WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION

School Nurse Update

#2 9/11/18

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Welcome to the2018/19 school year!

Greetings to all new and returning school nurses, school nurse administrators, and all of you interested in student health and school nursing issues. These Updates are designed as a helpful resource by sharing current school health related information and Department of Public Instruction news. Past issues can be viewed on the DPI School Nurse Communications webpage

Congratulations to those school districts awarded School-Based Mental Health Services grants this summer! Throughout the school year, I will be emphasizing the role and variety of nursing skills school nurses possess to provide care for students with mental illness and risk-taking behaviors. See DPI News section for **AODA mini-grant information.**

Please see PRACTICE POINTS for ideas and further information on how to address the continued **shortage of emergency epinephrine auto-injectors.**

This summer, 48 school nurses gathered in Madison for the DPI School Nurse Summer Institute on Human Trafficking. **Registration is now open for the 2018 DPI New School Nurse Orientation**. See Save the Date. This training is for those registered nurses who are new to the specialty of school nursing or are working in a Wisconsin school district for the first time. It is appropriate for school nurses who have worked in a school-setting zero to three years. Topics covered in this two-day workshop include: laws that affect school health; delegation in the school setting; information on IEP's, 504's, health care plans, and emergency action plans; school health records; resources for families of children and youth with special health care needs; and other issues unique to school nursing.

As the school year is under way, **school nurses are encouraged to collect and report data**. See information **regarding data points in Update #1**. **Note changes to YRBS data collection for 2018/19 school year** in this Update.

Best wishes for a safe and successful school year!

IN THIS ISSUE

SAVE THE DATE

DPI New School Nurse Orientation- October 18-19, 2018 – Wausau WI Registration now open!

Wisconsin Association of School Nurses Annual Conference – April 8-10, 2019 Wisconsin Dells

Another Opportunity for Professional Development on Human Trafficking

The Wisconsin Association for Perinatal Care (WAPC) would like to invite you to attend our Regional Forum Series on:

Human Trafficking: Identification, Tools, and Resources.

We hope you will join us at one of our seven sessions held in locations throughout Wisconsin this fall. Please click on the title above to find the date and time of the session nearest you. Participants will learn more about:

- Red flags and risk factors for human trafficking (both sex and labor)
- Barriers faced when attempting to seek care or help
- Ways that you can support victims of trafficking

Though aimed at perinatal care providers, this session will be of interest and value to anyone wanting to learn more about and take action against human trafficking locally and statewide. Our goal is to bring a variety of professionals and community members together to address this complex issue. Registration form link.

DPI News

AODA Student Mini-Grant materials are now online!

Comprehensive school health programs require youth involvement to create environments conducive to healthy, resilient, and successful learners. As part of the Department of Public Instruction's efforts to encourage youth initiatives, we are offering the Student AODA Mini-Grant Program for the 30th year, the 2018-19 school year. Funds will be available on a competitive basis for schools throughout the state to support education, prevention, and intervention programs designed by the students, targeting alcohol and other drug abuse (AODA) and other youth risk behaviors such as tobacco, traffic safety, violence, suicide, etc. In addition, a major funding priority of the mini-grant program is the involvement of youth in the planning and implementation of the project. Consideration will be given based on the educational value of the project and statewide geographic distribution of funds. The amount of each individual mini-grant award may not exceed $1,000.

To view materials and for more information go to: https://dpi.wi.gov/sspw/aoda/mini-grant

PI 34 Update

The rewrite of Wisconsin Administrative Code PI 34 has been approved went into effect August 1, 2018. You can find a link to the updated rule here: https://dpi.wi.gov/tepdl/programs/wisconsin-quality-educator-initiative

DPI Announces Changes to YRBS 2018/19 School Year

For 2018-2019, the DPI will be implementing some important changes to improve schools' ability to collect their own Youth Risk Behavior Survey data. See attached flyer.

Just 10,000 Cookies to Go to Filling Virtual Cookie Jar!

Take an active role in raising awareness for Central Precocious Puberty (CPP) while increasing your knowledge at the same time! Each time you click to read information on this site, watch a video, use an interactive tool, or share information through email or social media, a virtual cookie is added to our cookie jar. Through your actions to learn more about CPP, along with others', our goal is to fill the cookie jar with 20,000 virtual cookies.

Flood Water Exposure and Implications for Vaccination

Please see the DHS memo titled "Flood Water Exposure and Implications for Vaccinations." Keep in mind that exposure to flood water alone is not a reason to give tetanus-containing vaccine or any other vaccine. (Flyer attached to Update.)

CDC Releases Guidelines on Youth concussions

The CDC has issued 19 recommendations for the diagnosis and treatment of pediatric patients with mild traumatic brain injuries, or concussions. The guidelines, published in JAMA Pediatrics, are the first evidence-based recommendations to focus on youth concussions, and they include guidance on when and how children should return to athletic activities following an injury. Medscape (free registration)

News from NASN…

As we open the doors to another wonderful school year, we are reminded that the back to school season can be an overwhelming time for students with Type 1 Diabetes (T1D), and their parents/guardians. As school nurses, we know that with special planning and communication with school administrators and teachers about T1D, students can better manage their T1D while at school.

NASN offers numerous resources for supporting children managing T1D that include books, guides, and position documents. In addition, JDRF has resources to get you up to speed, such as a JDRF School Advisory Toolkit, the school and parent's/guardian's role in the 504 process, and steps to implementing a school plan.

September is Attendance Awareness Month!

A new report, Data Matters Using Chronic Absence to Accelerate Action for Student Success, released by Attendance Works and the Everyone Graduates Center, provides a national and state analysis of how many schools face high levels of chronic absenteeism.

Based on data released by the U.S. Department of Education's Office for Civil Rights, the analysis compares differences in school chronic absence levels from the 2013-14 and 2015-16 school years, while showing the connection between chronic absenteeism levels and demographics.

The report shares tools for unpacking the causes of chronic absence and provides recommendations for action. State data reports and an interactive map from The Hamilton Project at the Brookings Institution allow anyone to explore the scale of the chronic absence at multiple levels: school, district, state, and country.

You can find additional resources to help keep your students in school every day at Attendance Works.

FDA Approval of Cannabis-Based Product to Treat Epilepsy

On June 25, 2018, the U.S. Food & Drug Administration (FDA) approved EPIDIOLEX® (cannabidiol, CBD) oral solution for the treatment of seizures associated with two epilepsy syndromes - Lennox-Gastaut syndrome and Dravet syndrome - in people two years of age or older. Epidiolex represents a new medication option for children with these types of epilepsy. It is also the first ever FDA approved medication to treat seizures in Dravet syndrome.

Read more on Medical Marijuana and Epilepsy on Epilepsy Foundation website.

Lilly Diabetes Solution Center to Help Make Insulin More Affordable

The Lilly Diabetes Solution Center, a new patient-focused helpline with representatives who will identify personalized solutions to address insulin affordability, is now available to residents in the U.S. and all U.S. territories. This suite of solutions will provide many options – some being offered for the first time – that can significantly lower and cap high monthly out-of-pocket costs for some people who use Lilly insulins such as Humalog (insulin lispro) and Humulin (insulin human injection). Dedicated representatives will review the personal circumstances and identify options for people who pay near the full list price, such as the uninsured and people in the deductible phase of their high-deductible insurance plans, as well as potential solutions for people with lower incomes.

https://www.chaindrugreview.com/lilly-diabetes-solution-center-to-help-make-insulin-more-affordable/

FDA Includes Insulin Pens on Watch List

A total of 13 insulin pen products made it to the FDA's watch list because of incorrect use and patients' failure to remove the inner needle cover. Reports of serious skin reactions promoted the FDA to also include five forms of type 2 diabetes treatment metformin in the list. Learn more.

Voluntary Recall of Children's Advil

Pfizer Consumer Healthcare, a division of Pfizer Inc., is voluntarily recalling one lot of Children's Advil® Suspension Bubble Gum Flavored 4 FL OZ Bottle because of customer complaints that the dosage cup provided is marked in teaspoons and the instructions on the label are described in milliliters (mL)

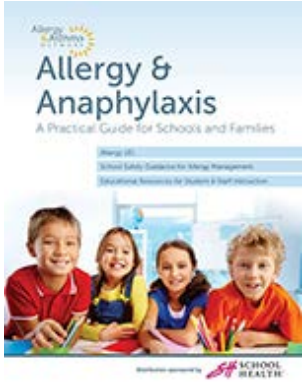
If a parent or caregiver just looks at the numbers, an overdosage could occur.....1 teaspoon is equal to approximately 5 milliliters! If a parent or anyone checks the instruction label and is to give 2 mls, but sees the 2 on the cup and gives 2 tsps... a serious overdose especially if they continue to give every 6 hours or more! Let parents and other caregivers you know about the recall. Read more...

Children's Hospital of Wisconsin Updated School Diabetes Management Protocols

CHW has revised its School Diabetes Management Protocols. These protocols are used in conjunction with the medical management orders specific for each student. CHW is also sharing a new reference on developmental mastery of diabetes skills by age from Children's of Alabama. The protocols and reference are attached to end of Update. The protocols can also be accessed on the CHW website: http://www.chw.org/medical-care/diabetes-program/resources-for-schools/

Food Allergy Drills for School Staff

We perform fire drills and practice lockdowns, but does your staff know what to do in the event of an allergy emergency? Allergy & Asthma Network has developed "Table Top Drills" for the school nurse to use with their school personnel. Look for the instructions and drills in *Allergy and Anaphylaxis: A Practical Guide for Schools and Families* (pages B13 - B16a) free download at the link provided.



