

A GLANCE AT CHEMISTRY

- A. Late 1700's – Oxygen**
- B. 1820 – Measurement of Iron**
- C. 1860's – Organic Chemistry**
- D. 1952 – 1.2 million chemicals**
- E. 2002 - > 47 million chemicals**
- F. I'm Good at 3 or 4 –really only 3!**

POINTS OF “INTERVENTION”

- 1. A susceptible host > Alter susceptibility**
- 2. A “toxic” chemical > Bond to precipitate**
- 3. Sufficient dose > Ban its manufacture**
- 4. Limit exposure > Gastro intestinal decontamination**
- 5. Curtail absorption > Diatomaceous earth adsorption**
- 6. Response mechanism > Block receptor - Naloxone**

GI DECONTAMINATION

- 1. Garden Hose Lavage**
- 2. Emetic Agents**
- 3. Adsorptive Agents**
- 4. Cathartics**
- 5. Whole Bowel Lavage**

“IPECAC AND ME”

- 1. 1949 – Arsenic Ant Cap – ? Nonsense**
- 2. Seven Years of Frustration – and Child Abuse**
- 3. Columbus Children’s – W. Wheeler – and Emesis**
- 4. 1959-65 – 214 kids – 97% – 16 minutes**
- 5. Poison Centers – “Do Something” Mentality**
- 6. Shirkey, Alport, etc. join ‘home use’**
- 7. A “No No” – ‘67’ – ‘71 – ‘85 – ‘03!**
- 8. A Real “NO – NO” to Emergency Departments!**
- 9. Recognition of Non – Poisons Ranging From Plants and Hormones to Botulinus Toxin**

EFFECTIVENESS OF EMESIS WITH IPECAC

- 1. 97 – 99% Vomit**
- 2. Mean Delay Time – 15-20 Minutes**
- 3. Recovery Rates for Markers – 26% – 85%**
- 4. Reduction in Blood APAP levels – circa 50%**
- 5. Complications: Relatively “Rare”!**
- 6. But none sessions in > 300,000 Observed Adult Episodes!**

LEADING EXPOSURES – KIDS <6

- 1.* Cosmetics**
- 2.* Cleaning Stuff**
- 3. Analgesics**
- 4.* Foreign Bodies**
- 5.* Topicals**
- 6.* Plants**
- 7. Cough & Cold Meds**

***virtually never GI Decontamination**

?? EVIDENCE-BASED TREATMENTS ??

- 1. Calomel (Hg^{++}) for Teething**
- 2. A > Z Treatments for Constipation**
- 3. Z > A “Goo’s” for Diaper Rash**
- 4. Almost Anything for Infantile Colic**
- 5. “Dilution” for Poisonings (> 1 million per year!)**
- 6. Terrible Toxin (Botulinus) for Wrinkles**

MY THESIS: A 'KISS' PROGRAM!

- 1. 80% + toddler ingestions noted <10 minutes**
- 2. Five minutes to call Poison Center for guidance**
- 3. Five minutes to find and administer Ipecac**
- 4. Stay home – or go to hospital – both with 50% ↓ in toxin**
- 5. ?Observe in either location re additional Rx**

HYPOTHETICAL ISSUE

1. Assume 4 million toddlers per year in U.S.
 2. Assume 12 non-food ingestions per day per toddler
 3. Calculate $4 \text{ million} \times 12 \times 360 \text{ days} = 17 \text{ billion ingestions/yr!}$
 4. Assume only 1/100,000 needed emesis at home = 17,000/yr
 5. Assume no Syrup of Ipecac available
 6. Assume all go to hospital – instead – 17,000 visits
 7. Assume total cost @\$400 x 17,000 = \$6,800,000 per year!
- But
8. Assume Ipecac @ \$2/bottle – \$8,000,000 – if all were single kid families but only 4 million with a mean of 2 per household