

# BARKING, HAVERING & REDBRIDGE UNIVERSITY NHS TRUST

## FORMULARY July 2019

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## INTRODUCTION

### AIM

The aim of the formulary is to:

- promote safe, effective and economic use of drugs
- rationalise prescribing within the hospitals
- rationalise the number of preparations stocked by pharmacies, thus reducing stock holding and drug wastage

### GUIDELINES FOR USING THIS BOOKLET

The text is laid out in the same order as the British National Formulary (BNF). It should be used in conjunction with the current BNF. The Drug Formulary is not intended to be a replacement for it. Drugs can be located using the BNF section number or by the alphabetical list in the index at the back. If the BNF section has not been included, all preparations in that section are non-formulary.

Strengths, formulations available, prescribing restrictions and notes for local guidance are included in the main text.

The new British Approved Name (BAN) has been used, with the former name in brackets after. In some instances the trade name, indicated by ®, is included where it is necessary or with some compound preparations. Where there are modified release preparations, this is indicated by m/r and enteric coated preparations by e/c.

Some sizes or strengths of preparations are currently available only on particular sites. Please refer to the pharmacy for further information.

Various guidelines and protocols are referred to in the text. Details are available from pharmacy on request. In general the drugs listed are those stocked in Pharmacy. For requests for non-formulary drugs please refer below.

## **REQUESTING A DRUG FOR INCLUSION INTO THE FORMULARY**

The Drug and Therapeutics Committee meets every two months to consider requests from Consultants. A 'new drug request form' is available from the Trust Intranet. The Consultant should complete this fully, providing information about the intended indication, estimate patient numbers and supply supporting evidence for the inclusion of the drug. The form should be completed and signed by the Consultant, his/her Clinical Director, General Manager and clinical lead pharmacist. Funding will then need to be found. The pharmacy department will then produce an evidence-based evaluation for the Drug and Therapeutics Committee. Managing the entry of new drugs is a Trust requirement as part of its Medicines Management initiative.

## **INITIATION OF A NON-FORMULARY PREPARATION OR DRUG**

All preparations initiated within BHR for in- and out-patient prescribing should be from this formulary. According to Trust directives, prescriptions for non-formulary drugs will be queried by pharmacy staff, who will suggest alternatives from the formulary, where appropriate.

## **REQUESTING URGENT, NON-FORMULARY DRUGS**

In exceptional circumstances non-formulary drugs may be requested for use by a prescriber. A Principal/ Senior Principal Pharmacist will discuss the circumstances with the relevant Consultant. The pharmacist may authorise use or refer the matter to the Chairman of the Drug and Therapeutics Committee for a decision. If there are significant clinical risks or financial implications, then the matter will be discussed with the relevant Clinical Director.

## **CONTINUATION OF THERAPY**

Supplies of medication are usually obtained for patients already established on non-formulary preparations. Patients on non-formulary products such as laxatives, indigestion remedies, calcium supplements, OTC analgesia etc., should be switched to an equivalent formulary preparation.

## **SPECIAL CONSIDERATIONS**

- **RESTRICTED DRUGS**  
Where specified, initiation may be by the request of a Specialist. For example, many antibiotics are restricted to Microbiologists only. This is to help prevent resistance emerging and contain costs.
- **MODIFIED RELEASE PREPARATIONS AND PHARMACEUTICAL FORMS**  
In some cases a drug may be approved, but not in all the pharmaceutical forms available: e.g. the oral preparation may be formulary but the injection or the

cream, non-formulary. Some modified release preparations are disproportionately costly for the benefit they offer and are therefore not included.

- **SPECIFIC CLINICAL NEEDS**

Non-formulary drugs for individual patients may be approved via Trust procedure. There will be occasions where a patient's clinical needs cannot be met by any of the preparations listed. Special requirements must be discussed in the first instance with the Ward/ Liaison pharmacist. This may then be referred to a Senior Principal Pharmacist, who may authorise the approval for purchase.

## **PAYMENT BY RESULTS (PbR) EXCLUSIONS**

Throughout the formulary some drugs have been labelled with **nPbR**. **Non PbR** drugs are those expensive drugs that have been agreed nationally should be reported to the CCGs on a monthly basis and invoiced accordingly. It has been agreed on a London-wide basis that the prescribing of these drugs should be only for NICE indications or for approved licensed indications where NICE has not yet reviewed (see details on the intranet). Before these drugs can be dispensed we must be provided with full patient details, including the clinical indication for the drug.

The drugs that are included in this group are:

### **Anti TNFs e.g. Etanercept, Infliximab**

Antifibrinolytic drugs and haemostatics e.g. Drotrecogin alfa

Torsion dystonia and other involuntary movements e.g. Riluzole and Botulinum Motor Neurone Disease

Antifungals e.g. liposomal amphotericin

Hepatitis B & C Peginterferon alfa, ribavirin

Growth Hormone (Somatropin)

Drugs affecting bone metabolism e.g. Teriparatide

Immunomodulating drugs e.g. Alpha and Beta Interferon

Somastatin analogues e.g. Octreotide

Natalizumab

Glatiramer

Treatment of Macular Degeneration (Age –related) e.g. Lucentis and Avastin

Drugs used in neutropenia e.g. Filgastrim

Drugs used in metabolic disorders e.g. Laronidase

Hyperuricaemia associated with cytotoxic drugs e.g. Rasburicase

Immunoglobulins

Tisseel

The minimum data set required by CCGs before they will pay for a patient's treatment is:

Patient name

NHS Number

Hospital number

Diagnosis

Cost of drug

Strength and form of drug

Date dispensed

Consultant code/ cost centre

CCGs

Unless previously agreed with the CCGs on a named-patient basis, we will only be funded for treatment that has been undertaken in line with NICE guidance and the CCGs will require assurance that prescribing has been in accordance with NICE.

Prescribing of these drugs should only be in accordance with NICE guidance **OR** for licensed indications that have been approved by the Drugs and Therapeutics Committee.

If a Consultant has a patient whom you believe requires one of these drugs but does not come under NICE or a licensed indication the Chief Pharmacist should be contacted before a request to a CCG or GP is made. Such requests will then be 'fast-tracked' to the Drugs and Therapeutics Committee for a decision.

### **MEDICINES INFORMATION SERVICE**

The Medicines Information service is based at Queen's Hospital (QH) and may be contacted on extension 3354. It provides a source of up to date medicines information and advice on drug therapy and related areas to all healthcare professionals. The Trust Intranet also provides drug-related information under the section "Medicines Information for Doctors" and carries the Electronic Medicines Compendium

### **OUT OF HOURS SERVICE**

The on-call Pharmacist for Queen's Hospital (QH) and King George Hospital (KGH) can be contacted via Queen's Hospital (QH) switchboard and/or King George Hospital switchboard outside opening hours.

### **BHRUT Medicines Optimisation Committee**

**Chair:** Dr. John McAuley, Consultant Neurologist

### **EDITORS:**

**Grace Lipinska, Senior Pharmacist (Formulary and Medicines Information)**

**REVISED: Updated July 2019**



# 1 GASTRO-INTESTINAL SYSTEM

## 1.1 DYSPEPSIA & GASTRO-OESOPHAGEAL REFLUX DISEASE

### 1.1.1 ANTACIDS & DIMETICONE

**Magnesium trisilicate** mixture

**Asilone**® suspension  
(Aluminium hydroxide, light magnesium oxide & dimeticone)

### 1.1.2 COMPOUND ALGINATE & PROPRIETARY INDIGESTION PREPARATIONS

**Gaviscon**® Advance suspension

**Infant Gaviscon**® oral powder

**Notes:** **Magnesium trisilicate** should be prescribed when a simple antacid is needed.

**Gaviscon** is an antacid-alginate preparation, indicated for treatment of reflux & hiatus hernia.

**Caution:** Some antacids can contain high levels of sodium, e.g magnesium trisilicate mixture. **Gaviscon** liquid contains about 6 mmol sodium/ 10 ml

## 1.2 ANTISPASMODICS & OTHER DRUGS ALTERING GUT MOTILITY

**Atropine sulphate**

600 mcg tablet,  
500 mcg/ 5 ml syrup (*unlicensed*)  
(*Paediatrics & ENT only*)

**Dicycloverine (Dicyclomine)**

10 mg tablet, 10 mg/ 5 ml syrup

**Hyoscine butylbromide** (Buscopan®)

10 mg tablet, 20 mg/ ml injection

**Mebeverine**

135 mg tablet, 50 mg/ 5 ml liquid

**Peppermint oil** 0.2 ml capsule

**Peppermint water**

(*Unlicensed preparation*)

## MOTILITY STIMULANTS

**Metoclopramide**

10 mg tablet, 5 mg/ 5 ml syrup,  
10 mg/ 2 ml injection

**Domperidone**

10 mg tablet, 5 mg/ 5 ml suspension,  
30 mg suppositories

**Notes:** **Metoclopramide** may induce dystonic reactions, especially in young children, young adults & the elderly. Use of metoclopramide in patients under 20 years is not recommended. May cause confusion in the elderly. Avoid in Parkinson's disease

## 1.3 ULCER HEALING DRUGS

### 1.3.1 H<sub>2</sub>-RECEPTOR ANTAGONISTS

**Ranitidine**

150 mg tablet, 75 mg/ 5 ml syrup,  
50 mg/ 2 ml injection

### 1.3.3 CHELATES AND COMPLEXES

**Sucralfate**

1 g tablet, 1 g/ 5 ml suspension

**Tripotassium dicitratobismuthate**

(De-Noltab®) 120 mg tablet  
(*Gastroenterologists only*)

### 1.3.5. PROTON PUMP INHIBITORS

**1st Choice: Omeprazole 10mg & 20mg capsules**

**2nd Choice: Lansoprazole 15 mg & 30 mg capsules**

**For adults with swallowing difficulties or on enteral feeding tubes use Lansoprazole 15 & 30mg FasTabs®**

**Omeprazole MUPS 10mg & 20mg**  
(*Paediatric use only*)

**Esomeprazole 20 mg tablet**

*(For patients with erosive oesophagitis who have failed to improve with omeprazole)*

**Omeprazole 40 mg infusion**

*(In accordance with PPI guidelines)*

**H. PYLORI ERADICATION THERAPY  
(ALL FOR SEVEN DAYS)**

Lansoprazole 30 mg b.d  
Amoxicillin 1g b.d  
Clarithromycin 500 mg b.d

**or**

Lansoprazole 30 mg b.d  
Amoxicillin 1g b.d  
Metronidazole 400 mg b.d

**(Penicillin-allergic patients):**

Lansoprazole 30 mg b.d  
Clarithromycin 250 mg b.d  
Metronidazole 400 mg b.

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**1.4 ACUTE DIARRHOEA**

**1.4.2 ANTIMOTILITY DRUGS**

**Codeine phosphate**

15 mg & 30 mg tablets,  
25 mg/ 5 ml syrup

**Co-phenotrope** (equivalent to Lomotil ®)  
Tablet

**Loperamide**

2 mg tablet, 1 mg/ 5 ml syrup

**Note:** It is important to rule out infective diarrhoea before prescribing anti-diarrhoeals

**Eluxadoline** (Truberzi®) 75mg and 100mg film-coated tablets

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**1.5 TREATMENT OF CHRONIC BOWEL DISORDERS**

**1.5.1 AMINOSALICYLATES**

**Mesalazine**

**(Asacol ® MR)**

400 mg e/c tablet, 1 g foam enemas, 250 mg & 500 mg suppositories  
*(Gastroenterologists only)*

**(Pentasa ®)**

500 mg m/r tablet, 1g granules  
*(Gastroenterologists only)*

**(Salofalk®)** 3g granules and 1g suppositories

**Octasa®** 400mg & 800mg M/R tablets

**Balsalazide** 750 mg capsule  
*(Gastroenterologists only)*

**Sulfasalazine (Sulphasalazine)**

500 mg tablet & e/c tablet,  
250 mg/ 5 ml suspension  
500 mg suppositories

**Notes:** The aminosalicylates, mesalazine & sulfasalazine, may cause blood disorders. See B.N.F. Sulfasalazine may colour the urine & stain contact lens

### 1.5.2 CORTICOSTEROIDS

**Beclometasone** 5mg m/r tablet  
(Clipper®)

**Budesonide**

1mg orodispersible tablets (Joverza®)  
*(Consultant Gastroenterologists only for the treatment of eosinophilic esophagitis)*

3 mg CR capsules  
*(Consultant Gastroenterologists only)*

**Hydrocortisone**

10% foam application

**Prednisolone**

25 mg & 5 mg tablet,  
2.5 mg & 5 mg e/c tablets,  
5 mg soluble tablet, 5 mg suppositories,  
20 mg/ 100 ml retention enema,  
20 mg foam application

### 1.5.3 Drugs affecting the immune response

**Azathioprine**

**Mercaptopurine**

**Methotrexate** 2.5mg tablets and various strengths of injections

### CYTOKINE INHIBITORS

**nPbR Infliximab** 100 mg IV infusion  
**(Remicade®)**

**nPbR Infliximab Biosimilars** 100mg powder for concentrate for solution for infusion

**(Remsima® & Inflectra®)**

*(Consultant Gastroenterologists only for Crohn's Disease. All scripts should be referred to a Senior Principal Pharmacist for approval)*

**nPbR Adalimumab** (2<sup>nd</sup> line treatment of crohn's disease if infliximab ineffective or not tolerated)

**Biosimilars:**

1<sup>st</sup> line choice Hyrimoz®

2<sup>nd</sup> line choice Amgevita®

**nPbR Vedolizumab** 300mg vial

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## 1.6 LAXATIVES

**Note:** Before prescribing laxatives consider other contributory factors to constipation: inadequate fluid intake, drugs, lack of exercise & dietary fibre

### 1.6.1 BULK-FORMING LAXATIVES

**Ispaghula husk** (for Fybogel ®)  
3.5 g sachets

**Notes: Ispaghula husk** should be stirred into a large glass of water & drunk immediately. This should not be taken at night

### 1.6.2 STIMULANT LAXATIVES

**Bisacodyl**

5 mg tablet,  
5 mg (paediatric) & 10 mg (adult)  
suppositories

**Dantron (Danthron)**



**Co-danthramer**

25/200 in 5 ml suspension &  
75/1000 in 5 ml (strong) suspension  
(see guidance note below)

**Co-danthrusate**

50/ 60 capsule

**Notes: Co-danthrusate & co-danthramer** should be restricted for terminally ill patients. Both may colour the urine. They should be avoided in incontinent patients, as prolonged contact may irritate the skin

**Docusate sodium** 100 mg capsule,  
12.5 mg/ 5 ml & 50 mg/ 5 ml oral solution

**Notes:** Docusate is frequently under prescribed. It is a useful laxative, combining both stimulant & lubricant action

**Senna**

7.5 mg tablet, 7.5 mg/ 5 ml syrup

**Glycerin** 1 g, 2 g & 4 g suppositories

**Sodium picosulphate** 5 mg/ 5 ml elixir

**Califig® syrup** (*NELMHT only*)

**1.6.3 FAECAL SOFTENERS**

**Arachis oil** enema

**Liquid Paraffin BP**

(*Consultant Paediatricians only*)

**1.6.4 OSMOTIC LAXATIVES**

**Lactulose** 3.35 g/ 5 ml solution

**Liquid paraffin & magnesium hydroxide** (Milpar®) oral emulsion)

**Macrogols** (Movicol®)

*Laxido®*

**Phosphate Enemas (Fletcher's)**

**Sodium citrate** microenema (Relaxit®)

**1.6.5 BOWEL CLEANSING SOLUTIONS**

**Citramag®**

Magnesium citrate powder

**Fleet Phospho-soda®**

oral solution

**Klean-Prep®** oral powder

Where Picolax and Citramag have been ineffective.

**Moviprep®** oral powder

**Picolax®** oral powder

Sodium picosulfate & magnesium citrate sachets

**AMIDOTRIZOATES**

**Diatrizoates**

**Gastrografin® Solution**, sodium amidotrizoate 100 mg, meglumine amidotrizoate 660 mg/mL 100ml Bottle

**1.6.6 PERIPHERAL OPIOID-RECEPTOR ANTAGONISTS**

**Naloxegol** 12.5 and 25 mg film-coated tablets

**1.6.7 5HT4-RECEPTOR AGONISTS**

**Prucalopride** 1mg and 2mg film coated tablets (as per NICE recommendations)

**LAXATIVES GUANYLATE CYCLASE-C RECEPTOR AGONISTS**

**Linaclootide** 290microgram capsules

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**1.7 LOCAL PREPARATIONS FOR ANAL & RECTAL DISORDERS**

**1.7.1 SOOTHING HAEMORRHOIDAL PREPARATIONS**

**Anusol®**

Cream, ointment & suppositories

**1.7.2 PREPARATIONS WITH CORTICOSTEROIDS**

**Anusol HC®** ointment & suppositories

**1.7.3 RECTAL SCLEROSANTS**

**Phenol oily, B.P** injection 5 %

#### 1.7.4 Management of anal fissures

**1<sup>st</sup> Choice: Glyceryl Trinitrate** Rectal ointment 0.4% (Rectogesic®)

**2<sup>nd</sup> Choice: Diltiazem**  
2 % cream (*Unlicensed*)

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### 1.8 STOMA CARE

Stomahesive paste

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### 1.9 DRUGS AFFECTING INTESTINAL SECRETION

#### 1.9.1 DRUGS ACTING ON THE GALL BLADDER

**Ursodeoxycholic acid**  
250 mg capsule, 150 mg tablet,  
250 mg / 5 ml suspension

#### 1.9.2 BILE ACID SEQUESTRANTS

**Colestyramine (Cholestyramine)**  
4 g sachets

**Notes:** Other drugs should be taken at least 1 hour before or 4-6 hours after colestyramine to reduce possible interference with absorption

**Colesevelam Hydrochloride**  
625mg tablets

#### 1.9.4 PANCREATIN

**Creon ® 10 000** capsule

## 2 CARDIOVASCULAR SYSTEM

### 2.1 POSITIVE INOTROPIC DRUGS

#### 2.1.1 CARDIAC GLYCOSIDES

##### Digoxin

62.5, 125 & 250 micrograms tablets,  
50 micrograms/ ml elixir,  
500 micrograms/ 2 ml &  
100 micrograms/ ml injection

**Notes:** Hypokalaemia predisposes to digoxin toxicity. Please note difference in bioavailability between the formulations. Use as a guide: **125 mcg tablet = 100 mcg elixir = 75 mcg injection**

##### DIGOXIN-SPECIFIC ANTIBODY

**Digifab** ® 40mg/vial digoxin immune Fab injection (RUM drug)

**Notes:** Please refer to Registrar or Consultant before issuing. BHR Labs measure digoxin levels in nmol/ L. The manufacturers use ng/ ml in the literature, hence conversion may be required.  
**(new level) ng/ ml = 0.78 X (level) nmol/ L**

#### 2.1.2 PHOSPHODIESTERASE INHIBITORS

**Milrinone** 10 mg/ 10 ml injection (RUM drug)  
(ITU & Cardiologists only)

## 2.2 DIURETICS

### 2.2.1 THIAZIDES & RELATED DIURETICS

**Bendroflumethiazide (Bendrofluazide)**  
2.5 & 5 mg tablets

**Notes:** Bendroflumethiazide 2.5mg daily is the drug of choice for mild-moderate hypertension. Allow 4 weeks for maximal antihypertensive effect of bendroflumethiazide

**Indapamide** 2.5mg & 1.5mg m/r tablets

**Metolazone** 5 mg tablet

**Notes:** Use metolazone with caution, especially when combined with loop diuretics. Monitor K<sup>+</sup> and renal function

### 2.2.2 LOOP DIURETICS

#### 1<sup>st</sup> choice: Furosemide

20 mg, 40 mg & 500 mg tablets,  
20 mg/ 2 ml, 50 mg/ 5 ml &  
250 mg/ 25 ml injection,  
40 mg / 5 ml oral solution

2<sup>nd</sup> choice: **Bumetanide** 1 mg & 5 mg tablets,

1mg/ 5 ml liquid, 2 mg/ 4 ml injection

**Note:** At low doses 40 mg furosemide is equivalent to 1 mg bumetanide

### 2.2.3 POTASSIUM-SPARING DIURETICS

#### Amiloride

5 mg tablet, 5 mg/ 5 ml solution

**Notes:** Potassium sparing diuretics such as amiloride are usually necessary only if hypokalaemia develops

### ALDOSTERONE ANTAGONISTS

1<sup>st</sup> choice: **Spirolactone** 25 mg & 100 mg tablets, 25 mg/ 5 ml & 100 mg/ 5 ml suspension,  
1 mg/ ml suspension (for paediatrics, unlicensed)

**Notes:** **Spirolactone** is licensed only for congestive cardiac failure, nephrotic syndrome, ascites associated with cirrhosis or malignancy & primary aldosteronism

**Alternative:** **Eplerenone** 25 & 50mg tablet. For Spirolactone intolerant patients. In view of its high cost it will not replace Spirolactone.

### 2.2.4 POTASSIUM-SPARING DIURETICS WITH OTHER DIURETICS

**Co-amilofruse** (amiloride/ furosemide)

2.5 mg/ 20 mg & 5 mg/ 40 mg tablet

**Co-amilozide**

(amiloride/ hydrochlorothiazide)

2.5 mg/ 12.5 mg & 5mg/ 25 mg tablets

**Co-triamterzide**

(triamterene/ hydrochlorothiazide)

50 mg/ 25 mg tablet

**2.2.5 OSMOTIC DIURETICS**

**Mannitol** 10 % & 20 % infusion

**Notes:** Crystal formation may occasionally occur in mannitol bags. These disappear on gentle warming before use

**2.3 ANTI-ARRHYTHMIC DRUGS**

**SUPRAVENTRICULAR ARRHYTHMIAS**

**Adenosine** 6 mg/ 2 ml injection

**Dronedaron** 400mg f/c tablets (as per NICE recommendations)

**SUPRAVENTRICULAR & VENTRICULAR ARRHYTHMIAS**

**Amiodarone** 100 mg & 200 mg tablets, 150 mg/ 3 ml injection, 300 mg/ 10 ml minijet (*Resus. only*)

**Notes:** Liver function & thyroid function tests should be performed at baseline & 6 monthly thereafter. A chest X-Ray should be done before treatment

**Flecainide** 50 mg & 100 mg tablets, 150 mg/ 15 ml injection

**Disopyramide** 100 mg capsule, 150 mg & 250 mg SR tablets, 50 mg/ 5 ml injection

**Propafenone** 150 mg tablet

**Notes:** Disopyramide, flecainide & propafenone should be used under the guidance of a Consultant Cardiologist only

**DRUGS FOR VENTRICULAR ARRHYTHMIAS**

**Lidocaine (Lignocaine)**

1% & 2 % injection, 0.1% & 0.2 %/ glucose 5 % infusion, 100 mg/ 10 ml minijet

**Mexiletine** 50 mg & 200 mg capsules, 250 mg/ 10 ml injection

**Notes:** This category of drugs should be used under the guidance of a Consultant Cardiologist only

**2.4 BETA-ADRENOCEPTOR BLOCKING DRUGS**

**Atenolol** 25 mg, 50 mg & 100 mg tablets, 25 mg/ 5 ml syrup, 5 mg/ 10ml injection

**Metoprolol**

50 mg tablet, 5 mg/ 5 ml injection

**Propranolol**

10 mg, 40 mg & 80 mg tablets, 80 mg & 160 mg SR tablets, 1 mg/ ml injection, 40 mg/ 5 ml oral solution, 10 mg/ 5 ml oral solution, 5 mg/ 5 ml oral solution,

**Sotalol** 40 mg & 80 mg tablets, 40 mg/ 4 ml injection

**Bisoprolol** 1.25 mg & 2.5 mg 5 mg & 10 mg tablets

**Carvedilol** 3.125 mg, 6.25 mg, 12.5 mg & 25 mg tablets

**Esmolol** 100 mg/ 10 ml injection (*Theatres only*)

**Labetalol** 50 mg & 100 mg tablets 100 mg/ 20 ml injection

**2.5 DRUGS AFFECTING THE RENIN-ANGIOTENSIN SYSTEM & OTHER ANTIHYPERTENSIVES**

**2.5.1 VASODILATOR ANTIHYPERTENSIVE DRUGS**

**Hydralazine**

25 mg & 50 mg tablets, 20 mg/ ml injection

**Sodium nitroprusside**

50 mg/ 5 ml intravenous infusion

**2.5.2 CENTRALLY ACTING  
ANTIHYPERTENSIVE DRUGS**

**Methyldopa** 250 mg/ 5 ml suspension,  
125 mg, 250 mg & 500 mg tablet

### 2.5.3 ADRENERGIC NEURONE BLOCKING DRUGS

**Guanethidine** 10 mg/ ml injection  
(*Day Stay (KGH), Dr Ather & Orthopaedic surgeons (OCH) only*)

### 2.5.4 ALPHA-ADRENOCEPTOR BLOCKING DRUGS

**Doxazosin** 1 mg, 2 mg & 4 mg tablets

**Phentolamine** 10 mg/ ml injection

### 2.5.5 DRUGS AFFECTING THE RENIN-ANGIOTENSIN SYSTEM

#### 2.5.5.1 ACE (ANGIOTENSIN CONVERTING ENZYME) INHIBITORS

**1<sup>st</sup> Choice: Lisinopril**  
2.5 mg, 5 mg, 10 mg & 20 mg tablets

**Alternative: Ramipril** (*in accordance with HOPE guidelines*)

1.25 mg, 2.5 mg & 5 mg & 10 mg tablets

#### **Captopril**

12.5 mg, 25 mg & 50 mg tablets

**Notes:** First dose hypotension can occur in patients who are taking high dose diuretics, volume depleted, on a low-sodium diet or with heart failure. The first dose should always be given at night. Caution with potassium-sparing diuretics. Urea & electrolytes should be checked within 1 week of commencing therapy

#### 2.5.5.2 ANGIOTENSIN 2 RECEPTOR ANTAGONISTS

Angiotensin 2 receptor antagonists (AR2As) should only be used when there is intolerance to ACE inhibitors e.g. cough

### TREATMENT OF HYPERTENSION

**1<sup>st</sup> Choice: Candesartan** 2 mg, 4 mg & 8mg tablets

**Alternative: Losartan** 25mg, 50mg and 100mg tablets (*Licensed for Hypertensive patients with left ventricular hypertrophy except black patients*)

### RENAL PROTECTION IN TYPE 2 DIABETIC PATIENTS WITH NEPHROPATHY

**1<sup>st</sup> Choice: Losartan** (use when intolerant to ACE inhibitors)

### TREATMENT OF HEART FAILURE

**Sacubitril/Valsartan** 24mg/ 26mg, 49mg/51mg & 97mg/103mg film coated tablets (Entresto®)

**(All AR2As are unlicensed for this indication, ACE inhibitors are 1<sup>st</sup> Choice)**

**Alternative: Candesartan** (use when intolerant to ACE inhibitors)

#### 2.5.5.3 RENIN INHIBITORS

**Aliskiren** 150mg & 300mg f/c tablets

(*Consultant Cardiologists' and Dr. Fahal's use only*). To be used as a 4<sup>th</sup> line agent after all other antihypertensives have been used at their maximum tolerated doses. Rx must include a consultant cardiologists' signature

### 2.6 NITRATES, CALCIUM-CHANNEL BLOCKERS & POTASSIUM-CHANNEL ACTIVATORS

#### 2.6.1 NITRATES

##### **Glyceryl trinitrate**

500 micrograms sublingual tablets,  
400 micrograms/ dose sublingual spray,  
2 mg & 5 mg buccal tablets,  
50 mg/ 10 ml injection,  
5 mg/ 5 ml injection,  
5 mg & 10 mg patch

##### **Isosorbide mononitrate**

10 mg & 20 mg tablets & 60mg m/r tablets

**Note:** All other slow-release nitrates are non-formulary

## 2.6.2 CALCIUM-CHANNEL BLOCKERS

**Notes:** Bioavailability *may* vary between different formulations (brands) of diltiazem, verapamil & nifedipine. However, it is Trust policy to use formulations (brands) for diltiazem specified below.

