Abordarea pacientului intoxicat

Principii generale

- Evaluare ABCDE concomintent cu monitorizarea si resuscitarea pacientului
- Reducerea absorbtiei si cresterea eliminarii toxicului
- Administrare de antidoturi
- Recunoasterea si tratarea situatiilor amenintatoare de viata

Toxidrome

Combination of the words "toxic" and "syndrome."

Toxidromes are groupings of physical signs that may help to suggest the drug class responsible for a poisoning.

The signs in the examination of every potentially poisoned patient:

mental status

vital signs

pupil size and reactivity

skin color and moisture

bowel sounds.

Miosis (COPS)	Mydriasis (SAW)
Cholinergics, clonidine, carbamates	Sympathomimetics
Opiates, organophosphates,	Anticholinergics
Phenothiazines (antipsychotics), pilocarpine, pontine hemorrhage	Withdrawal
Sedative-hypnotics	

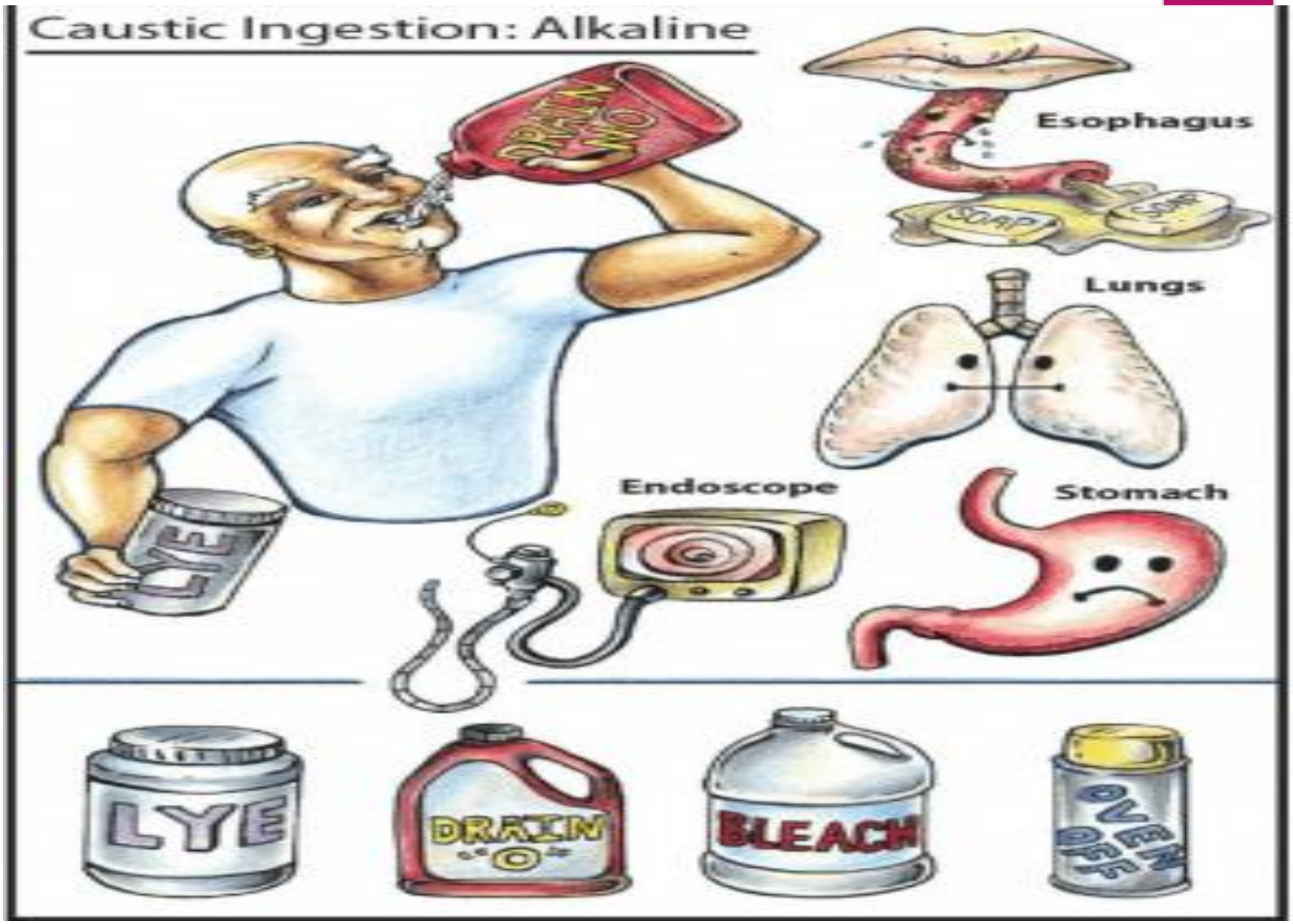
Toxicology

Expunerea cutanata

- halate de protectie, manusi, incaltaminte de protectie pentru personalul medical
- dezbracarea victimei (hainele puse in pungi de plastic sigilate)
- indepartarea substantelor solide
- spalarea pacientului cu apa si sapun de 2 ori
- nu se neutralizeaza acizii cu baze (leziuni tisulare)
- nu se aplica creme sau unguente

Expunerea oftalmica

- mentinerea pleoapelor retractate
- administrare de anestezic in fiecare ochi
- irigare oftalmica > 20 minute
- se laveaza cu 1 l SF incalzit la 37 grade administrat prin perfuzor fara ac, curgere lenta, se spala intai sacul conjunctival, corneea, apoi pleoapele, genele, sprancenele



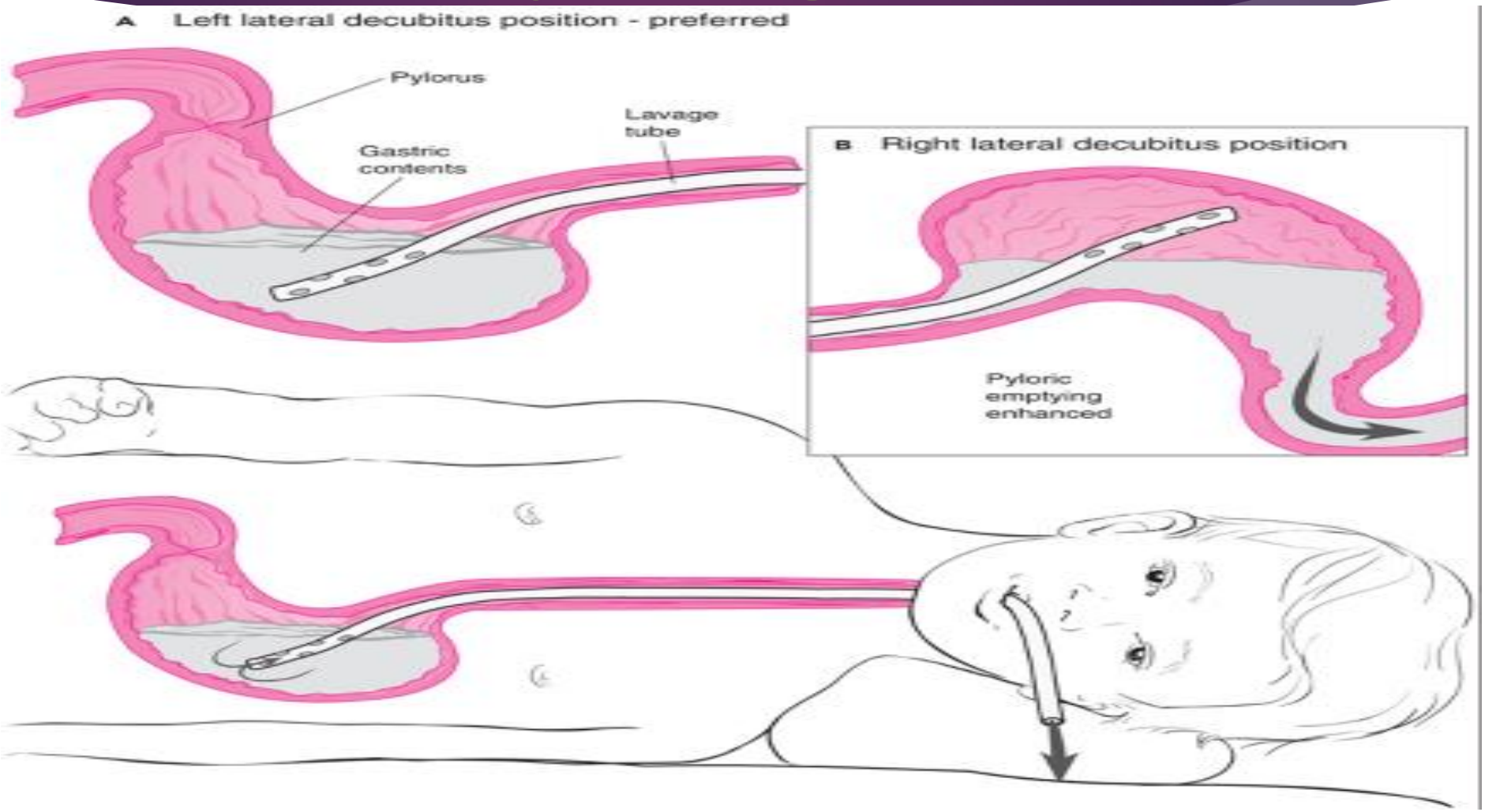
Contraindicatii ale lavajului gastric : ingestii de substane caustice, detergenti, inalbitor etc

