

STALL STREET JOURNAL



Why Use A Flow Controlled BVM?

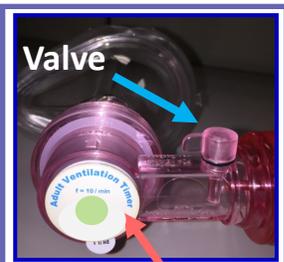
Flow-controlled bag valve masks (FCBs) are preferred over standard BVMs when a patient requires ventilation.

Why? What's the difference?

Squeezing a BVM too hard and/or too fast is universal—nearly everyone will do it. High airway pressures can harm the lung, and squeezing the bag too fast lowers CO₂ levels, causing vasoconstriction in the brain. This reduces cerebral blood flow and causes neuronal damage and poor outcomes.



A FCB uses a valve to regulate flow of air into the patient (much like a ventilator does). If an adult patient is ventilated at the correct rate, the regulation of flow is significant: **If Valve Disabled (Like a standard BVM): 150 L/min peak flow, but when Valve Enabled: 40 L/min peak flow**



VRT light flashes when it is time to ventilate

By controlling the flow of air, the FCB can reduce hyper- and over ventilation, enhancing blood flow and gas exchange.

Remember to also use ventilation rate timers (VRTs) to minimize risk of hyperventilation (even without FCBs). Adult (10 BPM) & pediatric (20 BPM) VRTs are available at low cost.

You can get discounted FCBs for your agency at Henry Schein. Ask for the EPIC discount!

PREVENT THE H-BOMBS!

Hypoxia: Apply HIGH-FLOW oxygen on TBI patients and keep SPO₂ >90%

Hyperventilation: Ventilate at 10 breaths/minute . Keep ETCO₂ at 40mmHg (35-45)

Hypotension: Systolic blood pressure above >90mmHg (document fluids given)

Hypoglycemia: Check, treat, and document treatment of blood sugar

Get the EPIC guidelines on your smart phone with the Pocket TBI app!

Download from the [Google Play Store](#) or the [iPhone Apple Store](#).

IV Fluid Documentation

EPIC guideline—Keep SBP>90 mmHg

Administer adequate IV fluids and DOCUMENT how much fluid given.

Fluid volume was only documented 61% of the time before EPIC started.

Help us learn more about fluid administration in TBI by noting fluid volumes given.

Treat fluids like a drug

ALWAYS document the dose...like you do with all drugs.

Which mechanisms of injury are most responsible for TBIs?

The Centers for Disease Control and Prevention submitted a Report to Congress with updated TBI statistics:

Falls account for **over 40%** of TBI-related ED visits

MVAs (all types) account for the most TBI-related deaths

What does this mean for EMS?

Carefully assess MOI. Calls that seem like non-emergencies might be traumatic for the brain.

Source: http://www.cdc.gov/traumaticbraininjury/pdf/TBI_Report_to_Congress_Epi_and_Rehab-a.pdf



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Many thanks to Kirstin Lathrop who is leaving the EPIC team to go to grad school. Best wishes, Kirstin! Thanks for all of your hard work!