

Advanced Life Support Patient Care Standards Version 4.0 Refresher

Cardiac Ischemia Medical Directive Summary of Changes

The following is intended to provide you with summary notes that reflect 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
- **Cardiac Ischemia Refresher Podcast**
Link: <https://youtu.be/gZclCbYMmZ8>
- **SWORBHP – 2016-2017 Mandatory – PCP/ACP in the Paramedic Portal - Online Training**
Link: www.paramedicportalontario.ca

What has changed?

PCP & ACP:

- Oxygen should be titrated to maintain SpO₂ of 94-98%
- Maximum number of NTG doses in STEMI+ patient is THREE
- Contraindication of “12 lead compatible with Right Ventricular Infarct” now requires modified 12 lead

ACP:

- Updated Contraindications for morphine
 - Removed “Injury to the head or chest or abdomen or pelvis”
- Updated Condition for morphine
 - “Other” changed from “N/A” to “Severe pain (≥7/10 on pain scale)”

Why has it changed?

- There was insufficient evidence to recommend the routine use of oxygen therapy in patients with uncomplicated ACS without signs of hypoxemia or heart failure and that older literature suggested harm with supplementary oxygen administration in uncomplicated ACS without demonstrated need for supplementary oxygen
- New evidence has shown that all STEMI are more susceptible to hypotension from NTG than previously thought

- 12 lead is now on the equipment standards list so all Paramedic Services in Ontario can comply with modified 12 lead
- Potential adverse effects of morphine include hypoventilation - induced hypoxemia and masking of the ongoing infarct (due to euphoria/analgesia) which may reduce aggressive infarct management. There is evidence of increased mortality with morphine administration due to reduced platelet inhibition. The mechanism is thought to be delayed gastric emptying (and/or vomiting), reduced/slowed absorption, and subsequent decreased peak plasma levels of orally administered antiplatelet drugs. A more nuanced approach to administration of morphine is recommended, and therefore only patients with severe ischemic pain should be candidates for morphine

How does it affect paramedic practice?

- Patients with ST elevation in inferior leads (II, III, aVF) who are within NTG parameters should have a modified 12 lead performed and interpreted
- Patients with a RVMI (ST elevation of ≥ 1 mm in V4R) should NOT receive any NTG

REMINDER THAT THE INFORCE DATE IS JULY 17, 2017