

Training Protocol Treatment of Students with ADRENAL CRISIS

Oregon Health Authority – Public Health Division

ORS 433.800 – 433.830;
OAR 333-055-0000 – 333-055-0035

Authorized for use by the Oregon Health Authority, Public Health Division

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INTRODUCTION

In 2015 the Oregon legislature amended **ORS 433.800 – 433.830** (laws pertaining to the training of lifesaving treatments) to authorize persons to be trained to administer medication to students diagnosed with adrenal insufficiency who are suffering from an adrenal crisis when a licensed health care provider is not immediately available and whose parent or guardian has provided the necessary medication and equipment for administration.

The Oregon Administrative Rules supporting this law (**OAR 333-055-0000 to 333-055-0035**) were amended and adopted by the Oregon Health Authority (OHA), Public Health Division in February 2016 to support this training on the treatment of students with adrenal insufficiency. These administrative rules also address the treatment of severe allergic reaction and the treatment of persons suffering from severe hypoglycemia. The Oregon Health Authority, Public Health Division, is responsible for approving these training programs as well as adopting the rules necessary for administering the law.

A copy of the training protocol for treatment of severe allergic reaction is available at:

<https://public.health.oregon.gov/ProviderPartnerResources/EMSTraumaSystems/Pages/epi-protocol-training.aspx>

and the training protocol for treatment of severe hypoglycemia is available at:

https://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Diabetes/Documents/Glucagon_Training_Protocol_Manual.pdf

ACKNOWLEDGEMENTS

We would like to acknowledge the School Nurse Advisory Group of the Oregon Department of Education for their assistance in reviewing and editing this training protocol.

TRAINING PRE-REQUISITES

This training program must be conducted by one of the following individuals:

- A physician licensed to practice in Oregon; or
- A nurse practitioner licensed to practice in Oregon; or
- A registered nurse licensed in Oregon.

The training should be provided on behalf of students with a **known diagnosis** of adrenal insufficiency that places them at risk for adrenal crisis.

The person to be trained must be 18 years of age or older and must have, or reasonably expect to have, responsibility for or contact with a student diagnosed with adrenal insufficiency described above. Individuals who are likely to fall under the definition of the law include public or private school employees and school volunteers.

In addition to taking the required training course described above, **trainees are advised to obtain and maintain current training in approved first aid and CPR courses** that are offered through organizations such as Medic First Aid, the American Heart Association or the American Red Cross, as well as training on **Bloodborne Pathogens** offered through Oregon Occupational Safety and Health Division as well as the organizations listed above.

SCHOOL HEALTH MANAGEMENT PLANS

For children in school, parents or guardians of children with adrenal insufficiency must notify school personnel of their child's medical needs to initiate a health management plan (may be included in a 504 Plan or Individualized Education Plan (IEP)). This plan should document agreements among the parents or guardian, school personnel, and the student's medical provider about providing a safe and supportive learning environment for the child with adrenal insufficiency. A school nurse, if available, is usually the lead staff for implementation of a health management plan.

The plan identifies the following elements:

- specific actions for school personnel to perform;
- a plan for communicating with parents and the child's medical providers;
- school policies and procedures for administering medications, including parental authorization;
- procedures for handling bodily fluids as encountered with vomiting, injections; and
- an action plan for each child who has adrenal insufficiency, which includes information about medications, dosage, method of administration and frequency, procedures to follow during field trips or outings, and how to handle emergency situations including specific signs and symptoms specific

to the student. The child's medical provider writes and signs medical orders to support the child's health management plan at the school.

The decision to give medication to a student diagnosed with adrenal insufficiency is based upon the student's health plan and recognition of the signs of adrenal crisis and should not be postponed.

ADRENAL INSUFFICIENCY TRAINING

This training protocol may be used for initial training purposes or retraining. While Oregon administrative rules require that persons be retrained once every three years, the OHA encourages and recommends that school personnel who may be responsible for, or in contact with, a student diagnosed with adrenal insufficiency be trained every year to maintain awareness.

The training includes the following topics:

- General information about adrenal insufficiency and the dangers associated with adrenal insufficiency;
- Recognition of symptoms of a person who is experiencing adrenal crisis and common factors that lead to adrenal crisis;
- The types of medications that are available for treating adrenal insufficiency;
- The proper administration of medication that treats adrenal insufficiency; and
- Necessary follow-up treatment.

While there is no prescribed time frame for conducting this training, the trainer should allow enough time to:

- Read through the protocol;
- Observe the procedure for administering medication to treat adrenal crisis;
- Student provided demonstration of the procedure for administering medication to treat adrenal crisis;
- Ask questions; and
- Complete the open-book evaluation tool.

Persons conducting the training should consider the trainees' past experiences with giving injections and their current comfort level to determine how best to demonstrate the procedure and provide an opportunity to practice. If a person is being retrained, the trainer should consider the trainee's existing knowledge to determine the degree to which certain topics within the protocol should be emphasized.

STATEMENT OF COMPLETION OF TRAINING

A "Treatment of Adrenal Crisis - Statement of Completion" can be found at the end of this training protocol. The trainer must use his or her professional judgment to determine if the trainee has satisfactorily completed the training protocol. The trainer must then sign and date the statement of completion. It is suggested that the trainer retain notes on who completed the training and who received the Statement of Completion.

WHAT IS ADRENAL INSUFFICIENCY?

Adrenal insufficiency is an endocrine, or hormonal disorder that occurs when the body is unable to produce enough adrenal hormones, such as cortisol and aldosterone. These hormones help to maintain and regulate key functions in the body such as blood pressure; metabolism (how the body uses food for energy); the immune system; and how the body responds to stress. A student with adrenal insufficiency may experience symptoms of adrenal crisis which if not treated promptly can cause death.

