

# **The Use of a Comprehensive Diabetes Management Program by the Diabetes Institute of the Walter Reed Health Care System to Improve Outcomes in Patients with Diabetes Mellitus**

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## **ABSTRACT**

The Diabetes Institute was created in 2000 to improve outcomes of the 6000+ patients with DM in the Walter Reed Health Care System. A Comprehensive Diabetes Management Program (CDMP) was created which includes: a) an intranet-based clinical database with an automated alert system; b) remote screening for diabetic retinopathy using the JVN non-mydratic retinal imaging; and c) a web-based communication system for glycemic management. Outcomes include compliance with the Diabetes Quality Improvement Program (DQIP) criteria, ability of the JVN technology to replace annual dilated eye exams, and reduction in DM complications.

By creating an infrastructure of an easily used database and hiring/deploying Nurse Practitioners and retinal imagers to outlying clinics, significant improvement has been achieved in the first phase - DQIP compliance - in the first 991 patients. Compared to 1999, hemoglobin A1C measurement increased from 69.8% to 98.5%, LDL from 68.7% to 95.2%, and urine protein from 7.6% to 75.8%. A1C values have decreased from 8.3% to 7.7% and LDL from 118 mg/dl to 103 mg/dl. Foot exam, eye exam, BP and education data are not available prior to 2000. Compliance has been achieved in 98.1%, 54.0%, 60.9%, and 20.7% of patients, respectively. Data on the success of the JVN system to improve DQIP compliance will be presented.