Terminal Objectives

IV / IO Maintenance Endorsement

Terminal Objectives for the EMT IV / IO Maintenance Endorsement

The purpose of the IV / IO Maintenance Endorsement for EMT is to provide the EMT with the knowledge and skills to maintain clear intravenous fluids (D5W, D10W, LR and NS).

Patient care should always be based on patient presentation and Montana Prehospital Treatment Protocols.
FORWARD

The Montana Board of Medical Examiners (BOME) developed the ECP endorsement process to provide the local EMS medical director the ability to expand the individual ECP scope of practice. The BOME has defined the “maximum allowable” skills for each endorsement and established statewide protocols. The endorsement process consists of education and verification.

The local EMS medical director is responsible for verifying an EMT’s knowledge and skills for a particular endorsement. This can be accomplished via a training program; or the medical director may take into account an ECP’s previous education, skill ability or other personal knowledge to determine whether an ECP meets the endorsement knowledge and skill requirements. The local medical director is responsible for the quality of all endorsement training via direct participation and/or oversight.

The medical director cannot exceed the scope of the endorsement, but may set limits on the ambulance service or the individual ECP.

The endorsement material that follows provides the knowledge and psychomotor objectives at the specific endorsement level. Some endorsements may also include sample lesson plans for use in presenting the material. The endorsements (specifically at the AEMT and Paramedic levels) may be non-specific in certain areas (such as specific medications or routes of administration) as the Board does not intend to “practice medicine”. The medical director “practices medicine” and has the ability to determine the specific’s concerning the endorsement. The Board approved protocols define the extent of the local medical directors flexibility: “...The Board authorizes the service medical director to use the Board approved protocols in their entirety or may determine to limit individual EMT providers function / practice where appropriate and in accordance with provider’s abilities. However, the service medical director may not significantly alter (change the performance expectations of the ECP) or expand approved Board protocols without first seeking Board of Medical Examiners approval.” If the medical director wishes to request the Board to “significantly alter” the protocol there is a process identified in the rules for that to occur.
The endorsement process for the EMR level is slightly different. The local Lead Instructor is allowed to document the successful completion of the educational requirements for the EMR endorsement. The Lead Instructor may not take into consideration previous education or training as the local medical director is allowed when completing the individual’s verification form. The Lead Instructor can only verify the individual’s successful completion of the training/educational requirements. This is only allowed at the EMR endorsement levels of monitoring.

The Lead Instructor must remember the endorsement process is a privilege granted to a Montana licensed ECP. Endorsement education can only be offered to Montana ECP licensees; therefore, the Lead Instructor may not combine initial EMR education. The endorsement education must be done independently of the initial program.

The endorsement process requires that the medical director complete a standardized "verification form" (certificate of completion) documenting that an individual ECP has the knowledge and skills identified at the specific endorsement level. The individual ECP then submits an application to the Board to establish the endorsement on their license. The medical director then has the option of granting permission to the individual ECP to perform the endorsement to the extent defined by the medical director. All forms and endorsement materials can be obtained from the web site; www.emt.mt.gov. Any questions or concerns can be addressed to Ken Threet at (406) 841-2359 or kthreet@mt.gov.

**TERMINAL OBJECTIVE SUMMARY**

Allows EMT to maintain clear intravenous fluids (D5W, D10W, LR and NS)

**COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-B with IV/IO maintenance endorsement will be able to:

- Describe the indications, equipment needed, techniques utilized, precautions, and general principles of IV / IO infusion in children and adults.
• Describe disposal of contaminated items and sharps.

• Differentiate between the administration rate and amount of IV fluid in a patient with controlled versus uncontrolled hemorrhage.

• Differentiate between the administration of fluid in the normotensive, hypotensive, and profoundly hypotensive patient.

**PSYCHOMOTOR OBJECTIVES**
At the completion of this unit, the EMT with IV/IO maintenance endorsement will be able to:

• Use universal precautions and body substance isolation (BSI) procedures

• Demonstrate the procedure for discontinuing an IV / IO administration.

• Demonstrate disposal of contaminated items and sharps.

**LESSON PLAN:** can be obtained from the AEMT or Paramedic DOT Curriculum

**RECOMMENDED TIME TO COMPLETE:**
4 hours for lecture and skills practice, but does not include clinical requirements.

**RECOMMENDED EQUIPMENT:**
BSI Equipment (gloves, gown, mask, etc)
IV Infusion Arm
IO Manikin
IV Solutions
Administration Sets
IV Extension Tubing and/or Three-way Stopcocks
IV Catheters
IO Equipment
  - Catheters (child)
  - FAST Unit (adult)
  - Big Gun (adult)
  - EZ-IO (adult)
Tape (or other securing device)
Gauze Pads (2x2, etc)
Alcohol Preps or similar substitute
Sharps Container

OVERVIEW:
While the major purpose of this endorsement is prepare the EMT to maintain clear intravenous fluids (D5W, D10W, LR and NS), overall management of the patient receiving fluid therapy is the goal. Correct management of a patient receiving fluid therapy is the expected outcome.