

# Diabetes Mellitus (DM) Analytic Flowchart

## General Inclusion Criteria

Two face to face encounters with different dates of service in an outpatient setting or non-acute inpatient setting  
**OR**  
 One face-to-face encounter in an acute inpatient or emergency department setting during the measurement period or the year prior to the measurement period (services that occur over both years may be counted)  
**AND**  
 Patients who have a diagnosis of diabetes (see Appendix A.1, A.2)  
**AND**  
 Patient is  $\geq 18$  and  $\leq 75$  years of age the last day of the measurement period

[DMCONFIRMED] = 1  
 (see Appendix A.1, A.2)  
**AND**  
 the last day of the measurement period -  
 [DATEOFBIRTH]  $\geq 18$  and  $\leq 75$

## AND NOT

## General Exclusion Criteria

Diabetes patients with a diagnosis of polycystic ovaries (any time in the patient's history), gestational diabetes (during the measurement period or year prior), and/or steroid induced diabetes (during the measurement period or year prior) who did not have any face-to-face visits during the measurement period  
 (see Appendix B.1)

[DMCONFIRMED] = 3  
 (see Appendix B.1)

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# Diabetes Mellitus (DM) Analytic Flowchart

## DM Clinical Performance Measures

**HbA1c Management: Testing (DM-1):** The percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had Hemoglobin A1c (HbA1c) testing

**Denominator:** Patients 18 - 75 years of age who had a diagnosis of diabetes (type 1 or type 2)

### Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
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Each unique [PATIENTID] = one case in the denominator  
**AND**  
Meeting inclusion criteria (page 1)

### Denominator Exclusions

Diabetes patients meeting the general exclusion criteria (page 1)
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Meeting exclusion criteria (page 1)

**Numerator:** One or more HbA1c test(s) performed during the measurement period

### Numerator Inclusions

Patients who had one or more HbA1c tests performed during the measurement period (see Appendix C.1, C.2, C.3)
---

[DMHBA1CTEST] = 1  
(see Appendix C.1, C.2, C.3)

## Diabetes Mellitus (DM) Analytic Flowchart

**HbA1c Management: Poor Control (DM-2): The percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had HbA1c in poor control (> 9.0%)**

**Denominator: Patients 18 - 75 years of age who had a diagnosis of diabetes (type 1 or type 2)**

### Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
--

Each unique [PATIENTID] = one case in the denominator

**AND**

Meeting inclusion criteria (page 1)

### Denominator Exclusions

Diabetes patients meeting the general exclusion criteria (page 1)
---

Meeting exclusion criteria (page 1)

**Numerator: The most recent HbA1c level (performed during the measurement period) is > 9.0% or is missing or was not done during the measurement period**

### Numerator Inclusions

Patients with most recent HbA1c > 9.0% during the measurement period or is missing or was not done during the measurement period (see Appendix D.1)
---

[DMHBA1CTEST] = 1  
(see Appendix C.1, C.2, C.3)

**AND**

[DMHBA1CVALUE] > 9.0%  
(see Appendix D.1)

**OR**

[DMHBA1CTEST] = 1

**AND**

[DMHBA1CVALUE] = 0

**OR**

[DMHBA1CTEST] = 0

## Diabetes Mellitus (DM) Analytic Flowchart

**Blood Pressure Management (DM-3): The percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had a blood pressure < 140/80 mmHg**

**Denominator: Patients 18 - 75 years of age who had a diagnosis of diabetes (type 1 or type 2)**

### Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
--

Each unique [PATIENTID] = one case in the denominator

**AND**  
Meeting inclusion criteria (page 1)

### Denominator Exclusions

Diabetes patients meeting the general exclusion criteria (page 1)
---

Meeting exclusion criteria (page 1)

**Numerator: Patients with most recent systolic blood pressure measurement < 140 mm Hg *and* diastolic blood pressure < 80 mm Hg during the measurement period**

### Numerator Inclusions

Patients with last systolic blood pressure measurement < 140 mm Hg <i>and</i> diastolic blood pressure < 80 mm Hg during the measurement period (see Appendix E.1, E.2)
---

[DMBPMEASURE] = 1  
**AND**  
[DMBPSYSTOLIC] < 140  
**AND**  
[DMBPDIASTOLIC] < 80  
(see Appendix E.1, E.2)

## Diabetes Mellitus (DM) Analytic Flowchart

**Lipid Management: Testing (DM-4): The percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had LDL-C screening performed**

**Denominator: Patients 18 - 75 years of age who had a diagnosis of diabetes (type 1 or type 2)**

### Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
--

Each unique [PATIENTID] = one case in the denominator

**AND**

Meeting inclusion criteria (page 1)

