## 14 ANTIDOTES & DIAGNOSTIC TESTS

### 14.01 ANTIDOTES & DETOXIFYING AGENTS

<table>
<thead>
<tr>
<th>GENERIC (TRADE) NAME</th>
<th>CAT.</th>
<th>INDICATION/DOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylcysteine Inj 200mg/ml, 10ml (Parvolex)</td>
<td>EDL</td>
<td>Paracetamol (Acetaminophen) overdose: IV infusion in D5, initial dose 150mg/kg in 200ml over 15 min, followed by a dose of 50mg/kg in 500ml over 4 hours, than a dose of 100mg/kg in 1000ml over 16 hrs. NOTE: Give within 24 HOURS of ingestion, for its use beyond that time period seek expert advice.</td>
</tr>
<tr>
<td>Atropine Sulphate Inj 100ug/ml, 600ug/ml &amp; 1mg/ml</td>
<td>EDL</td>
<td>Reversal of muscarinic effects: IM or IV 2mg (undiluted) every 20-30 min until skin becomes flushed and dry, pupils dilate &amp; tachycardia develop. Control of muscarinic side effects of neostigmine in reversal of competitive neuromuscular block: inject slow IV injection (undiluted) 0.6-1.2mg.</td>
</tr>
<tr>
<td>Charcoal Powder (Activated) 300g</td>
<td></td>
<td>Reduction of absorption of poisons that are toxic in small amounts (especially aspirin, carbamazepine, dapsone, phenobarbitone, quinine, and theophylline): orally 50g mixed in 100mls of water initially, then 25-50g given 4 hourly; child &lt; 12 yo give half adult dose. NOTE: Give within 1-2 HOURS of ingestion, or within 4 hours for salicylates/SR drugs.</td>
</tr>
</tbody>
</table>

*Cont. next page*
<table>
<thead>
<tr>
<th>GENERIC (TRADE) NAME</th>
<th>CAT.</th>
<th>INDICATION/DOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flumazenil Inj 0.5mg/ 5ml (Anexate)</td>
<td>EDL</td>
<td>Reversal of sedative effects of benzodiazepines in anaesthesia/ICU: Adult, slow IV 0.2mg (undiluted over 15 sec), then 0.1-0.2mg every 1 min prn; usual 0.3-0.6mg; max total dose 1mg (2mg in intensive care). Same dosing regimen if resedation occurs (flumazenil has short duration of action), to max 3mg in a one-hour period, or give IV infusion in D5/NS/LR via a large vein 0.1-0.4mg/hr according to level of arousal. Child, slow IV dose 10ug/kg (max 0.2mg) over 15 sec, repeat at one-min intervals up to max 5 doses; or IV infusion 5-10ug/kg/hr.</td>
</tr>
<tr>
<td>Naloxone HCl Inj 0.4mg/ml, 5ml (Narcan)</td>
<td></td>
<td>Overdosage with opioids: Adult IV bolus 0.8-2mg every 2-3 min to max 10mg if respiratory function does not improve (then question diagnosis); child dose 10ug/kg, then subsequent dose of 100ug/kg if no response. Reversal of opioid-induced respiratory depression: Adult IV 1.5-3ug/kg or 100-200ug; if needed give incremental doses of 100ug every 2 min; further doses IM after 1-2 hr prn, titrate to response, be careful to avoid interference with control of post-op pain. Child, IV 5-10ug every 2-3 min until adequate ventilation and alertness without significant pain obtained. If needed dose may be repeated every 1-2 hr. For IV injection, give undiluted or diluted with WFI for a convenient volume. For IV infusion add 2mg (5ml of 0.4mg/ml solution) to 500ml of D5/NS to give 4ug/ml solution.</td>
</tr>
</tbody>
</table>
**Protamine Sulphate Inj**

<table>
<thead>
<tr>
<th>GENERIC (TRADE) NAME</th>
<th>CAT.</th>
<th>INDICATION/DOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protamine Sulphate Inj 10mg/ml, 5ml</td>
<td>EDL</td>
<td>Slow IV Inj (undiluted or dilute in D5/NS) over 10 min, 1mg neutralises 80-100 units heparin when given within 15 min; if longer, less protamine needed (heparin excretion rapid), max 50mg total dose.</td>
</tr>
</tbody>
</table>

**COMMENT/CAUTIONS:**

- It is often impossible to establish with certainty the identity of the poison and the dosage, but few poisons have specific antidotes and most patients must be treated symptomatically.
- For further info see TOXBASE, the primary clinical toxicology database of the National Poisons Information Service in the UK, at [www.spib.axl.co.uk](http://www.spib.axl.co.uk).

