

Tuolumne County Emergency Medical Services Agency
EMS System Policies and Procedures

Policy: INTRAVENOUS INFUSION OF MAGNESIUM SULFATE #552.86

Creation Date: 11-20-2008

Medical Director: _____

Revision Date: _____.

EMS Coordinator: _____.

Review Date: 11-20-2013

I. AUTHORITY

Division 2.5, California Health and Safety Code, Section 1797.220, California Code of Regulations, Title 22, Division 9, Section 100144 and 100145

II. PURPOSE

To authorize EMT-Ps to monitor existing intravenous Magnesium Sulfate infusions during scheduled interfacility transport.

III. POLICY

- A. This procedure shall only be performed by paramedics with training in the uses, indications, contraindication, dosage, and monitoring of Magnesium Sulfate.
- B. This procedure shall only be performed by paramedics with training on the usage of the infusion pump to be used during transport.
- C. EMT-Ps may not initiate Magnesium Sulfate infusions.

IV. PROCEDURE

- A. Patients shall be placed and maintained on a cardiac monitor during transport.
- B. Signed transfer orders from the transferring physician must be obtained prior to transport. Transfer orders must provide for maintaining the Magnesium Sulfate infusion during transport.
- C. If medication administration is interrupted (infiltration, accidental disconnection, malfunctioning pump, etc.) the EMT-P may restart the line as delineated in the transfer orders.
- D. Infusions must be regulated by a mechanical pump familiar to the EMT-P. If pump failure occurs and cannot be corrected, the paramedic is to discontinue the Magnesium Sulfate infusion and notify the transferring physician or the base physician if the transferring physician is not available.
- E. The following parameters shall apply to all patients with pre-existing Magnesium Sulfate infusions:
- F. Infusion rates must remain constant during transport with no regulation of rate being performed by the paramedic.
- G. Infusion rates may not exceed 4 grams/hour
- H. Physician orders must specify the infusion rate.

- I. Vital signs are to be monitored as indicated in the transfer orders, not less frequently than every 15 minutes.

V. QUALITY ASSURANCE PROCEDURE

- A. All EMT-P interfacility transfers will undergo review by provider agency, and standard data elements shall be reported. The provider agencies all must have QI plans approved by the EMS Agency, and the provider QI programs are required to have physician oversight.
- B. Specific review for use of intravenous Magnesium Sulfate will include:
 1. Review of transferring physician's orders and evidence of compliance with orders
 2. Documentation of vital signs
 3. Documentation of any side effects/complications and interventions with these events
 4. Documentation of any discontinuation of infusions
 5. Review of any base contact or contact of transferring physician for orders during transport
- C. Results of reviews shall be communicated in monthly report format from the provider agency to the EMS Medical Director.
- D. Significant complications shall be communicated to the EMS agency within 48 hours.

VI. TRAINING – ADVANCED SCOPE

- A. Topics to be covered pertinent to the additional scope requested include:
 1. Monitoring of critical patients
 2. Management and troubleshooting of intravenous pumps
 3. Use of intravenous Magnesium Sulfate
- B. Total time related to the above topics, including lecture, skills demonstration and practice, written and skills exams shall be no less than 2 hours.
- C. Course objectives specific to additional scope items, At the end of the training, participants will be able to:
 1. Identify actions, indications, contraindications, adverse effects, administration guidelines, and precautions for intravenous Magnesium Sulfate infusions
 2. Demonstrate basic competency is use of IV pumps, including troubleshooting
 3. Describe appropriate management of patients with Magnesium Sulfate infusions during interfacility transport
 4. Understand the goals of quality assurance/improvement and the criteria to be monitored on all interfacility EMT-P transports.