



2. Respirations
3. Neurologic status assessment [See [Appendix VII. Neurologic Status Assessment](#); purposeful movement, pupillary response]
4. Cardiac activity (cardiac auscultation, cardiac monitoring, and/or, if available, ultrasonography)
5. Quantitative capnography

Treatment and Interventions

1. Focus on continuous, quality CPR that is initiated as soon as possible
2. Focus attention on the family and/or bystanders. Explain the rationale for termination
3. Consider support for family members such as other family, friends, clergy, faith leaders, or chaplains
4. For patients that are less than 18 years of age, consultation with medical direction is recommended

Patient Safety Considerations

All patients who are found in ventricular fibrillation or whose rhythm changes to ventricular fibrillation should in general have full resuscitation continued on scene

Notes/Educational Pearls

Key Considerations and Pertinent Assessment Findings

1. Recent evidence has shown that, to capture over 99% of potential survivors from medical cardiac arrest (especially VF and pulseless VT arrests), resuscitation should be continued for approximately 40 minutes. This does not imply, however, that all resuscitations should continue this long (e.g., asystolic rhythms)
2. In remote or wilderness situations, EMS clinicians should make every effort to contact medical direction, but resuscitation may be terminated in the field without contacting medical direction when the following have occurred:
 - a. There has been no return of pulse despite greater than 30 minutes of CPR (this does not apply in the case of hypothermia)
 - b. Transport to an emergency department will take greater than 30 minutes (this does not apply in the case of hypothermia)
 - c. EMS clinicians are exhausted, and it is physically impossible to continue the resuscitation
3. Logistical factors should be considered, such as collapse in a public place, family wishes, and safety of the crew and public
4. Survival and functional neurologic outcomes are unlikely if ROSC is not obtained by EMS. It is dangerous to crew, pedestrians, and other motorists to attempt to resuscitate a patient during ambulance transport
5. Quantitative EtCO₂ measurements of less than 10 mmHg or falling greater than 25% despite resuscitation indicates a poor prognosis and provide additional support for termination

Quality Improvement

Associated NEMSIS Protocol(s) (eProtocol.01) (for additional information, go to www.nemsis.org)

- 9914055 – General - Cardiac Arrest
- 9914087 – Injury - Cardiac Arrest
- 9914169 – Cardiac Arrest - Do Not Resuscitate