### 14.02 DIAGNOSTIC AIDS & TEST PREPARATIONS

<table>
<thead>
<tr>
<th>GENERIC (TRADE) NAME</th>
<th>CAT.</th>
<th>INDICATION/DOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Barium Sulphate 30-200% w/v Oral/Rectal Solution [Radiocontrast media]</td>
<td>EDL</td>
<td>For examination of the gastrointestinal tract. Do not use if risk of obstruction/perforation. Ensure adequate hydration after procedure to prevent severe constipation. See manufacturer’s leaflet for dose details.</td>
</tr>
<tr>
<td>*Fluorescein Disodium 0.4moles in H2O Medium, Strips for Ophthalmic Use (Fluorescite)</td>
<td>MSL</td>
<td>For diagnosis of corneal epithelial defects. For single use only, externally, applied to the conjunctiva or conjunctival sac where tears will dissolve the strip, then leave in contact for 5 seconds. Do not use on damaged eye tissue, and do not touch the fluorescein-coated tissue. See product leaflet for details.</td>
</tr>
</tbody>
</table>

*Cont. next page*
### Diatrizoates, amidotrizoate
**sodium 100mg + meglumine 660mg per ml Oral/Rectal Solution (Gastrograin)**

**[Radiocontrast media – iodinated]**
(Iodine content 370mg/ml)

**NOTE:** Anaphylaxis risk, observe patients for 30-60 minutes after administration, ensure presence of emergency equipment.

<table>
<thead>
<tr>
<th>INDICATION/DOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>For examination of gastrointestinal tract. May be used in patients with risk of obstruction/perforation. Ensure adequate hydration after procedure to prevent severe constipation. Avoid in manifest hyperthyroidism or iodine sensitivity.</td>
</tr>
<tr>
<td>Oral, adult &amp; child &gt; 10 yo, 60ml for visualisation of the stomach, max 100ml; child &lt; 10yo, 15-30ml; dilute with equal volume of water if used in child, elderly or cachectic patients. CT scan, 1-1.5 litre of 3% solution (30ml gastrografin/1L water).</td>
</tr>
<tr>
<td>Rectal, adult, dilute gastrografin with 3-4 times its volume of water, usually not more than 500ml diluted solution needed; child&gt; 5yo, dilute with 5 times its volume of water.</td>
</tr>
<tr>
<td>With barium sulphate: adult, add 30ml gastrografin to usual barium dose; child 5-10yo, add 10ml; child &gt; 5yo, add 2-5ml.</td>
</tr>
</tbody>
</table>

### Iohexol 240mg I/ml
(Omnipaque)

**[Radiocontrast media – iodinated]**
(Iodine content 240mg/ml)

**NOTE:** Anaphylaxis risk, observe patients for 30-60 minutes after administration, ensure presence of emergency equipment.

<table>
<thead>
<tr>
<th>INDICATION/DOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-ray &amp; CT scan contrast medium. Ensure adequate hydration after procedure to prevent constipation. Avoid in manifest hyperthyroidism or iodine sensitivity.</td>
</tr>
<tr>
<td>IV, intra-arterial, intrathecal, oral, rectal use.</td>
</tr>
</tbody>
</table>

See manufacturer’s leaflet for dose details.
<table>
<thead>
<tr>
<th>GENERIC (TRADE) NAME</th>
<th>CAT.</th>
<th>INDICATION/DOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Blue Inj 1%</td>
<td></td>
<td>As dye in diagnostic procedures such as fistula detection and for delineation of certain body tissues during surgery.</td>
</tr>
<tr>
<td>*Tuberculin PPD Inj, Purified 100iu/ml (Mantoux test, Monotest)</td>
<td></td>
<td>Routine Mantoux tuberculosis test: 0.1ml intradermally, preferably at the flexor surface of the forearm, and examined 48-72hrs later. See Micromedex for details.</td>
</tr>
</tbody>
</table>

**COMMENT/CAUTIONS:**

- **Radiocontrast Media:** Anaphylactoid reactions to iodinated radiocontrast media are more common with high osmolality compounds. Patients with a history of asthma or allergy, drug hypersensitivity, adrenal suppression, heart disease, previous reaction to contrast media, and those receiving beta-blockers are at increased risk. Non-ionic media are preferred for these patients and beta-blockers should be discontinued if possible.

- **Tuberculin/Mantoux Test:** Bacillus Calmette-Guérin (BCG) vaccinated individuals will usually show a positive reaction to tuberculin test if given within 6-12 weeks after BCG vaccination; a few years after, reaction to tuberculin tests may be either positive or negative; a positive reaction to tuberculin PPD years after BCG vaccination suggests tuberculous infection.

- **Opened vials of tuberculin PPD should be discarded after 1 month of use.**