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Judging the Quality of your healthcare provider's care of your diabetes
And how you can help yourself
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A new year! Opportunities and encouragement to make changes are all around us. There is a condition where change can make huge differences in the long term results of your care. As always, the care you receive is a function both of your healthcare provider and of your engagement in the preservation of your own health. There are few conditions where your involvement in your own care will make as much a difference as in Diabetes Mellitus.

There are no secrets to excellence of care in diabetes and while that treatment is complex, it is so not because of the difficulty of that care, but because excellent care requires relentlessness in keeping the blood sugar and the blood pressure under constant control. It is possible to say that excellent diabetes care is complex but not complicated.

If you have diabetes, the following is a standard against which you can measure the quality of care which you are receiving. In fact, you can use this as a "report card" each time you see a healthcare provider for diabetes. If you are not receiving one or more of the following evaluations, ask your healthcare provider to start including that as a part of your evaluation.

There are nine elements to this standard of excellence:

1. **A glycosylated hemoglobin (HgbA1C) is recommended during an initial assessment and during follow-up assessments**. A person with diabetes should have a HgbA1C at least every three months. You should always know your most recent HgbA1C and if the value is not 6.0 or below, you should see your healthcare provider more frequently, or ask to be referred to an endocrinologist, or a diabetes center of excellence. Later in this discussion, you will receive further information about HgbA1C and what it means.
2. **A Fasting Lipid Profile is recommended during an initial assessment and during follow-up assessments.** Diabetes is a metabolic disorder which is an independent risk factor for heart, kidney, eye and vascular disease. That means that without regard for the rest of your health, if you have diabetes you are at a higher risk of developing other illnesses than the average person. Remember, risk does not dictate that you will develop other problems; risk simply means that you have to take better care of yourself than others in order to avoid those illnesses. Because abnormal lipids (cholesterol and triglycerides) increases your risk of heart and vascular disease, if you have diabetes, you must be very attentive to your lipids.
3. **A urinalysis, including microalbuminuria and creatinine clearance, is recommended as part of an initial assessment and annually thereafter.** The

most common cause for kidney failure and the need for dialysis is diabetes. To protect your kidneys, you must control your blood sugar and your blood pressure. Having the protein in your urine measures is the earliest and most important measure of kidney problems. If you have microalbuminuria, you should be on special medication to correct this problem and to decrease or eliminate this risk to your kidneys.

4. **A dilated eye examination is recommended during an initial assessment and at least annually thereafter.** The most common cause of blindness in America is uncontrolled diabetes. Your healthcare provider should examine your eyes at every visit and should refer you at least annually for an eye examination by an ophthalmologist. If our HgbA1C is above 7.0, you should have a dilated eye examination more frequently than annually.
5. **A foot examination --- visual inspection, sensory examination, and pulse examination -- is recommended during an initial assessment and during follow-up assessments.** Later in this discussion, we will talk about your personal foot care, but it is important to know that the most common cause of non- traumatic limb loss in American is diabetes. Your healthcare provider should examine your feet every time you are seen. A 10-gram monofilament instrument should be used to evaluate the neurological status of your feet. If you have any foot abnormality (see further discussion below), you should be referred to a podiatrist who has a special interest in limb preservation in patients with diabetes.
6. **Influenza immunization is recommended for any person 6 months of age or older who, because of age or underlying medical condition, is at increase risk for influenza-related complications, which includes patients with diabetes mellitus.** Patients with diabetes have increased susceptibility to infections and should receive flu and pneumonia vaccinations at appropriate intervals. Also, because infections are so common in those with poor dental hygiene, patients with diabetes should be sure to have their teeth cleaned every six months and have an annual dental examination.
7. **A blood pressure determination is recommended during an initial assessment and follow-up assessments.** Next week in our discussion of excellence of care in hypertension, we will discussion how critical blood pressure control is in patients with diabetes. Suffice it to say presently that controlling your blood pressure if you have diabetes is as important if not more so than controlling your blood sugar. The goal for blood pressure control in a patient with diabetes is 130/80 and if there is protein in the urine the goal should be 125/75. A class of blood pressure medications called ACE Inhibitors helps protect the kidneys of patients with diabetes.
8. **Follow-up assessments should be scheduled regularly.** Patients with diabetes who are well controlled, i.e. HgbA1C less than 6.5 and blood pressure below 130/80, and who do not have protein in their urine should be seen at least every 3- 6 months. Patients without excellent control should be seen every three months and patients with poor control, HgbA1C above 7.0 or blood pressure above 140/90, should be seen once a month until control is achieved.
9. **All patients with diabetes should be on a low-dose aspirin, unless there is a specific contraindication**. Diabetes is an inflammatory process and increases the clotting potential of your blood. This can be effectively counteracted by a daily low-

dose of aspirin.

If the care of your diabetes does not meet these standards talk to your healthcare provider. Healthcare providers want to provide you excellent care; your evaluation of your care by this objective standard will allow you to judge effectively whether or not you are receiving that care.

What Can you do for yourself?

Daily Diabetic Foot Care

1. Wash your feet daily.
2. Dry your feet well, especially between the toes.
3. Lubricate your skin daily with a moisturizing lotion.
4. Inspect your feet daily to check for cuts, blisters, or calluses.
5. Use a fine emery board to keep calluses at a minimum.
6. Trim toenails very carefully, with no skin trauma.
7. Use an emery board to shape toenails like the ends of your toes.
8. Change daily into soft, well-fitting socks or stockings.
9. Wear shoes that fit well and are comfortable.
10. Examine your shoes daily for foreign bodies.
11. Never walk barefoot.
12. Consider visits to a podiatrist on a regular basis.

