



Diabetic Menu Plan - Juvenile Diabetes

Day 1

Breakfast
1/2 glass of skimmed milk

Addressing the Emergency Preparedness Needs of Students With Diabetes

Sarah Butler, MS, RN, CDE, NCSN

Leah Wyckoff, BSN, RN, MS

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School districts have the responsibility to their respective school communities to be prepared in the event of a disaster. As advocates for school safety, school nurses must establish their vital role before, during, and after an emergency, addressing the needs of all members of the school community, including children with special health care needs such as diabetes (NASN, 2011).

In an emergency or disaster, planned action is required to protect lives from the effects of the unexpected event (Doyle, 2011). Most disasters occur with little warning, and the degree of disaster preparation directly affects the outcome of the disaster. There are two basic categories of disasters: natural (e.g., earthquakes, hurricanes, tornadoes, winter storms) and manmade disasters (e.g., hazardous materials spills, school violence, transportation crashes, terrorism) (Doyle, 2011). A disaster that strikes the school, by definition, will overwhelm the normal emergency response resources or prohibit responders from timely arrival, yet within a few minutes of a disaster

a student with diabetes may require juice, glucose tabs, or even a glucagon injection to treat hypoglycemia. Is your school prepared?

Before a disaster occurs, the school nurse needs to be involved in the development of the school's basic disaster plan. For example, school nurses can serve on community-wide planning groups that assess the school's ability to manage a disaster, determine disaster plans, and participate in reviews and drills of these plans. The school nurse is instrumental in identifying the unique disaster preparedness needs for children and school staff with diabetes.

Included in a school's broader disaster plan are specific Individualized Healthcare Plans (IHPs) for students with unique health care needs. Children with diabetes require additional disaster-preparedness planning for medication, food, and water availability during a prolonged lockdown or shelter-in-place (AAP, 2008). The school nurse develops the student's IHP to include a disaster plan. The student's Diabetes Medical Management Plan (DMMP) is the foundation for the IHP. A sample DMMP with a Disaster Plan section can be found in the National Diabetes Education Program's (NDEP, 2010) *Helping the Student With Diabetes Succeed—A*

Guide for School Personnel and includes an option for additional insulin orders.

Annually, when the student's IHP is developed and/or updated, the school nurse may consider distributing a letter to the student's family and health care provider explaining the need for disaster preparedness. A student's disaster plan would include those medications, food, and supplies needed to accommodate a student's health care needs for 72 hours. Interventions and expected outcomes related to nutrition, activity, medications, and monitoring must be clearly outlined in the disaster plan. Location and storage of supplies and equipment would follow school policy related to overall disaster planning.

The NDEP (2010) *Helping the Student With Diabetes Succeed—A Guide for School Personnel* includes a suggested Disaster or Emergency Supply Kit that a parent or guardian must provide for use in the event of natural disasters or emergencies when students need to stay at school (see Table 1). The recommended kit should contain enough supplies to carry out the medical orders in the DMMP for at least 72 hours.

During the disaster, the school nurse facilitates meeting the health needs of the school community. For the student

Table 1. Disaster or Emergency Supply Kit

- Blood glucose meter, testing strips, lancets, and batteries for the meter
- Urine and/or blood ketone test strips and meter
- Insulin, syringes, and/or insulin pens and supplies
- Insulin pump and supplies, including syringes, pens, and insulin in case of pump failure
- Other medications
- Antiseptic wipes or wet wipes
- Quick-acting source of glucose
- Water
- Carbohydrate-containing snacks with protein
- Hypoglycemia treatment supplies (enough for three episodes): quick-acting glucose and carbohydrate snacks with protein
- Glucagon emergency kit

with diabetes, this may include providing direct care or providing oversight to unlicensed personnel previously trained to provide care, according to the student's individual disaster plan.

Similarly, school lockdowns and evacuations present challenges for managing the student with diabetes (AAP, 2008). In consideration of school tragedies such as that in Columbine High School in 1999 and other school shootings, there is often a heightened response and security precautions taken by schools to protect their students. In the case of imminent danger, during a lockdown or evacuation the student may have to go into the nearest available room rather than their own classroom or be evacuated out of the building without first having access to their diabetes supplies. In either case, they may not be able to travel to the health room, lockers, or homeroom to get their diabetes supplies. These quick responses require thoughtful planning for students with diabetes. To prepare for hypoglycemia and dehydration emergencies, all rooms in the school should have a small supply of bottled water and fast-acting glucose such as glucose tablets, which are relatively inexpensive and have a long shelf life. Middle and high school students should be taught and encouraged to carry a small amount of emergency treatment supplies (e.g., juice, soda, glucose tablets, snacks, cake gel) and essential supplies with them at all times.

Generally, lockdowns are short-term situations (less than eight hours). In order to be prepared for these short-term emergencies, planning is focused on

immediate health concerns. For the student with diabetes, three of the American Diabetes Association (n.d.) recommendations for emergency situations are most appropriate. These recommendations include identifying the student with diabetes, hypoglycemia, and dehydration. To prepare for these concerns in a lockdown or evacuation, identification of students with diabetes can be facilitated by teaching the student to immediately notify the school staff member who is in charge of his or her health condition. For young children, pictures of students with diabetes attached to the Emergency Care Plan for hypoglycemia and hyperglycemia may be appropriate. For evacuations, the student's individual emergency kits described above should be retrieved and leave the building with the responsible staff person.

After the disaster, the school nurse can provide a unique perspective and support for teams working with students, parents, and school personnel who are trying to deal with reactions to the disaster. The school nurse's knowledge about available community resources can be a crucial link for positive resolution to stress reactions after a disaster and in ensuring that health services resume for those with unique health care needs. The school nurse can provide input in the evaluation and revision of the school's broader disaster plan as well as the individual disaster plans for students with diabetes. The Centers for Disease Control and Prevention (2011) has additional resources on their webpage "Diabetes Care During Natural Disasters, Emergencies and Disasters." ■

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Sarah Butler
MS, RN, CDE, NCSN
Director of Diabetes and Nursing
Education
Silver Spring, MD

Sarah Butler represents NASN on the NDEP Strategic Directions Group and was a member of the writing team for the NDEP school guide, 2010 edition. She develops education programs for school nurses at NASN.

Leah Wyckoff, BSN, RN, MS
School Nurse Consultant
Parker, CO

Leah Wyckoff is a member of the NASN Board of Directors from Colorado. She is an instructor for NASN's H.A.N.D.S. (Helping Administer to the Needs of the Student With Diabetes at School) program.