### Rules of Department of Economic Development

#### Division 200—State Board of Nursing

#### Chapter 6—Intravenous Infusion Treatment Administration

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Title 4—DEPARTMENT OF ECONOMIC DEVELOPMENT
Division 200—State Board of Nursing
Chapter 6—Intravenous Infusion Treatment Administration

4 CSR 200-6.010 Intravenous Fluid Treatment Administration
(Rescinded April 30, 2006)

AUTHORITY: section 335.017, RSMo 1994.

4 CSR 200-6.020 Definitions

PURPOSE: This rule defines the terms used throughout this chapter.

(1) Administer—to carry out comprehensive activities involved in intravenous infusion treatment modalities that include, but are not limited to, the following: observing; performing; monitoring; discontinuing; maintaining; regulating; adjusting; documenting; assessing; diagnosing; planning; intervening; and evaluating.

(2) Board—the Missouri State Board of Nursing.

(3) Central venous catheter—a catheter that is advanced through the internal jugular vein, cephalic or basilic vein in the antecubital fossa, or subclavian vein, with the catheter tip terminating in the superior vena cava. A central venous catheter may also be inserted into a femoral vein with the catheter tip then terminating in the inferior vena cava. Central venous catheters may be used to administer prescribed intravenous infusion treatment modalities or to perform prescribed intravenous infusion diagnostic procedures and include, but are not limited to, peripherally inserted central catheters (PICCs), external percutaneously placed central venous catheters, tunneled central venous catheters, and implanted central venous catheters with a portal reservoir.

(4) Cognitive and psychomotor instruction—the process of acquiring the knowledge and related physical activities associated with a specific skill or operation.

(5) Cognitive and psychomotor competency verification—the confirmation that an individual possesses the needed cognitive and psychomotor abilities to perform a specific procedure or skill.

(6) Delivery system—a product that allows for the intravenous administration of a drug or parenteral fluid. The delivery system may be integral or may have component parts, and includes all products used in the administration of intravenous infusion treatment modalities, from the solution container to the catheter.

(7) Initiate—the performance of activities involved in starting a prescribed intravenous infusion treatment modality.

(8) Injection/access port—a resealable cap or other component part designed to accommodate needles or needleless devices for the administration of solutions into the vascular system.

(9) Intermittent—an intravenous infusion treatment modality administered at prescribed intervals with periods of infusion cessation.

(10) Intravenous administration—prescribed intravenous infusion treatment modalities involving the venous system that may include, but are not limited to, the performance of such nursing interventions as the insertion of a peripheral needle or a peripheral catheter, the removal of venous blood, and/or the administration of an intravenous injection or parenteral fluid infusion.

(11) Intravenous bolus drug administration—the rapid, untimed administration of a discrete amount of a drug according to specific guidelines for administering such drug.

(12) Intravenous catheter or cannula—a hollow tube made of silastic, plastic, or metal used for accessing the venous system.

(13) Intravenous drug administration—any prescribed therapeutic or diagnostic substance delivered into the bloodstream via a vein including, but not limited to, medications, nutrients, contrast media, blood, blood products, or other fluid solutions.

(14) Intravenous infusion treatment modality—refers to a variety of means/methods utilized in the introduction of a prescribed substance and/or solution into an individual’s venous system.

(15) Intravenous piggyback administration—a secondary infusion into an established patent primary intravenous line for the intermittent delivery of medications.

(16) Intravenous push drug administration—means the administration of a drug over a timed interval, generally at least one (1) minute, or according to specific guidelines for administering such drug.

(17) Licensed practical nurse (LPN)—a licensed practical nurse as defined in section 335.016, RSMo and licensed to practice in the state of Missouri and referred to as LPN throughout this chapter.

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

(19) Mid-line catheter—a catheter that is inserted into a vein in the antecubital fossa and then advanced three inches to twelve inches (3”–12”) into the proximal upper arm.

