

# Bag Valve Masks for Overdose Response

## The BCCDC recommends against the use of bag valve mask by untrained individuals in response to an overdose event

Ventilation or "giving breaths" is a crucial component of response to an opioid overdose to restore breathing, get oxygen into the blood, and to keep the brain alive.<sup>1</sup> We're aware some Regional Health Authorities and agencies are being asked to equip untrained staff with bag valve masks (BVM) to be used for overdose response due to the perceived risk of transmission of bloodborne infection. **If untrained in the use of BVM, give breaths, call 911 and give naloxone instead of initiating BVM.**

### Potential harms if BVM is used inappropriately

- Although BVMs are appropriate for trained first responders, effective BVM ventilation is an advanced skill, requiring training and hands-on practice.<sup>2</sup> Rescuers who have not been trained will not be able to use correctly
- If performed incorrectly, BVM ventilation can accelerate hypoxia and exacerbate the airway obstruction that naturally occurs during profoundly depressed levels of consciousness
  - \*This can result in serious injury or death<sup>2</sup>
- BVM ventilation is recognized as a "two rescuer" skill; requiring one rescuer to establish an effective seal and appropriate head position while the other rescuer compresses the bag<sup>2</sup>
- BVM ventilation increases the risk of air entering and inflating the stomach, reducing oxygen delivery to the lungs<sup>3</sup>
- BVM ventilation increases the risk of aspiration of stomach contents into airways and lungs<sup>3</sup>

The BC Centre for Disease Control (BCCDC) recommends that, if available, a barrier device (pocket mask or face shield) or an improvised barrier should be used for the following reasons:

### Benefits of a barrier device

- A disposable face-mask with a one-way valve is provided in Take Home Naloxone (THN) kits to prevent the person giving breaths from potential exposure to vomitus or saliva. Using a breathing barrier can help prevent diseases transmitted through saliva including the common cold, influenza, mono, herpes, pneumonia and meningitis
  - \*You can use a piece of clothing if you do not have a barrier device<sup>1</sup>
- A barrier device may address the reluctance to providing mouth-to-mouth resuscitation to a stranger, however THN administrative data indicates over 50% of rescuers gave breaths

### Risk of transmission of bloodborne infection

- HIV and Hepatitis C (HCV) are not transmitted by saliva unless visibly contaminated with blood<sup>4</sup>
- Extremely low risk for transmission of Hepatitis B (HBV) unless blood is present<sup>4</sup>

BC Harm Reduction Strategies and Services (HRSS) works to reduce harms caused by substance use, promote referrals to health and social services, and ensure equitable reach of harm reduction supplies to those who use drugs in British Columbia. The BC Take Home Naloxone (THN) program is funded by the Ministry of Health. The BCCDC oversees the THN program, which provides kits containing naloxone, medication that reverses an opioid overdose, at no cost to people at risk of witnessing or experiencing an overdose. People may access kits from participating [THN sites](#) across B.C.

To learn more about the BC THN Program please visit [Toward the Heart Naloxone page](#)

(1) Naloxone Training Manual, Toward the Heart

(2) Wayne, M. A., Delbridge, T. R., Ornato, J. P., Swor, R. A., & Blackwell, T. (2009). Concepts and application of prehospital ventilation. *Prehospital Emergency Care*, 5(1), 73-78.

(3) Nickson, C. (2018, May 6). Bag-valve-mask ventilation. Retrieved August 21, 2018, from Life in the Fast Lane: <https://lifeinthefastlane.com/ccc/bag-mask>

(4) BC Centre for Disease Control. (2017). Communicable disease control: Blood and body fluid exposure management.