Once daily preparations should be used only when compliance is a problem

**Amlodipine** 5 mg & 10 mg tablets

### Diltiazem

**(Twice or Three times daily preparation)**  
60 mg m/r tablet

**(Twice daily preparation: Tildiem Retard)**  
90 mg, 120 mg & 180 mg m/r tablets

**(Once daily formulation: Adizem XL)**  
120 mg, 180 mg, 200 mg, 240 mg & 300mg m/r capsules

**Nifedipine** 5 mg & 10 mg capsules,  
**(Twice daily preparation)**  
10 mg & 20 mg m/r tablets

**(Once daily formulation)**  
20 mg, 30 mg & 60 mg m/r tablets

**Notes: Nifedipine capsules** are not recommended by the B.N.F. for angina prophylaxis & hypertension. It should be restricted to treatment of Raynaud's phenomenon only. For brands stocked, please ask pharmacy

### Verapamil

40 mg, 80 mg & 120 mg tablets,  
120 mg, 180 mg & 240 mg m/r capsules/  
tablets,  
5 mg/ 2 ml injection

**Note: Verapamil** frequently causes constipation & should be prescribed with a laxative, such as senna or docusate sodium

**Nimodipine** 30 mg tablet,  
200 micrograms/ ml injection

**Note:** Nimodipine injection must be administered centrally

## 2.6.3 OTHER ANTIANGINAL DRUGS

**Ivabradine** 5mg & 7.5mg tablets

**Note:** Approved for 3<sup>rd</sup> line treatment of stable angina pectoris in patients who are intolerant to beta-blockers and diltiazem.

And also for Heart Failure

*(To be restricted to senior members of medical Team)*

**Nicorandil** 10 mg & 20 mg tablets

**Ranolazine** 375mg, 500mg & 750mg m/r tablets *(as per angina treatment pathway)*

## 2.6.4 PERIPHERAL & CEREBRAL VASODILATORS

**Naftidrofuryl** 100 mg capsule

**Iloprost** infusion

50 microgram/ 0.5 ml injection

*(Unlicensed. Refer to the protocol. For severe Raynaud's phenomenon & limb-threatening peripheral arterial occlusive disease only)*

**Pentoxifylline (Oxpentifylline)**

400mg tablet

*(Consultant Vascular Surgeons only)*

**Note: Other peripheral vasodilators** are considered less suitable for prescribing by the B.N.F

## 2.7 SYMPATHOMIMETICS

### 2.7.1 INOTROPIC SYMPATHOMIMETICS

**Dobutamine** 250 mg/ 20 ml injection

**Dopamine** 200 mg/ 5 ml injection

**Dopexamine** 10 mg/ ml strong sterile solution *(ITU Consultants only)*

**Notes: Dopamine** must be administered into a major vein. Peripheral infusions may lead to skin necrosis & thrombophlebitis



**See following pages for dobutamine & dopamine infusion tables**

**DOBUTAMINE INFUSION CHART****Concentration = 250 mg in 100 ml saline or 5 % glucose = 2500 micrograms per ml.****Give through a Baxter Floguard pump**

mcg/ kg/ min	2.5	3.0	4.0	5.0	6.0	7.0	8.0
Patient's Wt. (kg)	infusion rate in ml./hr. (100 ml syringe pump)						
55	3.3	4.0	5.3	6.6	7.9	9.2	10.6
60	3.6	4.3	5.8	7.2	8.6	10.1	11.5
65	3.9	4.7	6.2	7.8	9.4	10.9	12.5
70	4.2	5.0	6.7	8.4	10.1	11.8	13.4
75	4.5	5.4	7.2	9.0	10.8	12.6	14.4
80	4.8	5.8	7.7	9.6	11.5	13.4	15.4
85	5.1	6.1	8.2	10.2	12.2	14.3	16.3
90	5.4	6.5	8.6	10.8	13.0	15.1	17.3
95	5.7	6.8	9.1	11.4	13.7	16.0	18.2
100	6.0	7.2	9.6	12.0	14.4	16.8	19.2

mcg/ kg/ min	9.0	10.0	11.0	12.0	13.0	14.0	15.0
Patient's Wt. (kg)	infusion rate in ml./hr. (100 ml syringe pump)						
55	11.9	13.2	14.5	15.8	17.2	18.5	19.8
60	13.0	14.4	15.8	17.3	18.7	20.2	21.6
65	14.0	15.6	17.2	18.7	20.3	21.8	23.4
70	15.1	16.8	18.5	20.2	21.8	23.5	25.2
75	16.2	18.0	19.8	21.6	23.4	25.2	27.0
80	17.3	19.2	21.1	23.0	25.0	26.9	28.8
85	18.4	20.4	22.4	24.5	26.5	28.6	30.6
90	19.4	21.6	23.8	25.9	28.1	30.2	32.4
95	20.5	22.8	25.1	27.4	29.6	31.9	34.2
100	21.6	24.0	26.4	28.8	31.2	33.6	36.0

**When using a 50 ml syringe pump add 250 mg dobutamine to 50 ml normal saline or 5% glucose and halve the above infusion rates.**

## DOPAMINE INFUSION CHART

Concentration = 200 mg in 100 ml saline or 5 % glucose = 2000 micrograms per ml.  
Give through a Baxter Floguard pump

mcg/ kg/ min	2.5	3.0	4.0	5.0	6.0	7.0	8.0
Patient's Wt. (kg)	infusion rate in ml./hr.						
55	4.1	5.0	6.6	8.3	9.9	11.6	13.2
60	4.5	5.4	7.2	9.0	10.8	12.6	14.4
65	4.9	5.9	7.8	9.8	11.7	13.7	15.6
70	5.3	6.3	8.4	10.5	12.6	14.7	16.8
75	5.6	6.8	9.0	11.3	13.5	15.8	18.0
80	6.0	7.2	9.6	12.0	14.4	16.8	19.2
85	6.4	7.7	10.2	12.8	15.3	17.9	20.4
90	6.8	8.1	10.8	13.5	16.2	18.9	21.6
95	7.1	8.6	11.4	14.3	17.1	20.0	22.8
100	7.5	9.0	12.0	15.0	18.0	21.0	24.0

mcg/ kg/ min	9.0	10.0	11.0	12.0	13.0	14.0	15.0
Patient's Wt. (kg)	infusion rate in ml./hr. (100 ml syringe pump)						
55	14.9	16.5	18.2	19.8	21.5	23.1	24.8
60	16.2	18.0	19.8	21.6	23.4	25.2	27.0
65	17.6	19.5	21.5	23.4	25.4	27.3	29.3
70	18.9	21.0	23.1	25.2	27.3	29.4	31.5
75	20.3	22.5	24.8	27.0	29.3	31.5	33.8
80	21.6	24.0	26.4	28.8	31.2	33.6	36.0
85	23.0	25.5	28.1	30.6	33.2	35.7	38.3
90	24.3	27.0	29.7	32.4	35.1	37.8	40.5
95	25.7	28.5	31.4	34.2	37.1	39.9	42.8
100	27.0	30.0	33.0	36.0	39.0	42.0	45.0

**When using a 50 ml syringe pump add 200 mg dopamine to 50 ml normal saline or 5% glucose and halve the above infusion rates.**

### 2.7.2 VASOCONSTRICTOR SYMPATHOMIMETICS

**Noradrenaline (Norepinephrine)**  
1 mg/ ml (1/1000) injection

**Metaraminol** injection 10 mg in 1 ml  
(Unlicensed))

**Phenylephrine** 10 mg/ ml (1 %) injection

### 2.7.3 CARDIOPULMONARY RESUSCITATION

**Adrenaline (Epinephrine)**  
1 mg/ 10 ml minijet

**Notes:** In accordance with the Trust Resuscitation Policy.  
See resuscitation drugs list for BHR.  
Any queries please consult the Resus. Officer.  
NELMHT: Please refer to own policy

40 mg in 0.4 ml prefilled syringe  
60 mg in 0.6 ml prefilled syringe  
80 mg in 0.8 ml prefilled syringe  
100 mg in 1.0 ml prefilled syringe  
120 mg in 0.8 ml prefilled syringe  
150 mg in 1.0 ml prefilled syringe

**Notes:** Monitor renal function and adjust dose if necessary. This should not delay first dosing, but subsequent dosing must be based on the results. Risk of bleeding is increased in severe renal impairment

**Argatroban Monohydrate**  
(Exembol®)100mg/ml

### HIRUDINS

**Lepirudin**  
50 mg/ ml injection  
(Haematologists only)

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## 2.8 ANTICOAGULANTS & PROTAMINE

### 2.8.1 PARENTERAL ANTICOAGULANTS

**Heparin sodium** 1000 units/ ml,  
5000 units/ ml, 25,000 units/ ml injection,  
500 units/ 500 ml sodium chloride 0.9 %  
infusion

**Heparin calcium** injection  
5000 units/ 0.2 ml prefilled syringe

### LOW MOLECULAR WEIGHT HEPARINS

**Dalteparin (Fragmin®)** injection  
2500units/ml 4ml ampoule  
(for prophylaxis and treatment of  
thrombosis in children).  
(Consultant Haematologists and  
Paediatricians only)

**Enoxaparin (Clexane ®)** injection  
20 mg in 0.2 ml prefilled syringe

## HEPARIN FLUSHES

### Heparinised saline

50 units/ 5 ml injection  
(Paediatric & Hickman lines only)

## EPOPROSTENOL

**nPbR** **Epoprostenol** 500 micrograms injection (ITU/ HDU patients on haemofiltration with low platelets, SCBU, Vascular Surgeons, KGH only for Peripheral Vascular Disease, unlicensed)

**Fondaparinux sodium** 5mg/ml injection  
0.5ml pre-filled syringe

### 2.8.2 ORAL ANTICOAGULANTS

**1<sup>st</sup> Choice: Warfarin** 1 mg, 3 mg & 5 mg tablets

**Alternative: Acenocoumarol (Nicoumalone)**  
1 mg tablet

**Alternative: Phenindione** 10 mg & 25 mg tablets

**Rivaroxaban** (Xarelto®) 2.5mg, 10mg, 15mg & 20mg film-coated tablet. (For thromboprophylaxis following knee and hip replacement surgeries, orthopaedics use only) & Treatment of VTE by Haematologists only. Also approved for prophylaxis of stroke and systemic embolism in non-valvular atrial fibrillation by Haematologists, Cardiologists and Stroke physicians. Also approved for prophylaxis of atherothrombotic events following ACS as per NICE TA 335)

**Apixaban** (Eliquis®) 2.5mg & 5mg f/c tablets. (For prophylaxis of stroke and systemic embolism in non-valvular atrial fibrillation by Haematologists, Cardiologists and Stroke physicians )

**Dabigatran** (Pradaxa®) 75mg, 110mg & 150mg capsules. (For prophylaxis of stroke and systemic embolism in non-valvular atrial fibrillation by

Haematologists, Cardiologists and Stroke physicians )

**Edoxaban** (Lixiana®) 60mg f/c tablet

(For preventing stroke and systemic embolism in people with non-valvular atrial fibrillation & for treating and preventing deep-vein thrombosis and pulmonary embolism as recommended by NICE TA354 & TA355)

### 2.8.3 PROTAMINE SULPHATE

**Protamine sulphate** 10 mg/ ml injection

## 2.9 ANTIPLATELET DRUGS

**Aspirin** 75 mg dispersible tablet

**Notes:** There is no evidence to support the use of enteric-coated aspirin preparations. These preparations are non-formulary.

**Clopidogrel** 75 mg tablet

**Notes:** **Clopidogrel** is restricted for intolerance or hypersensitivity to aspirin & for treatment of acute coronary syndrome (ACS)

**Dipyridamole** 200 mg m/r capsule, 25 mg & 100 mg tablets, 50 mg/ 5 ml suspension (unlicensed)

**Notes:** **Dipyridamole** tablets are licensed only for prophylaxis of thromboembolism associated with prosthetic heart valves.

**Dipyridamole MR** is also licensed for the secondary prevention of stroke or TIA (used alone or with aspirin)

**Eptifibatide** 2mg/ml injection  
(Consultant Cardiologists only)

**Prasugrel** 5mg & 10mg f/c tablets

(1.For patients who have experienced a stent thrombosis during clopidogrel therapy.

2. On a consultant decision basis for selected high-risk patients with GRACE risk score  $\geq 140$  and low risk of bleeding meeting NICE criteria).

**Ticagrelor** 60mg & 90mg tablets

**Notes:** To be used according to NICE TA236 and NICE TA420

**Abciximab**

10 mg/ 5 ml injection

*Refer to protocol*

*For administration of a bolus dose prior to transfer to the London Chest Hospital for acute MI patients for primary angioplasty.*

*(Consultant Neuro-Radiologist only, for thromboembolism involving cerebral arteries, unlicensed indication, needs patient consent)*

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## 2.10 MYOCARDIAL INFARCTION & FIBRINOLYSIS

### 2.10.2 FIBRINOLYTIC DRUGS

**Streptokinase**

250,000 units & 1.5 mega units injection

**Notes:** See B.N.F. for contra-indications to streptokinase. Refer to Trust ICP for CHD

**Alteplase (Tissue Plasminogen Activator) (TPA)**

50 mg injection

2mg (Actilyse Cathflo)

**Tenecteplase**

50mg (10,000 units) injection

**Urokinase injection**

10,000 units & 50,000 units

*(Unlicensed import, for unblocking TPN & Hickman lines only)*

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## 2.11 ANTIFIBRINOLYTIC DRUGS & HAEMOSTATICS

**1<sup>st</sup> Choice: Tranexamic acid**

500 mg tablet,

250 mg/ 2 ml injection

**Etamsylate**

500 mg tablet

**Drotrecogin Alfa (activated)**

Recombinant activated Protein C

(**nPbR** Drug)

NICE guidance: Drotrecogin alfa should be considered for adults with severe sepsis that has resulted in the failure of two or more major organs and who are receiving optimum intensive care support.

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## 2.12 LIPID-REGULATING DRUGS

### ANION-EXCHANGE RESINS

**Colestyramine (Cholestyramine)**

4 g sachet

**Notes:** other drugs should be taken at least 1 hour before or 4-6 hours after anion-exchange resins to reduce possible interference with absorption

### EZETIMIBE

**Ezetimibe** 10 mg tablets

**Notes:** Ezetimibe is indicated for combination therapy with a statin and in patients intolerant to statins.

### FIBRATES

**Bezafibrate** 200 mg & 400 mg tablets, 400 mg m/r tablet

**STATINS**

**Atorvastatin**

**Pravastatin**

**Rosuvastatin**

**Simvastatin**

**Note:** Statins, other than atorvastatin, should be taken at night for optimum effect

The following table recommends dosage advice for drugs which are known to interact with simvastatin, which may result in an increase in risk of myopathy or rhabdomyolosis

Interacting drug	Simvastatin Prescribing Recommendations
Erythromycin and Clarithromycin	Contraindicated. If unavoidable, suspend Simvastatin during course of treatment.
Ciclosporin	Maximum 10mg daily
Amiodarone	Maximum 20mg daily
Verapamil	Maximum 20mg daily
Diltiazem	Maximum 40mg daily
Warfarin	Caution: monitor INR
HIV protease inhibitors	Use Pravastatin
Grapefruit juice	AVOID

Note: The above list is not exhaustive. Please refer to the current edition of the BNF for further advice

**LIPID-MODIFYING DRUG – OTHER**

**Alirocumab** (Praluent®) 75mg/1ml & 150mg/1ml solution for injection pre-filled pen

**Evolocumab** (Repatha® and Repatha Sureclick) 140mg/1ml solution for injection pre-filled syringes/pre-filled disposable devices

**Omega-3-Acid Ethyl Esters**  
(**Omacor** ®) 1 g capsules)

Approved for anti-retroviral induced hyperlipidemia not responding to statins (GU and HIV initiation only)

**2.13 LOCAL SCLEROSANTS**

**Absolute alcohol** injection

**Ethanolamine oleate** injection

**Sodium tetradecyl sulphate**  
0.5 %, 1 % & 3 % injection

**2.14 PRE-ANGIOGRAM**

**Acetylcysteine** (Parvolex ®)  
2 g/ 10 ml injection- *Unlicensed use*

**N-Acetylcysteine** 600mg tablets (*unlicensed*), to be used prophylactically before angiogram and in combination with prednisolone and azathioprine for the long-term management of patients with Idiopathic Pulmonary fibrosis.

**Note:** 600 mg Acetylcysteine injection can also be given orally (mixed with cola or orange juice) twice daily for 2 days, in those patients with renal dysfunction. First dose starting evening

before angiogram. This is to protect the kidney from damage by the contrast dye. Please refer to ICP for Angiogram



## 3 RESPIRATORY SYSTEM

### 3.1 BRONCHODILATORS

#### 3.1.1 ADRENOCEPTOR AGONISTS

##### 3.1.1.1 SELECTIVE BETA<sub>2</sub> AGONISTS

###### 1<sup>st</sup> Choice: Salbutamol

100 micrograms/ dose inhaler (CFC Free), 100 micrograms Easibreathe (mdi), Easyhaler, 2.5 mg/ 2.5 ml & 5 mg/ 2.5 ml nebuliser solution, 500 micrograms/ ml injection, 100 micrograms/ dose autohaler, 5 mg/ 5 ml injection for infusion, 2 mg & 4 mg tablets, 2 mg/ 5 ml syrup

###### Alternative: Terbutaline

250 micrograms/ dose inhaler, 500 micrograms/ dose turbobhaler (dpi) (*Respiratory Physicians & Paediatricians only*)

#### LONG ACTING BETA<sub>2</sub> AGONISTS

###### 1<sup>st</sup> Choice: Salmeterol

25 micrograms/ dose inhaler and 50 micrograms/ blister Accuhaler (in accordance with BTS guidelines)

###### Alternative: Formoterol (Eformoterol)

6 micrograms & 12 micrograms/ dose turbobhaler

**Indacaterol** 150 & 300 microgram inhalation powder capsules (**Onbrez®**)

**Indacaterol with Glycopyrronium** 85/43 micrograms per dose (**Ultibro Breezhaler®**)

**Olodaterol** 2.5microgram per dose (**Striverdi Respimat®**)

**Olodaterol with Tiotropium** 2.5/2.5 micrograms/ per dose (**Spiolto Respimat®**)

#### 3.1.2 ANTIMUSCARINIC BRONCHODILATORS and COMBINATIONS

**Aclidinium** 400 micrograms/metered inhalation powder (**Eklira Genuair®**)

###### Aclidinium with Formoterol

340micrograms/ 12 micrograms per dose (**Duaklir Genuair®**)

###### Glycopyrronium

50 micrograms/ hard capsule (inhalation powder) **Seebri Breezhaler®**

###### Ipratropium bromide

20 micrograms/ dose inhaler (CFC Free) 250 micrograms/ ml & 500 micrograms/ 2 ml nebuliser solution

###### Tiotropium

18 micrograms/ capsule (Dry powder for inhalation) "**Spiriva®**"

2.5 micrograms/metered inhalation (solution for inhalation) "**Respimat®**"

###### Umeclidinium bromide

55 micrograms/dose (dpi) (**Incruse®**)

**Umeclidinium with Vilanterol** 55/22 micrograms per dose (**Anoro Ellipta®**)

**Notes:** Spacers, autohalers & turbobhalers are available for patients who are unable to use aerosol metered dose inhalers

### 3.1.3 THEOPHYLLINE

#### Aminophylline

(Phyllocontin Continus ®)

225 mg m/r tablet,

250 mg/ 10 ml injection

#### Theophylline

(Uniphyllin Continus ®)

200 mg, 300 mg & 400 mg m/r tablets

(Slo-Phyllin ®)

60 mg, 125 mg & 250 mg m/r capsule

**Notes:** The brand name should be specified when prescribing m/r preparations of theophylline to distinguish one from another. The different formulations should not be regarded as interchangeable.

Caution when co-prescribing drugs which can affect metabolism of theophyllines, e.g. cimetidine, erythromycin, warfarin & ciprofloxacin

#### Caffeine citrate

10 mg/ ml solution & injection (as base)

(Unlicensed, neonates only)

### 3.1.5 PEAK FLOW METERS, INHALER DEVICES & NEBULISERS

Aerochamber

Volumatic

Nebuhaler

Haleraid

Peak flow meters

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## 3.2 CORTICOSTEROIDS

**1<sup>st</sup> Choice in adults: Beclometasone (CFC-free) (QVAR ®)**

50 micrograms/ dose &

100 micrograms/ dose inhaler

(NOT recommended in children)

#### Beclomethasone & Formoterol

**Fostair® NEXThaler** 100 micrograms/ 6 micrograms/metered inhalation

200micrograms/6micrograms/metered inhalation

**Budesonide** 50 micrograms/ dose &

200 micrograms/ dose inhaler,

100 micrograms/ dose,

200 micrograms/ dose &

400 micrograms/ dose turbohaler

500 micrograms/ 2ml & 1 mg/ 2 ml

respules

**Budesonide & Formoterol**

**Symbicort®** 100/ 6 & 200/ 6 turbohaler

**Duoresp Spiromax®**160/4.5 & 320/9

micrograms

#### Fluticasone

50 micrograms/ dose,

125 micrograms/ dose &

250 micrograms/ dose inhaler

#### Fluticasone & formoterol

**Flutiform®** 50/5 micrograms,

125/5micrograms & 250/10

micrograms inhalers

#### Fluticasone & Salmeterol

**Seretide®** 50, 125, 250 Evohalers

100, 250micrograms & 500micrograms

Accuhalers

#### Fluticasone & Vilanterol

92/22 microgranms per dose

(Relvar Ellipta®)

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## 3.3 CROMOGLICATE, RELATED THERAPY & LEUKOTRIENE RECEPTOR ANTAGONISTS

### 3.3.1 CROMOGLICATE & RELATED THERAPY

#### Sodium cromoglicate

5 mg/ dose inhaler (*Paediatricians & Respiratory Physicians only*)

**Nedocromil sodium** 2 mg/ dose inhaler

*(Respiratory Physicians only)*

**Notes:** Cromoglycate is more effective in children than adults. It may be useful in adults with 'exercise-induced' asthma

### 3.3.2 LEUKOTRIENE RECEPTOR ANTAGONISTS

#### Montelukast

10 mg tablet- Licensed for adults  
5 mg chewable tablets- Licensed for 6-14 years of age.  
4mg chewable tablets- Licensed for 2-5 years of age  
Paediatric 4mg granules- Licensed for Paediatric patients aged 6 months- 5 years of age

**Notes:** Use in accordance with BTS guidelines

### 3.3 Phosphodiesterase type-4 inhibitor

**Roflumilast** 500micrograms fill-coated tablets

*(For the treatment of COPD- NICE TA 461)*

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## 3.4 ANTIHISTAMINES, HYPOSENSITISATION & ALLERGIC EMERGENCIES

### 3.4.1 ANTIHISTAMINES

#### NON-SEDATING ANTIHISTAMINES

**1<sup>st</sup> Choice: Cetirizine**  
**(For adults and children 6 years and over)**

10 mg tablet  
5 mg/ 5 ml oral solution  
(Not licensed for under 6 years)

**Alternative: Desloratadine**  
**(For children 1-5 years of age)**  
Syrup 2.5mg/5 mL  
(Licensed for use in children 1-5 years of age)

#### **Alternative: Fexofenadine**

120 mg tablet- Licensed for Seasonal Allergic Rhinitis

180 mg tablet- Licensed for Chronic Idiopathic Urticaria

### SEDATING ANTIHISTAMINES

#### **Chlorphenamine (Chlorpheniramine)**

4 mg tablet, 2 mg/ 5 ml syrup,  
10 mg/ ml injection

#### **Hydroxyzine**

10 mg & 25 mg tablets,  
10 mg/ 5 ml syrup

#### **Promethazine hydrochloride**

10 mg & 25 mg tablets, 5 mg/ 5ml elixir,  
25 mg/ ml injection,

#### **Alimemazine (Trimeprazine)**

10 mg tablet, 7.5 mg/ 5 ml &  
30 mg/ 5 ml syrup

### 3.4.3 ALLERGIC EMERGENCIES

#### **Adrenaline (Epinephrine)**

S/C or IM injection 1 in 1,000 (1 mg/ ml),  
Min-I-Jet ® 1 in 1000 (1 mg/ ml),  
EpiPen ® IM injection for self-administration,  
IV injection 1 in 10,000 (1 mg/ 10 ml)  
IV injection 5 mg/ 5 ml