Lavajul gastric

Indicatii:

- **timp scurt de la ingestie -** toxic remanent in stomac
- **toxicitate crescuta sau semne si simptome amenintatoare de viata**
- **IOT inainte daca exista potential de compromitere a caii aeriene**
- **cativa litri la adult; 0,5 – 1 l la copil sau pana nu se mai elimina particule/lichidul de lavaj este clar**
- **introducerea de C activat daca este indicat**

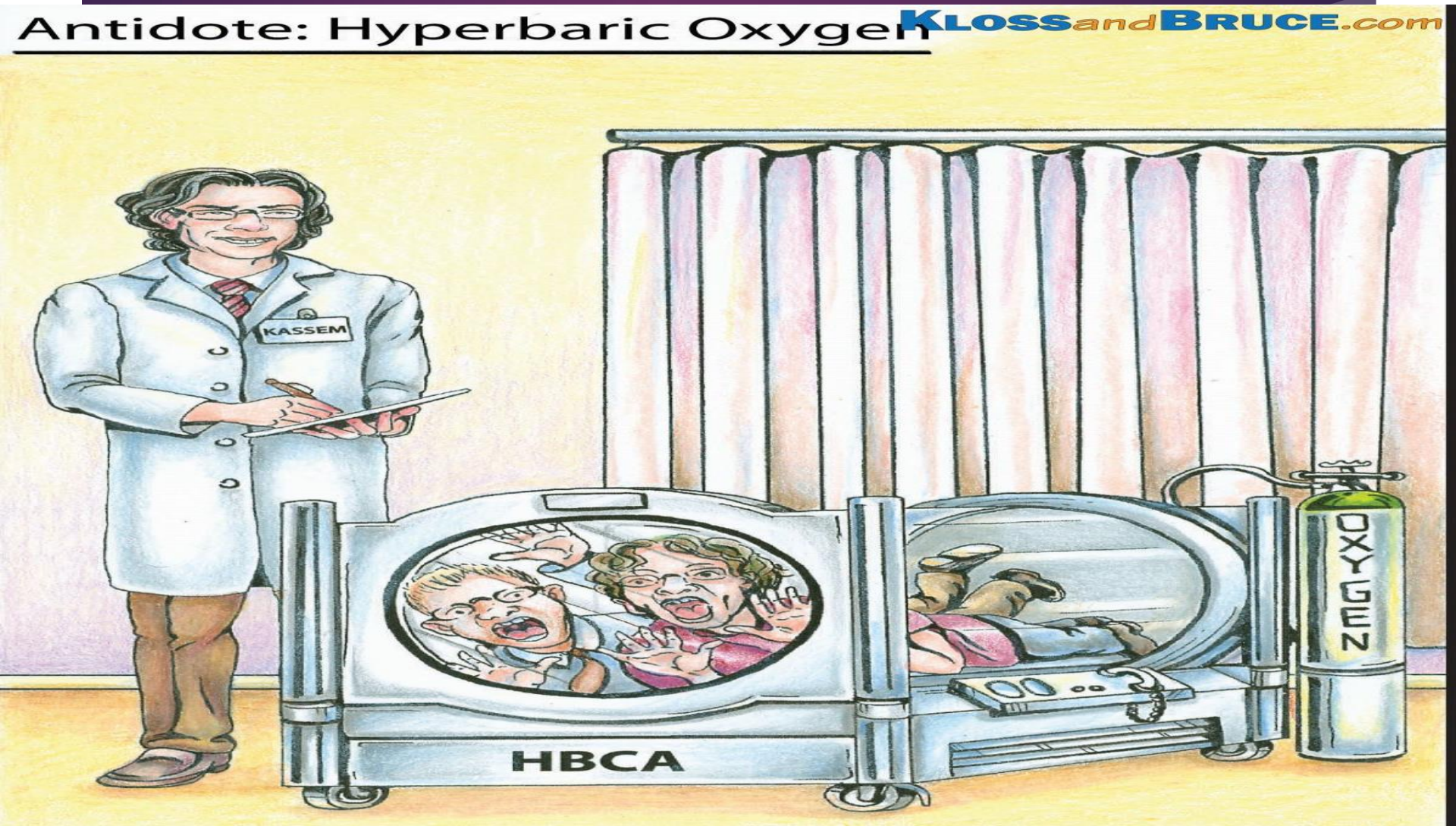
Lavajul gastric



Carbunele activat

- cel mai mare beneficiu - <1 ora de la ingestie

Intoxicatia cu monoxid de carbon

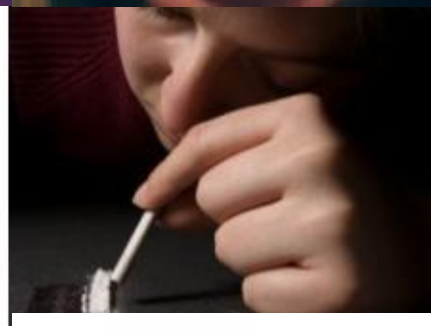


Toxidroame

- Simpatomimetic
- Anticolinergic
- Colinergic
- Opioid
- Sedativ-hipnotic
- Extrapiramidal

	HR & BP	Resp.	Temperature	Pupils	Bowel Sounds	Diaphoresis
Anticholinergic **Anticholinergics** –Atropine, scopolamine, glycopyrrolate benztropine, trihexyphenidyl **Antihistamines** – Chlorpheniramine, Cyproheptadine, Doxylamine, Hydroxyzine, Dimenhydrinate, Diphenhydramine, Meclizine Promethazine		No change		Dilated		
Cholinergic Organic Phosphorous Compounds: Carbamates • Arecholine, Pilocarpine, Urecholine (Betanechol), Carbachol, Choline, Metacholine, Mushrooms	No change	No change	No change	Pinpoint		
Opioid Morphine • Codeine • Tramadol • Heroin • Meperidine • Diphenoxylate • Hydromorphone • Fentanyl • Methadone • Propoxyphene • Pentazocine • DXM • Oxycodone • Hydrocodone				Pinpoint		
Sympathomimetic Caffeine, cocaine, amphetamines, methamphetamines, Ritalin, LSD, Theophylline, MDMA				Dilated		
Sedative-Hypnotic anti-anxiety agents, muscle relaxants, antiepileptics and preanesthetic medications –Barbituates –Benzodiazepines				No change		

