Nova Scotia Antidote Program

2018 Quarterly Report #2
April 1, 2018 to June 30, 2018

The Nova Scotia Antidote Program is pleased to present another Quarterly Report, which provides information on changes and trends in antidote therapy and reports ongoing Provincial Antidote usage.

Antidote usage Apr 1 to June 30, 2018						
Western Zone 1	Northern Zone 2	Eastern Zone 3	Central Zone 4	IWK	Quarterly Total	Year to Date
21	6	5	19	1	52	89

Highlights of antidote use during the past 3 months

A total of **52 antidotes** were used in **40 different patient cases**. Of these, 8 antidotes were used by community hospitals, 38 in regional facilities and 6 in tertiary hospitals.

- Antidotes used in community hospital EDs: fomepizole, sodium bicarbonate, and naloxone.
- Use of Naloxone was reported for 23 patients.
    - Naloxone can be used empirically to treat patients when it is not known if they may have been exposed to an opioid. Patients may or may not respond. If they do respond, and require multiple bolus doses, an infusion of naloxone may be indicated.
    - Naloxone infusions were started in 7 patient cases reported to the Poison Centre over the past 3 months. Reported exposures of these patients were fentanyl, methadone, morphine and codeine.

      To ensure we are tracking opioid overdose and naloxone use, please report cases where naloxone is used to the Poison Centre at 1-800-565-8161
- Calcium chloride and calcium gluconate are both recommended to be stocked as part of the Antidote Kit Program. Topical calcium gluconate was used to treat one patient with an exposure to hydrofluoric acid. In addition, calcium (as chloride or gluconate) was used to treat 5 patients with calcium channel blocker and/or beta-blocker toxicity.

How does calcium gluconate treat a hydrofluoric acid burn?

Unlike other acids, HF penetrates tissues by non-ionic diffusion and dissociates into hydrogen and fluoride ions. The free fluoride anion binds to calcium and to a lesser extent, magnesium. These insoluble complexes precipitate in tissues, producing pain and tissue destruction. Applying calcium topically to the exposed area binds fluoride ions and helps to relieve pain. Calcium gluconate is available in the Antidote Kit as a gel (2.5%) or can be compounded using calcium gluconate ampoules and K-Y jelly.

IWK Regional Poison Centre Website: https://iwkpoisoncentre.ca

- There is a link on the main page to access the Antidote Kit. From this link, you can access **Antidote Monographs**, both pediatric and adult, for antidotes in our program.
- You can also access the current recommended **Antidote Stock List**, previous **Quarterly Reports**, as well as a **Poison and Antidote chart.**

Contact Jill Duncan, Provincial Antidote Co-ordinator, at jill.duncan@iwk.nshealth.ca with any inquiries.