



DAKOTA DIABETES
COALITION

The Dakota Diabetes Coalition is proud to offer a regular column on diabetes and elated concerns every other Friday.



Dr. Johnson is a family practice doctor in Grand Forks with a special interest in diabetes -- and a special knack for writing. As a member of the Dakota Diabetes Coalition, he has generously made himself available to answer questions through our listserv. If you have comments, or questions for Dr. Johnson to address in future columns, please contact gailhand@qwest.net

Visit the Coalition's website!

<http://www.ndhealth.gov/diabetescoalition/>

ADA has spoken!

2008 Clinical Practice Recommendations

Q. Any big changes from the American Diabetes Association? It seems like they usually send out new guidelines each year.

A. Right you are!

Every year, the ADA updates its standards of care for diabetes management, and these are published as a supplement for the January issue of the journal "Diabetes Care." There are some important changes this year, which I will highlight.

I would be happy to field any questions regarding the new recommendations, as this is a large document with a lot of information, and space doesn't allow for everything that could be discussed in this format.

The following links are useful for finding the guidelines in the supplemental issue:

Executive Summary of Standards of Care

http://care.diabetesjournals.org/cgi/content/full/31/Supplement_1/S5

Clinical Practice Recommendations-2008 (complete document)

http://care.diabetesjournals.org/content/vol31/Supplement_1/

Overall, the document has undergone some organizational changes to make it more user-friendly. Some of the most notable changes are:

Screening for type 2 diabetes in asymptomatic individuals, and Prevention of type 2 diabetes. New clinical trials are considered in this section with the following recommendations:

Table 3— Criteria for testing for pre-diabetes and diabetes in asymptomatic adult individuals

1. Testing should be considered in all adults who are overweight (BMI ≥ 25 kg/m^{2*}) and have additional risk factors:
 - physical inactivity
 - first-degree relative with diabetes
 - members of a high-risk ethnic population (e.g., African American, Latino, Native American, Asian American, and Pacific Islander)
 - women who delivered a baby weighing >9 lb or who were diagnosed with GDM
 - hypertension ($\geq 140/90$ mmHg or on therapy for hypertension)
 - HDL cholesterol level <35 mg/dl (0.90 mmol/l) and/or a triglyceride level >250 mg/dl (2.82 mmol/l)
 - women with polycystic ovarian syndrome (PCOS)
 - IGT or IFG on previous testing
 - other clinical conditions associated with insulin resistance (e.g., severe obesity and acanthosis nigricans)
 - history of CVD
2. In the absence of the above criteria, testing for pre-diabetes and diabetes should begin at age 45 years
3. If results are normal, testing should be repeated at least at 3-year intervals, with consideration of more frequent testing depending on initial results and risk status.

* At-risk BMI may be lower in some ethnic groups.

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S4, 2008

In addition, screening for asymptomatic children is as follows:

Table 4— Testing for type 2 diabetes in asymptomatic children

Criteria

- Overweight (BMI >85th percentile for age and sex, weight for height >85th percentile, or weight >120% of ideal for height)

Plus any two of the following risk factors:

- Family history of type 2 diabetes in first- or second-degree relative
- Race/ethnicity (e.g., Native American, African American, Latino, Asian American, and Pacific Islander)
- Signs of insulin resistance or conditions associated with insulin resistance (e.g., acanthosis nigricans, hypertension, dyslipidemia, or PCOS)
- Maternal history of diabetes or GDM

Age of initiation: age 10 years or at onset of puberty, if puberty occurs at a younger age

Frequency: every 2 years

Test: FPG preferred

Diabetes

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Some minor modifications to A1C goals are given, particularly with respect to persons with limited life spans (i.e. elderly individuals with multiple co-morbidities and/or advanced dementia).

- Lowering A1C to an average of ~7% has clearly been shown to reduce microvascular and neuropathic complications of diabetes and possibly macrovascular disease. Therefore, the A1C goal for non-pregnant adults in general is <7%.
- Epidemiologic studies have suggested an incremental (albeit, in absolute terms, a small) benefit to lowering A1C from 7% into the normal range. Therefore, the A1C goal for selected individual patients is as close to normal (<6%) as possible without significant hypoglycemia.
- Less stringent A1C goals may be appropriate for patients with a history of severe hypoglycemia, patients with limited life expectancies, children, individuals with co-morbid conditions, and those with longstanding diabetes and minimal or stable microvascular complications.