Simpatomimetic



- Cofeina
- Cocaina
- Amfetamine
- Ecstasy
- Efedrina
- Teofilina
- Albuterol

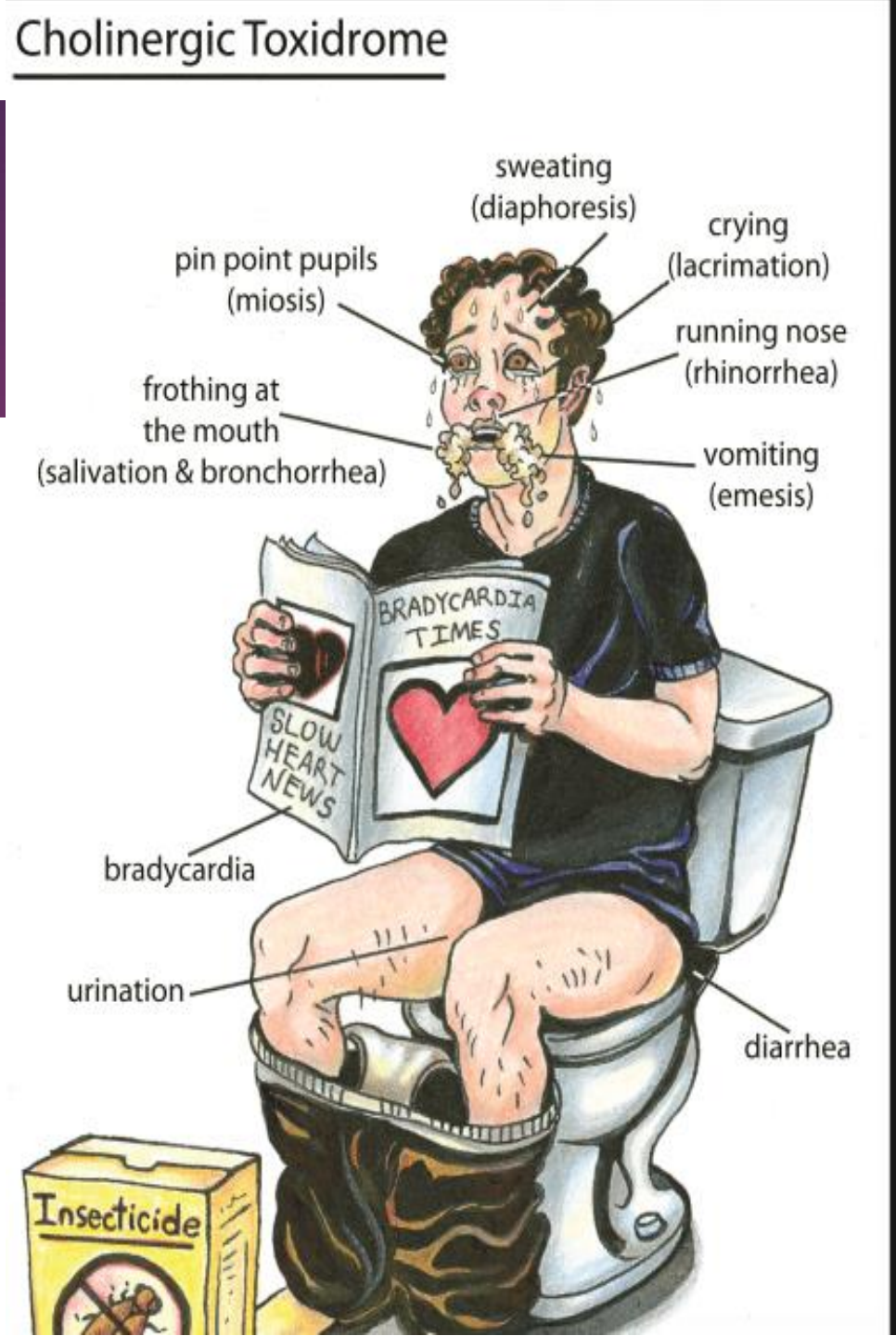
Simpatomimetic

- Agitatie, hiperreactivitate, euforie, insomnie
- Status mental alterat, convulsii, coma
- Midriaza
- Tahicardie, hipertensiune, durere toracica, palpitatii
- Diaforeza
- Hipertermie

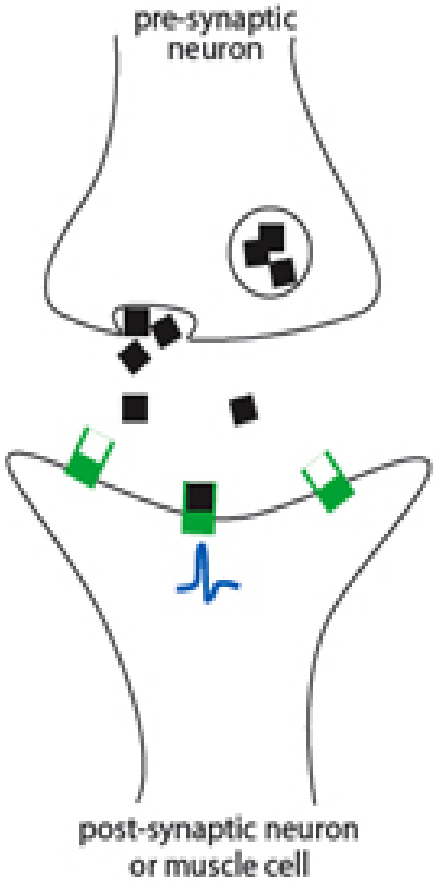
Colinergic

- **Insecticide organofosforice** (parathion, malathion) si **carbamati**
- **Agenti de razboi chimici** (sarin)
- **Ciuperci**

Colinergic

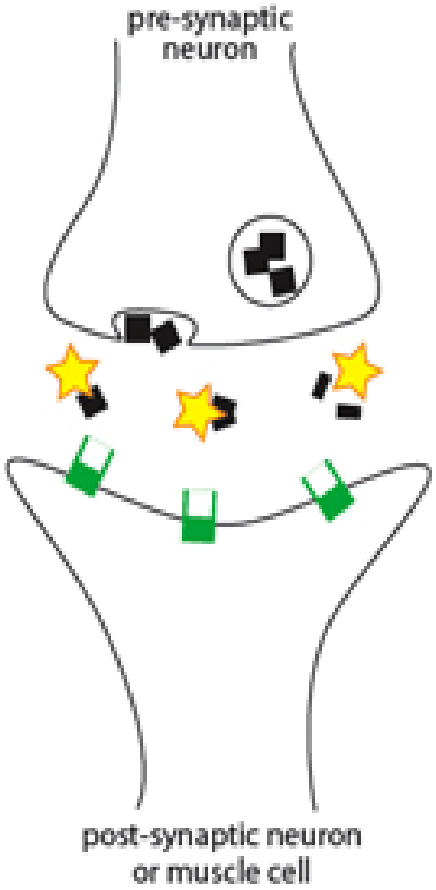

Cholinergic Toxidrome
sweating
(diaphoresis)
crying
(lacrimation)
pin point pupils
(miosis)
running nose
(rhinorrhea)
frothing at
the mouth
(salivation & bronchorrhea)
vomiting
(emesis)
BRADYCARDIA
TIMES
SLOW
HEART
NEWS
bradycardia
urination
diarrhea
Insecticide

