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**Rules of  
Department of Economic  
Development  
Division 200—State Board of Nursing  
Chapter 6—Intravenous Fluid Treatment  
Administration**

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## Title 4—DEPARTMENT OF ECONOMIC DEVELOPMENT

### Division 200—State Board of Nursing Chapter 6—Intravenous Fluid Treatment Administration

#### 4 CSR 200-6.010 Intravenous Fluid Treatment Administration

**PURPOSE:** This rule defines intravenous fluid treatment, limits and defines the scope of intravenous fluid treatment that may be performed by intravenous certified licensed practical nurses and defines standards for a course of instruction. Given the nature of hemodialysis in that it involves both arterial and venous systems, this rule does not apply to defining the scope of practice of licensed practical nurses in hemodialysis settings.

#### (1) Definitions.

(A) Administration is the comprehensive activity that includes, but is not limited to: observing, initiating, performing, monitoring, discontinuing, maintaining, regulating, adjusting, documenting, assessing, diagnosing, planning, intervening and evaluating.

(B) Administration of intravenous (I.V.) fluid treatment is the therapeutic injection and/or infusion of substances through the venous system only.

(C) Additional education and experience is used in reference to procedures that are not part of the generic program of I.V. Therapy for licensed practical nurses. Agents/agencies or entities desiring I.V. certified licensed practical nurses to perform procedures are responsible for the instruction and its documentation as well as validation and documentation of current and ongoing cognitive and psychomotor competency.

(D) Life threatening circumstances refers to a physiologic crisis situation wherein prescribed drug administration via manual I.V. push is immediately essential to preserve respiration and/or heartbeat.

#### (2) Accountability.

(A) Administration of I.V. fluid treatment may be performed only by licensed practical nurses (LPNs) who have been instructed and trained in those procedures in a course of instruction approved by the Missouri State Board of Nursing. These LPNs shall be known as I.V. certified.

(B) I.V. fluid treatment administration shall be performed under the direction of a person licensed to prescribe medications and/or treatments. The RN may delegate selected activities of I.V. Therapy to qualified,

appropriately educated LPNs in keeping with the RN's professional judgment and standards that are established within the agency providing the I.V. therapy service.

(C) Although the RN does not necessarily have to be on the premises in order for the LPN to perform the delegated functions, the RN maintains accountability for the nursing judgement used to make the decision to delegate. The LPN maintains accountability for the accepted and performed delegated acts.

(3) Upon completion of a generic practical nursing program accredited by the Missouri State Board of Nursing, an LPN may observe and monitor I.V. fluid treatment, maintain the calculated flow rate of I.V. infusions, discontinue I.V. infusions, and report and document observations and procedures performed.

(4) In addition to functions identified in section (3), I.V.-certified LPNs may perform the following functions and duties relating to the administration of I.V. fluid treatment;

(A) Calculate the rate of I.V. fluid infusions;

(B) Administer parenteral solutions, through existing patent peripheral venous lines and central venous lines;

(C) Change I.V. tubings and dressings;

(D) Initiate I.V. fluid treatment only peripherally and only with devices which do not exceed three inches (3") in length;

(E) Administer premixed medications through existing patent I.V. lines, either by continuous or intermittent methods;

(F) Maintain the patency of peripheral and central lines, locks and devices with saline or heparin solutions; and

(G) Administer precalculated packaged systems containing diluent and drug.

(5) With additional education and experience, an I.V.-certified LPN may—

(A) Participate in I.V. therapy with neonates;

(B) Obtain blood samples, hang I.V. fluids, and change tubings from multi-lumen central venous lines;

(C) Hang I.V. fluids, administer I.V. piggy-back medications and obtain blood samples from implanted vascular access port devices that have already been accessed;

(D) Administer premixed pain medications via patient controlled infusion pump which includes assembling and programming; and

(E) Administer premixed medications via mechanical infusion devices.

(6) I.V.-certified LPNs shall not perform the following functions or duties:

(A) Initiate or add antineoplastic agents;

(B) Initiate or add blood or blood components;

(C) Access implanted vascular access port devices;

(D) Mix solutions or add medications to existing solutions; and

(E) Administer drugs via manual I.V. push except when life-threatening circumstances may necessitate.

(7) Application Procedures for I.V. Fluid Treatment Program.