Diabetes Care 31:S3-S4,
2008

Cholesterol management with Medical Nutrition therapy and statin drugs is now recommended for virtually all patients with diabetes:

- **Dyslipidemia/lipid management section:** the number of treatment recommendations has been reduced to emphasize use of **statins for most patients**. Several recommendations have been revised:
 - If drug-treated patients do not reach the above targets on maximal tolerated statin therapy, a reduction in LDL cholesterol of ~40% from baseline is an alternative therapeutic goal.
 - Triglyceride levels <150 mg/dl (1.7 mmol/l) and HDL cholesterol levels >40 mg/dl (1.0 mmol/l) in men and >50 mg/dl (1.3 mmol/l) in women are desirable. However, LDL cholesterol-targeted statin therapy remains the preferred strategy.

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The preponderance of data suggests that patients with high risk for cardiovascular disease (virtually all patients with diabetes) have substantial reduction of risk for heart attack and stroke with this strategy, thus the increasing emphasis on this treatment strategy.

In addition, recommendations for treatment of cholesterol disorders in children with diabetes has been expanded:

- Initial dyslipidemia therapy should consist of optimization of glucose control and medical nutrition therapy using a Step 2 American Heart Association diet aimed at a decrease in the amount of saturated fat in the diet.
- After the age of 10 years, the addition of a statin is recommended in patients who, after MNT and lifestyle changes, have LDL cholesterol >160 mg/dl (4.1 mmol/l) or have LDL cholesterol >130 mg/dl (3.4 mmol/l) and one or more cardiovascular disease risk factors.

Diabetes Care 31:S3-S4, 2008

Hospital glycemic goals have also received an update:

- Critically ill patients: blood glucose levels should be kept as close to 110 mg/dl (6.1 mmol/l) as possible and generally <140 mg/dl (7.8 mmol/l). (A) These patients require an intravenous insulin protocol that has demonstrated efficacy and safety in achieving the desired glucose range without increasing risk for severe hypoglycemia.
- Non-critically ill patients: there is no clear evidence for specific blood glucose goals. Because cohort data suggest that outcomes are better in hospitalized patients with fasting glucose <126 mg/dl and all random glucoses <180–200 mg/dl, these goals are reasonable if they can be safely achieved. Insulin is the preferred drug to treat hyperglycemia in most cases.

Diabetes Care 31:S3-S4,

2008

Note that in the ICU setting that intravenous insulin protocols are recommended for efficacy and safety. Strong data exist for these goals in regard to morbidity and mortality in these patients.

A slightly more controversial recommendation has been made with regard to screening for thyroid disease in type 1 patients:

- Patients with type 1 diabetes should be screened for thyroid peroxidase and thyroglobulin antibodies at diagnosis.
- Thyroid-stimulating hormone (TSH) concentrations should be measured after metabolic control has been established. If normal, they should be rechecked every 1–2 years or if the patient develops symptoms of thyroid dysfunction, thyromegaly, or an abnormal growth rate. Free T4 should be measured if TSH is abnormal.

Diabetes Care 31:S3-S4,

2008

Note that thyroid antibodies are recommended for screening at diagnosis. This may identify patients who are at risk for thyroid disease as well as overt thyroid disease. TSH may only identify patients with clinical disease, this is an important distinction.

Another notable addition to the recommendations occurred last August, and is not technically a new recommendation. Metformin is now recommended in appropriate patients at diagnosis of type 2 diabetes in addition to lifestyle recommendations, including Medical Nutrition Therapy.

The Clinical Practice Recommendations are an important document issued annually by the American Diabetes Association, and are practical, evidence-based guidelines which improve patient outcomes when applied to appropriate patients. They are also a marker of the tremendous progress made in the treatment of diabetes in the last decade, with a multitude of very good treatment options.

*Eric L. Johnson, M.D., is a member of the Dakota Diabetes Coalition. He serves as Assistant Medical Director at Altru Diabetes Center and is an Assistant Clinical Professor in the Department of Family and Community Medicine at the University of North Dakota School of Medicine and Health Sciences.

[ADA's 2008 Guidelines, Dr. Johnson's Column #15, Feb. 8, 2008](#)
