# Blindness - diabetes complication

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## Identifying and Definitional Attributes

Data Dictionary:	NHDD		
Knowledgebase ID:	000808	Version number:	1
Metadata type:	DATA ELEMENT		
Registration Authority:	NHIMG	Admin status:	SUPERSEDED
		Effective date:	01-MAR-05

Definition: Whether the individual has become legally blind in either or both eyes. Legally, blindness is defined as less than 6/60 vision in the better eye with glasses.

Vision 6/60 is the ability to see only at 6 metres what the normal eye can see at 60 metres.

Context: Diabetes mellitus specific data element.

#### Relational and Representational Attributes

Datatype:	, Numeric	
	CODE	
Representation layout:	Ν	
Minimum Size:	1	
Maximum Size:	1	
Data Domain:	1	Blindness - (< 6/60) occurred in either or both eyes in the last 12 months
	2	Blindness - (< 6/60) occurred in either or both eyes prior to the last 12 months
	3	Blindness - (< 6/60) occurred in one eye within 12 months and in the other eye prior to the last 12 months
	4	No blindness
	9	Not stated/ inadequately described
		be diagnosed in one eye within 12 months even been previously diagnosed on the other eye (refers

to code 3).

Collection Methods: Ask the individual if he/she has been diagnosed as legally blind (<

6/60) in both or either eye. If so record whether it has occurred within or prior to the last 12 months.

Alternatively determine blindness from appropriate documentation obtained from an ophthalmologist or optometrist.

Related metadata: relates to the data element Cataract - history version 1 relates to the data element Ophthalmological assessment - outcome version 1 relates to the data element Ophthalmoscopy - performed version 1 relates to the data element Referred to ophthalmologist - diabetes mellitus version 1 relates to the data element Visual acuity version 1 relates to the data element Health professionals attended - diabetes mellitus version 1

# Administrative Attributes

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

Source Organisation: National Diabetes Data Working Group

Comments: Patients with diabetes have an increased risk of developing several eye complications including retinopathy, cataract and glaucoma that lead to loss of vision.

Diabetic retinopathy is a leading cause of blindness. Retinopathy is characterised by proliferation of the retina's blood vessels, which may project into the vitreous, causing vitreous haemorrhage, proliferation of fibrous tissue and retinal detachment. It is often accompanied by microaneurysms and macular oedema, which can express as blurred vision. The prevalence of retinopathy increases with increasing duration of diabetes. In the early stage, retinopathy is asymptomatic. Up to 20% of people with diabetes Type 2 have retinopathy at the time of diagnosis of diabetes. The cumulative prevalence of proliferation diabetic retinopathy and macular oedema after 20 years of type 1 diabetes is about 40%. The Diabetic Retinopathy Study Group showed that panretinal photocoagulation reduces the risk of severe loss of vision by 50%.

Although diabetes retinopathy cannot totally be prevented, better control of blood sugar level slows the onset and progression of retinopathy (The Diabetes Control and Complications Trial - DCCT).

Cataract and glaucoma are also associated diabetic eye problems

that could lead to blindness.

Regular eye checkups are important for patients suffering from diabetes mellitus. This helps to early detect abnormalities and to avoid or postpone vision-threatening complications.

According to the NSW Principles of Care and Guidelines for the Clinical Management of Diabetes Mellitus, a comprehensive ophthalmological examination should be carried out:

-At diagnosis and then every 1-2 years for patients whose diabetes onset was at age 30 years or more.

-Within five years of diagnosis and then every 1-2 years for patients whose diabetes onset was at age less than 30 years.

If retinopathy is detected, review diabetes control and improve if necessary.

References: Vision Australia, No 2, 1997/8; University of Melbourne.

The Diabetic Retinopathy Study Research Group. Photocoagulation treatment of proliferative diabetic retinopathy. Clinical application of Diabetic Retinopathy Study (DRS) finding, DRS Report Number8. Ophthalmology. 1981; 88:583/600).

Diabetes Control and Complications Trial: DCCT New England Journal of Medicine, 329(14), September 30, 1993.

## Data Element Links

Information Model Entities linked to this Data Element
NHIM Physical wellbeing
Data Agreements which include this Data Element

DSS - Diabetes (clinical)

From 01-Jan-03 to