PRACTICE POINTS

Last spring, I alerted school nurses to make plans to address the emergency epinephrine (auto injector) shortage (DPI Update #19). The shortage continues and has made it very difficult to impossible for families to renew prescriptions for certain emergency epinephrine auto-injectors. The Federal Drug Administration took action on August 21, 2018, to mitigate shortages of EpiPen auto-injectors by extending the expiration date for specific lots of 0.3-milligram products marketed by Mylan by four months beyond the labeled expiration date. FDA four-month extension of the expiration date for designated lots of 0.3 mg dose of Epipens. Note that this FDA action does not apply to Epipen Jr. (0.15mg dose).

Since this recommendation is based upon stability data provided by Mylan and reviewed by the FDA, I am suggesting school nurses in Wisconsin may consider extending the use of either stocked or parent supplied (adult) EpiPens from the designated lots. This determination should be made in consultation with your district administration, legal counsel, and medical advisor. The Department of Health Services pharmacy division will not be issuing any guidance or recommendations. The Pharmacy Society of Wisconsin (PSW) also has given no official guidance. PSW encourages its members to work with drug companies, local schools, and families/clients to provide doses of emergency epinephrine.

Here is the link to the EpiPens lot numbers eligible for the extended expiration date. Mylan has advised that there will be a 6-8 week delivery delay for schools participating in Epipen4Schools.

Other back to school suggestions during this period of "shortages" include:

- Review and update as needed, plans of care for students at risk of anaphylaxis
- Educate parents of alternative epinephrine auto-injector devices that are not experiencing a shortage (Auvi-Q)
- Update annual staff anaphylaxis training
    - Advise about shortage
    - Early recognition
    - Prevention
        - Eliminate use of food for reward and instruction
        - Cafeteria procedure review
        - Education for general parent population
- Review NASN food allergy & anaphylaxis resources

I have discussed the use of giving epinephrine from a vial or ampule and using a syringe with the PSW. It would not be best practice for schools to use this method. In emergency situations, even school nurses may find it difficult to calculate and draw up the correct dosage. With a glass ampule, a filtered needle/syringe is required. Epinephrine in vials or ampules should not be drawn up to "pre-fill" syringes. Epinephrine should be given immediately once drawn up, as it loses its potency the longer it sits in the syringe. A pharmacist cannot dispense vial epinephrine as an alternative to an EpiPen at their discretion. A specific order is required from the licensed prescriber. Additionally, the references in Wis. Stat. sec. 118.29 and 118.2925 are to epinephrine auto-injectors, not vial and syringe.

For some school districts and students, using an Auvi-Q epinephrine auto injector may be an option. Auvi-Q is a compact device is known for its voice-guided instructions that help those using the device through the process of injection. Manufacturer Kaléo has an affordability program that allows consumers with insurance to pay zero out-of-pocket costs, even if the device is not included under an insurer's plan. Kaléo also has a free to (elementary) schools program.
To participate in the program you need to fill out a contact sheet at Contact kaléo.

School Nurse Webpage: https://dpi.wi.gov/sspw/pupil-services/school-nurse

To join the School Nurse Email List and receive school nursing updates click here

DPI New School Nurse Orientation

October 18-19, 2018
The Plaza Hotel and Suites
Wausau, WI

Purpose

This training is for those registered nurses who are new to the specialty of school nursing or, are working in a Wisconsin school district for the first time.

Who Should Attend

It appropriate for school and registered nurses who have worked in a school-setting zero to three years.

Featured Topics

WI School Health laws

Delegation in schools

IEPs, 504 Plans

Health Records

Writing Health Plans

Registration now open:
2018 New School Nurse Orientation
Cost $150.00
Hotel accommodation information is located under REGISTRATION link. Cancelation required by 10/12/18 to obtain a refund.

WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION

DPI Announces Changes to YRBS 2018/19 School Year

The 2017 Youth Risk Behavior Results (YRBS) are in, and reports can be found on the YRBS website. Thanks to all the schools who helped us collect statewide statistics on how our high school students are doing. Statewide statistics are available thanks to the participation of approximately 50 high schools sampled into the statewide YRBS every two years.

In addition, approximately 500 middle and/or high schools use the Department of Public Instruction's online YRBS system to collect their own version of the survey.

For 2018-2019, the DPI will be implementing some **important changes** to improve schools' ability to collect their own Youth Risk Behavior Survey data. Upcoming changes include:

- a new, easier-to-access software system (Qualtrics)
- reduced loss of instructional time through simultaneous collection of both school and state of Wisconsin data (for the approximately 50 schools in the CDC/DPI State of Wisconsin YRBS sample)
- streamlined and improved data collection by standardizing both the survey window and the questionnaire
- enhanced ability to produce county and CESA-level reports
- increased data visualizations and report flexibility options
- enhanced reporting thresholds for even more robust student privacy protections

These changes should make the process simpler, easier to coordinate and schedule, and produce more usable results.

While greater standardization should enhance the process, DPI is also allowing some **flexibility i**n the following ways:

- Questionnaires: While all schools will take the same core YRBS questions, schools can elect to add one of a few available optional modules. The optional modules include grant-specific options such as Drug Free Communities as well as high-interest topic areas such as mental health and adversity.
- Fall survey option: While all schools are encouraged to take the survey in the spring, this year only DPI will allow schools to take one last fall survey. Some restrictions apply. Interested schools should check the YRBS website in September.

Important Dates:

- **August-September:** DPI is contacting the approximately 50 high schools sampled by CDC to represent Wisconsin's official data collection. CDC is also reviewing the 2019 high school questionnaire with DPI. As in the past, CDC must approve the final version.
- **September 17-Nov. 30*:** Registration for the YRBS will be open. Registration information will be posted to DPI's YRBS webpage. During registration, schools will schedule their survey.
    - **Note: Registration for the final fall survey closes on Oct. 5*

- **January 7- March 29, 2019:** YRBS survey administration window. Schools will have selected their survey date during registration. There will be an option for one final fall YRBS for schools that are not part of the state sample.
    - *The final fall survey will be open from Oct. 15-Nov. 20.* Due to time constraints, note that data collected in the fall may not be made available to schools until the spring.
- **Spring**: Schools will receive a report of their results. Exact dates TBD.

Other Important Information
Schools who have used the outgoing **OYRBS** system in previous years should **no longer use it** for new surveys, although they may still use it to access existing reports. A plan for sunsetting that system is being developed and will be communicated to districts with a significant amount of time for schools to retrieve any pre-2018-19 data or reports they may need.

If enough schools in a county or CESA participate, county health departments and/or CESAs will also have **aggregate *(not school-identified)* YRBS results for their region**, which districts and schools can use to compare with their own results. While this process can happen even without direct coordination, schools are encouraged to partner with their county health departments, CESAs or local health coalitions during the survey registration process. In many cases, such partners can help schools in the data collection and analysis process.

More information will be posted to the YRBS website and updated as needed.

STATE OF WISCONSIN
Department of Health Services
Division of Public Health

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TTY: 888-701-1253

Date: August 30, 2018 DPH Numbered Memo BCD- 2018-12

To: Health Care Providers, Local Public Health, Tribal Clinics

From: Stephanie Schauer, Ph.D.
Immunization Program Manager

Flood Water Exposure and Implications for Vaccination

PLEASE DISTRIBUTE WIDELY

According to the Centers for Disease Control and Prevention (CDC), outbreaks of infectious diseases after a flood in the U.S. are unusual and mass vaccination campaigns are not routinely recommended. Exposure to flood water alone is **not** a reason to give tetanus-containing vaccine or any other vaccine.

Tetanus Vaccine

Risk of tetanus after exposure to flood water

Exposure to flood water alone is **not** a reason to give tetanus-containing vaccine. Rather, the need for tetanus vaccination after exposure to flood water depends on the presence of a wound, the condition of the wound, and the likelihood that the injured person is susceptible to tetanus.

- Persons with severe wounds should be evaluated by a medical provider. Those who sustain puncture wounds or wounds that may be contaminated with soil or fecal material should receive tetanus-containing vaccine if more than five years have elapsed since their last tetanus booster. Persons who have not completed a primary tetanus series (a minimum of three doses of tetanus- and diphtheria-containing vaccine) must be vaccinated and given tetanus immune globulin (TIG) as soon as possible.
- Persons who sustain clean, minor wounds should receive tetanus-containing vaccine if they have not completed a primary tetanus series or if more than 10 years have elapsed since their last tetanus booster.
- All persons should receive a tetanus booster every 10 years.

The recommendations for use of tetanus-containing vaccine that apply during a flood are the same as those that apply at any other time. Tdap is preferred to Td for adults who are not up to date and have never received Tdap. Td should be used among adults previously vaccinated with Tdap and are not up to date. Tdap may be used if Td is not immediately available though it is best practice to administer Td if Tdap has been received previously.

Risk of tetanus to emergency responders, cleanup workers, and volunteers

During evacuation and flood cleanup emergency responders, cleanup workers, or volunteers may be at increased risk for wounds such as punctures to the skin or nail sticks, cuts, bruises, lacerations, or scrapes that can become contaminated with flood waters, human or animal wastes, soil, dirt, or saliva. For this reason, such workers should be sure that they are up to date with tetanus vaccination, ideally before starting evacuation or cleanup activities.

Hepatitis A Vaccine
Exposure to flood water alone is **not** a reason to give Hepatitis A vaccine. No transmission of hepatitis A virus from contaminated water has been identified in the U.S. since the 1980s. Hepatitis A vaccine is not routinely recommended for sanitation workers.

