

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, 2022						
Western Zone	Northern Zone	Eastern Zone	Central Zone	IWK	Quarterly Total	Year to Date
9	11	10	28	1	59	147

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

A total of **59 antidotes** were used in **47 different patient cases**. Of these, 8 antidotes were used by community hospitals, 40 in regional facilities and 11 in tertiary hospitals.

- Naloxone was the most used antidote during the 2022 quarter #3 period. It was used 23 times in known or suspected opioid toxicity. There was distribution in use over all hospital types.
- Fomepizole were used 3 times for suspected toxic alcohol toxicity.
- There were also 3 uses of Fomepizole as adjunctive treatment alongside N-Acetylcysteine for massive acetaminophen overdose. Fomepizole is a potent inhibitor of CYP P450 2E1 and other enzymes thought to be responsible for the formation of oxidative metabolites in massive acetaminophen overdose. There is emerging evidence supporting the use of Fomepizole for this indication; it requires consultation with the poison centre.

### Insulin 10ml vials

There has been a transition within NSHA from stocking insulin vials to penfills. Insulin is part of the antidote kit to provide “high dose insulin” therapy, along with dextrose, for management of hypotension due to calcium channel blocker or beta blocker toxicity. Due to the large amount of insulin required for this therapy, the 10ml insulin vials are still recommended in the antidote fridge kit. As an example, 4000 units of insulin are required to make a 250 mL bag for the standard concentration of 16 units/mL. The amount of insulin supplied in the antidote fridge kit may only be enough to provide therapy for the initial stages of treatment. To avoid the logistical difficulty of mixing such a large volume of insulin using smaller vials, it may be useful to **stock additional 10ml vials in the Emergency Department and Intensive Care areas**. Some care areas have these vials placed in a plastic ziplock bag and labelled “For antidote use only. Contact pharmacy if used”.

### It is important to contact the Poison Centre for several 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. For example – we can help with assessing the need for Digoxin Immune Fab in chronic digoxin toxicity and recommend appropriate dosing.
2. As part of the Provincial Antidote Program, we are required to track the use of all antidotes.
3. Data from the Atlantic Canada 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**