# CHAPTER NINE INSULIN, GLUCAGON, AND ADRENAL INSUFFICIENCY ADMINISTRATION

## SECTION I REGULATORY AUTHORITY AND PURPOSE

#### A. REGULATORY AUTHORITY

1. These rules are enacted pursuant to the Arkansas State Board of Education's authority and the Arkansas State Board of Nursing's authority under Ark. Code Ann. §§ 6-11-105, 6-18-711, 6-18-718, 17-87-103, and 2517-87-203.

#### B. PURPOSE

The purpose of these rules is to set forth protocols and procedures for the administration of insulin, glucagon, and medication for adrenal insufficiency or adrenal crises by a student or trained volunteer school personnel.

Amended: June 4, 2021; May 3, 2022

#### SECTION II DEFINITION OF TERMS

**A. ADRENAL CRISIS** – a sudden, severe worsening of symptoms associated with adrenal insufficiency, which can lead to circulatory collapse, heart and organ failure, brain damage, and death.

#### **B. ADRENAL INSUFFICIENCY:**

- 1. a chronic medical condition in which the adrenal glands do not produce enough of the necessary hormones to respond to stressors such as illness and injury; and
- 2. the hormones involved help maintain and regulate key functions of the body such as blood pressure, metabolism, the immune system, and how the body responds to stress.
- **C. DIABETES** a group of metabolic disorders characterized by hyperglycemia resulting from defects in insulin secretion, insulin action, or both.
- **D. EMERGENCY DOSE MEDICATION** (for purposes of adrenal crisis) intramuscular hydrocortisone sodium succinate.
- **E. EMERGENCY SITUATION** a circumstance in which students with low blood glucose cannot be treated with a glucose-containing substance by mouth because the student has an altered mental state, is having a seizure, or has high blood glucose requiring emergency administration of insulin to prevent complications.
- **F. GLUCAGON** a hormone prescribed by a licensed healthcare practitioner that stimulates the release of glucose in the blood. Glucagon is dispensed as a "Glucagon Emergency Kit" or a "Glucagon Emergency Kit for Low Blood Sugar."

- **G. INSULIN** a hormone that regulates the metabolism of glucose and other nutrients. It generally is given by injection or through a subcutaneous insulin delivery system. It is prescribed by a licensed healthcare practitioner.
- **H. LICENSED HEALTHCARE PRACTITIONER** includes, but is not limited to, Medical Doctors, Doctors of Osteopathy, Advanced Practice Registered Nurses with prescriptive authority, Registered Nurse Practitioners, and Physician Assistants who work under physician-approved protocols.
- I. LICENSED SCHOOL NURSE EMPLOYED BY A SCHOOL DISTRICT those nurses employed by an Arkansas public school district or open-enrollment public charter school who hold the following licenses or certificate:
  - 1. Registered Nurse (RN);
  - 2. Advanced Practice Registered Nurse (APRN); or
  - 3. Diabetes Nurse Educator.
  - 4. This definition does not include License Practical Nurses (LPNs). LPNs may assist in the provision of training under these rules. However, training under these rules must be performed by Registered Nurses, Advance Practice Registered Nurses or Diabetes Nurse Educator.
- **J. NON-SCHEDULED DOSE OF INSULIN** an additional or corrective dose of insulin to treat hyperglycemia or to cover a rise in blood glucose levels.
- **K. OTHER HEALTHCARE PROFESSIONAL** includes the following:
  - 1. Registered Nurse (RN);
  - 2. Advanced Practice Registered Nurse (APRN);
  - 3. Diabetes Nurse Educator;
  - 4. Medical Doctor (MD);
  - 5. Registered Nurse Practitioner;
  - 6. Doctor of Osteopathy;
  - 7. Physician Assistant;
  - 8. Pharmacist; and
  - 9. Certified Diabetes Educator.
- L. SCHEDULED DOSE OF INSULIN a dose of insulin administered at regular times during the school day.
- M. STRESS DOSE MEDICATION (for purposes of adrenal insufficiency) oral hydrocortisone.
- N. TRAINED VOLUNTEER SCHOOL PERSONNEL licensed or classified personnel employed by an Arkansas public school district or open-enrollment public charter school who volunteer and successfully complete training for the administration:
  - 1. of insulin, glucagon, or both to students diagnosed with diabetes; and
  - 2. of an emergency dose medication to a public school student who is diagnosed with an adrenal insufficiency using the appropriate delivery equipment when a public school nurse is unavailable.

