

Utilization of PEEP by Iowa EMS Providers

There is growing literature indicating that the use of positive end-expiratory pressure (PEEP) in the out-of-hospital setting may benefit patients with a variety of respiratory conditions requiring ventilatory assistance. PEEP may be applied through a variety of devices used in the out-of-hospital setting including the bag valve mask (BVM), either as a built-in feature of the BVM or as a separate device applied to the exhalation port. PEEP can also be part of a continuous positive airway pressure (CPAP) or bi-level positive airway pressure (BiPAP) device.

In accordance with the Iowa Emergency Medical Care Provider Scope of Practice (September 2019) the application and utilization of PEEP may only be accomplished by a certified Iowa Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), Paramedic, or Critical Care Paramedic (CCP), under the following circumstances:

- The application and utilization of PEEP via the BVM, CPAP, or BiPAP is included in the service's medical director approved protocols that include, at a minimum, indications, contraindications, complications, and use of PEEP settings,

-and-

- The provider has been credentialed on the application and utilization of PEEP.

Further, the subsequent restrictions apply to the following certification levels only:

- If indicated by the service program's approved protocols an EMT may adjust the PEEP setting via the BVM, CPAP, or BiPAP to a maximum setting of 10cmH₂O pressure.
- If indicated by the service program's approved protocols an AEMT may adjust the PEEP setting via the BVM, CPAP, or BiPAP to a maximum setting of 10cmH₂O pressure.

The service program's medical director and service directors should ensure that the service's protocols, when applicable, provide clear direction on the indications, contraindications, application, complications, and utilization of PEEP for EMT and AEMT providers when utilizing either a bag valve mask (BVM), continuous positive airway pressure (CPAP) device or bi-level positive airway pressure (BiPAP) device. Documentation ensuring that credentialing of the EMS provider with regard to the application and utilization of PEEP via BVM, CPAP, or BiPAP shall be maintained by the service program.

Any further questions regarding this topic or any other Scope of Practice questions may be directed to one of the IDPH BETS EMS Field Coordinators.