

# ACUTE POISONING

Mnemonic- **Resus R S I D E A D**

## RESUSCITATION

**D R S A B C D** → **Cardiac Arrest** – follow BLS/ALS.

**Not cardiac arrest** → **Critically ill** – Follow ABCDE approach.

**A** - Assess the adequacy of airway and provide protection with an ET tube if necessary.

**B** - Monitor breathing and ventilate if necessary.  
Ventilatory failure → hypoxia and hypercarbia

**C** - Manage hypotension according to the cause.  
eg. Hypovolemia, arrhythmia, cardiac depression.  
Correct hypoxia, hypercarbia, acidosis, electrolyte abnormalities.

**D** - Prolonged convulsions should be treated with benzodiazepines

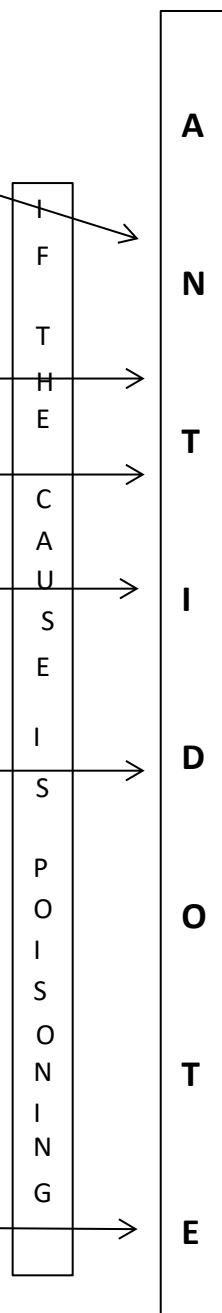
**E** - Check for other injuries. eg. Head injuries.  
Ensure - normoglycaemia and normotension.

**Non-critically ill**

## RISK ASSESSMENT

History from patient and collateral history. History of poisoning +

- If known poisoning, consider antidote.
- If unknown poisoning applies toxidrome.



## TOXIDROMES

Toxidrome	Causative agents	Clinical features	Management
<b>Sympathomimetic</b>	Cocaine Amphetamines Gamma hydroxybutyrate Decongestants Caffeine Theophylline	Sweating Hyperthermia Anxiety Hypertension Chest pain Agitation Hyperreflexia Seizures Rhabdomyolysis Intracerebral bleeds	Supportive. Intravenous fluids. Benzodiazepines for agitation or seizures. Intravenous glyceryl trinitrate (GTN) or phentolamine for hypertension that does not respond to Benzodiazepines. Aspirin, benzodiazepines, and GTN for chest pain.

## **SUPPORTIVE CARE**

Mechanical ventilation  
Circulatory support  
Antidote and poison-specific measures.

## **INVESTIGATIONS**

VBG  
Urine hCG  
ECG  
LFT,  
RFT  
FBC

## **DECONTAMINATION**

Skin decontamination  
Active charcoal – 1g/kg orally within 1hr of poisoning  
Gastric lavage – for life-threatening overdose within 2 hours  
Whole bowel irrigation with klean prep

## **ELIMINATION**

Depends on the type of the poison. Urinary  
alkalization with  $\text{NaHCO}_3$  infusion  
Hemodialysis – methanol, lithium, phenobarbital  
Hemoperfusion – barbiturates, theophylline, choral hydrate

## **ANTIDOTE**

### **Drug Antidotes**

Drug	Antidote
Acetaminophen	Acetylcysteine
Anticholinergics	Physostigmine
Benzodiazepines	Flumazenil
Ca Channel Blockers	Calcium Chloride
Cyanide	Hydroxocobalamin Amyl Nitrite, Sodium Nitrite, Sodium Thiosulfate
Digoxin	Digoxin Immune Fab
Heparin	Protamine Sulfate
Iron	Deferoxamine
Insulin	Glucagon
Lead	Dimercaptosuccinic Acid/EDTA
Opioids	Naloxone
Warfarin	Vitamin K

			Cooling (if resistant to hyperthermia consider dantrolene).
<b>Anticholinergic</b>	Tricyclic antidepressants Antihistamines Antipsychotics Selective serotonin reuptake inhibitors Anti-parkinsonian Atropa belladonna (deadly nightshade)	Mad as a hatter (confusion, delirium). Hot as a hare (hyperthermia). Blind as a bat (mydriasis). Red as a beet (flushing). Dry as a bone (dry mouth and skin). Urinary retention. Sinus tachycardia. Functional ileus (reduced bowel sounds, Constipation). Hypertension.	Supportive. Intravenous fluids. Benzodiazepines for agitation or Seizures. Cooling.
<b>Cholinergic</b>	Organophosphates Physostigmine Carbamate insecticides	Parasympathetic symptoms: <b>Diarrhoea</b> <b>Urination</b> <b>Miosis</b> and muscle weakness <b>Bronchorrhoea</b> <b>Bradycardia</b> <b>Emesis</b> <b>Lacrimation</b> <b>Sweating, salivation</b> Nicotinic symptoms: weakness, fasciculations, and paralysis CNS symptoms: drowsiness, seizures	Decontamination Supportive Atropine (titrate until secretions dry up) Pralidoxime
<b>Opioid</b>	Morphine Heroin	Miosis Respiratory depression Reduced level of consciousness Coma Hypotension	Supportive. Naloxone (dose 400 mcg IV/IM, which may be repeated up to a dose of 10 mg.

## **DISPOSITION**

The Patient must be admitted to an environment capable of providing an adequate level of monitoring and supportive care.

ICU admission is needed for,

- Unstable patient

- Potentially lethal overdose

- Cardio toxic overdose

Psychiatric counseling