

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 Jan 1 to Mar 31, 2020						
Western Zone	Northern Zone	Eastern Zone	Central Zone	IWK	Quarterly Total	Year to Date
7	6	7	20	0	40	40

### Highlights of antidote use during the past 3 months

A total of **40 antidotes** were used in **34 different patient cases**. Of these, 8 antidotes were used by community hospitals, 24 in regional facilities and 8 in tertiary hospitals.

- Antidotes accessed in community hospitals: fomepizole, naloxone and sodium bicarbonate
- Fomepizole was reported to be used in **eight** different patient cases across the province in the Central, Eastern and Northern Zones.
  - **Four** of these patients required dialysis and ICU admission
  - For **two** of these patients, methanol / ethylene glycol levels were negative
  - **One** patient presented to a community hospital, **four** patients presented to a regional hospital and **three** patients to a tertiary care facility.
- DigiFab was reported to be used in two cases of chronic digoxin toxicity. In these cases, 1 or 2 vials of DigiFab were given and were sufficient to control symptoms.
- Naloxone was reported as used for 13 patients with known or suspected opioid toxicity.
  - **Four** of these patients required a naloxone infusion, along with bolus doses

### Toxic Alcohols and Fomepizole

Toxic Alcohols refer to ethylene glycol and methanol, since they cause specific end-organ toxicity and require antidotal therapy. Fomepizole is a competitive inhibitor of alcohol dehydrogenase that blocks the formation of toxic metabolites, including glycolic and oxalic acids (ethylene glycol) and formic acid (methanol). Even a small, unintentional ingestion can be toxic or even lethal.

The Poison Centre can help assess an individual patient's risk of morbidity / mortality and determine the need for fomepizole and specific cofactors. Specific bloodwork is generally recommended, including osmolar and anion gaps. Recommended bloodwork MAY include toxic alcohol levels, which need to be sent to the QE-II Health Sciences Centre in Halifax. The Specialist in Poison Information, along with our medical consultants, can help with the interpretation of bloodwork and assessing the need for further antidote therapy or dialysis.

Cofactors are given to help with the conversion of toxic metabolites to non-toxic metabolites. Pyridoxine and thiamine are given if ethylene glycol is known or suspected to be ingested. Folic acid is given if methanol is known or suspected to be ingested.

### It is important to contact the Poison Centre for a number of reasons.

1. We can help with the management of patients with **acute or chronic drug toxicity** and with appropriate use of antidotes and other treatments.
2. As part of the Provincial Antidote Program, we are required to track the use of all antidotes.
3. Data from the IWK Poison Centre is used to monitor and track exposures, including poisonings, overdoses, accidental exposures, adverse events etc. across Nova Scotia.

**Contact the Poison Centre – 1-800-565-8161**