

## The Changing Economics of Diabetes Management

The factors that must be considered in designing optimal disease management in diabetes are diagnosis, patient education, careful and progressively reevaluated patient-specific therapeutic strategies, and close monitoring and control of glucose levels. Other important areas of concern in diabetes management include physician supervision, treatment for acute and often drug-related diabetes outcomes, and the highly prevalent long-term damage to the cardiovascular, renal, neural, and visual systems. There is now a heightened understanding of the interrelationships between prolonged mealtime hyperglycemia and the long-term complications of diabetes. From these new insights, medical care for the patient with diabetes can be improved and the analysis of the true cost burden of this disease can better be determined.

This supplement to *The American Journal of Managed Care* features the proceedings of an educational symposium held June 11, 2000, at the 60th Scientific Sessions of the American Diabetes Association in San Antonio, Texas. The goal of the symposium was to evaluate current knowledge on the role of postprandial glucose as it relates to the health and economic outcomes of diabetes. The effect of postprandial glucose has been underestimated and overshadowed by other glycemic metrics, including fasting blood glucose and hemoglobin A1c (HbA1c), measurements that are more typically used as diagnostic and monitoring markers.

In the first presentation, Frank Basile, MD, MBA, addresses the continued increase in the prevalence of diabetes and the cost implications for managing this growing population. Dr. Basile notes that careful drug titration, monitoring, and a focus on new clinical and economic data afford an opportunity to prevent short-term, acute conditions, such as hypoglycemic episodes, as well as the long-term complications of diabetes, which account for a significant portion of the cost burden of the disease.

Frederick Brancati, MD, MHS, discusses the relative impact of fasting blood glucose, glycosylated hemoglobin, and postprandial glucose on the glucose response curve. He notes that of those 3 markers only postprandial glucose has been proven to give a direct measure of the ability of the body to respond appropriately to a glucose load. Dr. Brancati also addresses the issue of elevated postprandial glucose as an independent risk factor for diabetes-related complications, including cardiovascular disease and mortality. The epidemiologic importance of elevated postprandial glucose and impaired glucose tolerance and the diagnostic criteria for diabetes as it is classified by the American Diabetes Association and the World Health Organization are discussed.

In the final presentation, David McCulloch, MD, discusses the impact of postprandial glucose on diabetes progression, diabetes-related complications, and the effect that improved

glycemic control has on the economic outcomes of diabetes. Dr. McCulloch also addresses successful strategies that include improved treatment guidelines and better adherence to frequency of monitoring recommendations. He notes that fast-acting insulins and the newer classes of

insulin secretagogues, which target postprandial glucose, may have distinct therapeutic advantages in realizing economic benefits by maintaining lower glucose levels and minimizing side effects, hypoglycemic episodes, and long-term diabetes-related complications.