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New Hampshire EMS Information Bulletin 16

DATE: July 27, 2012

SUBJECT: Diltiazem Dosing & Management of Excited Delirium

TO: NH EMS Providers, Medical Directors, EMS Unit Leaders, and EMS Hospital Coordinators

FROM: Tom D'Aprix, MD, Chair, Medical Control Board

At the Medical Control Board meeting dated July 19, 2012 several urgent medication changes were discussed and agreed upon.

Diltiazem:

Problem:

Currently, there is **no** maximum dose for diltiazem in the 2011 protocols. There have been several cases of patients receiving doses of greater than 50mg as a bolus and consequently some of these patients have become transiently hypotensive.

Research:

There is no literature that clearly defines a maximum dose; however, there is clearly increased risk of adverse effect with higher doses. Most physicians agree that if a patient does not respond to a bolus dose of 20mg that they are unlikely to respond to higher bolus dose.

Solution:

For all protocols involving the use of diltiazem, the MCB has approved a maximum dose of 20mg IV per bolus. Caution should be used and lower doses should be considered in the elderly.

Excited Delirium:

Problem:

We are seeing increased numbers of patients exhibiting excited delirium and finding that current doses of medications listed in the Behavioral Emergencies protocols are not effective.

Research:

There are published protocols from various institutions that suggest various doses of benzodiazepines and atypical antipsychotics. None stand out as the "best."

Solution:

The MCB has chosen to adopt the following protocol as advised by the Northern New England Poison Center for cases of excited delirium:

- Midazolam 5mg IV/IM/IN every 10 minutes as needed.
- If agitation continues after the second dose of midazolam, then consider:
 - Haloperidol 10 mg IM every 10 minutes.
 - Contact medical control if more than 10 mg of midazolam or 20 mg of haloperidol is needed.

The 2013 edition of the NH EMS Protocols will reflect these changes.

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