



**Department of  
Veterans Affairs**

Medical Center

385 Tremont Avenue  
East Orange, NJ 07018  
Ph. (973) 676-1000, x1856  
Fax (973) 676-4226

# News Release

For Immediate Release  
July 15, 2010

## **Researchers Propose a New Approach to Measure the Quality of Blood Sugar Control in Diabetes**

(East Orange, NJ) – Improving blood sugar control is important for the 24 million Americans with diabetes. However, considerable debate exists concerning how to measure the quality of care provided by health care plans and physicians for adults with diabetes. Results from recent major trials have indicated that many non-physician factors affect achievement of the most widely promoted target for blood glucose control -A1c (representing average blood sugar over 3 months) <7%: duration of diabetes, individual responsiveness of the individual patient in response to anti-glycemic therapy, and occurrence or risks of low blood sugar (hypoglycemia). All evidence-based guidelines acknowledge the need to individualize A1c targets. However, currently used performance measures inadequately recognize this need.

The current National Committee for Quality Assurance (NCQA)-Health Employee Data Information Set for persons with diabetes less than 65 years of age is <7%. Individuals with cardiovascular disease, advanced complications of diabetes, and cognitive disorders are excluded. However, the measure does not distinguish between patients with earlier onset disease managed by diet alone or one medication and those

*~more~*

with longer duration of disease who would be candidates for insulin therapy to achieve a <7% level. In addition to clinical factors, there are patient factors that may impact ability to achieve this goal, e.g., a patient's reluctance to start a new medication, especially insulin, at values close to their goal. In either case, the health care plan or physician could be penalized for good clinical practice. Although some experts argue that "100% compliance is not expected," there has been a concern by other authorities that evaluating health care plans and their doctors on their ability to achieve <7% may result in overuse of medications and possible side effects for individual patients. Given recent headlines about concerns over excess cardiovascular events due to the use of rosiglitazone, and the fact that insulin is the second most common medication associated with serious or disabling reports to the Food and Drug Administration, another approach is necessary to better balance quality and safety.

A recent article published on line in Diabetes Care, "Hidden Complexities in Assessment of Glycemic Outcomes: Are Quality Rankings Aligned with Treatment?," by Leonard Pogach, MD, MBA; Mangala Rajan, BMA; Miriam Maney, MA; Chin-Lin Tseng, DrPH, from the VA New Jersey Center for Health Care Knowledge Management; and David Aron, MD, MS from the Center for Implementation Practice and Research Support in Cleveland, evaluated 203,302 patients (mean age 55.2 years) from 127 facilities in 2003-2004. The percentage of patients on insulin or three or more oral medications (complex glycemic regimens) ranged from 17.9%-35.2%. Using the NCQA criteria of using 4 or 5 stars to identify the better than average performing facilities, or 1-2 worse performing facilities, rankings differed markedly if the results were based upon the current NCQA measure or a measure that included only patients on the

*~more~*

complex regimens. One third of the “best” or “worst” facilities using all the patients became average when judged on achievement of a <7% measure in more complex patients. Additionally, about 37% of patients included in the measure had other significant mental or medical illnesses that could potentially impact their safety.

Rankings using a partial credit (continuous measure) were comparable.

The authors suggest that the current measure be modified by dividing patients by type of medication, and include additional criteria to exclude patients for whom tight control may not be appropriate using current guidelines. Additionally, the authors suggest that rather using an all or nothing level, performance could be assessed by measuring progress towards an optimal goal—the equivalent of awarding a numerical grade as opposed to a pass/fail grade in education. “Patients need to manage their blood sugar every day for their entire life,” stated one of the authors of the article, Dr. Aron at the Cleveland VA Medical Center. “Since diabetes is a progressive disease, increasing doses of oral medications and/or insulin are usually necessary over the course of the disease to maintain blood sugar control. The decision as to exactly how far above or below an A1c of <7% the target should be needs to be made by the person with diabetes and their health care team, taking into account the benefits and risks of any given target; one size does not fit all.”

Dr. Pogach, Director for the Center for Health Care Knowledge Management, VA New Jersey Health Care System in East Orange, New Jersey, commented that “Although the use of a single number for all enrollees who meet the measure criteria to reflect the quality of glycemic treatment within a plan may be attractive in its simplicity, it is superficial and may be misleading. If a patient is markedly above their target, more immediate action is necessary than if they are quite close—it’s up to the individual to make the decision, and a patient should not have to worry about whether his or her health care team are unduly influenced by external pressures.”

Both authors note that measuring milestones along the journey towards a target—which is what clinicians and persons with diabetes actually do over time—would enable both health care plans and their enrollees to get a more accurate idea of how well a population of persons with diabetes is treated. Dr. Aron stated, “Let’s say that in

*~more~*

one plan, 35% of persons are less than 7%, but almost all the rest are below 7.5%, while another plan has 40% below 7%, perhaps because they treat more persons with newer onset diabetes, but most of the rest are over 8%. Using an all or none approach, plan B is better. But is it?"

"If health care plans are to improve the health of the persons they serve," noted Dr. Pogach, "they need to understand the progress that is being made and how to target patients who would benefit from more intensive interventions because they are further from target, even if they don't quite get there. We think that our approach can provide the public with a more accurate assessment of whether their plans tackle the toughest cases, and would be viewed more fairly by physicians: A continuous measure can better reward the additional time and costs of a multidisciplinary team approach spent on intensive therapy of patients with complex treatment regimens even if they do not reach the <7% 'goal.' This strategy could incentivize physician practices to compete for referrals, or enter into contractual relationships with endocrinologists or disease management programs, thus focusing scarce resources for the most difficult patients with the greatest need."

# # #