**Warning:** Note strengths of adrenaline. See Anaphylaxis policy for more details

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## 3.5 RESPIRATORY STIMULANTS & PULMONARY SURFACTANTS

### 3.5.1 RESPIRATORY STIMULANTS

**Doxapram** 1000 mg/ 500 ml infusion,  
100 mg/ 5 ml injection

### 3.5.2 PULMONARY SURFACTANTS

**Poractant alfa** (Curosurf®)  
120 mg/ 1.5 ml solution

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### 3.7 MUCOLYTICS

**Carbocisteine** 375 mg capsules  
250mg/5ml syrup  
(Prescribe according to NICE guidelines)

**Sodium Chloride** 3% and 6% nebuliser solution (Mucoclear®)

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### 3.8 AROMATIC INHALATIONS

**Benzoin Tincture Compound BP**  
Add one 5ml spoonful to a pint of hot, not boiling water and inhale the vapour

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### 3.9 COUGH PREPARATIONS

#### COUGH SUPPRESSANTS

#### DEMULCENTS

**Simple linctus BP (sugar free)**

**Pholcodine linctus (sugar free)**

5 mg/ 5 ml

**Codeine linctus BP**  
15 mg/ 5 ml

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### Menthol & Eucalyptus Inhalation BP

### 3.10 SYSTEMIC NASAL DECONGESTANTS

**Pseudoephedrine**  
60 mg tablet, 30 mg/ 5 ml elixir

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### 3.11 PRODUCTS FOR PLEURODESIS

**Sterile Talc powder**  
(Unlicensed, Respiratory physicians only)

**Notes: Sterile talc powder administered by doctor, in accordance with protocol. Usually 4g in 30 ml sodium chloride 0.9 % injection. Once procedure complete flush with 20 ml sodium chloride 0.9 % injection**

**Tetracycline**  
500 mg injection  
(Unlicensed product for Pleurodesis. Respiratory physicians only)

## 4 CENTRAL NERVOUS SYSTEM

**Notes:** The NELMHT formulary is under revision. If there are any queries regarding psychiatric drugs, please contact the Principal Pharmacist for Mental Health

### 4.1 HYPNOTICS & ANXIOLYTICS

#### 4.1.1 HYPNOTICS

**Temazepam (CD)**

10 mg tablet, 10 mg/ 5 ml syrup

**Zopiclone** 3.75 mg & 7.5 mg tablets

**Zolpidem** 5 mg & 10 mg tablets  
(*Psychiatrists only*)

**Notes:** Hypnotics should be used only where insomnia is severe, disabling or where patient is extremely distressed, after due consideration to non-pharmacological measures. NICE recommends that they may be prescribed for one to two weeks. Tolerance/dependence develops rapidly

**Chloral hydrate**

500mg/ 5 ml mixture (*unlicensed*),  
25 mg, 50 mg & 100 mg suppositories  
(*unlicensed*)  
143 mg/ 5 ml elixir  
(*Paediatrics only*)

**Cloral betaine (Welldorm ®)**

707 mg tablet = 414 mg chloral hydrate

**Clomethiazole** 192 mg capsule,  
250 mg/ 5 ml syrup (edisylate)

**Note:** Clomethiazole should not be used for alcohol withdrawal

**Promethazine hydrochloride**

10 mg & 25 mg tablets,  
5 mg/ 5 ml elixir, 25 mg/ ml injection

**Melatonin** 2mg M/R tablet(Circadin®)

(*for insomnia and delirium in ICU patients*)

#### 4.1.2 ANXIOLYTICS

**Diazepam**

2 mg & 5 mg tablets,  
2 mg/ 5 ml & 5 mg/ 5 ml syrup,  
10 mg/ 2 ml injection,  
10 mg/ 2 ml (emulsion) injection,  
2.5 mg, 5 mg & 10 mg per dose rectal  
tubes (solution)

**Chlordiazepoxide**

5 mg capsule, 10 mg tablet

**Note:** Chlordiazepoxide is the drug of choice for control of alcohol withdrawal

**Lorazepam**

1 mg tablet, 4 mg/ ml injection

### 4.2 DRUGS USED IN PSYCHOSES & RELATED DISORDERS

#### 4.2.1 ANTIPSYCHOTIC DRUGS

**Chlorpromazine**

10 mg, 25 mg, 50 mg & 100 mg tablets,  
25 mg/ 5 ml oral solution, 100 mg/ 5 ml  
syrup, 50 mg/ 2 ml injection

**Note:** Injection not to be used on psychiatric wards

**Haloperidol**

500 micrograms capsule,  
1.5 mg, 5 mg & 10 mg tablets,  
10 mg/ 5 ml liquid,  
5 mg/ ml, 20 mg/ 2 ml &

50 mg/ ml injection

**Sulpiride**

200 mg & 400 mg tablets,  
200 mg/ 5 ml oral solution  
(*Psychiatrists only*)

**Trifluoperazine**

1 mg & 5 mg tablets, 1 mg/ 5 ml syrup  
& 5 mg/ 5 ml oral solution,  
2 mg, 10 mg & 15 mg m/r capsules  
(Spansules®)

**Zuclopenthixol dihydrochloride**

2 mg, 10 mg & 25 mg tablets  
(*Psychiatrists only*)

**Zuclopenthixol acetate**

(Clopixol Accuphase®)  
50 mg/ ml & 100mg/ 2 ml injection  
(*Psychiatrists only*)

**ATYPICAL ANTIPSYCHOTICS**

**Olanzapine**

2.5 mg, 5 mg, 7.5 mg & 10 mg tablets,  
5 mg, 10 mg, 15mg, 20mg oro-dispersible  
tablets,  
5 mg/ ml injection  
(see notes below on tablets & injection)

**tablets:** *Neurologists for Parkinson's  
psychosis, unlicensed use & Psychiatrists  
only,*

**injection:** *Psychiatrists only*

**Amisulpride** 50 mg & 200 mg tablets,  
100 mg/ ml oral solution  
(*Psychiatrists only*)

**Clozapine** 25 mg & 100 mg tablets  
(*Psychiatrists only*)

**Notes:** For clozapine, the patient &  
Consultant must be registered with the  
clozapine monitoring system.  
Monitoring of white blood cell counts &  
neutrophils is mandatory.  
Consult pharmacy for further advice

**Quetiapine**

25 mg, 100 mg, 150 mg & 200 mg tablets  
(*Neurologists for Parkinson's psychosis*)

(*unlicensed use*) & *Psychiatrists only*)

**Risperidone** 1 mg/ ml liquid,  
0.5 mg, 1 mg, 2 mg, 3 mg & 4 mg &  
6 mg tablets, 1mg and 2mg  
Orodispersible tablet, 25mg injection  
(*Neurologists for Parkinson's psychosis,  
unlicensed use & Psychiatrists only*)

**Notes:** The Committee on Safety of  
Medicines (CSM) has advised that  
risperidone or olanzapine should not be  
used for the treatment of behavioural  
symptoms of dementia because there is  
clear evidence of an increased risk of  
stroke in elderly patients with dementia.  
The mechanism by which these drugs  
are associated with stroke is unknown

**4.2.2 ANTIPSYCHOTIC DEPOT  
INJECTIONS**

**4.2.3 ANTIMANIC DRUGS**

**Lithium carbonate**

**Camcolit**® 250 mg & 400 mg tablets  
**Priadel**® 200 mg & 400 mg m/r tablets  
(*Psychiatrists only*)

**Lithium citrate**

**Priadel**® 509 mg/ 5 ml liquid

**Note:** Lithium carbonate 200 mg is  
equivalent to 509 mg lithium citrate

**Valproic acid** (Depakote®)

250 mg & 500 mg e/c tablets  
(*Psychiatrists only*)

**Notes:** Depakote® is licensed for the  
treatment of manic episodes associated  
with bipolar disorder. This is not for  
maintenance therapy

**4.3 ANTIDEPRESSANT DRUGS**

**4.3.1 TRICYCLIC & RELATED  
ANTIDEPRESSANTS**

**Amitriptyline**

10 mg, 25 mg & 50 mg tablets,  
25 mg/ 5 ml & 50 mg/ 5 ml oral solution

**Dosulepin (Dothiepin)**

25 mg capsule, 75 mg tablets,  
25 mg/ 5 ml & 75 mg/ 5 ml liquid

**Lofepamine**

70 mg tablet, 70 mg/ 5 ml suspension

**Imipramine**

10 mg & 25 mg tablets,  
25 mg/ 5 ml syrup

**RELATED ANTIDEPRESSANTS**

**4.3.2 MONOAMINE-OXIDASE  
INHIBITORS (MAOI's)**

**4.3.3 SELECTIVE SEROTONIN  
REUPTAKE INHIBITORS (SSRI's)**

**Fluoxetine**

20 mg & 60 mg capsules,  
20 mg/ 5 ml liquid

**Sertraline** 50 mg & 100 mg tablets

**Citalopram**

10mg & 20 mg tablet, 40 mg/ ml liquid

**Notes:** The dose used for citalopram liquid is lower than that given for the tablets. A 20 mg tablet is equivalent to 16 mg (8 drops) of the oral liquid

**Paroxetine** 20 mg & 30 mg tablets,  
10 mg/ 5 ml liquid

**Note:** Recommended adult daily dose of paroxetine for depression is 20 mg

**4.3.4 OTHER ANTIDEPRESSANTS**

**Duloxetine** 30mg & 60mg capsules  
*(Treatment of diabetic neuropathic pain in adults, after tricyclic antidepressants and as an alternative to pregabalin)*

**Flupentixol (Flupenthixol)**

500 micrograms & 1 mg tablets  
*(Consultant Psychiatrists only)*

**Mirtazapine** 30mg and 45mg tablets, 15 mg, 30 mg & 45 mg oro-dispersible tablets

*(Neurologists & Psychiatrists only)*

**Venlafaxine**

37.5 mg & 75 mg tablets,  
75 mg & 150 mg m/r capsules  
*(Consultant Psychiatrists & Dr Quigley for menopausal symptoms in patients on tamoxifen, and/ or who are post chemotherapy, unlicensed use)*

**Notes:** All antidepressants take up to 14 days or more for full therapeutic effect & adequate doses are needed. Of the tricyclics, amitriptyline & dosulepin carry the greatest risk in overdose. SSRI's have fewer antimuscarinic & cardiotoxic side effects than the tricyclics. However, they must still be used in caution in patients with poorly controlled epilepsy, cardiac disease & renal or hepatic impairment. Caution in pregnancy, consult Medicines Information. SSRI's are preferred in the elderly. Obtain advice when stopping or changing an antidepressant

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**4.4 CENTRAL NERVOUS  
SYSTEM STIMULANTS**

**Dexamfetamine (CD)** 5 mg tablet  
*(Psychiatrists)*

**Methylphenidate** 10 mg tablet,  
18 mg & 36 mg m/r tablets (Concerta XL<sup>®</sup>)  
*(Consultant Paediatricians, Psychiatrists only)*

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**4.5 DRUGS USED IN THE  
TREATMENT OF OBESITY**

**Methylcellulose** 500 mg tablet

**Orlistat** 120 mg capsule

*(Dr Pearson only)*



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## 4.6 DRUGS USED IN NAUSEA & VERTIGO

### ANTIHISTAMINES

**Cinnarizine**  
15 mg tablet

**Cyclizine**  
50 mg tablet, 50 mg/ ml injection

**Promethazine teoclate** 25 mg tablet

**Promethazine hydrochloride**  
(See section 3.4.1 for formulations)

### PHENOTHIAZINES & RELATED DRUGS

**Prochlorperazine**  
5 mg tablets, 5 mg/ 5 ml syrup,  
5 mg & 25 mg suppositories,  
12.5 mg/ ml injection (*IM only*)

**Levomepromazine**  
**(Methotrimeprazine)**  
25 mg tablet, 25 mg/ ml injection  
(*Oncologists, Haematologists & Palliative care team only*)

### DOMPERIDONE & METOCLOPRAMIDE

**Metoclopramide**  
10 mg tablet, 5 mg/ 5 ml oral solution,  
10 mg/ 2 ml injection

**Notes: Metoclopramide** may induce dystonic reactions, especially in young children, young adults and the elderly. Use of metoclopramide in patients under 20 years is not recommended. May cause confusion in the elderly. Avoid in Parkinson's disease

**Domperidone**  
10 mg tablet, 5 mg/ 5 ml suspension,  
30 mg suppositories

**Note: Domperidone** is less likely to cause central effects such as sedation & dystonic reactions

### 5-HT<sub>3</sub> ANTAGONISTS

**1<sup>st</sup> Choice: Ondansetron**  
4 mg & 8 mg tablets, 4 mg/ 5 ml syrup

4 mg/ 2 ml & 8 mg/ 4 ml injection

**2<sup>nd</sup> Choice: Granisetron**  
1 mg tablet, 1 mg/ 5 ml liquid,  
1 mg/ ml injection

### Palonosetron with netupitant

300mg/0.5mg capsules (**Akynzeo®**)

### HYOSCINE

**Hyoscine hydrobromide**  
300 micrograms tablet,  
Scopoderm TTS ® 1.5 mg patch  
(absorption of 1 mg/ 72 hour)  
(*Unlicensed use to reduce secretions*)

### OTHER DRUGS FOR MÉNIÈRE'S DISEASE

**Betahistine** 8 mg tablets

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## 4.7 ANALGESICS

### 4.7.1 NON-OPIOID ANALGESICS

**Aspirin**  
75mg dispersible tablets  
300 mg dispersible tablets  
300mg suppositories  
500mg injection (unlicensed)

**Paracetamol**  
500 mg tablet & dispersible tablets  
120 mg/ 5 ml & 250 mg/ 5 ml suspension  
15 mg, 30 mg &  
60 mg suppositories (*Unlicensed*)  
125 mg, 240 mg, 500 mg and 1g  
suppositories  
1g/100ml IV infusion  
(IV infusion for intra- and post-operative  
use for patients nil-by-mouth or unable to  
take drugs by other routes)

**Co-dydramol (dihydrocodeine/ paracetamol) 10/ 500 tablet**

**Co-codamol (codeine/ paracetamol)**  
8/ 500 tablet  
8/ 500 effervescent tablet

**Co-codamol (codeine/ paracetamol)**  
30/ 500 capsule or tablet  
Note: Use separate tablets of 30mg codeine and paracetamol where possible as this is much cheaper

#### 4.7.2 OPIOID ANALGESICS

**Refer to Management of acute and chronic pain in adults policy**

**Morphine sulphate injection (CD)**  
10mg, 15mg, 20mg and 30mg injection  
100mg/ 50ml injection vials  
50mg/ 50ml injection vials for PCA and also pre-prepared as 50mg/50ml PCA syringes

**Morphine sulphate slow release (CD)**  
5 mg, 10 mg, 15 mg, 30 mg,  
60 mg, 100 mg & 200 mg m/r tablets,  
20 mg & 30 mg m/r granules

**Morphine sulphate oral solution (Oramorph ®) (CD)**  
10 mg/ 5 ml oral solution  
100 mg/ 5 ml oral concentrated oral solution,  
10 mg/ 5 ml unit dose vials

**Morphine sulphate tablets- immediate release (Sevredol ®) (CD) 10 mg and 20mg**

**Cyclimorph ® (CD)**  
Morphine sulphate (10 mg/ ml) & cyclizine (50 mg/ ml) injection

**Buprenorphine (CD) (Transtec ®)**  
300 micrograms injection  
200 micrograms S/L tablet  
35, 52.5 & 70 micrograms patches

*The Transtec patches should be changed every 96 hours (4 days). For convenience*

*the patch can be changed twice a week at regular intervals e.g. on Mondays and Thursdays.*

*(Patches: for chronic pain only)*

**Buprenorphine (CD) (BuTrans®)**

Patches  
Change Butrans patch every 7 days.  
5 micrograms/hour  
10 micrograms/hour  
20 micrograms/hour  
(Pain team only)

**Codeine phosphate**

15 mg & 30 mg tablets  
25mg/ 5ml syrup  
15mg/ 5ml linctus  
30mg/ ml injection (CD) (Unlicensed)

**Diamorphine hydrochloride (CD)**

5 mg, 10 mg, 30 mg, 100 mg & 500 mg injections

**Dihydrocodeine tartrate**

30 mg tablet, 10 mg/ 5 ml elixir,  
50 mg/ ml injection (CD)

**Fentanyl (CD)**

25 micrograms/ hour,  
50 micrograms/ hour,  
75 micrograms/ hour &  
100 micrograms/ hour patches  
200 micrograms, 400 micrograms, 600 micrograms & 800 micrograms  
Sublingual tablet (“**Abstral ®**”)  
100micrograms & 400micrograms/dose  
nasal spray

*(Sublingual tablets are for Palliative care team prescribing only as per Trust guidelines)*

**Notes:** Fentanyl patches and sublingual tablet are suitable for use only in those patients with unacceptable opioid toxicity, where oral route is unavailable, or when recommended by the Palliative care team.

If patients are intolerant to morphine, oxycodone should be tried before fentanyl patches are prescribed.

Each replacement patch should be applied to a non-hairy, different area of the body. The patches are not suitable for patients with chronic skin disorders

**Meptazinol**

200 mg tablet, 100 mg/ ml injection

**Oxycodone hydrochloride oral-immediate release (CD) (OxyNorm ®)**

5 mg, 10 mg & 20 mg capsules  
5mg/ 5ml oral solution  
50mg/5ml concentrated oral solution

**Oxycodone hydrochloride- slow release (CD) (OxyContin ®)**

5 mg, 10 mg, 20 mg,  
40 mg & 80 mg m/r tablets

**Oxycodone injection (CD) (OxyNorm)**

10mg and 20mg injection  
*(For patients unable to tolerate morphine, in accordance with Trust guidelines)*

**Oxycodone injection (CD) (Oxynorm)**

50mg in 1ml ampoule  
*[Approved for second line use for intravenous patient-controlled analgesia (PCA) and restricted to the Paim team]*

**Papaveretum (CD)** 15.4 mg/ ml injection

**Pethidine hydrochloride (CD)**

50 mg tablet,  
50 mg/ ml & 100 mg/ 2 ml injection  
*(Injection no longer used in A&E)*

**Notes:** Pethidine is weaker than morphine or diamorphine & has a shorter duration of action. It is used mainly in obstetrics as it may cause less respiratory depression in the neonate. It should not be used for continuous pain as toxic metabolites may accumulate on extended use. Refer to acute, chronic pain & palliative care guidelines

**Tramadol hydrochloride**

50 mg capsules, 50 mg dispersible tablets, 100 mg & 200 mg m/r capsules & 100 mg/ 2 ml injection  
*(Refer to Management of acute and chronic pain policy)*

**Notes:** NSAIDs are a useful addition in moderate to severe bony or musculo-skeletal pain, except where contraindicated. Enteric coated tablets should not be prescribed prn, as this has a delayed onset of action. Laxatives: Narcotic analgesics will almost always require co-prescribing of laxatives

**4.7.3 NEUROPATHIC PAIN**

Carbamazepine, Amitriptyline or Sodium valproate *(Unlicensed indication)*  
*(see sections 4.3.1 & 4.8.1 for preparations)*

**Gabapentin**

100 mg & 300 mg capsules  
400mg tablets  
*(Not 1<sup>st</sup> line for trigeminal neuralgia)*

**4.7.4 ANTIMIGRAINE DRUGS**

**4.7.4.1 TREATMENT OF THE ACUTE MIGRAINE ATTACK**

**Notes:** Simple analgesic such as paracetamol or a NSAID is often effective. Concomitant antiemetic may be required

**1<sup>st</sup> Choice: Sumatriptan**

50 mg & 100 mg tablets,  
6 mg/ 0.5 ml injection

**Note:** Sumatriptan is to be used only when treatment with conventional analgesics & antiemetics have failed

**2<sup>nd</sup> Choice: Zolmitriptan**

2.5 mg tablet

**4.7.4.2 PROPHYLAXIS OF MIGRAINE**  
**Pizotifen**

500 micrograms & 1.5 mg tablets,  
250 micrograms/ 5 ml elixir

**Clonidine** 25 micrograms tablet

**Methysergide** 1 mg tablet  
(*Neurologists only*)

**Propranolol**  
(*see section 2.4 for formulations*)

**Flunarizine** 5mg & 10mg tablets  
(*Consultant Neurologists only*)  
Stock will be ordered as needed

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## 4.8 ANTIEPILEPTICS

### 4.8.1 CONTROL OF EPILEPSY

**Brivaracetam** (Briviact®) 10mg, 25mg, 50mg, 75mg and 100mg tablets, 10mg/ml oral solution and 50mg/5ml solution for injection

(*Brivaracetam can only be initiated by an epileptologist or neurologist with special interest in epilepsy*)

**Carbamazepine**  
100 mg & 200 mg tablets,  
200 mg & 400 mg m/r tablets,  
100 mg/ 5 ml syrup,  
125 mg & 250 mg suppositories

**Eslicarbazepine** 800 mg tablets

**Oxcarbazepine** 150mg, 300mg and 600mg tablets

**Ethosuximide**  
250 mg capsules, 250 mg/ 5 ml syrup

**Gabapentin**  
100 mg & 300 mg capsules  
400mg tablets

**Lacosamide** 50mg, 150mg, 200mg f/c tablets, 10mg/ml syrup and 10mg/ml solution for infusion

**Lamotrigine**  
25 mg 50 mg & 100 mg tablets  
5 mg, 25 mg & 100 mg dispersible

tablets

**Levetiracetam**  
250 mg, 500 mg & 1g tablets 100mg/ml oral solution

**Notes: Levetiracetam** is for the treatment of adults as per NICE guidance. This includes patients who have not benefited from treatment with older antiepileptic drugs, or in whom older drugs are unsuitable due to contraindications, interactions or poor tolerability

(*Also for Consultant Paediatrician initiation as add-on treatment for the control of refractory partial seizures with or without secondary generalisation in children already on one or two anticonvulsants*)

**Perampanel** (Fycompa®) 2mg, 4mg, 6mg, 8mg, 10mg, 12mg tablets

**Phenobarbital (Phenobarbitone) (CD)**  
15 mg & 30 mg tablets,  
15 mg/ 5 ml elixir (*contains alcohol*),  
50 mg/ 5 ml suspension (*alcohol, sugar & colour free, unlicensed preparation. Used in paediatrics & neonates*)  
15 mg/ ml, 30mg/ ml, 60 mg/ ml & 200 mg/ ml injection

**Primidone** 250 mg tablet

**Phenytoin** 25 mg 50 mg & 100 mg & 300 mg capsules, 30 mg/ 5 ml suspension, 250 mg/ 5 ml injection

**Note:** 90 mg in 15 ml phenytoin (base) suspension is equivalent to 100 mg phenytoin sodium tablet or capsule. Patients admitted on tablets or Infatabs should remain on these preparations

**Rufinamide** 100mg, 200mg and 400mg tablets (*Specialist Paediatric Consultants Only*)

**Note:** For 2<sup>nd</sup> line treatment of Lennox-Gastaut syndrome in children who are refractory to other treatment and on multiple anti-epileptic agents.

GPs will only prescribe once patients have been stabilised in hospital.

**Sodium valproate (Epilim)**

100 mg crushable tablet, 200 mg & 500 mg e/c tablets, 200 mg/ 5 ml liquid, 400 mg injection, 200 mg, 300 mg & 500 mg m/r tablets

**Topiramate** 25 mg, 50 mg and 100mg tablets 15mg and 25mg sprinkle capsules

**Vigabatrin** 500 mg tablet & sachets

**Zonisamide** 25mg, 50mg and 100mg Capsules

*(Also for Dr. Misbahuddin for treating tremor in Parkinson's disease)*

**Clobazam** 10 mg tablet

**Clonazepam** 1 mg/ ml injection, 500 micrograms & 2 mg tablets

**4.8.2 DRUGS USED IN STATUS EPILEPTICUS**

**Diazepam**

*(see section 4.1.2 for preparations)*

**Clonazepam** 1 mg/ ml injection

**Phenytoin** 250 mg/ 5 ml injection

**Paraldehyde** 5 ml injection

*(Consultant Neurologists & Paediatricians only. Dose given diluted with olive oil & given rectally as enema)*

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**4.9 DRUGS USED IN PARKINSONISM & RELATED DISORDERS**

**4.9.1 DOPAMINERGIC DRUGS USED IN PARKINSONISM**

**Co-beneldopa** (benserazide hydrochloride & levodopa)

**(Madopar ®)**

62.5 mg, 125 mg & 250 mg capsules,

62.5 mg & 125 mg dispersible tablets  
**(Madopar CR ®)** 125 mg m/r capsule  
**Co-careldopa** (carbidopa & levodopa)

**(Sinemet LS ®)** 62.5 mg tablet

**(Sinemet 110 ®)** 110 mg tablet

**(Sinemet Plus ®)** 125 mg tablet

**(Sinemet 275 ®)** 275 mg tablet

**(Half Sinemet CR ®)** 125 mg m/r tablet

**(Sinemet CR ®)** 250 mg m/r tablet

**Duodopa 5/20/ml** Intestinal gel  
*(CCG's funding required)*

**Amantadine** 100 mg capsule,

50 mg/ 5 ml syrup

**Apomorphine**

20 mg/ 2ml & 50 mg/ 5 ml injection

10 mg/ ml pre-loaded pen

*(Consultant Neurologist only)*

**Cabergoline** 1 mg tablet (Cabaser ®)

**Entacapone** 200 mg tablet

**Opicapone** 50mg capsule

**Pramipexole** 88mcg, 180mcg and 700mcg tablet *(for treatment of Parkinson's, Consultant Neurologists only)*

**Ropinirole**

"**ReQuip**" tablet (for treatment of idiopathic parkinsons disease)

"**Requip XL**" tablet

"**Adartrel**" 0.25mg, 0.5mg and 2mg tablets (for the treatment of restless legs syndrome) *Neurologists' use only*

**Rotigotine** transdermal patches 2mg/24hr, 4mg/24hr and 8mg/24hr *(for patients with swallowing difficulties)*

**Stalevo** tablet

(Levodopa/Carbidopa/Entacapone)

**Rasagiline** 1mg tablet (2<sup>nd</sup> line in patients who cannot tolerate Selegiline)

**Selegiline** 5 mg tablet, 10mg/5ml liquid

#### 4.9.2 ANTIMUSCAROMOC DRUGS USED IN PARKINSONISM

##### **Benzatropine (Benztropine)**

2 mg/ 2 ml injection

##### **Orphenadrine**

50 mg tablet, 25 mg/ 5 ml liquid

##### **Procyclidine**

5mg tablets

##### **Trihexyphenidyll (Benzhexol)**

2 mg & 5 mg tablets,  
5 mg/ 5 ml syrup

#### 4.9.3 DRUGS USED IN ESSENTIAL TREMOR, CHOREA, TICS & RELATED DISORDERS

##### **Haloperidol**

500 micrograms capsule,  
1.5 mg, 5 mg, 10 mg, 20 mg tablets,  
10 mg/ 5 ml liquid,  
10 mg/ ml liquid concentrate,  
5 mg/ ml injection,  
10 mg/ 2 ml, 10 mg/ 5 ml &  
20 mg/ 2 ml injection

**nPbR Riluzole** 50 mg tablet  
(Consultant Neurologists only)

**Tetrabenazine** 25 mg tablet

#### TORSION DYSTONIAS & OTHER INVOLUNTARY MOVEMENTS

**Botulinum A toxin-Haemagglutinin complex** (Botox® 100 unit injection  
Dysport® 500 unit injection & Xeomin  
100 unit injection)

Ophthalmologists & Neurologists use.

