### LOS ANGELES UNIFIED SCHOOL DISTRICT Office of the Chief Medical Director District Nursing Services

# SOLU-CORTEF INJECTION ADMINISTRATION

### I. GENERAL GUIDELINES

### A. <u>PURPOSE</u>

- 1. For emergency treatment of acute adrenal crisis
- 2. To administer Solu-Cortef safely and in a timely manner

### B. <u>GENERAL INFORMATION</u>

- 1. Solu-Cortef (Hydrocortisone Sodium Succinate) intramuscular injection is a medication approved by the Food and Drug Administration (FDA) to treat acute adrenal crisis.
- 2. Licensed healthcare provider and parent authorizations for medication must be completed and signed.
- Acute adrenal crisis is a life-threatening state caused by insufficient levels
  of cortisol, a hormone essential for life, produced and released by the
  adrenal gland.
- 4. Symptoms of acute adrenal crisis may be one or more of the following:
  - a. Changes in baseline behaviors- student may seem unusually upset, angry or tearful
  - b. Dark rings under the eyes
  - c. Red cheeks (not attributed with recess or PE class)
  - d. Trouble focusing, lethargy
  - e. Muscle weakness or cramping, headache, dizziness
  - f. Loss of appetite, stomach ache, nausea and vomiting, diarrhea
  - g. Dehydration, low blood pressure
  - h. Sudden severe pain in the lower back, abdomen or legs
  - i. Fever (over 100°F)
  - j. Fainting or loss of consciousness
- 5. Adrenal Insufficiency training should include the following topics:
  - General information about adrenal insufficiency and the dangers associated with this condition.
  - Recognition of symptoms of the student who is experiencing adrenal crisis and what factors trigger the adrenal crisis.
  - The types of medications ordered by the student's healthcare provider to treat adrenal insufficiency/ adrenal crisis.
  - Student's emergency care plan (has to be completed by the school nurse)
- C. <u>PERSONNEL</u>
  - 1. Licensed Nursing Provider (School Nurse or LVN)
  - 2. School Physician

# D. <u>EQUIPMENT</u>

- 1. Provided by the parent/guardian:
  - a. Solu-Cortef medication, labeled with student's name.
  - b. Syringe and injection needle
  - c. Alcohol swabs
- 2. Provided by the school:
  - a. Plastic bag for disposal of waste
  - b. Disposable latex-free gloves
  - c. Sharps container

# E. ACCESS AND STORAGE

Medication should be readily available and in close proximity of the student in school and during district bus transportation as well as during school sponsored activities such as field trips. Store unreconstituted product at controlled room temperature 20° to 25°C (68° to 77°F)

	ESSENTIAL STEPS	KEY POINTS AND PRECAUTIONS
1.	Determine if the student is experiencing Adrenal crisis. <b>Do not leave the student unattended</b> . Have someone call 911.	Knowledge of the student's emergency care plan which identifies the signs and symptoms the student may experience along with appropriate medication and dosing.
2.	Assemble medication.	Observe the 6 "Rights" of medication administration: right student, right medication, right dosage, right route, right time, and right documentation.
3.	Position the student	<ul> <li>Select the injection site:</li> <li>Image: A select the injection site:</li> <li>You can give an injection in the buttock or in the upper leg muscle.</li> <li>Select your injection site carefully to avoid injecting into a blood vessel or nerve.</li> </ul>

ESSENTIAL STEPS	KEY POINTS AND PRECAUTIONS
3. Position the student, continued	<ul> <li>Select the injection site, continued:</li> <li>You select the site as follows: <ul> <li>Upper leg muscle - draw imaginary lines to divide the upper leg into three equal sections, choose the middle section and select a site on the outside of the leg.</li> <li>Buttock - draw imaginary lines to divide the buttock in half in both directions. Select a site in the upper outer quadrant.</li> </ul> </li> </ul>
4. Wash hands	Observe student privacy.
5. Put on gloves	
<ul> <li>6. If administering an "Act-o-Vial" <ul> <li>a. Press down on plastic activator (top) to force diluent into the lower chamber</li> <li>b. Gently mix the solution without shaking it</li> <li>c. Remove the plastic tab covering center of stopper</li> <li>d. Wipe the top of the vial with an alcohol swab</li> <li>e. Take cap off the syringe</li> <li>f. Insert drawing-up needle squarely through center of plunger-stopper until tip is just visible</li> <li>g. Invert vial and withdraw required dose</li> </ul> </li> </ul>	<ul> <li>Turn the vial upside down a number of times.</li> <li>Do not shake the vial.</li> <li>The solution is initially cloudy but then clears.</li> </ul>
7. Change to the Injection needle	Flick out air bubbles and expel excess air.
<ul> <li>8. To give the injection <ul> <li>a. Clean the skin surface with an alcohol swab</li> <li>b. Holding the syringe firmly, give the injection by quickly inserting the needle fully through the skin surface into the muscle layer.</li> <li>c. Push the plunger until the dose is fully injected</li> </ul> </li> </ul>	This will only take about 10 seconds.

ESSENTIAL STEPS	KEY POINTS AND PRECAUTIONS
9. Remove the needle and place in a sharps container	
10. Press the cotton swab over the site for a few seconds	The injection will work quite quickly but supervision is still required.
11. Turn the student on his or her side and monitor breathing.	
12. Advise the paramedics/dispatcher of the type of medication that was given	A student who is treated should be seen by a physician.
13. Used medication vial must be placed in a double bag and returned to parent.	School nurse is to ensure Solu-Cortef is replaced by the parent.
14. Document medication electronically including date, time, reason for administration, and student's response.	School nurse or school administrator must document in iSTAR. School nurse will document in Welligent under "health office visit" and "DMM".

APPROVED:

June 17, 2019

Date

Rosina Franco, MD Senior Physician, Student Medical Services

Ron Tanimura, Ed.D **Director, Student Medical Services** 

Sosse Bedrossian, MSN, MA, RN, FNP Director, District Nursing Services

# **REFERENCES:**

Adrenal Insufficiency United Recognizing and Managing Adrenal Insufficiency in the Adrenal Insufficient Student. Retrieved August 29, 2017 from, <u>http://aiunited.org</u>

Oregon Health Authority EMS & Trauma Program. (3/2016). Treatment of Students with Adrenal Crisis, Retrieved August 25, 2017, from, <u>https://www.oregon.gov/oha/PH/PROVIDERPARTNERRESOURCES/EMSTRAUMASY</u> <u>STEMS/Documents/Training%20Material/Adrenal%20Crisis%20Training%20Protocol.p</u> df

U.S. National Library of Medicine, MedlinePlus Acute adrenal crisis, Retrieved August 29, 2017 from, <u>https://medlineplus.gov/ency/article/000357.htm</u>

*UMC Utrecht, Internal & External Communications Dept.* (2013).Emergency injection with corticosteroids Solu-Cortef. Retrieved January 19, 2018 from, <a href="http://www.addisoncrisis.info/emergency-injection/emergency-injection-cortico-steroids-solu-cortef-act-o-vial-two-chamber-ampul/">http://www.addisoncrisis.info/emergency-injection/emergency-injection-cortico-steroids-solu-cortef-act-o-vial-two-chamber-ampul/</a>