5. If patient is experiencing VAD-related complications or cardiovascular problems, expedite transport to the medical facility where VAD was placed if patient's clinical condition and time allows
6. If patient has a functioning VAD and is experiencing a non-cardiovascular-related problem, transport to a facility that is appropriate for the patient's main presenting problem without manipulating the device
7. If patient has a functioning VAD and is hypoperfused:
    a. Administer IV fluids (30 mL/kg isotonic fluid; maximum of 1 liter) over less than 15 minutes, using a push-pull method of drawing up the fluid in a syringe and pushing it through the IV
    b. May repeat up to 3 times based on patient's condition and clinical impression for a total cumulative dose not to exceed 3 L
8. If patient is in full cardiac arrest:
    a. CPR should not be performed if there is any evidence the pump is still functioning. The decision whether to perform CPR should be made based upon best clinical judgment in consultation with the patient's VAD-trained companion and the VAD coordinator (or direct medical oversight if VAD coordinator unavailable)
    b. CPR may be initiated only where:
        i. You have confirmed the pump has stopped and troubleshooting efforts to restart it have failed, and
        ii. The patient is unresponsive and has no detectable signs of life

Notes/Educational Pearls

1. You do not need to disconnect the controller or batteries to:
    a. Defibrillate or cardiovert
    b. Acquire a 12-lead EKG
2. Automatic non-invasive cuff blood pressures may be difficult to obtain due to the narrow pulse pressure created by the continuous flow pump
3. Flow though many VAD devices is not pulsatile, and patients may not have a palpable pulse or accurate pulse oximetry
4. The blood pressure, if measurable, may not be an accurate measure of perfusion
5. Ventricular fibrillation, ventricular tachycardia, or asystole/PEA may be the patient's "normal" underlying rhythm. Evaluate clinical condition and provide care in consultation with VAD coordinator
6. The patient's travel bag should always accompany them with back-up controller and spare batteries
7. If feasible, bring the patient's power module, cable, and display module to the hospital
8. All patients should carry a spare pump controller with them
9. The most common cause for VAD alarms is low batteries or battery failures
10. Although automatic non-invasive blood pressure cuffs are often ineffective in measuring systolic and diastolic pressure, if they do obtain a measurement, the MAP is usually accurate
11. Other VAD complications:
    a. Infection
    b. Stroke/Transient ischemic attack (TIA)
    c. Bleeding
    d. Arrhythmias
    e. Cardiac tamponade