Consultant Gastroenterologists for  
achalasia when surgery is unsuitable  
(unlicensed use, needs patient consent)

Dr Gupta for relief of spasticity in stroke  
patients as second line therapy  
(unlicensed use, needs patient consent)

Consultant Surgeons & Dermatologists  
for Hyperhidrosis

(N.B. Dysport is unlicensed for  
hyperhidrosis, needs patient consent)

**nPbR Botulinum B toxin** (NeuroBloc®)

Dr. Gupta, Dr. McCauley &  
Prof. Findley for cervical dystonia  
resistant to Botox® and Dysport®

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#### 4.10 DRUGS USED IN SUBSTANCE DEPENDENCE

##### ALCOHOL DEPENDENCE

**Chlordiazepoxide** capsules

(See section 4.1.2 for strengths)

**Acamprosate** 333 mg e/c tablet  
(Specialist Consultant use only)

##### CIGARETTE SMOKING

##### **Nicotine**

2mg and 4mg gum (Nicorette),  
2mg lozenges,  
NiQuitin 1.5mg lozenges  
NiQuitin patches ('7', '14', '21'),  
Nicorette 10mg/16hr, 15mg/16hr and  
25mg/16hr patches,  
Nicorette inhalator 10mg cartridge  
Nicorette nasal spray  
500micrograms/metered spray  
Nicorette Quickmist mouthspray  
1mg/metered dose

##### OPIOID DEPENDENCE

**Methadone (CD)** 1mg/ ml mixture  
(Not to be confused with methadone  
linctus 2 mg/ 5 ml for cough)  
(Specialist advice needed)

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#### 4.11 DRUGS FOR DEMENTIA

**Donepezil** 5 mg & 10 mg tablets  
(Community dementia team, Memory  
Clinic & Neurologists only)

**Galantamine** 4 mg & 8 mg tablets,  
4 mg/ ml oral solution

*(Community dementia team, Memory  
Clinic & Neurologists only)*

**Memantine**

5mg, 10mg, 15mg & 20mg tablets

10mg/ml oral solution

**Rivastigmine**

1.5 mg, 3 mg, 4.5 mg & 6 mg capsules,  
2 mg/ ml oral solution, 4.6mg/24 hours &  
9.5mg/24 hours

*(Community dementia team, Memory  
Clinic & Neurologists only)*



## 5 INFECTIONS

### 5.1 ANTIBACTERIAL DRUGS

**Notes:** Unless otherwise specified, refer to the Trust Antibiotic Guidelines for approved indications

#### 5.1.1 PENICILLINS

##### 5.1.1.1 Benzylpenicillin & Phenoxymethylpenicillin (Penicillin V)

**Benzylpenicillin** 600 mg injection

**Penicillin V** 250 mg tablet, 125 mg/ 5 ml & 250 mg/ 5 ml syrup

**Benzylpenicillin & procaine penicillin** 1485 mg & 300 mg injection  
(*Unlicensed medicine*)

##### 5.1.1.2 Penicillinase-resistant penicillins

**Flucloxacillin** 250 mg & 500 mg capsules, 125 mg/ 5 ml & 250 mg/ 5 ml syrup, 250 mg & 500 mg injection

##### 5.1.1.3 Broad spectrum penicillins

###### **Amoxicillin**

250 mg & 500 mg capsules, 500 mg dispersible tablet, 125 mg/ 5 ml & 250 mg/ 5 ml syrup, 250 mg & 500 mg injection, 3 g sachets

**Co-amoxiclav** (amoxicillin & clavulanic acid) (*Often prescribed as Augmentin®*) 250/ 125 tablet & dispersible tablet, 500/ 125 tablet, 125/ 31 syrup & 250/ 62.5 syrup, 500 mg/ 100mg & 1000 mg/ 200 mg Injection

**Pivmecillinam hydrochloride** 200mg tablets

**Notes:** Prescribe in accordance with microbiology guidelines.

#### 5.1.1.4 Antipseudomonal penicillins

**Piperacillin & tazobactam** 2.25 g & 4.5 g injection

**Temocillin** (Negaban®) 1g injection

#### 5.1.2 CEPHALOSPORINS

**Cefadroxil** 500 mg capsule,

**Cefaclor** 125mg/5ml & 250 mg/ 5 ml suspension

**Cefuroxime** 250 mg, 750 mg & 1.5 g injection

**Cefotaxime** 500 mg & 1 g injection

**Ceftazidime** 250 mg, 500 mg, 1 g & 2 g injection

**Ceftriaxone** 250 mg, 1 g & 2 g injection

**Ceftazidime 2g/ Avibactam 0.5g** injection

#### OTHER BETA-LACTAM ANTIBIOTICS

**Meropenem** 500 mg & 1g injection

**Ertapenem** 1g injection

### 5.1.3 TETRACYCLINES

#### **Doxycycline**

50 mg & 100 mg capsules,  
100 mg dispersible tablets  
40mg m/r capsules ( Efracea®) for the  
treatment of rosacea –  
(*Dermatologist's use only*)

**Notes:** Clarithromycin should be reserved for H.pylori eradication & HIV patients for MAI prophylaxis

**First choice: Limecycline** 408mg capsule

#### **Alternatives:**

#### **Minocycline**

50 mg & 100 mg tablets,  
100 mg m/r capsule  
(*Dermatologists only for existing patients or those suffering treatment failure*)

**Oxytetracycline** 250 mg tablet

**Notes:** Tetracyclines must not be given to children under 12 years old or to pregnant or breast-feeding women

**Tigecycline** 50-mg vial (for multi-resistant organisms on a consultant microbiologist's recommendation)

### 5.1.4 AMINOGLYCOSIDES

#### **Gentamicin**

80 mg/ 2 ml injection

#### **Amikacin**

100 mg/ 2 ml & 500 mg/ 2 ml injection

### 5.1.5 MACROLIDES

#### **Erythromycin**

250 mg tablet, 1 g injection,  
125 mg/ 5 ml & 250 mg/ 5 ml suspension

#### **Azithromycin**

250 mg capsule,  
200 mg/ 5 ml suspension

#### **Clarithromycin**

250 mg tablets, 125 mg/ 5 ml syrup,  
500 mg injection

### 5.1.6 CLINDAMYCIN

#### Clindamycin

150 mg capsule  
300 mg/ 2 ml injection

### 5.1.7 SOME OTHER ANTIBACTERIALS

#### Chloramphenicol

250 mg capsule, 1 g injection

#### Sodium fusidate

250 mg e/c tablet,  
500 mg injection

**Fusidic acid** 250 mg/ 5 ml suspension

**Note:** 750 mg fusidic acid suspension is equivalent to 500 mg sodium fusidate tablet. Monitor LFT's

#### Vancomycin

125 mg capsule (*as per C difficile treatment guidelines*)  
500 mg injection

#### Teicoplanin

200 mg & 400 mg injection

**Daptomycin** 350mg & 500mg injection

**Note:** Daptomycin should be reserved for treatment of skin and soft tissue infection, allergy to Vancomycin and teicoplanin bacteraemia and endocarditis & for OPAT (Outpatient Parenteral Antibiotic Therapy) (Unlicensed).

#### Linezolid (Zyvox®)

600 mg tablet, 100 mg/ 5 ml suspension,  
600 mg infusion

#### Colistin

0.5,1& 2 million unit injection,  
1.5 million unit tablet

#### Rifaximin (Targaxan®)

550mg tablets  
(*For reduction in recurrence of hepatic encephalopathy*)

#### Fidaxomicin (Dificlir®)

200mg tablets

*For recurrent cases of Clostridium difficile infection (CDI) and severe CDI under strict recommendation of a Consultant Microbiologist*

#### Fosfomycin

3g granules sachets

### 5.1.8 SULPHONAMIDES & TRIMETHOPRIM

#### Trimethoprim

100 mg & 200 mg tablets,  
50 mg/ 5 ml suspension,  
100 mg/ 5 ml injection

#### Co-trimoxazole

480 mg & 960 mg tablets,  
240 mg/ 5 ml suspension,  
480 mg/ 5 ml & 960 mg/ 10 ml injection  
(For PCP management & Microbiologist initiation only)

### 5.1.9 ANTITUBERCULOUS DRUGS

**Ethambutol** 100 mg & 400 mg tablets

**Isoniazid** 100 mg tablet,  
100 mg/ 5 ml elixir (*unlicensed*),  
50 mg/ 2 ml injection

#### Pyrazinamide

500 mg tablet (*Unlicensed*)

**Rifampicin** 150 mg & 300 mg capsules,  
100 mg/ 5 ml syrup,  
300 mg/ 5 ml injection

#### Rifampicin & Isoniazid

150 mg & 100 mg (**Rifinah ® 150**) tablet  
300 mg & 150 mg (**Rifinah ® 300**) tablet

**Notes:** Combination preparations should be prescribed whenever possible to aid compliance. They should preferably be given before breakfast

**Streptomycin** 1 g injection

### 5.1.10 ANTILEPROTIC DRUGS

**Dapsone** 50 mg tablet

### 5.1.11 METRONIDAZOLE

#### Metronidazole

200 mg & 400 mg tablets,  
200 mg/ 5 ml suspension,  
500 mg & 1 g suppositories,  
500 mg infusion,  
0.75 % gel (Metrogel ®) (*for malodorous fungating tumours*)  
0.75% gel (Acea ®) (*for acne rosacea, Dermatologists only*)

### 5.1.12 QUINOLONES

#### Ciprofloxacin

250 mg & 500 mg tablets,  
250 mg/ 5 ml suspension,  
100 mg/ 50 ml, 200 mg/ 100 ml &  
400 mg/ 200 ml infusion

**Levofloxacin** 250mg & 500mg tablets  
500mg/ 100ml injection

**Moxifloxacin** 400mg tablet

**Notes: Quinolones** should be prescribed with caution in children. Convulsions may be induced in those with or without a history of this. **Quinolones have multiple drug interactions** (see BNF). **N.B. Their absorption is reduced** by concomitant administration of antacids, ferrous sulphate, calcium & zinc salts

### 5.1.13 URINARY TRACT INFECTIONS

#### Cefadroxil

(see section 5.1.2 for formulations)

#### Trimethoprim

(see section 5.1.8 for formulations)

#### Nitrofurantoin (Macrochantin ®)

50 mg capsule, 100 mg tablet

**Notes:** Avoid Nitrofurantoin in mild renal impairment

## 5.2 ANTIFUNGAL DRUGS

### Fluconazole

50 mg, 150 mg & 200 mg capsules,  
50 mg/ 5 ml & 200 mg/ 5 ml suspension,  
50 mg/ 25 ml & 200 mg/ 100 ml injection

**Amphotericin** 50 mg injection  
(**Fungizone**®), (*1<sup>st</sup> line*)  
(**Amphocil**®), (*2<sup>nd</sup> line to Fungizone*®,  
*where renal function has deteriorated*)

**nPbR Liposomal Amphotericin**  
50 mg injection (**Ambisome**®)  
(*for premature neonates, Microbiologist &  
Haematologist initiation only*)

**nPbR Caspofungin** intravenous infusion  
50mg vial and 70mg vial

**Flucytosine** 2.5 g/ 250 ml injection

**Griseofulvin**  
500 mg tablet, 125 mg/ 5 ml suspension

**Itraconazole**  
100 mg capsules, 10 mg/ ml liquid  
(*Haematologists only*)

### **nPbR Posaconazole**

200mg/ml suspension

(*Haematologists only*)

**Note: Posaconazole is for  
continuation of treatment after  
initiation at Bart's and the London  
Hospital**

**Terbinafine** 250 mg tablet  
(*Dermatologists only*)

**nPbR Voriconazole** 50mg 200mg tablets  
200mg intravenous infusion

## 5.3 ANTIVIRAL DRUGS

**Note: All HIV therapy is for specialist  
use only**

### 5.3.1 HIV

#### NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS

**nPbR Abacavir** 300 mg tablet

**nPbR Abacavir** 600 mg tablet &  
**Lamivudine** 300 mg (**Kivexa**®)

**nPbR Abacavir** 300 mg & **Lamivudine** 150  
mg & **Zidovudine** 300 mg tablet (**Trizivir**  
®)

**nPbR Didanosine** 100 mg, 125 mg & 200  
mg tablets, 400 mg enteric coated  
capsules

**nPbR Emtricitabine 200mg & Tenofovir**  
**245mg** Tablets "Truvada®"

**nPbR Lamivudine** 150 mg tablet

**nPbR Stavudine** 30 mg & 40 mg capsules

**nPbR Tenofovir** 245 mg tablet

**nPbR Tenofovir** 245mg with efavirenz  
600mg and emtricitabine 200mg  
(**Atripla**®)

**nPbR Zidovudine** 100 mg & 250 mg  
capsules, 50 mg/ 5 ml syrup,  
200 mg/ 20 ml injection

**nPbR Zidovudine** 300 mg & **Lamivudine**  
150 mg tablet (**Combivir**®)

#### HIV — PROTEASE INHIBITORS

**nPbR Atazanavir** 100 mg, 150mg and  
200mg capsule

**nPbR Darunavir** 300mg tablets

**nPbR Fosamprenavir** 700mg tablets and  
Oral suspension 50mg/ml

**nPbR Indinavir** 400 mg capsule

**nPbR Lopinavir/ Ritonavir (Kaletra ®)**  
133 mg/ 33.3 mg capsule  
200mg/ 50mg tablet  
400 mg/ 100 mg in 5 ml oral solution

**nPbR Nelfinavir** 250 mg tablet

**nPbR Ritonavir** 100 mg capsule  
80mg/ ml oral solution

**nPbR Saquinavir**  
200 mg capsule  
500mg tablet

## HIV — NON-NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS

**nPbR Efavirenz**  
50mg, 100mg, 200 mg capsule  
600 mg tablet  
150mg/ 5ml oral solution

**nPbR Nevirapine** 200 mg tablet  
50mg/ 5ml oral suspension

## HIV – OTHER ANTIRETROVIRALS

**Etravirine** 100mg tablets  
**Maraviroc** 150mg and 300mg tablets

**Raltegravir** 400mg tablet

## 5.3.2 HERPES VIRUS INFECTION

### HERPES SIMPLEX AND VARICELLA ZOSTER

**Aciclovir**  
200 mg 400 mg & 800 mg tablets  
200 mg/ 5 ml suspension  
250 mg & 500 mg injection

**Famciclovir** 125mg 250mg tablets

### CYTOMEGALOVIRUS (CMV)

**Foscarnet** 24mg/ ml intravenous infusion

**Ganciclovir** 500 mg intravenous infusion  
**Valganciclovir** 450 mg tablets

## 5.3.3 VIRAL HEPATITIS

### 5.3.3.1 Chronic Hepatitis B

**nPbR Adefovir** 10mg tablet  
**nPbR Lamivudine** 100 mg tablet  
**nPbR Entecavir** 500micrograms and 1mg  
tablet  
Oral Solution 50micrograms/ml

### 5.3.3.2 Chronic Hepatitis C

**nPbR Simeprevir** 150mg capsules  
**nPbR Ledipasvir 90mg/ Sofosbuvir  
400mg** film-coated tablets (Harvoni®)  
*(In line with Interim NHSE Clinical  
Commissioning Statement)*  
**nPbR Sofosbuvir 400mg/velpatasvir  
100mg** film-coated tablets (Epclusa®)  
*(In line with Interim NHSE Clinical  
Commissioning Statement)*

**nPbR Elbasvir 50mg/ Grazoprevir 100mg**  
film-coated tablets (Zepatier®)  
*(As per NICE recommendation)*

**nPbR Sofosbuvir 400mg / Velpatasvir  
100mg / Voxilaprevir 100mg** film  
coated tablets (Vosevi®)  
*(Hepatology consultants only, in line with  
NHSE commissioning position/ NICE  
guidance)*

## 5.3.4 INFLUENZA

**Oseltamivir** 75mg capsule  
60mg/ 5ml suspension (For treatment  
and prevention of influenza, see  
pandemic contingency plan)

## 5.3.5 RESPIRATORY SYNCYTIAL VIRUS

**nPbR Palivizumab**  
50 mg & 100 mg IM injection  
*(Paediatrician initiation only)*

**nPbR Ribavirin (Tribavirin)**  
6 g powder *(Paediatrician initiation only)*  
200 mg capsules *(Consultant)*

*Gastroenterologists only for  
1<sup>st</sup> line treatment of Hepatitis C)*

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## 5.4 ANTIPROTOZOAL DRUGS

### 5.4.1 ANTIMALARIALS

#### **Chloroquine sulphate**

250 mg tablet = 155 mg base,  
68 mg/ 5 ml syrup = 50 mg (base)/ 5 ml,  
200 mg (base)/ 5 ml injection

**Pyrimethamine** 25 mg tablet

**Pyrimethamine (25 mg) with  
Sulfadoxine (500 mg) (Fansidar ®)**  
tablet

#### **Quinine dihydrochloride**

600 mg/ 2 ml injection  
300mg/ ml injection  
(Unlicensed)

#### **Quinine sulphate**

200 mg & 300 mg tablets

### 5.4.2 AMOEBICIDES

**Mefloquine** 250 mg tablet (Restricted to HIV)

**Primaquine** 7.5 mg tablet (unlicensed-  
named patient only)

**Proguanil 100 mg & atovaquone**  
250 mg (**Malarone ®**) tablet

#### **Atovaquone liquid 750mg/5ml (Wellvone®)**

3<sup>rd</sup> line secondary prophylaxis of PCP in HIV patients.

*(Consultant Microbiologist and GUM Consultants initiation only)*

**Diloxanide Furoate** 500mg tablet

**Metronidazole** see section 5.1.11 for  
preparations

### 5.4.7 DRUGS FOR TOXOPLASMOSIS

**Pyrimethamine** 25 mg tablet

#### **Sulfadiazine**

500 mg tablet, 1g injection

### 5.4.8 DRUGS FOR PNEUMOCYSTIS PNEUMONIA

#### **Co-trimoxazole**

*(See section 5.1.8 for formulations)*

#### **Pentamidine isethionate**

300 mg/ 5 ml respiratory solution,  
300 mg injection

**Atovaquone** suspension 750 mg/5ml

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## 5.5 ANTHELMINTICS

#### **Albendazole**

400mg tablet  
(Unlicensed- named patient only)  
See Antibiotic Guidelines for approved  
indications

#### **Mebendazole**

100 mg tablet,  
100 mg/ 5 ml suspension

## 6 ENDOCRINE SYSTEM

### 6.1 DRUGS USED IN DIABETES

#### 6.1.1.1 SHORT-ACTING INSULINS

##### SOLUBLE INSULIN

##### **Actrapid® (Human)**

100 units/ ml injection  
10 ml vial, 3 ml cartridge  
3 ml disposable pen

**Insuman Rapid** 100units/ml cartridge

##### **Insulin Aspart**

**NovoRapid®** 100 units/ ml injection  
10 ml vial, 3 ml cartridge, 3 ml FlexPen

##### **Insulin Glulisine**

**Apidra®** 100 units/ml injection  
10ml vial, 3ml cartridge, Solostar

##### **Insulin Lispro**

**Humalog®** 100 units/ ml injection  
10 ml vial, 3 ml cartridge  
3 ml disposable pen

#### 6.1.1.2 INTERMEDIATE- & LONG-ACTING INSULINS

##### ISOPHANE INSULIN

**Humulin I 100 units/ml**, 10ml vials, 3ml cartridges, KwikPen

##### **Insulatard® (Human)**

100 units/ ml injection  
10 ml vial, 3 ml cartridge  
3 ml Novolet pen,  
Innolet device: Initiation by *Diabetes team only*

##### **Insuman Basal 100units/ml**

3ml cartridges, pre-filled Solostar pen, 5ml vials

#### BIPHASIC INSULINS

##### **Biphasic insulin Aspart**

**Novomix® 30**, 100 units/ ml injection  
3ml cartridge, 3 ml FlexPen

##### **Biphasic Insulin Isophane**

**Humulin® M3**, 100 units/ml injection 3ml cartridge, 3ml KwikPen

**Insuman Comb 15**, 100units/ml, 3ml cartridges, pre-filled Solostar pen, 5ml vials

**Insuman Comb 25**, 100 units/ml, 3ml cartridges

**Insuman Comb 50**, 100 units/ml, 3ml cartridges

##### **Biphasic Insulin Lispro**

**Humalog® Mix 25**  
3 ml cartridge, 3 ml *Kwikpen* prefilled disposable injection devices

##### **Humalog® Mix 50**

3 ml disposable *Kwikpen* prefilled disposable injection devices

##### **Insulin Degludec**

**Tresiba® Flextouch**  
100units/ml pre-filled pen, 100units/ml cartridges,  
200units/ml pre-filled pen (**consultant endocrine only**)

##### **Insulin Degludec with Liraglutide**

**Xultophy®** 100units/ml insulin degludec + 3.6mg/ml Liraglutide, 3ml pre-filled pen (**consultant endocrine only**)

##### **Insulin Detemir**

**Levemir®** 100 units/ml injection



3ml cartridge, 3ml FlexpenFF

**Insulin Glargine**

**Lantus**® 100 units/ ml injection  
10 ml vial, 3 ml cartridge & Solostar  
3 ml OptiSet pen  
(*Endocrinologists only in accordance with protocol*)

biosimilar

**Abasaglar**® 100 units/ml, 3ml cartridge & pre-filled pen

**Semglee**® 100units/ml, pre-filled pen

**Toujeo**® 300 units/ml, 1.5ml pre-filled Solostar pen pen (**consultant endocrine only**)

**Notes:** When **prescribing insulins**, specify the source (e.g. Human), the strength of the mixture (e.g. 30) & the device required (e.g. 10 ml vial). When specifying the dose, please **do not abbreviate the word 'units'**.

**Flexpens** have been approved for patients unable to use the cartridges on recommendation of the diabetes team

**6.1.2 ORAL ANTIDIABETIC DRUGS**

**6.1.2.1 SULPHONYLUREAS**

**Gliclazide** 80 mg tablet

**Glimepiride** 1 mg, 2 mg & 3 mg tablets

**Tolbutamide** 500 mg tablet

**6.1.2.2 BIGUANIDES**

**Metformin** 500 mg & 850 mg tablets

**GlucoPhage** 500mg & 1g sachets

**Gucophage SR (Metformin)** 500mg, 750mg & 1g tablets

**6.1.2.3 OTHER ANTIDIABETICS**

**Acarbose** 50 mg tablet

**Canagliflozin (Invokana®)** 100mg & 300mg f/c tablets

**Dapagliflozin (Forxiga®)** 5 mg & 10mg f/c tablets

**Empagliflozin (Jardiance®)** 10mg & 25mgf/c tablets

**Exenatide (Byetta®)** 250micrograms/ml injection

**Bydureon**® 2 mg powder and solvent for prolonged-release suspension for injection

**Liraglutide** 6mg/ml injection 2 x 3ml prefilled pens

**Dulaglutide (Trulicity®)** 0.75mg/0.5ml, 1.5mg/0.5ml pre-filled pen

**Repaglinide** 500 micrograms, 1 mg & 2 mg tablets

**Pioglitazone** 15 mg tablet

**Notes:** **Acarbose, Repaglinide & Pioglitazone** are for initiation by Consultant Endocrinologists only

**Alogliptin** 6.25mg, 12.5mg, 25mg tablets

**Linagliptin** 5mg tablets (Can be used in severe renal impairment)

**Sitagliptin** 25mg, 50mg & 100mg tablets

**6.1.4 TREATMENT OF HYPOGLYCAEMIA**

**Glucagon** 1 mg injection

**GlucoGel** (23 g) glucose gel

**6.1.5 TREATMENT OF DIABETIC NEPHROPATHY AND NEUROPATHY**

**Pregabalin** 25mg, 50mg, 75mg, 100mg, 150mg, 200mg, and 300mg capsules. ( to be used second line after

amitriptylline or duloxetine for painful diabetic neuropathy)

## 6.1.6 DIAGNOSTIC & MONITORING AGENTS FOR DIABETES MELLITUS

### BLOOD GLUCOSE MONITORING

Advantage II ® Reagent strips

### URINALYSIS

Diastix ®

Ketodiastix ®

Labstix ®

Multistix SG ®

Multistix 10 SG ®

Multistix GP ®

Multistix 8 SG ®

### GLUCOSE TOLERANCE TEST

Anhydrous Glucose 75 g powder

## 6.2 THYROID & ANTITHYROID DRUGS

### 6.2.1 THYROID HORMONES

#### Levothyroxine (Thyroxine)

25 & 50 micrograms &  
100 micrograms tablets

**Liothyronine** 20 micrograms tablet,  
20 micrograms injection

**Notes:** 20 micrograms of Liothyronine is equivalent to 100 micrograms of Levothyroxine (Thyroxine)

### 6.2.2 ANTITHYROID DRUGS

**Carbimazole** 5 mg & 20 mg tablets

**Propylthiouracil** 50 mg tablet

**Aqueous Iodine Oral Solution**  
(Lugol's Solution)

**Notes:** Carbimazole is the antithyroid drug of choice. Prescribers should be aware of the possibility of carbimazole-induced bone marrow suppression. If neutropenia develops, stop the drug immediately

## 6.3 CORTICOSTEROIDS

### 6.3.1 REPLACEMENT THERAPY

**Fludrocortisone** 100 micrograms tablet

### 6.3.2 GLUCOCORTICOID THERAPY

#### Prednisolone

1 mg, 5 mg & 25 mg tablets,  
2.5 mg & 5 mg e/c tablets,  
5 mg soluble tablet

#### Prednisolone acetate

25 mg/ ml injection

#### Dexamethasone

500 micrograms & 2 mg tablets,  
2 mg / 5 ml oral solution,  
8 mg/ 2 ml injection