### Denominator Exclusions

Diabetes patients meeting the general exclusion criteria (page 1)
---

Meeting exclusion criteria (page 1)

**Numerator: An LDL-C test performed during the measurement period**

### Numerator Inclusions

Patient who had at least one LDL-C test performed during the measurement period (see Appendix F.1, F.2, F.3)
--

[DMLDLCTEST] = 1  
(see Appendix F.1, F.2, F.3)

## Diabetes Mellitus (DM) Analytic Flowchart

**Lipid Management: Control < 100 mg/dL (DM-5): The percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had LDL-C testing < 100 mg/dL**

**Denominator: Patients 18 - 75 years of age who had a diagnosis of diabetes (type 1 or type 2)**

### Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
--

Each unique [PATIENTID] = one case in the denominator

**AND**

Meeting inclusion criteria (page 1)

### Denominator Exclusions

Diabetes patients meeting the general exclusion criteria (page 1)
---

Meeting exclusion criteria (page 1)

**Numerator: The most recent LDL-C level performed during the measurement period is < 100 mg/dL**

### Numerator Inclusions

Patients with most recent LDL-C level performed during the measurement period is < 100 mg/dL (see Appendix G.1)
---

[DMLDLCTEST] = 1  
(see Appendix F.1, F.2, F.3)

**AND**

[DMLDLCVALUE] < 100 mg/dL  
(see Appendix G.1)

## Diabetes Mellitus (DM) Analytic Flowchart

**Urine Protein Screening (DM-6): The percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had medical attention for nephropathy**

**Denominator: Patients 18 - 75 years of age who had a diagnosis of diabetes (type 1 or type 2)**

### Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
--

Each unique [PATIENTID] = one case in the denominator

**AND**

Meeting inclusion criteria (page 1)

### Denominator Exclusions

Diabetes patients meeting the general exclusion criteria (page 1)
---

Meeting exclusion criteria (page 1)

**Numerator: Patients who received any test for urine microalbumin, or had evidence of medical attention for nephropathy, or had a positive macroalbumin test, or received ACE Inhibitor/ARB therapy during the measurement period**

### Numerator Inclusions

Patients who had any test for urine microalbumin, or had evidence of medical attention for nephropathy, or had a positive macroalbumin test, or received ACE Inhibitor/ARB therapy during the measurement period (see Appendix H.1, H.2, H.3, H.4, H.5 and Tables 1, 2)
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[DMNEPHROPATHY] = 1

(see Appendix H.1, H.2, H.3, H.4, H.5 and Tables 1, 2)

## Diabetes Mellitus (DM) Analytic Flowchart

**Eye Examination (■DM-7): The percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had an eye exam (retinal) performed**

**Denominator: Patients 18 - 75 years of age who had a diagnosis of diabetes (type 1 or type 2)**

### Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
--

Each unique [PATIENTID] = one case in the denominator

**AND**

Meeting inclusion criteria (page 1)

### Denominator Exclusions

Diabetes patients meeting the general exclusion criteria (page 1)
---

Meeting exclusion criteria (page 1)

**Numerator: Patients who received a retinal eye exam during the measurement period or a *negative* retinal eye exam during the year prior to the measurement period**

### Numerator Inclusions

Patients who received a retinal eye exam during the measurement period OR a <i>negative</i> retinal eye exam during the year prior to the measurement period (see Appendix I.1, I.2, I.3, I.4)
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[DMEYEEXAM] = 1  
(see Appendix I.1, I.2, I.3, I.4)

## Diabetes Mellitus (DM) Analytic Flowchart

**Foot Examination (#DM-8): The percentage of patients 18 - 75 years of age with diabetes (type 1 or type 2) who had a foot exam (visual inspection, sensory exam with monofilament or pulse exam)**

**Denominator: Patients 18 - 75 years of age who had a diagnosis of diabetes (type 1 or type 2)**

### Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
--

Each unique [PATIENTID] = one case in the denominator

**AND**

Meeting inclusion criteria (page 1)

### Denominator Exclusions

Diabetes patients meeting the general exclusion criteria (page 1)
---

Meeting exclusion criteria (page 1)

**AND**

Excluded for Medical Reasons:
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[DMFOOTEXAM] = 3

- History of bilateral foot/leg amputation

(see Appendix J.1)

(see Appendix J.1)
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**Numerator: Patients who received a foot exam (visual inspection, sensory exam with monofilament or pulse exam) during the measurement period**

### Numerator Inclusions

Patients who received a foot exam (at least one of the three components) during the measurement period (see Appendix K.1)
---

[DMFOOTEXAM] = 1

(see Appendix K.1)