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Diabetes Mellitus Lab Tests

Adjudication Guideline

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Approved by:
Daman

Responsible:
Medical Standards & Research

Related Adjudication Guidelines:
DM Home Monitoring

Abstract

For Members

Diabetes develops when the body is unable to produce or use insulin (an essential hormone made in the pancreas). Subsequently, blood sugar ("blood glucose") rises in the blood stream – a condition called "hyperglycemia." Some common symptoms include increased thirst/hunger, frequent urination, unintentional weight loss, blurred vision, non-healing wounds and extreme fatigue.

Diabetes Mellitus is usually classified as Type 1, Type 2, Gestational, or other.

Daman covers all investigations to diagnose and monitor Diabetes whenever medically necessary, subject to policy terms and conditions.

For Medical Professionals

Diabetes Mellitus is a chronic illness that requires continuing medical care. To monitor efficacy of glycemic control and prevention/ management of complications, all of the following are recommended: self-monitoring of blood glucose, ongoing patient education/support, and regular medical check-ups with necessary investigations.

Daman covers all the investigations required for screening, diagnosis and monitoring of Diabetes Mellitus (and complications) as per medical necessity and recommended frequencies, subject to policy terms and conditions.

Scope

This adjudication guideline highlights the recommended investigations for screening, diagnosis and monitoring of Type 1 Diabetes, Type 2 Diabetes, and Pre-existing Diabetes in Pregnancy and Gestational Diabetes Mellitus in the outpatient setting.

Evaluation of other types of Diabetes (such as neonatal, drug-or chemical-induced, post-transplantation, etc.), non-diabetic hypoglycemia and diseases associated with insulin-resistance (such as Polycystic Ovarian Syndrome) is outside the scope of this guideline. Likewise, home glucose monitoring, medical treatment and supplies/equipment for the administration of diabetes medications are not included.

Adjudication Policy

Eligibility / Coverage Criteria

1. **Screening**

   Screening may be done for asymptomatic patients with the following conditions:
   - Pregnant (as part of routine antenatal testing)
   - Women previously diagnosed with GDM – once every 3 years
   - Abnormal glucose testing without diagnosis of Diabetes – once a year
   - After organ transplantation

   Screening may also be done for asymptomatic patients with the benefit:
   - Weqaya screening
   - Medical check-up (or other similar benefit)
   - Obese/ overweight + other risk factor (Hypertension, Dyslipidemia, etc.)
   - Prediabetes

2. **Diagnosis**

   Patients with clinical signs/symptoms suggestive of diabetes may undergo testing. Some examples are polyuria, polydipsia, and polyphagia.

3. **Monitoring**

   Monitoring may be done for the following patients:
   - Diagnosed cases of DM Type 1 or Type 2
   - Diagnosed cases of GDM, or pregnant patients with pre-existing DM Type 1 or 2

Diabetic patients may be evaluated for glycemic control and development of complications as detailed in Table A.

Table A. Components of the routine comprehensive medical evaluation for diabetic patients

Examination	Frequency as per ADA	Indication
A1C, if the results are not available within the past 3 months	Every 3 months	Any diabetes
Lipid profile, including total, LDL, and HDL cholesterol and triglycerides	Annually (and after initiation/dose changes of diabetes medications, blood pressure medications, cholesterol medications, or thyroid medications)	Any diabetes
Liver function tests (transaminases)	Annually (and after initiation/dose changes of diabetes medications, blood pressure medications, cholesterol medications, or thyroid medications)	Any diabetes
Spot urinary albumin-to-creatinine ratio	Annually	Any diabetes
Serum creatinine and estimated glomerular filtration rate	Annually (and more frequently if with CKD or with changes in medications that affect kidney function and serum potassium)	Any diabetes

Thyroid-stimulating hormone in patients with type 1 diabetes	Annually (and after initiation/dose changes of diabetes medications, blood pressure medications, cholesterol medications, or thyroid medications)	DM Type 1
Vitamin B12 if on metformin (when indicated)	When indicated (if patient has neuro manifestations and longterm use)	Diabetes + ICD Other long term (current) drug therapy
Serum potassium levels in patients on ACE inhibitors, ARBs, or diuretics	Annually (and more frequently if with CKD or with changes in medications that affect kidney function and serum potassium)	Any diabetes
Fundoscopic examination (refer to eye specialist)/ Diabetic retinopathy screening	Annually	Any diabetes (excluding GDM) without known retinopathy

Pregnancy is a crucial period for observing Pre-Existing Diabetes, or identifying and subsequent monitoring of Gestational Diabetes. Table B and C below outline the similarities and differences in necessary investigations for both conditions.

Table B. Management of Pre-existing Diabetes in Pregnancy

Description of investigation	Frequency
Fundoscopic examination (refer to eye specialist)/ Diabetic retinopathy screening	Before pregnancy or in the 1st trimester if not done previously, then annually
Remote imaging for monitoring and management of active retinal disease (eg, diabetic retinopathy) with physician review, interpretation and report, unilateral or bilateral	Once per trimester, then annually
Fasting blood glucose	As needed to achieve metabolic control
One-hour postprandial glucose (or two-hour postprandial if billed twice)	As needed to achieve metabolic control
HbA1c	Every 3 months

Table C. Management of Gestational Diabetes

Description of investigation	Frequency
Fasting blood glucose	As needed to achieve metabolic control
One-hour postprandial glucose (or two-hour postprandial if billed twice)	As needed to achieve metabolic control
OGTT	As part of routine antenatal screening, then 4 to 12 weeks postpartum
HbA1c	Not routinely used for glycemic control in the 2nd and 3rd trimester

Requirements for Coverage

ICD, CPT and HCPCS codes must be coded to the highest level of specificity.

Non-Coverage

Daman does not cover investigations outside best practice recommendations.
CPT Hemoglobin; glycosylated (A1C) by device cleared by FDA for home use is not covered, as there is still insufficient evidence recommending its use. Likewise, the following tests are not considered medically necessary for the screening, diagnosis or monitoring of Type 1 DM, Type 2 DM and GDM: genetic markers, insulin, pro-insulin, C-peptide and insulin antibodies.

Daman does not cover investigations for asymptomatic patients, unless recommended by the regulator or if with routine medical check-up benefit/ health screening benefit.
These services are not covered for Visitor's Plan.

Payment and Coding Rules

Please apply regulator payment rules and regulations, as well as relevant coding manuals (ICD and CPT).
ICD10CM diagnosis code pertaining to use of insulin should be coded for patients on insulin therapy.

Denial codes

Code description
Submission not compliant with contractual agreement between provider and payer
Payment already made for same/similar service within set time frame
Service is not clinically indicated based on good clinical practice, without additional supporting diagnoses/activities
Service/supply may be appropriate, but too frequent
Service(s) is (are) not covered
Service is included in another service paid

Appendices

A. References

1. American Diabetes Association Standards of Medical Care In Diabetes – 2018
2. CPT® Assistant American Medical Association
3. https://www.uptodate.com/contents/estimation-of-blood-glucose-control-in-diabetes-mellitus
4. https://www.uptodate.com/contents/overview-of-medical-care-in-adults-with-diabetes-mellitus
5. https://www.uptodate.com/contents/pregestational-diabetes-mellitus-obstetrical-issues-and-management
6. https://www.uptodate.com/contents/diabetic-retinopathy-screening

B. Revision History

Date	Change(s)
01-11-2013	- V1.0
15-07-2014	- V1.1 - Disclaimed updated as per system requirements
25-03-2018	- V2.0 - General content update