The Critical Medication List

A List of Medicines that must be given urgently: i.e. immediately or within 2 hours

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor</td>
<td>To notify nursing/midwifery staff promptly when new medication is prescribed.</td>
</tr>
<tr>
<td>Nurse / Midwife</td>
<td>To obtain &amp; administer the medication promptly, either from patient’s own supply or from pharmacy (see below). Patient’s own supply should always be obtained where possible but this is not an acceptable reason for delaying a critical medicine.</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>To supply a critical medicine as a priority.</td>
</tr>
</tbody>
</table>

Obtaining a Critical Medicine – the Nurse/Midwife should:

**During normal pharmacy opening hours** (Mon-Fri 9am-6pm, Sat & Bank Holidays 9am-12.30)
1) Contact Pharmacy (via telephone of ward specialist pharmacist or cover pharmacist).
2) Pharmacist will either order from ward on an urgent request to ring ward when ready OR Nurse will be advised to send chart down to pharmacy.

For a critical medication it **will be expected** that the member of ward staff will wait for the item at pharmacy to ensure there is no undue delay.

Nursing staff should **always** obtain drugs via pharmacy during opening hours

**Out-of-hours** (6pm-9am Mon-Fri, Sat & Bank Holidays after 12.30, all day Sundays)
1) Firstly consult the ‘Emergency Drug Cupboard’ List (see Medicines Zone on StaffNet)
2) If the medication is not on the list and cannot be obtained from a speciality ward, contact ONCALL Pharmacist via Switchboard for advice/supply

Any permanent Nurse / Midwife are permitted to obtain medicines from the Emergency Drug Cupboard, or a speciality ward provided it is out-of-hours.
### Critical Medicines List

**Drugs on this list are stocked in the Emergency Drug Cupboard. Speciality wards that also stock some drugs are listed under each entry.**

<table>
<thead>
<tr>
<th>Drug Group/ Class</th>
<th>Rationale for inclusion</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STAT</strong> doses of any drug if prescribed outside of a scheduled drug round</td>
<td>Any drug that is deemed urgent enough to be prescribed as a “STAT” on front of drug chart</td>
<td>Loading doses, 1st dose antibiotics</td>
</tr>
</tbody>
</table>

**Adverse Reactions**

| Emergency treatment of anaphylaxis / allergy | When used for the treatment of acute anaphylaxis and angioedema | Antihistamines i.e. Chlorphenamine inj, Adrenaline, C1-Esterase Inhibitor |

| Drugs used for poisoning/ overdose/ toxicity | Failure to reverse toxicity of drugs with risk of patient harm | Vitamin K, desferrioxamine, Snake bite antivenom, Intralipid for bupivacaine toxicity, Acetylsysteine, Digifab, Flumazenil and Naloxone, Fomepizole (alternative to Alcohol 100%), Dicobalt injection |

| Extravasation injury | When used to enhance permeation of subcutaneous or intramuscular injections following extravasation. | Hyaluroidase |

**Infection**

| Systemic Antimicrobials (antibiotics, antivirals, antifungal or antimalarial) | Potential worsening of systemic infection and deterioration of condition | Tazocin, Meropenum, Clindamycin, AmBisome, Fluconazole, Aciclovir |

| Management of | First doses of injectable drugs should be given immediately. Include antibiotics, antifungals, antivirals and antiretrovirals | Meropenem, Filgrastim / Ratiograstim |

**Diabetes / Glycaemic Control**

<p>| Insulin | Poor glycaemic control and potential for symptomatic hyperglycaemia, Management of diabetic ketoacidosis (DKA). | IV Insulin Infusions (formerly referred to as sliding scale), Short acting insulin’s Humulin S, Novorapid, Humulin S |</p>
<table>
<thead>
<tr>
<th><strong>Oral hypoglycaemic agents</strong></th>
<th>A range of <strong>Insulins</strong> are stocked on Westcliff Ward</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Glucose/glucagon &gt; 5%</strong></td>
<td>Poor glycaemic control and potential for symptomatic hyperglycaemia</td>
</tr>
<tr>
<td></td>
<td>- Metformin, Gliclazide, Sitagliptin, Saxagliptin, linagliptin</td>
</tr>
<tr>
<td><strong>Glucose 10% is available in black Peri-arrest box</strong></td>
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</tbody>
</table>

