



DT: 7.9.2020

TO: All EMS System Providers

RE: Pediatric BVM shortage

Shortages unfortunately don't just impact our medication supplies, but also our equipment. There is a shortage of pediatric BVMs currently and we need to make some changes to ensure we can care for our patients the best we are able.

**Background:**

- Over-ventilating patients is a real problem in EMS (too big of volumes AND too fast)
- Over-ventilating patients leads to lung injury, unnecessarily low ETCO2 levels, deleterious cerebral perfusion problems and reduced preload.
- We've attempted to minimize our over-ventilation of adult patients through design controls by using pediatric BVM's on adult patients. The tidal volumes for our pediatric BVMs are more than adequate to ventilate an adult patient.

**Problem:**

- We have a shortage of pediatric BVMs due to supply chain issues.
- Over-ventilation is even MORE of a risk in infants/pediatric patients than in adults.

**Solution:**

- Use Adult BVMs for adult patients in order to conserve Peds BVMs for infants/pediatric patients.
- Do **NOT** use two-hands to squeeze the BVM in adult or pediatric patient!!
- Use restraint on over-ventilating using an Adult BVM (one-handed and ideally with only a couple of fingers and titrated to ETCO2 in a patient with a pulse).
- Keep an eye on each other and make sure we are not ventilating too aggressively.

We need to retain our pediatric BVMs for true infant/pediatric patients where over-ventilation risk is higher and tends to cause gastric distention and barotrauma more frequently. **Remember, an adult by protocol is anybody that is taller than the Broselow tape.**

We are all frustrated by on-going supply chain issues. This is hopefully a brief interruption and we will go back to using Peds BVMs for adults shortly, but until then be very mindful of using an Adult BVM and ensuring ventilations are appropriate and not overly aggressive.

As always don't hesitate to reach out for questions/concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan Jacobsen", written over a white background.

Ryan Jacobsen MD, FAEMS, FACEP