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Diabetes

Diabetes is the one disease we all need to pay attention to...for our consumers, and for ourselves and our families. It is the 7th leading cause of death in the United States and it affects everyone. It also affects every system of the body, is closely correlated to obesity, heart disease, high blood pressure, kidney failure, and blindness, among other things. In several studies, findings show that over 11% of the people in the studies with developmental disabilities were diagnosed with Diabetes. Results of a study by Havercamp, Scandlin, and Roth (2004)* identified that people with developmental disabilities have a similar or greater risk of having 4 of the 5 major chronic health conditions in the U.S. compared to non-disabled adults. The study found that the adults with DD were also significantly more likely to have Diabetes than the non-DD adults. This is not new information to those in the medical world who have worked in healthcare for years. The Individuals who live in community DD residential settings often have sedentary lifestyles. This, coupled with the variable nutritional supports seen in residential settings, can set the stage for Diabetes to present itself.

The American Diabetes Association® (ADA) (www.diabetes.org) has identified the following statistical information about Diabetes:**

- **TOTAL:** 23.6 million children and adults have Diabetes (that's 7.8% of the population— please note the above study showing over 11% of the DD population having Diabetes)
- **Pre-Diabetes:** 57 million people are in this stage and may be diagnosed with metabolic syndrome, insulin resistance, or just obesity
- About 1 in every 400-600 children and adolescents has Type I Diabetes (and increasing)
- **Age 20 or older:** 23.5 million people have it
- **MEN:** 12 million have Diabetes
- **WOMEN:** 11.5 million have Diabetes

The complications of Diabetes can be quite scary. It

is important for consumers and staff in the homes who are assisting or preparing meals, to understand the potential effects of not following regular meal plans as established. A consumer who is pre-diabetic, has metabolic syndrome and lives in a residential setting where the staff continually change the menu from what the dietician has created, could throw someone into full-blown Diabetes and send them to the hospital for a few days. In addition, regular ignoring of lifestyle requirements for a person with Diabetes can lead them down the path to these major complications:

Heart disease, Stroke

- * Adults with Diabetes have heart disease 2 to 4 times more than those without Diabetes
- * Diabetes also increases a person's chance of having a stroke 2 to 4 times higher

High Blood Pressure

- * 75% of Diabetics polled by the ADA had hypertension and were on medications for it

Blindness

- * Diabetes is the leading cause of new cases of Kidney Disease
- * Diabetes is the leading cause of kidney failure

Nervous System Damage (peripheral neuropathy)

- * 60-70% of people with Diabetes have mild to severe nervous system damage

Amputations

- * More than 60% of all amputations of limbs done (not due to accidents, etc.) are because of Diabetes

Preventative interventions by nurses and other healthcare professionals is important to circumvent the potential negative outcomes of Diabetes in our DD population. This requires regular observation and assessment, with some periodic diagnostic monitoring. A team-based approach of supports with the nurse, dietician, and physician taking the lead is vital.

PERIPHERAL NEUROPATHY: NOT JUST FOR DIABETICS



The nervous system in your body is the main communications system that transmits information to and from your brain. It is basically comprised of 2 parts, the central nervous system (the brain and spinal cord) and the peripheral nervous system (all the nerves of the body). This vast array of nerves in the peripheral nervous system is responsible for transmitting signals back to the spinal cord and/or brain. Once the signals reach the central nervous system, they are quickly interpreted and a message may be sent back to the peripheral nerves telling them what to do (usually). Think of this system of nerves like making a phone call (from your land line, not your cell). The nerves are the phone lines. Let's say you are walking along the sandy beach barefoot and you decide to walk onto the concrete sidewalk to get to your car. **YIKES! It's hot!** You take a few paces and you can't stand the heat! Your toes curl up and you start hobbling as fast as you can while your feet are burning up! Well, as soon as you hit that hot pavement, the sensory nerves in your feet (THIS IS HOT!) shot a message to your central nervous system which perceived the sidewalk as too hot to walk on. The central nervous system sent a message back to your feet to tell them to curl your toes, hobble faster, and get the heck off the hot pavement! This all happens within a hundredth of a second.

In people who have peripheral neuropathy, damage to the nerves in the extremities (feet, legs, hands) for various reasons, cause a disruption in the 'message' sent from the nerves back to the central nervous system. Messages can be delayed and distorted going to and from the central nervous system due to this peripheral damage. This can be felt by the person often as numbness, tingling, weakness, pin prick sensations, burning, or increased sensitivity. It can last a short time or be a more constant feeling all the time. In more serious neuropathies, people may not be able to digest their food

easily, their blood pressure can drop without warning, they may not be able to sweat normally to maintain body temperature, and they have problems with sexual function. Peripheral neuropathy can even cause difficulty breathing and organ failure in extreme cases. However, in its most common forms, peripheral neuropathy begins and progresses slowly and usually starts furthest away from the brain (hands and feet).

Peripheral neuropathy can be caused by Diabetes, Shingles, chronic alcohol consumption, autoimmune diseases such as lupus, AIDS, exposure to toxins such as heavy metals, poisons, lead paint, some pesticides, and even some cancer therapy medications (Oncovin, Vincasar) or antibiotics (Flagyl). Of course, injury or accidents that damage the peripheral nerves can lead to this condition also. Once the cause is known for a peripheral neuropathy, many of these can be treated or controlled.

If you think you, a family member, or a consumer may have peripheral neuropathy, a doctor's appointment is necessary for diagnosis. Diagnosing this is often difficult because the symptoms are diverse and with our consumers, relying on self-reporting of symptoms is sometimes just not possible. A physical exam would be done, evaluating for alcohol use, exposure to any toxins, and family history of Diabetes or other infectious diseases. Muscle strength tests, tests for motor movement, sensation, touch, ability to feel temperature, position, and vibration will all be done. From here, the physician may order a CT scan to detect bone and vascular abnormalities, tumors, cysts, spinal problems, etc. An MRI may evaluate nerve fiber compression from muscle or fatty tissue. An EMG measures electrical conduction from muscles and determine if there is a muscle or nerve disorder.