Adrenal insufficiency is caused by congenital conditions, cancers, tumors and many other conditions that affect the pituitary gland, adrenal gland or other endocrine organs. Addison's disease, the common term for primary adrenal insufficiency, occurs when the adrenal glands are damaged and cannot produce enough cortisol.

Approximately 1 in 100,000 people in the United States have Addison's disease. Because cases of Addison's disease may go undiagnosed, it is difficult to determine the frequency of adrenal insufficiency in the general population.

ADRENAL CRISIS

What is adrenal crisis?

Adrenal crisis is a sudden, severe worsening of symptoms associated with a student diagnosed with adrenal insufficiency, such as severe pain in the lower back, abdomen or legs, vomiting, diarrhea, dehydration, low blood pressure or loss of consciousness.

What can trigger a crisis?

Students with adrenal insufficiency may experience an adrenal crisis in many

circumstances including illness, such as the cold or flu; an injury, such as a twisted ankle or broken bone; exposure to stressful situations, such as a fire-drill; or missing or stopping steroid medications.

What are the signs and symptoms?

Signs and symptoms associated with adrenal crisis may include:

Headache	Stomach ache
Nausea or vomiting	Diarrhea
Low back pain or leg pain	Muscle weakness or cramping
Fever (over 100°F)	Loss of appetite
Red cheeks (not attributed with recess or PE)	Dark rings under the eyes
Lethargic – can't stay awake	Trouble focusing or confusion
Dizziness or lightheadedness	Faints or passes out
Changes in emotional behaviors – student may seem upset, angry or tearful than is usually normal	

When do I Treat?

It is important that school personnel become familiar with the student's health management plan which may identify signs and symptoms the student may experience along with appropriate medication and dosing. Acute observation of the student by the teacher or persons assigned to monitor the student is important.

The speed at which a student's health may worsen is related to age, physical condition, and underlying precipitating events. Vomiting and diarrhea account for most crises because the body is unable to absorb oral medication.

When a student experiences physical or emotional stress, a "stress dose" of medication is often given. The student's health management plan will have instructions for oral stress dosing for minor illness or injury. Depending on the severity of an event, an injection may be necessary.

Note: "stress dose" is when a person is given a larger than normal dose of their prescribed medication, as recommended by their physician.

It is important to understand the development of adrenal crisis and medicate the student appropriately based on the student's health management plan. Do not wait. Even if the student is not in crisis, administering the medication will not have any adverse effects.

Scenarios

Case 1: A 16 year old high school student has had vomiting and diarrhea from food poisoning. The 16 year old has adrenal insufficiency from chronic steroid use for her asthma. She is weak, confused, and has low blood sugar. Although it might be assumed that she is just dehydrated with low blood sugar from not eating and drinking, in fact she is in adrenal crisis from not absorbing her steroids.

Case 2: An elementary student with Addison's disease falls off the swing during recess and has scraped his knees and elbows and is limping but doesn't appear to have any broken bones. He begins to complain about a stomach ache. While the injuries are not severe, the child may be experiencing adrenal crisis and should be given a stress dose or an injection based on the student's health management plan.

What is not an Adrenal Crisis?

You may have noticed the symptoms of adrenal crisis mimic the symptoms of many other illness or diseases. The key is to inquire about the diagnosis of adrenal insufficiency or a history of steroid use and **CONSULT THE STUDENT'S HEALTH MANAGEMENT PLAN.**

TYPES OF MEDICATION and ADMINISTRATION

There are many medications that a student is prescribed to treat adrenal insufficiency. Solu-Cortef or Hydrocortisone are steroids that naturally occur in the body and allow the body to metabolize glucose and control vascular activity to maintain blood pressure. It also controls water and salt balance within the body. In order to keep their condition under control, a student is often required to take a daily, oral dose of hydrocortisone, dexamethasone or prednisone. The medication prescribed must be taken in the amount and at the times identified in the student's health management plan.

When there is suspected adrenal crisis, additional doses of oral medication may be necessary, or an injectable medication, such as Solu-Cortef or Solu-Medrol. An injectable medication is given intra-muscularly, which means that it is injected into a large muscle, such as the thigh or buttock.

CONSULT THE STUDENT'S HEALTH MANAGEMENT PLAN FOR THE APPROPRIATE MEDICATION AND ADMINISTRATION.

Possible side effects

Transient hypertension (high blood pressure), tachycardia (rapid heart rate over 100 beats per minute), edema (fluid retention), hyperglycemia (high blood sugar), agitation, delirium (confusion), or psychosis (behavioral disorder may include hallucinations, or delusions as an example).

Storage

Oral medication – hydrocortisone tablets should be stored at room temperature (68°-77°F), fludrocortisone acetate (Florinef) should be stored at room temperature (between 59 and 86 degrees) and away from excess heat and moisture.

Injectable meds – Act-o-Vials of Solu-Cortef or Solu-Medrol should be stored at room temperature (68°-77°F), in a dry place protected from light. The powder must be reconstituted with the 2 ml of sterile water and should not be mixed until just before it is injected during an adrenal crisis emergency. The solution should only be used if it is clear.

Access

Plans should be in place to assure that medication is readily available and in close proximity of the student. Consideration of transportation activities such as field trips or other off facility functions must be taken into account when planning emergency measures for possible treatment of adrenal crisis. Depending on the age of the child and school policies, it may be advisable for students to carry their own medication during these special activities and trained personnel must accompany the child.

