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

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

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