Hepatitis B Vaccine
There is no specific reason to give hepatitis B vaccine to the general public during floods. Hepatitis B vaccine is recommended for persons who will be providing direct patient care or who are otherwise expected to have routine exposure to blood or blood-contaminated body fluids in the course of their work activities.

Children's Hospital of Wisconsin

Children's Hospital of Wisconsin

Diabetes Medical Management Protocols for Schools

School will be Responsible to Obtain Parent Contact Information

Health Care Provider Contact Information:

Children's Hospital of Wisconsin Diabetes Clinic – Main Campus

Non-urgent contact phone number:	414-266-3380
Urgent management issues:	414-266-2860 and the Nurse/Doctor on call will be paged.
Fax Number:	414-266-3964
Website:	www.chw.org, navigate to the Diabetes Specialty Page
Email:	diabetesclinic@chw.org

Children's Hospital of Wisconsin Diabetes Clinic – Fox Valley/De Pere

Non-urgent contact phone number:	920-969-7970
Urgent management issues:	414-266-2860 and the Nurse/Doctor on call will be paged.
Fax Number:	414-337-7203
Website:	www.chw.org, navigate to the Diabetes Specialty Page
Email:	FVdiabetesclinic@chw.org

CHW Health Care Providers:

Our care team is comprised of Pediatric Endocrinologists, Nurse Practitioners, Diabetes Educators, Dietitians, Social Worker, and Psychologists. Contact the parents or the diabetes clinic to identify the direct care providers for this particular student.

Notify parents/guardians or additional contact in the following situations:

1. Loss of consciousness, seizure, or if glucagon is given
2. If blood sugars remain 350 mg/dL or higher for 4 hours or longer
3. Moderate to large ketones
4. Nausea/vomiting, altered breathing or altered level of consciousness
5. Correction dose of insulin is given other than a meal or snack time
6. If the student is unconscious, having difficulty breathing and/or lethargy call the Diabetes Clinic Emergency phone line 414-266-2860 or call 911 for Emergency Assistance.
7. All students need an emergency plan completed by the School Nurse accessible to all staff.

8. Any other situations identified in the student specific medical orders

Treating Low Blood Sugar/Hypoglycemia

Symptoms of Hypoglycemia

Mild to…	Moderate to…	Severe Symptoms
Hungry	Mood/behavior change	Confused/unable to follow commands
Shaky/weak/clammy	Inattentive/spacey	Unable to swallow
Blurred vision/glassy eyes	Slurred speech	Unable to awaken (Unconscious)
Dizzy/headache	Anxious/irritable	Seizure
Sweaty/flushed/hot	Numbness or tingling around lips	Convulsion
Tired/drowsy	Poor coordination	
Fast heartbeat	Unable to concentrate	
Pale skin	Personality change	
May have no symptoms		

Treatment of Low Blood Sugar – Basic Protocol

Treat blood sugar if under 70 mg/dL unless otherwise notified on student's medical orders. This can be individualized per student and health care provider to provide safe care in the school based on sensitivity and age of the student. Please follow the student specific medical order or our standard protocol below.

May treat with one of the following:

Give 10 to 15 grams of fast acting carbohydrate:

3-4 oz of juice or sugar soda	3 -4 glucose tablets
2 to 3 oz of milk	Skittles
Smarties	

- Recheck blood sugar in 15 minutes
- If blood sugar is still under 80 mg/dL, give another 15 grams of fast acting carbohydrate.
- Students using a Continuous glucose monitor must always use a finger stick on a blood sugar meter to confirm a low blood sugar prior to treatment.

Treatment of a Severe Low Blood Sugar with Glucagon:

- Administer Glucagon if student is: confused/unable to follow commands, unable to swallow, unable to awaken (unconscious), or having a seizure or convulsion.
- Glucagon dose:
  - 0.5 mg for children under the age of 5 years
  - 1.0 mg for children over the age of 5 years
- Preferred Injection sites can include the thigh or the arm. After administering the glucagon call 911 and keep the student on the side as glucagon may cause vomiting.
- If student uses an insulin pump and exhibits symptoms of severe low blood sugar, in addition to giving glucagon either suspend the insulin pump or disconnect the tubing.

Treating High Blood Sugar/Hyperglycemia

Symptoms of Hyperglycemia

Mild to…	Moderate to…	Severe Symptoms
Frequent urination/bedwetting	Mild symptoms, and	Mild and Moderate symptoms, and
Extreme Thirst/ dry mouth	Nausea/vomiting	Labored breathing
Sweet, fruity breath	Stomach pain/cramps	Weakness
Tiredness/fatigue	Dry/itchy skin	Confusion
Increased hunger	Unusual weight loss	Unconsciousness
Blurred Vision	Small, Moderate or Large urine ketones	Large urine ketones
Flushed Skin		
Lack of concentration		
Negative to Small Urine ketones		

Treatment of High Blood Sugar:

- Per the medical orders, provide correction dose/supplemental dose of insulin when applicable. See Insulin and insulin pump orders.
- If using an insulin pump check the pump set site, connection and the insulin reservoir
- With an insulin pump: if the blood sugar remains out of range at the next check, then the correction insulin dose must be given with syringe or pen.
- If blood sugar is high as defined by the medical order and if the student is sick, check urine ketones if applicable to this student

- If blood sugar is high without urine ketones, then recheck in 2 hours unless otherwise specified in the Medical order.
- If blood sugar is high with urine ketones, follow the directions below.

Trace/small urine ketones	**Moderate to large urine ketones**
Allow free bathroom access	Follow all items for trace, small ketones, and
Encourage water and/or other sugar-free fluids	Call parents/guardians
Re-check blood sugar in 2 hours	Arrange for student to be taken home if student is ill and unable to function in the school environment. May need to consult with parent or health care provider.
Follow all additional medical orders for this specific student for treatment of high blood sugars.	Follow all additional medical orders for this specific student for treatment of high blood sugars.

Sick Day

If a Student comes to school sick or becomes sick at school do the following:

• Check blood sugar level	• Offer sugar-free fluids	• Arrange for student to be excused from school
• Check urine ketones	• Call parents & guardians	

Blood Sugar Monitoring

The parent and student need to show you the blood sugar meter and how it functions prior to school starting. It is important for all school nurses to know how to access the memory in the meter, procedure for testing, and if calibration is needed. All students with diabetes will need a method at school for testing blood sugars. This applies to both students with Type 1 and Type 2 diabetes. Each student will have a defined schedule for testing blood sugars at school. Follow the outlined procedure in the medical order for each student. Whenever possible, the blood sugar testing should occur in the classroom to limit any time missed for this student.

Possible times that students may test include the following times:

- Reasonable number of blood sugars per day is typically 2 to 4 times in a school day. If student is testing other than at meal time it is recommended that the student be allowed to test in the classroom.
- Before eating all meals
- Before eating snacks that require a student to give insulin
- Before and after physical activity depending when gym is scheduled and how sensitive the student is to exercise
- Before boarding a bus for transportation home from school or dismissal if walking home from school.
- Anytime the student feels symptoms of a low or high blood sugar level.
- When the student is sick

Continuous Glucose monitors (CGM)

- Most common continuous glucose monitors include:
  - Dexcom sensors (www.dexcom.com)
  - Medtronic sensors (www.minimed.com)
  - Freestyle Libre sensor (www.freestylelibre.us)
- Continuous Glucose Monitors consist of 3 parts:
  - A sensor that is inserted under the skin and remains in place for 6 to 14 days.
  - A transmitter that is attached to the sensor that records and transmits glucose data continuously.
  - A receiver/reader provides visual display of the student's real time glucose data. With Dexcom, the student's cell phone may be the receiver.
- A student may have either the manufacturer provided receiver/reader, a smart device or data displayed directly on the screen on some insulin pumps. Some of the supported devices include both android and apple compatible products. If they do not have a data plan the student may need access to the school's Wi-Fi network. The student and parents will inform you on which this student uses. Some sensors must be calibrated at least 2 times per day to remain accurate. See the reference chart to determine if a sensor needs calibration.
- CGM alerts are set for both high and low blood sugars on the Dexcom and Medtronic sensors. Students can turn off the alerts in various circumstances. Please identify the specific alerts that the student has set and how it will be used in the school setting. It is recommended that the minimum number of alarms be enabled in a school to keep the student safe and be engaged in the academic schedule.
- Data sharing may occur at school with designated school personnel and outlined in the student's IHP. It would be recommended that the school nurse clarify the following with the student and family:
  - Access to the CGM receiver
  - Access to the wireless network
  - Data sharing with school staff: While this is a possibility, our program recommends the primary role for the school personnel is responding to the high and low sensor alarms. In some circumstances the use of directional arrows can be outlined to assist with treatment around higher activity levels. Constant monitoring of the CGM data on a remote device in a school setting is not considered a reasonable accommodation for most students with a CGM device.
  - Data sharing with parents or off-site caregivers
- Students wearing a CGM: We recommend checking the sensor glucose and/or a blood sugar in the following situations:
  - Any high or low blood sugar alert
  - Any symptoms of a high or low blood sugar.
  - Before giving insulin to lower a blood sugar. The Dexcom G5 (when calibrated), Dexcom G6 and Freestyle Libre CGM are FDA approved to use the sensor glucose to dose insulin. We recommend if the blood sugar is moving quickly indicated by 2 arrows up

or down a blood glucose is recommended prior to dosing insulin. You will need to negotiate the specific student routine with the parent.