Foot Risk Assessment

If your healthcare provider's evaluation of your feet shows that you have any of the following risk factors:

- Loss of protective sensation
- Absent pedal pulses
- Severe foot deformity
- History of foot ulcer
- Prior amputation

You are at increased risk of losing a limb due to diabetes. Remember, increased risk does not mean that you will lose a limb but it does mean that you need to be cautious and attentive to your feet and toes. If you have high risk due to any of the above five conditions, your healthcare provider should::

- Conduct comprehensive lower extremity exam every 3-6 months.
- Demonstrate preventative self-care of the feet.
- Refer to specialists and diabetes educator as indicated.—this would include a referral to diabetic education, a podiatrist with special interest in diabetic foot care and/or to an endocrinologist, or diabetes center of excellence.
- Assess/prescribe appropriate footwear.
- Certify Medicare patients for therapeutic shoe benefits.

In addition to these measures, a patient with diabetes who has increased risk to his/her feet should NEVER cut their own toenails. They should request referral to a podiatrist for that purpose.

Diabetic Sick Day Guidelines

What should a patient with diabetes do when sick? The following are general concepts and may or may not apply in your case. You should ask your healthcare provider what you should do when you are sick.

General Guidelines

- Always Take your Insulin -- When ill, your body may release its own stored sugar, causing a rise in blood sugar even though you may not eat as much. You always need to take your insulin and you may need extra insulin.
- Drink Plenty of Extra Sugar-Free Fluids -- Your body needs about 9 cups (2200mL) of fluid daily to prevent dehydration.
- Check Your Blood Sugar and Urine Ketones -- Test your blood sugar and urine ketones before meals and/or every 4 hours around the clock.
- If you vomit twice or more within 12 hours, call your doctor or go to an emergency room.

Dietary Guidelines when sick

- If you cannot eat as usual, replace solid food with sugar-containing fluids. Try to take 10 grams carbohydrate every hour. Below are some suggested 10-gram servings.

mL	Cups	
75	1/3	Apple juice or pineapple juice
125	1/2	Orange juice
50	1/4	Regular Jell-O
75	1/3	Regular Soda
100	1/3	Ice Cream
50	1/4	Sherbet
200	3/4	Milk
75	1/3	Sugar-sweetened Kool-Aid
125	1/2	Applesauce
		1/2 Popsicle

- Avoid milk products if you are vomiting or have diarrhea sick day.

Medication and Meals

Depending on the type of oral medication you have been prescribed you should take the medication:

- Sulfonylurea (Glipizide, Gliclazide, Glyburide, Gliquidone, Glimpinide) should be taken 30 minute prior to meals
- Metformin at the end of the meal
- Alpha glucosidase inhibitors (acarbose or miglitol) should be taken prior to meal
- Glitazones (Actos, Avandia) can be taken at any time in relation to a meal.
- Lispro or aspart insulin within 10 minutes of meal.

Lifestyle Changes

The following changes in your personal habits will improve the treatment and control of your diabetes.

- Caloric restriction to achieve weight loss.
- Carbohydrate limited diet.
- Uniform distribution of calories throughout the day.
- No caloric intake after 6-7 PM. This will result in lower first morning blood sugar levels.
- High fat meals may result in delayed hyperglycemia.
- Limit alcohol consumption to no more than 2 drinks per day.
- Poor dental hygiene is associated with complications in diabetic patients -- Encourage patient to clean teeth with flossing daily. Encourage annual dental examination and teeth cleaning

Hemoglobin A1C

1. It is imperative that all patients with diabetes know their HgbA1C numbers and that they understand what the number means.
    - A Hgb A1C which is normal for a person without diabetes would be below 5.0, which would mean that the average blood sugar over the past three months has been below 100.
    - A Hgb A1C which is 6.0 reflects an average blood sugar of 136 for the past three months.
    - A Hgb A1C which is 6.5 reflects an average blood sugar of 154 for the past three months.

- A Hgb A1C which is 7.0 reflects an average blood sugar of 172 for the past three months.
- A Hgb A1C which is 8.0 reflects an average blood sugar of 207 for the past three months..
- A Hgb A1C which is 9.0 reflects an average blood sugar of 243 for the past three months

(Remember: A blood sugar over regularly over 110 can be toxic to kidneys, eyes, arteries, nerves and heart.)

2. Check HgbA1C every 3 to 4 months. Increase frequency when therapy has changed and/or when glycemic goals are not met.
3. HgbA1C target should be individualized for each patient, aiming to achieve the lowest possible without increasing the risk of hypoglycemia.
4. If HgbA1C is >6.0% and <8.0%, the healthcare provider and diabetic education should:

    - Review and clarify the management plan with the patient with attention to:

        - meal plan
        - activity program
        - medication schedule and technique
        - self-monitoring of blood glucose (SMBG)
        - treatment for hyperglycemia and hypoglycemia
        - sick day management practices

    - Reassess goals and adjust medications as needed
    - Communicate individualized glycemic goals to patient
    - Consider referral to a diabetes educator for evaluation
    - Schedule follow-up appointment with 3 months, or more frequently as situation dictates

5. If HgbA1C is >8% the healthcare provider should:

    - Review and clarify the plan of care
    - Assess for psychosocial stress
    - Refer to a diabetes educator for evaluation/education
    - Communicate individualized glycemic goals to patient
    - Intensify therapy

The more you know about diabetes the better your care will be. You might want to take this article with you to your next office visit for diabetes and ask you healthcare provider if he/she agrees with these principles. In any event make sure that you are receiving excellent care and that you are engaged in that care. It is your life and it is your health.