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## SECTION III GENERAL REQUIREMENTS

- **A.** Upon written request of a parent or guardian of a student with diabetes and written authorization by the treating physician of the student, a student, in the classroom, in a designated area at the school, on school grounds, or at a school-related activity may:
  - 1. Perform blood glucose checks;
  - 2. Administer insulin through the insulin delivery system the student uses;
  - 3. Treat hypoglycemia and hyperglycemia; and
  - 4. Possess on his or her person the necessary supplies and equipment to perform diabetes monitoring and treatment functions.
- **B.** A student shall have access to a private area to perform diabetes monitoring and treatment functions upon request of the parent or guardian of a student, as outlined in the student's health plan.
- **C.** A public school employee may volunteer to be trained to administer and may administer glucagon to a student with Type I diabetes in an emergency situation as permitted under ACA §17-87-103(11).
- **D.** A school district shall strive to achieve the following staffing ratios for students with diabetes at each public school, at least:
  - 1. One (1) care provider (volunteer school personnel) for a public school with one (1) full-time licensed registered nurse: and
  - 2. Three (3) care providers (volunteer school personnel) for a public school without one (1) full-time licensed registered nurse.
- **E.** The school district may recruit and identify public school personnel to serve as care providers (volunteer school personnel) to administer insulin, glucagon, or both when a licensed registered nurse is not available. A school district shall not require or pressure a parent or guardian of a student with diabetes to provide diabetes care at school or a school-related activity.
- **F.** Trained volunteer school personnel designated as care providers in a health plan that covers diabetes management and is based on the orders of a treating physician, and have been trained by a licensed registered nurse employed by a school district or other healthcare professional, may administer insulin, glucagon, or both to students diagnosed with diabetes.
- **G.** The training listed in Sections III. E. and V. of these rules shall be conducted at least annually, regardless whether a volunteer has previously completed training. Nothing in these rules prohibits training from being conducted more often than annually.
- H. No trained volunteer school personnel designated as care providers pursuant to these rules may administer insulin and/or glucagon to a student diagnosed with diabetes unless the parent or guardian of the student first signs a written authorization allowing the administration of insulin, glucagon, or both to the student. The trained volunteer school personnel designated as a care provider shall be incorporated into the health plan of a student.
- **I.** The trained volunteer shall be released from other duties during a scheduled dose of insulin for the time designated in the student's health plan.

- **J.** During glucagon or non-scheduled insulin administration, other qualified staff shall assume the regular duties of the trained volunteer. Once other qualified staff have relieved the trained volunteer from his/her regular duties, the trained volunteer shall remain released until a parent, guardian, or medical personnel arrive.
- **K.** When a school nurse is available and on site during an emergency situation, the school nurse shall administer insulin, glucagon, or both to the student, when necessary. Volunteer school personnel who are designated as care providers and trained to administer insulin, glucagon, or both shall administer insulin, glucagon, or both only in the absence or unavailability of a school nurse.
- L. The training outlined in these rules is intended to be provided to volunteer school personnel. No school personnel shall be required, pressured or otherwise subjected to duress in such a manner as to compel their participation in training. Prior to receiving training, volunteers must sign a written acknowledgement indicating their desire to volunteer.

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#### SECTION IV PROTECTION FROM LIABILITY

A school district, school district employee, or an agent of a school district, including a healthcare professional who trained volunteer school personnel designated as care providers and care providers, shall not be liable for any damages resulting from his or her actions or inactions under these rules or under Ark. Code Ann. § 17-87-103.

#### SECTION V TRAINING OF VOLUNTEERS

- **A.** Training under these rules shall include, at a minimum, the following components:
  - 1. Overview of diabetes;
  - 2. Blood glucose monitoring;
  - 3. What insulin and glucagon are and how insulin and glucagon work;
  - 4. When, how and by whom insulin and/or glucagon may be prescribed;
  - 5. The requirements of Arkansas law pertaining to the administration of insulin, glucagon, or both to Arkansas public school students diagnosed with diabetes;
  - 6. How to calculate carbohydrate intake (insulin training only);
  - 7. How to calculate appropriate insulin dosage based on carbohydrate intake (insulin training only);
  - 8. When insulin, glucagon, or both should be administered, how insulin, glucagon, or both should be prepared, the dosage and side effects of insulin, glucagon, or both, and follow-up care after insulin, glucagon, or both is administered;
  - 9. How insulin, glucagon, or both should be stored, including identifying the expiration date and need for replacement;
  - 10. The role of the school nurse in the administration of insulin, glucagon, or both and the delegation of the administration of insulin, glucagon, or both; and
  - 11. The signs of hyperglycemia and hypoglycemia in students diagnosed with diabetes, including techniques and practices used to prevent the need for emergency insulin and glucagon.
- **B.** Visual and audio aids may be used during the training required under these rules, but at least one individual listed in Sections II. D and II. E of these rules must be physically present to provide the training.