(20) Needleless system—a substitute for a needle or other sharp access device, which may be available in blunt, recessed or valve designs.

(21) Packaged drug systems—use-activated containers which are compartmentalized and have pre-measured ingredients that form a solution when mixed.

(22) Parenteral nutrition—the intravenous administration of total nutritional needs for a patient who is unable to take appropriate amounts of food enterally.

(23) Peripheral venous catheter—a catheter that begins and terminates in a vein in an extremity (i.e., arm, hand, leg, or foot) or in a vein in the scalp.

(24) Policy—a written statement of a recommended course of action intended to guide decision making.
(25) Premixed drugs for intravenous administration—those drugs compounded or prepared by a pharmacy department, parenteral fluid or drug manufacturer, or mixed by a licensed registered professional nurse who possesses documented evidence of the necessary cognitive and psychomotor instruction by a licensed pharmacist.

(26) Procedure—a written statement of steps required to complete an action.

(27) Qualified practical nurses—for the purpose of this chapter, this term includes:
(A) Graduate practical nurses practicing in Missouri within the time frame as defined in 4 CSR 200-4.020(3);
(B) Practical nurses with temporary permits to practice in Missouri; and
(C) Practical nurses currently licensed to practice in Missouri, unless specifically stated otherwise within the text of the specific rule.

(28) Registered professional nurse (RN)—a registered professional nurse as defined in section 335.016, RSMo, and licensed to practice in the state of Missouri and referred to as RN throughout this chapter.


4 CSR 200-6.030 Intravenous Infusion Treatment Administration by Qualified Practical Nurses; Supervision by a Registered Professional Nurse

PURPOSE: This rule sets forth the requirements for qualified practical nurses as defined in this chapter to participate in the administration of intravenous infusion treatment modalities.

(1) Qualified practical nurses shall only perform venous access and intravenous (IV) infusion treatment modalities according to the specific provisions of section 335.016, RSMo, 4 CSR 200-5.010, and this chapter. A qualified practical nurse shall only perform such activities under the direction and supervision of a registered professional nurse or a person licensed by a state regulatory board to prescribe medications and intravenous infusion treatments (hereinafter the “licensed prescriber”).

(2) Qualified practical nurses who perform venous access and intravenous infusion treatment modalities shall:
(A) Maintain accountability to the licensed professional nurse or licensed prescriber who is directing and supervising the individual’s practical nursing care acts involving venous access and intravenous infusion treatment modalities;
(B) Maintain ongoing, documented, specialized knowledge, education, skills, training, judgment, and experience related to practical nursing care acts involving venous access and intravenous infusion treatment modalities;
(C) Ensure that appropriate, authorized prescriber orders for patient care involving venous access and intravenous infusion treatment modalities are in place before patient care is begun;
(D) Only engage in practical nursing care acts involving venous access and intravenous infusion treatment modalities that are within the individual’s authorized scope of practice as specified in section 335.016, RSMo, 4 CSR 200-5.010, and this chapter; and
(E) Only engage in practice consistent with lawful written policies and procedures of the individual’s employer as well as any state or federal laws applicable to the individual’s employer.

(3) Registered professional nurses who direct and supervise qualified practical nurses in the performance of acts involving venous access and intravenous infusion treatment modalities shall:
(A) Provide appropriate direction and supervision for practical nursing care acts involving venous access and intravenous infusion treatment modalities that are within the qualified practical nurse’s assigned scope of practice as specified in section 335.016, RSMo, 4 CSR 200-5.010, and this chapter;
(B) Provide appropriate direction and supervision based on reasonable and prudent assessments, judgments, and decisions concerning the specialized knowledge, education, skills, training, judgment, and experience of the qualified practical nurse designated to perform specific acts involving venous access and intravenous infusion treatment modalities; and
(C) Only engage in direction, supervision and practice consistent with lawful, written policies and procedures of the individual’s employer and any state or federal laws applicable to the individual’s employer.

