

## Nitrates

- protect from light b/c decomposes and soft plastic containers b/c plastic absorbs hence in dark brown glass bottles
- problem with tolerance resulting in reduced therapeutic response therefore a “nitrate-free” interval in which you don’t take nitrates for 8-10hrs/d usually at night

### Fast/Short Acting

- Na Nitroprusside (Nipride, Nitropress) used for HTN emergency
  - Cyanide Toxicity (when nitroprusside is metabolized  $\text{CN}^-$  is formed causing anorexia, hallucinations, N/V, seizures, paresthesias, tinnitus, blurred vision), pts on high doses ( $>2\text{mg/kg/min}$ ) or those w/ renal dysfxn should have levels checked Q3d so as to keep levels  $<10\text{mg/dL}$ , Tx: Na Thiasulfate (Rhodenase) converts  $\text{CN}^-$  to Thiocyanate, hemodialysis
- Nitroglycerin (NitroStat/Quick – sublingual, NitroLingual – nasalspray, NitroDur – transdermal, NitroBid – ointment, Tridyl – iv) used for acute angina
  - Met-Hemoglobin Toxicity
  - Ethanol Intoxication & Propylene Glycol Toxicity (b/c nitroglycerine is nonpolar solvents such as ethanol and propylene glycol must be used but in doing so they accumulate in the body)

### Slow/Long Acting, solid at room temp

- Isosorbide Mononitrate (ISMO, Monoket, Imdur XR) Dinitrate (Isosordil, Sorbitrate, Isordil Tembids, Dilatrate SR) used to prevent acute angina

### Mechanism

- metabolized to NO → increase in cGMP → smooth muscle relaxation
  - peripheral veno>vasodilation → decreased preload → decreased CO and O<sub>2</sub> demand
  - coronary large>small vasodilation → increased perfusion

### Side Effects & Contraindications

- headaches, orthostatic hypotension, flushing, erections 2/2 vasodilation (avoid concomitant use of PDE5 inhibitors b/c can result in fatal drop in BP)