Materials needed

Medication

Syringe and injection needle

Alcohol swab

Cotton ball or tissue

Sharps container

Latex or nonsterile gloves

Preparation of medication:

PRIOR TO ADMINISTERING MEDICATION CALL 9-1-1

- 1) Assemble medication and check the expiration date.
- 2) Consider location where medication is to be injected. If the injection needs to be in the buttock or upper thigh, it will be necessary for the student to pull

down pants or raise a skirt. This should occur in a private location and steps should be taken to make the student as comfortable as possible. Consider having a blanket or curtain. It is recommended that two personnel be present if possible.

- 3) Wash hands.
- 4) Put on gloves.

If an “Act-o-Vial” is present:



- 5) Press down on plastic activator of the medication Act-o-Vial to force diluent into the lower chamber.
- 6) Gently mix the solution by turning the vial upside down several times. Do not shake. (The solution is initially cloudy but then clears. If the solution does not get clear, do not administer and wait for rescue personnel to arrive.)
- 7) Remove the plastic tab covering center of stopper.

If reconstitution (mixing of powdered drug) is required:



- 8) Take 4x4 gauze and snap off top of glass ampule
- 9) Use filter needle to draw up all fluid
- 10) Change needles
- 11) Remove cap from powdered medication vial
- 12) Insert syringe and inject fluid to combine with powdered medication
- 13) Gently mix the solution by turning the vial upside down several times (The solution is initially cloudy but then clears. If the solution does not get clear, do not administer and wait for rescue personnel to arrive.)

Drawing up the medication from a vial:

- 14) Wipe the top of the vial with an alcohol swab.
- 15) Take cap off the syringe
- 16) Insert needle squarely through center of plunger-stopper until tip is just visible.
- 17) Invert vial and withdraw required dose.

Drawing up from an ampule:

- 18) Snap top of ampule off using 4x4 gauze
- 19) Attach filter needle to syringe
- 20) Draw up the required dose into the syringe
- 21) Change needle to an injection needle

- 22) Talk with student and reassure them; let them know what you are going to do.
- 23) Uncover the area to be injected (upper thigh, buttock).
- 24) Use alcohol wipe to cleanse the injection site on skin.
- 25) Remove the cap from needle. Hold the syringe like a dart.
- 26) Using thumb and first two fingers, spread the skin while pushing down lightly.
- 27) Dart the needle into the injection site, going straight in at a 90-degree angle,
- 28) Withdraw the syringe quickly and discard into sharps container.
- 29) Using a cotton ball or tissue, massage the injection site gently.
- 30) Talk with student and give additional reassurance, if necessary.
- 31) Clean up and dispose of waste safely.
- 32) Remove gloves.

If medical assistance was not summoned, then call 9-1-1 or have someone do this for you. **DO NOT LEAVE THE STUDENT UNATTENDED.** Advise the dispatcher of the type of medication that was given. A student who is treated should be seen by a physician. The student's health presentation may not immediately improve after the medication is given.

After administering the medication, turn the student on his or her side and monitor breathing. If the student's health worsens call 9-1-1 to provide updated information.

FOLLOW-UP AND CONSULTATION AFTER ADRENAL CRISIS EPISODE

Once a student has been given emergency treatment for symptoms of adrenal crisis, school personnel or the parent or guardian should consult the student's health care provider. The parent or guardian is also responsible for obtaining additional medication to replace what was used in case of future emergency.

REVIEW

Adrenal insufficiency is an endocrine, or hormonal disorder that occurs when the body is unable to produce enough adrenal hormones, such as cortisol and aldosterone. These hormones are needed to help a body respond to stressors such as illness and injury.

Students diagnosed with adrenal insufficiency are usually taking daily, oral medication and will have a health management plan on file with the school. School personnel who will be responsible for or be in contact with a student diagnosed with adrenal insufficiency need to become familiar with the student's health management plan and understand the signs and symptoms of adrenal crisis.

Adrenal crisis is a sudden severe worsening of symptoms associated with adrenal insufficiency including, but not limited to, severe pain in lower back, abdomen or legs; vomiting; diarrhea; dizziness; changes in emotional behavior; and loss of consciousness.

An adrenal crisis may be triggered by a sudden or lengthy illness such as the cold or flu; an injury that might occur on the playground or in gym; or exposure to stressful situations, such as a fire-drill.

Recognizing and responding to a student who may be experiencing an adrenal crisis may be lifesaving. Signs and symptoms of an adrenal crisis include:

Headache	Stomach ache
Nausea or vomiting	Diarrhea
Low back pain or leg pain	Muscle weakness or cramping
Fever (over 100°F)	Loss of appetite
Red cheeks (not attributed with recess or PE)	Dark rings under the eyes
Lethargic – can't stay awake	Trouble focusing or confusion

Dizziness or lightheadedness Faints or passes out
Changes in emotional behaviors – student may seem upset, angry or tearful than is usually normal

Do not delay or second guess whether the child is in crisis – when in doubt, provide the medication as directed in the student's health plan. This may include giving additional oral doses or an injection.

Contact the parent or legal guardian and call 9-1-1.

Preventing an adrenal crisis is not always possible. It involves recognizing signs of potential stress and avoiding injury. That is why participating in this training is helping to **prepare** you in recognizing symptoms and administering medication. Steps should be taken to ensure that students with adrenal insufficiency have current medication available for use and that parents are communicating with the school when the student has been ill.

