Advanced Life Support Patient Care Standards Version 4.0 Refresher

Medical Cardiac Arrest Summary of Changes

The following is intended to provide you with a summary that reflects the changes to the ALS PCS v4.0. Please refer to the following additional resources for further clarification as needed:

- **Advanced Care Life Support Patient Care Standards v4.0**
  Link: www.lhsc.on.ca/About_Us/Base_Hospital_Program/Medical_Directives/index.htm

- **Medical Cardiac Arrest Refresher Podcast**
  Link: https://youtu.be/CdZDuCiPRhs

- **SWORBHP – 2016-2017 Mandatory – PCP/ACP in the Paramedic Portal - Online Training**
  Link: www.paramedicportalontario.ca

What has changed?

- Consider an Early Transport Decision in the VSA patient based on cause:
  - "Consider early transport after the 1st analysis (including if defibrillation is indicated) in the following settings:
    - Pregnancy presumed to be ≥ 20 weeks' gestation (fundus above the umbilicus, ensure manual displacement of the uterus to the left)
    - Hypothermia
    - Airway obstruction
    - Suspected Pulmonary embolus
    - Medication Overdose/Toxicity
    - Other known reversible cause of arrest not addressed, e.g. anaphylaxis, etc.
- Plan for extrication and transport for patients with refractory ventricular fibrillation and pediatric cardiac arrest (after 3rd analysis), ensuring high quality CPR can be continued.
- Cardiac arrest in the setting of opioid overdose:
  - "…continue standard medical cardiac arrest directive. There is **no clear role** for routine administration of naloxone in confirmed cardiac arrest."

Why has it changed?

- To provide the best evidence based treatment based on the cause of death as per the most current 2015 AHA guidelines. For example: Focus priorities such as high quality CPR in patients who are VSA by cause of Hypothermia, FBAO, PE, OD, etc.

- Patients ≥ 20 weeks' gestation: Priorities for the pregnant woman in cardiac arrest are the provision of High Quality CPR and the relief of aortocaval compression. If the fundus height is at or above the umbilicus, left uterine displacement can be beneficial in relieving aortocaval compression during chest compressions.

How does it affect paramedic practice?

- Early transport decision, following the 1st analysis (shock or no shock) for VSA patients with a known reversible cause. This could lead to a very minimal scene time. It will be imperative for paramedics to gain an incident/medical history and patient assessment in order to determine the cause of arrest.
- Patients without a known reversible cause will continue to be treated as directed by the Medical Cardiac Arrest Directive.
- Patients in refractory VF require quality CPR and defibrillation, and therefore we will not be considered for early transport - perform 4 rhythm analyses total prior to transport.
- Patients ≥ 20 weeks' gestation are considered for transport following the first analysis:
    - Minimal scene time for pregnant cardiac arrest patients with a potentially viable fetus. Manual left uterine displacement during CPR in pregnant patients > 20 weeks' gestation.

Frequently Asked Questions

- **Is the decision to transport a pediatric VSA patient dependent upon the patient's rhythm?**
    - Answer: Prepare to transport regardless of rhythm; all pediatric arrests.
        - PCPs - the patients do not meet TOR criteria;
        - ACPs - plan to transport to hospital because 99% of the time, you will not be provided a field pronouncement

- **When is early transport considered for pediatric patients?**
    - Answer: The majority of pediatric VSAs are due to reversible causes, so transport after one analysis. However, the directive allows for use of case by case clinical judgment (for example, stay on scene for pediatric VF and leave after one analysis in presumed sepsis related cases)

- **Rational: In the ALS PCS 3.4, we were to leave following the first NSI in the peds population. Now it appears we are to stay for 3.**
    - Answer: There is no hard-fast rule based on our interpretation. Given that the medical directive allows for transport after one analysis in reversible causes (majority of peds arrests) or stay for 3 analysis prior to transport (ex: patient in VF who may benefit from defibrillation), use your clinical judgment.

REMINDER THAT THE INFORCE DATE IS JULY 17, 2017