TYPE 1 DIABETES AT SCHOOL: OPTIMIZING STUDENT HEALTH & LEARNING
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DISCLOSURES
• I HAVE NO DISCLOSURES
• I DO NOT PLAN TO DISCUSS OFF LABEL DRUGS
• I HAVE NO COMMERCIAL INTERESTS

OBJECTIVES
• RECOGNIZE THE LAWS REGARDING ADA AND DIABETES CARE IN SCHOOLS
• RECOGNIZE THE BASIC COMPONENTS OF CARE OF STUDENTS WITH T1DM WHILE AT SCHOOL
• LEARN HOW TO DEVELOP AND USE A DIABETIC MANAGEMENT CARE PLAN
• TEACH STUDENTS SELF-CARE & HOW TO MANAGE THEIR DIABETES
• LEARN HOW TO COUNT CARBOHYDRATES AND USE THE RESOURCES OUT THERE
• RECOGNIZE NEW AND UPCOMING TECHNOLOGY WITH CGM AND INSULIN PUMPS
WHAT IS DIABETES?

Body does not make or properly use insulin:
- No insulin production
- Insufficient insulin production
- Resistance to insulin’s effects

TYPE 1 DIABETES

- Autoimmune disorder
- Insulin producing cells are destroyed by the body
- Daily insulin replacement is necessary
- Onset: Usually childhood, young adulthood
- Most prevalent type of diabetes in children and adolescents
DAILY GOAL AND CHALLENGES

DIABETES DOES NOT GO AWAY

• GOAL:
  1. TO MAINTAIN BLOOD GLUCOSE TARGET
  2. KEEP STUDENTS IN CLASS AS MUCH AS POSSIBLE

• DAILY CHALLENGES:
  • INSULIN ADMINISTRATION
  • EXERCISE MANAGEMENT
  • FOOD INTAKE

FEDERAL LAW REGARDING ADA & DIABETES CARE IN SCHOOLS.

• FEDERAL LAW GIVES STUDENTS THE RIGHT TO RECEIVE THE DIABETES CARE THEY NEED TO BE SAFE AND PARTICIPATE IN SCHOOL ACTIVITIES JUST LIKE ANY OTHER CHILD. SCHOOLS SHOULD PROVIDE THE FOLLOWING:
  • TRAINED STAFF TO MONITOR BLOOD SUGAR LEVELS AND ADMINISTER INSULIN AND GLUCAGON
  • TRAINED STAFF TO MONITOR DIABETES CARE DURING FIELD TRIPS, EXTRACURRICULAR EVENTS AND ALL SCHOOL-SPONSORED ACTIVITIES
  • ENABLE STUDENTS TO MANAGE THEIR DIABETES ANYTIME, ANYWHERE

• SCHOOLS SHOULD NOT:
  • ASK FAMILY MEMBERS TO Go TO SCHOOL TO CARE FOR A STUDENT’S DIABETES
  • TRANSFER STUDENTS TO A DIFFERENT SCHOOL TO GET NEEDED DIABETES CARE
  • PREVENT STUDENTS WITH DIABETES FROM PARTICIPATING IN FIELD TRIPS, SPORTS AND OTHER SCHOOL-SPONSORED ACTIVITIES

• READ CHILDREN’S RIGHTS UNDER SECTION 504, THE AMERICANS WITH DISABILITIES ACT, AND OTHER FEDERAL LAWS.

DELEGATION OF DIABETIC CARES TO UNLICENSED PERSONNEL.

• DOES IOWA ALLOW SCHOOL STAFF MEMBERS WHO ARE NOT HEALTH CARE PROFESSIONALS TO ADMINISTER INSULIN? GLUCAGON?
  • THE LAW IS UNCLEAR. THE LAW AND REGULATIONS DO NOT SPECIFICALLY ADDRESS THIS QUESTION AND THERE IS NO EXPLICIT AUTHORITY FOR THIS. HOWEVER, A 11/04/2013 LETTER FROM THE BOARD OF NURSING EXECUTIVE DIRECTOR STATES: “REGISTERED NURSES MAY DELEGATE THE ADMINISTRATION OF INSULIN AND GLUCAGON FOR STUDENTS WITH DIABETES TO TRAINED, NON-LICENSED SCHOOL PERSONNEL.”
  • REGARDLESS, FEDERAL LAWS MAY ALLOW UNLICENSED STAFF TO PROVIDE THIS CARE. THIS MAY BE NECESSARY SO THAT CHILDREN WITH DIABETES CAN ACCESS EDUCATION JUST LIKE ANY OTHER CHILD. IN CASE OF A CONFLICT BETWEEN FEDERAL AND STATE LAWS, FEDERAL LAWS PROTECT THE RIGHTS OF CHILDREN.
DEVELOPING & USING A DIABETIC MANAGEMENT PLAN

• Health care plans outline how each student’s diabetes will be managed.
• These plans help students, their families, school personnel, and the student’s personal diabetes health care team to know what is expected of each of them.
• Every student with T1DM should have a plan implemented at school.
• These expectations should be laid out in writing.

