

## Abstract

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**Title of presentation:** Using Telemedicine and Wireless Technology to Improve Diabetic Outcomes in Poorly Controlled Patients

- Authors:**
1. Dr. Robert A. Vigersky, MD  
Medical Director  
Walter Reed Army Medical Center  
Department of Medicine, Endocrinology Service (7D)  
6900 Georgia Avenue, Building 2  
Washington, DC 20307-5001
  2. Tyrone Anderson  
Project Manager  
Walter Reed Army Medical Center  
Department of Medicine, Endocrinology Service (7D)  
6900 Georgia Avenue, Building 2  
Washington, DC 20307-5001
  3. Dr. Wendy Biddle, PhD, CFNP  
Assistant Professor  
Old Dominion University, School of Nursing  
Technology Building #111A  
Norfolk, VA 23529
  4. Amy D. Filmore, CRNP  
Nurse Practitioner  
Diabetes Institute, Walter Reed Health Care System  
Endocrinology Service (7D)  
Walter Reed Army Medical Center  
6900 Georgia Avenue, Building 2  
Washington, DC 20307-5001

### Abstract Narrative:

This study is designed to determine whether improved glycemic controls can be attained by poorly controlled diabetic patients after incorporating telemedicine technologies (glucometer links to the provider by modem or internet technology) into their daily health care regimen. These technologies allow for more frequent patient/provider interaction, the effect of which will be determined by changes in hemoglobin A<sub>1</sub>C levels – the clinical markers of an effective therapy. Three hundred poorly controlled diabetic patients are selected from the Diabetes Institute at the Walter Reed Army Health Care. One hundred fifty of these patients are randomly assigned to one of three technology groups (modem, WebTV, internet accessible computer). The remaining patients will receive standard care. Study participants will be followed for a period of six months. Patients will record and transmit daily blood glucose levels, which will be monitored by the provider each week. Patient data will determine clinical responses to include recommendations regarding medications and doses, meal planning, and exercise.

Patient compliance, Hemoglobin A<sub>1</sub>C's, the number of major and minor hypoglycemic episodes, emergency room visits, hospital admissions, and the development of new diabetic complications will be statistically analyzed for each group.