



**Department of Veterans Affairs  
Veterans Health Administration  
Office of Quality & Performance**



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**TITLE: MANAGEMENT OF PATIENTS WITH DIABETES MELLITUS IN THE  
PRIMARY CARE SETTING – UPDATE03**

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**Citation:** Management of Diabetes Mellitus. Washington, DC: VA/DoD Clinical Practice Guideline Working Group, Veterans Health Administration, Department of Veterans Affairs and Health Affairs, Department of Defense, December 1999 (Update 2003). Office of Quality and Performance publication 10Q-CPG/DM-03.

**Completion Date:** May 2003

**Release Date:** October 2000

**Source(s):** The Diabetes Mellitus Guideline was developed by and written for clinicians by the Department of Veterans Affairs (VA), Department of Defense (DoD), Health Care Financing Administration (HCFA), Centers for Disease Control and Prevention and the National Institutes of Health (NIH)

**Adaptation:** The guideline draws heavily from ADA (American Diabetes Association) and National Cholesterol Education Program guidelines and National Kidney Foundation guidelines for Diabetics. The guideline integrates the recommendations developed by VHA's Medical Advisory Panel (MAP) and the Pharmacy Benefits Management Strategic Health Group.

<b>Guideline Status:</b>	This is the current release of the guideline update - 2003. An update is targeted for 2006.
<b>Developer(s):</b>	Veterans Health Administration (VHA), Department of Veterans Affairs (VA) - Federal Government Agency [U.S.] Department of Defense (DoD) - Federal Government Agency [U.S.]
<b>Funding Source:</b>	United States Government
<b>Committee:</b>	The Management of Diabetes Mellitus Working Group
<b>Group Composition:</b>	The <b>list of contributors</b> to this guideline includes nurses, therapists, endocrinologists, intensivists, internal medicine and primary care physicians, and experts in the field of guideline and algorithm development.
<b>Disease/Condition:</b>	Diabetes Mellitus (DM)
<b>Category:</b>	Diagnosis; Treatment; Early Recognition and Treatment of Co-morbid Conditions, Management; Evaluation
<b>Intended Users:</b>	While designed for use by primary care providers in an ambulatory care setting, the modules can also be used to coordinate and standardize care within subspecialty teams and as teaching tools for students and house staff,
<b>Target Population:</b>	Any person who is eligible for care in the VA or DoD health care delivery system.
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## **GOALS/OBJECTIVES**

- To promote evidence-based management of individuals with diabetes
- To identify the critical decision points in management of patients with Diabetes Mellitus, such as glycemic control, evaluation of the eyes and feet, and co-morbid conditions ( e.g. hypertension, hyperlipidemia and renal disease).
- To allow flexibility so that local policies or procedures, such as those regarding referrals to or consultation with diabetes teams, ophthalmology, optometry, podiatry, nephrology, and endocrinology can be accommodated.
- To decrease the development of complications
- To improve local management of patients with diabetes and thereby improve patient outcomes

## **INTERVENTIONS AND PRACTICES**

The guideline consists of 7 modules addressing:

Management of Diabetes in the Primary Care Setting. Each module uses a risk stratification approach to identify persons with diabetes who have a greater probability of developing complications and who therefore would benefit from more intensive intervention. An aggressive approach is recommended for evaluating and reducing complications.

## **OUTCOMES CONSIDERED**

Early diagnosis and treatment of DM delay, if not prevent, a significant percentage of the instances of visual loss, chronic renal failure, foot ulcers and lower extremity amputations, as well as admissions for metabolic control.

## **MAJOR RECOMMENDATIONS**

The guideline is presented in an algorithmic format that allows the practitioner to follow in the recognition and treatment of DM. Recommendations are made with regard to the intent to establish verifiable treatment objectives for veterans with diabetes that will lead to a reduction in

limb loss, visual loss, chronic renal insufficiency and cardiovascular disease.

