Resuscitation in Opioid Overdose

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For the New York State Technical Working Group on Opioid Overdose Resuscitation

Rescue breathing and/or chest compressions?

- Opioid overdose prevention programs in the United States generally teach rescue breathing prior to administration of naloxone
- World Health Organization recommends rescue breathing as a priority
- American Heart Association recommends chest compressions with or without rescue breathing for any unconscious adult
- Overdose prevention programs in Canada and the United Kingdom recommend chest compressions only or chest compressions with rescue breathing

New York State Technical Working Group on Opioid Overdose Resuscitation

New York State Department of Health, AIDS Institute convened a working group to examine the evidence and make recommendations particularly for naloxone training with limited time available

Member represented

- Emergency Medicine,
- Cardiology,
- Prehospital Emergency Services,
- Community Overdose Prevention Programs

The evidence

Literature is sparse to non-existent on relevant topics:

- Chest- compression-only in the setting of asphyxiation
- Intervention used in successful overdose reversals (or other causes of asphyxiation)
- Skills development and retention of rescue breathing training

Practices in the field

- Massachusetts: 32% of 3349 people reporting overdose reversals reported doing mouth–to-mouth rescue breathing. NB Massachusetts has the strongest data on reductions in mortality associated with naloxone distribution
- Toronto: chest compressions were performed in 46 of 112 administrations of naloxone.
- New York City:153 reporting an intervention within a year of training which included rescue breathing only
  - 15% reported rescue breathing alone
  - 52% reporting doing chest compressions
  - 33 reported doing both.

A. Walley personal communication
A. Siegler personal communication

Rescue breathing

- Physiologically appropriate if diagnosis is correct
- Useful in the absence of naloxone

But

- Effectiveness of training unclear

Chest compressions

- Easy and consistent with other messaging
- Painful, may stimulate respiration
- Naloxone targets the respiratory depression

But

- Supplies little if any additional oxygen which is the underlying deficit

Both? Neither?

- Both is ideal- full Cardiopulmonary Resuscitation not feasible in most settings
- Neither- does resuscitation training detract from attention to core of training?

Essential training elements

- Role of naloxone
- Recognition of a potential opioid overdose
- Confirmation of unresponsiveness with the sternal rub
- Administration of naloxone and calling EMS
- Re-administration of naloxone if response is inadequate
- Ensuring that the revived person is monitored for several hours, preferably in a medical setting
- Legal status of naloxone
- Rescue position

Recommended elements

- Hands- on practice with a demonstration kit
- Risk factors for overdose fatality
- New York State's 911/Good Samaritan law
- Resuscitation technique: As there is insufficient data to recommend one resuscitation method over another, clinical directors will need to determine whether rescue breathing, chest compressions or full CPR education is most appropriate for inclusion in their training curricula

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