

The Clinical Impact of Electronic Consultation in Diabetes Care

Madhuri M. Vasudevan, MD, MPH; Sabina D. Hurr, NP-C; Morgan C. Green, PA-C; Nicole C. Splenser, PA; Andrew M. Spiegelman, PhD; Toni L. Woodson; Bonnie K. Walker, MBA; Sanjay N. Mediwala, MD; and Marco Marcelli, MD

Electronic consultations, a collaboration between primary care providers and endocrinologists in VISN 16, help accelerate access to specialty care for patients with diabetes.

In the U.S., the prevalence of diabetes continues to escalate at alarming rates. From 1980-2010 the incidence of diabetes increased by 200% for people aged < 45 years, 124% for people 45 to 64 years, and 126% for people 65 to 74 years. Furthermore, based on the National Institute of Health, diabetes currently affects 25.8 million people in the U.S.^{1,2} Glycemic control has been demonstrated to reduce the risk of microvascular disease in patients with diabetes.³ Most patients with diabetes are managed by primary care practitioners (PCPs), and as the number of patients with diabetes continues to increase, there is an increasing demand on PCPs to achieve recommended glycemic targets.⁴

The Veterans Health Administration (VHA) VISN 16 has a notably higher prevalence of diabetes

compared with that of the national rate. Failure to achieve glycemic targets continues to impose an escalating economic burden.³ Endocrine assistance is often sought by PCPs, but due to a scarcity of endocrinologists, patients commonly wait weeks or months before being seen. Furthermore, rural patients often must travel for several hours before they can reach a specialty center.

The Office of Specialty Care Transformation has provided a unique opportunity for PCPs to gain greater access to specialty advice via electronic consultations. This initiative allows PCPs and specialists to communicate promptly, to institute definitive solutions for patient care, and to augment the clinical and academic aims of primary and specialty care providers. The Michael E. DeBakey

VAMC (MEDVAMC) in Houston, Texas, was chosen to initiate a VISN 16-wide diabetes management e-consult service (DMECS).

Endocrinologists at MEDVAMC developed DMECS to serve as a multifunctional tool to reach as many veterans as possible throughout VISN 16, broaden the scope of the existing diabetes endocrine practice, and engender a collaborative spirit between PCPs and specialty care providers. Initiation of this service has been particularly useful for patients with physical disabilities or financial constraints whose care is managed at the community-based outpatient clinics (CBOCs). The purpose of this article is to discuss the concept and initiation of the DMECS, the structure of the consult note, the implementation process, early provider feedback on the project, and future plans.

THE DMECS PROCESS

The DMECS allows endocrinologists to provide advice to PCPs to help improve diabetes care while minimizing travel to specialty cen-

Dr. Vasudevan is an endocrinologist, **Ms. Hurr** is an advanced practice nurse, **Mr. Green** is a physician assistant, **Ms. Splenser** is a physician assistant, **Ms. Woodson** is a program support assistant, **Dr. Mediwala** is an endocrinologist, and **Dr. Marcelli** is an endocrinologist, all at the Michael E. DeBakey VA Medical Center in Houston, Texas. **Dr. Spiegelman** is a biostatistician at the VA/DoD Vision Center of Excellence in Washington, DC. **Ms. Walker** is a management analyst in Washington, DC. Drs. Vasudevan and Mediwala are also instructors, and Dr. Marcelli is also a professor, all in the Department of Endocrinology, Diabetes, and Metabolism at Baylor College of Medicine in Houston, Texas.

