

National Coverage Determination
Procedure Code: 82985, 83036
Glycated Hemoglobin/Glycated Protein
CMS Policy Number: 190.21
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Description: The management of diabetes mellitus requires regular determinations of blood glucose levels. Glycated hemoglobin/protein levels are used to assess long-term glucose control in diabetes. Alternative names for these tests include glycated or glycosylated hemoglobin or Hgb, hemoglobin glycated or glycosylated protein, and fructosamine.

Glycated hemoglobin (equivalent to hemoglobin A1) refers to total glycosylated hemoglobin present in erythrocytes, usually determined by affinity or ion-exchange chromatographic methodology. Hemoglobin A1c refers to the major component of hemoglobin A1, usually determined by ion-exchange affinity chromatography, immunoassay or agar gel electrophoresis. Fructosamine or glycated protein refers to glycosylated protein present in a serum or plasma sample. Glycated protein refers to measurement of the component of the specific protein that is glycated usually by colorimetric method or affinity chromatography.

Glycated hemoglobin in whole blood assesses glycemic control over a period of 4-8 weeks and appears to be the more appropriate test for monitoring a patient who is capable of maintaining long-term, stable control. Measurement may be medically necessary every 3 months to determine whether a patient's metabolic control has been on average within the target range. More frequent assessments, every 1-2 months, may be appropriate in the patient whose diabetes regimen has been altered to improve control or in whom evidence is present that intercurrent events may have altered a previously satisfactory level of control (for example, post- major surgery or as a result of glucocorticoid therapy). Glycated protein in serum/plasma assesses glycemic control over a period of 1-2 weeks. It may be reasonable and necessary to monitor glycated protein monthly in pregnant diabetic women. Glycated hemoglobin/protein test results may be low, indicating significant, persistent hypoglycemia, in nesidioblastosis or insulinoma, conditions which are accompanied by inappropriate hyperinsulinemia. A below normal test value is helpful in establishing the patient's hypoglycemic state in those conditions.

Indications:

Glycated hemoglobin/protein testing is accepted as medically necessary for management and control of diabetes and to assess hyperglycemia, a history of

hyperglycemia or dangerous hypoglycemia. Glycated protein testing may be used in place of glycated hemoglobin in the management of diabetic patients, and is useful in patients with abnormalities of erythrocytes such as hemolytic anemia or hemoglobinopathies.

Limitations:

It is not reasonable and necessary to perform glycated hemoglobin tests more often than every three months on a controlled diabetic patient to determine if the patient’s metabolic control has been on average within the target range. It is not reasonable and necessary for these tests to be performed more frequently than once a month for diabetic pregnant women. Testing for uncontrolled type one or two diabetes mellitus may require testing more than four times a year. The above Description Section provides the clinical basis for those situations in which testing more frequently than four times per annum is indicated, and medical necessity documentation must support such testing in excess of the above guidelines.

Many analytical methods of glycated hemoglobin show interference from elevated levels of fetal hemoglobin or by variant hemoglobin molecules. When the glycated hemoglobin assay is initially performed in these patients, the laboratory may inform the ordering physician of a possible analytical interference. Alternative testing, including glycated protein, for example, fructosamine, may be indicated for monitoring the degree of glycemic control. It is therefore conceivable that a patient will have both a glycated hemoglobin and glycated protein ordered on the same day. This should be limited to the initial assay of glycated hemoglobin, with subsequent exclusive use of glycated protein. These tests are not considered to be medically necessary for the diagnosis of diabetes.

To review all requirements of this policy, please see: [CMS NCD listing by Chapter](#)

Covered ICD-10 Codes.

ICD-10	Descriptor
D13.7	Benign neoplasm of endocrine pancreas
E08.00	Diab d/t undrl cond w hyprosm w/o nonket hyprgly-hypros coma
E08.01	Diabetes due to underlying condition w hyprosm w coma
E08.10	Diabetes due to underlying condition w ketoacidosis w/o coma
E08.11	Diabetes due to underlying condition w ketoacidosis w coma
E08.21	Diabetes due to underlying condition w diabetic nephropathy
E08.22	Diabetes due to undrl cond w diabetic chronic kidney disease
E08.29	Diabetes due to undrl condition w oth diabetic kidney comp