Acetylcholine signaling at synapse



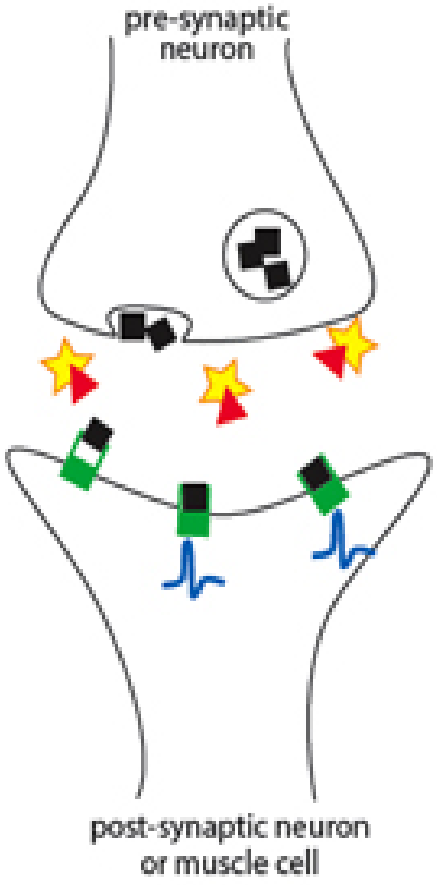
- Acetylcholine (ACh)
- ACh Receptor
- Signal transmission

ACh Esterase STOPS signaling process



- ACh
- ACh Receptor
- Signal transmission
- ACh Esterase

OP's inhibit ACh Esterase



- ACh
- ACh Receptor
- Signal transmission
- ACh Esterase
- Organophosphate pesticide (OP)

Colinergic

Muscarinic : SLUGBM

- S: salivare, convulsii(seizure)
- L: lacrimare
- U: poliurie(urination)
- G: varsaturi, diaree(GI)
- B: bradicardie, bronhospasm, bronhoree
- M: mioza, fasciculatii musculare

Tratament:

atropina, pralidoxima(antidot)

Anticolinergic

- Alcaloizi de belladona: atropina, scopolamina
- Antihistaminice
- Ciuperci(amanita muscarina)