Treatment depends on the cause. Healthy lifestyle habits, eating good foods, exercising, and controlling blood sugars are important for the Diabetic patient. Let's help our consumers keep their nervous systems in tip-top shape!

TAKING INSULIN IN A DD RESIDENTIAL SETTING

Do you have consumers who have Type I Diabetes? Who take insulin on a sliding scale? What is your process for doing this in community residential settings? How involved is the consumer? Can staff make decisions about how much insulin to give?

For several years, having consumers who are Diabetic living in community residential settings...has been a topic of discussion with medical professionals and developmental disabilities providers. What IS the right way to do this? How can we accommodate the consumer's needs, the physician's orders, and the safety and ethical parameters of medication administration that healthcare professionals must adhere to? Medication Administration is a nursing task. If a nurse does not do it, it must be delegated to a person who has had the appropriate training and who has shown that they understand and can follow through with the task correctly. That's appropriate delegation.

But, some things cannot be delegated because they require an assessment about a consumer's medical condition, status, or variations of appropriate therapy. This is why we should not have medication orders that state the consumer should take 1-2 Tylenol for a headache or pain. The order should be precise...is it 1? Or is it 2? Unlicensed assistive personnel (UAPs) should not be making these discriminating assessments. Only a nurse can do this.

Interpretation of blood sugar readings and determining the correct level of insulin may



also fall into this category. Just taking a blood sugar reading on the monitor and looking at a chart for sliding scale insulin is one thing, but assessing the consumer for other parameters that go along with high or low blood sugar BEFORE the insulin is administered is another. Sometimes being sick can raise a person's blood sugar levels. Exercise can deplete blood sugar quickly or make it raise very high depending on how a person's body reacts to this 'stress' and many other parameters that are unique to each individual. An assessment is called for...

Another issue surrounding blood sugar management is drawing up insulin. This is a nursing responsibility and yet, in some facilities UAPs are doing it. Is this a delegable task? Some say yes, some say no. As a nurse, can you firmly agree that the person providing that insulin coverage knows the process, understands the importance of correct administration and how insulin works and what it can do if a person is overdosed? EVERY time it is given? Who is doing assessments of the consumer during this process? It must be a nurse. Staff can report what they see or what a consumer says. Staff can retake a blood sugar or take a blood pressure (if

they've had appropriate training for each) and report these results. But, staff cannot take a conglomerate of signs and symptoms and assess a consumer. Only the nurse can do this (or physician).

Some facilities have taken a stand to only take consumers who are not brittle diabetics on sliding scales. Some organizations work with physicians and staff to keep their consumers as stable as possible so only scheduled insulin is required each day and the nurse pre-draws this amount, locks it in a container and stores it in the frig for staff to utilize. If the person's Diabetes becomes too brittle to manage at home, the person is transferred to a higher level of care. Some organizations have medically fragile group homes where nursing is available 24 hours a day. And some have the nurse give the insulin when it is needed for coverage, no matter what. But, there are some facilities that have non-medical staff administering insulin, making decisions about sliding scales, and managing the fluctuating blood sugars of the consumers. Everyone should evaluate their systems and insure that practices are safe, follow organizational policies and procedures and have the consumers' best health interests as the primary consideration. The Nurse Practice Act and state regulations should be referred to when making these policies and decisions. Maintaining stable blood sugars and having regular health assessments by a nurse or physician is vital to extending our Diabetic consumers' quality of life, as well as their lives. We need to do what's right.

DIABETIC LIFESTYLE CHECKLIST

To be healthier and to feel better all the time, if you are Diabetic or you support someone with Diabetes, make sure these simple rules are being followed to have a healthier life:

1. Eat healthy foods every day. You need good quality protein like chicken or fish, fresh vegetables and fruits, and whole grain breads and pastas. Measure foods to make sure you are following correct portion sizes. Limit your fats and salt.
2. Avoid fried foods, breaded foods, or processed foods that come already prepared in the package and you just heat them up.
3. Exercise at least 30 minutes every day. Walking or using exercise tapes and following along are good. Anything you can do to move is good.
4. Get 7-9 hours of sleep every night.
5. Take your medications exactly as they are ordered.
6. Visit your doctor at least yearly, more often if requested.
7. Get an eye exam yearly.
8. Nurse or physician should do a full body skin check periodically.



THE POST SCRIPT

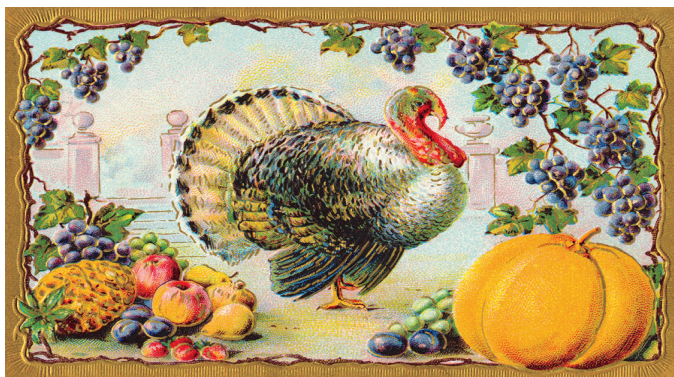
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All articles to be considered for submission to this newsletter should go to Georgia Swank at the above email address. We welcome your comments and ideas!

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PHARMACY ALTERNATIVES

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