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Diabetes is a chronic disease that affects nearly 27 million adults in America.<sup>1</sup> Type 2 diabetes mellitus (T2DM) is the most common form of the disease in the United States, and it accounts for more than 95% of all diagnosed adult cases of the disease.<sup>1</sup> Since the 1980s, the prevalence of T2DM has tripled. Contributing factors include an aging population, increasing rates of obesity, and a longer lifespan among people with diabetes. Healthcare costs attributable to the disease are expected to grow from approximately \$194 billion in 2010 (7% of overall healthcare spending) to almost \$500 billion in 2020 (10% of healthcare spending).<sup>2</sup>

The cornerstones of diabetes management include dietary modification, diabetes self-management, and regular physical activity. Lifestyle modifications are often augmented with pharmacologic therapy, and there are now eleven classes of antihyperglycemic agents available, including the recently introduced incretin-based therapies. Despite the overwhelming evidence that improved glycemic control reduces diabetic complications, and the growing array of effective therapies, achieving recommended treatment targets remains a challenge.

Managed care decision makers must not only consider the efficacy and safety of specific antihyperglycemic drugs, but also take into account the overall value provided by the class of agent. For example, consideration must be given to the effects the drug class may have on body weight or the occurrence of hypoglycemia; these unintended consequences of treatment may adversely affect patient adherence or require utilization of additional healthcare resources to manage the side effects. In addition, policy makers must also consider how to optimally structure the pharmacy benefit to ensure delivery of high-quality healthcare while simultaneously minimizing barriers to care and managing utilization and costs. Making decisions about formulary inclusion and benefit design requires robust data. Unfortunately, data of sufficient quality and quantity to guide

these decisions are not often available. Consequently, data must be acquired through the use of sophisticated decision support tools, including comparative effectiveness research and pharmacoeconomic modeling.

This supplement to the *American Journal of Managed Care* summarizes 3 presentations given at a satellite symposium held in conjunction with the Academy of Managed Care Pharmacy's 24th Annual Meeting and Expo in San Francisco, California, on April 18 to 20, 2012. The overall objectives for the symposium are provided in the **Table**.

In the first paper, Dr Lawrence Blonde, director of the Diabetes Clinical Research Unit at the Ochsner Medical Center in New Orleans, compares and contrasts the clinical trial data of current and emerging incretin-based therapies, such as glucagon-like peptide-1 agonists, with other T2DM treatment options. In the second paper, Dr John Cruickshank, chief medical officer at the Lovelace Health Plan in Albuquerque, explains how diabetes treatment guidelines published by professional societies such as the American Diabetes Association and the American Association of Clinical Endocrinologists can be effectively integrated into the managed care algorithm. Dr Cruickshank also discusses emerging pharmacy benefit management methods, including value-based designs that can be implemented to improve the overall value of diabetes care. In the third paper, James Kenney, pharmacy operations manager at Harvard Pilgrim Health Care in Wellesley, Massachusetts, reviews the use of decision support tools, such as comparative effectiveness research and pharmacoeconomic models, to make fully informed and weighted decisions that appropriately invest resources for T2DM therapies within a health plan setting.

Recent advances in the understanding of the pathophysiology of T2DM have led to the development of novel classes of drugs such as the incretin-based therapies. The positioning of incretin therapies in the national treatment guidelines as potential second-line agents underscores a need for managed care plans and payers to understand how these agents compare with historically available therapies to provide optimal clinical care. This supplement provides an overview of recent therapeutic advances as well as innovative benefit management strategies to improve treatment success while managing complexities brought about by advancements in the treatment of T2DM.

#### ■ Table. Learning Objectives

- Compare and contrast the safety and efficacy of current and emerging incretin-based therapies, such as GLP-1 agonists, with other type 2 diabetes treatment options on glucose management and other aspects of diabetes pathology.
- Explain how evolving type 2 diabetes treatment guidelines can be integrated with a managed care algorithm to achieve optimal therapeutic value.
- Recommend emerging pharmacy benefit management methods, including value-based designs that managed care organizations can implement to improve the overall value of antidiabetic treatments.
- Apply the use of decision support tools such as comparative effectiveness research and pharmacoeconomic modeling to make fully informed and weighted decisions to appropriately invest resources on type 2 diabetes therapies within a health plan setting.

#### REFERENCES

1. Centers for Disease Control and Prevention. National Diabetes Fact Sheet, 2011. [www.cdc.gov/diabetes/pubs/pdf/ndfs\\_2011.pdf](http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2011.pdf). Accessed July 10, 2012.
2. Vojta D, De Sa J, Prospect T, Stevens S. Effective interventions for stemming the growing crisis of diabetes and prediabetes: a national payer's perspective. *Health Aff (Millwood)*. 2012;31(1): 20-26.