



Round : Forensic Medicine

Group no : A4

Done By : Feras Atieh

* IV naloxone (2 mg in adults - 0.1 mg/kg in children) should be tried while airway support is maintained.

* **Hypotension** is treated with IV fluids.

* The first-choice vasopressor for most poison-induced **hypotension** is >>norepinephrine 0.5 to 1 mg/min IV infusion.

* flumazenil > antidote for **benzodiazepine**. 0.2 mg IV „If no response >>0.3 mg 1 min later, if no response >> again 0.5 mg IV, to max cumulative dose of 3 mg/hr

* **thiamin deficiency** (eg, alcoholics, malnourished patients), thiamin 100 mg IV is given with or before glucose.

* Tannin is antidote for all **alkaloids**

* Gastric lavage 6-12 hours is recommended in ingestion of salicylates , tricyclics , carbamazepine and barbiturates

* polyethylene glycol for whole bowel irrigation

طالعي صربتي سيارة البارباردا

* Mechanical antidotes: less absorption only

ADSORBENT LIKE ACTIVATED CHARCOAL

DEMULCENTS SUCH AS MILK, EGG WHITE, STARCH DILUENTS SUCH AS MILK

BULKY FOODS (LIKE BANANAS, BOILED RICE, POTATOES)

Causative Agent	Effect (Signs/Symptoms)
Opioids:	<i>small eye</i> Hypoventilation Hypotension Miosis Sedation Possibly Hypothermia
Heroin	
Morphine	
Methadone	
Pentazocine	
Propoxyphene	
Primary Antidote = Naloxone	

Causative Agent	Effect (Signs/Symptoms)
Nicotine	Tachycardia Hypertension Fasciculations Abdominal pain Paresis
Black widow spider bite	
Carbamates	
Some Organophosphate	

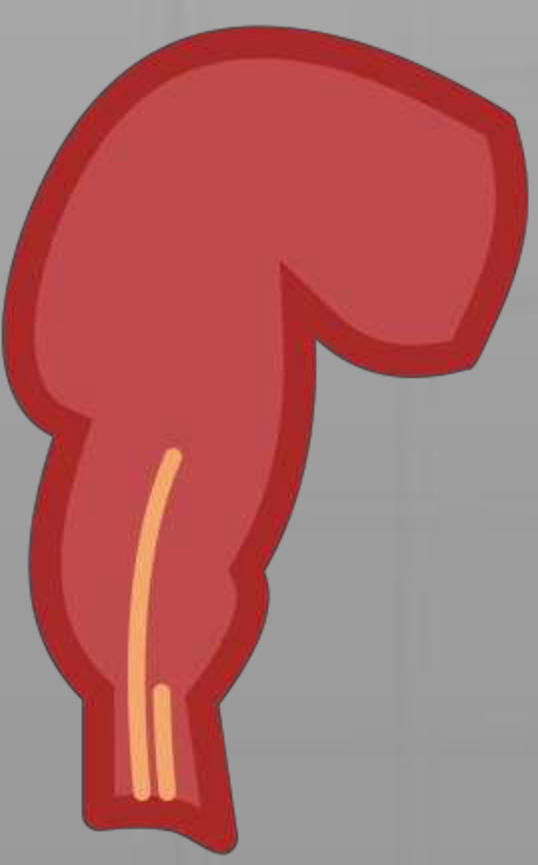
Causative Agent	Effect (Signs/Symptoms)
Amphetamines	Tachycardia Hypertension <u>Mydriasis</u> Agitation and Seizures Diaphoresis Hyperthermia
Caffeine	
Cocaine	
Ephedrine	
Theophylline (for asthma)	
Benzodiazepines, Beta blockers, Activated charcoal.	

Causative Agent	Effect (Signs/Symptoms)
Antihistamines	Tachycardia Mydriasis Hyperthermia Warm and Dry skin Urinary Retention Constipation Delirium
Atropine	
Scopolamine	
Jimson weed	
Tricyclic antidepressants	
Many Psychotic drugs	



cathartics

promote rectal evacuation of
GI contents



used substances & dose

01.

Salts – Disodium phosphate,
Magnesium citrate & sulfate,
Sodium sulfate , Saccharides –
Mannitol, Sorbitol

Side effects – Abdominal
cramps, nausea vomiting

02.

Complications – Excessive
diarrhoea, Hypermagnesemia

contraindications :

03.

