UPDATE: Anticipated Pyridoxine Shortage

The Poison Centre has become aware of an anticipated pyridoxine shortage. Previous communication with Mylan Pharmaceuticals (verbal communication on July 2, 2019), indicated that 1 mL single dose vials containing 100 mg pyridoxine hydrochloride injectable were available. We are now informed (verbal communication August 2, 2019) that only the 30 mL vials of 100 mg/mL of pyridoxine hydrochloride injectable are available in Canada. However, the remaining multi-use 30 mL vials of 100 mg/mL of pyridoxine hydrochloride injectable have an expiry date of end of July 2019.

The expected availability of a supply of the 30 mL vials of 100 mg/mL of pyridoxine hydrochloride injectable is anticipated to be August 16, 2019.

Pyridoxine is indicated in toxicology for the treatment of patients with isoniazid (INH) overdoses in the dose of 5 g (or 1 g/g drug ingested). Empiric dosing of 5g is indicated for monomethylhydrazine (MMH), (Gyromitra mushroom) or hydrazine exposures. Seizures from these substances might be amenable to benzodiazepine treatment. In this time of pyridoxine shortage, high dose pyridoxine should be reserved for those patients with these rare exposures who are resistant to usual benzodiazepine, phenobarbital, propofol loading. (Please note that phenytoin compounds are not indicated for toxic seizures).

The indication for the use of pyridoxine in ethylene glycol poisonings is soft and its efficacy is not well-documented in human literature. The more important therapies in ethylene glycol poisonings include early blockade of alcohol dehydrogenase and dialysis. The dosing of pyridoxine for this indication is a mere 50-100 mg q6h. There is documentation in the literature that oral pyridoxine (vitamin B6) is well absorbed and peaks within 20 minutes. If there is a shortage of IV pyridoxine, oral pyridoxine should be considered as an alternative treatment in the awake patient, if required. In an altered patient with a protected airway, these tablets can be crushed and administered via a nasogastric tube.

In summary, multi-dose vials (30 mL) of pyridoxine are in short supply and supplies do have an expiry date of end of July 2019. High dose IV pyridoxine should be reserved for treatment of seizures from INH, MMH & hydrazine that are resistant to usual anti-seizure medications. If no alternative is available, expired product should be considered.

Oral pyridoxine (vitamin B6) is an alternative for the awake patient or with airway protection for the ethylene glycol poisoned patient. The use of multi-dose vials for this indication should be avoided.

References:

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