



Medical Advisory

MA-2022-02

Intravenous EPINEPHrine Medication Administration

For: Paramedics certified by the RPPEO

Issue date: November 3, 2022

Effective date: November 3, 2022 until rescinded

Key message

Intravenous (IV) EPINEPHrine should only be administered prehospitally to patients who are in cardiac arrest. Prehospital EPINEPHrine treatment for anaphylaxis/asthma exacerbation is only to be administered in the intramuscular (IM) route.

Paramedics should:

1. Ensure an independent double check, cross check, or read-back procedure is performed prior to administration of EPINEPHrine.
2. Understand the risk associated with administering EPINEPHrine to a patient who is perfusing.
3. Double check the medication dose and route prior to administration.

Background

Three separate patient safety incidents occurred across the RPPEO region in July and August of 2022 where patients received IV EPI for anaphylaxis or asthma exacerbations. These patients experienced significant adverse events related to the IV administration of EPINEPHrine including V-Tach, arrhythmia, and severe anxiety.

EPINEPHrine can cause increased heart rate, increased blood pressure, and possibly an abnormal rhythm. Administering IV bolus of EPINEPHrine to a patient with a pulse can be life threatening. Extreme caution should be used when administering EPINEPHrine.

The ALS PCS Companion Document supports this practice providing the following guidance: *IV access should be considered after IM administration of EPINEPHrine to reduce the chance of inadvertently administering the medication via the IV route.*

Medical Advisory Video Message from Dr. Richard Dionne

(Scan QR Code below or click on it to view video message)



A handwritten signature in black ink, reading "Richard Dionne".

Richard Dionne MD CCFP-EM

Medical Director | Directeur Médical

Regional Paramedic Program for Eastern Ontario | Programme Régional Préhospitalier de l'Est Ontarien

Associate Professor | Professeur Agrégé, University of Ottawa | L'Université d'Ottawa

Emergency Physician | Médecin d'Urgence, The Ottawa Hospital | L'Hôpital d'Ottawa