E08.311	Diab due to undrl cond w unsp diabetic rtnop w macular edema
E08.319	Diab due to undrl cond w unsp diab rtnop w/o macular edema
E08.3211	Diabetes with mild nonp rtnop with macular edema, right eye
E08.3212	Diabetes with mild nonp rtnop with macular edema, left eye
E08.3213	Diabetes with mild nonp rtnop with macular edema, bilateral
E08.3291	Diabetes with mild nonp rtnop without macular edema, r eye
E08.3292	Diab with mild nonp rtnop without macular edema, left eye
E08.3293	Diabetes with mild nonp rtnop without macular edema, bi
E08.3311	Diabetes with moderate nonp rtnop with macular edema, r eye
E08.3312	Diab with moderate nonp rtnop with macular edema, left eye
E08.3313	Diabetes with moderate nonp rtnop with macular edema, bi
E08.3391	Diab with moderate nonp rtnop without macular edema, r eye
E08.3392	Diab with moderate nonp rtnop without macular edema, l eye
E08.3393	Diabetes with moderate nonp rtnop without macular edema, bi
E08.3411	Diabetes with severe nonp rtnop with macular edema, r eye
E08.3412	Diabetes with severe nonp rtnop with macular edema, left eye
E08.3413	Diabetes with severe nonp rtnop with macular edema, bi
E08.3491	Diabetes with severe nonp rtnop without macular edema, r eye
E08.3492	Diab with severe nonp rtnop without macular edema, left eye
E08.3493	Diabetes with severe nonp rtnop without macular edema, bi
E08.3511	Diab with prolif diabetic rtnop with macular edema, r eye
E08.3512	Diab with prolif diabetic rtnop with macular edema, left eye
E08.3513	Diabetes with prolif diabetic rtnop with macular edema, bi
E08.3521	Diab with prolif diab rtnop with trctn dtch macula, r eye
E08.3522	Diab with prolif diab rtnop with trctn dtch macula, left eye
E08.3523	Diab with prolif diabetic rtnop with trctn dtch macula, bi
E08.3531	Diab with prolif diab rtnop with trctn dtch n-mcla, r eye
E08.3532	Diab with prolif diab rtnop with trctn dtch n-mcla, left eye
E08.3533	Diab with prolif diabetic rtnop with trctn dtch n-mcla, bi
E08.3541	Diabetes with prolif diabetic rtnop with comb detach, r eye
E08.3542	Diab with prolif diabetic rtnop with comb detach, left eye
E08.3543	Diabetes with prolif diabetic rtnop with combined detach, bi
E08.3551	Diabetes with stable prolif diabetic retinopathy, right eye
E08.3552	Diabetes with stable prolif diabetic retinopathy, left eye
E08.3553	Diabetes with stable prolif diabetic retinopathy, bilateral
E08.3591	Diab with prolif diabetic rtnop without macular edema, r eye
E08.3592	Diab with prolif diab rtnop without macular edema, left eye
E08.3593	Diab with prolif diabetic rtnop without macular edema, bi
E08.36	Diabetes due to underlying condition w diabetic cataract
E08.37X1	Diab with diabetic macular edema, resolved fol trtmt, r eye
E08.37X2	Diab with diab macular edema, resolved fol trtmt, left eye
E08.37X3	Diabetes with diabetic macular edema, resolved fol trtmt, bi

E08.39	Diabetes due to undrll condition w oth diabetic opth comp
E08.40	Diabetes due to underlying condition w diabetic neurop, unsp
E08.41	Diabetes due to undrll condition w diabetic mononeuropathy
E08.42	Diabetes due to underlying condition w diabetic polyneurop
E08.43	Diab due to undrll cond w diabetic autonm (poly)neuropathy
E08.44	Diabetes due to underlying condition w diabetic amyotrophy
E08.49	Diabetes due to undrll condition w oth diabetic neuro comp
E08.51	Diab due to undrll cond w diab prph angiopath w/o gangrene
E08.52	Diab due to undrll cond w diabetic prph angiopath w gangrene
E08.59	Diabetes due to underlying condition w oth circulatory comp
E08.610	Diabetes due to undrll cond w diabetic neuropathic arthrop
E08.618	Diabetes due to underlying condition w oth diabetic arthrop
E08.620	Diabetes due to underlying condition w diabetic dermatitis
E08.621	Diabetes mellitus due to underlying condition w foot ulcer
E08.622	Diabetes due to underlying condition w oth skin ulcer
E08.628	Diabetes due to underlying condition w oth skin comp
E08.630	Diabetes due to underlying condition w periodontal disease
E08.638	Diabetes due to underlying condition w oth oral comp
E08.641	Diabetes due to underlying condition w hypoglycemia w coma
E08.649	Diabetes due to underlying condition w hypoglycemia w/o coma
E08.65	Diabetes due to underlying condition w hyperglycemia
E08.69	Diabetes due to underlying condition w oth complication
E08.8	Diabetes due to underlying condition w unsp complications
E08.9	Diabetes due to underlying condition w/o complications
E09.00	Drug/chem diab w hyprosm w/o nonket hyprgly-hypros coma
E09.01	Drug/chem diabetes mellitus w hyperosmolarity w coma
E09.10	Drug/chem diabetes mellitus w ketoacidosis w/o coma
E09.11	Drug/chem diabetes mellitus w ketoacidosis w coma
E09.21	Drug/chem diabetes mellitus w diabetic nephropathy
E09.22	Drug/chem diabetes w diabetic chronic kidney disease
E09.29	Drug/chem diabetes w oth diabetic kidney complication
E09.311	Drug/chem diabetes w unsp diabetic rtnop w macular edema
E09.319	Drug/chem diabetes w unsp diabetic rtnop w/o macular edema
E09.3211	Drug/chem diab with mild nonp rtnop with mclr edema, r eye
E09.3212	Drug/chem diab with mild nonp rtnop with mclr edema, l eye
E09.3213	Drug/chem diab with mild nonp rtnop with macular edema, bi
E09.3291	Drug/chem diab with mild nonp rtnop w/o mclr edema, r eye
E09.3292	Drug/chem diab with mild nonp rtnop w/o mclr edema, l eye
E09.3293	Drug/chem diab with mild nonp rtnop without mclr edema, bi
E09.3311	Drug/chem diab with mod nonp rtnop with macular edema, r eye
E09.3312	Drug/chem diab with mod nonp rtnop with macular edema, l eye
E09.3313	Drug/chem diab with mod nonp rtnop with macular edema, bi

