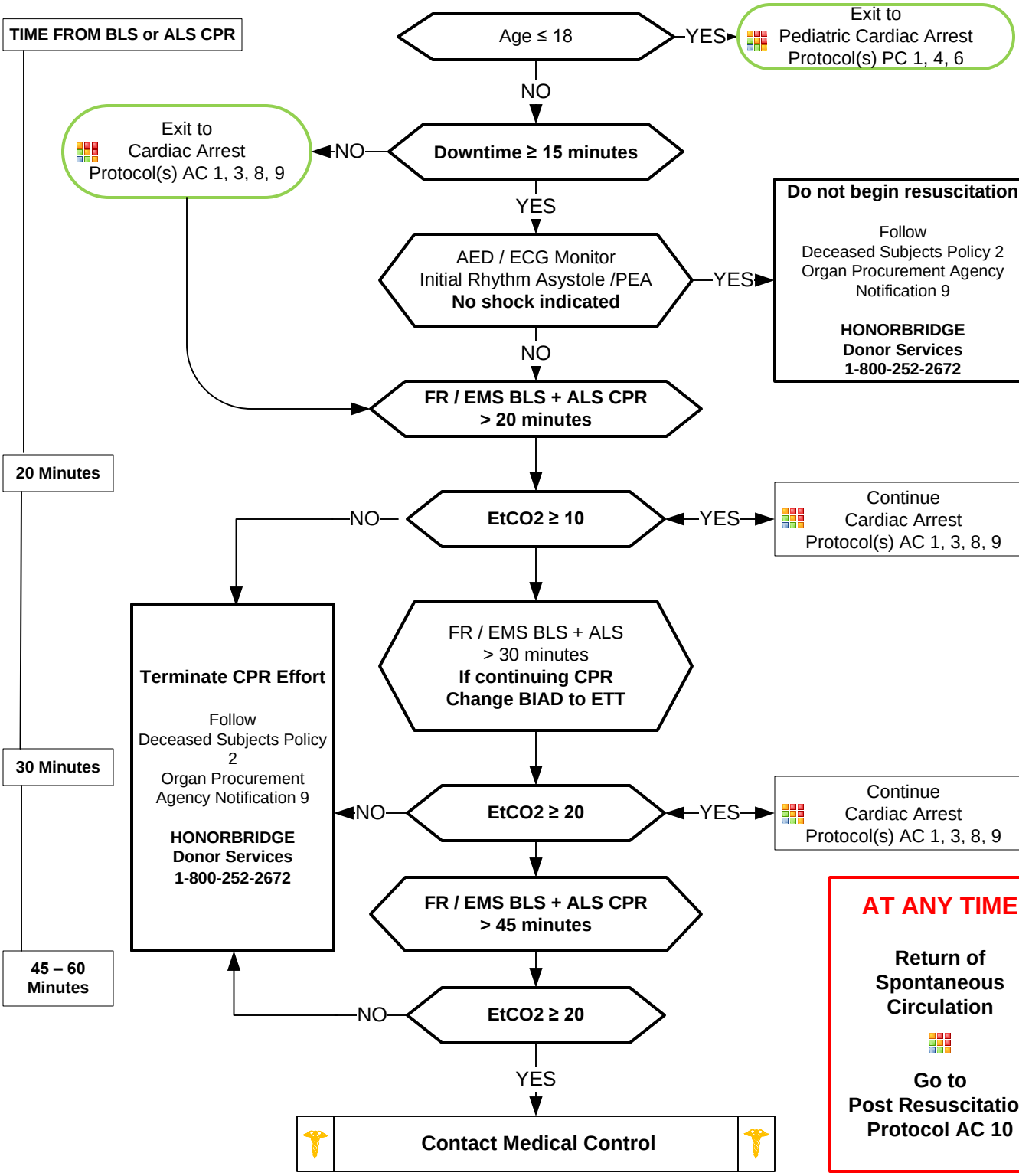
On Scene Resuscitation
Termination of CPR



Parameters to stop CPR without contact of medical control - Supervisor/TO/FTO on scene:

Situations where EtCO2 ≥ 20:

- Downtime ≥ 15 minutes and non-shockable rhythm, may terminate CPR immediately.
- No shockable rhythms and no episodes of ROSC may terminate CPR after 30 minutes.
- Age ≥ 70 and family requests termination, even if no DNR or MOST available, may terminate CPR.
- Shockable rhythm, > 15 minutes since last shock, and total CPR time > 30 minutes may terminate CPR.
- Known terminal illness (with or without DNR or MOST) and family request termination, may terminate CPR.

