



Prehospital Care Bundles

The MLREMS Prehospital Care Bundles have been created to provide a simple framework to help EMS providers identify the most critical elements when caring for a patient. These bundles do not replace protocol, but are designed to assist quality assurance and performance evaluations as we work collectively to optimize the delivery of prehospital medicine. As the science and evidence changes, so will these care bundles.

The New York State Collaborative Protocols and the MLREMS Care Bundles are intended to improve patient care by prehospital providers. They reflect current evidence and the consensus of content matter experts. The Collaborative Protocols and the MLREMS Care Bundles are intended to provide principles and direction for the management of patients that are sufficiently flexible to accommodate the complexity of care in the prehospital environment. No Protocol or Care Bundle can be written to cover every situation that a provider may encounter, nor are they substitutes for the judgement and experience of the provider. Providers are expected to utilize their best clinical judgement to deliver care and procedures according to what is reasonable and prudent for specific situations. However, it is expected that any deviations from protocol shall be documented along with the rationale for such deviation.

**NO PROTOCOL OR CARE BUNDLE IS A SUBSTITUTE FOR
SOUND CLINICAL JUDGEMENT.**



Congestive Heart Failure Exacerbation Care Bundle

Congestive Heart Failure Exacerbation

Metric	Goal
Patient Positioning	Sit the patient upright
Supplemental Oxygen	Administered per protocol
Aggressive Nitroglycerin	Administered per protocol
Capnography	Prehospital respiratory rate and EtCO ₂ monitoring
EKG	12-lead EKG obtained

Congestive Heart Failure: Severe Exacerbation

Metric	Goal
Patient Positioning	Sit the patient upright
CPAP	Administered per protocol
Aggressive Nitroglycerin	Administered per protocol
Capnography	Prehospital respiratory rate and EtCO ₂ monitoring
EKG	12-lead EKG obtained

Theory/Evidence

Patient Positioning

- Sitting the patient upright allows for the most efficacious oxygenation.

Supplemental Oxygen/CPAP

- Supplemental oxygen in a congestive heart failure exacerbation should be provided to the patient per protocol to maintain an oxygen saturation of > 92%. In the setting of severe exacerbation, CPAP is used to increase intrathoracic pressure and drive pulmonary edema from the lungs.

Aggressive Nitroglycerin

- Will reduce the left ventricular filling pressures through vasodilatory mechanisms. Will also lower systemic vascular resistance in hopes of increasing cardiac stroke volume and cardiac output.

Capnography

- Monitoring airway, ventilation, and oxygenation is a best practice in any patient with an active CHF exacerbation.

EKG

- Cardiac ischemia or infarction is a leading cause of congestive heart failure and subsequent exacerbation.