E09.3391	Drug/chem diab with mod nonp rtnop without mclr edema, r eye
E09.3392	Drug/chem diab with mod nonp rtnop without mclr edema, l eye
E09.3393	Drug/chem diab with mod nonp rtnop without macular edema, bi
E09.3411	Drug/chem diab with severe nonp rtnop with mclr edema, r eye
E09.3412	Drug/chem diab with severe nonp rtnop with mclr edema, l eye
E09.3413	Drug/chem diab with severe nonp rtnop with macular edema, bi
E09.3491	Drug/chem diab with severe nonp rtnop w/o mclr edema, r eye
E09.3492	Drug/chem diab with severe nonp rtnop w/o mclr edema, l eye
E09.3493	Drug/chem diab with severe nonp rtnop without mclr edema, bi
E09.3511	Drug/chem diab with prolif diab rtnop with mclr edema, r eye
E09.3512	Drug/chem diab with prolif diab rtnop with mclr edema, l eye
E09.3513	Drug/chem diab with prolif diab rtnop with macular edema, bi
E09.3521	Drug/chem diab w prolif diab rtnop w trctn dtch macula,r eye
E09.3522	Drug/chem diab w prolif diab rtnop w trctn dtch macula,l eye
E09.3523	Drug/chem diab w prolif diab rtnop w trctn dtch macula, bi
E09.3531	Drug/chem diab w prolif diab rtnop w trctn dtch n-mcla,r eye
E09.3532	Drug/chem diab w prolif diab rtnop w trctn dtch n-mcla,l eye
E09.3533	Drug/chem diab w prolif diab rtnop w trctn dtch n-mcla, bi
E09.3541	Drug/chem diab w prolif diab rtnop with comb detach, r eye
E09.3542	Drug/chem diab w prolif diab rtnop with comb detach, l eye
E09.3543	Drug/chem diab with prolif diab rtnop with comb detach, bi
E09.3551	Drug/chem diabetes with stable prolif diabetic rtnop, r eye
E09.3552	Drug/chem diab with stable prolif diabetic rtnop, left eye
E09.3553	Drug/chem diabetes with stable prolif diabetic rtnop, bi
E09.3591	Drug/chem diab with prolif diab rtnop w/o mclr edema, r eye
E09.3592	Drug/chem diab with prolif diab rtnop w/o mclr edema, l eye
E09.3593	Drug/chem diab with prolif diab rtnop without mclr edema, bi
E09.36	Drug/chem diabetes mellitus w diabetic cataract
E09.37X1	Drug/chem diab w diab mclr edma, resolved fol trtmt, r eye
E09.37X2	Drug/chem diab w diab mclr edma, resolved fol trtmt, l eye
E09.37X3	Drug/chem diab with diab mclr edema, resolved fol trtmt, bi
E09.39	Drug/chem diabetes w oth diabetic ophthalmic complication
E09.40	Drug/chem diabetes w neuro comp w diabetic neuropathy, unsp
E09.41	Drug/chem diabetes w neuro comp w diabetic mononeuropathy
E09.42	Drug/chem diabetes w neurological comp w diabetic polyneurop
E09.43	Drug/chem diab w neuro comp w diab autonm (poly)neuropathy
E09.44	Drug/chem diabetes w neurological comp w diabetic amyotrophy
E09.49	Drug/chem diabetes w neuro comp w oth diabetic neuro comp
E09.51	Drug/chem diabetes w diabetic prph angiopath w/o gangrene
E09.52	Drug/chem diabetes w diabetic prph angiopath w gangrene
E09.59	Drug/chem diabetes mellitus w oth circulatory complications
E09.610	Drug/chem diabetes w diabetic neuropathic arthropathy

E09.618	Drug/chem diabetes mellitus w oth diabetic arthropathy
E09.620	Drug/chem diabetes mellitus w diabetic dermatitis
E09.621	Drug or chemical induced diabetes mellitus with foot ulcer
E09.622	Drug or chemical induced diabetes mellitus w oth skin ulcer
E09.628	Drug/chem diabetes mellitus w oth skin complications
E09.630	Drug/chem diabetes mellitus w periodontal disease
E09.638	Drug/chem diabetes mellitus w oth oral complications
E09.641	Drug/chem diabetes mellitus w hypoglycemia w coma
E09.649	Drug/chem diabetes mellitus w hypoglycemia w/o coma
E09.65	Drug or chemical induced diabetes mellitus w hyperglycemia
E09.69	Drug/chem diabetes mellitus w oth complication
E09.8	Drug/chem diabetes mellitus w unsp complications
E09.9	Drug or chemical induced diabetes mellitus w/o complications
E10.10	Type 1 diabetes mellitus with ketoacidosis without coma
E10.11	Type 1 diabetes mellitus with ketoacidosis with coma
E10.21	Type 1 diabetes mellitus with diabetic nephropathy
E10.22	Type 1 diabetes mellitus w diabetic chronic kidney disease
E10.29	Type 1 diabetes mellitus w oth diabetic kidney complication
E10.311	Type 1 diabetes w unsp diabetic retinopathy w macular edema
E10.319	Type 1 diabetes w unsp diabetic rtnop w/o macular edema
E10.3211	Type 1 diab with mild nonp rtnop with macular edema, r eye
E10.3212	Type 1 diab with mild nonp rtnop with macular edema, l eye
E10.3213	Type 1 diabetes with mild nonp rtnop with macular edema, bi
E10.3291	Type 1 diab with mild nonp rtnop without macular edema, r eye
E10.3292	Type 1 diab with mild nonp rtnop without macular edema, l eye
E10.3293	Type 1 diab with mild nonp rtnop without macular edema, bi
E10.3311	Type 1 diab with mod nonp rtnop with macular edema, r eye
E10.3312	Type 1 diab with mod nonp rtnop with macular edema, l eye
E10.3313	Type 1 diab with moderate nonp rtnop with macular edema, bi
E10.3391	Type 1 diab with mod nonp rtnop without macular edema, r eye
E10.3392	Type 1 diab with mod nonp rtnop without macular edema, l eye
E10.3393	Type 1 diab with mod nonp rtnop without macular edema, bi
E10.3411	Type 1 diab with severe nonp rtnop with macular edema, r eye
E10.3412	Type 1 diab with severe nonp rtnop with macular edema, l eye
E10.3413	Type 1 diab with severe nonp rtnop with macular edema, bi
E10.3491	Type 1 diab with severe nonp rtnop without macular edema, r eye
E10.3492	Type 1 diab with severe nonp rtnop without macular edema, l eye
E10.3493	Type 1 diab with severe nonp rtnop without macular edema, bi
E10.3511	Type 1 diab with proliferative diab rtnop with macular edema, r eye
E10.3512	Type 1 diab with proliferative diab rtnop with macular edema, l eye
E10.3513	Type 1 diab with proliferative diab rtnop with macular edema, bi
E10.3521	Type 1 diab w proliferative diab rtnop w traction detachment macula, r eye