## **CLINICAL ALGORITHM ARE PROVIDED FOR:**

- **Module D - Core**
- **Module S - Screening & Prevention**
- **Module G - Glycemic Control**
- **Module E - Eye Care**
- **Module F - Foot Care**
- **Module R - Kidney Function**
- **Module M - Self-management and Education**

## **TYPE OF EVIDENCE**

The majority of the literature supporting the science for the 1999 version of these guidelines are based upon key clinical randomized controlled trials and longitudinal studies published from 1992 through March 1999. Where existing literature is ambiguous or conflicting, and where scientific data are lacking on an issue, recommendations are based on the expert panel's opinion and clinical experience.

The search for the 2003 update of these guidelines used well-known and widely available databases that were appropriate for the clinical subject. In addition to Medline/PubMed, the following databases were searched: Database of Abstracts of Reviews of Effectiveness (DARE) and Cochrane Central Register of Controlled Trials (CCTR). For Medline/PubMed, limits were set for language (English), date of publication (1999 through May 2002) and type of research (RCT and meta-analysis). For the CCTR, limits were set for date of publication (1990 through 2002).

## **DESCRIPTION OF METHODS TO COLLECT EVIDENCE**

Published, peer-reviewed, RCTs were considered to constitute the strongest level of evidence in support of guideline recommendations. This decision was based on the judgment that RCTs provide the clearest, scientifically sound basis for judging comparative efficacy. The Working Group made this decision recognizing the limitations of RCTs, particularly considerations of generalizability with respect to patient selection and treatment quality. Meta-analyses that included random controlled studies were also considered to be the strongest level of evidence, as well as reports of evidence-based systematic reviews. A systematic search of the literature was conducted. It focused on the best available evidence to address each key question and ensured maximum coverage of studies at the top of the hierarchy of study types: evidence-based guidelines, meta analyses, and systematic reviews. When available, the search sought out critical appraisals already performed

by others that described explicit criteria for deciding what evidence was selected and how it was determined to be valid. The sources that have already undergone rigorous critical appraisal include Cochrane Reviews, Best Evidence, Technology Assessment, and EPC reports.

## METHODS TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

The Grading Scheme Used for the Guideline

**TABLE 1: Quality of Evidence (QE)**

**TABLE 4: Grade the Recommendation**

<b>A</b>	A strong recommendation that the intervention is always indicated and acceptable
<b>B</b>	A recommendation that the intervention may be useful/effective
<b>C</b>	A recommendation that the intervention may be considered
<b>D</b>	A recommendation that a procedure may be considered not useful/effective, or may be harmful
<b>I</b>	Insufficient evidence to recommend for or against - the clinician will use clinical judgment

**TABLE 3: Net Effect of the Intervention**

<b>Substantial</b>	More than a small relative impact on a frequent condition
<b>Moderate</b>	A small relative impact on a frequent condition with a
<b>Small</b>	A negligible relative impact on a frequent condition with

	significant impact on the individual patient level.
<b>Zero or Negative</b>	Negative impact on patients; or No relative impact on either a frequent condition with a substantial burden of suffering; or an infrequent condition with a significant impact on the individual patient level.

**TABLE 4: Grade the Recommendation**

<b>A</b>	A strong recommendation that the intervention is always indicated and acceptable
<b>B</b>	A recommendation that the intervention may be useful/effective
<b>C</b>	A recommendation that the intervention may be considered
<b>D</b>	A recommendation that a procedure may be considered not useful/effective, or may be harmful
<b>I</b>	Insufficient evidence to recommend for or against - the clinician will use clinical judgment

## REVIEW METHODS

Peer Review

## ENDORSERS

VHA 's National Clinical Practice Guideline Council  
DoD/VA Clinical Practice Guidelines Working Group

## QUALIFYING STATEMENTS

Clinical practice guidelines, which are increasingly being used in health care, are seen by many as a potential solution to inefficiency and inappropriate variations in care. Guidelines should be evidenced-based as well as based upon explicit criteria to ensure consensus regarding their internal validity. However, it must be remembered that the use of guidelines must always be in the context of a health care provider's clinical judgment in the care of a

particular patient. For that reason, the guidelines may be viewed as an educational tool analogous to textbooks and journals, but in a more user-friendly tone.

## **GUIDELINE AVAILABILITY**

Electronic copies available from:  
The Office of Quality and Performance web site.

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