# A STRATEGY FOR DEPLOYING LARGE-SCALE VOLUNTEER CONTINUOUS BAG VALVE TUBE (BVT) VENTILATION

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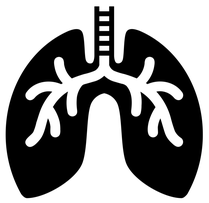
## The Problem:

- During times of natural disasters, pandemics, chemical agent release and other disaster settings, continuous manual bag-valve-tube (BVT) ventilation has been performed by non-medical personnel out of necessity (1952 Polio Epidemic and Hurricane Katrina)
- The COVID-19 Pandemic overwhelmed ventilator capacity in many locations and threatened surge ventilator capacity in the US
- Currently, there are no guidelines, instructional material or other framework for hospitals to rapidly train or mobilize a workforce to provide manual ventilation AND no tutorials for training non-medical or volunteer operators

## Our Solution:

## Part 1: Hospital Guide



**The hospital guide outlines steps and considerations for the healthcare system to successfully implement a manual ventilation strategy :**

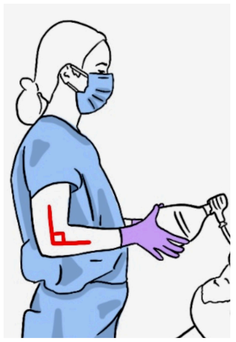
1. **Create task force of key stakeholders**
2. **Determine ventilatory strategy (existing workforce vs volunteers, schedules, algorithms)**
3. **Provide Standardized Training**

**HMW Safely and Effectively Establish a Manual Ventilation Training Program During a Pandemic?**

## Part 2: Online BVT Training Module

**We created an online articulate evidence based training module for safe and effective Bag-Valve-Tube (BVT) ventilation for medical and non-medical providers.**

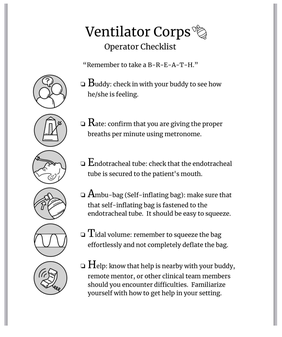
**Buddy System - Two volunteers should be present for a single ventilation shift. The second person can provide relief, get help if needed, and company!**



**Technique, positioning and ergonomics are essential to provide prolonged resuscitation.**

**Shifts <6 Hours - Evidence based**

**Remote Coaching via iPad can provide ventilation feedback**



Ventilator Corps
Operator Checklist

"Remember to take a B-R-E-A-T-H."

- ❑ Buddy: check in with your buddy to see how he/she is feeling.
- ❑ Rate: confirm that you are giving the proper breaths per minute using metronome.
- ❑ Endotracheal tube: check that the endotracheal tube is secured to the patient's mouth.
- ❑ Ambu-bag (Self-inflating bag): make sure that that self-inflating bag is fastened to the endotracheal tube. It should be easy to squeeze.
- ❑ Tidal volume: remember to squeeze the bag effortlessly and not completely deflate the bag.
- ❑ Help: know that help is nearby with your buddy, remote mentor, or other clinical team members should you encounter difficulties. Familiarize yourself with how to get help in your setting.

**B-R-E-A-T-H Checklist - Cognitive checklists can be useful to ensure patient and provider safety!**

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