



## The Nurse's Role in Discouraging Clinical Inertia in Diabetes Management: Optimizing Cardiovascular Health among African-Americans

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We are pleased to offer you the last issue for 2007. Dr. Joyce Newman Giger, our editor, has graciously allowed me to serve as the guest editor for this edition. On behalf of the Editorial Board of the Journal of the National Black Nurses Association, Dr. Giger and I would like to extend to you our Season's Greetings and Best Wishes for a prosperous and Happy New Year.

Because the work I do is focused on cardiovascular disease, I am extremely concerned about diabetes management among African-Americans. African-Americans experience a disproportionate burden of both diabetes and diabetes-related complications. Because many African-Americans have undiagnosed high blood glucose levels, innovative interventions are needed, especially for those patients with limited resources. The majority of patients with diabetes mellitus do not receive specialized care and this fosters clinical inertia in the management of their dysglycemic states such as prediabetes (i.e., fasting glucose > 100 mg/dL and/or a 2-hour oral glucose tolerance test of 140-199 mg/dL) or frank type 2 diabetes mellitus (Phillips et al., 2005; Ziemer et al., 2005). In order to optimize cardiovascular health among African-Americans, there is an urgent need for more aggressive management of the problems of hypertension, dyslipidemia, prediabetes, and diabetes, which frequently manifest no symptoms.

Diabetes mellitus is a cardiovascular risk equivalent, meaning that the patient with dysglycemia (or prediabetes), as well as the patient with frank diabetes mellitus, is considered to be at the same level of risk for a cardiovascular event as the patient who has already experienced a myocardial infarction (NCEP ATPIII, 2001). Therefore, cardiovascular risk reduction is imperative among African-American patients with dysglycemia, as well as frank diabetes, even when they exhibit no symptoms indicative of either diabetes or cardiovascular disease. In addition to the traditional lifestyle concerns of a high fat diet, having a sedentary activity level, and smoking, attention must be focused on co-morbidities such as dyslipidemia, hypertension, and cardiovascular disease. African-American patients who either are overweight or who have a positive family history for cardiovascular disease or type 2 diabetes should be screened for diabetes and also have the benefit of any interventions that would reduce their cardiovascular risk.

Recently, the American Diabetes Association (ADA) recommended the treatment of dysglycemia (i.e., prediabetes). Also, at the joint meeting of the ADA and the European Association for the Study of Diabetes (EASD), new treatment guidelines for the management of the patient with type 2 diabetes were generated (American Diabetes Association, 2006; Nathan et al., 2006). For the first time, the recommendations for new onset type 2 diabetes lifestyle interventions have been placed on the same level as oral therapy, with metformin being recommended as a first line intervention at diagnosis (American Diabetes Association, 2006). These new recommendations mark a major paradigm shift by encouraging aggressive treatment and discouraging clinical inertia (Grant et al., 2004; Okonofua et al., 2006). For many decades in the management of type 2 diabetes, step therapy was utilized. These new standards free the practitioner to move aggressively in the management of type 2 diabetes.

Over time, in patients with type 2 diabetes, beta-cell function declines, leading to an increase in A1C levels. The ADA now recommends metformin as an initial pharmacologic therapeutic agent to be used jointly with lifestyle modification. Due to the progressive nature of type 2 diabetes, lifestyle interventions eventually fail to sustain glycemic control as well as other metabolic goals (Knowler et al., 2002; Orchard et al., 2005). Metformin, on the other hand, is considered weight

neutral and it frequently leads to weight loss. It has a very low risk for hypoglycemia, is cost effective, and is considered the drug of choice in addressing the overweight to obese African-American with type 2 diabetes.

The addition of combination agent(s) is based on a patient's A1C level. Normally, insulin is indicated for patients with A1C > 8.5% (Kann et al., 2006). The addition of the newer agents, such as the thiazolidinediones or the DDP-4 inhibitors, must be weighed against the benefits, cost, efficacy, and safety profile along with the ease of administration. After the initial two or three months of therapy, and still not reaching the A1C target, a second, then a third, or fourth agent may be added. Therapy focuses on the targeting of multiple pathways in order to reach glycemic/metabolic goals.

There are a number of advantages to using metformin as the initial therapy. For example, it seldom causes hypoglycemia when used alone; the majority of patients tolerate it well, and it is available in generic form. Because most African-American patients with type 2 diabetes are overweight to obese and manifest insulin resistance, metformin is an excellent first choice because it also may be of assistance in enabling patients to lose weight.

Regardless of the drug used, the role of the clinical nurse and nurse practitioner is highly important in encouraging African-Americans to seek out screening to rule out dysglycemia. This is especially true for African-Americans who are overweight, who have a positive family history of type 2 diabetes, and who manifest diabetic symptomatology or show signs of insulin resistance such as acanthosis nigricans (i.e., a darkening of the skin most commonly found on the back of the neck).

Many longitudinal epidemiological studies have demonstrated that the optimal glycemic control reduces the diabetes-associated complications (Stratton et al., 2001; Riddle, Rosenstock, & Gerich, 2003). Self-monitoring of blood glucose (SMBG) is the crucial factor in determining if the targets for blood glucose levels are being met. Lifestyle interventions to improve the metabolic profile (i.e., glucose, blood pressure, and lipid levels, etc.) of patients with diabetes mellitus are still encouraged. Interventions to encourage weight loss or to avoid weight gain should be initiated as the first step when managing a patient with new onset type 2 diabetes. The clinical nurse and nurse practitioner need to become an advocate for their patients in order to receive the optimal implementation of medical nutrition therapy (MNT) by registered dietitians and certified diabetes educators. It has been found that it is essential for patient empowerment to obtain a one-on-one relationship with these clinicians. The clinical nurse and nurse practitioner can be critical in optimizing the management of this disease with and for their patients.

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