  - Anytime the CGM is not functional, the student will require a blood sugar test.
- Students may have scheduled times to check the CGM within a school day. Most commonly this is before meals, snacks and physical activity such as gym or recess. Negotiate student's specific management with student and the parent.
- Students may be using the sensor reading to dose at school, so they may not be testing blood sugars as often. Since a student may need to do a blood sugar test in some situations we recommend all students have a blood sugar meter accessible to them at school for using when necessary for management decisions.
- If you are requested by a parent to integrate directional arrows into a treatment plan, consider the following recommendations:
  - May be used around gym or recess to determine if a snack, blood sugar test or insulin for a snack is needed.
  - May be used at the end of a school day to determine management when boarding a bus
  - A student could use a CGM to determine range or management around taking a test or exam
  - These specific guidelines will need to be negotiated by the school nurse and the student/parents.

Here is a reference chart to interpret directional arrows on Home CGM Device

Dexcom G5 Trend Arrows			Change in Glucose
Receiver	App	Glucose Direction	
↑↑		Increasing	**Glucose is rapidly rising** Increasing >3 mg/dL/min or >90 mg/dL in 30 minutes
↑		Increasing	**Glucose is rising** Increasing 2−3 mg/dL/min or 60–90 mg/dL in 30 minutes
↗		Increasing	**Glucose is slowly rising** Increasing 1−2 mg/dL/min or 30–60 mg/dL in 30 minutes
→		Increasing or Decreasing	**Glucose is steady** Not increasing/decreasing >1 mg/dL/min
↘		Decreasing	**Glucose is slowly falling** Decreasing 1−2 mg/dL/min or 30–60 mg/dL in 30 minutes
↓		Decreasing	**Glucose is falling** Decreasing 2−3 mg/dL/min or 60–90 mg/dL in 30 minutes
↓↓		Decreasing	**Glucose is rapidly falling** Decreasing >3 mg/dL/min or >90 mg/dL in 30 minutes
No Arrow	N/A	System cannot calculate the velocity and direction of the glucose change	

HOME CONTINUOUS GLUCOSE MONITORING DEVICES

CGM DEVICE	RANGE FOR THE SENSOR	WARM UP TIME	CALIBRATION REQUIREMENTS	SENSOR DURATION	DOSING INSULIN WITH SENSOR GLUCOSE	TREATING LOW SENSOR GLUCOSE AT SCHOOL
DEXCOM G5	The sensor must be within 20 feet of the receiver (Approved android product or Apple Product running the Dexcom APP)	It is ready after 2 hours of inserting the sensor.	Calibrate every 12 hours. Blood glucose must be within 40 to 400 mg/dL to calibrate	7 Days	If this device is calibrated 2 times minimum per day then it is FDA approved to dose off the sensor glucose. <u>If you are confident the sensor is being calibrated by a parent, then it may be used for dosing.</u> If not regularly calibrated it is not approved to use for insulin dosing. **<u>School recommendation with calibrated sensor:</u>** • Sensor Glucose can be used for dosing at scheduled times for dosing. This included scheduled snacks, breakfast and Lunch meals. • High alerts may occur after eating so you may not dose insulin to correct all high alerts. Insulin doses need to be at least 2 hours apart to maintain student safety. • If you have 2 arrows up, then it is recommended to test the blood sugar prior to dosing.	**<u>School Recommendations:</u>** • Sensor glucose can be used for treatment <u>if sensor is calibrated.</u> If in question do a blood glucose test prior to treatment. • When in doubt get the meter out and test a blood sugar. • If student's symptoms do not match the sensor reading, test the blood sugar. • If you have no arrow, no number, signal loss – use the meter for a blood sugar. • If sensor is not functional, use the meter. • If symptoms are more advanced check a blood sugar. • If you have 2 arrows down, it is recommended to test the blood sugar prior to treating.
DEXCOM G6	The sensor must be within 20 feet of the receiver (Approved android product or Apple Product running the Dexcom APP)	It is ready after 2 hours of inserting the sensor.	No calibration required	10 Days	This device is FDA approved to use for insulin dosing with a few exceptions. **<u>School recommendation:</u>** • Sensor Glucose can be used for dosing at scheduled times for dosing. This included scheduled snacks, breakfast and Lunch meals. • High alerts may occur after eating so you may not dose insulin to correct all high alerts. Insulin doses need to be at least 2 hours apart to maintain student safety.	**<u>School Recommendations:</u>** • Sensor glucose can be used for treatment after the 2-hour warm up. • When in doubt get the meter out and test a blood sugar. • If student's symptoms do not match the sensor reading, test the blood sugar. • If you have no arrow, no number, signal loss – use the meter for a blood sugar. • If sensor is not functional, use the meter. • If symptoms are more advanced check a blood sugar.

CGM Device	Range for the sensor	Warm up time	Calibration requirements	Sensor Duration	Dosing Insulin with Sensor Glucose	Treating low Sensor glucose at school
					• If you have 2 arrows up, then it is recommended to test the blood sugar prior to dosing.	• If you have 2 arrows up, it is recommended to test the blood sugar prior to dosing.
FREESTYLE LIBRE FLASH	The handheld reader must be within 1.5 inches of the sensor to scan it.	1 to 12 hours depending on the model.	No calibration required	10-14 days	This device is FDA approved to use for insulin dosing with a few exceptions. **School recommendation:** • Sensor Glucose can be used for dosing at scheduled times for dosing. This included scheduled snacks, breakfast and Lunch meals. • High alerts may occur after eating so you may not dose insulin to correct all high alerts. Insulin doses need to be at least 2 hours apart to maintain student safety. • If you have 2 arrows up, then it is recommended to test the blood sugar prior to dosing.	**School Recommendations:** • Sensor glucose can be used for treatment after the 2 to 12-hour warm depending on the model. • When in doubt get the meter out and test a blood sugar. • If student's symptoms do not match the sensor reading, test the blood sugar. • If you have no arrow, no number, signal loss – use the meter for a blood sugar. • If sensor is not functional, use the meter. • If symptoms are more advanced check a blood sugar. • If you have 2 arrows up, then it is recommended to test the blood sugar prior to dosing.
ENLITE Medtronic **(Used with the 530G & 630G Medtronic pumps)**	The sensor and the transmitter must be within 6 feet of the pump.	2 hours after insertion of the sensor	Calibrate every 12 hours. Blood glucose must be within 40 to 400 mg/dL to calibrate	6 days	This device is not FDA approved for dosing insulin from the sensor glucose.	Needs a blood glucose prior to treatment of a low sensor level.
GUARDIAN 3 Medtronic **(Used with the 670G Hybrid Closed Loop Insulin Pump)**	The sensor and the transmitter must be within 6 feet of the pump.	2 hours after insertion of the sensor	Calibrate every 12 hours. Blood glucose must be within 40 to 400 mg/dL to calibrate	7 days	This device is not FDA approved for dosing insulin from the sensor glucose.	Needs a blood glucose prior to treatment of a low sensor level.

Insulin Pumps at School

An insulin pump is a device that is attached to the student and delivers continuous subcutaneous insulin. All pumps have a type of pump set or permanent device that is attached to the child. These are rotated to different locations on the body every 2 to 3 days. The pump delivers 2 types of insulin doses:

- **Basal rate:** These are preprogrammed hourly rates that will run automatically, creating a background low level of insulin administered 24 hours per day.
- **Bolus dose and correction doses:** the settings for the calculations are pre-set for programming the food bolus dose and correction dose into the pump. The trained school personnel or student will need to enter into the pump how many grams of carbohydrate are being eaten, what the blood sugar is (some pumps have a linking meter that sends the blood sugar to the pump automatically), and then will need to confirm and deliver the dose of insulin prior to eating all food.

Most common types of insulin pumps and resource phone numbers are:

- Medtronic insulin pumps (www.minimed.com)
- Omnipod insulin pumps (www.myomnipod.com)
- Tandem insulin pumps (www.tandemdiabetes.com)

Students over the age of 10 years may be able to be independent in dosing the insulin with a pump but may need some supervision. Students under the age of 10 years need close supervision with all the insulin delivery with a pump. Students may be able to know how to do parts of the button pushing on a pump but needs to be documented by the school. Some older students also may need supervision depending on the level of diabetes control. Discuss with the parent's the level of supervision needed for all students.

- Skills that the school will need to document for the student include:
    - Independently monitors own blood sugar
    - Independently counts carbohydrates
    - Administers insulin using the pump independently
    - Needs assistance with pump management
    - Inserts a new infusion set
    - Self-treats mild hypoglycemia
    - Trouble shoots all pump alarms
- All students at school need to have a backup delivery system in the event of an insulin pump failure. This can be either insulin syringes or insulin pen device.
- Insulin Pump Malfunction:
    - When a pump fails to work, then the student is at higher risk to go into life threatening Diabetic Ketoacidosis. The pump set will need to be changed and/or insulin will need to be given using an alternate method – either with an insulin syringe or pen device. Once a pump fails to function the student will not have any insulin in the body after 2 to 3 hours from the point of failure.

- Pump set supplies may be kept at school if the student is independent in changing the pump set and they are not showing any significant signs of illness. Most students are not capable of doing this skill independently until over 12 years of age. Parents need to be notified for all pump set failures at school. Younger students will need to have a parent or trained caretaker come to the school and either pick up the student if not able to remain at school or change the set. School nurses or staff are not required to change pump sets unless fully trained and feel competent. If a set is not replaced, it is safe to give insulin injections through the remainder of the school day.

