POLICY: 554.10
TITLE: Congestive Heart Failure

EFFECTIVE: 10/21/2020
REVIEW: 10/2025
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

CONGESTIVE HEART FAILURE

I. AUTHORITY
Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9

II. PURPOSE
To serve as a patient treatment standard for EMRs, EMTs, and Paramedics within their scope of practice.

III. DEFINITIONS

A. Mild Respiratory Distress describes a patient who is typically able to speak full sentences; whose blood pressure and pulse may be elevated; might be weak and diaphoretic; have a normal mental status; no cyanosis.

B. Moderate Respiratory Distress describes a patient who is generally able to speak just a few words; whose blood pressure and pulse are likely elevated; who might be weak and diaphoretic; have a normal mental status; circumoral and digital cyanosis may be present.

C. Severe Respiratory Distress describes a patient who is unable to speak; whose blood pressure and pulse will be elevated or depressed; whose mental status is typically altered; central cyanosis likely.

Note: Patients with congestive heart failure typically have a cardiac history, are generally older patients, and they are commonly on medications including beta blockers, diuretics, ACE inhibitors, digoxin, or calcium channel blockers. In addition, the CHF patient typically presents with physical findings including hypertension, peripheral edema, jugular venous distension, and a more sudden onset of wheezes, rales, or rhonchi, or some combination of all three. It is VERY UNLIKELY for a patient to have symptomatic CHF without a blood pressure >150 systolic. In these patients, oxygen (CPAP for Moderate/Severe) and direct vasodilators such as Morphine and Nitrates will be more efficacious than indirect venodilators such as Furosemide.

IV. PROTOCOL

EMR STANDING ORDERS	
Patient Assessment	Circulation, Airway, Breathing, assess vital signs q 5 minutes and report findings to incoming Advanced Life Support providers
Oxygen Administration	Provide oxygen if appropriate and be prepared to support ventilations with a BVM
Position	Sitting (as tolerated.)
EMT STANDING ORDERS	
Note	Must perform items in EMR standing orders if applicable
Pulse Oximetry	Report initial reading to paramedic if applicable.
Position	Sitting (as tolerated.)

Mentation	for Altered Level of Consciousness, check blood sugar and refer to 554.31 Alerted Level of Consciousness
APPLY CPAP	If available and patient condition is Moderate or Severe respiratory distress, start at 5 cm H2O, titrate up as patient tolerates and as patient condition warrants, to a max of 10 cm H2O. CPAP is contraindicated in Patients that cannot maintain their own airway and/or an SBP< 90mmHg. Continue to record vital signs q 5 minutes including pulse oximetry readings.

PARAMEDIC STANDING ORDERS

Note	Must perform items in EMT standing orders if applicable
Cardiac Monitor	Identify rhythm and perform 12 Lead EKG – If interpretation results reveal ***ACUTE MI/SUSPECTED***, expedite transport to SRC as directed if transport time is less than 60 minutes. It is preferable to obtain 12 lead prior to Nitro administration or transport. Repeat post-treatment if patient symptomatic and condition persists.
Apply C-PAP	If available and patient condition is Moderate or Severe respiratory distress, start at 5 cm H2O, titrate up as patient tolerates and as patient condition warrants, to a max of 10 cm H2O. CPAP is contraindicated in Patients that cannot maintain their own airway and/or a SBP< 90mmHg. Continue to record vital signs q 5 minutes including pulse oximetry readings.
Nitroglycerine spray	0.4mg SL if systolic BP 120 – 150 mmHg 0.8mg SL if systolic BP 150 – 200 mmHg 1.2mg SL if systolic BP > 200 mmHg Recheck BP after each NTG dose. Repeat doses are based on systolic BP as outlined above. Repeat SL NTG every 5 minutes until clinical improvement or systolic BP 100 mmHg or less. Do not administer if systolic BP is less than 100 mmHg.
Nitroglycerine Paste	If CPAP is employed, apply 1 inch of NTG paste to anterior chest wall If CPAP is NOT employed, recheck BP after each NTG dose. Repeat SL doses are based on systolic BP as outlined above. Repeat NTG every 5 minutes until clinical improvement or systolic BP 100 mmHg or less. Do not administer if systolic BP is less than 100 mmHg.
Albuterol	2.5mg (3ml unit dose) via handheld nebulizer/in line nebulization if the patient is wheezing
IV/IO access	Saline Lock is preferable. Be cautious on fluid administration
Morphine	Consider 2.0 mg slow IV/IO if systolic BP > 100 mmHg for patients in severe distress. May repeat ONCE.
Push Dose EPINEPHRINE	0.2ML IV/IO of 1:10,000 every 5 minutes to maintain systolic BP>90 mmHg

Clinical PEARLS:

- Intravenous access is preferred over Intraosseous unless patient is unstable.
- Secure airway with simplest technique, i.e. BLS airway unless unable to manage.
- Patients in Amador, Calaveras and Mariposa counties meeting STEMI criteria shall be transported to closest facility if transport time to STEMI receiving facility is > 60 minutes and there are not contraindications to Thrombolytics.
- EMS shall acquire 12 lead EKG on any suspected cardiac patient within 10 minutes of patient contact. If unable to obtain within 10 minutes the reason for delay shall be documented in the Patient Care Report.

- CPAP is only indicated on patients in moderate and severe respiratory distress and do not have contraindications. Contraindications to CPAP include: Patients < 15 years old, patients less <4 feet tall, patients with an altered mental status, patients without an intact gag reflex and patients with systolic blood pressure < 90mmHg