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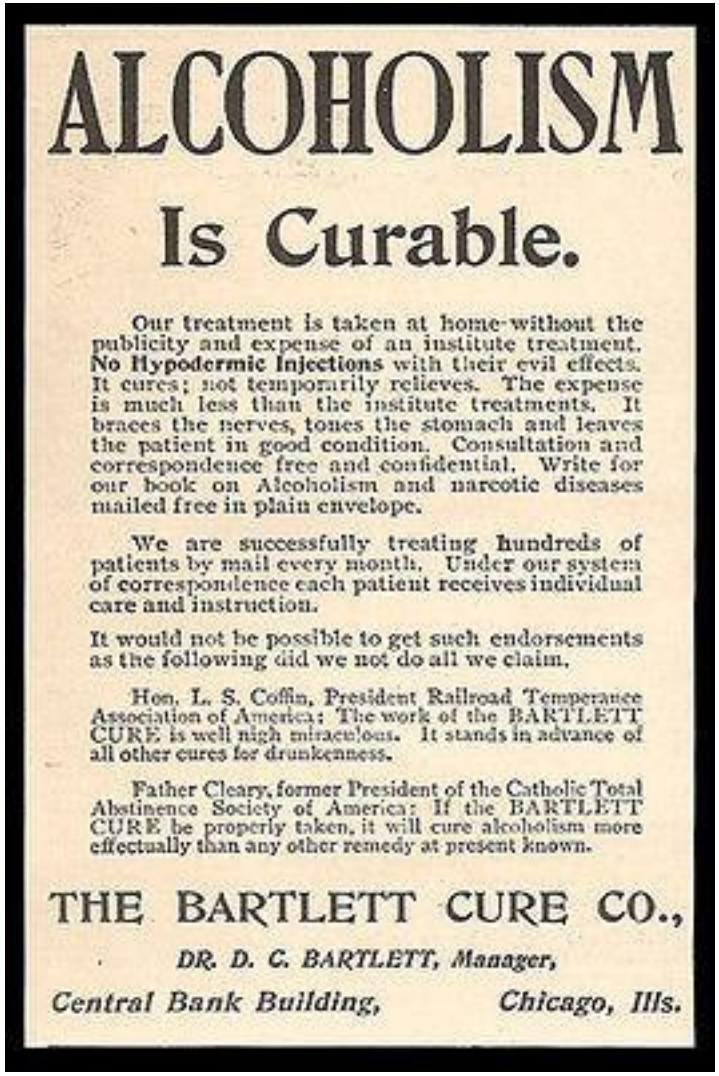

ALCOHOLISM

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Hon. L. S. Coffin, President Railroad Temperance Association of America: The work of the BARTLETT CURE is well nigh miraculous. It stands in advance of all other cures for drunkenness.

Father Cleary, former President of the Catholic Total Abstinence Society of America: If the BARTLETT CURE be properly taken, it will cure alcoholism more effectually than any other remedy at present known.

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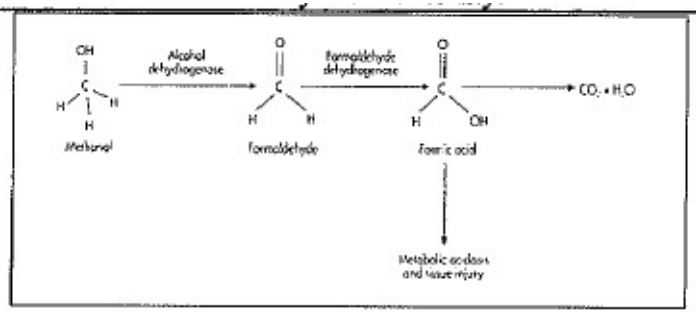
Methanol 2005-1

Methanol metabolism and toxicity	Describe the metabolism of methanol. What specific modalities of treatment are available for the treatment of severe methanol poisoning?	 • Talk about alcohol dehydrogenase substrate, **ETOH**. • Mention **fomepizole as an ADH antagonist**. • **Correcting acid/base status** should be a priority because serious metabolic acidosis is common and a pH less than 7 is associated with poor prognosis. • Need to add adjuncts to minimise accumulation of formic acid - **folic acid** The elimination of methanol may be enhanced by administering folic acid, a cofactor in the conversion of formic acid to carbon dioxide • **dialysis** **(Alcohol + 1)**	•

