

Wearable Medical Technology in Schools – The Role of the School Nurse



*National
Association of
School Nurses*

Position Brief

SUMMARY

It is the position of the National Association of School Nurses (NASN) that the registered professional school nurse (hereinafter referred to as school nurse) be involved in planning the care for students with wearable medical technology in the school setting. In addition, the school nurse should lead the development of written policies and procedures that focus on safe and effective use of wearable medical technology in schools, including raising concerns over inadequate Wi-Fi capabilities and complying with Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Family Education Rights and Privacy Act (FERPA).

RATIONALE

Many students who attend school have special healthcare needs. According to the Child and Adolescent Health Measurement Initiative (2016), up to 19.4% of children have chronic health conditions. Students with healthcare needs may use multiple types of medical technologies. As more students with chronic conditions enter school systems each year, school personnel must be aware of factors that help promote and support academic success for those students. These factors may include wearable medical technology to manage their healthcare needs.

Wearable medical technology refers to devices that attach to the body to treat or monitor physiological conditions with remote or wireless technology (Insights Association, 2015). Wearable devices are worn externally, while implantable devices are surgically placed. Types of technology that students use, ways they can be used, and instructions for use change rapidly due to advances in technology.

Some examples of wearable and implantable medical technology include-- but are not limited to --

- Insulin pumps and continuous glucose monitoring systems,
- Seizure sensors and vagus nerve stimulators,
- Electrocardiogram monitoring systems,
- Oxygen level and heart rate monitoring systems,
- Pacemakers and implantable cardioverter defibrillators,
- Intrathecal baclofen pumps,
- Ventilators, and
- Cochlear implants and hearing aids.

Both wearable and implantable medical devices require that the school nurse be knowledgeable in the care and use of the device, recognize device malfunction, and provide direct care as necessary. The school nurse may need to monitor students' wearable medical technology remotely, respond to transmitted data, and plan or direct student care based upon this data.

The role of the school nurse in wearable medical technology should include (Obst & Roesler, 2017)

- Leading the development of written policies and procedures that define the ability and limits of schools and school staff to monitor and respond to wearable technology data.
- Writing the Individualized Healthcare Plan (IEP) and the Emergency Action Plan (sometimes referred to as Emergency Care Plan).
- Training staff about the specific use of the medical technology, including safety precautions, signs of malfunction, and actions to take in case of malfunction.

- Developing a plan for potential device or WiFi failure.
- Participating in multidisciplinary teams to plan for students who have IEPs or Section 504 Plans to include the use of medical technology in the plans.
- Keeping updated about changes in the medical technology.
- Complying with the HIPAA and FERPA.

Many wearable medical technologies require wireless internet connection to transmit data. According to the Education Superhighway (2017), 83% of school districts in America currently have sufficient Wi-Fi in every classroom. While this percentage has increased in recent years, 17% of schools still do not have adequate Wi-Fi service. Another role of the school nurse may be to advocate for access to the internet for students whose devices require the internet to function effectively.

Two common risks with wireless internet connections are cybersecurity and disruption of the wireless radio frequency (McNerny, Rivera, & Blackwell, 2016). The families of students with technologies that require a wireless internet connection should understand that there may be privacy issues as well as unavoidable Wi-Fi failure when network congestion or signal interruption occurs in educational settings. A plan for managing the needs of the student should be in place for those situations.

The school nurse must be knowledgeable about state and federal laws and regulations governing the downloading of applications or communications which contain medical information protected under HIPAA and FERPA and prevent the sharing of that information on any non-encrypted device. School nurses should never use personal devices to monitor student medical technology. For example, a school nurse should not communicate blood glucose readings via text with a parent or school staff on their personal cell phone (National Forum on Education Statistics, 2016). Depending on the applicable laws in certain states, an encrypted phone or tablet provided by the school district for the sharing of that information may be permissible (Czuprynski & Smith, 2017).

The school nurse should be involved in planning the care for students with wearable medical technology in the school setting. As health leaders, the school nurse has clinical knowledge about the complex issues surrounding student health (APA, 2016; Maughan, 2016), including wearable medical technology. The involvement of the school nurse in creating policies and procedures regarding wearable medical technologies and the need for school nurse management in the school setting are critical so that all students can stay healthy, safe, and ready to learn.

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