



DT: 6.26.2018

TO: All EMS System Providers

RE: **Clinical Alert** Regarding Changes to Magnesium and Amiodarone and Approach to Eclamptic Seizures, Torsades de Pointes, and Stable V-tach

**Background:**

Medication shortages are impacting both hospital and out-of-hospital care throughout the country. It is an on-going problem with no solution in the immediate future. Currently, we have found our own EMS System facing issues with medication shortages that prompted us to do an in-depth review of two medications that are currently in protocol resulting in the following decisions:

- Effective July 1<sup>st</sup>, 2018 **Magnesium Sulfate** will be eliminated from JOCO EMS System Protocols.
  - **Protocols Impacted:** Cardiac Arrest (Torsades de Pointes) and Obstetrics (3<sup>rd</sup> Trimester or Post-Partum Seizure)
  - **Rationale:** We have had no Torsades de Pointes cases managed successfully with Magnesium in JOCO documented. Treatment for Torsades de Pointes is defibrillation. All cardiac arrest magnesium administration cases were reviewed and none were for Torsades and there were no survivors. In 10 years (~400,000 calls) we found only 4 administrations of Magnesium for Eclamptic seizures. **Versed is an acceptable alternative to Magnesium** (for seizures) and many EMS services do not carry Magnesium for this indication as evidenced in recent peer-review literature surveys. Cost/benefit analysis was also done and in light of on-going challenges with shortages of admixture bags decision was to eliminate entirely.
- Effective July 1<sup>st</sup>, 2018 the JOCO EMS System will no longer administer **Amiodarone INFUSIONS**.
  - **Protocols Impacted:** Dysrhythmias (Sustained V-tach)
  - **Rationale:** Physicians (including cardiology) overwhelmingly and unanimously supported removing amiodarone infusions for sustained V-tach due to a lack of proven efficacy (compared to lidocaine), short transport times, unfavorable cost/benefit analysis, access to simple alternative of using preload lidocaine, which does not involve admixing/infusion set-up. Protocol already allows for Lidocaine to be administered for Adult/Pediatric Sustained V-tach. Unstable V-tach should be cardioverted. **Amiodarone can still be administered as bolus for Cardiac Arrest patients.**

Respectfully,

A handwritten signature in black ink, appearing to read "Ryan C. Jacobsen", written over a horizontal line.

Ryan C. Jacobsen MD, FAEMS, FACEP