AACE Assesses CGM, Pump Technologies

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The American Association of Clinical Endocrinologists has issued two consensus panel statements to guide physicians in the use of continuous glucose monitoring.

The continuous glucose monitoring (CGM) statement defines the two types of available devices. With professional CGM, the patient wears the device for 3-5 days but is unaware of the results. The physician subsequently downloads and analyzes the data to guide treatment decisions. Personal CGM devices, in contrast, are owned by the patient, who can see the results in real time. While not approved for "treatment decisions," the data are used in conjunction with self–blood glucose monitoring to inform medication adjustments.

The document summarizes data from several randomized controlled clinical trials that have evaluated the effects of CGM in the treatment of type 1 diabetes. On the basis of those, AACE recommended personal CGM for the following patient groups:

► Those with type 1 diabetes who have hypoglycemic unawareness or frequent hypoglycemia, hemoglobin A_{1c} over target, or excess glycemic variability, and those who require HbA_{1c}-lowering without increased hypoglycemia.

► Those planning pregnancy or who are pregnant.

► Children and adolescents with type 1 diabetes who have achieved HbA_{1c} levels less than 7.0% (these patients and their families are typically highly motivated), and youth with type 1 diabetes who have HbA_{1c} levels of at least 7.0% and are able to use the device on a near-daily basis.

In addition, the following patients might be good candidates for personal CGM, and a trial period of 2-4 weeks is recommended:

► Youth who frequently monitor their blood glucose levels.

► Committed families of young children (younger than 8 years), especially if the patient is having problems with hypoglycemia.

And, AACE advised, intermittent use of professional CGM may be useful for youth with type 1 diabetes who are experiencing changes to their diabetes regimen or have problems with nocturnal hypoglycemia/dawn phenomenon, hypoglycemia unawareness, and/or postprandial hyperglycemia.

The document also provides information about reimbursement for CGM, including advice on coding and a list of selected major U.S. private insurers' policies regarding CGM coverage (or lack thereof). The Centers for Medicare and Medicaid Services currently reimburses only for professional CGM.

That document summarizes the current state of the art with regard to continuous subcutaneous insulin delivery – pumps – noting that appropriate patient selection is critical, along with thorough assessment of their knowledge of diabetes management principles. Further, "selection of a provider is critical, and only those whose practice can assume full responsibility for the comprehensive pump management program should offer it.

"Patient diabetes education and a pump training plan must be implemented by a multidisciplinary team under direction of an experienced endocrinologist/diabetologist to address gaps in patient knowledge, and physicians prescribing insulin pumps for their patients should have a round-the-clock system in place to answer patients' concerns about pump problems," the AACE statement advises.

Topics addressed include data comparing pump therapy with multiple insulin injections, pump safety data, and cost-effectiveness analyses, along with information on the economic feasibility of using pumps in medical practices. "Hard-core" data from randomized clinical trials published in peer-reviewed journals that provide evidence for the benefits of insulin pump therapy are lacking, AACE noted.

Some, though not all, of the task force authors of both documents disclosed financial relationships with manufacturers of pumps, CGM, and glucose-lowering medications. ■

Both statements are available online at www.aace.com.