

Nova Scotia Antidote Program

2019 Quarterly Report #3
July 1, 2019 to Sept 30, 2019

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 July 1 to Sept 30, 2019						
Western Zone	Northern Zone	Eastern Zone	Central Zone	IWK	Quarterly Total	Year to Date
6	7	9	19	1	42	127

Highlights of antidote use during the past 3 months

A total of **42 antidotes** were used in **37 different patient cases**. Of these, 9 antidotes were used by community hospitals, 30 in regional facilities and 3 in tertiary hospitals.

- Use of **Naloxone** was reported for 18 patients. *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*
 - There was one exposure to U-47700, which is a synthetic analgesic opioid which has not been studied in humans. It is significantly more potent than morphine, and has been found in adulterated street drugs, including oxycodone. Naloxone seems to be effective as a reversal agent.
- **Fomepizole** was given in 4 patients with suspected toxic alcohol ingestion (methanol / ethylene glycol). Two of these cases were confirmed methanol ingestions that were both given fomepizole and also dialyzed.
- There were 4 cases of ingestions of **beta-blockers and/or calcium channel blockers**. Two of these patients were treated with high dose insulin.
- **Octreotide** was used in one patient with toxicity due to gliclazide (sulfonylurea). Octreotide is a somatostatin analog that inhibits insulin release from pancreatic beta-islet cells. It is used in combination with dextrose to maintain normal blood glucose levels.
- The following antidotes were accessed for patients in **community hospitals**: fomepizole, hydroxycobalamin, naloxone and sodium bicarbonate.
 - In community hospitals, sodium bicarbonate was used in two cases of salicylate toxicity and two cases of sodium channel blockade due to venlafaxine toxicity.

Pyridoxine – Update on Availability

There remains some uncertainty about the future availability of IV pyridoxine, which is used to treat seizures associated with INH or gyromitra mushroom toxicity. Current stock of IV pyridoxine in the Antidote Kits has an expiry of Feb 2020. We are hoping that the product will be available by the end of January, but this has not been confirmed by the manufacturer.

As previously advised, pyridoxine can also be given orally, at the same dose, in a slurry via NG tube. The antidote monograph includes administration directions for both IV and oral routes. For now, we recommend to continue to stock the pyridoxine tablets as well as the IV pyridoxine, in case there is a supply issue with the IV pyridoxine.

Physostigmine – soon to be added to the Antidote Kit!

Physostigmine is a reversible acetylcholinesterase inhibitor which is used to treat anticholinergic toxicity. It is given by IV, with doses repeated until clinical effect. In Canada, physostigmine is available through the Special Access Program. The NS Antidote Program will be recommending that each Antidote Kit carry 4mg of physostigmine (available as 1mg/mL; 2mL ampoule). Further information will follow, including the antidote monograph. The current plan is to place **one provincial SAP order** that will be distributed to sites that prepare the Antidote Kits.