



Spring Blossoms – New Mexico

## PIC QUESTION OF THE WEEK: 3/23/09

Q: What is the current role of ipecac in gastric decontamination?

A: Ipecac is a derivative of *Cephaelis ipecacuanha*, a plant native to Brazil. Its name is appropriate as its Portuguese translation is roughly “smaller roadside sick-making plant.” Two alkaloids (cephaeline and emetine) are responsible for its emetogenic properties. The compounds activate peripheral emetic sensors in the gastric mucosa and stimulate the chemoreceptor trigger zone (CTZ). Ipecac has been used since the 1950s to induce vomiting in patients after ingestion of poisonous substances and categorized as an over-the-counter (OTC) product in the 1960s. It is still available for gastric decontamination of both adults and children. Data has, however, accumulated during the past few years to indicate that the risks of ipecac administration far outweigh its benefits, thus altering its role in poison management. The American Academy of Pediatrics (AAP) and the American Academy of Clinical Toxicology (AACT) do not recommend the use of ipecac for home treatment of poisonings unless a poison control center or emergency department instructs otherwise. The AACT states that there is no evidence from clinical studies to conclude that ipecac improves the outcome of poisoned patients and recommends that its *routine* administration in the Emergency Department (ED) be abandoned. Under some conditions, ipecac might still be recommended for managing intoxication from drugs and other toxins. These include substances that

- do not cause rapid mental status changes (e.g., acetaminophen or salicylates);
- are ingested in such large amounts that they cannot be sufficiently bound by activated charcoal;
- are poorly bound by activated charcoal (e.g., lithium).

Circumstances that should be met if ipecac is administered are

- the patient cannot reach the emergency department within 1 hour;
- administration should begin within 30 – 90 minutes of toxin ingestion;
- administration will not adversely affect treatment in the emergency department.

Contraindications include ingestion of petroleum distillates, strong acids, strong bases, or strychnine OR if the patient is unconscious or lacks a gag reflex. In summary, ipecac may still be administered in some situations, but only after consultation with a poison control center or hospital emergency department.

### References:

- Flomenbaum NM, Goldfrank LR, Hoffman RS. *Goldfrank's Toxicological Emergencies*. 8<sup>th</sup> ed. New York: McGraw-Hill Medical Publishing Division; 2006.
- Borron SW, Burns MJ, Shannon MW. *Haddad and Winchester's Clinical Management of Poisoning and Drug Overdose*. 4<sup>th</sup> ed. Philadelphia: Saunders Elsevier; 2007.

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