DEVELOPING & USING A DIABETIC MANAGEMENT PLAN

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ELEMENTS OF A DMMP

• Date of diagnosis
• Emergency contact information
• Student’s ability to perform self-management tasks at school
• List of diabetes equipment and supplies
• Specific medical orders for blood glucose monitoring, insulin, glucagon, and other medications to be given at school
• Meal and snack plan
• Exercise requirements
• Actions to be taken in response to hypoglycemia and hyperglycemia
HYPOGLYCEMIA EMERGENCIES & HOW TO CARE FOR THEM AT SCHOOL

• The student should never be left alone or sent anywhere alone or with another student when experiencing hypoglycemia.

• As soon as the student exhibits symptoms of low blood glucose, treat the situation as a hypoglycemic emergency as outlined in the student’s emergency care plan for hypoglycemia.

• Immediately contact the school nurse or trained diabetes personnel who will check the student’s blood glucose level and treat the student for hypoglycemia.

• If the school nurse or trained diabetes personnel are not available, or if the blood glucose level cannot be checked, school personnel should treat the student for hypoglycemia as outlined in the emergency care plan for hypoglycemia. Symptoms will progress if not treated immediately. When in doubt, always treat for hypoglycemia.

HYPERGLYCEMIA EMERGENCIES & HOW TO CARE FOR THEM AT SCHOOL

• Hyperglycemia does not usually result in a medical emergency.

• Hyperglycemia may be caused by too little insulin, a malfunction in the insulin pump or infusion set, food intake that has not been covered adequately by insulin or other blood glucose-lowering medications, or decreased physical activity.

• Other causes include illness, infection, injury, or severe physical or emotional stress.

• Onset of hyperglycemia may occur over several hours or days.

MDI/PUMP ALGORITHM
TEACHING STUDENTS SELF-CARE & MANAGEMENT OF THEIR DIABETES.

ROUTINE CARE:
• Many students will be able to handle all or almost all routine diabetes care by themselves.
• Some students, because of age, developmental level, or inexperience, will need help from school staff.

URGENT CARE:
• Any student with diabetes may need help with emergency medical care.

LAWS REGARDING STUDENT SELF MANAGEMENT
• Does Iowa allow students to self-manage diabetes at school? The law is unclear. Students with disabilities under the Individuals with Disabilities Education Act (IDEA) are specifically permitted to do so.
• Each agency shall establish medication administration policy and procedures, which include the following: … individuals who have demonstrated competency in administering their own medications may self-administer their medication. 281 IAC 41.404(3).
• Iowa, however, does not make clear whether general education students may test blood glucose, or perform other diabetes care, anytime, anywhere while at school. However, even if state law is not clear, federal laws may allow self-management. This may be necessary so that children with diabetes can access education just like any other child.

TEACHING STUDENTS SELF-CARE & MANAGEMENT OF THEIR DIABETES.
• Allow students to do their own care counting with staff verification.
• Allow students to enter information into their pumps with staff verification.
• Allow students to do their own shots or pump or CGM site.
• Allow students to choose their own treatments for hypoglycemia.
• Have students show you what they know about their disease.
• Remember this disease affects their every moment of their lives.
HOW TO COUNT CARBOHYDRATES AND WHERE TO FIND THE INFORMATION.

ADDITIONAL EDUCATIONAL RESOURCES

- DIABETES SUMMER CAMP – FOR STUDENTS AND NURSES TOO!
- THE AMERICAN DIABETES ASSOCIATION’S DIABETES CARE TASKS AT SCHOOL: WHAT KEY PERSONNEL NEED TO KNOW IS A 18-MODULE TRAINING CURRICULUM. EACH MODULE HAS A POWERPOINT PRESENTATION AND SOME A CORRESPONDING VIDEO SEGMENT.

AMERICAN DIABETES ASSOCIATION
1-800- DIABETES
WWW.DIABETES.ORG

NATIONAL DIABETES EDUCATION PROGRAM/NIH
WWW.NDEPNIH.GOV
NEW & UPCOMING TECHNOLOGY WITH CONTINUOUS GLUCOSE MONITORING & INSULIN PUMPS.

REFERENCES

• 281 IOWA ADMINISTRATIVE CODE, TITLE VII, CHAPTER 41, SECTION 41-406; SPECIAL EDUCATION, POLICIES AND PROCEDURES REQUIRED OF ALL PUBLIC AGENCIES
• 655 IOWA ADMINISTRATIVE CODE SECTION 6.1: NURSING PRACTICE FOR REGISTERED NURSES/LICENSED PRACTICAL NURSES
• AMERICAN ACADEMY OF PEDIATRICS, COUNCIL ON SCHOOL HEALTH. (2016). ROLE OF THE SCHOOL NURSE IN PROVIDING SCHOOL HEALTH SERVICES. PEDIATRICS, 137(6), 2016-0852. DOI:10.1542/PEDS.2016-0852
• BOARD OF NURSING LETTER REGARDING DELEGATION OF ADMINISTRATION OF INSULIN AND GLUCAGON FOR STUDENTS WITH DIABETES
• HTTPS://EDUCATEIOWA.GOV/SITES/FILES/ED/DOCUMENTS/1314_SN_GUIDEFORMGMNTOFCHRONIC.PDF
• HTTPS://WWW.DIABETES.ORG/RESOURCES/KNOW-YOUR-RIGHTS/SAFE-AT-SCHOOL-STATE-LAWS
• HTTPS://WWW.NASN.ORG/NASN/NASN-RESOURCES/PRACTICE-TOPICS/DIABETES