(4) Qualified practical nurses who have documented competency verification by the individual’s employer, but who are not IV-Certified according to these rules, may:
(A) Observe, monitor, and maintain precalculated intravenous parenteral fluid infusion flow rate including total parenteral nutrition, peripheral parenteral nutrition, blood, and blood products;
(B) Observe and monitor peripheral venous access sites for evidence of developing complications;
(C) Observe and monitor patient for evidence of adverse response to prescribed venous access and intravenous infusion treatment modalities;
(D) Remove indwelling peripheral venous access devices that do not exceed three inches (3”) in length, excluding mid-line catheters;
(E) Obtain blood and blood products from the blood bank in accordance with established blood bank protocol;
(F) Perform pre-transfusion blood and blood product cross-checking procedures at patient bedside with a registered professional nurse;
(G) Perform phlebotomy for the purpose of obtaining blood specimens for laboratory testing and/or donor collection; and
(H) Report and document actions taken and observations made.

(5) In addition to the functions and duties set forth in section (4), a graduate practical nurse who graduated after February 28, 1999 from a generic practical nursing program approved by the board, and IV-Certified licensed practical nurses who have documented competency verification by the individual’s employer, may:
(A) Calculate the flow of intravenous parenteral fluid infusions including total parenteral nutrition, peripheral parenteral nutrition, blood, and blood products;
(B) Initiate peripheral venous access sites using devices that do not exceed three inches (3”) in length, excluding mid-line catheters;
(C) Administer parenteral intravenous fluid infusions including total parenteral nutrition and peripheral parenteral nutrition through established, patent peripheral venous lines and central venous lines;
(D) Change peripheral venous administration set tubings and dressings;
(E) Administer premixed drugs and solutions through established, patent peripheral and central venous lines either by continuous infusion or intermittent intravenous piggy-back methods;
(F) Maintain the potency of “locked” peripheral and central venous catheters with saline and/or heparin flush solutions;
(G) Administer packaged drug systems containing diluent and drug through established, patent peripheral and central venous lines; and

(H) Administer continuous or intermittent parenteral fluid infusions via electronic infusion pumps and controllers, which includes assembling and programming of the electronic infusion pump or controller.

(6) In addition to the functions and duties set forth in sections (4) and (5), and with additional individualized education and experience that includes documented competency verification by the individual’s employer, IV-Certified licensed practical nurses may:

(A) Change central venous line administration set tubings and site dressings;

(B) Obtain blood specimens for laboratory testing from established central venous catheters, which includes implanted vascular access port devices that have already been accessed;

(C) Administer premixed pain medications via patient controlled analgesia pump (PCA), which includes assembling and programming of the pump; and

(D) Administer premixed drugs that will infuse over a minimum of thirty (30) minutes via mechanical infusion devices, including, but not limited to, syringe pumps and disposable elastomeric devices.

(7) Graduate and licensed practical nurses shall NOT, under any condition, perform the following functions or duties:

(A) Administer anti-neoplastic drugs, commonly referred to as chemotherapy, via any intravenous infusion treatment modality. However, the qualified practical nurse may stop the flow of an infusion if an adverse reaction or complication is observed and immediately notify a RN to assess the situation.

(B) Begin the initial or sequential administration of a transfusion of whole blood or blood product including, but not limited to, serum albumin;

(C) Access the port reservoir of a central venous implanted vascular access port device;

(D) Perform an intravenous admixture in which a syringe/needle is used to add drug(s) to a parenteral fluid container, prior to the administration of the infusion;

(E) Add drug(s) to the fluid container of an existing intravenous infusion;

(F) Add drug(s) to an existing volume control set chamber;

(G) Administer drug(s) via the intravenous push or intravenous bolus mode of delivery except when life-threatening circumstances require such administration;

(H) Remove a mid-line catheter or any type of central venous catheter; and

(I) Participate in any intravenous infusion treatment modality involving neonates.