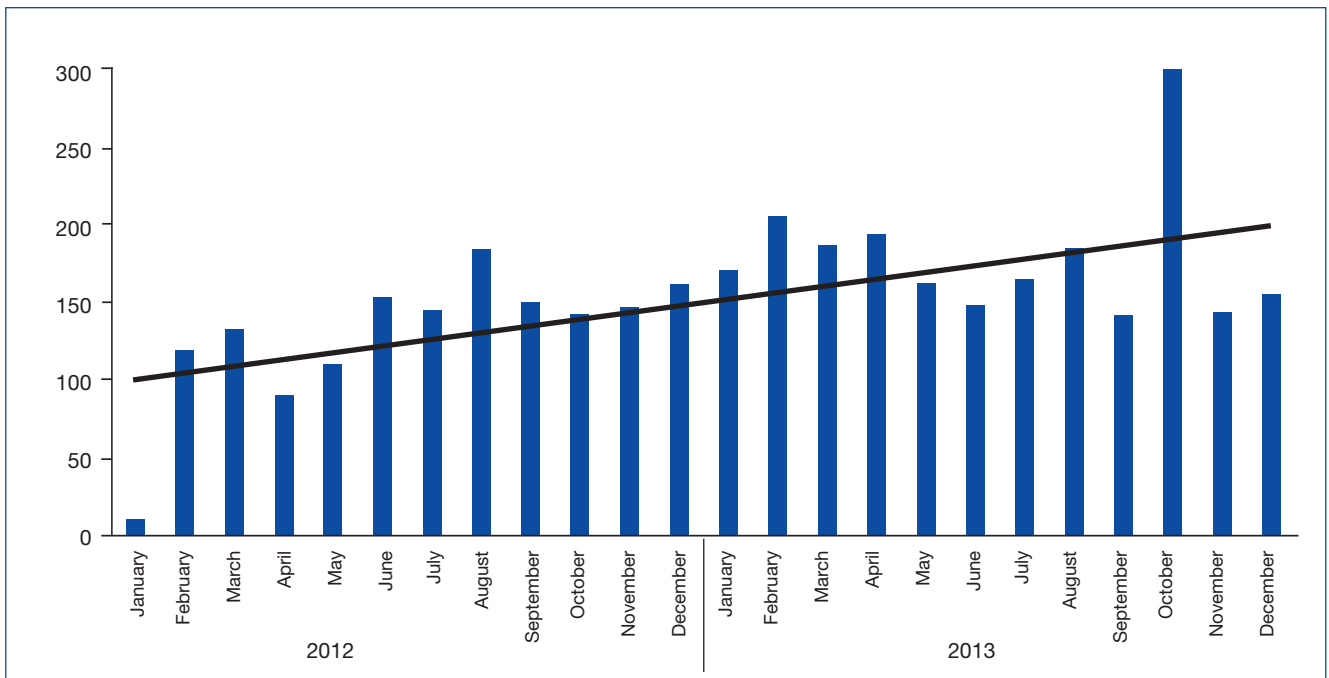


Figure 1. Electronic Consults Completed Monthly, 2012 to 2013.

ters. The advice generated by the DMECS is electronically conveyed to the referring physician (usually the PCP), not to the patient. The requesting physician is then responsible for implementing the recommendations. The DMECS does not comanage patients with diabetes but rather provides support to the PCP in complex cases that would otherwise require an outside referral.

The diabetes management e-consult team has 1 administrator and 3 health care providers (HCPs). Promotion of the service consisted of electronic distribution of flyers to all primary care teams, posters in the main lobby of the hospital, and electronic distribution of a letter to all VISN 16 HCPs. The DMECS team contacted the chiefs of primary care and CBOC directors to promote the service. Communication was augmented by scheduling videoconferencing with all inter-

ested facilities. Presentations were given to the VISN-wide transformational care collaborative and women's health groups.

Any specialties that assist in diabetes management, including ophthalmology and vascular medicine, were encouraged to refer consults to DMECS if clinically indicated. The recommendation is that PCPs submit an e-consult for any patient with a hemoglobin A1C (A1C) > 9%. The only prerequisite to placing the e-consult order is an A1C > 7.5% within the preceding 3 months. Any patient with reported or objective evidence of hypoglycemia is eligible for an e-consult, regardless of the A1C value. Women who are pregnant and patients on an insulin pump are excluded from the program.

All diabetes e-consults are supervised by a board-certified endocrinologist and are resolved within 2 to 3 business days. On receipt of the

consult request, the DMECS provider reviews the chart, including active medication lists, blood glucose levels documented in progress notes, care and coordination of home telehealth data regarding blood glucose levels and changes in diabetes medication management, laboratory results and pharmacy refill patterns.

Recommendations are completed and the DMECS provider alerts the requesting physician by adding them as a cosigner to the note in the Computerized Patient Record System (CPRS). When possible, the patient's nurse manager is also added to the note. For interfacility consults, the DMECS provider contacts the requesting provider directly via email or telephone. Consistent communication with the requesting physician ensures clarity of understanding between specialist and PCP.

The e-consult recommendations are consolidated into 3 dis-

tinct sections. The Impression section provides an explanation to the provider about the specialist's impression of current diabetes control and the reasoning behind the recommendations. The Recommendation section lists in medical terminology the recommended changes to diabetes medications. A unique component to the e-consult is the Instructions to Patient section, which summarizes both oral and insulin medications that can be provided to the patient. Every note includes a Diabetes Surveillance section and several web links to diabetes education that can be downloaded through the MyHealtheVet website.