(A) Purpose of Approval. To establish basic preparation for LPNs to perform the administration of I.V. fluid treatments within the scope authorized by the regulations.

(B) Procedure for Initial Approval.

1. An institution desiring to obtain approval for an I.V. fluid treatment program shall submit a proposal to the Missouri State Board of Nursing. The proposal shall be written by, and bear the signature of, an RN who is currently licensed to practice as an RN in Missouri.

2. An institution submitting a proposal for initial approval shall include in the proposal any information it deems pertinent, however, the proposal shall contain the following:

A. Objectives of the program. Terminal objectives shall identify behaviors expected of the graduates at the completion of the program;

B. Qualifications of the faculty of the program;

C. Curriculum.

I. The Missouri Department of Elementary and Secondary Education's (DESE) LPN I.V. Therapy curriculum is approved by the Missouri State Board of Nursing for use as a standard curriculum. Facilities or institutions which choose to utilize the approved DESE curriculum may indicate so in their proposals for approval of an LPN I.V. Therapy course and are not required to submit a separate curriculum as a part of their proposal.

II. If a facility or institution chooses to develop its own curriculum then it must contain all of the elements listed in subsection (8)(C);

D. Number of hours of classroom instruction and number of hours of clinical practice under the supervision of an RN designated by the sponsoring agency;

E. Description of the training facilities which will be used by the program. The description shall be detailed sufficiently to establish that the training facilities will meet the standards required of training facilities under these rules;

F. Mechanism through which the institution will determine that LPNs seeking admission to the program meet the admission requirements established by these rules; and

G. Methods of student evaluation which will be used.

(C) An institution which previously has obtained approval shall comply with any subsequent changes in this rule beginning with the first class admitted following the effective date of the rule change. The institution shall submit a report to the Missouri State Board of Nursing indicating the manner in which it will comply with the changes in this rule. After the Missouri State Board of Nursing reviews the report, and approves the manner in which the institution will comply, the board shall notify the institution of its approval. If however, after the review the board determines that the manner in which the institution will comply is not adequate, the board shall notify the institution of the inadequacies. Following this notification, reapproval of the program will be required before the institution begins its next class.

(D) Program Changes Requiring Board Approval or Notification. All changes in information required to be provided in the initial proposal, require board approval. Requests for approval of those changes shall be submitted to the board in writing three (3) weeks prior to the next regularly scheduled board meeting and shall be approved by the board before implementation. The program shall notify the board in writing of faculty changes.

(E) Program Changes Requiring Board Approval or Notification. All changes in information required to be provided in the initial proposal require board approval. Requests for approval of those changes shall be submitted to the board in writing three (3) weeks prior to the next regularly scheduled board meeting and shall be approved by the board before implementation. The program shall notify the board in writing of faculty changes.

(8) Standards of Curriculum and Instruction.

(A) The purpose of the I.V. fluid treatment program shall be to prepare LPNs to perform limited I.V. fluid treatment. The program shall be designed to teach knowledge, skills and competencies in administration of I.V. Therapy which will qualify LPNs to perform this procedure safely.

(B) The course shall consist of a minimum of forty (40) classroom hours of instruction and a minimum of eight (8) hours of clinical practice which must include no less than one (1) actual initiation of I.V. Therapy on a person under the supervision of an RN designated by the sponsoring agency, in addition to a written final examination.

(C) Course Requirements. The LPN shall meet the following prerequisites prior to enrolling in the course:

1. Licensure requirements. The prospective I.V. Therapy course participant must—

A. Hold current licensure as an LPN in Missouri; or

B. Hold a temporary permit to practice as an LPN in Missouri; or

C. Be an employee of a federal facility located in Missouri who possesses a current license as an LPN in another state and is enrolling in a course in a federal facility located in Missouri; or

D. Be a graduate practical nurse.

2. The graduate practical nurse or the person making application for Missouri licensure as an LPN who holds a temporary permit to practice as an LPN in Missouri and who has successfully completed a board-approved I.V. Therapy course may not be designated by the board as I.V. approved until licensed as a LPN in Missouri; and

3. Have taken a pretest in pharmacology, anatomy, physiology and asepsis to be used as a diagnostic tool to determine level of knowledge.

(D) Maximum faculty-student ratio in the clinical component shall be three to one (3:1) except during the initiation of I.V. Therapy at which time the ratio must be one to one (1:1).