**Hydrocortisone** 10 mg & 20 mg tablets,  
100 mg injection (sodium succinate &  
phosphate salts),  
25 mg/ ml injection (acetate)

**Betamethasone** 500 microgram tablet &  
soluble tablet

#### Methylprednisolone sodium succinate

(Solu Medrone ®)

40 mg, 125mg, 500 mg & 1 g IM and IV  
injection

#### Methylprednisolone (Depo-Medrone ®)

40 mg/ ml & 80 mg/ 2 ml  
IM depot injection

**Notes:** Patients should be issued with and carry steroid treatment cards. Withdrawal of systemic corticosteroids should be gradual in certain patient groups. Refer to B.N.F for further advice

## 6.4 SEX HORMONES

### 6.4.1 FEMALE SEX HORMONES

#### 6.4.1.1 OESTROGENS & HORMONE REPLACEMENT THERAPY

##### Oestrogen & progestogen (Cyclical oral preparations) Women with uterus

**Novofem**® tablets  
*(Use when oestrogen of equine origin is not acceptable)*

**Premique Cycle**® tablets  
*(Use when non-androgenic progesterone is needed)*

**Tridestra**® tablets  
*(Produces 3 monthly bleeds  
For use in peri-menopausal women when monthly bleeds are unacceptable)*

**Trisequens**® tablets

##### Oestrogen & progestogen (Continuous oral preparations) Women with uterus

For use when cyclical bleeding is unacceptable. Only for truly menopausal women, i.e. >54 years of age or at least 12 months since last natural bleed

**Climesse**® tablets  
*(Use when oestrogen of equine origin is not acceptable)*

**Kliovance**® tablets  
( Lower strength HRT. For menopausal symptoms in patients unable to tolerate Climesse®)

##### Oestrogen & progestogen (patches) Women with uterus

##### **Evorel Conti**®

Twice weekly patch  
*(For Consultant use in patients meeting criteria for continuous combined HRT in whom oral therapy undesirable)*

##### Oestrogen only (tablets) Women without uterus

**1<sup>st</sup> Choice: Premarin**® 0.625 mg & 1.25 mg tablets

**Alternative: Climaval**® 1 mg & 2 mg tablets  
*(Use when oestrogen of equine origin is not acceptable)*

##### Oestrogen only (patches) Women without uterus

**Femseven**®  
Once weekly patch  
*(Transdermal preparation of choice)*

**Evorel**®  
Twice weekly patch  
*(Use when extended dosing range is required or once weekly patches have been unsuccessful)*

## IMPLANTS

### Estradiol

25 mg, 50 mg & 100 mg implants

**Raloxifene** 60 mg tablet  
*(For prevention of vertebral fractures in post-menopausal women at increased risk of osteoporosis & intolerant of HRT)*

**Tibolone** 2.5 mg tablet  
*(For use in women who exhibit idiosyncratic reactions to oestrogen or in whom oestrogen administration should be avoided. Consultant Gynaecologist only)*

#### 6.4.1.2 PROGESTOGENS AND PROGESTERONE RECEPTOR MODULATORS

**Dydrogesterone** 10 mg tablet

**Medroxyprogesterone acetate**

5 mg & 10 mg tablets

**Norethisterone** 5 mg tablet

**Progesterone**

200 mg & 400 mg pessaries,  
4 % & 8 % gel,  
100 mg/ 2 ml injection (*approved for post-natal depression, unlicensed use*)

**Progesterone receptor modulators**

**Ulipristal acetate (Esmya®)** 5mg tablets

**6.4.2 MALE SEX HORMONES & ANTAGONISTS**

**TESTOSTERONE & ESTERS**

**Testosterone undecanoate**

(Restandol® Testocaps) 40 mg capsule

**1<sup>st</sup> Choice: Testosterone** mucoadhesive buccal 30mg m/r tablets (Straint® SR)

**2<sup>nd</sup> Choice: Testosterone** 100 mg & 200 mg implant

**3<sup>rd</sup> Choice: Testosterone** 50 mg/5 g gel (Testim ®)- to be applied topically for hypogonadism due to testosterone deficiency in men

**Testosterone enantate**

250 mg/ ml injection

**ANTIANDROGENS**

**Cyproterone acetate**

50 mg & 100 mg tablets

**Finasteride** 5 mg tablet

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**6.5 HYPOTHALAMIC & PITUITARY HORMONES & ANTI-OESTROGENS**

**6.5.1 ANTI-OESTROGENS**

**Clomifene** 50 mg tablet

**CORTICOTROPHINS**

**Tetracosactide**

Synacthen ® 250 micrograms/ ml injection

Synacthen Depot ® 1 mg/ ml IM injection

**Notes:** For short **Synacthen test** for the diagnosis of adrenocortical insufficiency. Give Synacthen ® 250 micrograms by IV/ IM injection. Take blood for cortisol (serum SST tube) pre-injection, 30 minutes and 60 minutes. Send all three samples to biochemistry. Normal response is a rise of more than 200 nmol/ L to a level of greater than 550 nmol/ L

**GONADOTROPHINS**

**For use at the Infertility Clinic only**

**Chorionic gonadotrophin**

1500, 2000 & 5000 units injection

**Follitropin alfa (Gonal-F ®)**

75 units & 450 units injection

**Follitropin beta (Puregon ®)**

50 units injection

**Human menopausal gonadotrophins**

Menogon ®/ Menopur ® injection

**GROWTH HORMONE**

**nPbR Somatropin**

16 units, 18 units & 36 units injection (*as per shared care protocol*)  
(Norditropin SimpleXx, NutropinAq, Saizen, Humatope, Genotropin, Omnitrope & Zomactan)

## HYPOTHALAMIC HORMONES

**Gonadorelin** (GnRH; LH-RH)  
100 micrograms injection

**Protirelin** (TRH)  
200 micrograms/ 2 ml injection

## 6.5.2 POSTERIOR PITUITARY HORMONES & ANTAGONISTS

### POSTERIOR PITUITARY HORMONES

**Vasopressin** (Synthetic Argipressin)  
20 units/ ml injection

**Desmopressin** 100 micrograms tablet,  
100 micrograms/ ml intranasal solution,  
10 micrograms/ metered dose spray,  
4 micrograms/ ml injection

**Terlipressin** 1 mg injection

### ANTIDIURETIC HORMONE ANTAGONISTS

**Demeclocycline** 150 mg capsule

**Tolvaptan** (Samsca®) 15mg & 30mg tablets

*(Tolvaptan for the treatment of hyponatremia secondary to syndrome of inappropriate antidiuretic hormone secretion is to be prescribed and monitored by Endocrinologists and treatment course will not exceed 10 days. A tickbox form is required)*

*Tolvaptan has also been approved by NICE TA358 May 2016 for the treatment of autosomal dominant polycystic kidney disease. These patients are not being treated at BHRUT at this point, they are being referred to a dedicated clinic at Royal London Hospital*

## 6.6 DRUGS AFFECTING BONE METABOLISM

### 6.6.1 CALCITONIN

**Calcitonin (salmon) (Salcatonin)**  
50 units/ ml & 100 units/ ml injection  
400 units/ 2 ml injection

#### nPbR Teriparatide

250 micrograms/ml injection

*(Consultant Rheumatologists only)*

### 6.6.2 BISPSPHONATES

**Alendronic acid (alendronate)**  
10 mg tablet (once daily)

70mg once weekly tablet

**Notes:** Daily alendronic acid is reserved for the treatment of osteoporosis in men only. **Once weekly preparations are unlicensed for this indication**

#### Risedronate sodium

5 mg once daily tablet, 35 mg once weekly tablet

30mg tablet licensed for treatment of Paget's disease of bone 30mg daily for 2 months; maybe repeated if necessary after at least 2 months

**Pamidronate disodium** 15 mg injection

**Ibandronic acid** 50mg tablets and concentrate for IV infusion  
(Bondronat®)

#### Sodium clodronate

400 mg capsule,  
520 mg & 800 mg tablets  
*(Haematologists & Radiotherapists only)*

#### nPbR Zoledronic acid (Aclasta®)

5mg in 100ml infusion  
*(Consultant Rheumatologists and Orthogeriatricians only)*

**Notes:** Zoledronic acid is indicated in postmenopausal osteoporotic patients

who are intolerant of oral bisphosphonates and have suffered two fractures despite oral treatment and have a secondary cause for osteoporosis.

**Zoledronic acid (Zometa®)**

4mg vial

(Consultant Oncologists only)

**Notes:** Zometa is indicated in oncology patients for hypercalcaemia of malignancy.

**Denosumab** Injection 60mg/ml 1ml pre-filled syringe (**Prolia®**) (Consultant Rheumatologists and Orthogeriatricians or as per NICE recommendations)

**Notes:** Prolia® is indicated in postmenopausal women at increased risk of fractures who are unable to comply with the special instructions for administering alendronate and either risedronate or ibandronic acid or have an intolerance of, or a contraindication to those treatments.

Denosumab 70mg/ml 120mg vial (**Xgeva®**). (Consultants oncologists only as per NICE recommendations)

**Notes:** Xgeva® is indicated for the prevention of skeletal-related events in adults with bone metastases from solid tumours.

**6.7.2 DRUGS AFFECTING GONADOTROPHINS**

**Danazol** 100 mg & 200 mg capsules

**Goserelin** (Zoladex®) 3.6 mg Implant (for prostate & breast cancer, please see section 8.3.4.2)

**Leuprorelin** (Prostap SR DCS®) 3.75 mg injection (Gynaecologists only for Endometriosis unresponsive to other treatments)

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**6.7 OTHER ENDOCRINE DRUGS**

**6.7.1 BROMOCRIPTINE & OTHER DOPAMINERGIC DRUGS**

**Bromocriptine**

1 mg, 2.5 mg & 5 mg tablets, 10 mg capsule

**Cabergoline**

500 micrograms tablet

## 7 OBSTETRICS, GYNAECOLOGY & URINARY-TRACT DISORDERS

### 7.1 DRUGS USED IN OBSTETRICS

#### 7.1.1. PROSTAGLANDINS & OXYTOCICS

**Carboprost** 250 micrograms/ ml injection  
(Available for patients unresponsive to ergometrine & oxytocin)

**Dinoprostone** (Prostin E2 ®)  
3 mg vaginal tablet,  
1 mg & 2 mg vaginal gel  
10mg pessary within retrieval device  
(Propess®)

**Notes:** Prostin E2 vaginal tablet & vaginal gel are not bioequivalent

**Ergometrine maleate**  
500 micrograms/ ml injection

**Ergometrine & oxytocin**  
(Syntometrine ®)  
500 micrograms & 5 units/ ml injection

**Gemeprost** 1 mg pessaries

**Oxytocin** (Syntocinon ®)  
5 units/ ml & 10 units/ ml injection

**Misoprostol**  
100 & 200 micrograms tablets  
(Induction of Labour,  
Cervical priming prior to termination,  
Medical termination in 2<sup>nd</sup> trimester,  
Post-partum haemorrhage,  
Unlicensed indications)

**Methotrexate** injection  
(Ectopic pregnancy in line with protocol,  
unlicensed indication)

#### 7.1.1.1. DUCTUS ARTERIOSUS

#### MAINTENANCE OF PATENCY

**Alprostadil** (Prostin VR ®)  
500 micrograms/ ml injection

#### CLOSURE

**Ibuprofen** (Orphan drug)  
5 mg/ml injection- (*treatment of closing patent ductus arteriosus (PDA) in preterm newborn infants*) indomethacin is no longer used because of adverse effects such as necrotising enterocolitis (NEC).  
*Ibuprofen has a better side effect profile*)

#### 7.1.2 MIFEPRISTONE

**Mifepristone** 200 mg tablet

#### 7.1.3 MYOMETRIAL RELAXANTS

**Ritodrine hydrochloride**  
10 mg tablet, 50 mg/ 5 ml injection

**Atosiban**  
37.5 mg/ 5 ml & 6.75 mg/ 0.9 ml injection-  
(for use in patients with contraindications to ritodrine)

**Salbutamol**  
(See section 3.1.1.1 for strengths of injection)

**Terbutaline**  
0.5 mg/ ml & 2.5 mg/ 5 ml injection (for management of uterine hyperstimulation during induced labour-unlicensed use)

### 7.2 TREATMENT OF VAGINAL & VULVAL CONDITIONS

#### 7.2.1 PREPARATIONS FOR VAGINAL ATROPHY

#### OESTROGENS, TOPICAL

**Estriol** (Ortho-Gynest ®)  
0.01 % Intravaginal cream

**Conjugated oestrogens (equine)**

(Premarin ®) vaginal cream

**Estradiol (Vagifem ®)**

25 micrograms vaginal tablets

**Estradiol (Estring ®)**

7.5 micrograms/ 24 hours vaginal ring  
(Use only when creams or vaginal tablets  
& systemic administration are  
inappropriate, Consultant Gynaecologists  
only)

**7.2.2 ANTI-INFECTIVE DRUGS**

**PREPARATIONS FOR VAGINAL &  
VULVAL CANDIDIASIS**

**Clotrimazole**

100 mg, 200 mg & 500 mg pessaries,  
1 %, 2% & 10 % vaginal cream

**Econazole nitrate** 150 mg pessary

**PREPARATIONS FOR OTHER  
VAGINAL INFECTIONS**

**Clindamycin phosphate** (Dalacin ®)  
Cream

**Metronidazole 0.75% gel** (Zidoval®)

*(alternative to oral metronidazole for the  
treatment of bacterial vaginosis)*

**Povidone-iodine** (Betadine ®)

200 mg pessary (*G.U. Medicine only*)

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**7.3 CONTRACEPTIVES**

**7.3.1 COMBINED HORMONAL  
CONTRACEPTIVES**

**LOW STRENGTH (ORAL)**

Ethinylestradiol & Desogestrel  
**Mercilon** ® tablet

**LOW STRENGTH (VAGINAL)**

Ethinylestradiol with Etonogestrel  
**NuvaRing**® vaginal ring

**STANDARD STRENGTH**

Ethinylestradiol & Levonorgestrel  
**Levest 150/30** tablet  
**Logynon** ® tablet

Ethinylestradiol & Norethisterone  
**TriNovum** ® tablet

**Ovysmen** ® tablet (*Havering Community  
only*)

Ethinylestradiol & Norgestimate  
**Cilest** ® tablet



Ethinylestradiol & Desogestrel  
**Gedarel**® tablet

Ethinylestradiol & Drospirenone  
**Yasmin**® tablet

Ethinylestradiol & Gestodene  
**Femodene**® tablet  
**Millinette**®

**Note: Femodene, Gedarel, Mercilon & Millinette** are associated with a higher incidence of thrombosis & are available only for women who have experienced problems with other oral contraceptives & who have given their full, informed consent

#### EMERGENCY CONTRACEPTION

Levonorgestrel (**Levonelle**® 1500) tablet  
(*Family planning & GUM clinic only*)

Ulipristal acetate 30mg (**ellaOne**®) tablet

#### 7.3.2 PROGESTOGEN-ONLY CONTRACEPTIVES

##### 7.3.2.1 ORAL PROGESTOGEN-ONLY CONTRACEPTIVES

Desogestrel (**Cerazette**®)  
(*Dr Hollingworth only*)

Etinodiol (**Femulen**®) tablet

Norethisterone (**Micronor**®) tablet

Levonorgestrel (**Norgeston**®) tablet

##### 7.3.2.2 PARENTERAL PROGESTOGEN-ONLY CONTRACEPTIVES

**Medroxyprogesterone acetate**  
(Depo-Provera®)  
150 mg pre-filled syringe

**Subcutaneous Medroxyprogesterone acetate** ( Sayana Press®) 104mg

**Etonogestrel** (Nexplanon®) Implant  
(*Family planning clinics only*)

#### 7.3.2.3 INTRA-UTERINE PROGESTOGEN-ONLY CONTRACEPTIVES

**Mirena**® Intrauterine system

**Jaydess**® Intrauterine system

**Levosert**® Intrauterine system

**Kyleena**® Intrauterine system

#### 7.3.3 SPERMICIDAL CONTRACEPTIVES

**Nonoxinol '9' 2% Gel** 30g  
(**Gygel**®)

#### 7.3.4 CONTRACEPTIVE DEVICES

**GyneFix**®

**Nova-T**® 380

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### 7.4 DRUGS FOR GENITO-URINARY DISORDERS

#### 7.4.1 DRUGS FOR URINARY RETENTION

##### ALPHA-BLOCKERS

**Alfuzosin** (Xatral XL®)  
10 mg m/r tablet

**Indoramin** 20 mg tablet

**Tamsulosin** 400 micrograms m/r capsule

**Notes:** The use of alpha-blockers is associated with postural hypotension, particularly after the first dose. Elderly patients, those with a history of orthostatic hypotension or those who are receiving hypotensive therapy are particularly at risk

## PARASYMPATHOMIMETICS

**Bethanechol chloride** 10 mg tablet

**Distigmine bromide** 5 mg tablet

### 7.4.2 DRUGS FOR URINARY FREQUENCY, ENURESIS & INCONTINENCE

**1<sup>st</sup> Choice: Oxybutynin**

2.5 mg & 5 mg tablet, 2.5 mg/ 5 ml elixir

#### 2<sup>nd</sup> Choices

**Solifenacin succinate** (Vesicare®)

5mg and 10mg film-coated tablets

**Tolterodine** 1mg and 2mg immediate release tablets

**Fesoterodine** (Toviaz®)

4mg and 8mg m/r tablets

**Propantheline** 15 mg tablet

**Duloxetine** 20mg and 40mg capsules  
(last line for stress urinary incontinence as per NICE)

**Mirabegron** (Betmiga®)

25mg and 50mg m/r tablets

### 7.4.3 DRUGS USED IN UROLOGICAL PAIN

**Potassium citrate**

3 g granules & mixture BP

**Notes:** These granules should be taken with plenty of water.

**Caution:** 3 g sachet or 10 ml of mixture contains 28 mmol of potassium

### 7.4.4 BLADDER INSTILLATIONS & UROLOGICAL SURGERY

**Sodium Chloride 0.9 %** (Uro-tainer ®)

**Glycine 1.5 %** Irrigation solution

### 7.4.5 DRUGS FOR ERECTILE DYSFUNCTION

**Alprostadil**

(Caverject ®) (*Urologists only*)

5 micrograms, 10 micrograms, 20 micrograms & 40 micrograms injection

(Viridal Duo®) **starter pack**

10 micrograms, 20 micrograms & 40 micrograms starter pack

(MUSE ®) (*Urologists only*)

250 micrograms, 500 micrograms & 1 mg urethral application

**Papaverine**

30 mg, 40 mg & 80 mg injection

(*Unlicensed product, Urologists only*)

**1<sup>st</sup> Choice: Sildenafil** 25 mg, 50mg & 100mg tablets

#### Alternatives treatments

**Tadalafil** 2.5mg, 5mg, 10mg & 20mg tablets (*1<sup>st</sup> or 2<sup>nd</sup> line in patients who require more spontaneity and post prostatectomy*).

**Vardenafil** 5mg, 10mg & 20mg tablets (*Urologists only*). *To be used 2nd line after Sildenafil in non-responders and older patients over 70 yrs old.*

**Notes:** Sildenafil is contraindicated in patients receiving nitrates. Prescriptions for erectile dysfunction need to be endorsed with SLS & signed by Consultant Urologists only. Supply is one tablet per week, with a maximum of one month supply only

#### PRIAPISM

**Etilefrine** 5mg tablets – unlicensed see Priapism guidelines on the intranet.

## 8 MALIGNANT DISEASE & IMMUNOSUPPRESSION

The drugs in this section are potentially highly toxic and should therefore, be used only by clinicians experienced in their use.

**For advice on the use of the drugs the opinion of a Consultant in radiotherapy and oncology should be sought.**

A central cytotoxic reconstitution service, based in the pharmacy, is in operation and should be always be used. The service presents the cytotoxic drug in its final form ready for use, i.e. the exact dose required drawn up in a syringe or in an infusion bag, labelled with the patient's name.

For advice on the handling of cytotoxic drugs please contact one of the numbers below.

**For information about the reconstitution service, telephone Ext. 3029 (QH) or 8272 (KGH)**

### 8.1.1 ALKYLATING AGENTS

<b>Busulfan</b>	tablets
<b>Bendamustine</b>	injection
<b>Carmustine</b>	injection
<b>Chlorambucil</b>	tablets
<b>Cyclophosphamide</b>	tablets & injection
<b>Ifosfamide</b>	injection
<b>Lomustine</b>	capsules
<b>Melphalan</b>	tablets & injection

### UROTHELIAL TOXICITY

<b>Mesna</b>	tablets & injection
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### 8.1.2 CYTOTOXIC ANTIBIOTICS

<b>Bleomycin</b>	injection
<b>Daunorubicin</b>	injection
<b>Doxorubicin</b>	injection
<b>Epirubicin</b>	injection
<b>Idarubicin</b>	capsules & injection

**Mitomycin** injection  
(*Bladder instillation, Consultant Urologists only*)

(Also for Pterygium excision and trabeculectomy in Ophthalmology – Consultant Ophthalmologists only)

**Mitoxantrone** (Mitozantrone) infusion  
**Pixantrone** injection (Pixuvri®)  
(as per NICE 306)

**Notes:** Pixantrone monotherapy is recommended as an option for treating multiply relapsed or refractory aggressive non-Hodgkin's B-cell lymphoma in patients:

- Who have previously been treated with rituximab and
- Who are receiving third- or fourth-line treatment and
- If the manufacturer provides pixantrone with the discount agreed in the patient access scheme

### 8.1.3 ANTIMETABOLITES

<b>Azacitidine</b>	injection
<b>Capecitabine</b>	tablets
<b>Cytarabine</b>	injection
<b>Fludarabine</b>	injection
<b>Fluorouracil</b>	injection & cream ( <i>cream: Dermatologists only</i> )
<b>Gemcitabine</b>	injection
<b>Mercaptopurine</b>	tablets
<b>Methotrexate</b>	tablets, Injection
<b>Pemtrexed</b>	injection
<b>Tegafur With Uracil</b>	capsules
<b>Tioguanine</b>	tablets
<b>Liposomal cytarabine – daunorubicin</b>	injection

**FOLINIC ACID RESCUE****Calcium Folate** tablets & injection**8.1.4 VINCA ALKALOIDS & ETOPOSIDE**

**Vinblastine** injection  
**Vincristine** injection  
**Vindesine** injection  
**Vinorelbine** injection & capsules

**Notes: Vinca alkaloids should only be given IV. Inadvertent Intrathecal administration can be fatal**

**Etoposide** capsules & injection**8.1.5 OTHER ANTINEOPLASTIC DRUGS**

**nPbR Abemaciclib** tablets  
**nPbR Alectinib** capsules  
**Amsacrine** infusion  
**Altretamine** capsules  
*(Radiotherapists only)*  
**nPbR Anagrelide** tablets  
**nPbR Bortezomib** injection  
**nPbR Cetuximab** infusion  
**nPbR Crizotinib** capsules  
**nPbR Dacarbazine** injection  
**nPbR Eribulin** capsules  
**Hydroxycarbamide (Hydroxyurea)** capsules  
**nPbR Axitinib** tablets  
**nPbR Ceritinib** capsules  
**nPbR Dasatinib** tablets (for 2<sup>nd</sup> or 3<sup>rd</sup> line treatment of CML in line with Cancer network recommendations)  
**nPbR Everolimus** tablets

**nPbR Ibrutinib** capsules  
**nPbR Idelalisib** 150mg tablets  
**nPbR Imatinib** capsules  
**nPbR Ixazomib** capsules  
**nPbR Lapatinib** tablets

**Notes: CCGs funding is required for Lapatinib**

**nPbR Lenvatinib (Kisplyx®) (Lenvima®)** capsules

**nPbR Nilotinib** capsules  
**nPbR Nintedanib** capsules  
**nPbR Osimertinib** tablets  
**nPbR Pomalidomide** capsules  
**nPbR Ponatinib** tablets  
**nPbR Regorafenib** tablets  
**nPbR Ribociclib** tablets  
**nPbR Sorafenib** tablets  
**nPbR Sunitinib** capsules

**Notes: CCGs funding is required for nilotinib, sorafenib and sunitinib**

**nPbR Venetoclax** tablets

**Pentostatin** injection

**PLATINUM COMPOUNDS**

**Carboplatin** injection  
**Cisplatin** injection  
**Oxaliplatin** injection  
**Procarbazine** capsules

**TAXANES**

**Docetaxel** infusion (Approved 3<sup>rd</sup> line therapy for metastatic prostate cancer)

**Paclitaxel** infusion

**Paclitaxel (as albumin-bound nanoparticles)** infusion

**Cabazitaxel** intravenous infusion 40mg/ml

## ANTINEOPLASTIC DRUGS – Monoclonal Antibodies

**nPbR Avelumab** injection

**nPbR Atezolizumab** injection

**nPbR Brentuximab vedotin** injection

**nPbR Daratumumab** injection

**nPbR Durvalumab** injection

**nPbR Nivolumab** injection

**nPbR Obinutuzumab** injection

**nPbR Ofatumumab** injection

**nPbR Pembrolizumab** injection

**nPbR Pertuzumab** injection

**nPbR Ramucirumab** injection

**nPbR Trastuzumab** injection

## TOPOISOMERASE I INHIBITORS

**Irinotecan hydrochloride** infusion

**Topotecan** infusion

**nPbR Thalidomide** tablets  
(Haematologists only for multiple myeloma and myelofibrosis with cytopenias +/- splenomegaly)

## ONCOLYTIC VIRAL THERAPY

**nPbR Talimogene laherparepvec** injection

## TARGETED THERAPY

**nPbR Radium 223 dichloride** injection

## 8.2 DRUGS AFFECTING THE IMMUNE SYSTEM

### 8.2.1 ANTIPROLIFERATIVE IMMUNOSUPPRESSANTS

#### Azathioprine

25 mg & 50 mg tablets, 50 mg injection

#### Mycophenolate mofetil

250 mg capsule, 500 mg tablet

*(Unlicensed use - Treatment of lupus nephritis in child-bearing age patients & other autoimmune diseases in similar age groups)*

*(Also for second-line treatment of severe psoriasis when other treatments have failed – Consultant Dermatologists only)*