Current approaches to e-consult implementation are subject

scheduled primary care appointment, at which time the recommendations can be implemented. Using the option of a "pre-clinic e-consult" method expedites the implementation process.

INITIAL RESULTS OF DMECS

The first e-consult was completed on January 23, 2012. Since its inception, 3,703 e-consults have been completed. There has been a steady increase in the number of referrals, with an average of 154 e-consults completed monthly from January 2012 to December 2013 (Figure 1). Most e-consults have been completed based on requests submitted by providers in Houston, Texas and affiliated CBOCs. However, a growing num-

ommendations are successful."

One of the nurse managers explained that "The e-consult service has given me a guide to manage each veteran's diabetes...One veteran stated that he initially was seeing a private endocrinologist at an outside clinic for his diabetes, but when he lost his insurance and began to receive his care at the VA, he stated that he never realized how high the quality of services for diabetes is at the VA." With regard to implementation, she noted that "the diabetes instructions as provided by the e-consult specialist enhance the patient's sense of personalized care."

LIMITATIONS

Another challenge observed by DMECS providers is the variation in the length of time for implementing DMECS recommendations by the requesting providers. Due to the novelty of this service, providers across the VISN are still becoming acquainted with the e-consult process.

In an effort to assist PCPs, DMECS providers perform an objective chart review about 3 months after the e-consult is completed. A note is placed in the CPRS that documents whether e-consult recommendations were implemented and the date of implementation. With time, it is anticipated that a standardized set of recommendations for requesting providers may be instituted to serve as a suggested algorithm for timely and efficient implementation of the e-consult recommendations.

DMECS GOALS

In addition to supporting the MED-VAMC initiative to improve glycemic trends among all patients with diabetes within the facility, DMECS providers hope to share in VISN-wide

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to the discretion of the requesting provider. The most commonly observed approach is that the requesting provider reviews the e-consult note and requests that the patient's nurse manager instructs the patient on the recommendations. Some providers schedule the patient for a physician or nurse visit to discuss the diabetes management recommendations in a clinic setting. Other providers contact the patient by telephone and mail the instructions to the patient.

To streamline the e-consult implementation process, the DMECS team has the option of placing an e-consult 1 week before a patient's scheduled clinic visit with the PCP. This helps ensure that the e-consult is completed within 2 to 3 business days before the patient's

number of interfacility consults have been completed for providers at VISN-16 facilities located in Louisiana, Mississippi, Arkansas, and Oklahoma (Figure 2).

The initial response to the e-consult service has been positive. One provider described DMECS as a means to "obtain faster access to an endocrinologist's input for complex diabetics, which has resulted in faster intervention for patients, particularly those at high risk."

Additionally, another provider noted, "Along with all the benefits of accelerated access to specialty care recommendations, the patients benefit because they do not have to travel to the VA to receive this care. In many cases, they don't have to be scheduled to see the endocrinologist, if the treatment rec-

