

# ***Diabetes Management in the School Setting***



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## ***Position Statement***

### **SUMMARY**

It is the position of the National Association of School Nurses that the registered professional school nurse (hereinafter referred to as school nurse) is the only school staff member who has the skills, knowledge base, and statutory authority to fully meet the healthcare needs of students with diabetes in the school setting. Diabetes management in children and adolescents requires complex daily management skills (American Association of Diabetes Educators [AADE], 2008) and health services must be provided to students with diabetes to ensure their safety in the school setting and to meet requirements of federal laws.

### **HISTORY**

For children and youth younger than 20 years, diabetes is on the rise with an estimated 215,000 children and adolescents with type 1 or type 2, or approximately 0.26% of this age group. Annually, from 2002 to 2005 -- 15,600 youth were newly diagnosed with type 1 diabetes and 3,600 youth were newly diagnosed with type 2 diabetes (Centers for Disease Control and Prevention [CDC], 2011).

Advancing diabetes technology and management have changed the way students manage their diabetes at school. Children are monitoring their blood glucose levels several times a day, calculating carbohydrate content of meals, and dosing insulin via syringe, pen and pump to achieve a blood glucose within a target range (Bobo, Kaup, McCarty & Carlson, 2011). These intensive resources and consistent evidenced-based efforts will achieve the long-term health benefits of optimal diabetes control according to the landmark study from the Diabetes Control and Complications Trial Research Group (DCCT, 1996).

### **DESCRIPTION OF THE ISSUE**

Each student with diabetes is unique in his or her disease process, developmental and intellectual abilities and levels of assistance required for disease management. The goals of the Diabetes Medical Management Plan (DMMP) and Individual Health Plan (IHP) are to promote normal or near normal blood glucose with minimal episodes of hypoglycemia or hyperglycemia, normal growth and development, positive mental health, and academic success (Kaufman, 2009).

The school nurse develops the IHP from the DMMP (medical orders) by collaborating with the child's family, obtaining additional assessment findings, and outlining the diabetes management strategies and personnel needed to meet the student's health goals in school (NDEP, 2010). The IHP identifies the student's daily needs and management strategies for that student while in the school setting. The school nurse also coordinates the development and staff education of the Emergency Care Plan (ECP) which directs the actions to be taken by school personnel for symptoms of hypoglycemia and hyperglycemia.

Throughout childhood and adolescence, the student with diabetes is continuously moving through transitions toward more independence and self-management (Silverstein et al., 2005). They will require various levels of supervision or assistance to perform diabetes care tasks in school. Students who lack diabetes management experience or cognitive and developmental skills must have assistance with their diabetes management during the school day as determined by the nursing assessment and as outlined in the IHP.

Hypoglycemia (low blood glucose) is the greatest immediate danger to the student with diabetes. During hypoglycemic incidents, the student may not be able to self-manage due to impaired cognitive and motor function. A student experiencing hypoglycemia should never be left alone or sent anywhere alone. Communication systems and trained school staff should be in place to assist the student. Treatment for hypoglycemia should be readily available in the classroom and administered immediately (American Diabetes Association [ADA], 2011).

Hyperglycemia (high blood glucose) can develop over several hours or days, and untreated can lead to the life-threatening condition, diabetic ketoacidosis (DKA). For students using insulin infusion pumps, lack of insulin may rapidly lead to DKA (ADA, 2011). The school nurse may utilize one or more of the model National Diabetes Education Program's (NDEP) three levels of staff training, to facilitate prompt, safe and appropriate care for students with diabetes (NDEP, 2010).

Students with disabilities, which include students with diabetes, must be given an equal opportunity to participate in academic, nonacademic, and extracurricular activities. Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 prohibit recipients of federal financial assistance from discriminating against people on the basis of disability (NDEP, 2010). These laws are enforced for schools, by the Office for Civil Rights (OCR) in the U.S. Department of Education. Schools are required to identify all students with disabilities and to provide them with a free appropriate public education (FAPE) (NDEP, 2010).

Changes in science and technology related to diabetes management require the school nurse to maintain current knowledge and skills to fully implement a student's DMMP in the school setting (NDEP, 2010; ADA, 2011).

## **RATIONALE**

Managing diabetes at school is most effective when there is a partnership among students, parents, school nurse, health care providers, teachers, counselors, coaches, transportation, food service employees, and administrators. The school nurse provides the health expertise and coordination needed to ensure cooperation from all partners in assisting the student toward self-management of diabetes.

A school nurse is required to develop an IHP for each student with diabetes and to provide continued oversight for the implementation and evaluation of the effectiveness of the plan in the school setting (American Nurses Association /National Association of School Nurses [ANA/NASN], 2011). Individualized healthcare planning is a function of the nursing process and cannot be delegated to unlicensed individuals (American Nurses Association / National Council of State Boards of Nursing Association of School Nurses [ANA/NCSBN ], 2006). State laws and nurse practice acts determine the extent to which school nurses can delegate nursing tasks to other school personnel in the absence of the nurse (ANA/ NASN, 2011).

Research suggests that school nurse supervision of students' blood glucose monitoring and insulin dose adjustment significantly improves blood glucose control in children with poorly controlled type 1 diabetes (Nguyen et al., 2008). Poorly controlled diabetes and fluctuating blood glucose levels not only affect academic performance but can lead to long-term complications such as retinopathy, cardiovascular disease, and nephropathy. Maintaining blood glucose levels within a target range can prevent, reduce, and reverse long-term complications of diabetes (DDCT, 1996).

The school nurse's role is critical in the case management and coordination of care for recognition and treatment of the student experiencing hypoglycemia in school (Butler, 2007). The school nurse fosters independent decision making, promotes healthy life-style choices and diabetes self-care ensuring a smooth transition between high school and adult diabetes medical care (Bobo & Butler, 2010). Every student with diabetes is entitled to a school nurse with the knowledge and capacity to effectively provide care and communicate with school staff, healthcare providers and families (Bobo et al., 2011).

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This document combines and replaces the following Position Statements:

Blood Sugar Monitoring in the School Setting (Adopted: June 2001)

School Nurse Role in Care and Management of the Child with Diabetes (Adopted: November 2001; Revised: June 2006)