

## Caustic Ingestion Departmental Guidelines

### Bimodal Incidence

- 1) Children under 5 – Accidental, but related to high household stress levels
- 2) Adults – attempts at suicide, occasionally accidental

Dangerous substances include: NaOH/KOH (Drain cleaners, ammonia, detergents, hair straighteners) as well acids (pool acid/HCl) and disc batteries and pH neutral bleaches.

Damage varies according to pH of substance:

Alkalis: Most severe injury, through liquefaction necrosis.

Acids: Coagulation Necrosis (forms a protective eschar)

Neutral: Esophageal irritation only without significant morbidity

Disc batteries can cause burns within an hour of ingestion.

### Assessment

History: Brand name, type, and amount of ingestion (Contact poison centre)  
Vomiting? 0834478966

Examination: Lips, oral mucosal burns. The absence of oral/pharyngeal injury does not exclude oesophageal injury.

Hoarseness, stridor, and dyspnoea

Odynophagia, drooling, and refusal of food = severe injury

Substernal chest pain, acute abdomen = perforation

Hypopharynx and larynx via flexible endoscopy

Radiology: CXR, erect AXR

No contrast swallow. (Delays esophagoscopy, can't detect minor damage)

Endoscopy: Between 24-48hrs post ingestion. (Rigid vs flexible?)

(Early = missed injury, late = perforation) (>48hrs do Contrast-swallow)

Grading Grade 1: superficial injury (Low stricture risk)

Grade 2: transmucosal

Grade 3: transmural (High stricture risk)

### Initial Management

Rinse mouth (water/Milk)

Drinking milk (up to 15ml/kg to avoid emesis) can neutralize the chemical.

Induced emesis / lavage CONTRAINDICATED.

NGT placement to maintain lumen patency

Analgesia

Antibiotics (Controversial. Ampicillin 50-100mg/kg/dag)

Steroids (Within 8hrs, Prednisone 2mg/kg/dag x 21 days, with tapering) for **Grade 2**.

Antacids (H2 Antagonists, PPIs, Gaviscon)

### Later Management

10-15% stricture rate -> Dilation with Ba-swallows.

Failure: esophageal replacement

NB: 1000-fold increased risk of long term Ca esophagus. (13-71yrs later)