A few things regarding the Household Product lecture material.

1. Note that pH is not a determinant of toxicity for cationic surfactants but is for acids and alkalis. Cationic detergents have the potential to act like depolarizing skeletal muscle relaxants, i.e., like succinylcholine. In this respect they may cause respiratory paralysis when a large amount is ingested and absorbed systemically.

2. Powder corrosives are more likely to cause burns in the mouth and upper GI than liquids. Hand dishwashing soaps are much less of a problem than automatic dishwashing products. The latter are considered corrosive and have very high pH's.

3. Gastric lavage is not commonly performed following the ingestion of soaps, acids or alkalis. Damage has usually already been done and re-exposing mucosal areas only aggravates the problem. Same goes for the use of ipecac syrup. It is not recommended here. Activated charcoal also has questionable, if any, efficacy here.

4. Acids are more apt to cause immediate pain whereas pain from alkali burns is often delayed

5. Alkali more commonly cause burns to the upper GI (mouth, oropharyngeal, and upper esophagus areas), Acids to the lower GI (lower esophagus and stomach). Anywhere from 2-20% of ingestions of either alkali or acids show no evidence of burns in the upper GI areas but have burns lower.

6. Dilution is not very effective for corrosives (ie, acids or alkalis) because of the difficulty in diluting with enough fluid to change the pH. PH is a log scale. To change pH from 13 to 12 involves a 10 fold dilution of the material. To get it to 11, a 100 fold dilution; therefore, diluting with large amounts of fluid becomes very difficult and more likely to cause vomiting in these individuals than prevent damage. Dilution may be done with small sips of water or milk but kept to an overall small volume (less than 4-6oz).

7. Neutralization was a common practice years ago but is not currently recommended because of the exothermic reaction and release of heat which occurs--possibly worsening the burn.

8. Corticosteroids have a very limited utility in these patients. I will not discuss this further here but just state that they are rarely recommended. Antibiotics can be considered but again of questionable utility here.