



Tox Tips

Summer 2006

Florida Poison Information Center Network
Jacksonville · Miami · Tampa



Best Practices in Gastric Decontamination after a Poisoning

Full text articles

Studies cited in this newsletter are in Position Statements on GI Decontamination found at www.clintox.org. These practice guidelines on Syrup of Ipecac, Activated Charcoal, Cathartics, Lavage and Whole Bowel Irrigation are based on studies reviewed by toxicology experts from American Academy of Clinical Toxicology.



1. Krenzelok, EP et al. J Tox Clin Tox. Vol. 42(2). pp 133-143. New York: Marcel Dekker, Inc., 2004.

2. www.aapcc.org, American Association of Poison Control Centers: Finalized Patient Management Guideline on the Use of Ipecac Syrup. Accessed 3/25/06.

This issue's authors:
JoAnn Chambers, RN
Charisse Webb, RN
C. Lewis-Younger, MD.



To subscribe to this newsletter by email, contact the editor at newsletter@poison.ufl.edu

1. Discontinue use of Syrup of Ipecac.

Popularity of Ipecac has diminished greatly from its peak use in 15% of all US poison center cases in 1985 to less than 0.7% of cases in 2001². There is no clinical evidence that it improves the outcome of poisoned patients and its routine use in ER's should be abandoned. Two important reasons are that post-Ipecac vomiting masks potential symptoms and delays the administration of more effective



therapies such as activated charcoal or n-acetylcysteine.



2. Discontinue routine use of lavage.

Gastric lavage performed after one hour of the ingestion is potentially more harmful than beneficial. Clinical studies described in the Position Statements show that the amount of gastric contents removed via lavage diminishes significantly over time. Lavage 5 minutes after ingestion removed 90 % of substance, but dropped to 30 % in 19 minutes post-ingestion and 13 % in 60 minutes post-ingestion¹. Complications from lavage can include aspiration pneumonia, esophageal perforation,

hypoxia, dysrhythmias and a higher prevalence of ICU admission than with other decontamination methods. When activated charcoal is given via the lavage tube, complications include aspiration of charcoal and airway obstruction.

3. Use Activated Charcoal only when needed.

Activated charcoal is most effective in reducing absorption of drugs and toxins when administered soon after ingestion. With standard-release formulations, this is generally within 2 hours. Charcoal should not be used in patients that do not have an intact and functioning GI tract or where there is unacceptable risk of aspiration. It does not

effectively bind to the following toxins :

- S - salts (lithium, sodium)
- I - iron
- C - caustics, cyanide
- K - K⁺ (potassium)
- P - petroleum products
- A - alcohols
- M - metals (lead, mercury)



4. Discontinue routine use of charcoal (AC) & sorbitol mixtures.

Use of sorbitol or other cathartics can cause adverse effects and has *not* been shown to improve patient outcomes. Vomiting is an adverse effect from sorbitol. Diarrhea and fluid/electrolyte imbalances that occur with repeated sorbitol dosing can be prevented by use of water-based “aqueous” charcoal.

5. Consider Whole Bowel Irrigation (WBI).

This method cleanses the bowel by the administration of an osmotically balanced non-absorbable solution (PEG-ES, GoLytely®, Co-

Lyte® and NuLytely®) which expels bowel contents without causing electrolyte changes. The first bowel movement usually occurs one hour after initiating treatment. While there have been no controlled clinical trials of WBI for poisoned patients, case reports have shown it to be safe and successful in the following situations:

- toxic dose of iron or other products not bound to charcoal
- toxic dose of sustained-release or enteric-coated drugs which can form concretions that remain in the GI tract
- removal of ingested packets of illicit drugs
- patients with intact and functioning GI tract
- patients not at risk for aspiration.

WBI is given more effectively via N/G tube since the dose rate is faster than most patients will drink it. The patient should be in a sitting position or with the head of the bed elevated ≥ 45 degrees. Suggested dosing:

- ADULT: 2 liters initially followed by 1.5 to 2 liters per hour
- CHILDREN 6 to 12 years: 1000 cc/hour



- CHILDREN 9 months to 6 years: 500 cc/hour¹ or 25 to 40 cc/kg/hour².

Continue until diarrhea is clear. Adverse effects: Nausea, vomiting and fullness may be observed with therapeutic use. If vomiting occurs, give an anti-emetic or decrease rate.



6. Call the poison center at 1-800-222-1222.

Nurses, pharmacists and physicians at the poison center can gauge whether a toxic dose has been ingested and advise bedside practitioners regarding the most appropriate decontamination method.

Risk Reduction

Consider a poison center consult as a risk management measure where your case can be reviewed with the most up-to-date toxicology information.

HIPAA-compliant

Florida statute 395.1027 specifies that a licensed health care facility or health care practitioner shall release patient information upon request of the regional poison control center. This preempts any HIPAA confidentiality concerns a health care provider in Florida may have while discussing patients with the poison center.