– Corrosives
Pre existing diarrhoea

CHEMICAL ANTIDOTES

albumin

for mercury poisoning

copper sulphates

for phosphorus

**Tincture iodine
or lugol's iodine**

tannic acids

or strong tea used for lead ,
mercury , nickel , zinc , copper
poisoning

**the chemical antidotes
disintegrate and
inactivate poisons by
undergoing chemical
reactions along with the
poisons and forming
harmless or insoluble
compounds**

weak vegetable acids

citric acid , and acetic acid (vinegar , lemon juice) , it can be used for corrosive alkaline poisoning

Weak non-carbonate alkalis

Alfredo Torres in corrosive acid poisoning , weak non-carbonate ^{alkalis} act as neutralizers . Strong alkalis are avoided as they can cause further damage to the stomach

potassium permanganate

used in poisoning with oxidizable substances like cyanides , phosphorus , atropine and other alkaloids

ACTIVATED CHARCOAL

uses

.it is used in cases of poisoning
with morphine , atropine ,
nicotine , barbiturates , salicylic
acid ,phenol and highly
dissociated salts of cyanide

more at r also Barb
(yes) nicotine

NOT USED IN :

Caustics , Corrosives , Heavy
metals , Alcohol , Rapid onset –
cyanide , Chlorine , Iron ,
aliphatic hydrocarbon , lithium

side effects

nausea , vomiting , aspiration,
and altered bowel habit >>
Charcoal may also prevent the
absorption of orally
administered therapeutic
agents.



Toxin	Antidote
Acetaminophen	N- Acetylcysteine
Anticholinergics	Physostigmine
Benzodiazepines	Flumazenil
β-Blockers	Glucagon
Ca channel blockers	Ca IV insulin in high doses with IV glucose
Carbamates	Atropine Pralidoxime chloride
Cyanide	Hydroxocobalamin Cyanide antidote kit(includes amyl nitrate, Na nitrite, and Na thiosulfate)

Atropine

yes by 5 mg

TOXIN	ANTIDOTE
Heavy metals	Chelating drugs
Iron	Desferoxamine
Isoniazid <i>iso → PSUP</i>	Pyridoxine (<u>vitamin B₆</u>)
Methanol	Ethanol Fomepizole
<u>Methemoglobin</u> -forming agents (eg, aniline dyes, some local anesthetics, nitrates , phenacetin, sulfonamides)	<u>Methylene blue</u>

BRITISH ANTI-LEWISITE (B.A.L) DIMERCAPTOPROPANOL

liver

MECHANISM OF ACTION

It has two unsaturated -SH groups which combine with the metal and thus prevent the union of the metal with the -SH group of respiratory enzyme system.

USES & DOSE

Used in arsenic, lead, bismuth, copper, mercury, gold and other heavy metal poisoning.
10% solution in oil (3-5 mg/kg i.m. 4 hourly for 2 days, 6 hourly for 1 day, and then 12 hourly for 10 days

SIDE EFFECTS

nausea, vomiting , headache and hypertension,
ANOREXIA , GENERALISED ACHES AND PAINS ..

CONTRAINDICATIONS

liver damage
G-6-P D deficiency
cadmium and iron poisoning

ETHYLENE DIAMINE TETRA-ACETIC ACID

(E.D.T.A)

PHARMACOKINETICS

Superior to BAL in treatment of poisoning with
mercury and arsenic.

Distributed only extra-cellularly .

Excreted by urine

Given i.v.

USES & DOSE

Effective in lead, mercury, copper, cobalt,
cadmium, iron and nickel poisoning

Dose: 25-30 mg/kg in 250-500 ml of 5% glucose or
NS over 1-2 hour , twice daily for 5 days and may
be repeated after 2-3 days.

SIDE EFFECTS

THROMBOPHLEBITIS , NAUSEA , VERTIGO ,
VOMITING , FEVER , HEADACHE ,
HYPERSENSITIVITY .

CONTRAINDICATIONS

IN RENAL DAMAGE
RAISED INTRACRANIAL PRESSURE

CHELATING AGENTS

المشروبات

**(Penicillamine)
(cuprimine)**

For copper, lead and mercury poisoning.

**USES :In Wilsons disease, cystinuria and scleroderma
Dose : 30 mg /kg up to a total of 2 g/day in 4 divided doses , orally for about 7 days.**

Desferrioxamine

**In acute iron poisoning
used in Transfusional chronic iron overload**

Dose: 2 g in 5% of laevulose solution given i.v. and repeated after 12 hours .