REFERENCES

Adrenal Insufficiency United

Recognizing and Managing Adrenal Insufficiency in the Adrenal Insufficient Student

<http://aiunited.org>

National Institute of Diabetes and Digestive and Kidney Diseases

Adrenal Insufficiency and Addison's Disease

<http://www.niddk.nih.gov/health-information/health-topics/endocrine/adrenal-insufficiency-addisons-disease/Pages/fact-sheet.aspx>

U.S. National Library of Medicine, MedlinePlus

Acute adrenal crisis

<https://www.nlm.nih.gov/medlineplus/ency/article/000357.htm>

World Health Organization

WHO best practices for injections and related procedures toolkit

http://apps.who.int/iris/bitstream/10665/44298/1/9789241599252_eng.pdf

RESOURCES

OREGON ADMINISTRATIVE RULES

Oregon Health Authority – Public Health Division

OAR 333-055-0000 through 0035

333-055-0000

Purpose

(1) The purpose of OAR 333-055-0000 through 333-055-0035 is to describe the circumstances under which these rules apply and to define the procedures for authorizing certain individuals, when a licensed health care professional is not immediately available, to administer:

- (a) Epinephrine to a person who has a severe allergic response to an allergen;
- (b) Glucagon to a person who is experiencing severe hypoglycemia when other treatment has failed or cannot be initiated; and
- (c) Medication that treats adrenal insufficiency to a student who is experiencing an adrenal crisis.

(2) Severe allergic reactions requiring epinephrine will occur in a wide variety of circumstances.

(3) Severe hypoglycemia requiring glucagon, in settings where children prone to severe hypoglycemia are known to lay providers and where arrangements for the availability of glucagon have been made, will occur primarily in, but not limited to, school settings, sports activities, and camps.

(4) An adrenal crisis for students diagnosed with adrenal insufficiency will occur in a wide variety of circumstances. The administration of medication to treat a student experiencing an adrenal crisis may be provided by trained school personnel in accordance with OAR 581-021-0037 whose parent or guardian has provided the necessary medication and equipment for administration.

Stat. Auth.: ORS 433.805 & 433.810

Stats. Implemented: ORS 433.800 - 433.830

333-055-0006

Definitions

(1) "Adrenal crisis" means a sudden, severe worsening of symptoms associated with adrenal insufficiency, such as severe pain in the lower back, abdomen or legs; vomiting; diarrhea; dehydration; low blood pressure or loss of consciousness.

- (2) "Adrenal insufficiency" means a hormonal disorder that occurs when the adrenal glands do not produce enough adrenal hormones.
 - (3) "Allergen" means a substance, usually a protein, that evokes a particular adverse response in a sensitive individual.
 - (4) "Allergic response" means a medical condition caused by exposure to an allergen, with physical symptoms that range from localized itching to severe anaphylactic shock and that may be life threatening.
 - (5) "Emergency Medical Services Provider (EMS Provider)" means a person who has received formal training in pre-hospital and emergency care and is state-licensed to attend to any ill, injured or disabled person. Police officers, fire fighters, funeral home employees and other personnel serving in a dual capacity, one of which meets the definition of "emergency medical services provider" are "emergency medical services providers" within the meaning of ORS chapter 682.
 - (6) "Hypoglycemia" means a condition in which a person experiences low blood sugar, producing symptoms such as drowsiness, loss of muscle control so that chewing or swallowing is impaired, irrational behavior in which food intake is resisted, convulsions, fainting or coma.
 - (7) "Other treatment" means oral administration of food containing glucose or other forms of carbohydrate, such as jelly or candy.
 - (8) "Other treatment has failed" means a hypoglycemic student's symptoms have worsened after the administration of a food containing glucose or other form of carbohydrate or a hypoglycemic student has become incoherent, unconscious or unresponsive.
 - (9) "Paramedic" means a person who is licensed by the Oregon Health Authority as a Paramedic.
 - (10) "Supervising professional" means a physician licensed under ORS chapter 677, or a nurse practitioner licensed under ORS chapter 678 to practice in this state and who has prescription writing authority.
- Stat. Auth.: ORS 433.810
Stats. Implemented: ORS 433.800 - ORS 433.830

333-055-0015

Educational Training

- (1) Individuals to be trained to administer glucagon and school personnel to be trained to administer a medication that treats a student who has adrenal insufficiency and who is experiencing symptoms of adrenal crisis based on the student's health plan must be trained by:
 - (a) A physician licensed under ORS chapter 677;
 - (b) A nurse practitioner licensed under ORS chapter 678; or
 - (c) A registered nurse licensed under ORS chapter 678.

- (2) Individuals to be trained to administer epinephrine must be trained by:
- (a) A physician licensed under ORS chapter 677;
 - (b) A nurse practitioner licensed under ORS chapter 678;
 - (c) A registered nurse licensed under ORS chapter 678 as assigned by a supervising professional to teach the OHA-Public Health Division Treatment of Severe Allergic Reaction training and distributes a Certificate of Completion and Authorization to Obtain Epinephrine in accordance with OAR 333-055-0030(1); or
 - (d) A paramedic as delegated by an EMS Medical Director defined in OAR chapter 333, division 265.

(3) The training described in sections (1) and (2) of this rule must follow the Oregon Health Authority, Public Health Division training protocol, or an Authority approved equivalent. The Public Health Division approved training protocol for emergency glucagon providers is available on the Internet at <http://healthoregon.org/diabetes>. The training protocols for the treatment of severe allergic reaction or treatment of adrenal crisis are available on the Internet at <http://healthoregon.org/ems>.

Stat. Auth.: ORS 433.810

Stats. Implemented: ORS 433.815 & 433.817

333-055-0021

Eligibility for Training

In order to be eligible for training under OAR 333-055-0015, a person must:

- (1) Be 18 years of age or older; and
- (2) Have, or reasonably expect to have, responsibility for or contact with at least one other person as a result of the eligible person's occupational or volunteer status, such as, but not limited to, a camp counselor, scout leader, forest ranger, school employee, tour guide or chaperone.