- Antipsihotice, antiparkinsoniene, antidepresive triciclice

Anticolinergic

Uscat ca un os

Rosu ca un rac

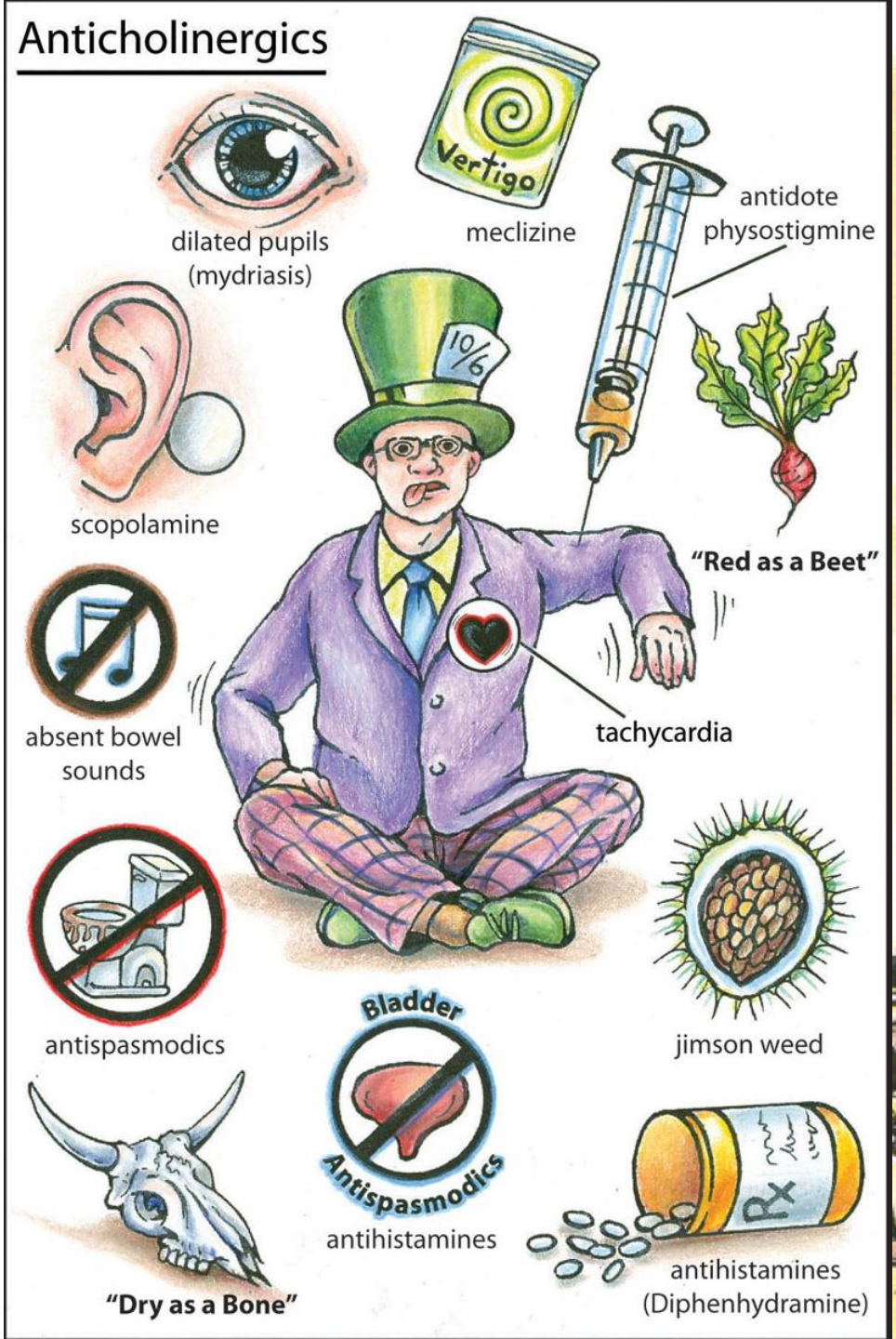
Fierbinte ca in iad

Orb ca o cartita / liliac

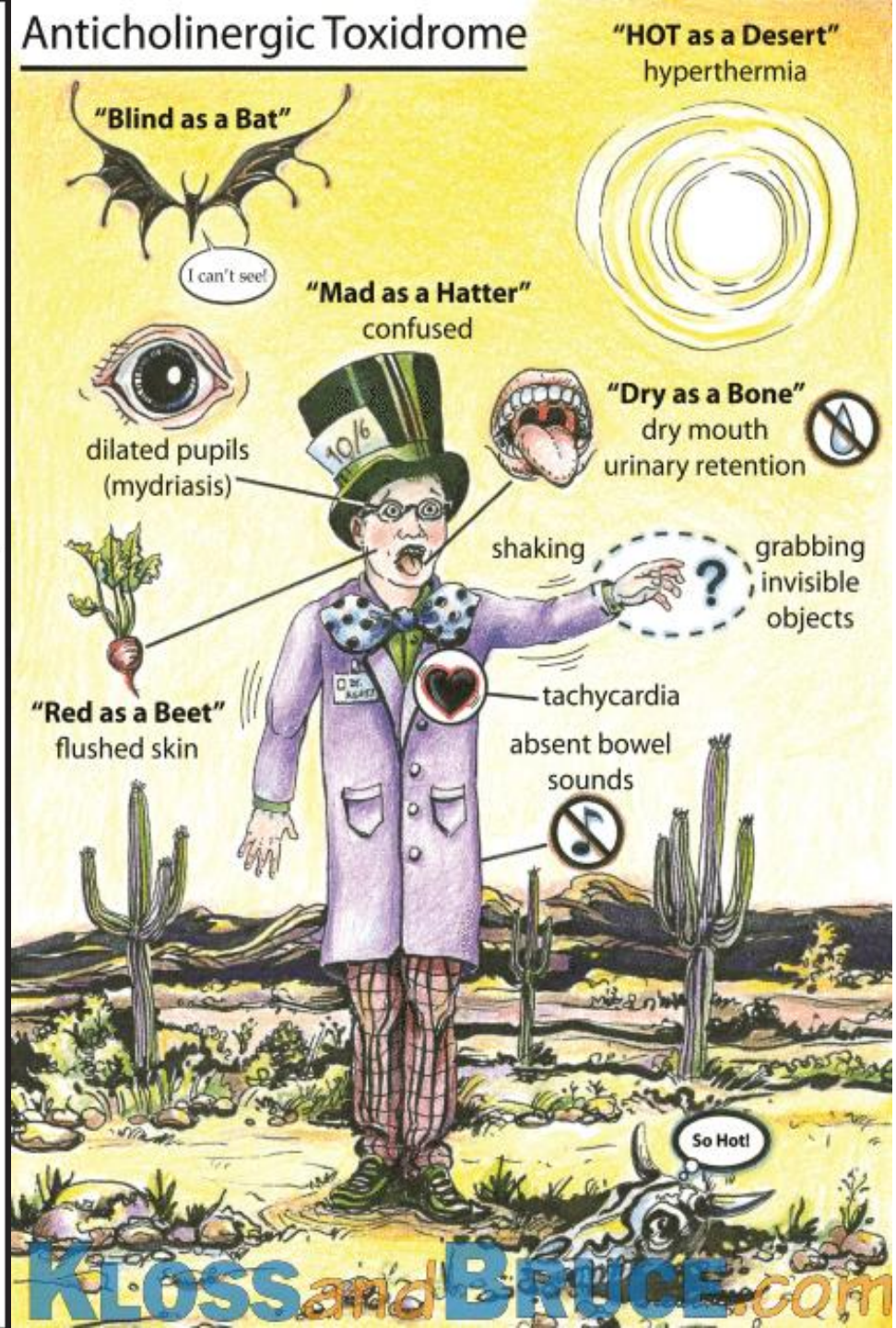
Nebun de legat

Indopat ca un dovleac.

Anticholinergics



Anticholinergic Toxidrome



HR + BP
RR
TEMP
BOWEL SOUNDS
DIAPHORESIS
CHOLINERGIC AND ANTICHOLINERGIC
PHARMACOLOGY
HR + BP
RR
TEMP
PUPILS
BOWEL SOUNDS
DIAPHORESIS

Opioid

Morphine
Sulfate Inj.

Fentanyl
Citrate Inj., USP
250 mcg/5 mL
FOR IV OR IM USE
5 mL

Narcotic (Opioid) Toxidrome

Mnemonic : "CPR-3H"

- **C** : Coma
- **P** : Pinpoint pupils
- **R** : Respiratory depression
- **H** : Hypotension
- **H** : Hypothermia
- **H** : Hyporeflexia

NOTE: Meperidine (*Demerol*) will not cause miosis

Antidote: Naloxone

Start with **0.04 mg** and titrate up q 2-3 min as need for ventilation to 0.5 mg, 2 mg, 5 mg, up to max 10-15 mg

Sedativ-hipnotic

- **Deprimarea SNC ,letargie**
- **Depresie respiratorie**
- **Bradicardie, hipotensiune**