- C. Before a volunteer may be deemed to have successfully completed the training required under these rules, a person listed in Sections II. D and II. E must sign a certification indicating that the volunteer has successfully completed all aspects of training and that the volunteer has successfully demonstrated proficiency of procedures involving the administration of insulin, glucagon, or both. No person listed in Sections II. D and II. E shall sign such a certification unless such person, in his or her professional judgment believes that a volunteer has successfully completed all aspects of training and that the volunteer has successfully demonstrated mastery of procedures involving the administration of insulin, glucagon, or both.
- **D.** The Arkansas State Board of Nursing and the Arkansas Department of Education Division of Elementary and Secondary Education, in collaboration with the Arkansas School Nurses Association and diabetic education experts, shall identify and approve education programs that meet the requirements of Section V. A of these rules. Training under these rules shall be given according to the education programs approved under this section.
  - The Arkansas State Board of Nursing and the Arkansas Department of Education Division of Elementary
    and Secondary Education shall maintain and publish a list of approved education programs that meet the
    requirements of Section V. A of these Rules. The list of approved education programs may be published
    on the websites of the Arkansas State Board of Nursing and the Arkansas Department of Education
    Division of Elementary and Secondary Education.
  - 2. The Arkansas State Board of Nursing and the Arkansas Department of Education Division of Elementary and Secondary Education, in collaboration with the Arkansas School Nurses Association and diabetic education experts, shall review at least annually the requirements associated with the administration of insulin, glucagon, or both and shall, if necessary, recommend for adoption by the Arkansas State Board of Nursing and the Arkansas State Board of Education Division of Elementary and Secondary Education any revisions to these rules.

Amended: June 4, 2021; May 3, 2022

#### SECTION VI RECORDS

- **A.** Records of volunteer training shall be kept on file at each school.
- **B.** For each student diagnosed with diabetes who attends the school, the school district shall maintain a copy of the student's Individualized Healthcare Plan, a list of school personnel who have volunteered and been trained to administer insulin, glucagon, or both, and a copy of the written authorization of the student's parent, guardian, or person acting in loco parentis. The list of volunteer school personnel and a copy of the written authorization shall be updated annually and attached to the student's Individualized Healthcare Plan.
- **C.** The list of volunteer school personnel shall include only the names of personnel who successfully completed the required training as set forth in Section V. of these rules. The list of volunteer school personnel should be published and made known to all school personnel.
- **D.** The principal of each school, in conjunction with each school nurse, shall properly maintain all such records.

Effective March 26, 2016 Amended: May 3, 2022

## SECTION VII ADMINISTRATION OF MEDICATION FOR ADRENAL INSUFFIENCIENCY OR ADRENAL CRISIS

## A. SELF-ADMINISTRATION OF A STRESS DOSE MEDICATION BY A PUBLIC SCHOOL STUDENT

- 1. Self-administration of a stress dose medication by a public school student with adrenal insufficiency while the student is at his or her public school, on his or her public school grounds, or at an activity related to his or her public school may be permitted:
  - a. With the authorization of the public school student's parent, legal guardian, or person standing in loco parentis and the public school student's treating physician; and
  - b. The public school student's parent, legal guardian, or person standing in loco parentis provides written authorization for the public school student to carry a stress dose medication while he or she is at public school, an on- site school-related activity, or an off-site school-sponsored activity.
- 2. The written authorization required in Section VII. A. shall be:
  - a. Valid only for the duration of the school year for which it is provided; and
  - b. Renewed:
    - i. For each subsequent school year for which the parent, legal guardian, or person standing in loco parentis intends to authorize the self-administration of a stress dose medication; and
    - ii. If the public school student transfer to another public school in this state.
- 3. A parent, legal guardian, or person standing in loco parentis who provides written authorization under Section VII. A. shall:
  - a. Include with his or her written authorization written orders from his or her public school student's treating physician that the public school student:
    - Is capable of completing the proper method of self-administration of the stress dose medication; and
    - ii. Has been instructed on the details of his or her medical condition and the events that may lead to an adrenal crisis.
  - b. Sign an Individualized Healthcare Plan developed by the school nurse for the public school in which his or her child with an adrenal insufficiency is enrolled that outlines the plan of care for his or her child and includes without limitation notification of the self-administration of a stress dose medication to the:
    - i. School nurse;
    - ii. Teacher of the class in which the public school student is enrolled during an adrenal crisis;
    - iii. Administrator of the public school.
- 4. A parent, legal guardian, or person standing in loco parentis who provides written authorization for his or her child's self-administration of a stress dose medication shall sign a statement:
  - a. Acknowledging the public school district is not liable as a result of any injury arising from the self-administration of a stress dose medication by the public school student; and
  - b. Indemnifying and holding harmless the public school employees and public school district in which his or her child is enrolled against any claims arising as a result of the self-administration of a stress dose medication by the public school student.