#### nPbR Cladribine

10mg tablets

*(For the treatment of relapsing-remitting multiple sclerosis – NICE TA493)*

### 8.2.2 CORTICOSTEROIDS & OTHER IMMUNOSUPPRESSANTS

#### Prednisolone

*See section 6.3.2 for preparations)*

#### Ciclosporin (Cyclosporin)

**Neoral**®

10 mg, 25 mg 50 mg & 100 mg capsules, 100-mg/ ml oral solution

*(Specialist use only)*

Ciclosporin 1mg per ml eye drops

0.3ml dose units (**Ikervis**®)

Ciclosporin 1mg/ml eye drops 0.3ml dose units (**Verkazia**®)

### 8.2.3 RITUXIMAB

**Rituximab** 10mg/ml, 10ml and 50ml vial for infusion (for Rheumatoid Arthritis)

### 8.2.4 OTHER IMMUNOMODULATING DRUGS

**nPbR Glatarimer** 20mg/L subcut. injection

**Lenalidomide capsules**

(3<sup>rd</sup> line treatment of multiple myeloma, CCGs funding essential before prescribing)

**nPbR Interferon alfa** (Roferon A ®) injection  
3, 4.5 & 18 million-units vial,  
3, 4.5 & 9 million-units pre-filled syringe,  
18 million-units multidose cartridges

**nPbR Interferon beta-1b** (Betaferon ®)  
9.6 million-unit injection  
*Consultant Neurologists only*

**nPbR Peginterferon alfa-2a**  
*(Check brands & strengths stocked with Pharmacy)*  
*(Consultant Gastroenterologist only, for patients with chronic hepatitis B and C)*

*(Consultant Haematology for patients with polycythaemia vera or essential thrombocythaemia)*

**nPbR Peginterferon beta-1a** (Plegridy®)  
*(Consultant Neurologists Only)*

**BCG (Bacillus Calmette-Guerin)**  
Bladder installation  
*(Consultant Urologists only)*

**nPbR Dimethyl Fumarate (Tecfidera®)**  
120mg & 240mg e/c capsules  
*(Consultant Neurologists only as per NICE TA320)*

**IMMUNOSUPPRESSANTS >  
MONOCLONAL ANTIBODIES > ANTI-LYMPHOCYTE**

**Anti-lymphocyte monoclonal antibodies**

**nPbR Alemtuzumab** 10mg/ml  
concentrate for solution for infusion vials

**nPbR Ocrelizumab** 30mg/10ml  
concentrate for solution for infusion vials

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**8.3 SEX HORMONES &  
HORMONE ANTAGONISTS IN  
MALIGNANT DISEASE**

**8.3.1 OESTROGENS**

**Diethylstilbestrol (Stilboestrol)**  
1 mg tablet

**8.3.2 PROGESTOGENS**

**Medroxyprogesterone acetate**  
100 mg, 400 mg & 500 mg tablets  
*(See section 6.4.1.2 for other strengths)*

**Megestrol acetate**  
40 mg & 160 mg tablets

**Norethisterone**  
5 mg tablet

**8.3.3 ANDROGENS**

*(See section 6.4.2 for preparations)*

**8.3.4 HORMONE ANTAGONISTS**

**8.3.4.1 BREAST CANCER**

**Tamoxifen** 10 mg & 20 mg tablets,  
10 mg/ 5 ml oral solution

**nPbR Fulvestrant** 250mg/5ml solution  
for injection

**Anastrozole** 1 mg tablet

**Exemestane** 25 mg tablet  
*(2<sup>nd</sup> line after 2 – 3yrs of tamoxifen therapy)*

**Letrozole** 2.5mg tablet

**Patent Blue V (Sulphan Blue)**  
*(Unlicensed product. Diagnostic dye used to stain metastatic lymph nodes in axilla)*

**8.3.4.2 PROSTATE CANCER &  
GONADORELIN ANALOGUES**

**Notes:** For patients receiving their first course of treatment, anti-androgens should be started three days before the gonadorelin analogue & normally continued for three weeks. This will help

to avoid the tumour 'flare' that may occur after commencing gonadorelin therapy

*Refer prescriptions to Senior Principal Pharmacist, Clinical Services)*

**Abiraterone (Zytiga®) 250mg tablets**

*(To be funded via Cancer Drugs Fund)*

**Bicalutamide**

50 mg & 150 mg tablets  
*(Urologists only)*

**Cyproterone acetate**

50 mg & 100 mg tablets

**Flutamide 250 mg tablet**

**Degarelix** injection 120mg vial (with diluent)

**Notes:** Approved for first dose treatment only with a switch to Triptorelin or Goserelin 28 days later

**Leuprorelin**

(Prostap SR DCS)  
3.75mg prefilled syringe

**Triptorelin**

(Decapeptyl® SR)  
(I/M injection)  
**3 mg prefilled syringe**

**Goserelin (Zoladex ®)**

3.6 mg Implant

**Notes:** In-patients should be encouraged to bring in their own supply. Patients on 10.8 mg (3 monthly injections) will receive 3.6 mg & their next injection scheduled to be given in one month

### **8.3.4.3 SOMATOSTATIN ANALOGUES**

**nPbR** Octreotide (Sandostatin ®) injection  
50 mcg/ ml, 100 mcg/ ml & 500 mcg/ ml

**nPbR Lanreotide**

**Somatuline ® LA**

**Somatuline ® Autogel**

*(For treatment of acromegaly, neuroendocrine tumours and thyroid tumours)*

## 9 NUTRITION & BLOOD

### 9.1 ANAEMIAS & SOME OTHER BLOOD DISORDERS

#### 9.1.1 IRON DEFICIENCY ANAEMIAS

##### 9.1.1.1 ORAL IRON

**Table: Iron content of different salts**

Iron salt	Amount	Content of ferrous iron
fumarate	200 mg 140 mg	65 mg 45 mg
sodium feredetate	190 mg	27.5 mg
glycine sulphate	141 mg	25 mg
gluconate	300 mg	35 mg
sulphate, dried	200 mg 325 mg	65 mg 105 mg

#### **Ferrous sulphate**

200 mg tablet,  
325 mg m/r tablet (Ferrograd®)

#### **Ferrous fumarate** (Fersamal®)

140 mg/ 5 ml syrup

#### **Ferrous gluconate**

300 mg tablet

#### **Sodium feredate** (Sytron®)

190 mg/ 5 ml elixir

### **FERROUS SULPHATE & FOLIC ACID**

#### **Pregaday®**

Ferrous fumarate (100 mg iron) &  
350 micrograms folic acid tablet

**Ferric Maltol** (Ferracru®) 30mg  
Capsules

**Notes:** Ferric maltol is approved as a first line alternative to IV iron for the treatment of iron deficiency anaemia in adults with inflammatory bowel disease (IBD). A course of 12 weeks treatment is required

Total supply to be given from the secondary care.

##### 9.1.1.2 PARENTERAL IRON

#### **Iron dextran** (CosmoFer®)

100 mg/ 2 ml IV/ IM injection

**Notes:** Parenteral iron therapy is hazardous. Elevation of Hb is not significantly faster by this route. Parenteral iron should be reserved for patients in whom oral therapy or transfusion is inappropriate or where compliance is a problem. Oral iron therapy should be continued for at least three months to replenish iron stores

#### **Iron Isomaltoside 1000** (Monofer®)

100mg/ml IV injection

#### **Iron carboxymaltose** (Ferinject®)

50mg/ml injection

### 9.1.2 DRUGS USED IN MEGALOBLASTIC ANAEMIAS

#### **Folic acid**

5 mg tablet  
2.5 mg/ 5 ml syrup

#### **Hydroxocobalamin** (Vitamin B<sub>12</sub>)

1000 micrograms/ ml injection

### 9.1.3 DRUGS USED IN HYPOPLASTIC, HAEMOLYTIC & RENAL ANAEMIAS

#### **ERYTHROPOIETIN**

#### **Erythropoietin beta** (NeoRecormon®)

500, 1000, 2000, 4000, 5000 &  
10,000 units pre-filled syringes

### **IRON OVERLOAD**

**nPbR 1<sup>st</sup> Choice:** Desferrioxamine 500 mg & 2 g injection



**nPbR 2<sup>nd</sup> Choice: Deferasirox** 125mg, 250mg, 500mg Dispersible tablets  
(*Haematologists' use only- where desferrioxamine is contraindicated or inadequate*)

**nPbR Alternative: Deferiprone** 500 mg tablet  
(*Haematologists only- use where desferrioxamine therapy is contraindicated, has failed or has caused serious toxicity*)

#### 9.1.4 DRUGS USED IN PLATELET DISORDERS

**Romiplostim** (Nplate®)

250 microgram s/c injection

#### 9.1.6 DRUGS USED IN NEUTROPENIA

**nPbR Filgrastim (G-CSF)** (Zarzio®)  
30 million- units (300 micrograms/0.5ml) pre-filled syringe for injection  
48 million- units (480 micrograms/0.5ml) pre-filled syringe for injection

*(Consultant Haematologist only, must be approved by Haematology Clinical Directorate Lead & Senior Principal Pharmacist, Technical Services)*

## 9.2 FLUIDS & ELECTROLYTES

### 9.2.1.1 ORAL POTASSIUM

**Potassium chloride**

**(Sando K®)**

12 mmol K<sup>+</sup> per effervescent tablet

**(Kay-Cee-L®)** 1 mmol/ ml syrup

**(Slow-K®)**

600 mg or 8 mmol K<sup>+</sup> per m/r tablet

*(For those intolerant to Sando-K®)*

**Notes:** **Slow-K** is generally no longer used because it has association with oesophageal or small bowel ulceration

### POTASSIUM REMOVAL

**Calcium polystyrene sulphonate powder (Calcium Resonium®)**

30g kit (for rectal administration)

**Notes:** U&E's *must* be monitored daily.  
300g pot

Resonium A may be used in patients who have a high calcium. However it is not recommended for use in patients with congestive heart failure as it contains sodium. These resins can be given rectally (see BNF for further advice)

**Patiromer calcium** (Veltassa®)

8.4g oral powder sachets

16.8g oral powder sachets

Patiromer is to be used only by consultant nephrologists

### 9.2.1.2 ORAL SODIUM AND WATER

**Sodium chloride** (Slow Sodium®)

10 mmol or 600 mg m/r tablet

### ORAL REHYDRATION SALTS

**Sodium chloride & glucose oral powder** (Dioralyte ® sachet)

### 9.2.1.3 ORAL BICARBONATE

**Sodium bicarbonate**

Provides 6 mmol each of Na<sup>+</sup> & HCO<sub>3</sub><sup>-</sup> per 600 mg tablet & 500mg capsules

## 9.2.2 PARENTERAL PREPARATIONS FOR FLUID & ELECTROLYTE IMBALANCE

### 9.2.2.1 ELECTROLYTES & WATER

#### SODIUM CHLORIDE

**0.9 %**

2 ml, 5 ml & 10 ml amp,  
50 ml vial,  
100 ml, 250 ml, 500 ml & 1000 ml bags,  
500 ml polyfusor

**0.45 %:** 500 ml bag

**0.18 %, 0.9 %, 1.8 %, 5 %:**  
500 ml polyfusors

#### SODIUM CHLORIDE & GLUCOSE

**0.18 % & 4 %:** 500 ml & 1000 ml bags  
**0.45 % & 5 %:** 500 ml bags

#### SODIUM LACTATE INTRAVENOUS INFUSION, COMPOUND (HARTMANN'S; RINGER-LACTATE)

500 ml & 1000 ml bags

**Plasma-Lyte** 1000ml bags

*(In critical care areas i.e. ITU, HDU and Theatres only)*

#### GLUCOSE

**5 %:** 100 ml, 250 ml, 500 ml &  
1000 ml bags

**10 %:** 500 ml & 1000 ml bags

**50 %:** 50 ml vial & minijet

#### POTASSIUM CHLORIDE & GLUCOSE 5 % INTRAVENOUS INFUSION

**10 mmol K<sup>+</sup>:** 500 ml bag

**20 mmol K<sup>+</sup>:** 500 ml & 1000 ml bags

**40 mmol K<sup>+</sup>:** 1000 ml bag

#### **Unlicensed preparation:**

**40 mmol K<sup>+</sup>:** 500 ml bag

#### **POTASSIUM CHLORIDE & SODIUM CHLORIDE 0.9 % INTRAVENOUS INFUSION**

**10 mmol K<sup>+</sup>:** 500 ml bag

**20 mmol K<sup>+</sup>:** 500 ml & 1000 ml bags

**40 mmol K<sup>+</sup>:** 1000 ml bag

#### **Unlicensed preparations:**

**40 mmol K<sup>+</sup>:** 100 ml (used in KGH ITU) & 500 ml bags

**50 mmol K<sup>+</sup>:** 50ml

**60 mmol K<sup>+</sup>:** 1000 ml bag

**80 mmol K<sup>+</sup>:** 1000 ml bag

**Notes:** The above unlicensed preparations, 40 mmol K<sup>+</sup> in 500 ml bag, 60 mmol & 80 mmol K<sup>+</sup> in 1000 ml bags are available on consultation with a Pharmacist. Refer to Trust Potassium Policy for further information. The Policy is also available on the Trust Intranet

#### **POTASSIUM CHLORIDE, SODIUM CHLORIDE 0.18 % & GLUCOSE 4 % INTRAVENOUS INFUSION**

**10 mmol K<sup>+</sup>:** 500 ml bag

**20 mmol K<sup>+</sup>:** 500 ml & 1000 ml bags

**40 mmol K<sup>+</sup>:** 1000 ml bag

#### **POTASSIUM CHLORIDE, SODIUM CHLORIDE 0.45 % & GLUCOSE 5 % INTRAVENOUS INFUSION**

#### **Unlicensed preparation:**

**20 mmol K<sup>+</sup>:** 500 ml bag

*(For paediatric DKA patients only)*

#### **POTASSIUM CHLORIDE CONCENTRATE 15 %, STERILE**

**20 mmol K<sup>+</sup>:** 10 ml amp.

**Notes:** This is available in designated areas, but ready mixed bags should be used in the first instance. This is treated as a Controlled Drug. See Trust Potassium Policy

**Notes:** Potassium Chloride Concentrate 15% has been approved for specific indication in Obstetrics. See Fetal Medicine Guidelines

**SODIUM BICARBONATE**

- 1.4 %: 500 ml polyfusor
- 4.2 %: 10 ml amp.  
500ml polyfusor & 4.2 % minijet
- 8.4 %: 10 ml amp, 50 ml minijet &  
100 ml infusion bottle

**WATER FOR INJECTION**

2 ml, 5 ml, 10 ml & 20 ml amps.

**9.2.2.2 PLASMA & PLASMA SUBSTITUTES**

**Albumin solution (Human)**

Isotonic solutions: 4.5 %  
Concentrated solutions: 20 %

**Notes:** Supply obtained from:

- Pathology (KGH)
- Pharmacy (Queens)

**PLASMA SUBSTITUTES**

**Dextran 70**

In 500 ml glucose 5 % or sodium chloride 0.9 % infusion

**Gelatin 4 % (Gelofusine ®)**

500 ml & 1000 ml infusion bags

**Succinylated gelatine (Gelaspan®)**

500ml & 1L infusion bags

**Etherified starch**

**HAEMOFILTRATION FLUIDS**

**Table:** Fluids stocked on ITU

	<b>HCO<sub>3</sub><sup>-</sup> free, Contains 40 mmol/ L Lactate</b>	<b>HCO<sub>3</sub><sup>-</sup> buffered, Contains 3 mmol/ L Lactate</b>
<b>20 mmol K<sup>+</sup></b>	Hemolactol	Prismasol 4

<b>per 5L bag</b>		
<b>K<sup>+</sup> free</b>	Lactasol	Hemosol B0

**Buffered Dialysis Solution**

Prismocal

**Phosphate Solution for haemodialysis/ haemofiltration**

PHOXILIUM 1.2 mmol/l

**Ready-to-use sterile solution for regional citrate anticoagulation**

Prismocitrate 10/2 solution

**Note:** Liaise with the ITU pharmacist if there are any queries on the above haemofiltration fluids

### 9.3 INTRAVENOUS NUTRITION

There is a multi-disciplinary nutrition team available to advise on any aspect of nutritional care. For information or help bleep the Nutrition Sister/Team or a Dietitian.

A Total Parenteral Nutrition compounding service is available from the Pharmacy Manufacturing unit. TPN solution formulae are based on Kabiven® range of products.

Each TPN solution must be prescribed on a TPN prescription sheet.

For advice telephone the Pharmacy Production unit on Ext. 3029 (QH) or 8272 (KGH). Adult TPN is **never an emergency & need not be initiated outside normal hours**

### 9.4 ORAL NUTRITION

**Notes:** For advice & information on the products available, please consult a dietitian

### 9.5 MINERALS

**Notes:** When using the following supplements, it is essential to monitor plasma concentrations of calcium, phosphate, potassium & other electrolytes

#### 9.5.1.1 CALCIUM (Ca<sup>2+</sup>) SUPPLEMENTS

##### Calcium gluconate

10 % (2.2 mmol Ca<sup>2+</sup>/ 10ml) injection

##### Calcium chloride

5 mmol/ 10 ml injection,  
10 % minijet for Resus.

##### Calcium carbonate (Adcal®)

1.5 g chewable tablets,  
600 mg or 15 mmol Ca<sup>2+</sup>/ tablet

**Notes:** Adult Patients admitted with other brands of calcium (including those with 12.6 mmol Ca<sup>2+</sup>/ tablet), should be converted to Adcal. The DTC has approved for pharmacists to change the prescription

##### Calcium carbonate (Cacit®)

1.25 g effervescent tablets,  
500 mg or 12.6 mmol Ca<sup>2+</sup>/ tablet  
(Paediatric patients)

**Notes:** If patients are on **Cacit® tubes**, as part of **Didronel PMO®**, they should use their own supply. If this is impossible, then a Cacit tube may be supplied. Ensure the in-patient chart states '**as part of Didronel PMO®**', but on discharge **ensure the TTA states** patient has OWN supply. If they are on last Cacit tube & do not have another box for discharge, a supply of Didronel PMO may be made

##### Calcium-Sandoz®

2.7 mmol (108.3 mg) Ca<sup>2+</sup>/ 5 ml syrup  
(Paediatrics only)

**Cinacalcet** 30 mg & 60 mg tablets  
(Approved for Renal physicians only in dialysis patients for the treatment of secondary hyperparathyroidism associated with chronic renal failure)

#### 9.5.2.2 HYPERCALCAEMIA

(See section 6.6.2 for preparations)

#### 9.5.1.3 MAGNESIUM (Mg<sup>2+</sup>)

**Magnesium aspartate anhydrate** 6.5g sachet containing 10mmol of Mg<sup>2+</sup>  
(Magnaspartate®)

##### Magnesium sulphate

50 % (2 mmol Mg<sup>2+</sup>/ ml) injection  
2 ml & 10 ml amps.  
Pre-filled syringes for Resus.

##### Magnesium glycerophosphate

4mmol tablet  
(Unlicensed, named patient only)

##### Magnesium oxide

4 mmol (160 mg) capsule

*(Unlicensed, named patient only)*

**Note:** Absorption of magnesium is poor when given orally

**Notes:** The CSM warns of potentially serious allergic adverse reactions, which may occur during, or shortly after, administration of Intravenous injection of Vitamins B & C (Pabrinex®), See B.N.F

### 9.5.2.1 PHOSPHATE (PO<sub>4</sub><sup>3-</sup>) SUPPLEMENTS

#### Phosphate-Sandoz®

16.1 mmol (500 mg) PO<sub>4</sub><sup>3-</sup> effervescent tablet

#### Phosphates polyfusor

50 mmol PO<sub>4</sub><sup>3-</sup> / 500 ml infusion

#### Addiphos®

40 mmol PO<sub>4</sub><sup>3-</sup> / 20ml solution

Refer to Guidelines for correcting Hypophosphataemia prior to the introduction of large volumes of feed (IV)

**Notes:** 20 ml solution of addiphos contains 30 mmol potassium. This is treated as a Controlled Drug & kept in designated areas.  
See Trust Potassium policy

### 9.5.2.2 PHOSPHATE (PO<sub>4</sub><sup>3-</sup>) BINDING AGENTS

#### Calcium carbonate (Adcal®)

1.5 g chewable tablets,  
600 mg or 15 mmol Ca<sup>2+</sup>/ tablet

#### Calcium carbonate (Cacit®)

1.25 g effervescent tablets,  
500 mg or 12.6 mmol Ca<sup>2+</sup>/ tablet

### 9.5.4 ZINC (Zn<sup>2+</sup>) SUPPLEMENTS

#### Zinc sulphate (Zincomed®)

220 mg (50 mg Zn<sup>2+</sup>/ capsule)

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## 9.6 VITAMINS

### 9.6.2 VITAMIN B GROUP

#### Thiamine (Vitamin B1)

50 mg & 100 mg tablets

#### Vitamins B & C (Pabrinex®)

High potency IV and IM injections

**Pyridoxine (Vitamin B6)**

10mg, 20 mg & 50 mg tablets,  
50 mg/ ml injection

**VITAMIN B COMPLEX PREPARATIONS**

**Vitamin B compound strong tablet**

**Notes:** The term Vitamin B complex is a generic one, which embraces various brand & generic compound formulations of Vitamin B

**9.6.3 VITAMIN C**

**Ascorbic acid**

100 mg, 200 mg & 500 mg tablets  
1g soluble tablets

**9.6.4 VITAMIN D**

**Calcium (2.4 mmol) & ergocalciferol**  
(Vitamin D<sub>2</sub>, Calciferol) (400 units)  
tablets

**Ergocalciferol** 3000 units/ ml solution  
(Unlicensed product)

**Alfacalcidol** (1 $\alpha$ -Hydroxycholecalciferol)  
(One-Alpha<sup>®</sup>)  
0.25 & 1 micrograms capsules

**Calcitriol** (1,25-Dihydroxycholecalciferol)  
0.25 micrograms capsule

**Calcium 600 mg or 15.1 mmol &  
Colecalciferol (Vitamin D<sub>3</sub>)**  
10 micrograms (400 units) tablet

<b>Colecalciferol</b>	<b>Capsule</b>	20
micrograms/800 units		

**Colecalciferol tablet** 20 micrograms/800  
units

**High dose oral vitamin D** 50,000 units  
tablets (Unlicensed)

**Adcal-D<sub>3</sub><sup>®</sup> and Adcal-D3 Dissolve<sup>®</sup>**  
(Adcal-D3 soluble for those with  
swallowing difficulties)

**9.6.5 VITAMIN E**

**Alpha tocopheryl acetate (Vitamin E)**

500 mg/ 5 ml suspension

**9.6.6 VITAMIN K**

**Menadiol sodium phosphate**

10 mg tablet (*Water-soluble*)

**Phytomenadione** (Vitamin K<sub>1</sub>)

(*See under Konakion brands below*)

Phytomenadione 10 mg tablet  
(unlicensed)

Konakion MM<sup>®</sup> 10 mg/ ml injection

(*Slow IV or IV infusion in  
glucose 5 % only*) NOT FOR IM injection

Konakion MM Paediatric<sup>®</sup>

2 mg/ 0.2 ml injection

(*May be administered by mouth, IM or  
IV injection*)

**Notes:** When Vitamin K is required,  
prescribe by brand name to avoid  
confusion.

For prevention of Vitamin K deficiency in  
malabsorption states, such as biliary  
obstruction or hepatic disease, the water-  
soluble Vitamin K preparation, menadiol,  
must be used.

IM injections are generally inappropriate  
in patients with bleeding disorders

**9.6.7 Multivitamin preparations**

**Multivitamin** tablet & capsule

**Abidec<sup>®</sup>** drops

**Forceval<sup>®</sup>** capsule

(*Dietitian recommendation only*)

**Ketovite** tablet & liquid

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**9.8 METABOLIC DISORDERS**

**9.8.1 WILSON'S DISEASE**

**Penicillamine** 125 mg & 250 mg tablets

**Notes:** Patients who are penicillin-  
allergic, may react rarely to penicillamine

**Other metabolic disorders.**

**Biotin** 5mg tablet and 5mg/ml injection

## 10 MUSCULOSKELETAL & JOINT DISEASE

### 10.1 DRUGS USED IN RHEUMATIC DISEASES & GOUT

#### 10.1.1 NON-STEROIDAL ANTI-INFLAMMATORY DRUGS

##### **Ibuprofen**

200 mg & 400 mg tablets,  
100 mg/ 5 ml suspension,  
800 mg Retard tablets  
(Rheumatologists only)  
5 mg/ml injection  
(Paediatricians only, for closure of PDA)

##### **Diclofenac**

25mg & 50 mg e/c tablets,  
50 mg dispersible tablets,  
12.5 mg, 25 mg, 50 mg &  
100 mg suppositories,  
100mg SR tablets (Rheumatologists only)

**Note:** E/c tablets should not be used PRN, as this has a delayed onset of action

**Arthrotec ® 50 (Diclofenac 50 mg & Misoprostol 200 micrograms) tablet**  
(Rheumatologists, Gastroenterologists & Geriatricians only)

**Arthrotec ® 75 (Diclofenac 75 mg & Misoprostol 200 micrograms) tablet**  
(Rheumatologists, Gastroenterologists & Geriatricians only)

##### **Celecoxib**

100 mg & 200 mg capsules  
(Consultant Rheumatologist, 2<sup>nd</sup> line within set criteria)

##### **Flurbiprofen**

50 mg & 100 mg tablets  
(Ophthalmologists only)

##### **Indometacin (Indomethacin)**

25 mg & 50 mg capsules,  
75 mg m/r capsule,  
100 mg suppositories

##### **Ketoprofen**

50 mg & 100 mg capsules,  
100 mg m/r capsule

##### **Mefenamic acid**

250 mg capsule, 500 mg tablet,  
(Menorrhagia & Dysmenorrhoea only)

##### **Meloxicam**

7.5 mg & 15 mg tablets  
(Rheumatologists only)

##### **Nabumetone**

500 mg tablet  
(Rheumatologists only)

##### **Naproxen**

250 mg tablet & e/c tablet,  
25 mg/ ml suspension

##### **Diclofenac** solution for injection

75mg/ml  
(Theatres only)

##### **Piroxicam**

10 mg & 20 mg capsules  
20mg (Feldene Melt) tablet

### ASPIRIN & THE SALICYLATES

#### **Aspirin**

300 mg tablet & suppository

#### 10.1.2 CORTICOSTEROIDS

##### 10.1.2.1 SYSTEMIC CORTICOSTEROIDS

(See section 6.3 for preparations)

##### 10.1.2.2 LOCAL CORTICOSTEROID INJECTIONS (Specialist use only)

##### **Hydrocortisone acetate**

(Hydrocortistab ®) 25 mg/ ml injection

##### **Methylprednisolone acetate**

(Depo-Medrone ®)

40 mg/ ml and 80 mg/ 2 ml injection



**Methylprednisolone acetate (Depo-Medrone ®) with Lidocaine**

40 mg (Methylprednisolone) & 10 mg (Lidocaine)/ ml  
1ml and 2ml vials

**Prednisolone acetate (Deltastab ®)**

25 mg/ ml injection

**Triamcinolone acetonide**

**(Adcortyl ®)** 10mg/ ml injection

1ml and 5ml vials

*(Intra-articular or Intradermal administration only)*

**(Kenalog ®)** 40mg/ ml injection

1ml vial and 1ml prefilled syringe

*(Intra-articular or Intramuscular administration only)*

**10.1.3 DRUGS WHICH SUPPRESS THE RHEUMATIC DISEASE PROCESS**

**Sodium Aurothiomalate (Gold)**

10 mg, 20 mg & 50 mg in 0.5 ml injection  
*(Consultant Rheumatologists only)*

**Auranofin** 3 mg tablet

**Penicillamine** 125 mg & 250 mg tablets

**Notes:** Patients who are hypersensitive to penicillin may react rarely to penicillamine

**ANTI-MALARIALS**

**Chloroquine** *(see section 5.4.1 for preparations)*

**Hydroxychloroquine sulphate**

200 mg tablet

**DRUGS AFFECTING THE IMMUNE RESPONSE**

**Azathioprine**

25 mg & 50 mg tablets

**Ciclosporin (Cyclosporin)**

**(Neoral ®)**

25 mg, 50 mg & 100 mg tablets  
*(Specialist use only)*

**Cyclophosphamide**

50 mg tablet

*(Specialist use only)*

**Leflunomide**

10 mg, 20 mg & 100 mg tablets

*(RA in patients unresponsive to other DMARDs, Consultant Rheumatologists only)*

**Methotrexate**

2.5 mg tablets *(Specialist use only)*

injection *(Contact the Production unit for advice)*

**Notes:** Methotrexate for Rheumatoid Arthritis is a **ONCE WEEKLY DOSE** only. Refer to Methotrexate policy

**SULFASALAZINE (SULPHASALAZINE)**

**Sulfasalazine (Sulphasalazine)**

500 mg e/c tablet,

250 mg/ 5 ml suspension

**CYTOKINE INHIBITORS**

**nPbR Adalimumab**

*(Consultant Rheumatologists only)* See below.

