



Rites of Initiation

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Barriers, facilitators, and variation in practices surrounding basal insulin initiation for patients with type 2 diabetes

In the U.S., an estimated 29 million people have type 2 diabetes,¹ and approximately 7.4 million use one or more formulations of insulin.² Basal (long-acting) insulin is often prescribed when elevated hemoglobin A1c (A1c) levels persist after treatment with other therapeutic agents.³ Primary care providers are responsible for most type 2 diabetes management in the U.S., including basal insulin initiation. Approximately 90% of patients with type 2 diabetes receive care for their diabetes in a primary care setting.⁴ Understanding the barriers and facilitators of basal insulin initiation in the primary care setting and identifying the practices of high-performing providers are important steps toward improving care for patients initiating basal insulin for treatment of their diabetes.

Previously, AMGA conducted a quantitative analysis of 5,186 patients with type 2 diabetes.

Several patient characteristics and utilization patterns—such as continuous glucose monitor (CGM) use and weight management counseling visits—were found to be independently associated with successful basal insulin initiation (defined in this study as A1c <8.0, six months post-initiation). Successful basal insulin initiation varied widely at both the organizational level (among the 13 organizations included) and at the provider level within each organization (ranging from four to 42 providers per organization). To contextualize these quantitative results, semi-structured interviews were conducted with six primary care providers from one AMGA-member healthcare organization (HCO). From these interviews, we identified perceived barriers and facilitators to basal insulin initiation, which could be associated with successful initiation.

Barriers

Cost and access to basal insulin was a barrier reported by every provider. Providers mentioned that it was sometimes difficult to keep patients on basal insulin consistently due to lack of adequate insurance coverage or difficulty navigating patient benefits. The highest performing provider (as defined in this study) mentioned utilizing care coordination visits to navigate patients' insurance coverage.

Reluctance to self-administer injections and fear of hypoglycemia were other patient-level barriers reported by providers, but these barriers were cited less often than cost and access. Lack of regular data on glucose levels to which patients or providers could respond was also mentioned as a barrier. This could stem from patients not checking blood sugars regularly or reliably through finger sticks and/or not having access to a CGM.

Facilitators

CGMs were frequently cited as the greatest facilitator of successful basal insulin use. CGMs can potentially provide data to both providers and patients. This helps not only with titration of basal insulin dosage, but also with showing patients the impact of eating certain foods on their sugars, which may empower patients to better self-manage their diabetes through attention to diet. Some providers felt that the objectivity and consistency of the data provided by CGMs helped them make more informed clinical decisions. Several providers wished that 100% of their patients using basal insulin could have access to a personal CGM. Although professional CGMs only provide data to the provider, these short-term CGMs were the type reported as most used by these providers. Providers reported using them for the first few weeks after a patient had initiated basal insulin to inform dose adjustment

decisions. The primary reason not to prescribe personal CGMs for patients was cost.

Other facilitators mentioned less frequently than CGMs were having insulin samples readily available and having access to certified diabetes care and education specialists (CDCES).

Variation in Practices

An A1c level >8.0 will trigger most providers to consider basal insulin. Providers who believed they are aggressive in their treatment expressed that they consider initiating basal insulin at an A1c level of 7.5. Many treatment practices for basal insulin vary by provider (e.g., starting dose, titration, touchpoint frequency, education). A patient initiating basal insulin will have a slightly different experience depending on their provider's individual practices and preferences.

Implications

Both the quantitative and qualitative findings suggest that CGMs may be beneficial for patients initiating basal insulin. Providers expressed their patients' and their own desire to obtain data-driven feedback from CGMs. To increase successful basal insulin initiation, providers might focus on understanding insurance benefits and access. They may also identify the provider or care team in their system who has the most expertise in this area and use that person or care team as a resource. As noted earlier, the highest performing provider in this group utilizes care coordination to navigate insurance, but it was unclear whether the other providers at this organization were aware of the high-performing provider's methods and expertise. [GRJ](#)

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