Stat. Auth.: ORS 433.810

Stats. Implemented: ORS 433.820

333-055-0030

Certificates of Completion of Training

(1) Persons who successfully complete educational training under OAR 333-055-0000 through 333-055-0035 shall be given a Public Health Division statement of completion signed by the individual conducting the training. The statement of completion for the treatment of allergic response training may also be used as an authorization to obtain epinephrine if fully completed and personally signed by a nurse practitioner or a physician responsible for the training program. (a) A statement of completion for the treatment of allergic response training may be

obtained from the Oregon Health Authority, Public Health Division, 800 NE Oregon Street, Suite 290, Portland, Oregon 97232, Phone: (971) 673-1230.

(b) A statement of completion for emergency glucagon providers is included in the training protocol available at <http://healthoregon.org/diabetes>.

(c) A statement of completion for school personnel trained in the administration of a medication to treat adrenal crisis is included in the treatment of adrenal insufficiency protocol available at <http://healthoregon.org/ems>.

(2) The statement of completion and authorization to obtain epinephrine form allows a pharmacist to generate a prescription and dispense an emergency supply of epinephrine for not more than one child and one adult in an automatic injection device if signed by a nurse practitioner or physician. Whenever such a statement of completion form for an emergency supply of epinephrine is presented, the pharmacist shall write upon the back of the statement of completion form in non-erasable ink the date that the prescription was filled, returning the statement of completion to the holder. The prescription may be filled up to four times. The pharmacist who dispenses an emergency supply of epinephrine under this rule shall also reduce the prescription to writing for his files, as in the case of an oral prescription for a non-controlled substance, and file the same in the pharmacy.

(3) A person who has successfully completed educational training in the administration of glucagon may receive, from the parent or guardian of a student, doses of glucagon prescribed by a health care professional with appropriate prescriptive privileges licensed under ORS chapters 677 or 678, and the necessary paraphernalia for administration.

(4) A person who has successfully completed educational training in the administration of a medication to treat adrenal crisis may receive, from the parent or guardian of a student, medication that treats adrenal insufficiency prescribed by a health care professional with appropriate prescriptive privileges licensed under ORS chapters 677 or 678, and the necessary paraphernalia for administration.

(5) Completion of a training program and receipt of a statement of completion does not guarantee the competency of the individual trained.

(6) A statement of completion and authorization to obtain epinephrine shall expire three years after the date of training identified on the statement of completion.

Individuals trained to administer epinephrine, glucagon or a medication to treat adrenal insufficiency must be trained every three years in accordance with OAR 333-055-0015 in order to obtain a new statement of completion.

(7) Individuals trained to administer epinephrine, glucagon or a medication to treat adrenal crisis may be asked to provide copies of a current statement of completion to their employers or to organizations or entities to which they volunteer.

[ED. NOTE: Figures referenced are available from the agency.]

Stat. Auth.: ORS 433.810

Stats. Implemented: ORS 433.815, 433.817 & 433.825

333-055-0035

Circumstances in Which Trained Persons May Administer Epinephrine, Glucagon or a Medication to Treat Adrenal Crisis

(1) A person who holds a current statement of completion pursuant to OAR 333-055-0030 may, in an emergency situation when a licensed health care professional is not immediately available, administer epinephrine to any person suffering a severe allergic response to an insect sting or other allergen. The decision to give epinephrine should be based upon recognition of the signs of a systemic allergic reaction and need not be postponed for purposes of identifying the specific antigen which caused the reaction.

(2) A person who holds a current statement of completion pursuant to OAR 333-055-0030 may, in an emergency situation involving an individual who is experiencing hypoglycemia and when a licensed health care professional is not immediately available, administer health care professional-prescribed glucagon to a person for whom glucagon is prescribed, when other treatment has failed or cannot be initiated. The decision to give glucagon should be based upon recognition of the signs of severe hypoglycemia and the inability to correct it with oral intake of food or drink.

(3) School personnel who hold a current statement of completion pursuant to OAR 333-055-0030 may, in an emergency situation involving a student diagnosed with adrenal insufficiency who is experiencing symptoms of adrenal crisis and when a licensed health care professional is not immediately available, administer health care professional-prescribed medication to treat adrenal insufficiency. The decision to give medication to a student with adrenal insufficiency should be based upon the student's health plan in accordance with OAR 581-021-0037 and recognition of the signs of adrenal crisis and need not be postponed.

Stat. Auth.: ORS 433.810

Stats. Implemented: ORS 433.825

Oregon Department of Education

581-021-0037

Administration of Prescription and Nonprescription Medication to Students

(1) As used in this rule, definitions of terms shall be as follows:

(a) "Age appropriate guidelines" means the student must be able to demonstrate the ability, developmentally and behaviorally, to self-medicate with permission from a

parent or guardian, building administrator and in the case of a prescription medication a physician;

(b) "Adrenal crisis" means adrenal crisis as defined in ORS 433.800;

(c) "Adrenal insufficiency" means adrenal insufficiency as defined in ORS 433.800;

(d) "Asthma" means a chronic inflammatory disorder of the airways that requires ongoing medical intervention;

(e) "Designated staff" means the school staff person who is designated by the building level school administrator, either the principal or head teacher, to administer nonprescription or prescription medication pursuant to district policy and procedure;

(f) "Instruction from physician, physician assistant or nurse practitioner" means a written instruction for the administration of a prescription medication to a student which:

(A) Shall include:

(i) Name of student;

(ii) Name of medication;

(iii) Dosage;

(iv) Method of administration;

(v) Frequency of administration; and

(vi) Other special instruction, if any.

(B) Shall include the prescription medication label prepared by a pharmacist at the direction of a physician, physician assistant or nurse practitioner will meet the requirements for a written instruction if it contains the information listed in (i) through (vi) of this paragraph;

(g) "Instruction from the student's parent or guardian" means a written instruction for the administration of a nonprescription medication to a student which shall include:

(A) Name of student;

(B) Name of medication;

(C) Dosage;

(D) Method of administration;

(E) Frequency of administration;

(F) Other special instructions; and

(G) Signature of parent or guardian.