- A high blood sugar of concern when using a pump is typically when it is over 250 mg/dL. If a student corrects with the pump outside of a meal once and the blood sugar does not improve to under 200 mg/dL in 2 hours then it is likely the pump or pump set is not appropriately working. The rule with pump management is correct once and if not improving then correct with a syringe or insulin pen. Refer to the student specific orders for individual management orders.

INSULIN PUMPS

COMPANY/ PRODUCT	SIZE AND WEIGHT	BATTERY	RESERVOIR	INFUSION SET	BASAL RANGE	BOLUS RANGE	DETAILS
INSULET CORP. Omnipod 	POD: 1.53 x 2.05 x 0.57 in. 0.88 oz. with empty reservoir PERSONAL DIABETES MANAGER (PDM): 2.4 x 4.4 x 0.98 in. 4.4 oz. with batteries	POD: battery integrated PDM: 2 AAA	200-unit reservoir built into pod.	Does not use tubing. Pod comes with a built-in cannula that inserts with a button press on the PDM.	From 0.05 to 30 units per hour in 0.05-unit increments	From 0.05 to 30 units. Increments of 0.05, 0.1, 0.5, or 1 unit. Insulin-to-carb ratio in whole units only.	No tubing. The system includes a waterproof pod that is worn for up to 72 hours and a remote Personal Diabetes Manager (PDM) that controls the pod's functions and has a built-in blood glucose meter. Once the pod is activated, it is required to be within 5 feet of the PDM to deliver bolus doses. The pod delivers basal insulin regardless of how close it is to the PDM. The PDM contains more than 1,000 common foods (with nutrition information) and stores up to 36 preset carb values. Pod is waterproof for up to 25 feet deep for 60 minutes, so there's no need to disconnect while swimming or bathing. Works with Glooko, Tidepool, and Diasend data-management systems. Approved for use by adults and children.
MEDTRONIC DIABETES MiniMed 530G System 	3.7 x 2 x 0.82 in. 3.7 oz. with battery and full reservoir	1 AAA	300-unit reservoir	Compatible with Medtronic infusion sets only	From 0.025 to 35 units per hour in 0.025-unit increments for up to 0.975 units. Increments of 0.05 units for between 1 and 9.95 units. Increments of 0.1 units for 10 units or more.	From 0.025 to 25 units. Increments of 0.1 units. Alternate bolus increments available for greater precision. Insulin-to-carb ratio allows for fractions of grams.	The MiniMed 530G combo pump-CGM uses SmartGuard technology to stop insulin delivery for up to 2 hours if the glucose level reaches a preset low limit and the user doesn't react to a low-glucose alarm. (For more on its CGM functions, flip to p. 72.) Remove pump body before bathing, swimming, and doing other water activities. Works with Glooko and Tidepool data-management systems, plus CareLink Personal software, which is compatible with Windows and Mac operating systems. Approved for use by adults and children 16 and over.
MEDTRONIC DIABETES MiniMed 630G System 	2.1 x 3.78 x 0.96 in. 3.7 oz. without battery and with empty reservoir	1 AA	300-unit reservoir	Compatible with Medtronic infusion sets only	From 0.025 to 35 units per hour in 0.025-unit increments for up to 0.975 units. Increments of 0.05 units for between 1 and 9.95 units. Increments of 0.1 units for 10 units or more.	From 0.025 to 25 units. Increments of 0.025 units. Insulin-to-carb ratio allows for fractions of grams.	The MiniMed 630G combo pump-CGM uses SmartGuard technology to stop insulin delivery for up to 2 hours if the glucose level reaches a preset low limit and the user doesn't react to a low-glucose alarm. (For more on its CGM functions, flip to p. 74.) Pump is waterproof for 12 feet deep for up to 24 hours, has remote bolus functionality via the Contour Next Link 2.4 meter, and features a full-color screen. Works with CareLink Personal software (compatible with Windows and Mac operating systems) to upload and manage pump and CGM data. Approved for use by adults and children 16 and over.
MEDTRONIC DIABETES MiniMed 670G System 	2.1 x 3.78 x 0.96 in. 3.7 oz. without battery and with empty reservoir	1 AA	300-unit reservoir	Compatible with Medtronic infusion sets only	From 0.025 to 35 units per hour in 0.025-unit increments for up to 0.975 units. Increments of 0.05 units for between 1 and 9.95 units. Increments of 0.1 units for 10 units or more.	From 0.025 to 25 units. Increments of 0.025, 0.05, and 0.1 units. Insulin-to-carb ratio allows for fractions of grams.	The MiniMed 670G, a hybrid closed-loop pump, uses SmartGuard technology to allow users to choose from increasing levels of automation that best fit their diabetes management needs. (For more on its CGM functions, flip to p. 74.) The Auto Mode feature automatically adjusts basal insulin delivery based on the user's CGM sensor glucose readings and recent insulin delivery, though it still requires users to, among other things, enter carb grams and confirm mealtime and correction bolus recommendations. Pump uses SmartGuard technology to stop insulin delivery for up to 2 hours if the glucose level reaches a preset low limit and the user doesn't react to a low-glucose alarm. Pump is waterproof for 12 feet deep for up to 24 hours and features a full-color screen. Works with Contour Next Link 2.4 meter to transfer blood glucose readings and bolus remotely. Works with CareLink Personal software (compatible with Windows and Mac operating systems) to upload and manage pump and CGM data. Approved for use by adults and children 14 and over with type 1 diabetes.

REFERENCE:

Diabetes Forecast, March/April 2018

TANDEM DIABETES CARE T:flex Pump 	3.13 x 2 x 0.84 in. with insulin cartridge 4.05 oz. with battery and full reservoir	Rechargeable lithium polymer battery	480-unit cartridge	Compatible with Tandem infusion sets only	From 0.5 to 15 units per hour in 0.001-unit increments	From 0.05 to 60 units in 0.01-unit increments. Insulin-to-carb ratio allows for fractions of grams.	Largest-capacity insulin pump, designed for people who require more than 100 units of insulin per day. Color touch screen. Rechargeable battery with micro USB. Pump is watertight for up to 3 feet deep for 30 minutes. Works with T:Connect Diabetes Management Application, Tandem's web-based software. Also works with Glooko, Tidepool, and Diasend data-management systems. Approved for use by adults and children 12 and over.
TANDEM DIABETES CARE T:slim X2 Pump 	3.13 x 2 x 0.6 in. 3.95 oz. with battery and full reservoir	Rechargeable lithium polymer battery	300-unit cartridge	Compatible with Tandem infusion sets only	From 0.1 to 15 units per hour in 0.001-unit increments	From 0.05 to 25 units in 0.01-unit increments with an option for up to an additional 25 units. Insulin-to-carb ratio allows for fractions of grams.	The T:slim X2 uses the Tandem Device Updater to remotely update software from a computer–without requiring purchase of a new device. Integrated with Dexcom's G5 CGM. (For more on its CGM functions, flip to p. 74.) Color touch screen. Flat reservoir design and micro-delivery technology allow for a thinner pump. Pump is watertight for up to 3 feet deep for 30 minutes. Works with T:connect Diabetes Management Application, Tandem's web-based software. Also works with Glooko, Tidepool, and Diasend data-management systems. Approved for use by adults and children 6 and over.

REFERENCE:

Diabetes Forecast, March/April 2018

Diabetes supplies that may be kept at school

- Parents/guardians are responsible for supplying the school with all diabetes supplies.
- If a student forgets to bring supplies to the school then:
  - Notify the parent
  - If parent is not available call the Diabetes clinic urgent phone line to page a nurse for consultation.
  - Insulin being actively used may be stored at room temperature for 28 days before replacing. Unused insulin must be stored in the refrigerator but never frozen.

Blood Sugar Monitor, blood sugar test strips, extra batteries	Insulin pen, pen needles and insulin cartridges
Continuous glucose monitor	Fast-acting source of glucose
Lancet device, lancets, gloves	Carbohydrate containing snacks
Insulin vials and syringes	Glucagon emergency kit
Insulin pump supplies	Urine/blood ketone testing supplies

Disaster Planning

It will be the school's responsibility to determine a plan for all types of disasters that may occur in the school, including a lockdown situation. We recommend the plan be set up specific for each school district's policies and procedures. A parent can supply an extra box, or you may find more efficient to have a master disaster box for the entire school to address these needs of a student. Some things to consider in a school emergency are the following points:

- For a lockdown, a fast-acting glucose source should always be available to student. A policy to consider if you have students with diabetes in your school building is to provide fast acting glucose source to all classrooms, and office locations. An example would be to have smarties available in each room which a student with diabetes may be held in the event of a lockdown.
- For evacuation fast acting glucose, insulin source, administration supplies, glucose meter with testing supplies, alcohol pads to clean a meter between use, a glucagon kit and paper & pen for documentation. This may be set up in an emergency toolbox for the school and may contain other supplies such as asthma inhalers, Epi pens etc.
- Please review the disaster plan with all parents as they can provide the school with some supplies and will be comforted to know the school is considering all situations for their child to maintain safety.

Meals & Snacks at School

- Students may need assistance in counting carbohydrates depending on level of independence. All students will need carbohydrate resources to determine the correct carb contents for food offered in a schools setting.