**Biosimilars:**

1<sup>st</sup> line choice Hyrimoz®

2<sup>nd</sup> line choice Amgevita®

**nPbR Certolizumab Pegol** 200mg/ml solution for injection pre-filled syringes

**nPbR Etanercept** 25 mg injection **Enbrel®**

**nPbR Etanercept Biosimilars** 25 mg injection **Benepali®**

**nPbR Golimumab** 50mg & 100mg solution for injection pre-filled syringes

**nPbR Infliximab** 100 mg IV infusion  
(Refer to a Senior Principal Pharmacist)

**nPbR Secukinumab** 150mg/ml solution for injection pre-filled pens/syringes  
(Refer to a Senior Principal Pharmacist)

**nPbR Tocilizumab** 80, 200 and 400mg IV infusion  
(Refer to a Senior Principal Pharmacist)

**Notes:** Adalimumab is an alternative for etanercept failures or if patient cannot self-inject. Usual starting dose frequency is every two weeks

#### PHOSPHODIESTERASE TYPE-4 INHIBITORS

**nPbR Apremilast** 10mg, 20mg and 30mg tablets

#### PROTEIN KINASE INHIBITORS

**NPbR Baricitinib** (Olmiant®) 2mg and 4mg tablets

#### JANUS KINASE (JAK) INHIBITORS

**NPbR Tofacitinib** (Xeljanz®) 5mg, 10mg tablets

#### 10.1.4 GOUT & CYTOTOXIC-INDUCED HYPERURICAEMIA

##### ACUTE ATTACKS OF GOUT

###### High dose NSAIDs:

Aspirin is *not* indicated in gout

**Colchicine** 500 micrograms tablet

**Notes:** Maximum total dose of colchicine for treatment of gout is 6 mg

##### Etoricoxib

60 mg, 90mg & 120 mg tablets  
(Consultant Rheumatologists only for acute gouty arthritis and pseudo gout)

#### LONG-TERM CONTROL OF GOUT

##### 1<sup>st</sup> Choice : Allopurinol

100 mg & 300 mg tablets

**2<sup>nd</sup> Choice: Febuxostat 80mg** and 120mg tablets

**Benzbromarone** 100mg e.c tablets

(Consultant Rheumatologists use only)  
*Unlicensed*

#### HYPERURICAEMIA ASSOCIATED WITH CYTOTOXIC DRUGS

**nPbR Rasburicase**  
(Fasturtec®)

1.5mg and 7.5mg vial for intravenous infusion. Store in the refrigerator.

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## 10.2 DRUGS USED IN NEUROMUSCULAR DISORDERS

### 10.2.1 DRUGS WHICH ENHANCE NEUROMUSCULAR TRANSMISSION ANTICHOLINESTERASES

**Neostigmine** 2.5 mg/ ml injection

**Edrophonium** 10 mg/ ml injection

**Pyridostigmine** 60 mg tablet

### 10.2.2 SKELETAL MUSCLE RELAXANTS

#### Baclofen

10 mg tablet, 5 mg/ 5 ml liquid,  
50 micrograms/ ml intrathecal injection  
(*Injection: Dr. Ather only.*)

*Tablets are also for pain management in severe chronic fatigue syndrome grade 4, unlicensed use (Prof. Findley only)*

**Dantrolene** 25 mg & 100 mg capsules

**Diazepam**

(See section 4.1.2 for formulations)

**Tizanidine**

2 mg & 4 mg tablets

*(Consultant Neurologists & Rehabilitation  
Medicine Consultant only.*

*Last line after baclofen and diazepam)*

### **NOCTURNAL LEG CRAMPS**

**Quinine sulphate**

200 mg & 300 mg tablet

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## **10.3 DRUGS FOR THE RELIEF OF SOFT-TISSUE INFLAMMATION**

### **10.3.1 ENZYMES**

**Hyaluronidase** 1500 units injection

### **10.3.2 RUBEFACIENTS & OTHER TOPICAL ANTIRHEUMATICS**

**MoveLat**® cream & gel

**Balmosa**® cream

**PR Freeze Spray**®

**Kaolin Poultice** 100g, 200g

### **TOPICAL NSAIDS**

**Notes:** In line with local policy.  
Restricted to patients with local soft  
tissue injury or single arthritic joints, in  
whom oral NSAIDs are not appropriate &  
paracetamol-based drugs are ineffective

**Ibuprofen** 5% gel

**Ketoprofen** 2.5 % gel

## 11 EYE

### 11.3 ANTI-INFECTIVE EYE PREPARATIONS

#### 11.3.1 ANTIBACTERIALS

**Azithromycin (Azyter®)**  
15mg/g eye drops

**Cefuroxime sodium (Aprokam)**  
50mg powder for solution for injection  
vials

**Chloramphenicol**  
0.5% eye drops and TTA pack  
1% eye ointment and TTA pack  
0.5% Minims®

**Ciprofloxacin 0.3% eye drops**  
(*Ophthalmologists*)

**Notes:** Ciprofloxacin licensed for corneal ulcers & superficial bacterial infections.

**Ciprofloxacin 3mg/ml & Dexametasone**  
1mg/ml ear drops

**Levofloxacin 5mg/ml Preservative free**  
eye drops

**Notes:**

Licensed for aotitis media in patients with tympanostomy tubes & acute otitis externa

**Fusidic acid 1% m/r eye drops and TTA pack** (Fucithalmic®)  
(*Ophthalmologists only*)

**Gentamicin 0.3% ear/eye drops & Minims®**

**Neomycin sulphate 0.5 % eye drops,**  
eye ointment

**Ofloxacin 0.3% eye drops and TTA pack**  
(*Ophthalmologists only*)

**Notes:** Ofloxacin is licensed for external

Ocular infections, e.g. Conjunctivitis & keratoconjunctivitis, **not corneal ulcers**

**Polymyxin B sulphate (Polyfax®)**  
Polymixin B sulphate 10,000units,  
bacitracin zinc 500 units/ gram  
eye ointment

#### 11.3.3 ANTIVIRALS

**Aciclovir 3% eye ointment and TTA pack**

**Notes:** Apply five times daily & continue for at least three days after complete healing

**Ganciclovir 0.15% eye gel**

### PREPARATIONS FOR THE TREATMENT OF KERATITIS

**Polyhexamethylene biguanide (PHMB)**  
0.02% eye drops

**Natamycin 5% Eye drops**

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## 11.4

### 11.5 CORTICOSTEROIDS & OTHER ANTI-INFLAMMATORY PREPARATIONS

#### 11.4.1 CORTICOSTEROIDS

**Betamethasone (Betnesol®)**  
0.1% ear/ eye/ nose drops  
0.1% eye ointment

**Betamethasone 0.1% with neomycin 0.5%** (Vista-Methasone N®) ear/ eye/nose drop

**(Maxidex®)** Dexamethasone 0.1% & Hypromellose 0.5% eye drops and TTA pack

& Minims

**(Maxitrol ®)** Dexamethasone 0.1%, neomycin 0.35% & polymyxin B sulphate 6000 units/ml eye drops & eye ointment

**(Sofradex ®)** Dexamethasone 0.05%, framycetin 0.5% & gramicidin 0.005% ear/ eye drops and TTA pack

**Fluorometholone (FML ®)**  
Fluorometholone 0.1%, polyvinyl alcohol (Liquifilm®) 1.4% eye drops)

**Prednisolone sodium phosphate (Predsol ®)**  
0.5% ear/eye drops & Minims®

**Prednisolone acetate (Pred Forte ®)**  
1% eye drops

**(Predsol N ®)** Prednisolone 0.5% & neomycin 0.5% ear/eye drops

**Rimexolone** 1% eye drops  
(*Ophthalmologists only*)

**Hydrocortisone** 3.35mg/ml eye drops, solution in single-dose container (Softacort®)

#### INTRAVITREAL CORTICOSTEROIDS

**Ozurdex®** Dexamethasone intravitreal implant 700micrograms  
(*Ophthalmologists only*)

#### 11.4.2 OTHER ANTI-INFLAMMATORY PREPARATIONS

**(Otrivine-Antistin ®)**  
Antazoline sulphate 0.5% & Xylometazoline 0.05% eye drops and TTA pack

**Lodoxamide** 0.1% eye drops  
(*Ophthalmologists only*)

**Sodium cromoglicate** 2% eye drops

**Nedocromil** 2% eye drops

**Ketotifen** 0.25mg/ml preservative free eye drops

### 11.5 MYDRIATICS & CYCLOPLEGICS

**Atropine sulphate** 0.5% eye drops  
1% eye drops, ointment & Minims®

**Cyclopentolate**  
0.5% and 1% eye drops  
0.5% and 1% Minims®

**Homatropine** 1% & 2% eye drops

**Tropicamide** 0.5% & 1% eye drops & Minims®

#### SYMPATHOMIMETICS

**Phenylephrine**  
2.5% and 10% Minims®

Phenylephrine hydrochloride 5.4mg & Tropicamide 280 micrograms  
(**Mydriaser®** ophthalmic insert)

### 11.6 DRUGS FOR THE TREATMENT OF GLAUCOMA

#### 1<sup>st</sup> LINE EYE DROPS

- a. \* **Lumigan ®** (Bimatoprost 100 & 300 micrograms/ml)
- b. \* **Ganfort®** (Bimatoprost 300 micrograms/ml & Timolol 5mg/ml)
- c. \* **Timolol LA ®** (Timolol) 0.25%, 0.5%

#### 2<sup>nd</sup> LINE EYE DROPS

- a. \* **Xalatan ®** (Latanoprost) 0.005%
- b. \* **Xalacom ®** (Latanoprost & Timolol)
- c. \* **Cosopt ®**  
(Dorzolamide 2 % & Timolol 0.5%)
- d. \* **Trusopt ®** (Dorzolamide) 2%
- e. \* **Alphagan ®** (Brimonidine) 0.2%
- f. \* **Combigan ®** (Brimonidine 0.2% & timolol 0.5%)
- f. \* **Pilocarpine ®** 1%, 2%, 4%

#### ORAL TREATMENTS

\* **Diamox ®** & \* **Diamox SR ®**  
(Acetazolamide) 250 mg tablet & SR capsule

\*(*Ophthalmologists only*)

### 3<sup>rd</sup> LINE EYE DROPS

**Travatan®** (Travaprost  
40micrograms/ml) 2.5ml eye drops

**Azopt®** (Brinzolamide) 10mg/ml eye  
drops

**Azarga®** (Brinzolamide 10mg, timolol  
5mg/ml)

### BETA-BLOCKERS

**Betaxolol** (Betoptic ®)  
0.25% m/r & 0.5% eye drops

**Levobunolol** (Betagan ®) and  
0.5% polyvinyl alcohol (Liquifilm®) eye  
drops and Minims

**Note:** Use dorzolamide drops  
(Trusopt ®) where beta blockers are  
contra-indicated or not effective alone

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## 11.7 LOCAL ANAESTHETICS

**Oxybuprocaine** 0.4 % Minims ®

**Proxymetacaine** 0.5 % Minims ®

**Proxymetacaine** 0.5 % &  
**Fluorescein** 0.25 % Minims ®

**Tetracaine hydrochloride**  
**(Amethocaine hydrochloride)**  
0.5 % & 1 % Minims ®

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## 11.8 MISCELLANEOUS OPHTHALMIC PREPARATIONS

### 11.8.1 TEAR DEFICIENCY, OCULAR LUBRICANTS & ASTRINGENTS

**Hypromellose** 0.3%, 0.5% eye drops,  
0.3% preservative free eye drops  
(*Unlicensed*)  
2% eye drops (*Unlicensed*)

**Carbomers (Viscotears ®)**  
0.2 % liquid gel &  
Preservative-free dose units  
(*Ophthalmologists only*)

**Carmellose Sodium**  
1% eye drops in dose units (**Celluvisc®**)

0.5% eye drops + glycerol (**Optive®**)

**Hydroxypropyl guar, Polyethylene  
glycol 400 propylene glycol 0.3%**  
**(Systane®)**  
10ml bottle and 0.8ml minims

**Liquid paraffin (Lacri-Lube ®)**  
eye ointment

**Polyvinyl alcohol**  
(Liquifilm®) eye drops

**Potassium ascorbate**  
10% eye drops (unlicensed)  
RUM drug

**Sodium chloride**  
0.9 % eye drops (Minims ®)

**Balanced salt solution**

### 11.8.2 OCULAR DIAGNOSTIC & PERI-OPERATIVE PREPARATIONS & PHOTODYNAMIC TREATMENT

#### OCULAR DIAGNOSTIC PREPARATIONS

**Fluorescein sodium**  
1 % & 2 % Minims ® & 1 mg strips

#### OCULAR PERI-OPERATIVE DRUGS

**Acetylcholine chloride (Miochol-E ®)**  
1% Intra-ocular irrigation  
(*Ophthalmologists only*)

**Apraclonidine (Iopidine ®)**  
0.5 % & 1 % ophthalmic solution  
(*Ophthalmologists only*)

**Diclofenac sodium** 0.1 % unit dose eye  
drops (single use)  
(*Ophthalmologists only*)

**Ketorolac** 0.5 % eye drops  
(*Ophthalmologists only*)

**Nepafenac** 1mg/ml eye drops  
(*for reducing the risk of postoperative  
macular oedema in diabetic patients  
undergoing cataract surgery*)

**OPHTHALMIC VISCOELASTIC DEVICE**  
**Healon®** Sodium Hyaluronate 1%

**Healon 5®** Sodium Hyaluronate 2.3%  
**Healon GV®** Sodium Hyaluronate 1.4%  
*(Ophthalmologists only)*

## **SUBFOVEAL CHOROIDAL NEOVASCULARISATION**

**Ranibizumab (Lucentis®)**  
**Aflibercept (Eylea®)**  
**Bevacizumab (Avastin®)** *(unlicensed)*  
*( Cons. Ophthalmologist only for  
treatment of age-related macular  
degeneration in patients that meet NICE  
criteria)*

**Indocyanine Green (ICG)** injection  
*(Approved for Consultant  
Ophthalmologist's use for choroid related  
diagnosis and Vascular Neurosurgeons  
for Intracranial Aneurysms)*

## 12 EAR, NOSE & OROPHARYNX

### 12.1 DRUGS ACTING ON THE EAR

#### 12.1.1 OTITIS EXTERNA

##### ANTI-INFLAMMATORY PREPARATION

**Betamethasone** (Betnesol ®)

0.1% ear/ eye/ nose drops

**Prednisolone** (Predsol ®)

0.5% ear/ eye drops

##### ANTI-INFLAMMATORY PREPARATION WITH ANTIBACTERIAL

Betamethasone 0.1% & neomycin

0.5% ear/ eye/ nose drops

**(Vista-Methasone N ®)**

Dexamethasone 0.05%, framycetin

0.5% & gramicidin 0.005% ear/ eye drops

**(Sofradex ®)**

Dexamethasone 0.1% & neomycin 3250

units/ml ear spray **(Otomize ®)**

Flumetasone 0.02% & clioquinol 1%

ear drops **(Locorten-Vioform ®)**

Hydrocortisone 1% & gentamicin 0.3%

ear drops **(Gentisone HC ®)**

Hydrocortisone 1%, neomycin 3400

units & polymyxin B 10000 units/ ml

**(Otosporin ®)**

Prednisolone 0.5 % & neomycin 0.5 %

**(Predsol-N ®)**

##### ANTI-INFECTIVE PREPARATIONS

**Chloramphenicol 5%**

Ear drops

**Clioquinol (Locorten-Vioform ®)**

Ear drops

**Clotrimazole (Canesten)**

1% solution

**(Sofradex ®)**

Dexamethasone 0.05%, framycetin 0.5% & gramicidin 0.005% ear/ eye drops

**Gentamicin (Genticin) 0.3% eye/ ear drops**

**(Gentisone HC ®)** Gentamicin 0.3 % & Hydrocortisone 1 % ear drops

**Neomycin**

**(Predsol-N ®)** ear/ eye drops,

**(Otosporin ®)** ear drops,

**(Vista-Methasone N ®)** ear/ eye/ nose drops,

**(Otomize ®)** ear spray

#### 12.1.2 OTITIS MEDIA

**Boric acid** powder – not from pharmacy  
*(for chronic discharge from ear secondary to chronic otitis media, ENT Surgeons only, unlicensed)*

#### 12.1.3 REMOVAL OF EAR WAX

**Sodium bicarbonate BPC** ear drops

**Cerumol ®** ear drops- unsuitable for patients with nut allergy

*(2<sup>nd</sup> line after sodium bicarbonate ear drops have failed. Contains arachis (peanut) oil)*

## 12.2 DRUGS ACTING ON THE NOSE

### 12.2.1 DRUGS USED IN NASAL ALLERGY

**Beclometasone dipropionate**

50 mcg/ dose nasal spray

*(First line)*

**Betamethasone** (Betnesol ®)

0.1 % ear/ eye/ nose drops

**Fluticasone furoate** (Avamys®)

27.5mcg/dose/dose nasal spray

**Mometasone** (Nasonex ®)

50 mcg/ dose nasal spray

**Triamcinolone acetonide**



(Nasacort ®) 55 mcg/ dose nasal spray

**Dexamethasone isonicotinate**

(Dexa-Rhinaspray Duo ®)

20mcg/ dose nasal spray

**Sodium cromoglicate**

(Rynacrom ®) 4 % nasal spray

**DRUGS USED FOR NASAL CRUSTING**

**Glucose in Glycerol 25% nasal drops**

(unlicensed) (*ENT consultants use only*)

Note: 2<sup>nd</sup> line treatment of nasal crusting in patients with vasculitis after saline douche in combination with steroid inhalers

**12.2.2 TOPICAL NASAL DECONGESTANTS**

**Ephedrine hydrochloride**

0.5% & 1% drops

**Sodium chloride** 0.9 % drops

**Xylometazoline**

0.05% paediatric drops,

0.1% drops & spray (adult)

**Ipratropium bromide**

(Rinatec ®) 0.03% nasal spray

**NASAL STAPHYLOCOCCI**

**Mupirocin** 2% (Bactroban Nasal ®)

ointment

As per MRSA Policy (May 2007)

If MRSA positive:

**1<sup>st</sup> Choice:** Apply to both nostrils three times daily for one week and re-swab 48 hours post-treatment.

Negative screen result- stop treatment

Positive screen result- continues

treatment until 7<sup>th</sup> day then rescreen 48 hours post-treatment.

**Alternative:** Polyfax (Polymixin Sulphate and Bacitracin) if Mupirocin (Bactroban) resistant.

**EPISTAXIS**

**Chlorhexidine** 0.1% & Neomycin 0.5% cream (Naseptin ®)- Contains Arachis (Peanut Oil.) Unsuitable for nut allergy sufferers

**Bismuth Subnitrate & Iodoform Paste**

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**12.3 DRUGS ACTING ON THE OROPHARYNX**

**12.3.1 DRUGS FOR ORAL ULCERATION & INFLAMMATION**

**Benzydamine hydrochloride** 0.15%

Difflam ® oral rinse

Difflam ® spray (*Paediatrics only*)

**Carmellose** (Orabase ®) paste

**CORTICOSTEROIDS**

**Hydrocortisone**

2.5 mg pellets

**SALICYLATES**

**Choline Salicylate Dental Gel, BP**

(Bonjela ®) Not for children <16 years

**12.3.2 OROPHARYNGEAL ANTI-INFECTIVE DRUGS**

**Amphotericin** (Fungilin ®)

10 mg lozenges

**Miconazole** (Daktarin ®)

20mg/g oral gel

**Nystatin**

100,000 units/ml oral suspension

**12.3.4 MOUTHWASHES, GARGLES & DENTIFRICES**

**Chlorhexidine gluconate**

0.2% mouthwash (From general stores, not pharmacy)

1% dental gel

**Hydrogen Peroxide Solution 3% (10 vol)**

**Mouthwash** effervescent tablets

### 12.3.5 TREATMENT OF DRY MOUTH

**Artificial saliva** oral spray

**Treatment of bony cavities post removal of odontogenic keratocyst.**

**Carnoy's solution** (unlicensed product)  
*(For use by Oral and Maxillofacial Consultants only)*

## 13 SKIN

### 13.2 EMOLLIENT & BARRIER PREPARATIONS

**Note:** please check availability of pack sizes with the pharmacy

**Aquamax™** cream

**Cetraben®** cream

**Hydromol®** ointment

**Emulsifying ointment, BP**

**Liquid & white soft paraffin 50%**

**Unguentum M®** cream

**White soft paraffin**

**Yellow soft paraffin**

Urea 10 % & lactic acid 5 % cream  
**(Calmurid®)**

**Note:** Aqueous cream and emulsifying ointment are useful as soap substitutes

#### 13.2.1.1 EMOLLIENT BATH ADDITIVES

**Balneum Plus®** bath treatment

**Emulsiderm®**

**Dermol 200®** shower emollient  
*(Dermatologists only)*

**Dermol 600®** bath emollient  
*(Dermatologists only)*

**Dermol 500®** Lotion (Occupational Health use only)

**Oilatum®** emollient

**Baby bath**

#### 13.2.2 BARRIER PREPARATIONS

**Zinc & castor oil ointment, BP**

**Metanium®** ointment

**Sudocrem®** cream

**Conotrane®** cream

**Drapolene®** cream

**Sprilon®** spray

### 13.3 TOPICAL LOCAL ANAESTHETICS & ANTIPRURITICS

**Calamine** lotion (from general stores)

**Crotamiton** 10% cream (Eurax®)

**Doxepin** 5% cream (*Dermatologists only*)

### 13.4 TOPICAL CORTICOSTEROIDS

**Note:** Relative potencies of topical corticosteroids:

**Mild:** hydrocortisone 0.1-2.5%

**Moderate:** clobetasone butyrate 0.05%

**Potent:** betamethasone valerate 0.1% & hydrocortisone butyrate

**Very potent:** clobetasol propionate 0.05%

**Hydrocortisone** 0.5%, 1% & 2.5% cream & ointment

#### HYDROCORTISONE COMPOUND PREPARATIONS

**Alphaderm®** (hydrocortisone 1% & urea 10%) cream

**Calmurid HC®** (hydrocortisone 1%, urea 10% & lactic acid 5%) cream

**Canesten HC®** (hydrocortisone 1% & clotrimazole 1%) cream

**Daktacort**® (hydrocortisone 1% & miconazole 2%) cream-store in fridge  
ointment-store at room temperature

**Eurax-Hydrocortisone** ®

(hydrocortisone 0.25% & crotamiton 10%) cream

**Fucidin H** ® (hydrocortisone 1% & fusidic acid 2%) cream & ointment

**Nystaform-HC** ® (hydrocortisone 0.5%, nystatin 100,000 units/g & chlorhexidine hydrochloride 1%) cream & ointment

**Timodine** ® (hydrocortisone 0.5%, nystatin 100,000 units/g, benzalkonium chloride 0.2% & dimethicone '350' 10%) cream

**Vioform-Hydrocortisone** ®

(hydrocortisone 1% & clioquinol 3%) cream & ointment

**Notes:** Corticosteroids should be applied once or twice daily & should be used for not more than 5-7 days, unless advised. The more potent the preparation the more sparingly it should be applied