Antidot benzodiazepine: **Flumazenil [ANEXATE]**

Extrapiramidal

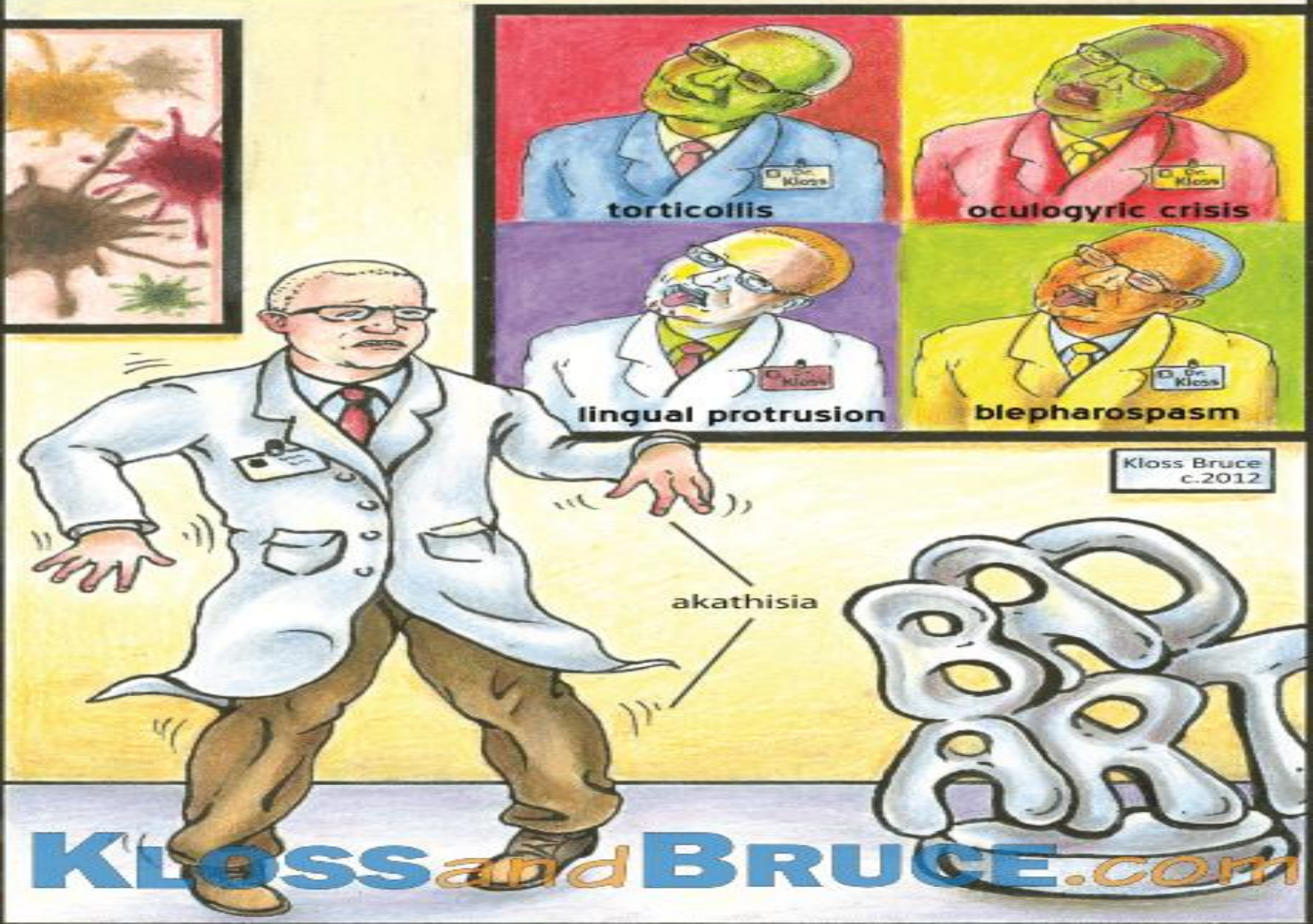
Simptomatologie

- **Distonie, dischinezie**
- **Parkinsonism, tremor, ticuri, mioclonii**

Etiologie

- **Neuroleptice**
- **Antiparkinsoniene**
- **Antiemetice : METOCLOPRAMID !!!**

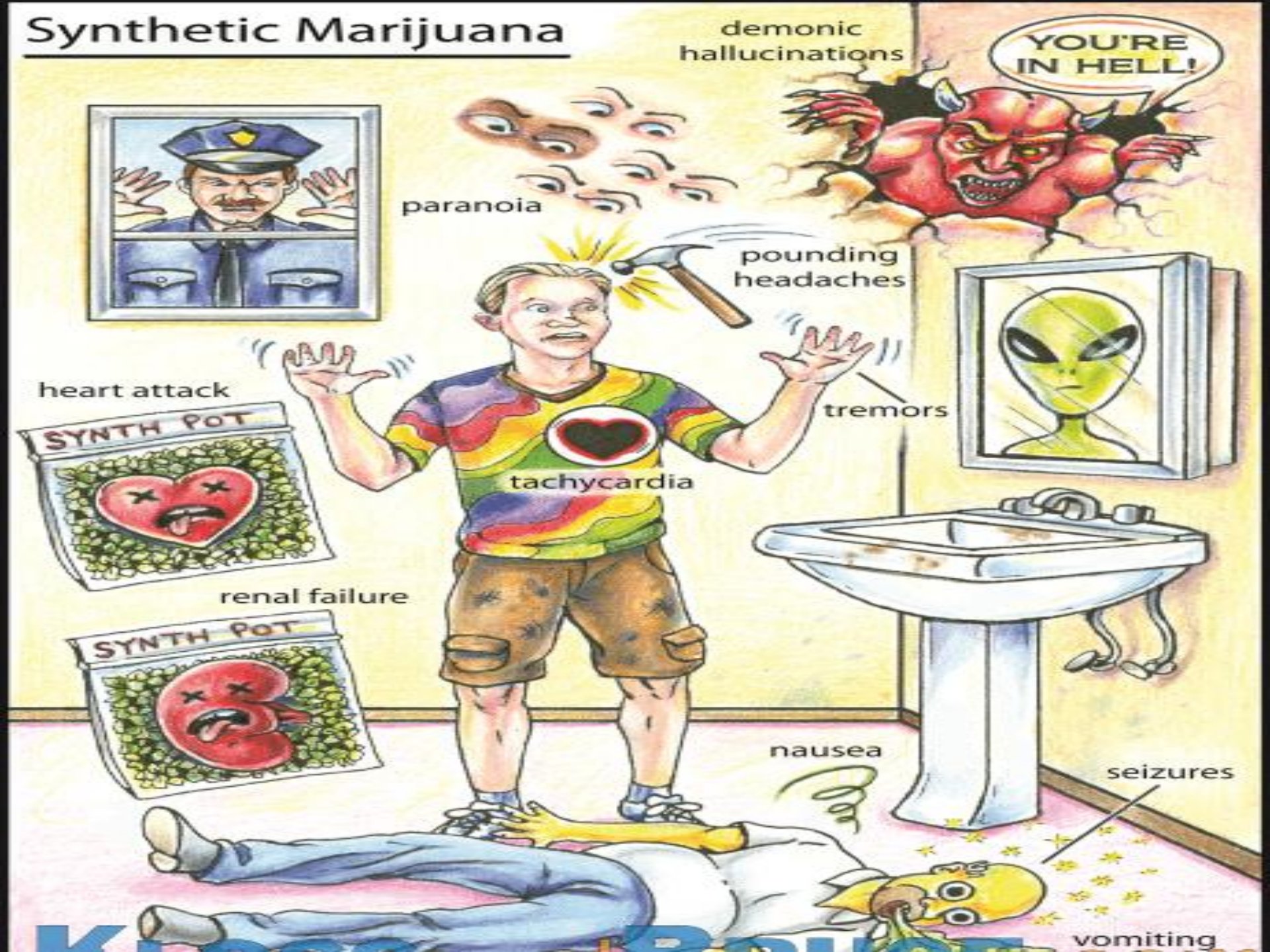
Acute Onset Extrapyramidal Side Effects



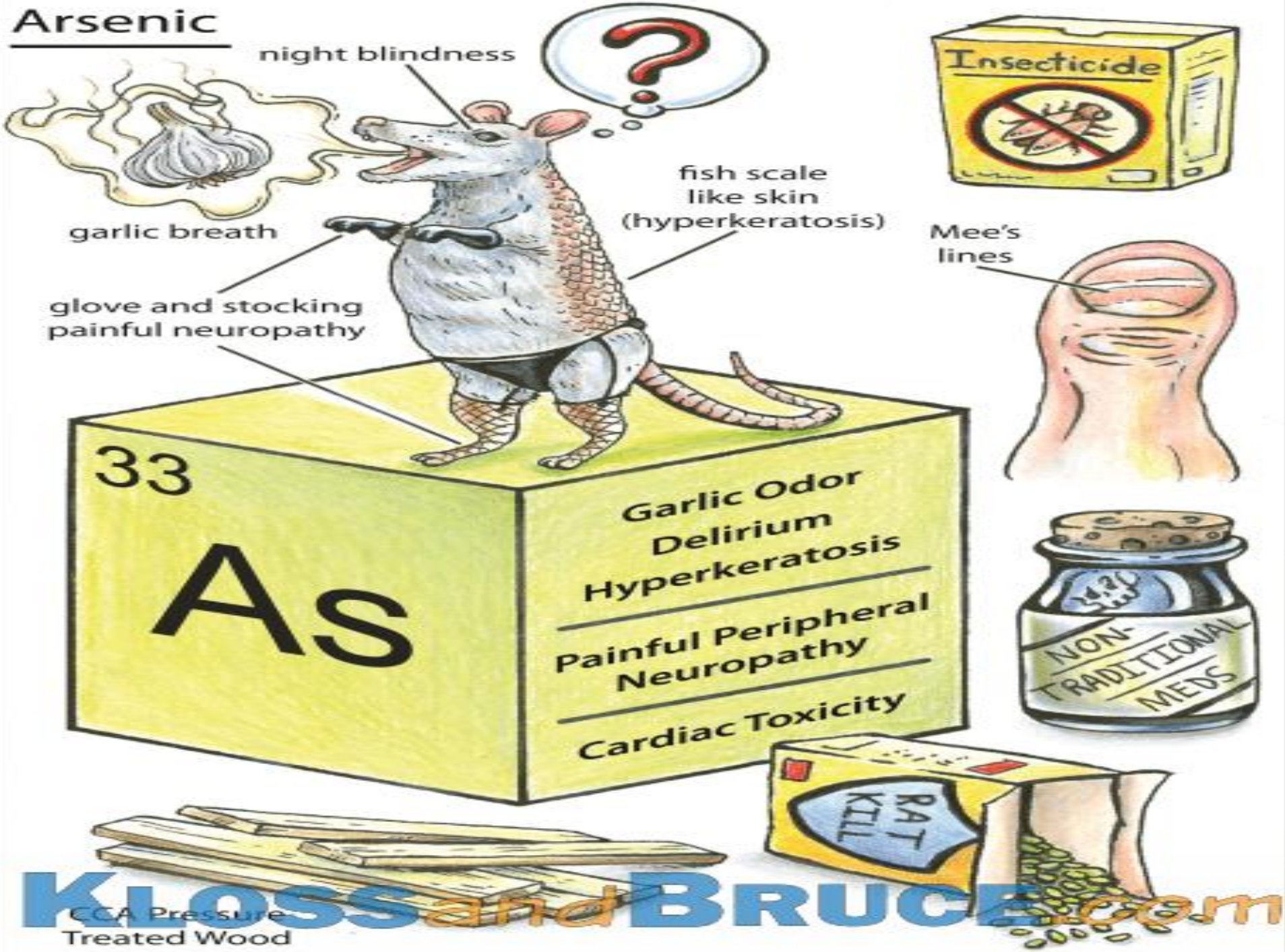
Etanolic