- All students with Type 1 diabetes are typically allowed to eat a flexible amount of carbohydrate at meals and some snacks.
- Students with Type 2 diabetes are often on a fixed meal plan to control portions of food eaten.
- Some students may also have restrictions due to other medical diagnosis, intolerances or allergies.
- Establish a meal and snack schedule based on the student's classmates and parent/guardian's direction. If clarification is needed, then consult with the CHW diabetes health care team. A typical plan will consist of a Breakfast, AM Snack, Lunch, and PM snack. An additional snack may be required for extra exercise. In children over the age of 12 years the snacks are less common.
- Refer to the student's specific orders for details related to the meal plan and specific restrictions. Not all students will have restrictions.

Insulin Dosing in between meals or snacks:

- Students may need an extra dose of insulin at a non-meal/snack time. Insulin doses should be at least 2 or more hours apart to maintain the student's safety.
- If a student presents and needs a correction dose for a high blood sugar and it is less than 2 hours before a regularly scheduled meal dose then the student may give the correction and then at the upcoming meal test and dose for the carb eaten only, and not repeat the correction. For example, if the student tests at 11 AM and blood sugar is 385 mg/dL, the student can give a correction dose, but then lunch is scheduled at 1145 AM. So at 1145 the student can inject the insulin only for his food coverage without an additional correction. The student then can check 2 hours after lunch and if still having a high blood sugar, can give an additional dose if needed. You will need to refer to the student's medical orders if extra dosing is allowed at school.

Physical Activity & Sports

- Always have fast-acting carbohydrates available at times of physical activity and sports.
- Students should not participate in physical activity if urine or blood ketones are moderate to large.
- In general, if blood sugar is under 70 mg/dL or is over 350 mg/dL the student should not engage in physical activity until the blood sugar is corrected.
- Refer to the student specific orders for any special guidelines for participation in physical activity or sports.

Supervision of Students at School

All students have varied levels of independence with their diabetes management. This is based on knowledge of own self-care, developmental maturity with decision making and responsibility, length of time managing diabetes, and level of diabetes control. The level of supervision must be agreed upon by the parent, student, and school staff in agreement with the school district policies & procedures. The student's medical management team is available for consultation for clarification of appropriate and safe supervision levels. All elementary and middle school students need guidance and supervision to be successful in diabetes self-care skills. Most high school students can independently care for diabetes during the school day. See attached reference for guidance for safe and appropriate ages to master self-care skills for diabetes.
Reference: "Age Related Guidelines for Diabetes: What to look for in children with diabetes", Children's of Alabama, www.childrensal.org.

All School Sponsored Activities

- Notify parent/guardians 1 to 2 weeks in advance of all specialized activities/field trips or parties so accommodations can be arranged for the student with diabetes.
- The following diabetes supplies should be available to the student during school sponsored activities and events:

A copy of the student's Diabetes Management Plan (DMMP), Section 504 Plan, and Emergency Action Plan.	Insulin injection/insulin pump supplies and appropriate storage of insulin to prevent spoilage. Insulin should never be frozen or overheated. It can be at room temperature.
Blood sugar monitor and strips	
CGM sensor when applicable	Glucagon Emergency Kit
Fast acting carbohydrate sources, Juice, glucose gel or glucose tablets	Cell Phone or access to communication device if needed.
Bag lunch and/or snacks	

Insulin Dosing Rounding Rule

ROUNDING RULE FOR ½ UNITS:

0.1-0.3 round down to whole unit
0.4-0.7 round to the ½ unit
0.8-0.9 round up to whole unit

ROUNDING RULE FOR WHOLE UNITS:

0.1-0.4 round down to whole unit
0.5-0.9 round up to whole unit

Insulin dose Calculation Resources:

Children's Hospital of Wisconsin will be discontinuing the use of dosing charts except in specific special circumstances. We will be encouraging students and schools to utilize approved Insulin Dose calculator APPs as noted below. These function like a calculator that is inside an insulin pump and can recommend the correct dose to give at a meal, snack or correction for a high blood sugar.

- My Care Connect dosing calculator – Student will need to have an account created to utilize this APP (www.mycareconnect.com) this is an account that allows the student to both calculate and document cares at home and school. If is coordinated with an APP called "Blue Loop".

- Discuss with the family if the calculations are done with a formula or using an identified APP.

These are protocols that we use with all children with diabetes managed with insulin injections, insulin pump and/or oral medication at school. Refer to the specific medical orders for this student for individual details regarding the students care and management in the school setting.

CHW Diabetes Treatment Team

Age Related Guidelines for Diabetes

what to look for in children with diabetes

Table of Contents

Introduction

As children grow and mature, they learn to care for themselves. This is true for diabetes-related tasks. This is a guideline to help you know when children may be able to do some diabetes related tasks along with some normal developmental tasks and family issues that may happen with managing diabetes. Some additional resources are also provided. Keep in mind, every child is different so this is a guideline only.

Here are a few questions many parents have as children learn to manage their diabetes.

1. How do children manage tasks and responsibility?

   This depends on their age and developmental stage. It is important to know your child and work with him or her. Your child's ability to manage tasks related to diabetes, can also change at different times in each stage.

2. What age should I allow my child to start doing some of the tasks for their diabetes care?

   There is not an exact age when children can assume some of their diabetes care either with supervision or on their own. Your child's age is one of the factors to use when making this decision. However, there are several other important factors to think about including:
   - developmental level,
   - interest shown by your child and
   - other health issues or concerns

   Your child should be encouraged to start helping with their diabetes care when they can follow simple instructions and make simple choices. They can begin self-care as they show they are able to do the tasks for diabetes care correctly and consistently.

   Continue to help/watch your child. You may have to take over as the parent/caregiver (for example: if they are omitting and/or incorrectly performing diabetes care).

3. Are there any problems that can come up by allowing my child to start performing some of their diabetes care?

   Yes. A common problem is to push the child into more responsibility before they are ready. If you give your child more responsibility when they are not ready, the result can be poor control of their diabetes as well as feelings of failure and low self-esteem.

4. When can I stop being involved in my child's diabetes care and management?

   It is now thought to be very helpful to have a supportive adult for any person with diabetes, no matter what their age.

   It is very important for a parent/caregiver to be involved in their child's diabetes care. As your child grows and develops this will range from doing all the tasks for the child, to watching the child doing the tasks, to checking that the tasks are being done as they should.

OUR GOAL IS TO HELP YOU LEARN TO MANAGE YOUR CHILD'S DIABETES, SO YOU IN TURN CAN TEACH THEM TO MANAGE THEIR DIABETES AND ASSUME SELF-CARE AT AN AGE APPROPRIATE TIME.

Infancy
0–12 months

Behaviors

- Responds to love
- Developing trust
- Bonds with parent/primary caregiver
- Starts to develop motor skills (for example: lift head, kick legs, reach for objects, crawls, etc.)

Diabetes Management

Parent/caregiver to perform all tasks

- Prevent and treat hypoglycemia (low blood sugar)
- Try to avoid large swings in blood sugar (for example: feedings are not too close together or too far apart)
- May give insulin right after feedings/meals, but first talk to your diabetes healthcare provider

Potential Family Issues

- Coping with stress
- Avoid burnout by sharing diabetes care between parents and/or caregivers
- Accepting diabetes as part of life
- Inform and teach daycare and other caregivers about managing child's diabetes

Toddler
13–36 months

Behaviors

- Learning how to control their body and their environment
- Developing a sense of "self"
- Developing speech skills
- Continues to develop motor skills (for example: walking, playing with simple toys, feeding themselves, etc.)

Diabetes Management

Parent/caregiver to perform all tasks

- Prevent and treat hypoglycemia (low blood sugars)
- Try to avoid large swings in blood sugar by allowing the child to help make simple food choices when possible
  - o offering finger foods since most children this age like to hold the food themselves
  - o not having meals or snacks too close or too far apart
- May give insulin right after meals, but first talk to your diabetes healthcare provider

Potential Family Issues

- Coping with stress
- Avoid burnout by sharing diabetes care between parents and/or caregivers
- Managing picky eaters and/or "grazing" (wanting to eat small amounts all day long)
- Accepting diabetes as part of life
- Inform and teach other caregivers/ daycare/school about managing child's diabetes

Preschool and Early Elementary
3–7 years

Behaviors

- Increase in language development
- Self-centered
- Big imagination—has a hard time knowing what is real or pretend
- Not able to problem solve on their own
- Does not fully understand concept of time

Diabetes Management

Parent/caregiver to perform all tasks

- Prevent and treat hypoglycemia (low blood sugar)
- Learning how to recognize low blood sugar symptoms
- Learning to help with blood sugar checks and insulin shots
    - o allow them to choose which finger to stick for blood sugar checks as long as you switch fingers, where to give shot as long as you rotate sites
    - o help to count before taking out syringe or insulin pen
- Amount of food eaten and food they like may vary, involve child in simple food choices when possible
- May give insulin right after meals, but first talk to your diabetes healthcare provider

Potential Family Issues

- Coping with stress
- Avoid burnout by sharing diabetes care between parents and/or caregivers
- Accepting diabetes as part of life
- Inform and teach school/daycare/other caregivers about child's diabetes
- Remind child that having diabetes is no one's fault

Older Elementary

8–11 years

Behaviors

- Thinking is more concrete (thinks of right now, not future)
- Developing logic and understanding
- Becoming more social and curious
- Becoming more responsible
- Self-esteem linked to friends
- Puberty may start

Diabetes Management

Parent/caregive to perform all tasks or closely supervise if the child is performing tasks