**HYDROCORTISONE BUTYRATE 0.1 %**

**Locoid** ® lipocream, ointment & scalp application (*Dermatologists only*)

**Locoid C** ® (with chlorquinaldol 3 %) cream & ointment (*Dermatologists only*)

**ALCLOMETASONE DIPROPIONATE**

**Modrasone** ® (alclometasone dipropionate 0.05 %) cream & ointment (*Dermatologists only*)

**BETAMETHASONE ESTERS**

**Betnovate** ®

(betamethasone valerate 0.1%) cream, ointment & scalp application

**Betnovate-RD** ® (betamethasone valerate 0.025%) cream & ointment

**Betnovate-C** ® (betamethasone valerate 0.1% & clioquinol 3%) cream & ointment

**Diprosalic** ® (betamethasone dipropionate 0.05 %)

with salicylic acid 3 % ointment,

with salicylic acid 2 % scalp application

**Lotriderm** ® (betamethasone dipropionate 0.05% & clotrimazole 1%) cream (*Dermatologists only*)

**FuciBET** ® (betamethasone valerate 0.1% & fusidic acid 2%) cream (*Dermatologists only*)

**CLOBETASONE PROPIONATE 0.05%**

**Dermovate** ® cream, ointment & scalp application

**Etrivex**® shampoo (for psoriasis)

**CLOBETASONE BUTYRATE 0.05%**

**Eumovate** ® cream & ointment

**Trimovate** ® (with oxytetracycline 3% & nystatin 100,000 units/g) cream (*Dermatologists only*)

*Note: Trimovate* ® stains clothing

**FLUDROXYCORTIDE (FLURANDRENOLONE)**

**Haelan** ® tape (*Dermatologists only*)

**FLUOCINOLONE ACETONIDE**

**Synalar** ® 0.025% cream & gel

**FLUOCINONIDE 0.05%**

**Metosyn** ® cream & ointment

**MOMETASONE FUROATE**

**Elocon** ® 0.1% cream & ointment (*Dermatologists only*)

**TRIAMCINOLONE ACETONIDE 0.1%**

**Aureocort** ® (with chlortetracycline 3%) Ointment (*Dermatologists only*)

**Tri-Adcortyl** ® (with gramicidin 0.025%, neomycin 0.25% & nystatin 100,000 units/g) ointment & cream

**Notes:** The use of topical antimicrobial agents is to be discouraged as this can cause sensitisation & contribute towards bacterial resistance

## 13.5 PREPARATIONS FOR ECZEMA AND PSORIASIS

### 13.5.1 PREPARATIONS FOR ECZEMA

**Glycerin of Ichthammol liquid**  
(Unlicensed)

Oral retinoid for eczema

**Alitretinoin** (Toctino®) 10mg & 30mg capsules  
(Dermatologists only as per NICE, it is recommended for the treatment of severe chronic hand eczema that has not responded to potent topical corticosteroids TA 177)

### 13.5.2 PREPARATIONS FOR PSORIASIS

**5-Methoxypsoralen**  
20 mg tablet- not in the BNF  
(Dermatologists only)

**8-Methoxypsoralen**  
10 mg tablet, 0.15 % emulsion (paint) & 1.2 % bath lotion- not in the BNF

**Notes:** Methoxypsoralen preparations are unlicensed preparations, which are in the exempt list of the Trust Unlicensed Medicines Policy. They are treated as named patient items. (For use with PUVA by Dermatologists only)

**Calcitriol** 3micrograms/g ointment  
**Silkis®** (Dermatologists only)

**Dovobet®** ointment and gel  
(betamethasone as dipropionate 0.05% and Calcipotriol 50micrograms/g)

**Enstilar®** cutaneous foam  
(betamethasone dipropionate 500micrograms/g and Calcipotriol 50micrograms/g)

## TAZAROTENE

**Tazarotene** 0.05% gel  
(Dermatologists only, 2<sup>nd</sup> line)

## COAL TAR

**Sebco®** scalp ointment (Compound Coconut ointment)

**Polytar Emollient®** bath additive

**Notes:** Polytar Emollient® contains arachis (peanut) oil

**Alphosyl HC®**  
(with hydrocortisone 0.5%) cream

## DITHRANOL

**Dithranol** (Dithrocream®)  
0.1%, 0.25% & 2% cream  
(Dermatologists only)

## ACITRETIN

**Acitretin** (Neotigason®)  
10 mg & 25 mg capsules  
(Hospital only medicine, Dermatologists only)

### 13.5.3 DRUGS AFFECTING THE IMMUNE RESPONSE

**Ciclosporin (Cyclosporin) (Neoral®)**  
25 mg, 50 mg & 100 mg capsules  
(Dermatologists only)

**Methotrexate** 2.5 mg tablets  
(Dermatologists only)

**Warning:** Methotrexate is given once weekly for this indication. Follow Trust Methotrexate policy

**Tacrolimus (Protopic)**  
0.03% & 0.1% ointment  
(Dermatologists only)

**nPbR Adalimumab**

**nPbR Brodalumab**

**nPbR Dupilumab**

**nPbR Etanercept**

**nPbR** Infliximab

**nPbR** Ixekizumab ( Rheumatology & Dermatology use)

**nPbR** Ustekinumab 90mg/ml injection  
0.5ml (45mg) vial

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## 13.6 ACNE & ROSACEA

**Azelaic acid 25% cream**  
(Consultant Dermatologist only for melasma. Unlicensed indication)

**Benzoyl peroxide**  
2.5% & 5% gel

**Clindamycin phosphate** (Dalacin T ®)  
1% lotion

**Clindamycin 1% & benzoyl peroxide 5%** (Duac ®) topical Gel

**Zineryt ®** (erythromycin 40 mg/ml & zinc acetate 12 mg/ml) topical lotion

**Adapaline 0.1% gel** (Differin®)

**Adapaline 0.1% & benzyl peroxide 2.5% gel** (Epiduo®)  
(Dermatologists only)

**Tretinoin** (Retin-A ®)  
0.025% cream & 0.01% gel  
(Dermatologists only)

### 13.6.2 ORAL PREPARATIONS FOR ACNE

Cyproterone 2 mg & ethinyloestradiol 35 micrograms tablets (**Dianette ®**)  
(Dermatologists only)

Isotretinoin 5 mg & 20 mg capsules (**Roaccutane ®**) (Hospital only medicine)  
(Dermatologists only)

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## 13.7 PREPARATIONS FOR WARTS & CALLUSES

### SALICYLIC ACID

**Cuplex ®** 11% gel

**Occlusal ®** 26% application

**Duofilm ®** 16.7% paint

**Verrugon ®** 50% ointment  
(GUM clinic only)

## FORMALDEHYDE

**Notes:** Formaldehyde foot wash is extemporaneously prepared in pharmacy

**SILVER NITRATE** 75% sticks

## ANOGENITAL WARTS

**Imiquimod (Aldara ®)** 5% cream  
(GUM clinic for genital & perianal warts when all other drug treatments have failed. Dermatologists for last line treatment for anogenital warts only)

## PODOPHYLLUM

**Condyline ®** 0.5% solution  
TTA pack available  
(GUM only)

**Warticon ®** 0.15% cream  
TTA pack available  
(GUM only)

**Warticon ®** 0.5% solution for men (with mirror for women- **Warticon Fem®**)  
(GUM only)

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## 13.8 SUNSCREENS & CAMOUFLAGERS

### 13.8.1 SUNSCREEN PREPARATIONS

**RoC Total Sunblock ®**

**Ingenol mebutate (Picato®)**150 micrograms/g & 500 micrograms/g gel

## CAMOUFLAGERS

**Hydroquinone 2 % and 5% cream**  
Unlicensed product and short expiry date  
(Dermatologists only)

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## 13.9 SHAMPOOS & OTHER PREPARATIONS FOR SCALP

**Selsun**® shampoo

**Capasal**® shampoo

**Polytar**® liquid

**Notes:** Polytar® contains arachis (peanut) oil

**Nizoral**® (**Ketoconazole**) shampoo  
(*Dermatologists only*)

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## 13.10 ANTI-INFECTIVE SKIN PREPARATIONS

### 13.10.1 ANTIBACTERIAL PREPARATIONS

**Fusidic acid** (Fucidin®)  
2% cream & ointment  
(*Dermatologists or Microbiologists only*)

**Metronidazole**  
(**Metrogel**®) 0.75% gel  
(*For acne rosacea, Dermatologists only*)

(**Metrotop**®) 0.8% gel  
(*Malodorous tumours & skin ulcers*)

**Mupirocin** (Bactroban®) 2% ointment

**Notes:** Bactroban ointment contains macrogol. Manufacturers advise caution in renal impairment, may sting

**Polymyxin B sulphate** (Polyfax®)  
ointment (*Microbiologists only*)

**Silver sulfadiazine** (Flamazine®)  
1 % cream

### 13.10.2 ANTIFUNGAL PREPARATIONS

**Clotrimazole** 1 %  
cream, dusting powder & solution

**Ketoconazole** 2 % cream  
(*Dermatologists only*)

**Miconazole** (Daktarin®) 2 % cream

**Terbinafine** 1% cream  
(*Dermatologists only*)

### 13.10.3 ANTIVIRAL PREPARATIONS

**Aciclovir** 5 % cream

**Notes:** Aciclovir cream should be used five times a day at the first sign of any symptoms for 5 to 10 days. It is not very effective once vesicles have appeared. Confirm whether systemic treatment is more appropriate

### 13.10.4 PARASITICIDAL PREPARATIONS

**For treatment of scabies- refer to infection control policy**

**1<sup>st</sup> Choice: Malathion** (Derbac-M®)  
0.5 % liquid (in aqueous base)  
(*First line*)

**Alternative: Permethrin** (Lyclear®)  
1 % cream rinse & 5 % dermal cream  
(*Dermatologists & Microbiologists only*)

**Alternative: Ivermectin** 3 mg tablet  
(*Unlicensed medicine, named patient. Dermatologists & Microbiologists for resistant scabies only*)

**Notes:** There is a Regional policy for the treatment and prevention of head lice. Compliance with manufacturers' instructions for these preparations is especially important

### 13.10.5 PREPARATIONS FOR MINOR CUTS & ABRASIONS

**Proflavine cream, BPC**

**Magnesium sulphate paste, BP**

**Flexible Collodion, BP-**

Contraindications: allergy to colophony in elastic adhesive plaster and tape

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## 13.11 SKIN CLEANSERS & ANTISEPTICS

**13.11.1 ALCOHOLS & SALINE**  
**Sodium Chloride 0.9 %**  
25 ml sterile sachets

**13.11.2 CHLORHEXIDINE SALTS**  
**Hydrex**®

**13.11.4 IODINE COMPOUNDS**



**Videne ®**

**13.11.5 PHENOLICS (TRICLOSAN)**

**Aquasept ®** 2 % skin cleanser

**Octenisan ®**

**13.11.6 ASTRINGENTS, OXIDISERS & DYES**

**Hydrogen peroxide**

3 % w/ v (10 vols) solution

**Hydrogen peroxide** 1% cream

**Potassium permanganate**

400 mg solution tablets

*(Dermatology Use Only)*

**13.11.7 DESLOUGHING AGENTS**

**Sterile Larvae (maggots)** therapy

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**13.12 ANTIPERSPIRANTS**

**Aluminium chloride hexahydrate**

(Driclor ®) 20 % application

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### 13.13 WOUND MANAGEMENT PRODUCTS

**Notes:** In line with local policy. Products are sourced differently across the sites. Other dressings may be available from clinical supplies (Havering) or central stores (KGH)

#### 13.13.1 ALGINATE DRESSINGS

**Kaltostat**® dressing  
**Kaltostat**® wound packing

**Sorbsan**®  
**Sorbsan**® ribbon  
**Sorbsan**® packing

#### 13.13.2 FOAM DRESSINGS

**Allevyn**®  
adhesive, cavity, sacral, thin & heel

**Lyof foam**® dressing  
**Tielle**® dressing

**Cavi-Care**®

#### 13.13.3 HYDROGEL DRESSINGS

**Granugel**®  
**Intrasite**® gel

#### 13.13.4 HYDROCOLLOID DRESSING

**Granuflex**® bordered dressing & paste

#### 13.13.6 LOW ADHERENCE DRESSING & WOUND CONTACT MATERIALS

**Povidone-iodine** fabric dressing

#### 13.13.7 ODOUR ADSORBENT DRESSING

**Denidor**® (Charcoal) dressing

#### 13.13.9 MEDICATED BANDAGES

**Zipzoc**® tubular bandage  
(*Dermatologists only*)

#### 13.13.10 OTHER WOUND MANAGEMENT PRODUCTS

**Opsite**® plastic spray  
**Bactigras**® (chlorhexidine acetate tulle)

#### 13.13.11 THEATRE PRODUCTS

**Palacos LV** with gentamicin®

**Palacos R** with gentamicin®

**Collatamp G**®

**Geliperm**® wet dressing

**Haemostatic Adsorbant Gauze**

**Horsley's Bone wax**  
(*Unlicensed*)

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### 13.14 TOPICAL CIRCULATORY PREPARATIONS

**Hirudoid**®  
0.3 % cream

## 14 IMMUNOLOGICAL PRODUCTS & VACCINES

### 14.4 VACCINES & ANTISERA

**Notes:** For up to date vaccine information, please refer to [www.dh.gov.uk/](http://www.dh.gov.uk/) "Green Book" (search for immunisation)

**BCG (Bacillus Calmette-Guerin)** vaccine (for chest clinic and occ. Health use only)

**Notes:** It is essential to use the supplied diluent to reconstitute

**Diphtheria, tetanus, pertussis (acellular) and inactivated polio (DtaP/IPV)** vaccine (Infanrix IPV ®)

**Diphtheria, tetanus, pertussis (acellular) and inactivated polio (dtaP/IPV)** vaccine (Repevax ®)

**Notes:** These are interchangeable in the childhood immunisation scheme. Use for children aged 3 to 10.

**Diphtheria, tetanus and inactivated polio**

**Haemophilus influenzae type B (Hib)** vaccine

**Haemophilus influenzae type b conjugate vaccine and Meningococcal Group C Conjugate vaccine (Menitorix®)**

**Hepatitis A** vaccine (Havrix Monodose® for Occ. Health use only)

**Hepatitis A and B** vaccine

**Hepatitis B** vaccine (Engerix B®)

**Hepatitis B paediatric** vaccine

**Influenza** vaccine

**Measles, Mumps & Rubella (MMR)** Vaccine (LIVE) MMRvaxPro® Priorix®

**Meningitis C conjugate** vaccine  
**Meningitec®**, **Menjugate Kit®**, **NeisVac C®**

**Meningococcal groups A CWY** vaccine

**Pneumococcal polysaccharide** vaccine (**Pneumovax II ®** vaccine)

**Notes:** Pneumovax II ® is for children over 2 years of age

**Pneumococcal polysaccharide conjugated vaccine (Prevenar ®)**

**Notes:** Prevenar ® is for children under 2 years of age

**Typhoid** vaccine

**Varicella-zoster vaccine (Varilix®▼ , Varivax®▼**

**Anti-tetanus Immunoglobulin**

(available from Public Health Laboratory)

**Anti-hepatitis Immunoglobulin**  
(Available from Public Health Laboratory)

**Anti-D Immunoglobulin 500 & 1500** units injection

### DIAGNOSTIC TESTS

**Tuberculin PPD 2TU** injection

There is no licensed preparation currently available. Contact Chest Clinic for advice.  
For chest clinic and occ. Health use only

**Notes:** \* used for Mantoux test

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## 14.5 IMMUNOGLOBULINS

### **nPbR** Normal Immunoglobulin

For intravenous use  
(Please refer to pharmacy for brands & strengths stocked)

**Notes:** Please refer to BHRUT Demand management Plan for Immunoglobulin Use ([link](#))  
Immunoglobulin request form and Immunoglobulin Follow Up form available on the intranet ([link](#))  
Use must be approved by Panel before supply from Pharmacy.

### **Specific Immunoglobulins**

Consult Microbiologist to arrange if indicated.

Tetanus Immunoglobulin (Antitetanus Immunoglobulin Injection)

Hepatitis B immunoglobulin

## 15 ANAESTHESIA

### 15.1 GENERAL ANAESTHESIA

#### 15.1.1 INTRAVENOUS ANAESTHETICS

**Thiopental sodium** 500 mg injection

**Etomidate** 20 mg/10 ml injection

**Ketamine** injection

10 mg/ml, 100 mg/ml, 50 mg/ml

**Propofol** injection

10mg/ml, 500 mg/50ml, 200mg/20ml

**Propofol 1% injection (Diprifusor® TCI System)**

*(for endarterectomies anaesthetised by Dr. Igielman & Dr. Khalil only)*

#### 15.1.2 INHALATIONAL ANAESTHETICS

**Isoflurane**

**Sevoflurane**

**Enflurane**

**Halothane**

#### 15.1.3 ANTIMUSCARINIC DRUGS

**Atropine sulphate**

600 micrograms/ml injection

**Glycopyrronium bromide**

200 micrograms/ml &  
600 micrograms/3ml injection

**Hyoscine hydrobromide**

400 micrograms/ ml injection

#### 15.1.4 SEDATIVE & ANALGESIC PERI-OPERATIVE DRUGS

##### 15.1.4.1 ANXIOLYTICS & NEUROLEPTICS

**Diazepam**

*(See section 4.1.2 for preparations)*

**Lorazepam** 4 mg/ml injection

**Midazolam**

10 mg/2ml & 10 mg/5ml injection

**Clonidine**

150 micrograms/ml injection

*(Anaesthetists for inadequate sedation in ITU, with high dose midazolam and opioids, unlicensed use)*

##### 15.1.4.2 NON-OPIOID ANALGESIC

**Diclofenac**

12.5 mg, 25 mg, 50 mg & 100 mg suppositories,

75 mg/ 2ml injection *(Maximum treatment for 2 days)*

##### 15.1.4.3 OPIOID ANALGESICS

**Alfentanil (CD)**

1 mg/ 2 ml, 5 mg/ ml &

500 micrograms/ ml injection

**Fentanyl (CD)**

100 micrograms/ 2 ml &

500 micrograms/ 10 ml injection

**Remifentanil (CD)**

1 mg & 2 mg injection

*(For Neurosurgery in accordance with protocol)*

*Morphine sulphate (CD)*

2 mg/ ml injection (50 ml vials for PCA)

##### 15.1.5 MUSCLE RELAXANTS

###### NON-DEPOLARISING MUSCLE RELAXANTS

**Atracurium**

25mg/ 2.5 ml & 50mg/ 5 ml injection

**Pancuronium** 4mg/ 2 ml injection

**Rocuronium** 50mg/ 5 ml injection

*(Theatres only, Critical areas and A&E)*

**Vecuronium** 10 mg injection

###### DEPOLARISING MUSCLE RELAXANTS

**Suxamethonium** 50 mg/ml injection

### 15.1.6 DRUGS FOR REVERSAL OF NEUROMUSCULAR BLOCKADE

**Neostigmine** 2.5 mg/ml injection

**Robinul-Neostigmine** ® 1 ml injection  
(Neostigmine 2.5 mg & glycopyrronium 500 micrograms)

#### Other drugs for reversal of neuromuscular blockade

**Sugammadex** 100mg/ml injection

### 15.1.7 ANTAGONISTS FOR CENTRAL & RESPIRATORY DEPRESSION

#### **Doxapram**

2mg/ ml infusion, 100 mg/5ml injection,

**Notes:** Only the injection is licensed for post-operative respiratory depression

#### **Flumazenil**

500 micrograms/5ml injection

#### **Naloxone**

400 micrograms/ml injection,  
40 micrograms/ 2ml injection  
(Check availability of neonatal,  
40 micrograms/ 2ml injection with the  
Pharmacy)

### 15.1.8 DRUGS FOR MALIGNANT HYPERTHERMIA

**Dantrolene** 20 mg injection

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## 15.2 LOCAL ANAESTHESIA

**Cocaine hydrochloride** 10 % solution  
(Unlicensed)

#### **Lidocaine (Lignocaine)**

0.5 % injection (20 ml)  
1 % injection (2 ml, 5 ml, 10 ml & 20 ml)  
2 % injection (2 ml, 5 ml & 20 ml)  
4% topical solution,  
4% jet spray (for anaesthesia of vocal  
cords for patients undergoing ENT/  
Maxillo-facial surgery),  
10% spray,  
2% gel

700mg (5%) medicated plaster (Palliative care use only)

(Please check sizes stocked on hospital site)

**Lidocaine** 4%, **Adrenaline** 0.1%,  
**Tetracaine** 0.5% (LAT) gel (unlicensed)

**Lidocaine** 1 % (10 mg/ ml) with  
**adrenaline** 1 in 200,000  
(5 micrograms/ ml) (**Xylocaine** ®)  
20 ml injection

**Lidocaine** 2 % (20 mg/ ml) with  
**adrenaline** 1 in 200,000  
(5 micrograms/ ml) (**Xylocaine** ®)  
20 ml injection

**Lidocaine** 5 % with  
**phenylephrine** 0.5 % solution  
(ENT only)

**Lidocaine with prilocaine**  
(Emla ®) cream

Lidocaine with chlorhexidine gluconate  
(**Instillagel** ®) in sterile lubricant

#### **Bupivacaine**

0.1 % infusion (100 ml)  
0.25 % & 0.5 % injection (10 ml)

(**Marcain** ®) 0.25 % & 0.5 % injection  
(**Marcain Heavy** ®) 0.5 % injection

#### **Bupivacaine with adrenaline**

**Bupivacaine** 0.125 % with  
**fentanyl** 2 micrograms/ ml  
(Unlicensed)

#### **Levobupivacaine**

Injections:  
2.5mg/ml, 5mg/ml &  
7.5mg/ml (10ml amp)

Epidural infusion:  
1.25mg/ml (100ml and 200ml)

*Unlicensed formulations:*  
Levobupivacaine 0.1% with Fentanyl  
2mcg in 1 ml (500ml infusion)

Levobupivacaine 0.1% with Fentanyl  
4mcg in 1 ml (500ml infusion)

Levobupivacaine 0.1% with Fentanyl  
5mcg in 1 ml (200ml infusion)

**Prilocaine** 1 % injection

**Prilocaine** 30mg/ ml **with octapressin**  
(felypressin) 0.03 units/ ml injection

*Mepivacaine 3 % injection*  
(*Chiropody*)

**Tetracaine (Amethocaine)** 4 %

Ametop ® gel

**Ethyl chloride BP** spray

**ABLATIVE NERVE BLOCK**

*(Unlicensed products)*

6 % phenol in water

5 % phenol in glycerin

6 % phenol, Niopam 300 40 %, in sodium  
chloride 0.9 %

## **BARKING, HAVERING & REDBRIDGE HOSPITALS NHS TRUST**

### **POLICY AND GUIDELINES FOR PRESCRIBING FOR SELF, FAMILY, COLLEAGUES AND FRIENDS**

Under normal circumstances, prescribers should not prescribe for themselves or family, but it is recognised that there are occasions when it may be necessary to prescribe for yourself or immediate family in order to remain at work. In which case the following guidance should be followed:

#### **1. EMERGENCY PRESCRIBING FOR SELF AND FAMILY**

##### **1.1 GMC Standard (April 1998)**

##### **Doctors should not treat themselves or their families**

It is good practice for doctors and their families to be registered with a general practitioner outside the family, who takes responsibility for their health care.

This gives the doctor and family members ready access to objective advice and avoid the conflicts of interest that can arise when doctors treat themselves or those close to them.

From time to time, sad cases occur where a doctor's loss of objectivity in treating a family member results in misconduct; or where self-medication – for example, with Controlled Drugs – leads to drug misuse.

It is hard to lay down an absolute rule: it makes sense for a doctor to treat minor ailments, or take emergency action where necessary.

But doctors should avoid treating themselves or close family members wherever possible. This is a matter of common sense as well as good medical practice.

- 1.2 Prescribing should only be for immediate family, i.e. self, spouse, children, directly from the hospital pharmacy and not on FP10 (HP) forms.

- 1.3 Prescribing should normally be for acute illness only, not regular medication e.g. infections, acute pain, headache, hayfever etc. In emergency other medication e.g. insulin, inhalers may be prescribed, but this should not be a regular occurrence.
- 1.4 Prescribing should be short-term i.e. a maximum of 7 days treatment.
- 1.5 Prescribing should follow Barking, Havering & Redbridge Trust Formulary guidelines i.e. non-Formulary medicines will not be ordered for personal use by medical staff.
- 1.6 Controlled drugs may not be prescribed.
- 1.7 Drugs with potential for misuse may not be prescribed e.g. hypnotics, sedatives.
- 1.8 In an emergency, prescribers ideally should be seen in A/E and obtain a prescription with an A/E record number.
- 1.9 **Charges:** Normal prescription charges per item with no exemption.

## **2. PRESCRIBING FOR COLLEAGUES AND STAFF**

- 2.1 Prescribing for colleagues and staff without a consultation and examination is not deemed good practice and is not in accordance with GMC advice on Good Clinical Practice. Such prescribing should not take place except as part of a regular consultation and follow-up.

## **3. PRESCRIBING FOR FRIENDS**

- 3.1 Such prescribing is not allowed unless that person is a bona-fida patient seen at a normal consultation.

## **4. FP10(HP) FORMS**

- 4.1 The costs of all items dispensed are charged to the Trust.
- 4.2 FP10(HP) forms are returned to the Trust and audited.
- 4.3 If doctors are found to have prescribed for themselves for an un-registered person outside these guidelines, they may be charged the cost of the prescription.
- 4.4 Consistent abuse of these guidelines will be a disciplinary matter.

## **5. NON-EMERGENCY PRESCRIBING**

Non-emergency prescribing for regular medication for self and family is not permitted within the Trust.



Approved by MOG: Via Monthly Medicines Optimisation Group Meetings

Review Date: Ongoing review

## 16 Unlicensed & Specialists Use Drugs Approved by MOG

### **Ruxolitinib (INC424)**

“**Incyte®**” 5mg tablets

(Approved for 2<sup>nd</sup> line compassionate treatment in patients with high risk myelofibrosis)

Requested by Dr. K Saja (Cons. Haematologist)

### **Intrathecal Fluorescein Sodium**

(For diagnosis of CSF leak by Dr. P Chatrath Consultant ENT surgeon)

### **Sativex “Cannabis Extract”**

Oromucosal Spray

(For muscle spasticity, to be funded by Neurosciences directorate)

(For Dr. A Chaudhuri’s use only)

### **Thalidomide tablets**

(Haematologists only for multiple myeloma and myelofibrosis with cytopenias +/- splenomegaly)

### **Peginterferon alfa-2a (Pegasys®)**

(Consultant Haematology for patients with polycythaemia vera or essential thrombocythaemia)

### **nPbR Bevacizumab (Avastin®)**

(For the treatment of neovascular glaucoma and non-NICE indicated choroidal neovascular membranes in non-wet age related macular oedema or non-myopia for patients under the age of 50 years)

Ophthalmologists Only

### **Diphenylcyclopropenone/diphencypro ne (DPCP/DCP)**

(For alopecia areata after topical and lesional steroids) Dr. Wade’s use only

### **Idarucizumab 2.5g/50ml solution for injection/infusion (Praxbind®)**

### **5-aminolevulinic acid 30mg/ml powder for oeral solution (5-ALA) (Gliolan®)**