### Bleeding and Gastroenterology

<table>
<thead>
<tr>
<th><strong>Drugs for active bleeding</strong></th>
<th>Medical emergency To treat major peptic ulcer or peptic ulcer bleeding or when used to prevent acid aspiration in ventilated patients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Terlipressin, Omeprazole IV</strong> are stocked on Eleanor Hobbs Ward</td>
<td>- Omeprazole infusion - Terlipressin injection - Tranexamic Acid injection</td>
</tr>
</tbody>
</table>

**Management of alcohol related emergencies**

- withdrawal
- variceal bleeding

**Chlordiazepoxide, Pabrinex and Terlipressin** are stocked on Eleanor Hobbs Ward

### Cardiac

<table>
<thead>
<tr>
<th><strong>Injectable Anti-arrhythmics</strong></th>
<th>Failure to treat arrhythmia with risk of patient harm</th>
</tr>
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<tbody>
<tr>
<td><strong>Digoxin</strong> for rapid digitalisation as a loading dose, either given orally or by intravenous infusion.</td>
<td>- Digoxin, - Amiodarone - Beta-blocker injection - Adenosine.</td>
</tr>
</tbody>
</table>

**Beta-blockers** for arrhythmias and thyrotoxic crisis when used by parenteral routes for the treatment of arrhythmias

<table>
<thead>
<tr>
<th><strong>Vasodilator Antihypertensives</strong></th>
<th>Potential worsening of clinical condition Pulmonary hypertension or hypertensive crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sodium Nitroprusside</strong></td>
<td>- Sodium Nitroprusside - Iloprost (named patient only – via pharmacy only) - Hydralazine injection</td>
</tr>
</tbody>
</table>

### Sympathomimetics

| All drugs used for the range of acute indications specified in the BNF including use of inotropes in settings including ITU and surgery, and following septic or cardiogenic shock; vasconstrictors to reverse hypotension; and drugs used in cardiopulmonary resuscitation. | - Dobutamine / Dopamine - Ephedrine / Metaraminol - Noradrenaline / Adrenaline - Phenylephrine |

### Thrombosis / Embolus

<table>
<thead>
<tr>
<th>Management of acute coronary &amp; neurological events i.e. <strong>Antiplatelets</strong></th>
<th>Progression of thrombus and risk of serious embolic episode (stroke/PE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Aspirin and Clopidogrel loading doses - Tenecteplase / Alteplase</td>
</tr>
</tbody>
</table>
### Antithrombotics
- **Fibrinolysis**

### Anticoagulants
(thromboprophylaxis)

- Risk of thrombus and serious embolic episode
- For DVT/PE & ACS treatment

### Reversal of Anticoagulation and Vitamin K deficiency in neonates

- For reversal of excessive anticoagulation with heparin or warfarin - bleeding risk

**Dabigatran & Apixaban** are stocked on Benfleet Ward

**Beriplex** is obtained from pathology

**Respiratory**

### Bronchodilators and Respiratory stimulants
Management of respiratory emergencies.
Acute asthma attack, COPD exacerbation

- Deterioration in clinical condition
- When used for the management of an acute asthma attack or COPD exacerbation
- When used for postoperative respiratory depression, acute respiratory failure

**Aminophylline IV** is stocked on Rochford Ward

**Pulmonary Surfactants**
When used in the management of respiratory distress syndrome in neonates and premature neonates

- Beractant
- Poractant

**Neurology & Mental Health**

### Antiepileptic agents
(inc management of status epilepticus)

- Loss of seizure control

**Antiepileptics**

- Diazepam/Lorazepam,
- Phenytoin, Levetiracetam,
- Carbamazepine, Sodium Valproate, Lamotrigine
- Phenytoin injection

**Antiparkinsonian** agents
And drugs used in related disorders

- Loss of symptom control.

**Anti-Parkinson’s drugs**

Management of acute drug induced dystonia

**Antipsychotics**

- Loss of symptom control.

**Antipsychotics**

- Lithium (Priadel®)
- Clozapine
- Quetiapine, Risperidone,
- Olanzapine, valproic acid (Depakote®) (where used in psychosis)
### Analgesia

**Opiates**
- **Strong opiates**
  - Loss of pain control.
  - Increased need for intermittent analgesic doses
  - Moderate - Severe pain
  - Severe Chronic Pain
  - Acute pain settings including peri-operatively and as treatment for acute migraine
  - Breakthrough pain

Oral, injectable & transdermal medicines
- Morphine, Diamorphine
- Fentanyl,
- Oxycodone,
- Alfentanil, Remifentanil,
- Buprenorphine Patches.
- Methadone

A range of **controlled drugs** are stock on Elizabeth Loury and Bedwell Wards. You are permitted to obtain up to 1 dose unit from another ward in accordance with Trust Policy MMP004 out of hours

### Fluids and electrolytes

**Emergency IV Fluids/ Plasma expanders**
- The degree of risk from a missed dose will depend on the condition of the patient. e.g. a delay in administering fluids to a patient with hypovolaemic shock would be more serious than a delay in clinically stable patient with mild dehydration.