Child can begin testing their blood sugar with adult supervision and monitoring

- If interested, around age 10-11 can start to draw up and give shots although adult supervision is still needed
- Can recognize and start treating low blood sugars
- Can start making some independent food choices and learning basic carb (carbohydrate) counting
- Cannot fully understand that doing something now (good diabetes control) helps to prevent problems later (diabetes complications)
- Begin teaching the child about short and long term complications and the need to keep blood sugar in target range most of the time (If you are not sure what your child's target blood sugar range is, ask your diabetes healthcare provider or the diabetes educator)
- If using an insulin pump, can do their boluses but adult supervision/monitoring needed
- If child is not doing diabetes care, or doing care incorrectly, the adult will need to give diabetes care to the child
- Once child can again show they can provide correct diabetes care, then parent/caregiver may allow child to resume some self-care of diabetes with supervision

Potential Family Issues

- Coping with stress
- Accepting diabetes as part of life
- Parent/caregiver staying involved in all diabetes related tasks while allowing for self-care on special occasions
- Avoid burnout by sharing diabetes care/supervision between parents and/or caregivers
- This is the time when having a friend spend the night or staying at a friend's house often starts.
- They can also become more active in school and other activities, which may need more flexibility in schedule and regimen
- Inform and teach school and/or other caregivers about child's diabetes

Early Adolescence
12–15 years

Behaviors

- Puberty starts or continues
- Body image is important
- May begin to be away from home more
- Developing self-identity
- Becoming more responsible and independent
- Developing abstract thinking (can see cause and effect)

Diabetes Management

Parent/caregiver to monitor tasks or perform tasks as needed

- Increased insulin needs during puberty can make blood sugar control and diabetes management more difficult
- Weight and body image concerns can also effect diabetes management
- Can do most shots or insulin pump management and blood sugar checks but still needs parental/caregiver to be involved and monitor care
    - o Several times a week review log book, meter or insulin pump download with child
    - o Look for patterns in blood sugars and that diabetes management is consistent
- Knows carb (carbohydrate) counting and can make correct food choices
- Around age 12-13 can begin to understand that good blood sugar control will prevent diabetes complications later. Continue teaching child to keep blood sugar in target range most of the time (If you are not sure what your child's target blood sugar range is, ask your diabetes healthcare provider or diabetes educator)
- By age 15, begin talking to child about diabetes and driving. Ask diabetes healthcare provider for brochure on Diabetes and Driving
- If child is not doing diabetes care, or doing care incorrectly, the adult will need to take over diabetes care of the child
- Once child can again show they can provide correct diabetes care, then parent/caregiver may allow child to resume some self-care of diabetes with supervision
- Consider attending the Review Class offered the 4th Thursday of each month (except for November). To schedule call 205-638-9107

Potential Family Issues

- Coping with stress and/or conflicts
- Accepting diabetes as part of life
- Parent/caregiver and teen work together to allow teen to manage most of diabetes care
- Avoid burnout by sharing diabetes care/supervision between parents and/or caregivers
- Teen is learning new coping skills to help self-manage diabetes
- Observe for signs of depression, eating disorders and/or any other risky behaviors
    - o Report any concerns to primary healthcare provider as well as your diabetes healthcare provider at 205-638-9107
- Inform and teach school and/or employers (if they have a part time job) about child's diabetes

Later Adolescence

16–19 years

Behaviors

- Developing identity for after high school (for example: making decisions about college, work, social issues, etc.)
- Able to understand that proper diabetes management will prevent problems in the future
- Independent
- Frequently away from home
- Better problem solving skills

Diabetes Management

Parent/ caregiver to be involved by monitoring self management and offering support; to perform tasks if needed

- Can do most, if not all, of shots or insulin pump management and blood sugar checks, but still needs parental/caregiver to be involved and monitor care
  - o Frequent review of log book, meter or insulin pump download with teen
  - o Look for patterns in blood sugars and that diabetes management is consistent
- At times may still need help with insulin dosing
- Can count carbs (carbohydrates) correctly and know what foods to eat
- Knows the importance of keeping blood sugar in target range most of the time to help prevent complications later (If you are not sure what your child's target blood sugar range is, ask your diabetes healthcare provider or the diabetes educator)
- If the teen is not doing diabetes care, or doing incorrectly, the adult will need to take over diabetes care of the child
- Once teen can again show they can provide correct diabetes care, then parent/caregiver may allow child to resume some self-care of diabetes with supervision
- Combining diabetes with new lifestyle
- Consider attending the Review Class offered the 4th Thursday of each month (except November). To schedule call 205-638-9107
- Diabetes team will begin discussion of transition to adult endocrinologist

Potential Family Issues

- Coping with stress and/or conflicts
- Accepting diabetes as part of life
- Parent/caregiver and teen continue to adapt to new roles as teen assumes more self-management and parent/caregiver monitors the teen
- Avoid burnout by sharing diabetes care/supervision between parents and/or caregivers
- Teen continues to learn coping skills for self-management of diabetes
- Inform and teach school and/or employers about teens diabetes
- Observe for signs of depression, eating disorders and/or any other risky behaviors
  - o report any concerns to primary healthcare provider as well as your diabetes healthcare provider 205-638-9107
- Support transition of teen to independence

Helpful websites for Diabetes patients and families

American Diabetes Association http://www.diabetes.org
Gives general information about diabetes and tools to advocate for your child in school settings, contains educational articles, a forum, and opportunities to become involved in diabetes awareness events.

Southeastern Diabetes Education Services http://www.southeasterndiabetes.org
Has information about diabetes camps in Alabama and local events to meet other families dealing with diabetes.

Juvenile Diabetes Research Foundation http://www.jdrf.org
Contains current updates on diabetes research, information for newly diagnosed families, support forums for parents and teenagers, and helpful tips for living with diabetes.

Calorie King http://www.calorieking.com
Contains nutritional information for thousands of foods.

Diabetes Education and Camping Association www.diabetescamp.org
Contains information on diabetes camps across the nation.

National Diabetes Education Program http://www.ndep.nih.gov
Contains educational information about diabetes and information on current governmental policies regarding diabetes.

Children with Diabetes http://www.childrenwithdiabetes.com
A support website connecting parents of children with diabetes; offers online forums, chat rooms, informational articles, and applicable advice for families with diabetes.

Resources for parents of children with Diabetes and School

American Diabetes Association http://www.diabetes.org

Safe at School
http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/?loc=DropDownADV-safeatschool

Going to College with Diabetes
http://www.diabetes.org/assets/pdfs/schools/going-to-college-with-diabetes

Standardized Testing and Diabetes
http://www.diabetes.org/assets/pdfs/schools/standardized-testing_df.pdf

Juvenile Diabetes Research Foundation
Type 1 Diabetes in School: Vital Resources for Students with Type , Their Families, and School Personnel
http://www.jdrf.org/index.cfm?page_id=103439

National Diabetes Education Program
Helping the Student with Diabetes Succeed: A guide for school personnel
http://www.ndep.nih.gov/publications/PublicationDetail.aspx?PubId=97#main

Alabama Disabilities Advocacy Program
contains information on how to effectively advocate for your child at school, located in Tuscaloosa
http://www.adap.net

Additional Diabetes Websites and Apps

www.lillyforbetterhealth.com	Guide and resources for diabetes and other health issues
http://spoonful.com/type1	Website for families with children with Type 1 diabetes by Disney
www.lillydiabetes.com	Resources for Type 1 and Type 2 diabetes

DUE TO FREQUENT CHANGES IN TECHNOLOGY AND PHONE SERVICE PLANS WE CANNOT GUARANTEE COST INFORMATION IS CORRECT. ALSO PLEASE VERIFY IT IS COMPATIBLE WITH YOUR PARTICULAR SMART PHONE

GoMeals – Free
Offers nutrition guide for restaurants

Calorie King – Free and $
Offers food search, blog and weight loss program ($)

Restaurant Nutrition – Free
Information on restaurant meals and tracks food eaten

Bant – Free
Transfers readings to iPhone, iPad, and iPod Touch and shows trends for up to 90 days

Blood Sugar Tracker – Free
Log in blood sugar levels, set target ranges, and view history and graphs to identify readings out of range

Carb Master – Free
Tracks carb, calories, fat, sugar, protein and fiber

Diabetes Companion – Free
Supported by dLife; nutrition facts, recipes, information videos, Q&A's, blood sugar tracking

Glucose Buddy – Free
Manually enter blood sugars, carbs, insulin doses and activities

Wave Sense Diabetes Manager – Free
Tracks blood sugars, carbs and insulin doses. Offers a logbook, trend chart, email reports, customize target ranges for lows and highs.

These are just a few of the Apps available. We do not recommend any one particular App.
If you have specific questions, please talk to your diabetes health care provider.

