Person—glycosylated haemoglobin level (measured), percentage N[N].N

Exported from METEOR (AIHW's Metadata Online Registry)

Person—glycosylated haemoglobin level (measured), percentage N[N].N

Identifying and definitional attributes

Metadata item type:	Data Element
Short name:	Glycosylated haemoglobin level (measured)
METEOR identifier:	270325
Registration status:	Health!, Standard 01/03/2005
Definition:	A person's glycosylated haemoglobin (HbA1c) level, measured as percentage.

Data element concept attributes

Identifying and definitional attributes

Data element concept:	Person—glycosylated haemoglobin level
METEOR identifier:	269764
Registration status:	Health!, Standard 01/03/2005 Indigenous, Standard 13/03/2015
Definition:	A person's glycosylated haemoglobin (HbA1c) level.
Object class:	Person
Property:	Glycosylated haemoglobin level

Value domain attributes

Identifying and definitional attributes

Value domain:	Percentage N[N].N
METEOR identifier:	270836
Registration status:	Health!, Standard 01/03/2005
Definition:	A proportion per hundred.

Representational attributes

Representation class:	Percentage	
Data type:	Number	
Format:	N[N].N	
Maximum character length:	3	
	Value	**Meaning**
Supplementary values:	99.9	Not stated/inadequately described

Data element attributes

Collection and usage attributes

Guide for use:

HbA1c results vary between laboratories; use the same laboratory for repeated testing.

When reporting, record absolute result of the most recent HbA1c level in the last 12 months.

Record the absolute result of the test (%).

Collection methods:

Test is performed in accredited laboratories:

- A single blood sample is sufficient and no preparation of the patient is required.
- Measure HbA1c ideally using High Performance Liquid Chromatography (HPLC).

Source and reference attributes

Submitting organisation: National diabetes data working group

Origin: National Diabetes Outcomes Quality Review Initiative (NDOQRIN) data dictionary.

Reference documents: Koening, R. J. Peterson, CM and Kilo, C et al. Hemoglobin A1c as an indicator of the degree of glucose intolerance in diabetes. Diabetes 259 (1976): 230-232. Nathan, D.M., Singer, D.E, Hurxthal, K, and Goodson, J.D. The clinical information value of the glycosylated hemoglobin assay. N. Eng. J. Med. 310 (1984): 341-346.

Relational attributes

Related metadata references:

Is re-engineered from Glycosylated Haemoglobin (HbA1c) - measured, version 1, DE, NHDD, NHIMG, Superseded 01/03/2005.pdf (18.0 KB)
No registration status

See also Laboratory standard—upper limit of normal range of glycosylated haemoglobin, percentage N[N].N
Health!, Standard 01/03/2005

Implementation in Data Set Specifications:

Acute coronary syndrome (clinical) DSS
Health!, Superseded 01/09/2012

Acute coronary syndrome (clinical) DSS
Health!, Superseded 02/05/2013

Acute coronary syndrome (clinical) NBPDS 2013-
Health!, Standard 02/05/2013
Implementation start date: 01/07/2013

Diabetes (clinical) DSS
Health!, Superseded 21/09/2005

Diabetes (clinical) NBPDS
Health!, Standard 21/09/2005
DSS specific information:

The HbA1c along with regular blood glucose monitoring is the best way to see the overall picture of blood glucose levels.

HbA1c is a measurement of long-term blood glucose control and is used to assess the effectiveness of treatment. The level of HbA1c is proportional to the level of glucose in the blood over a period of approximately two months, because glucose attaches to the haemoglobin (red blood cells) and remains there for the life of the red blood cell, approximately 120 days. The HbA1c gives an average of the blood glucose level over the past 6-8 weeks and therefore HbA1c is accepted as an indicator of the mean daily blood glucose concentration over the preceding two months.

HbA1c is formed by the non-enzymatic glycation of the N-terminus of the B- chain of haemoglobin Ao. It is a convenient way to obtain an integrated assessment of antecedent glycaemia over an extended period under real life conditions used as a standard for assessing overall blood glucose control.

Research studies in the United States have found that for every 1% reduction in results of HbA1c blood tests, the risk of developing micro vascular diabetic complications (eye, kidney, and nerve disease) is reduced by 40 percent.

The maintenance of good glycaemic control (in diabetes Type 1 and Type 2), significantly reduces progression of diabetes-related complications such as retinopathy, nephropathy and neuropathy, as indicated in the Diabetes Control and Complications Trial (DCCT 1993) and United Kingdom Prospective Diabetes Study (UKPDS 1997).

The target proposed by the Australian Diabetes Society for glycosylated haemoglobin (HbA1c)is 7.0% or less and a doctor may order this test about every 3 - 6 months.