E10.3522	Type 1 diab w prolif diab rtnop w trctn dtch macula, l eye
E10.3523	Type 1 diab w prolif diab rtnop with trctn dtch macula, bi
E10.3531	Type 1 diab w prolif diab rtnop w trctn dtch n-mcla, r eye
E10.3532	Type 1 diab w prolif diab rtnop w trctn dtch n-mcla, l eye
E10.3533	Type 1 diab w prolif diab rtnop with trctn dtch n-mcla, bi
E10.3541	Type 1 diab with prolif diab rtnop with comb detach, r eye
E10.3542	Type 1 diab with prolif diab rtnop with comb detach, l eye
E10.3543	Type 1 diab with prolif diabetic rtnop with comb detach, bi
E10.3551	Type 1 diabetes with stable prolif diabetic rtnop, right eye
E10.3552	Type 1 diabetes with stable prolif diabetic rtnop, left eye
E10.3553	Type 1 diabetes with stable prolif diabetic rtnop, bilateral
E10.3591	Type 1 diab with prolif diab rtnop without mclr edema, r eye
E10.3592	Type 1 diab with prolif diab rtnop without mclr edema, l eye
E10.3593	Type 1 diab with prolif diab rtnop without macular edema, bi
E10.36	Type 1 diabetes mellitus with diabetic cataract
E10.37X1	Type 1 diab with diab mclr edema, resolved fol trtmt, r eye
E10.37X2	Type 1 diab with diab mclr edema, resolved fol trtmt, l eye
E10.37X3	Type 1 diab with diab macular edema, resolved fol trtmt, bi
E10.39	Type 1 diabetes w oth diabetic ophthalmic complication
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unsp
E10.41	Type 1 diabetes mellitus with diabetic mononeuropathy
E10.42	Type 1 diabetes mellitus with diabetic polyneuropathy
E10.43	Type 1 diabetes w diabetic autonomic (poly)neuropathy
E10.44	Type 1 diabetes mellitus with diabetic amyotrophy
E10.49	Type 1 diabetes w oth diabetic neurological complication
E10.51	Type 1 diabetes w diabetic peripheral angiopath w/o gangrene
E10.52	Type 1 diabetes w diabetic peripheral angiopathy w gangrene
E10.59	Type 1 diabetes mellitus with oth circulatory complications
E10.610	Type 1 diabetes mellitus w diabetic neuropathic arthropathy
E10.618	Type 1 diabetes mellitus with other diabetic arthropathy
E10.620	Type 1 diabetes mellitus with diabetic dermatitis
E10.621	Type 1 diabetes mellitus with foot ulcer
E10.622	Type 1 diabetes mellitus with other skin ulcer
E10.628	Type 1 diabetes mellitus with other skin complications
E10.630	Type 1 diabetes mellitus with periodontal disease
E10.638	Type 1 diabetes mellitus with other oral complications
E10.641	Type 1 diabetes mellitus with hypoglycemia with coma
E10.649	Type 1 diabetes mellitus with hypoglycemia without coma
E10.65	Type 1 diabetes mellitus with hyperglycemia
E10.69	Type 1 diabetes mellitus with other specified complication
E10.8	Type 1 diabetes mellitus with unspecified complications
E10.9	Type 1 diabetes mellitus without complications

