Infected wounds only. Short term limited use</td>
</tr>
<tr>
<td></td>
<td>Sorbsan Silver Flat</td>
<td>10 x 10,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Melgisorb Ag</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver activated charcoal</td>
<td>Actisorb Silver 220</td>
<td>6.5 x 9.5, 10.5 x 10.5, 10.5 x 19</td>
<td>Infected wounds only. Short term limited use</td>
</tr>
<tr>
<td>Specialised Dressings (for specialist clinical use only)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrofiber with Silver</td>
<td>Aquacel Extra Ag+ (formerly Aquacel Ag)</td>
<td>5 x 5, 10 x 10, 15 x 15, 4 x 20</td>
<td>Infected wounds only. Short term limited use- please refer to Silver Guidelines</td>
</tr>
<tr>
<td>PolyMem</td>
<td>Non-adhesive foam dressing with surfactant</td>
<td>9 x 9</td>
<td>For tracheostomy use only (for cleansing chronic wounds with heavy exudate)</td>
</tr>
<tr>
<td>Urgocell Start</td>
<td>Lipido-colloid matrix with Nano-OligoSaccharide Factor (NOSF)</td>
<td>10 x 12, 15 x 20</td>
<td>For chronic wounds with delayed healing. Contra-indicated in cancerous wounds</td>
</tr>
<tr>
<td>Maggots</td>
<td>Measure size of wound and contact pharmacy</td>
<td>Bio Bag Free Range</td>
<td>Use as company’s procedure. Refer to dressing selection chart for guidance</td>
</tr>
<tr>
<td>Topical Negative Pressure</td>
<td>VAC (KCI)</td>
<td>Sizes vary according to wound size</td>
<td>Liaise with the Tissue Viability Link Nurse for advice. If using TNP, Activheal Silicone Wound Contact Layer must be used as the contact layer.</td>
</tr>
<tr>
<td>Cotton crepe bandage</td>
<td></td>
<td></td>
<td>No longer recommended locally. Please use Knit Band if for retention purposes only (see below).</td>
</tr>
<tr>
<td>Type of Dressing</td>
<td>First Choice Product</td>
<td>Drug Tariff sizes (All cms)</td>
<td>Comments</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Polyamide and Cellulose Contour BP</td>
<td>Knit Band</td>
<td>5cm x 4m, 7cm x 4m, 10cm x 4m, 15cm x 4m</td>
<td></td>
</tr>
<tr>
<td>Short Stretch Compression</td>
<td>Actico cohesive</td>
<td>4cm x 6m, 6cm x 6m, 8cm x 6m, 10cm x 6m, 12cm x 6m</td>
<td></td>
</tr>
<tr>
<td>Tubular Bandage retention</td>
<td>Comfifast</td>
<td>Small redline 3.5cm x 1m, Medium greenline 5cm x 1, 3 or 5m, Large blue line 7.5cm x 1, 3 or 5m, X-large limbs/trunk child 10.75cm x 1, 3 or 5m, X-X Large Trunk adult beige line 17.5cm x 1m</td>
<td>Measure ankle circumference then order appropriate size 18 - 25cm, 25 - 32cm. Compression can only be prescribed after Doppler studies as per SIGN Guidelines 1998</td>
</tr>
<tr>
<td>2 Layer compression</td>
<td>K-TWO</td>
<td>#1 K-Tech, #2 K-Press</td>
<td></td>
</tr>
<tr>
<td>4 Layer compression</td>
<td>K-FOUR</td>
<td>#1 K- SOFT, #2 K- LITE, #3 K- PLUS, #4 K- FLEX</td>
<td>Prescribe as individual bandages or as K-Four complete pack</td>
</tr>
<tr>
<td>Dressing Packs</td>
<td>Dressit, Polyfield</td>
<td>To be used in all Dumfries practices due to staff allergy, Can be used in all other areas</td>
<td>Glove size – Small/medium, medium/large, Small/medium/large</td>
</tr>
<tr>
<td>Tapes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgical Tape</td>
<td>Clinipore</td>
<td>2.5cm x 5m</td>
<td></td>
</tr>
<tr>
<td>Permeable apertured non woven synthetic adhesive tape</td>
<td>Hypafix</td>
<td>5cm x 10m, 10cm x 10m</td>
<td></td>
</tr>
</tbody>
</table>