### B. ADMINISTRATION OF AN EMERGENCY DOSE MEDICATION BY VOLUNTEER PUBLIC SCHOOL PERSONNEL

- 1. Public school personnel may volunteer to and may be permitted to administer an emergency dose medication to a public school student who is diagnosed with an adrenal insufficiency with the authorization of the parent, legal guardian, or person standing in loco parentis of the public school student:
  - a. If the public school personnel are trained to administer an emergency dose medication using the appropriate delivery equipment;
  - b. If a public school nurse is unavailable;
  - c. At school, on school grounds, or at a school-related activity; and

- d. If the public school student's parent, legal guardian, or person standing in loco parentis provides written authorization for the trained public school personnel to administer an emergency dose medication while the public school student is at a public school, and on-site school related activity, or an off-site school-sponsored activity.
- 2. The written authorization required in Section VII. B. shall be:
  - a. Valid only for the duration of the school year for which it is provided; and
  - b. Renewed:
    - i. For each subsequent year for which the parent, legal guardian, or person standing in loco parentis intends to authorize trained public school personnel to administer an emergency dose medication to his or her child; and
    - ii. If the public school transfers to another public school in this state.
- 3. A parent, legal guardian, or person standing in loco parentis who provides written authorization under Section VII. B. shall:
  - a. Include with his or her written authorization written orders from his or her public school student's treating physician that the public school student requires the administration of an emergency dose medication under certain conditions; and
  - b. Sign an Individualized Healthcare Plan developed by the school nurse for the public school in which his or her child with an adrenal insufficiency is enrolled that:
    - i. Outlines the plan of care for his or her child; and
    - ii. Includes without limitation a description of the required care following the administration of an emergency dose medication while the public school student is at school, an on-site school-related activity, or an off-site school-sponsored activity.
- 4. A parent, legal guardian, or person standing in loco parentis who provides written authorization for the administration by trained public school personnel of an emergency dose medication to his or her child shall sign a statement:
  - a. Acknowledging the public school district is not liable as a result of any injury arising from the administration of an emergency dose medication by trained public school personnel; and
  - b. Indemnifying and holding harmless the public school employees and the public school district in which his or her child is enrolled against any claims arising as a result of the administration of an emergency dose medication by trained public school personnel.
- 5. Education and training on the treatment of adrenal insufficiency and adrenal crisis shall be conducted annually to public school personnel who volunteer to administer an emergency dose medication by the school nurse for the public school at which the public school personnel are employed and shall include without limitation:
  - a. General information about adrenal insufficiency and the associated triggers;
  - b. Recognition of signs and symptoms of a public school student experiencing an adrenal crisis;
  - c. The types of medications for treating adrenal insufficiency and adrenal crisis; and
  - d. The proper administration of medication used to treat an adrenal crisis.
- 6. The Division shall develop guidance and education for school nurses to train volunteer public school personnel as required under Section VII. B.

#### C. RECORDS

- 1. Records of volunteer training shall be kept on file at each school.
- 2. For each student diagnosed with an adrenal insufficiency who attends a school, the school district shall maintain a copy of the student's Individualized Healthcare Plan, a list of school personnel who have volunteered and been trained to administer an emergency dose medication, and a copy of the written authorization of the student's parent, guardian, or person acting in loco parentis. The list of volunteer school personnel and a copy of the written authorization shall be updated annually and attached to the student's Individualized Healthcare Plan.
- 3. The list of volunteer school personnel shall include only the names of personnel who successfully completed the required training as set forth in Section VII. B. This list of volunteer school personnel should be published and made known to all school personnel.
- 4. The principal of each school, in conjunction with each school nurse, shall properly maintain all such records.

Adopted: May 3, 2022