4 CSR 200-6.040 Venous Access and Intravenous Infusion Treatment Modalities Course Requirements

PURPOSE: This rule sets forth the minimum requirements for establishing and conducting a course of instruction for qualified practical nurse participants to become IV-Certified in the state of Missouri.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) A venous access and intravenous (IV) infusion treatment modalities course shall prepare the non IV-Certified qualified practical nurse to safely perform the functions and procedures inherent in selected intravenous infusion treatment modalities as set forth in this rule.

(2) Course providers shall only design and conduct a venous access and intravenous infusion treatment modalities course as specified in this rule. The course shall provide sufficient instruction for the following qualified practical nurse participants to become IV-Certified in Missouri:

(A) A practical nurse currently licensed to practice in Missouri;

(B) A practical nurse with a temporary practice permit to practice in Missouri;

(C) A graduate practical nurse of a non-Missouri practical nursing education program seeking licensure in Missouri;

(D) A graduate practical nurse completing a Missouri practical nursing education program prior to February 28, 1999 and seeking licensure in Missouri;

(E) A federal employee who possesses a current license as a practical nurse in another state who is enrolling in a course provided by a federal facility located in Missouri.

(3) Curriculum.

(A) The curriculum of a venous access and intravenous infusion treatment modalities course shall include the following components:

1. Review of the Missouri Nursing Practice Act including the current venous access and intravenous infusion treatment modalities regulations;

2. Review of the policies and procedures of the clinical agency where practical experience is received;

3. Structure of the circulatory system including anatomical location and physiology of veins used for venous access;

4. Relationship between parenteral fluid treatment administration and the body’s homeostatic and regulatory function with attention to the clinical manifestation of fluid and electrolyte imbalance and cellular physiology;

5. Principles of infection control in venous access and parenteral fluid administration;

6. Identification of various types of equipment used in venous access and parenteral fluid administration, with content related to criteria for use of each, and means of troubleshooting for malfunctions;

7. Principles and practices related to intravenous drug and/or fluid administration across the life span;

8. Nursing management of venous access and parenteral fluid administration procedures that are commonly used in patient care settings;

9. Procedure for obtaining venous access including appropriate equipment selection, psychological preparation of the patient, site selection, aseptic skin preparation, insertion and stabilization of the venous access device, application of dressing to insertion site, and documentation of procedure;

10. Maintenance of venous access site and parenteral fluid administration system components according to established current practices;

11. Monitoring venous access site for evidence of local complications, parenteral fluid infusion flow rate, and response to treatment;
12. Adjusting parenteral fluid flow rate in various clinical situations;
13. Procedure for removal of peripheral venous access device upon completion of the prescribed treatment or if suspected or confirmed complications arise;
14. Calculation of drug dosage and parenteral fluid administration flow rates; and

(B) The curriculum to be offered must be approved by the board.

1. The board has approved the most current edition of the *Venous Access and Intravenous Infusion Treatment Modalities Manual*, which is incorporated by reference herein, available from the University of Missouri Instructional Materials Laboratory (IML) as a standard curriculum. Copies of instructor and student manuals may be obtained by contacting the Instructional Materials Laboratory, College of Education, University of Missouri-Columbia, 1400 Rock Quarry Center, Columbia, MO 65211 or by phone at (800) 669-2465. This rule does not include any subsequent amendments or additions.

2. If the provider of a course chooses to develop its own curriculum, it must contain all of the components listed in subsection (3)(A)1.–5. of this rule and be submitted to the board for approval.

(C) A course shall, at a minimum, consist of:

1. Thirty (30) hours of classroom and skills laboratory instruction or its equivalent, (e.g., faculty-student interactive study); and
2. Eight (8) hours of supervised clinical practice, which must include at least one (1) successful performance of peripheral venous access and the initiation of an intravenous infusion treatment modality on an individual.

(D) There shall be written course outcomes that identify the expected competencies of the participant upon completion of the course.

(E) The course participant must complete a pretest(s) in pharmacology, anatomy and physiology, and asepsis to determine the participant’s level of knowledge at the beginning of the course.