(h) "Nonprescription medication" means only Federal Drug Administration approved, non-alcohol-based medication to be taken at school that is necessary for the child to remain in school. This shall be limited to eyes, nose and cough drops, cough suppressants, analgesics, decongestants, antihistamines, topical antibiotics, anti-inflammatories and antacids that do not require written or oral instructions

from a physician. Nonprescription medication does not include dietary food supplements or nonprescription sunscreen;

(i) "Notice of a diagnoses of adrenal insufficiency" means written notice to the school district from the parent or guardian of a student who has been diagnosed as adrenal insufficient with a copy of an order from the student's physician that includes the student's diagnosis, description of symptoms indicating the student is in crisis, prescription for medication to treat adrenal insufficiency crisis, and instructions for follow-up care after medication to treat adrenal insufficiency crisis has been administered.

(j) "Physician" means:

(A) A doctor of medicine or osteopathy or a physician assistant licensed to practice by the Board of Medical Examiners for the State of Oregon except as allowed under subsection (5) of this rule;

(B) A nurse practitioner with prescriptive authority licensed by the Oregon State Board of Nursing;

(C) A dentist licensed by the Board of Dentistry for the State of Oregon;

(D) An optometrist licensed by the Board of Optometry for the State of Oregon; or

(E) A naturopathic physician licensed by the Board of Naturopathy for the State of Oregon;

(k) "Prescription medication" means:

(A) Any non-injectable drug, chemical compound, suspension or preparation in suitable form for use as a curative or remedial substance taken either internally or externally by a student under the written direction of a physician; and

(B) Bronchodilators or auto-injectable epinephrine prescribed by a student's Oregon licensed health care professional for asthma or severe allergies.

(C) Prescription medication does not include dietary food supplements.

(l) "Qualified trainer" means a person who is familiar with the delivery of health services in a school setting and who is:

(A) A Registered Nurse licensed by the Oregon State Board of Nursing;

(B) A physician; or

(C) A pharmacist licensed by the State Board of Pharmacy for the State of Oregon.

(m) "Severe allergy" means a life-threatening hypersensitivity to a specific substance such as food, pollen or dust;

(n) "Student self-medication" means students must be able to administer medication to him or herself without requiring a trained school staff member to assist in the administration of the medication;

(o) "Training" means yearly instruction provided by qualified trainers to designated school staff on the administration of prescription and nonprescription medications, based on requirements set out in guidelines approved by the Department of

Education, including discussion of applicable district policies, procedures and materials;

(2) Each school district shall adopt policies and procedures that provide for:

(a) The administration of prescription and nonprescription medication to students by trained school personnel; and

(b) Student self-medication including age appropriate guidelines.

(3) Policies and procedures shall:

(a) Include a process to designate, train and supervise appropriate staff that takes into account when a student is in school, at a school sponsored activity, under the supervision of school personnel, in before-school or after-school care programs on school-owned property, and in transit to or from school or school-sponsored activities;

(b) Permit designated staff to administer prescription medication under the written permission from the student's parent or guardian and instruction from a physician, physician assistant or nurse practitioner if, because of its prescribed frequency, the medication must be given while in school, at a school sponsored activity, while under the supervision of school personnel, in before-school or after-school care programs on school-owned property, and in transit to or from school or school-sponsored activities;

(c) Permit designated staff to administer nonprescription medication under the written permission and instruction from the student's parent or guardian; and

(d) Permit student self-medication;

(e) Include procedures for the administration of premeasured doses of epinephrine by school personnel trained as provided by ORS 433.815 to any student or other individual on school premises who the personnel believe in good faith is experiencing a severe allergic reaction, regardless of whether the student or individual has a prescription for epinephrine;

(f) Include procedures for the administration of medication by school personnel to treat a student who the personnel believe in good faith is experiencing symptoms of adrenal crisis. The procedures must provide that:

(A) Only upon notice of a diagnoses of adrenal insufficiency as defined in this rule, the building administrator of the school the student attends will designate school personnel to be responsible for administering medication to treat adrenal insufficiency in the event the student exhibits symptoms that school personnel believe in good faith indicate the student is experiencing symptoms of adrenal crisis;

(B) The designated school personnel will successfully complete training to administer medication to treat a student who has adrenal insufficiency and is experiencing symptoms of adrenal crisis in accordance with rules adopted by the Oregon Health Authority;

- (C) The parent or guardian of the student must provide adequate supply of the student's prescribed medication to the school district; and
- (D) In the event that a student experiences symptoms of adrenal crisis and the designated personnel determines the medication to treat adrenal insufficiency should be administered, any available school personnel will immediately call 911 and the student's parent or guardian.
- (g) Provide guidelines for the management of students with life-threatening food allergies and adrenal insufficiency while the student is in school, at a school sponsored activity, while under the supervision of school personnel, in before-school or after-school care programs on school-owned property, and in transit to or from school or school-sponsored activities. The guidelines must include:
- (A) Standards for the education and training of school personnel to manage students with life threatening allergies or adrenal insufficiency;
- (B) Procedures for responding to life-threatening allergic reactions or adrenal crisis;
- (C) A process for the development of an individualized health care and allergy plan for every student with a known life-threatening allergy and an individualized health care plan for every student for whom the school district has been given proper notice of a diagnoses of adrenal insufficiency as defined in this rule;
- (D) Protocols for preventing exposures to allergens;
- (E) A process for determining when a student may self-carry prescription medication;
- (F) Policies and procedures that provide for self-administration of medication by kindergarten through grade 12 students with asthma or severe allergies. The policies and procedures must:
- (i) Require that a physician prescribe the medication to be used by the student while in school, at a school sponsored activity, while under the supervision of school personnel, in before-school or after-school care programs on school-owned property, and in transit to or from school or school-sponsored activities, and instruct the student in the correct and responsible use of the medication;
- (ii) Require that a physician or other Oregon licensed health care professional, acting within the scope of the person's license; formulate a written treatment plan for managing the student's asthma or severe allergy;
- (4) Policies and procedures related to administration of prescription and nonprescription medication and student self-medication must discuss:
- (a) Safe storage, handling, monitoring supply and disposing of medications;
- (b) Record keeping and reporting of medication administration, including errors in administration;

(c) Emergency medical response for life threatening side effects and allergic reactions, including the administration of premeasured doses of epinephrine to students and other individuals; and

(d) Student confidentiality.