Children's
of Alabama®

1600 7th Avenue South
Birmingham, Alabama 35233
(205) 638-9100
www.childrensal.org

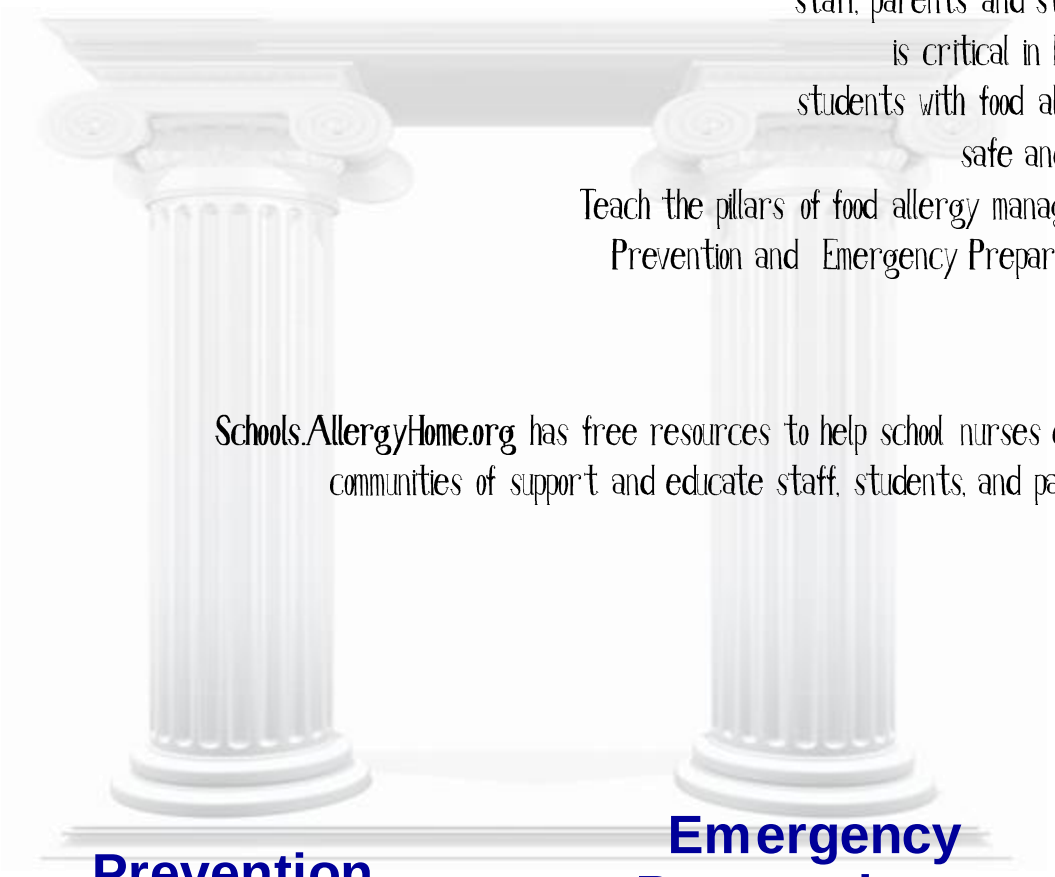
Do You Need Help Educating Your School about Food Allergies and Anaphylaxis?

Your entire school community needs to be ready.

Education and awareness for staff, parents and students is critical in keeping students with food allergies safe and happy.

Teach the pillars of food allergy management Prevention and Emergency Preparedness.

Schools.AllergyHome.org has free resources to help school nurses create communities of support and educate staff, students, and parents..

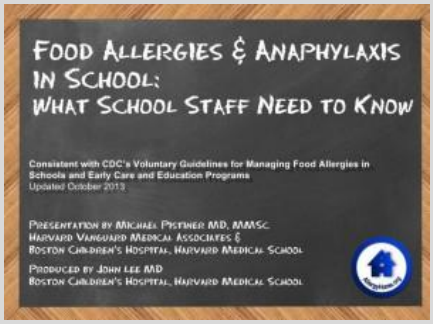


For full list of resources, visit Schools.AllergyHome.org

AllergyHome.org/teach

AllergyHome.org/educationtable

Staff Training: Food Allergies & Anaphylaxis in School What School Staff Need to Know

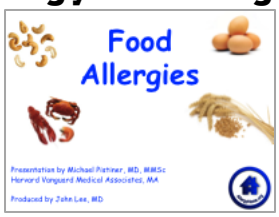


AllergyHome.org/stafftraining

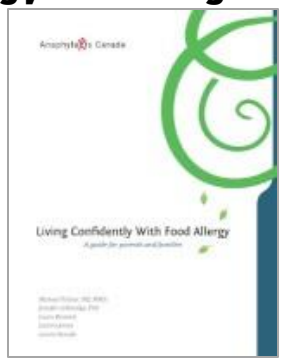
This free, online, 30 minute module is designed to assist the school nurse in food allergy and anaphylaxis training for all school staff. The staff training module has been reviewed by national organizations and experts, and is consistent with CDC's Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs.
An accompanying quiz emphasizes major points of food allergy management. A certificate of completion is available to be printed or emailed after passing the exam. Nurses can track which staff have completed the training by collection of these certificates.

AllergyHome.org/parents

AllergyHome.org/kids



AllergyHome.org/handbook



AllergyHome.org/ptatips

Date: August 2018

To: District Administrators

From: Student Services/Prevention and Wellness Team

Subject: School Health Services Updates

As you begin the 2018-19 school year, the Wisconsin Department of Public Instruction's (DPI) Student Services/Prevention and Wellness Team would like to welcome you back and inform you of some important school health updates and notices.

New School Employee Physical Examinations and Tuberculosis Screening
Revisions to Wis. Stat. § 118.25 Health Examinations went into effect last school year but there is still some confusion for school districts and contracted healthcare providers. There has been no change in the requirement that freedom from tuberculosis in a communicable form is a condition of employment for anyone who comes in contact with children or who handles or prepares food for children. Therefore, every school board shall require a physical examination of every such employee of the school district prior to employment. This physical examination now includes a screening questionnaire for tuberculosis approved by the Department of Health Services (DHS) rather than a mandatory skin test or chest x-ray. Further testing only needs to be completed if the results of the questionnaire or physical examination indicate the employee is at risk for tuberculosis.

School nurses may only complete the questionnaire with employees if the district's policy is to have additional (repeat) examinations. These are not required. Otherwise, the examination and screening questionnaire are completed by the practitioner (licensed as a physician or as a physician assistant in any state, or licensed or certified as an advanced practice nurse prescriber in any state). Further information regarding the use of the DHS forms and record keeping can be found in the DPI "Guidance on School Employee Examinations under Wis. Stat. § 118.25" letter dated April 27, 2018, located on the DPI website at https://dpi.wi.gov/sites/default/files/imce/sspw/pdf/sndpiguidanceschlemployeeexam.pdf.

School District Immunization Compliance
The DHS immunization website not only lists the compliance rate of each school district individually, but administrators should be aware that the public is able to view the number of students with waivers and types of waivers claimed by district. Administrators are reminded that districts below the 99.0% compliance rate are required to exclude any student enrolled in grades kindergarten to six who is non-compliant in the current 2018-19 school year (Wis. Stat. § ch. 252). Districts are encouraged to work with their school nurse and local public health department to increase immunization compliance. The DHS will host a webinar for school and public health nurses specifically on immunization compliance and record keeping on August 23, 2018. Access can be reached at https://connect.wisconsin.gov/dhsbcdschoolbooklet/. The webinar will also be

archived. The 2018-19 school immunization booklet will be posted on the DHS immunization program website as soon as it is complete.

Sex Trafficking Added to Mandatory Reporter Requirements
Wisconsin state law aligns with federal legislation requiring the investigation of alleged child sex trafficking, regardless of the type of relationship between alleged victims of child sex trafficking and alleged maltreaters. As mandatory reporters, school district personnel are required to report suspected incidences of sex trafficking and exploitation. Human trafficking was the topic for the DPI School Nurse Summer Institute held August 9, 2018. School nurses were encouraged to use the Wisconsin Department of Children and Families' *Wisconsin Child Sex Trafficking and Exploitation Indicator Response Guide* as a helpful resource in reporting suspected child sex trafficking. The DPI updated mandatory reporter training for school personnel will be available this fall at https://dpi.wi.gov/sspw/pupil-services/school-social-work/contents/child-abuse/child-abuse-and-neglect.

DPI School Nurse Professional Development Opportunities
Recognizing that many school districts do not have the resources to provide their school nurse(s) with targeted professional development, the DPI offers a New School Nurse Orientation and other specifically designed professional development.

The New School Nurse Orientation is scheduled for October 18-19, 2018, in Wausau at The Plaza Hotel and Suites. This training is for those nurses who will be working for the first time in or with a school district. It is appropriate for school nurses who have worked in a school setting zero to three years. Topics that will be covered include guidance on the laws that affect school health, information on individualized education programs, 504's, school health records, and delegation in the school setting. The cost of the program is $150. Registration will open late August.

For both new and more seasoned school nurses, the DPI supports the Wisconsin Association of School Nurses' annual school nurse conference. This school year the conference is April 8-10, 2019, in Wisconsin Dells. Registration information will be shared this winter via the DPI School Nurse Updates. School nurses and other interested parties may subscribe to electronic, bi-weekly DPI School Nurse Updates by sending an e-mail to join-schoolnurse@lists.dpi.wi.gov.

The DPI School Nurse/Health Services Consultant, Louise Wilson, MS, BSN, RN, NCSN is available to present to school nurses throughout the state. She may be contacted at louise.wilson@dpi.wi.gov. This year Ms. Wilson will also be speaking at the Superintendent's Leadership Conference in October on school health services staffing and delegation issues.

School Health Services Survey
The voluntary 2018-19 Wisconsin School Health Services Survey includes more data points to help local school districts determine the impact of school health services on the health and academic outcomes of their students. School districts are asked to submit information regarding health personnel, health services provided, chronic conditions, and district policies and practices. School districts are encouraged to correlate attendance with this information. It is critical that

school nurses and school health staff have established methods to record and report student health visits and information.

Many health office visits and school nurse interventions involve the early identification of mental health issues. School nurses provide a rich source of mental health services including the observation and identification of symptoms, medication and psycho/social interventions, and appropriate referral. Collection of robust data on students seeking physical and mental health services will provide information to assess many of the currently funded school safety and mental health initiatives.