pennsylvania
DEPARTMENT OF HEALTH

EMS Information Bulletin 2016-09

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SUBJECT: Statewide ALS Protocol Update to Reflect Increased Naloxone Dosing in Altered Mental Status Protocols

TO: Pennsylvania EMS Providers/ Agencies **THRU:** Richard L. Gibbons, Director
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Pennsylvania is experiencing the effects of a national opioid crisis. While most opioid overdoses respond to standard doses of naloxone, some opioid substances require higher doses of naloxone. To address this, the dosing of naloxone in the Statewide ALS Adult and Pediatric Altered Mental Status Protocols (#7002A and #7002P) has been updated to increase the total amount of naloxone that may be administered before contact with medical command.

EMS providers should review the highlighted changes to these protocols, but the following summarizes the new dosing regimen for the use of naloxone by ALS providers:

- In **Adult** patients, options for titrating naloxone dosing every 2-4 minutes until adequate spontaneous respirations include:
    - IV/IO: 0.4 mg, then 1.6 - 2 mg, then 2 mg (up to 4.4 mg total), or
    - IM/IN: 2 mg, then 2 mg (4 mg total)
- In **Pediatric** patients, naloxone should be dosed every 2-4 minutes until adequate spontaneous respiration using:
    - IV/IO/IM/IN: 0.1 mg/kg (up to 0.4 mg initial dose), then 0.1 mg/kg (up to 2 mg), then 0.1 mg/kg (up to 2 mg)

Additionally, the following principles from the protocols apply to the use of naloxone by ALS providers:

- 2 mg dose by any route is acceptable for patient with both respiratory depression and poor perfusion (hypotension, weak/thread pulse), then additional 2 mg.
- The goal of each naloxone dose is return of adequate spontaneous respirations – the goal is not consciousness or walking. Do not give additional doses if patient breathing spontaneously with adequate oxygen saturation.
- Larger individual doses of naloxone can precipitate opiate withdrawal with the potential for a violent or combative patient that is difficult to manage at the scene and once the patient is admitted to the hospital.
- Some opioids may require higher doses of naloxone.
- Assisting ventilation with BVM should occur prior to and during naloxone administration if needed.
- There is no role for naloxone in cardiac arrest, and efforts should focus on quality CPR.
- Naloxone should not be administered to a patient whose airway has been secured with an advanced airway, unless there is also hypotension from suspected opioid overdose
- If inadequate spontaneous ventilation after a total of up to 4 mg naloxone in adults by any route, efforts should be focused on adequate BVM ventilation and placement of advanced airway, if possible.

These dosing changes are effective immediately.

Please do not hesitate to contact your regional EMS council in the event of any questions.