(E) Faculty Qualifications.

1. Each faculty member shall be currently licensed to practice as RN in Missouri

2. Each faculty member shall have a minimum of two (2) years' clinical experience within the last five (5) years which includes I.V. Therapy prior to the appointment.

3. Nonnurse lecturers shall have professional preparation and qualifications for the specific area in which they are involved.

(F) Training Facility.

1. The initial proposal shall include the name(s) and description(s) of the training facility(ies) to be used. The description(s) shall include;

A. The type of care facility, for example, skilled nursing home, acute care hospital, ambulatory care center; and

B. The average census of I.V. Therapy recipients.

2. Additional facilities for clinical practicum will require the same information to be submitted in order to receive board authorization for use.

3. All classrooms shall contain sufficient space, equipment and teaching aids to meet the course objectives.

4. The facility in which clinical practice and the final practicum will be conducted shall allow students and instructors access to the I.V. Therapy equipment and access to I.V. Therapy recipients and to the pertinent records for purpose of documentation.

5. There shall be a signed written agreement between the sponsoring agency and a cooperating health care facility which specifies the roles, responsibilities and liabilities of each party. This written agreement will not be required if the only health care facility to be used is also the sponsoring agency.

(G) Testing.

1. The student shall achieve a minimum passing grade of eighty percent (80%) on a written final examination.

2. The student shall demonstrate mastery of the clinical objectives of the course.

3. The instructor shall complete the final records and the record sheet shall include competencies, ratings and scores

(H) Records.

1. The agency conducting the I.V. Therapy course shall maintain the records of the individuals for a period of at least five (5) years and, within sixty (60) days, shall submit to the Missouri State Board of Nursing the names, addresses, dates of completion and license numbers of all individuals who have completed the program successfully.

2. A copy of the final record shall be provided to the LPN.

3. The agency conducting the I.V. Therapy course shall award a certificate documenting successful completion of the approved program by the Missouri State Board of Nursing to the LPN, upon successful completion of the course.

(9) I.V. Fluid Treatment Administration Course Guidelines. An I.V. fluid treatment administration course shall have the following components:

(A) Review of the Missouri Nursing Practice Act, the current I.V. Therapy rule and the policies and procedures of the clinical agency where practical experience is received;

(B) Structure of the circulatory system including site and function of the veins used for venipuncture;

(C) Relationship between I.V. fluid treatment administration and the body's homeostatic and regulatory function, with attention to the clinical manifestations of fluid and electrolyte imbalance and cellular physiology;

(D) Principles of infection control in I.V. fluid treatment administration;

(E) Identification of various types of equipment used in I.V. fluid treatment administration with content related to criteria for use of each and means of troubleshooting for malfunctions;

(F) Principles of compatibility and incompatibility of drugs and drug solutions;

(G) Nursing management of special I.V. fluid treatment administration procedures that are commonly used in the clinical setting, such as locked canulae;

(H) Procedure for venipuncture, including psychological preparation, site selection, skin preparation, puncture, anchor, collection of equipment and documentation;

(I) Maintenance of I.V. fluid treatment administration system, discontinuing I.V. fluid treatment administration, monitoring infusion, changing containers and tubing, care of site, and the like;

(J) Nursing management of the patient receiving drug therapy, including actions, interactions, adverse reaction, methods of administration and assessment;

(K) Signs and symptoms of local and systemic complications in the delivery of fluids and medications and the preventive and treatment measures for those complications; and

(L) Calculation of fluid and drug administration rates.

*\*Original authority 1983.*

(10) LPNs who are I.V. approved in another state and wish to obtain certification in Missouri may contact a course approved by the Missouri State Board of Nursing and request evaluation of the curriculum taken in another state. The I.V. Therapy course coordinator may—

(A) Accept the course taken in that state as equivalent to Missouri's requirements, issue a certificate, and submit the name on a class roster to the State Board of Nursing;

(B) Accept a portion of the curriculum taken in that state and require the applicant to complete any deficiencies before issuing a certificate and submitting the name on the class roster; or

(C) Require the applicant to complete the total I.V. Therapy course before issuing a certificate and submitting the name on the class roster. The decision regarding acceptance of a transfer course or acceptance into an approved course is that of the institution providing the course.

*Auth: section 335.017, RSMo (1994).  
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