E11.00	Type 2 diab w hyposm w/o nonket hyprgly-hypros coma (NKHHC)
E11.01	Type 2 diabetes mellitus with hyperosmolarity with coma
E11.10	Type 2 diabetes mellitus with ketoacidosis without coma
E11.11	Type 2 diabetes mellitus with ketoacidosis with coma
E11.21	Type 2 diabetes mellitus with diabetic nephropathy
E11.22	Type 2 diabetes mellitus w diabetic chronic kidney disease
E11.29	Type 2 diabetes mellitus w oth diabetic kidney complication
E11.311	Type 2 diabetes w unsp diabetic retinopathy w macular edema
E11.319	Type 2 diabetes w unsp diabetic rtnop w/o macular edema
E11.3211	Type 2 diab with mild nonp rtnop with macular edema, r eye
E11.3212	Type 2 diab with mild nonp rtnop with macular edema, l eye
E11.3213	Type 2 diabetes with mild nonp rtnop with macular edema, bi
E11.3291	Type 2 diab with mild nonp rtnop without mclr edema, r eye
E11.3292	Type 2 diab with mild nonp rtnop without mclr edema, l eye
E11.3293	Type 2 diab with mild nonp rtnop without macular edema, bi
E11.3311	Type 2 diab with mod nonp rtnop with macular edema, r eye
E11.3312	Type 2 diab with mod nonp rtnop with macular edema, l eye
E11.3313	Type 2 diab with moderate nonp rtnop with macular edema, bi
E11.3391	Type 2 diab with mod nonp rtnop without macular edema, r eye
E11.3392	Type 2 diab with mod nonp rtnop without macular edema, l eye
E11.3393	Type 2 diab with mod nonp rtnop without macular edema, bi
E11.3411	Type 2 diab with severe nonp rtnop with macular edema, r eye
E11.3412	Type 2 diab with severe nonp rtnop with macular edema, l eye
E11.3413	Type 2 diab with severe nonp rtnop with macular edema, bi
E11.3491	Type 2 diab with severe nonp rtnop without mclr edema, r eye
E11.3492	Type 2 diab with severe nonp rtnop without mclr edema, l eye
E11.3493	Type 2 diab with severe nonp rtnop without macular edema, bi
E11.3511	Type 2 diab with prolif diab rtnop with macular edema, r eye
E11.3512	Type 2 diab with prolif diab rtnop with macular edema, l eye
E11.3513	Type 2 diab with prolif diab rtnop with macular edema, bi
E11.3521	Type 2 diab w prolif diab rtnop w trctn dtch macula, r eye
E11.3522	Type 2 diab w prolif diab rtnop w trctn dtch macula, l eye
E11.3523	Type 2 diab w prolif diab rtnop with trctn dtch macula, bi
E11.3531	Type 2 diab w prolif diab rtnop w trctn dtch n-mcla, r eye
E11.3532	Type 2 diab w prolif diab rtnop w trctn dtch n-mcla, l eye
E11.3533	Type 2 diab w prolif diab rtnop with trctn dtch n-mcla, bi
E11.3541	Type 2 diab with prolif diab rtnop with comb detach, r eye
E11.3542	Type 2 diab with prolif diab rtnop with comb detach, l eye
E11.3543	Type 2 diab with prolif diabetic rtnop with comb detach, bi
E11.3551	Type 2 diabetes with stable prolif diabetic rtnop, right eye
E11.3552	Type 2 diabetes with stable prolif diabetic rtnop, left eye
E11.3553	Type 2 diabetes with stable prolif diabetic rtnop, bilateral

E11.3591	Type 2 diab with prolif diab rtnop without mclr edema, r eye
E11.3592	Type 2 diab with prolif diab rtnop without mclr edema, l eye
E11.3593	Type 2 diab with prolif diab rtnop without macular edema, bi
E11.36	Type 2 diabetes mellitus with diabetic cataract
E11.37X1	Type 2 diab with diab mclr edema, resolved fol trtmt, r eye
E11.37X2	Type 2 diab with diab mclr edema, resolved fol trtmt, l eye
E11.37X3	Type 2 diab with diab macular edema, resolved fol trtmt, bi
E11.39	Type 2 diabetes w oth diabetic ophthalmic complication
E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unsp
E11.41	Type 2 diabetes mellitus with diabetic mononeuropathy
E11.42	Type 2 diabetes mellitus with diabetic polyneuropathy
E11.43	Type 2 diabetes w diabetic autonomic (poly)neuropathy
E11.44	Type 2 diabetes mellitus with diabetic amyotrophy
E11.49	Type 2 diabetes w oth diabetic neurological complication
E11.51	Type 2 diabetes w diabetic peripheral angiopath w/o gangrene
E11.52	Type 2 diabetes w diabetic peripheral angiopathy w gangrene
E11.59	Type 2 diabetes mellitus with oth circulatory complications
E11.610	Type 2 diabetes mellitus w diabetic neuropathic arthropathy
E11.618	Type 2 diabetes mellitus with other diabetic arthropathy
E11.620	Type 2 diabetes mellitus with diabetic dermatitis
E11.621	Type 2 diabetes mellitus with foot ulcer
E11.622	Type 2 diabetes mellitus with other skin ulcer
E11.628	Type 2 diabetes mellitus with other skin complications
E11.630	Type 2 diabetes mellitus with periodontal disease
E11.638	Type 2 diabetes mellitus with other oral complications
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma
E11.65	Type 2 diabetes mellitus with hyperglycemia
E11.69	Type 2 diabetes mellitus with other specified complication
E11.8	Type 2 diabetes mellitus with unspecified complications
E11.9	Type 2 diabetes mellitus without complications
E13.00	Oth diab w hyprosm w/o nonket hyprgly-hypros coma (NKHHC)
E13.01	Oth diabetes mellitus with hyperosmolarity with coma
E13.10	Oth diabetes mellitus with ketoacidosis without coma
E13.11	Oth diabetes mellitus with ketoacidosis with coma
E13.21	Other specified diabetes mellitus with diabetic nephropathy
E13.22	Oth diabetes mellitus with diabetic chronic kidney disease
E13.29	Oth diabetes mellitus with oth diabetic kidney complication
E13.311	Oth diabetes w unsp diabetic retinopathy w macular edema
E13.319	Oth diabetes w unsp diabetic retinopathy w/o macular edema
E13.3211	Oth diabetes with mild nonp rtnop with macular edema, r eye
E13.3212	Oth diab with mild nonp rtnop with macular edema, left eye