Activated Charcoal 2009-2

Question 5: Activated Charcoal	(a) In a poisoned patient what modalities are available for decontamination?	Skin – remove clothes, wash contaminated skin GIT – emesis, gastric lavage, activated charcoal & cathartics / whole-bowel irrigation	3 of 5 to pass
	(b) How does activated charcoal work?	Adsorption due to its large surface area	
	(c) Name some drugs or agents that activated charcoal is NOT effective in adsorbing?	Ions: Fe, Li, K Alcohols, cyanide Corrosives (acids and alkalis)	2 examples
	(d) Name a drug where repeated doses of activated charcoal may assist in elimination of the drug	Carbamazepine, dapsone, theophylline	One drug

N Acetyl Cysteine 2013-1

Question 5 **N-ACETYLCYSTEINE** LOA: 2	What is the mechanism of action of N-acetylcysteine in paracetamol overdose?	Paracetamol metabolism by hepatic glucuronidation/sulphation is saturated resulting in increased metabolism via cytochrome p450 system to form N –acetylbenzoquinoneimine (NAPQI), **a toxic intermediate**. Elevated NAPQI production leads to depletion of hepatic glutathione stores, resulting in hepatotoxicity. NAC prevents paracetamol induced hepatotoxicy by 4 possible mechanisms: **1) Increased glutathione availability**/Sulfhydryl donor 2) Direct binding to NAPQI 3) Provision of inorganic sulphate 4) Reduction of NAPQI back to paracetamol	**Bold to pass**
	Name an adverse effects of N-acetylcysteine.	Mild **anaphylactoid reactions**(15-20%)- mild flushing, rash and angio-oedema.	**Bold or description**

Naloxone 2013-1

Question 5 **NALOXONE** LOA: 2	What is the mechanism of action of Naloxone?	Pure **opioid antagonist** binds to μ-opioid binding sites.	**Bold to pass**
	What is the time to onset and duration of action when administered intravenously?	**Rapid onset 1-3 minutes** **Duration 1-2 hours**	**Bold to pass**
	What problems may be associated with naloxone administration?	**Opioid withdrawal** **Resedation**	**Bold to pass**
	How can these problems be minimised or avoided?	**Smaller/titrated doses** Infusion Route of administration	**Bold to pass**

Flumazenil 2010-2

5. a. What is the mechanism of action of flumazenil?	Antagonist at the BZD binding site on the $GABA_A$ receptor (ligand-gated chloride channel). Decreases the binding of GABA. Blocks GABA-induced increase in Cl^- permeability and influx of Cl^- into the cell causing hyperpolarisation and decreased excitability of the neuron.	Specific BZD receptor antagonist at GABA receptor
b. What are the indications for flumazenil use	Avoid intubation or ICU admission in BZD overdose. Reverse BZD sedation after procedures Diagnostic role	Reverse the sedative effects of BZD
c. What potential problems should be anticipated when using flumazenil?	Precipitate seizures in mixed overdoses with BZD and proconvulsants Precipitate seizures in pts taking BZD to control epilepsy Precipitate withdrawal symptoms and seizures in BDZ-dependent Duration of action is only 1-3hrs thus repeated administration may be necessary Reversal of BZD-induced respiratory depression has not been demonstrated, so resp and cardiovasc support may be required Adverse Effects: headache, visual disturbance, increased anxiety, nausea, light-headedness	Precipitate fits Need for repeated doses

Antivenom 2011-2

Question 5 Antivenoms	a) What is an antivenom? b) What antivenoms are used in Australasia? c) What are the side effects of antivenom? d)What animals are used in the production of different antivenoms?	a) Immunoglobulin or **antibody** (specifically IgG FAB) produced by another **animal** in response to a venom. Used in humans IV or IM to neutralise venom after an envenomation. **b) Snake –polyvalent and monovalent** (black, brown, death adder, tiger, taipan, sea snake); stonefish, redback spider, box jellyfish, funnelweb spider c) Allergy, **anaphylaxis, serum sickness** **d) Horse –snake**, stonefish, redback; Sheep –box jellyfish; Rabbit –funnel web	Must get Ab or Ig produced by animal Must get Snake – polyvalent & monovalent & 2 others Must get bold Must get horse/snake and 1 other