- Depresie SNC
- Ataxie
- Dizartrie
- Halena etanolica

Synthetic Marijuana



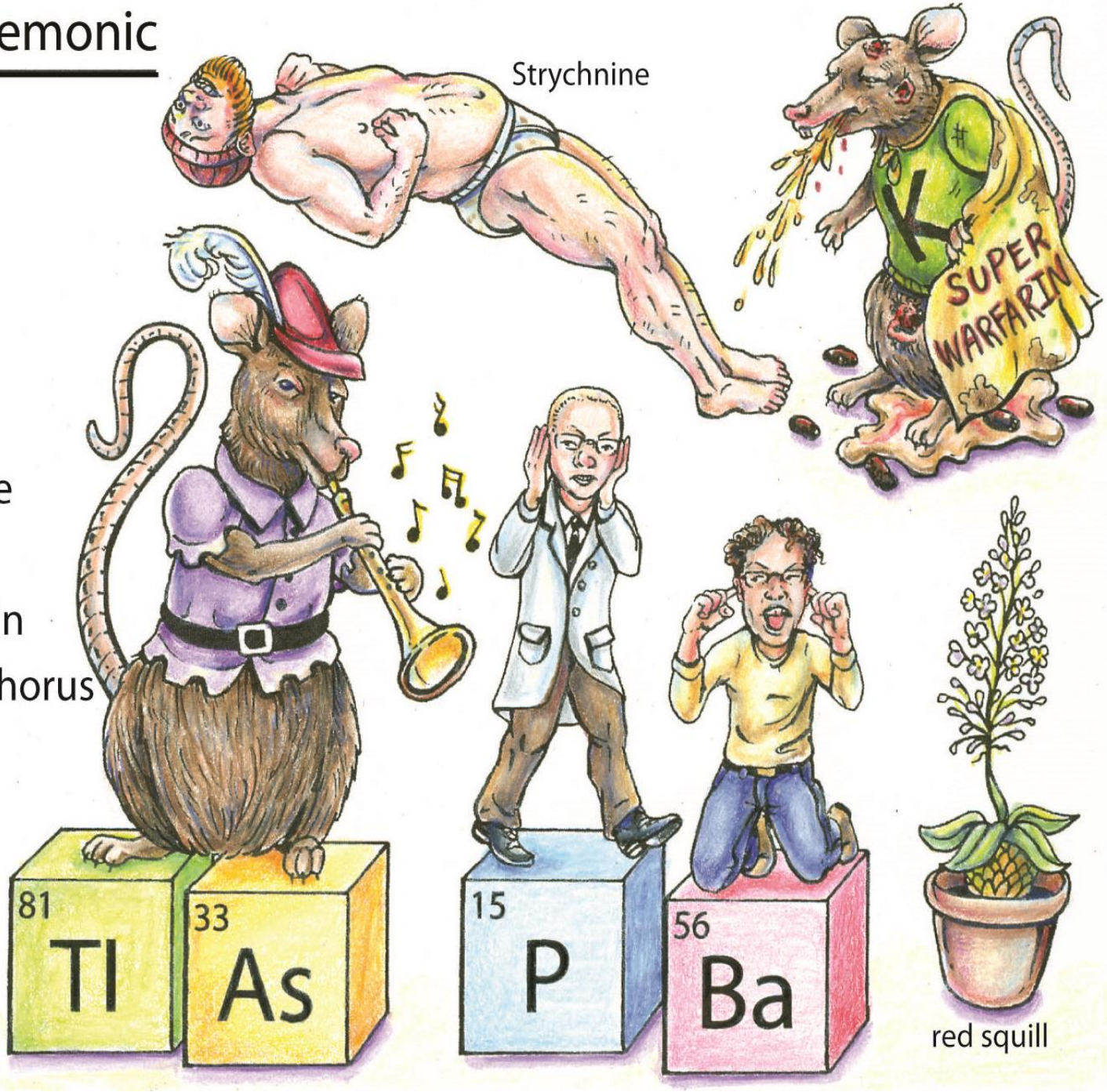
Arsenic


night blindness
garlic breath
fish scale like skin (hyperkeratosis)
glove and stocking painful neuropathy
Insecticide
Mee's lines
33
As
Garlic Odor
Delirium
Hyperkeratosis
Painful Peripheral Neuropathy
Cardiac Toxicity
NON-TRADITIONAL MEDS
RAT KILL
CCA Pressure Treated Wood
KLOSS and BRUCE.com