(5) A registered nurse who is employed by a public or private school may accept an order from a physician licensed to practice medicine or osteopathy in another state or territory of the United States if the order is related to the care or treatment of a student who has been enrolled at the school for not more than 90 days.

Stat. Auth.: ORS 326.051

Stats. Implemented: ORS 339.870; 2015 OL Ch. 112, Section 2 (Enrolled HB 3149); 2015 OL 162, Section 1 (Enrolled HB 3041)

OREGON REVISED STATUTES

ORS 433.800 through 433.833

433.800 Definitions for ORS 433.800 to 433.830. As used in ORS 433.800 to 433.830, unless the context requires otherwise:

(1) "Adrenal crisis" means a sudden, severe worsening of symptoms associated with adrenal insufficiency, such as severe pain the lower back, abdomen or legs, vomiting, diarrhea, dehydration, low blood pressure or loss of consciousness.

(2) "Adrenal insufficiency" means a hormone disorder that occurs when the adrenal glands do not produce enough adrenal hormones.

(3) "Allergen" means a substance, usually a protein, that evokes a particular adverse response in a sensitive individual.

(4) "Allergic response" means a medical condition caused by exposure to an allergen, with physical symptoms that range from localized itching to severe anaphylactic shock and that may be life threatening.

(5) "Hypoglycemia" means a condition in which a person experiences low blood sugar, producing symptoms such as drowsiness, loss of muscle control so that chewing or swallowing is impaired, irrational behavior in which food intake is resisted, convulsions, fainting or coma.

(6) "Nurse practitioner" means a nurse practitioner licensed under ORS chapter 678.

(7) "Other treatment" means oral administration of food containing glucose or other forms of carbohydrate, such as jelly or candy.

(8) "Other treatment has failed" means a hypoglycemic student's symptoms have worsened after the administration of a food containing glucose or other form of carbohydrate or a hypoglycemic student has become incoherent, unconscious or unresponsive.

(9) "Physician" means a physician licensed under ORS chapter 677.

433.805 Policy. It is the purpose of ORS 433.800 to 433.830 to provide a means of authorizing certain individuals when a licensed health care professional is not immediately available to administer lifesaving treatment to persons:

- (1) Who have severe allergic responses to insect stings and other allergens;
- (2) Who are experiencing severe hypoglycemia when other treatment has failed or cannot be initiated; and
- (3) Who have adrenal insufficiency and are experiencing an adrenal crisis.

433.810 Duties of Oregon Health Authority; rules. The Oregon Health Authority shall:

- (1) Adopt rules necessary for the administration of ORS 433.800 to 433.830, including defining circumstances under which ORS 433.800 to 433.815, 433.817 and 433.825 shall apply. The authority shall include input from the educational system, health care provider organizations and other interested parties when adopting rules or amending those rules.
- (2) Develop or approve protocols for educational training as described in ORS 433.815 and 433.817, including the use of mechanisms for periodic retraining of individuals, and provide the protocols for educational training upon request to schools, health care professionals, parents or guardians of students or other interested parties.

433.815 Educational training. (1) Educational training on the treatment of allergic responses, as required by ORS 433.800 to 433.830, shall be conducted under the supervision of a physician or nurse practitioner. The training may be conducted by any other health care professional licensed under ORS chapter 678 as delegated by a supervising physician or nurse practitioner, or by an emergency medical services provider meeting the requirements established by the Oregon Health Authority by rule. The curricula shall include, at a minimum, the following subjects:

- (a) Recognition of the symptoms of systemic allergic responses to insect stings and other allergens;
 - (b) Familiarity with common factors that are likely to elicit systemic allergic responses;
 - (c) Proper administration of an intramuscular or subcutaneous injection of epinephrine for severe allergic responses to insect stings and other specific allergens; and
 - (d) Necessary follow-up treatment.
- (2) Educational training on the treatment of hypoglycemia, as required by ORS 433.800 to 433.830, shall be conducted under the supervision of a physician or a nurse practitioner. The training may be conducted by any other health care

professional licensed under ORS chapter 678 as delegated by a supervising physician or nurse practitioner. The curricula shall include, at a minimum, the following subjects:

- (a) Recognition of the symptoms of hypoglycemia;
- (b) Familiarity with common factors that may induce hypoglycemia;
- (c) Proper administration of a subcutaneous injection of glucagon for severe hypoglycemia when other treatment has failed or cannot be initiated; and
- (d) Necessary follow-up treatment.

(3) Educational training on the treatment of adrenal insufficiency, as required by ORS 433.800 to 433.830, shall be conducted under the supervision of a physician or a nurse practitioner. The training may be conducted by any other health care professional licensed under ORS chapter 678 as delegated by a supervising physician or nurse practitioner. The curricula shall include, at a minimum, the following subjects:

- (a) General information about adrenal insufficiency and the dangers associated with adrenal insufficiency;
- (b) Recognition of the symptoms of a person who is experiencing an adrenal crisis;
- (c) The types of medication that are available for treating adrenal insufficiency; and
- (d) Proper administration of medications that treat adrenal insufficiency.