E13.3213	Oth diabetes with mild nonp rtnop with macular edema, bi
E13.3291	Oth diab with mild nonp rtnop without macular edema, r eye
E13.3292	Oth diab with mild nonp rtnop without macular edema, l eye
E13.3293	Oth diabetes with mild nonp rtnop without macular edema, bi
E13.3311	Oth diab with moderate nonp rtnop with macular edema, r eye
E13.3312	Oth diab with moderate nonp rtnop with macular edema, l eye
E13.3313	Oth diabetes with moderate nonp rtnop with macular edema, bi
E13.3391	Oth diab with mod nonp rtnop without macular edema, r eye
E13.3392	Oth diab with mod nonp rtnop without macular edema, l eye
E13.3393	Oth diab with moderate nonp rtnop without macular edema, bi
E13.3411	Oth diab with severe nonp rtnop with macular edema, r eye
E13.3412	Oth diab with severe nonp rtnop with macular edema, left eye
E13.3413	Oth diabetes with severe nonp rtnop with macular edema, bi
E13.3491	Oth diab with severe nonp rtnop without macular edema, r eye
E13.3492	Oth diab with severe nonp rtnop without macular edema, l eye
E13.3493	Oth diab with severe nonp rtnop without macular edema, bi
E13.3511	Oth diab with prolif diab rtnop with macular edema, r eye
E13.3512	Oth diab with prolif diab rtnop with macular edema, left eye
E13.3513	Oth diab with prolif diabetic rtnop with macular edema, bi
E13.3521	Oth diab w prolif diab rtnop with trctn dtch macula, r eye
E13.3522	Oth diab w prolif diab rtnop with trctn dtch macula, l eye
E13.3523	Oth diab with prolif diab rtnop with trctn dtch macula, bi
E13.3531	Oth diab w prolif diab rtnop with trctn dtch n-mcla, r eye
E13.3532	Oth diab w prolif diab rtnop with trctn dtch n-mcla, l eye
E13.3533	Oth diab with prolif diab rtnop with trctn dtch n-mcla, bi
E13.3541	Oth diab with prolif diabetic rtnop with comb detach, r eye
E13.3542	Oth diab with prolif diab rtnop with comb detach, left eye
E13.3543	Oth diabetes with prolif diabetic rtnop with comb detach, bi
E13.3551	Oth diabetes with stable prolif diabetic rtnop, right eye
E13.3552	Oth diabetes with stable prolif diabetic rtnop, left eye
E13.3553	Oth diabetes with stable prolif diabetic rtnop, bilateral
E13.3591	Oth diab with prolif diab rtnop without macular edema, r eye
E13.3592	Oth diab with prolif diab rtnop without macular edema, l eye
E13.3593	Oth diab with prolif diab rtnop without macular edema, bi
E13.36	Other specified diabetes mellitus with diabetic cataract
E13.37X1	Oth diab with diab macular edema, resolved fol trtmt, r eye
E13.37X2	Oth diab with diab macular edema, resolved fol trtmt, l eye
E13.37X3	Oth diab with diabetic macular edema, resolved fol trtmt, bi
E13.39	Oth diabetes mellitus w oth diabetic ophthalmic complication
E13.40	Oth diabetes mellitus with diabetic neuropathy, unspecified
E13.41	Oth diabetes mellitus with diabetic mononeuropathy
E13.42	Oth diabetes mellitus with diabetic polyneuropathy

E13.43	Oth diabetes mellitus w diabetic autonomic (poly)neuropathy
E13.44	Other specified diabetes mellitus with diabetic amyotrophy
E13.49	Oth diabetes w oth diabetic neurological complication
E13.51	Oth diabetes w diabetic peripheral angiopathy w/o gangrene
E13.52	Oth diabetes w diabetic peripheral angiopathy w gangrene
E13.59	Oth diabetes mellitus with other circulatory complications
E13.610	Oth diabetes mellitus with diabetic neuropathic arthropathy
E13.618	Oth diabetes mellitus with other diabetic arthropathy
E13.620	Other specified diabetes mellitus with diabetic dermatitis
E13.621	Other specified diabetes mellitus with foot ulcer
E13.622	Other specified diabetes mellitus with other skin ulcer
E13.628	Oth diabetes mellitus with other skin complications
E13.630	Other specified diabetes mellitus with periodontal disease
E13.638	Oth diabetes mellitus with other oral complications
E13.641	Oth diabetes mellitus with hypoglycemia with coma
E13.649	Oth diabetes mellitus with hypoglycemia without coma
E13.65	Other specified diabetes mellitus with hyperglycemia
E13.69	Oth diabetes mellitus with other specified complication
E13.8	Oth diabetes mellitus with unspecified complications
E13.9	Other specified diabetes mellitus without complications
E15	Nondiabetic hypoglycemic coma
E16.0	Drug-induced hypoglycemia without coma
E16.1	Other hypoglycemia
E16.2	Hypoglycemia, unspecified
E16.3	Increased secretion of glucagon
E16.8	Other specified disorders of pancreatic internal secretion
E16.9	Disorder of pancreatic internal secretion, unspecified
E31.0	Autoimmune polyglandular failure
E31.1	Polyglandular hyperfunction
E31.20	Multiple endocrine neoplasia [MEN] syndrome, unspecified
E31.21	Multiple endocrine neoplasia [MEN] type I
E31.22	Multiple endocrine neoplasia [MEN] type IIA
E31.23	Multiple endocrine neoplasia [MEN] type IIB
E31.8	Other polyglandular dysfunction
E31.9	Polyglandular dysfunction, unspecified
E74.810	Glucose transporter protein type 1 deficiency
E74.818	Other disorders of glucose transport
E74.819	Disorders of glucose transport, unspecified
E74.89	Other specified disorders of carbohydrate metabolism
E79.0	Hyperuricemia w/o signs of inflam arthrit and tophaceous dis
E83.10	Disorder of iron metabolism, unspecified
E83.110	Hereditary hemochromatosis