  - Sodium Chloride 0.9%
  - Glucose 5%
  - Gelofusine
  - Hartmann’s

**Parenteral electrolyte replacement** includes potassium, phosphate, magnesium, calcium, sodium bicarbonate for treatment of deficiency or asthma
- Deterioration in clinical condition or compromised breathing
- Also Mg used in arrhythmias, pre-eclampsia, severe acute asthma

  - Calcium
  - Potassium
  - Phosphate infusion
  - Sodium bicarbonate
  - Magnesium

A range of **different strengths of fluids** are stocked on Critical Care
- **Sodium Bicarbonate** is stocked on Blenheim Ward
- **Phosphate infusion** is stocked on Eleanor Hobbs Ward

**Management of Hyperkalaemia**
- Deterioration in clinical condition or compromised breathing

  - Calcium injection
  - Calcium resonium powder
  - Glucose/Insulin infusion

**Management of Hypercalcaemia**
- Deterioration in clinical condition

  - IV Fluids
  - IV Bisphosphonates i.e. Pamidronate, Zoledronic acid, Salcatonin inj

### Endocrine

**Corticosteroids**
- Treatment failure in acute conditions or flare up when used in the long-term management of inflammatory disorders.
- Risk of acute adrenal insufficiency with abrupt withdrawal after a prolonged period of corticosteroid use (addisonian crisis)
- Oncological emergencies e.g.

  - Methylprednisolone
  - Hydrocortisone injection and oral
  - Dexamethasone/ Prednisolone
  - Hydrocortisone when used in acute adrenocortical insufficiency.
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impending spinal cord compression, SVCO or airway obstruction due to SCLC, high grade lymphomas etc</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Management of Hypothyroid coma</strong></td>
<td>Deterioration in clinical condition</td>
<td>Liothyronine injection</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td>Risk of rejection due to sub therapeutic levels</td>
<td>Tacrolimus, mycophenolate, ciclosporin, tretinoin, acitretin, azathioprine, sirolimus</td>
</tr>
<tr>
<td><strong>Emergency ophthalmic situations:</strong></td>
<td></td>
<td>Corticosteroid eye drops, Potassium Ascorbate eye drops, Cefuroxime eye drops</td>
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<tr>
<td></td>
<td>• Severe eye infections</td>
<td>For serious infections and where often combined with systemic anti-infective treatment</td>
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<td></td>
<td>• Acute glaucoma</td>
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<td></td>
<td>• Acute uveitis</td>
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<td></td>
<td>• Chemical burns to the eye</td>
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<tr>
<td><strong>Chemotherapy, including adjunctive therapies as part of regimen</strong></td>
<td>Delay in treatment / disruption of chemotherapy regimen scheduling. Treatment failure All injectable chemotherapy and support drugs prescribed acutely with these drugs Includes Mito-In device</td>
<td>Oncological Emergencies e.g. Impending spinal cord compression, SVCO or airway obstruction due to high grade lymphoma or where “time-critical” treatment has been shown to affect outcome e.g. Mitomycin Bladder Instillation within 6hrs</td>
</tr>
<tr>
<td><strong>Prophylactic agents</strong></td>
<td>Increased risk of adverse drug events with known toxic medicines</td>
<td>Chlorphenamine, Hydrocortisone, Acetylcysteine, Bowel preps in surgery, Ondansetron – before Radiotherapy and Chemotherapy</td>
</tr>
<tr>
<td>to reduce toxicity/ side effects (including ‘Pre-meds’)**</td>
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</tr>
<tr>
<td><strong>Anaesthetic agents</strong> &amp; Drugs for management of anaesthetic emergencies**</td>
<td>Delay in treatment / disruption</td>
<td>Inhalation agents, Neuromuscular blockers &amp; reversal agents inc. Sugammadex, Dantrolene, Atropine, Midazolam</td>
</tr>
<tr>
<td><strong>Management of obstetric emergencies</strong></td>
<td>To induce abortion or augment labour. To prevent premature labour</td>
<td>Prostaglandins/ Oxytocics, Carboprost, Dinprostone, Ergometrine. Oxytocin, Myometrial relaxants, Atosiban</td>
</tr>
</tbody>
</table>