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General Approach

Obtain history only after, or while others are performing appropriate resuscitation and do not interrupt resuscitation while history is being obtained.

Determine the most legitimate person to elicit the history. Typically witness to event, spouse, child, or sibling or Durable Health Care Power of Attorney.

Determine the following:

1. Is a terminal illness involved (i.e. COPD, CHF, Cancer, Hospice Care)?
2. Is there an advanced directive such as DNR/MOST?
3. Did patient express to your historian any desires regarding resuscitation and if so what?
4. A living will does not necessarily mean a DNR.

DNR/ MOST

Patient assessment should occur promptly and without delay. Never withhold or delay patient assessment to read a document. EMS providers should not attempt to decide if a DNR or MOST is valid. If present and contains a healthcare providers signature it should be considered valid unless an immediate family member or guardian revokes the DNR/MOST.

Withholding of Resuscitation Efforts

The primary goal of EMS is to render aid and comfort to the suffering and the application of this protocol does not diminish this responsibility. It is however appropriate to withhold resuscitation in specific settings.

Withholding of Resuscitation:

1. Decomposition; 2. Rigor mortis; 3. Dependent lividity; 4. Blunt force trauma; 5. Injury incompatible with life; 6. Downtime > 15 minutes and initial non-shockable rhythm; 7. Parameters outlined on page 1.

Downtime

Downtime is a nebulous concept fraught with inaccuracy. Every effort should be utilized to determine when the estimated time of death occurred. This will likely come from bystanders and/or family members. Time last seen alive is an important piece of information. However, when unsure the default is always to initiate resuscitation.

Downtime ≥ 15 Minutes with Asystole/PEA or AED indicating NO SHOCK

Studies show that patients presenting in asystole have a very low chance of survival even if ROSC occurs. Studies also show that patients with confirmed downtimes > 15 minutes with a non-shockable initial rhythm do not survive. When downtime is confirmed at ≥ 15 minutes and the presenting rhythm is non-shockable, it is appropriate to withhold or terminate resuscitation effort. However, when unsure the default is always to initiate resuscitation.

End Tidal CO_2 Monitoring ($EtCO_2$)

$EtCO_2$ monitoring determines when to assess for ROSC and should be utilized instead of pulse checks. If after 20 minutes of high-quality CPR the $EtCO_2$ is < 10 mmHg, the resuscitation should be terminated as the chance of survival is essentially zero. If after 30 minutes of high-quality CPR the $EtCO_2$ is < 20 mmHg the resuscitation should be terminated. If after 45 minutes the $EtCO_2$ is > 20 contact medical director to discuss continued resuscitation unless indicated on page 1 for termination.

- **When changing BIAD to ETT you have only 10 seconds to place ETT.**

Once $EtCO_2$ is initiated pulse checks should not occur until a spike in $EtCO_2$ is seen, typically > 10 – 20 points. When the $EtCO_2$ remains < 20 reassess the quality of compressions to ensure high-quality, uninterrupted chest compressions.

ROSC

Patients undergoing resuscitation may have transient ROSC several times during the resuscitation. Transient ROSC does not equate with survivability. When ROSC is achieved the Post Resuscitation Protocol is then utilized. **Remain on scene at least 10 minutes before any patient movement to assess if prolonged ROSC will continue.** When the resuscitation effort has reached 30 minutes and ROSC occurs, but then is lost, CPR should continue 10 minutes beyond last ROSC before Termination of CPR is performed. Contact Medical Control for guidance.

Talking with Family

Refer to Team Focused CPR Protocol AC 11, page 2.

Pearls

- General approach:
  1. **Determine if a terminal disease is involved?**
  2. **Is there an advanced directive such as a DNR / MOST form?**
  3. **Did the patient express to your historian any desires regarding resuscitation and if so what measures?**
  4. **Remember a living will is not a DNR.**
- **Obtain a history while resuscitation efforts are ongoing. Determine the most legitimate person on scene as your information source such as a spouse, child, or sibling or Durable Health Care Power of Attorney.**
- Basic and Advanced Life Support may use for treatment decisions.