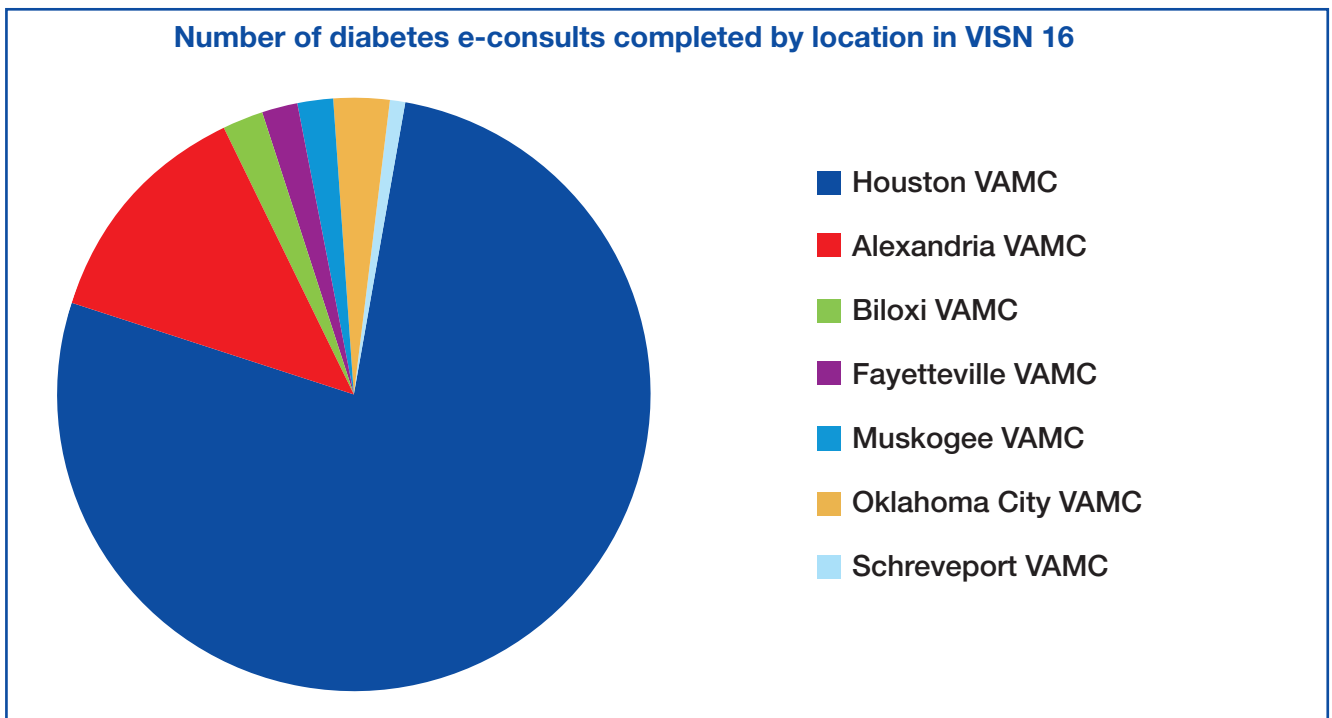


Figure 2. Distribution of Electronic Consults Completed by Requesting Location in VISN 16.

efforts to improve diabetes control by broadening the interfacility referral base. The most successful methods of advertisement and consult recruitment include the recommendation that all patients with diabetes with an A1C > 9% receive an e-consult. Also, when any patient with an A1C > 9% is seen at any of the MEDVAMC eye clinics, an alert is sent to the PCP from the DMECS team, suggesting placement of an e-consult. These strategies have increased the number of referrals within the MEDVAMC, and the goal is to implement similar strategies in all primary care, geriatrics, and women's health clinics across VISN 16.

There are many sites across the VISN that may not have ready access to certified diabetes educators. In support of the VHA goals to promote virtual health, the DMECS team plans to initiate diabetes patient

education sessions through clinical videoconferencing with patients in groups or individually.

In addition to the continued growth of the e-consult service and their efforts at patient education, the DMECS providers are also initiating a CME-accredited course for PCPs and HCPs on outpatient management of diabetes, which will be led by 1 of the 4 endocrinology staff at MEDVAMC. The benefits of provider education have been demonstrated by the University of New Mexico Health Science Center's Project ECHO, which not only improved the quality of care for hepatitis C in a rural territory, but also increased PCP awareness and capacity to treat and manage complex patients.⁵ Project ECHO was used as the model for the initiation of the Specialty Care Access Network-Extension for Community Healthcare

Outcomes (SCAN-ECHO) program at the VA. Accordingly, the DMECS providers envision that continued efforts at provider education should facilitate an improvement in clinical management strategies used by PCPs to optimize diabetes control.

Now that the diabetes management e-consult program has been set up and seems to play an additive role in the management of outpatient diabetes, the next step is to assess the effect of the diabetes e-consult service on patient clinical outcomes. Currently, DMECS is completing retrospective outcome studies to investigate the baseline characteristics of patients who are referred for the e-consult. These DMECS results will be compared with face-to-face diabetes care and management in a specialty clinic. In addition researchers will attempt to assess whether the time-to-implementation of recommendations

has an impact on changes in glyce-mic parameters.

CONCLUSION

In support of the VHA goal of veteran-centered care, the diabetes e-consult service for VISN 16 is an innovative and creative addition to the armamentarium of outpatient diabetes management that has accelerated access to endocrine diabetes care. The service has reached > 1,000 veterans with diabetes since its inception and is set to continue expanding its referral base across VISN 16. Through DMECS, specialty care has become more readily accessible to providers and patients across a greater geographic area. The diabetes management e-consult service has been particularly useful for patients with physical disabilities or financial constraints and has been able to bridge the communication gap between primary and specialty

care, with the goal of improving diabetes outcomes for veterans across the VISN.

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