E83.111	Hemochromatosis due to repeated red blood cell transfusions
E83.118	Other hemochromatosis
E83.119	Hemochromatosis, unspecified
E83.19	Other disorders of iron metabolism
E88.02	Plasminogen deficiency
E89.1	Postprocedural hypoinsulinemia
H44.2E1	Degenerative myopia with other maculopathy, right eye
H44.2E2	Degenerative myopia with other maculopathy, left eye
H44.2E3	Degenerative myopia with other maculopathy, bilateral eye
I21.9	Acute myocardial infarction, unspecified
I21.A1	Myocardial infarction type 2
I21.A9	Other myocardial infarction type
K86.0	Alcohol-induced chronic pancreatitis
K86.1	Other chronic pancreatitis
K91.2	Postsurgical malabsorption, not elsewhere classified
L89.006	Pressure-induced deep tissue damage of unspecified elbow
L89.016	Pressure-induced deep tissue damage of right elbow
L89.026	Pressure-induced deep tissue damage of left elbow
L89.116	Pressure-induced deep tissue damage of right upper back
L89.126	Pressure-induced deep tissue damage of left upper back
L89.136	Pressure-induced deep tissue damage of right lower back
L89.146	Pressure-induced deep tissue damage of left lower back
L89.156	Pressure-induced deep tissue damage of sacral region
L89.216	Pressure-induced deep tissue damage of right hip
L89.226	Pressure-induced deep tissue damage of left hip
L89.316	Pressure-induced deep tissue damage of right buttock
L89.326	Pressure-induced deep tissue damage of left buttock
L89.46	Pressure-induced deep tissue damage of contiguous site of back, buttock & hip
L89.516	Pressure-induced deep tissue damage of right ankle
L89.526	Pressure-induced deep tissue damage of left ankle
L89.616	Pressure-induced deep tissue damage of right heel
L89.626	Pressure-induced deep tissue damage of left heel
L89.816	Pressure-induced deep tissue damage of head
L89.896	Pressure-induced deep tissue damage of other site
L97.115	Non-pressure chronic ulcer of right thigh with muscle involvement w/o evidence of necrosis
L97.116	Non-pressure chronic ulcer of right thigh with bone involvement w/o evidence of necrosis
L97.118	Non-pressure chronic ulcer of right thigh with other severity
L97.125	Non-pressure chronic ulcer of left thigh with muscle involvement w/o evidence of necrosis
L97.126	Non-pressure chronic ulcer of left thigh with bone involvement w/o evidence of necrosis
L97.128	Non-pressure chronic ulcer of left thigh with other severity
L97.215	Non-pressure chronic ulcer of right calf with muscle involvement w/o evidence of necrosis
L97.216	Non-pressure chronic ulcer of right calf with bone involvement w/o evidence of necrosis

L97.218	Non-pressure chronic ulcer of right calf with oth severity
L97.225	Non-prs chr ulcer of left calf with msl invl w/o evd of necr
L97.226	Non-prs chr ulc of left calf with bone invl w/o evd of necr
L97.228	Non-pressure chronic ulcer of left calf with oth severity
L97.315	Non-prs chr ulcer of r ankle with msl invl w/o evd of necr
L97.316	Non-prs chr ulcer of r ankle with bone invl w/o evd of necr
L97.318	Non-pressure chronic ulcer of right ankle with oth severity
L97.325	Non-prs chr ulcer of l ankle with msl invl w/o evd of necr
L97.326	Non-prs chr ulcer of l ankle with bone invl w/o evd of necr
L97.328	Non-pressure chronic ulcer of left ankle with oth severity
L97.415	Non-prs chr ulc of r heel/midft w msl invl w/o evd of necr
L97.416	Non-prs chr ulc of r heel/midft w bne invl w/o evd of necr
L97.418	Non-prs chronic ulcer of right heel/midft with oth severity
L97.425	Non-prs chr ulc of l heel/midft w msl invl w/o evd of necr
L97.426	Non-prs chr ulc of l heel/midft w bne invl w/o evd of necr
L97.428	Non-prs chronic ulcer of left heel/midft with oth severity
L97.515	Non-prs chr ulc oth prt r foot with msl invl w/o evd of necr
L97.516	Non-prs chr ulc oth prt r foot with bne invl w/o evd of necr
L97.518	Non-prs chronic ulcer oth prt right foot with oth severity
L97.525	Non-prs chr ulc oth prt l foot with msl invl w/o evd of necr
L97.526	Non-prs chr ulc oth prt l foot with bne invl w/o evd of necr
L97.528	Non-prs chronic ulcer oth prt left foot with oth severity
L97.815	Non-prs chr ulc oth prt r low leg w msl invl w/o evd of necr
L97.816	Non-prs chr ulc oth prt r low leg w bne invl w/o evd of necr
L97.818	Non-prs chronic ulcer oth prt r low leg with oth severity
L97.825	Non-prs chr ulc oth prt l low leg w msl invl w/o evd of necr
L97.826	Non-prs chr ulc oth prt l low leg w bne invl w/o evd of necr
L97.828	Non-prs chronic ulcer oth prt l low leg with oth severity
L97.915	Non-prs chr ulc unsp prt r lw leg w msl invl w/o evd of necr
L97.916	Non-prs chr ulc unsp prt r lw leg w bne invl w/o evd of necr
L97.918	Non-prs chronic ulc unsp prt of r low leg with oth severity
L97.925	Non-prs chr ulc unsp prt l lw leg w msl invl w/o evd of necr
L97.926	Non-prs chr ulc unsp prt l lw leg w bne invl w/o evd of necr
L97.928	Non-prs chronic ulc unsp prt of l low leg with oth severity
L98.415	Non-prs chr ulcer of buttock with msl invl w/o evd of necr
L98.416	Non-prs chr ulcer of buttock with bone invl w/o evd of necr
L98.418	Non-pressure chronic ulcer of buttock with oth severity
L98.425	Non-prs chr ulcer of back with muscle invl w/o evd of necr
L98.426	Non-prs chr ulcer of back with bone invl without evd of necr
L98.428	Non-pressure chronic ulcer of back with oth severity
L98.495	Non-prs chr ulc skin/ oth site with msl invl w/o evd of necr
L98.496	Non-prs chr ulc skin/ oth site with bne invl w/o evd of necr