433.817 Educational training conducted by public health authority or organization or by trained person. Educational training on the treatment of allergic responses, as required by ORS 433.800 to 433.830, may be conducted by a public health authority or organization or by a person who has successfully completed educational training as described in ORS 433.815. The training curricula under this section must include the following subjects:

- (1) Recognition of the symptoms of systemic allergic responses to insect stings and other allergens;
- (2) Familiarity with common factors that are likely to elicit systemic allergic responses;
- (3) Proper administration of an intramuscular or subcutaneous injection of epinephrine for severe allergic responses to insect stings and other specific allergens; and
- (4) Necessary follow-up treatment.

433.820 Eligibility for training. A person eligible to receive the training described in ORS 433.815 and 433.817 must meet the following requirements:

- (1) Be 18 years of age or older; and

(2) Have, or reasonably expect to have, responsibility for or contact with at least one other person as a result of the eligible person's occupational or volunteer status, such as camp counselors, scout leaders, school personnel, forest rangers, tour guides or chaperones.

433.825 Availability of doses of epinephrine and glucagon to trained persons. (1)(a) A person who has successfully completed educational training described in ORS 433.815 for severe allergic responses may receive from any health care professional who has appropriate prescriptive privileges and who is licensed under ORS chapter 677 or 678 in this state a prescription for premeasured doses of epinephrine and the necessary paraphernalia for administration.

(b) An entity that employs a person described in paragraph (a) of this subsection may acquire premeasured doses of epinephrine and the necessary paraphernalia for administration in accordance with paragraph (c) of this subsection. A health care practitioner who has appropriate prescriptive privileges and is licensed under ORS chapter 677 or 678 may write a prescription for premeasured doses of epinephrine and the necessary paraphernalia in the name of an entity that employs a person described in paragraph (a) of this subsection.

(c) A person described in paragraph (a) of this subsection may possess and administer, in an emergency situation when a licensed health care professional is not immediately available, prescribed epinephrine to any person suffering a severe allergic response.

(2) A person who has successfully completed educational training in the administration of glucagon as described in ORS 433.815 for hypoglycemia may receive from the parent or guardian of a student glucagon prescribed by a health care professional who has appropriate prescriptive privileges and is licensed under ORS chapter 677 or 678, as well as the necessary paraphernalia for administration. The person may possess the glucagon and administer the glucagon to the student for whom the glucagon is prescribed if the student is suffering a severe hypoglycemic reaction in an emergency situation when a licensed health care professional is not immediately available and other treatment has failed or cannot be initiated.

(3) A person who has successfully completed educational training in the treatment of adrenal insufficiency as described in ORS 433.815 for hypoglycemia may receive from the parent or guardian of a student a medication that treats adrenal insufficiency that that is prescribed by a health care professional who has appropriate prescriptive privileges and is licensed under ORS chapter 677 or 678, as well as the necessary paraphernalia for administration. The person may possess the medication and administer the medication to the student for whom the medication is prescribed if the student is suffering an adrenal crisis in an

emergency situation when a licensed health care professional is not immediately available.

433.830 Immunity of trained person and institution rendering emergency assistance. (1) No cause of action shall arise against a person who has successfully completed an educational training program described in ORS 433.815 or 433.817 for any act or omission of the person when acting in good faith while rendering emergency treatment pursuant to the authority granted by ORS 433.800 to 433.830, except where such conduct can be described as wanton misconduct. (2) No cause of action shall arise against an institution, facility, agency or organization when acting in good faith to allow for the rendering of emergency treatment pursuant to the authority granted by ORS 433.800 to 433.830, except where such conduct can be described as wanton misconduct.

Treatment of Adrenal Insufficiency Quiz

Name: _____ Date: _____

1. What is the organ that the adrenal gland sits on top of?

2. What is the prescribed dose of medication called that a student needs during an adrenal crisis?

3. What plan should you review that is on file with the school that describes the student's adrenal crisis signs, symptoms and medication dosage and administration?

4. List three things that could trigger an adrenal crisis in a student diagnosed with adrenal insufficiency.
 - a) _____

 - b) _____

 - c) _____

5. List five signs or symptoms that a child can exhibit when suffering from an adrenal crisis.

a) _____

b) _____

c) _____

d) _____

e) _____

6. Who is able to conduct a training on adrenal insufficiency?

7. What Oregon Revised Statue authorizes persons to be trained to administer medication to students diagnosed with adrenal insufficiency who are suffering from an adrenal crisis?

8. Training on adrenal insufficiency is required every ____ years, but the Oregon Health Authority recommends retraining every _____ year(s) to maintain competency.

9. When a child with adrenal insufficiency suffers a physical or emotional event, they are unable to produce the stress hormone _____ and need a 'stress dose' of their prescribed medication to avoid permanent disability or death.

10. When in doubt _____ the student with their stress dose of medication.

11. When reconstituting any injectable drug to be given to a child suffering from adrenal crisis, if the solution remains _____, you are instructed not to administer the drug and wait for EMS providers.

12. If a child with adrenal insufficiency suffers a skinned knee, will they necessarily require a stress dose of their medication?

What if that child suffers a broken ankle?

Treatment of Adrenal Crisis – Statement of Completion

This certifies that:

Address:

Has completed an approved training program covering recognition of symptoms of adrenal crisis and proper administration of medication to treat adrenal insufficiency, pursuant to ORS 433.805 to 433.830 and rules of the Oregon Health Authority, Public Health Division. Under ORS 433.825 and OAR 333-055-0035, this person is authorized to administer medication in an emergency situation involving a student diagnosed with adrenal insufficiency who is experiencing symptoms of adrenal crisis.

Signature of Authorized Trainer

Date Trained