§中毒與藥物過量一般處理原則

中毒的初步處理：(ABCDE)- Airway、Breathing、Circulation、Decontamination、Enhanced removal

1. 病史 **理學檢查 生命徵象：**血壓、體溫、脈搏、呼吸(ABC)
2. 中毒與藥物過量實驗室數值分析. 毒物檢測：心電圖、血氧氣、X-rays、生化檢查 etc.

*目前本院可測 Cholinesterase， Paraquat (blood and urine)(腎臟科)， Acetaminophen(核醫科)， HbCO， Barbiturate and Lithium etc.

Gastric lavage 胃灌洗（一般用於二小時內）

***適應症：**任何急性毒性物質的吞食，有須要洗胃並且不適合使用吐根者，預期病人意識或生命徵象會快速改變，TCA 中毒者已失去嘔吐反射且已經插管保護氣道以免吸入

***禁忌症：**腐蝕劑吞食、大型異物或尖銳異物吞食者。

***併發症：**吸入性肺炎、食道或胃穿孔、壓力性氣胸或肺氣腫。

活性碳

***劑量**：成人 60-90 gm，小孩 1g/kg。

*多劑量的活性碳使用方式：特別在於 Barbiturate，Theophylline，Carbamezapine，Phenytoin，Digoxin，Paraquat， Organophosphate or Carbamate 等藥物的中毒有良效。

***禁忌症：**若是病人的腸蠕動不良，活性碳則須要經由鼻胃管去除。對於活性碳與輕瀉劑一起使用時，容易造成液體與電解質的流失。

***併發症：**活性碳是一種無毒的物質，不會單獨造成病患的傷害，但是曾有肺吸入而致死的個案報告

*不會被活性碳所吸附 (小分子或帶電離子)：如鐵、酒精、鋰等。

Antidotes

Poison or toxic sign	Antidote	Adult dosage
Acetaminophen	N-Acetylcysteine	140 mg/kg PO， followed by 70 mg/kg q4h x 17 doses
Anticholinergics	Physostigmine sulfate	0.5-2.0 mg IV (IM) over 2 mins q30-60min prn
Anticholinesterases	Atropine sulfate	1-5 mg IV (IM， SC) q15min prn to drying of secretions
	Pralidoxime (2-PAM) chloride，	1 g IV (PO) over 15-30 mins q8-12h x 3 doses prn
Carbon monoxide	Oxygen	100%， hyperbaric
Cyanide	Amyl nitrite b followed by	Inhalation pearls for 15-30 secs every min
	Sodium nitrite b followed by	300 mg (10 ml 3% solution) IV over 3 mins， repeated in half dosage in 2 hrs if persistent or recurrent signs of toxicity
	Sodium thiosulfate	12.5 g (50 ml 25% solution) IV over 10 mins， repeated in half dos

		age in 2 hrs if persistent or recurrent signs of toxicity
Ethylene glycol	Ethanol，	0.6 g/kg in D5W IV (PO) over 30-45 mins， followed ini tially by 110 mg/kg/hr to maintain a blood level of 100-150 mg/dl
Extrapyramidal signs	Diphenhydramine hydrochloride	25-50 mg IV (IM， PO) pm
	Benztropine mesylate	1-2 mg IV (IM， PO) prn
Heavy metals (e.g.， arsenic， copper， gold， lead， mercury)	ChelatorSd	
	Calcium disodium edetate (EDTA)	1 g IV (IM) over 1 hr q12h
	Dimercaprol (BAL)	2.5-5.0 mg/kg IM q4-6h
	Penicillamine	250-500 mg PO q6h
	2，3-dimercaptosuc- cinic acid (DMSA， Succimer)	10 mg/kg PO tid x 5 days， then bid x 14 days
Iron	Deferoxamine mesylate	1 g IM (IV at a rate !~15 mg/kg/ hr if hypotension) q8h prn
Methanol	Ethanolc	See ethylene glycol
Methemoglobinemia	Methylene blue	1-2 mg/kg (0.1-0.2 ml/kg 1% solution) IV over 5 mins， repeated in 1 hr prn
Opioids	Naloxone hydrochloride	0.4-2.0 mg IV (IM， SC， endotra cheally) prn
Warfarin and related drugs	Vitamin Ki (phytonadione)	10 mg IM， SC， or We
	Fresh frozen plasma	Variable

D5W = 5% dextrose in water.

Note： This table is only a guide. Antidote usage and dosage depend on the specific clinical situation. The regional poison control center should be contacted for specific therapeutic recommendations.

'Pralidoxime is indicated in severe organophosphate poisoning with muscle weakness or fasciculations or respiratory depression.

bNitrites may have an antidotal effect in hydrogen sulfide poisoning.

cThe requisite ethanol dose depends on prior alcohol use， liver function， and dialysis. Consult the regional poison control center for assistance.

dThe use of a specific chelating agent or combination of agents depends on the heavy metal