

NaHCO<sub>3</sub> or a combination of the two may be promising in the treatment of flecainide intoxication.

**Keywords:** Pediatric, Antidysrhythmic overdose, Lipid therapy

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### 135. Non-Dermal Routes Used in Fentanyl Patch Intentional Exposures

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**Background:** Fentanyl is a powerful synthetic opioid, approximately 80 to 100 times more potent than morphine. Fentanyl transdermal patches have proven to be effective in the treatment of chronic pain, with characteristics that are beneficial in delivering long term, consistent relief. However, the same physical characteristics that make the patch effective present opportunities for a broad spectrum of abuse, misuse, suicide, and other types of intentional exposures through unintended use. This analysis examines non-dermal routes reported in fentanyl patch intentional exposures.

**Methods:** This analysis uses data from the Researched Abuse, Diversion and Addiction-Related Surveillance System (RADARS<sup>®</sup>) Poison Center Program from 2012Q1–2014Q4. Intentional exposure cases involving fentanyl patches were assigned routes by trained personnel. Routes were categorized as non-dermal (swallowed whole, crush/chew, inhale, inject, transmucosal, or other), dermal, or unknown. Multiple routes are possible within a case. Cases that mentioned a non-dermal route in addition to dermal were classified as non-dermal. Frequencies of route by intentional exposure reason (suspected suicide, misuse, abuse, and intentional unknown) were generated over the entire time period. For cases in which a non-dermal route was used, the distribution of the specific routes was also examined.

**Results:** From 2012Q1–2014Q4, there were 2,522 intentional exposures to fentanyl patches (2,665 routes mentioned) reported to the RADARS System Poison Center Program. Of those, 1,407 (55.7%) cases involved a non-dermal route. There were 717 (28.4%) suspected suicide, 409 (16.2%) misuse, 1,118 (44.3%) abuse, and 278 (11.0%) intentional unknown exposures. Non-dermal route was reported in 32.5% of the suicide cases, 52.6% of misuse cases, 76.1% of abuse cases, and 38.8% of intentional unknown cases. The most common non-dermal route for all intentional exposures was crush/chew, accounting for over 50% of routes in all categories of intentional exposures.

**Conclusion:** The majority of fentanyl patch intentional exposures reported involved a non-dermal route. Abuse cases had the highest proportion of non-dermal routes. The most common non-dermal routes mentioned for all intentional exposures were crush/chew and swallowed whole, accounting for approximately three quarters. Risk of harmful outcomes is increased with non-dermal routes; more so when involving a potent drug such as fentanyl patches. Therefore, interventions are necessary to identify and educate the public on the dangers involved with non-dermal routes in fentanyl patch exposures.

**Keywords:** Fentanyl patch, intentional exposures, unintended routes

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### 136. Gastrointestinal Decontamination Considerations in Weight Loss Surgery Patients

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**Objective:** The prevalence of patients who have chosen to undergo weight loss surgical procedures has risen in recent years. Some of these patients are being identified after having presented to emergency departments with a reported toxic ingestion. Because of altered anatomy, caution may be advised when poison centers make recommendations with regard to gastrointestinal decontamination (GID) procedures in these cases. This study aims to describe the GID procedures used in the post bariatric surgery population affected by poisoning.

**Methods:** A descriptive retrospective analysis was made of cases reported to a poison center system during the past 10 years involving toxic exposures in patients with a history of a weight loss surgical procedure and a GID procedure performed. Search terms like bariatric, lap band, gastric band, gastric bypass and sleeve gastrectomy were used.

**Results:** A total of 527 cases were identified. Activated charcoal was recommended and performed in 14% of cases and multi-dose activated charcoal in 0.19%. Gastric lavage was recommended in 0.39% of cases but performed in 2.16%, while whole bowel irrigation (WBI) was recommended in 0.19% of cases but performed in 0.77%. Of the patients on which GID procedures were performed, nausea was reported in 12%, vomiting in 9%, hematemesis in 0.4% and a positive X-ray finding in 0.6%. From these, 12% developed no effects, 17% developed minor effects, 27% moderate effects, and 10% major effects, and 1% were deaths that were deemed unrelated to the toxic exposure. Twenty percent of cases were not followed, 8% of cases were not able to be followed, and 4% were not followed due to unrelated effects noted.

**Conclusion:** Gastrointestinal decontaminate procedures have been one of the mainstays of treatment in poisoned patients. Due to altered anatomy, post bariatric surgery patients may be more at risk for complications of GID procedures due to their altered anatomy. This study shows that gastric lavage and WBI were performed more often than recommended and these two procedures can be associated with increased complications. A thorough and careful history of any weight loss surgical treatments should be obtained to help guide PC's GID procedure recommendations made by poison centers. Further research is required to determine the impact of weight loss surgical procedures on GID procedures recommended and performed on toxic exposure patients.

**Keywords:** Decontamination, Bariatric Surgery, Weight Loss Surgery

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### 137. Hemodialysis used to remove acetaminophen in patients with significantly elevated levels and hepatotoxicity

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