(F) All classroom and clinical instruction and practice must be supervised by a registered professional nurse designated by the provider and who meets the faculty qualifications as stated in section (4) of this rule.

(4) Faculty Qualifications and Responsibilities.

(A) Nursing faculty must hold a current undisciplined license or temporary permit to practice as a registered professional nurse in Missouri and have a minimum of two (2) years of clinical experience within the last five (5) years that included responsibility for performing venous access and intravenous infusion treatment modalities.

(B) All non-nurse faculty shall possess the professional preparation and qualifications to teach the specific content for which they are responsible.

(C) For the clinical component of the course, the maximum faculty to student ratio shall be one to three (1:3) for observational experiences and the performance of non-invasive procedures and functions. The faculty to student ratio must be one to one (1:1) during the performance of peripheral venous access and initiation of an intravenous infusion treatment modality on an individual.

(D) The course provider shall designate a registered professional nurse to be the course coordinator who shall be responsible for all aspects of the course.

(5) Classroom and Clinical Facilities.

(A) Classrooms shall be of sufficient size and contain the necessary equipment and teaching aids to implement the course.

(B) The clinical facilities utilized shall be sufficient to allow for appropriate implementation of the course and may include, but are not limited to, acute care, long-term care, ambulatory care, and community agencies that provide intravenous infusion treatment modalities.

(C) Faculty and course participants shall have access to the necessary intravenous treatment equipment and patients/clients receiving intravenous infusion treatment modalities, including pertinent medical records.

(D) There shall be a signed written agreement between the course provider of the course and each cooperating clinical facility that specifies the roles, responsibilities, and liabilities of each party. This written agreement will not be required if the only clinical facility to be used is also the provider of the course.

(6) To successfully complete a venous access and intravenous infusion treatment modalities course for the purpose of becoming IV-Certified, the qualified participant shall:

(A) Achieve a minimum grade of eighty percent (80%) on a written final examination of no fewer than fifty (50) multiple choice items;

(B) Demonstrate clinical competency in the mastery of the course objectives; and

(C) Perform at least one (1) successful peripheral venous access and initiate an intravenous infusion treatment modality on an individual.

(7) Record Keeping.

(A) The provider of an approved course shall maintain records documenting each participant’s attendance, scores, and competencies. These records shall be kept for a period of at least five (5) years. A copy of this record shall be provided to the course participant.

(B) The provider of an approved course shall award a certificate, using a form provided by the board, to each participant who successfully completes the course.

(C) Within thirty (30) days of a participant’s successful completion of an approved course, the designated course coordinator shall submit the required participant information to the board on a form provided by the board.

*Authority: sections 335.017 and 335.036, RSMo 2000.*

4 CSR 200-6.050 Approval Process for a Venous Access and Intravenous Infusion Treatment Modalities Course

PURPOSE: This rule sets forth the approval process for a course provider to establish, maintain and discontinue a course of instruction for qualified practical nurse participants to become IV-Certified in the state of Missouri.

(1) To obtain initial approval of a venous access and intravenous infusion treatment modalities course, the course provider must submit a written proposal to the board.

(A) The proposal shall be written by and bear the original signature of a registered professional nurse who holds a current undisciplined license or temporary permit to practice as a registered professional nurse in Missouri.

(B) The proposal shall contain the following:

1. Name of course provider;
2. Course objectives;
3. Curriculum to be utilized including the method(s) of delivery and the number of classroom and clinical hours;
4. Faculty qualifications;
5. Name of designated course coordinator;
6. Description and location of classroom and clinical facilities to be utilized;
7. Copies of the agreement with the clinical facilities to be utilized;
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1. The date after which the provider will no longer offer the approved course; and
2. The name and address of the custodian for the records required to be maintained for a five (5)-year period.

(B) The board shall issue a letter to the course provider confirming that the course has officially been discontinued.

