

CPAP DEVICE CONSIDERATIONS

The Department of Health Services, Division of Public Health, Bureau of Local Public Health Practice and EMS, the EMS Advisory Board, and the Physician Advisory Committee do not endorse any specific brand, make, manufacturer, or distributor of Continuous Positive Airway Pressure devices (CPAP).

Effective August 14, 2008, the EMS Section is approving the use of oxygen delivery devices with PEEP as acceptable devices to be considered CPAP. There are many devices that are marketed as CPAP devices but are only high flow oxygen delivery devices with a PEEP valve. Devices such as the OxyPEEP and Boussignac are not true CPAP devices but fall into this category. Purchasers of these devices may not be getting what they believe to be a true CPAP device. However, though these devices may not be truly CPAP based on the criteria below, they have been shown to be effective and may allow for patient improvement. The preferred and previously approved CPAP devices include the Whisper Flow and PortO₂Vent.

When choosing a CPAP device for use in the pre-hospital setting the following points should be considered:

1. Fixed Flow versus Variable Flow - Fixed flow devices deliver a pre-set (usually 35%) concentration of oxygen. Variable flow devices allow the provider to adjust the concentration of oxygen from 21% to 100%. The following are a list of pros and cons related to each.

Fixed

- Simple to use
- Less oxygen consumption

Variable

- More complex to use
- Higher oxygen consumption

Data indicates that the vast majority of CPAP patients improve on a fixed rate of 35% FiO₂ since the primary abnormality is poor ventilation rather than oxygenation. Fixed flow devices have the capability of providing additional oxygen via the mask or by applying nasal cannula oxygen to the patient.

2. Must be completely latex-free.
3. Comfort and seal of the mask.
4. Ease of assembly and application.
5. Positive Expiratory End Pressure (PEEP) valve must ensure accurate and reliable pressures and ensure against exceeding set pressure.
6. Ease of removing and applying PEEP valve or gaining access to the patients' mouth to administer repeated doses of nitroglycerin.
7. Ease and ability to administer in-line continuous nebulized medications during use.
8. Compatibility with the receiving hospital's equipment.
9. Cost of devices: Base price of equipment (flow meter and quick connect hoses). Cost of disposable supplies (pre-packaged mask, PEEP valve, tubing and assorted materials for single patient use).