O24.011	Pre-existing type 1 diabetes, in pregnancy, first trimester
O24.012	Pre-existing type 1 diabetes, in pregnancy, second trimester
O24.013	Pre-existing type 1 diabetes, in pregnancy, third trimester
O24.019	Pre-exist type 1 diabetes, in pregnancy, unsp trimester
O24.03	Pre-existing type 1 diabetes mellitus, in the puerperium
O24.111	Pre-existing type 2 diabetes, in pregnancy, first trimester
O24.112	Pre-existing type 2 diabetes, in pregnancy, second trimester
O24.113	Pre-existing type 2 diabetes, in pregnancy, third trimester
O24.119	Pre-exist type 2 diabetes, in pregnancy, unsp trimester
O24.13	Pre-existing type 2 diabetes mellitus, in the puerperium
O24.311	Unsp pre-existing diabetes in pregnancy, first trimester
O24.312	Unsp pre-existing diabetes in pregnancy, second trimester
O24.313	Unsp pre-existing diabetes in pregnancy, third trimester
O24.319	Unsp pre-existing diabetes in pregnancy, unsp trimester
O24.33	Unspecified pre-existing diabetes mellitus in the puerperium
O24.410	Gestational diabetes mellitus in pregnancy, diet controlled
O24.414	Gestational diabetes in pregnancy, insulin controlled
O24.415	Gestatnl diabetes in preg, ctrl by oral hypoglycemic drugs
O24.419	Gestational diabetes mellitus in pregnancy, unsp control
O24.425	Gestatnl diab in chldbrth, ctrl by oral hypoglycemic drugs
O24.430	Gestational diabetes in the puerperium, diet controlled
O24.434	Gestational diabetes in the puerperium, insulin controlled
O24.435	Gestatnl diabetes in puerp, ctrl by oral hypoglycemic drugs
O24.439	Gestational diabetes in the puerperium, unsp control
O24.811	Oth pre-existing diabetes in pregnancy, first trimester
O24.812	Oth pre-existing diabetes in pregnancy, second trimester
O24.813	Oth pre-existing diabetes in pregnancy, third trimester
O24.819	Oth pre-existing diabetes in pregnancy, unsp trimester
O24.83	Other pre-existing diabetes mellitus in the puerperium
O24.911	Unspecified diabetes mellitus in pregnancy, first trimester
O24.912	Unspecified diabetes mellitus in pregnancy, second trimester
O24.913	Unspecified diabetes mellitus in pregnancy, third trimester
O24.919	Unsp diabetes mellitus in pregnancy, unspecified trimester
O24.93	Unspecified diabetes mellitus in the puerperium
O30.131	Triplet pregnancy, trichorionic/triamniotic, first trimester
O30.132	Triplet preg, trichorionic/triamniotic, second trimester
O30.133	Triplet pregnancy, trichorionic/triamniotic, third trimester
O30.139	Triplet pregnancy, trichorionic/triamniotic, unsp trimester
O30.231	Quad preg, quadrachorionic/quadra-amniotic, first trimester
O30.232	Quad preg, quadrachorionic/quadra-amniotic, second trimester
O30.233	Quad preg, quadrachorionic/quadra-amniotic, third trimester
O30.239	Quad preg, quadrachorionic/quadra-amniotic, unsp trimester

O30.831	Oth mult gest, num chorions & amnions = num ftses, 1st tri
O30.832	Oth mult gest, num chorions & amnions = num ftses, 2nd tri
O30.833	Oth mult gest, num chorions & amnions = num ftses, 3rd tri
O30.839	Oth mult gest, num chorions & amnions = num ftses, unsp tri
O99.810	Abnormal glucose complicating pregnancy
O99.815	Abnormal glucose complicating the puerperium
R73.01	Impaired fasting glucose
R73.02	Impaired glucose tolerance (oral)
R73.03	Prediabetes
R73.09	Other abnormal glucose
R73.9	Hyperglycemia, unspecified
R78.71	Abnormal lead level in blood
R78.79	Finding of abnormal level of heavy metals in blood
R78.89	Finding of oth substances, not normally found in blood
R79.0	Abnormal level of blood mineral
R79.89	Other specified abnormal findings of blood chemistry
R79.9	Abnormal finding of blood chemistry, unspecified
T38.3X1A	Poisoning by insulin and oral hypoglycemic drugs, acc, init
T38.3X2A	Poison by insulin and oral hypoglycemic drugs, slf-hrm, init
T38.3X3A	Poison by insulin and oral hypoglycemic drugs, assault, init
T38.3X4A	Poison by insulin and oral hypoglycemic drugs, undet, init
Z79.3	Long term (current) use of hormonal contraceptives
Z79.4	Long term (current) use of insulin
Z79.84	Long term (current) use of oral hypoglycemic drugs
Z79.891	Long term (current) use of opiate analgesic
Z79.899	Other long term (current) drug therapy
Z86.2	Prsnl history of dis of the bld/bld-form org/immun mechnsm
Z86.31	Personal history of diabetic foot ulcer
Z86.32	Personal history of gestational diabetes
Z86.39	Personal history of endo, nutritional and metabolic disease