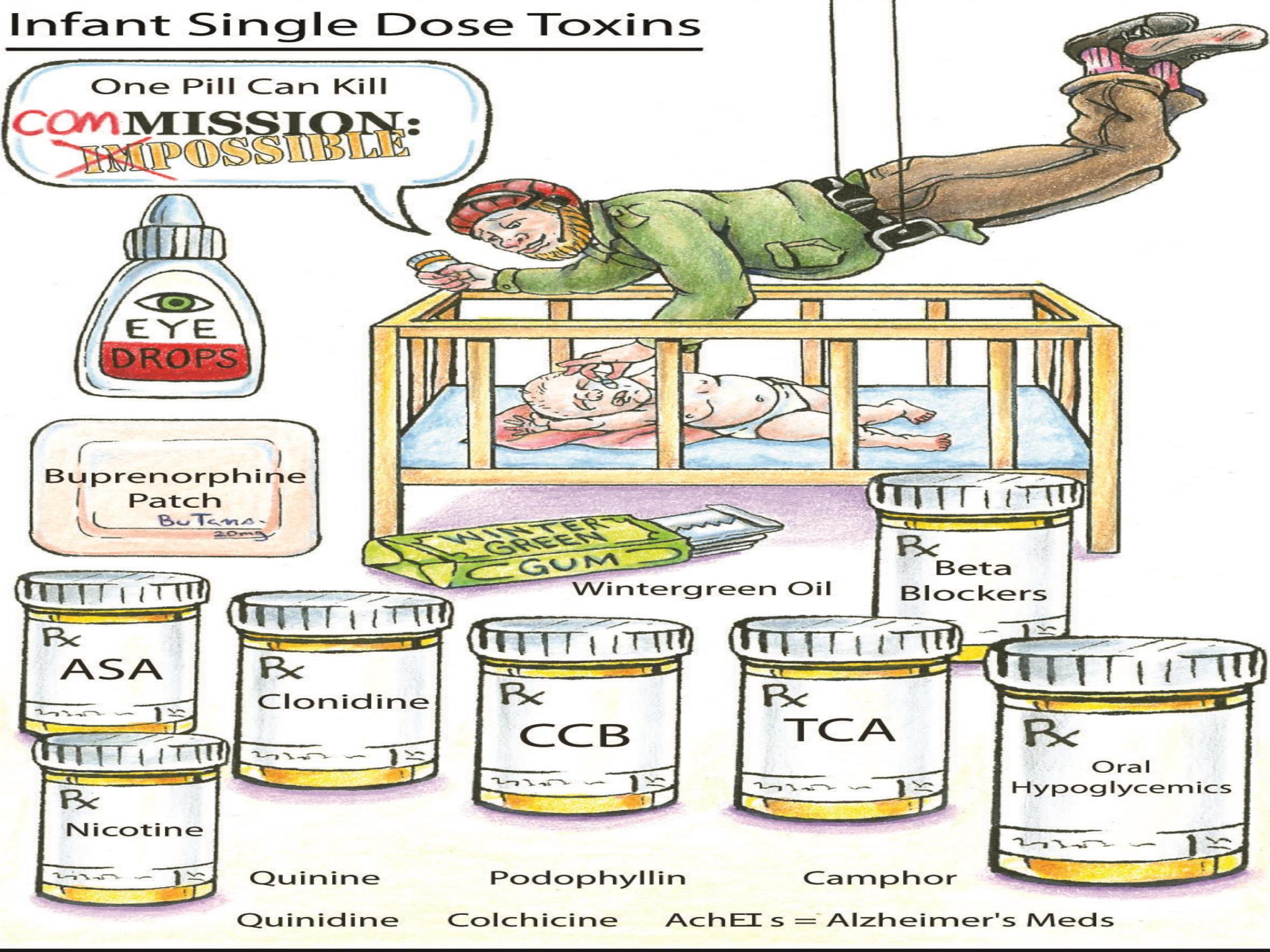
RATS B PANIC Mnemonic

Rat Poisons

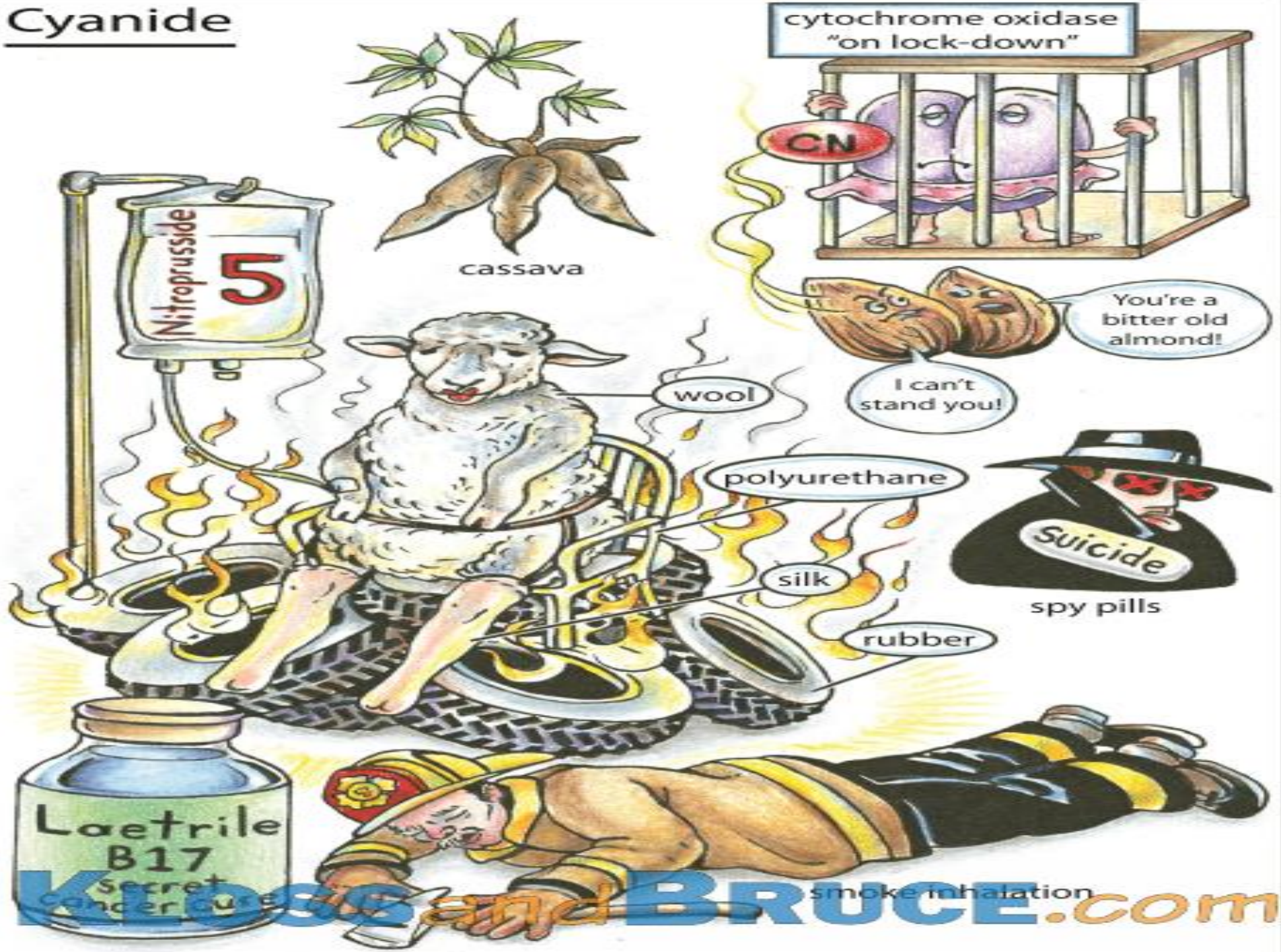
Red Squill
Arsenic
Thallium / **T**etramine
Strychnine
Barium / **B**romethalin
Phosphides / **P**hosphorus
ANTU
Norbormide
Indanediones
Coumadin-like



Infant Single Dose Toxins

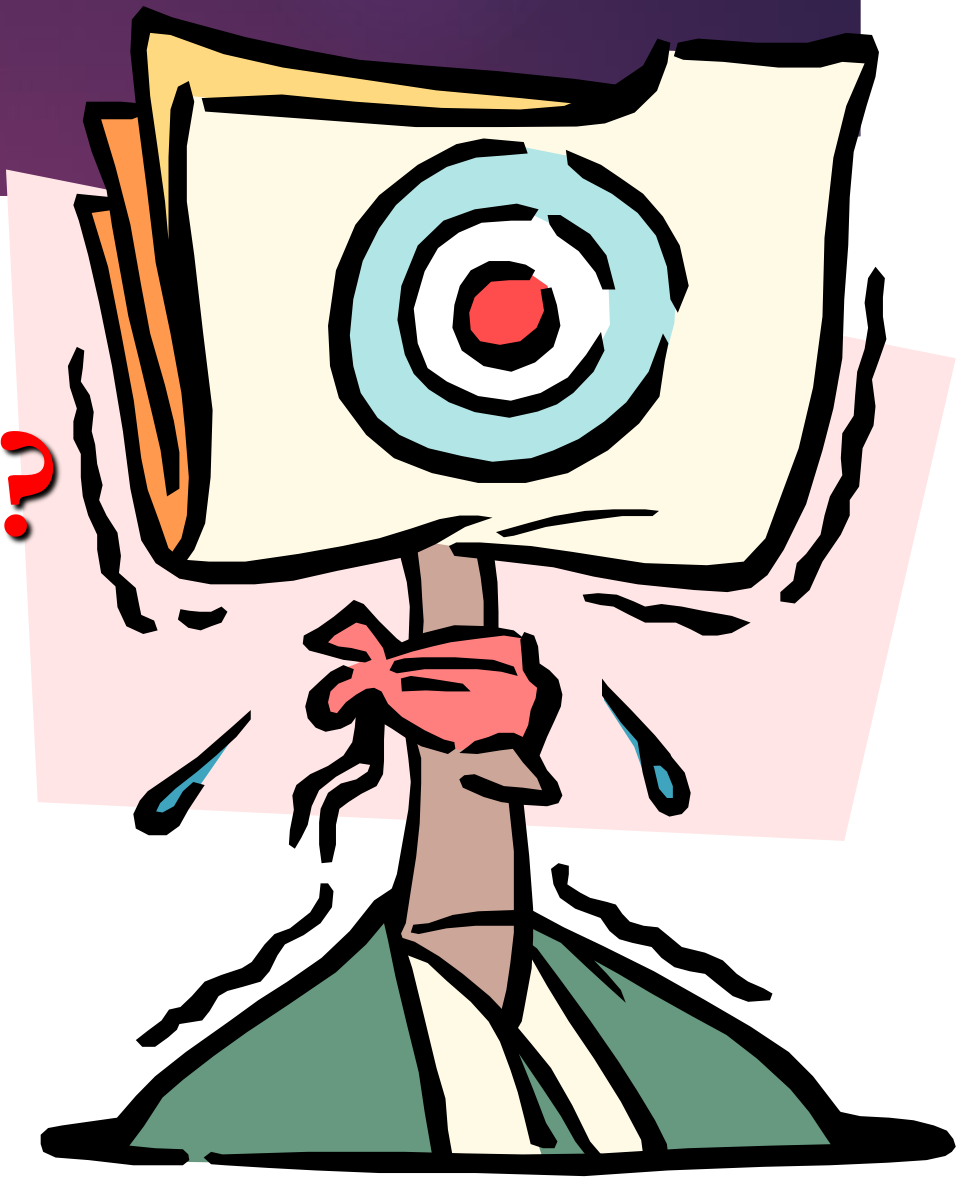


Cyanide



KoosandBruce.com

Cazuri clinice – recunoasteti toxidromul!

- Femeie, 34 ani, adusa din discoteca inconstienta (GCS=3), FR=7, pupile in varf de ac, urme de injectare la ambele antebrate.
- Barbat, 57 ani, adus in urgenta cu diaree, varsaturi, dispnee(bronhospasm), pupile miotice, instalate dupa ce a stropit in gradina.
- Barbat, 25 ani, adus de prieteni agitat, transpirat, T=39 grade C, pupile midriatice, epistaxis (sangerare nazala), TA=190/110.
- Femeie, 51 ani, adusa inconstienta, TA=87/50, FR=9. Afirmativ familiei, era cunoscuta cu depresie, in tratament cu xanax (alprazolam).

ÎNTREBĂRI ???