ii. In addition, conventional CPR is preferred in children, since it is associated with better outcomes when compared to compression-only CPR

13. Special Circumstances in Cardiac Arrest
    a. Trauma, treat per the General Trauma Management Guideline
    b. Pregnancy
        i. The best hope for fetal survival is maternal survival
        ii. Position the patient in the supine position with a second rescuer performing manual uterine displacement to the left to displace the gravid uterus and increase venous return by avoiding aorto-caval compression
        iii. If manual displacement is unsuccessful, the patient may be placed in the left lateral tilt position at 30°. This position is less desirable than the manual uterine displacement as chest compressions are more difficult to perform in this position
        iv. Chest compressions should be performed slightly higher on the sternum than in the non-pregnant patient to account for elevation of the diaphragm and abdominal contents in the obviously gravid patient
        v. Defibrillation should be performed as in non-pregnant patients
    c. Arrests of respiratory etiology (including drowning). In addition to the above, consider early management of the patient's airway. Passive ventilation with a NRB is not indicated for these patients
14. Application of the "pit crew" model of resuscitation
    a. Ideally, clinicians in each EMS agency will use a "pit crew" approach when using this protocol to ensure the most effective and efficient cardiac arrest care. Training should include teamwork simulations integrating first responders, BLS, and ALS crewmembers who regularly work together. High-performance systems should practice teamwork using "pit crew" techniques with predefined roles and crew resource management principles. For example (the Pennsylvania State EMS Model for Pit Crew):
        i. Rescuer 1 and 2 set up on opposite sides of patient's chest and perform continuous chest compressions, alternating after every 100 compressions to avoid fatigue
        ii. Use a metronome or CPR feedback device to ensure that compression rate is 100–120/minute
        iii. Chest compressions are only interrupted during rhythm check (AED analysis or manual) and defibrillation shocks – Continue compressions when AED/defibrillator is charging
        iv. Additional rescuer obtains IO (or IV) access and gives epinephrine. For IO access:
            1. The proximal humerus is the preferred site for adults
            2. The tibial site is preferred for infants and children
        v. During the first four cycles of compressions/defibrillation (approximately 10 minutes) avoid advanced airway placement
        vi. One responding clinician assumes code leader position overseeing the entire response
        vii. Use a CPR checklist to ensure that all best practices are followed during CPR
    b. For efficient "pit crew" style care, the EMS agency medical director should establish the options that will be used by clinicians functioning within the EMS agency. Options include establishing:
        i. The airway/ventilation management, if any, that will be used
        ii. The initial route of vascular access
15. The EMS agency must perform a Quality Improvement (QI) review of care and outcome, overseen by the agency medical director, for every patient that receives CPR