(C) If a course provider desires to reestablish an approved venous access and intravenous infusion treatment modalities course after a course has been officially discontinued, a new proposal must be submitted as required by section (1).


4 CSR 200-6.060 Requirements for Intravenous Therapy Administration Certification

PURPOSE: This rule specifies the processes by which practical nurses can be recognized as IV-Certified in the state of Missouri.

(1) A practical nurse who is currently licensed to practice in Missouri and who is not Intravenous (IV)-Certified in Missouri can obtain IV-Certification upon the successful completion of a board approved venous access and intravenous infusion treatment modalities course.

(A) Upon receipt of confirmation of successful completion of an approved course, the board shall issue a verification of IV-Certification letter stamped with the board seal.

(B) Upon receipt of the verification of IV-Certification letter from the board, the licensed practical nurse may engage in practical nursing care acts involving venous access and intravenous infusion treatment modalities course; and

(C) The practical nurse’s next issued license shall state LPN IV-Certified.

(2) A practical nurse who is currently licensed to practice in another state or territory of the United States, who is an applicant for licensure by endorsement in Missouri and has been issued a temporary permit to practice in Missouri, and is IV-Certified in another state or territory of the United States, or who has completed a venous access and intravenous infusion treatment modalities course in another state or territory of the United States, can obtain IV-Certification in Missouri by:

(A) Contacting a provider of a board approved venous access and intravenous infusion treatment modalities course; and

(B) Requesting provider evaluation of venous access and intravenous infusion treatment modalities competency. The evaluating provider may:

1. Accept the applicant’s federal or other state or territory’s course as equivalent to Missouri’s requirements;

2. Accept part of the curriculum taken in that state or territory and require the applicant to complete any deficiencies;

3. Require the applicant to complete an entire board approved venous access and intravenous infusion treatment modalities course; or

4. Require the applicant to achieve a minimum score of eighty percent (80%) on a written comprehensive examination of no less than fifty (50) multiple choice items and demonstrate the ability to initiate a peripheral vascular access and intravenous infusion treatment modality;

(C) Upon receipt of confirmation from an approved course provider that the practical nurse possesses the necessary venous access and intravenous infusion treatment modalities competencies, the board will issue a Verification of IV-Certification letter stamped with the board seal and stating the expiration date of the individual’s temporary permit;
(D) Upon receipt of the Verification of IV-Certification letter from the board, the individual may engage in practical nursing care acts involving venous access and intravenous infusion treatment modalities as specified in the provisions of section 335.016, RSMo, 4 CSR 200-5.010, and this chapter;

(E) When all other licensure requirements are met, the license issued will state LPN IV-Certified;

(F) If licensure requirements are not met by the expiration date stated on the Verification of IV-Certification letter and temporary permit, the individual must cease performing all practical nursing care acts including those related to intravenous infusion treatment administration.

(4) Individuals who graduated from a board approved practical nursing program after February 28, 1999 are exempt from taking a separate venous access and intravenous infusion treatment modalities course to become IV-Certified.

(A) A graduate of such a practical nursing program may perform the functions and duties related to venous access and intravenous infusion treatment modalities as delineated in 4 CSR 200-6.030 until s/he has received the results of the first licensure examination taken by the nurse or until ninety (90) days after graduation, whichever first occurs.

(B) Upon official notification of passing the licensure examination, the graduate practical nurse will be issued a Missouri license stating LPN IV-Certified.

(5) Graduate practical nurses as specified in section 4 CSR 200-6.040(2)(C) and (D) of this chapter who are seeking licensure by examination in Missouri and for whom the board has received confirmation of successful completion of an approved venous access and intravenous infusion treatment modalities course must meet all licensure requirements before a license stating LPN IV-Certified can be issued.

(6) If a qualified licensed practical nurse requests a license stating LPN IV-Certified prior to the next licensure renewal cycle, the procedure for obtaining a duplicate license as stated in 4 CSR 200-4.020(14) shall be followed.
