

Australasian Diabetes Data Network (ADDN) Data Dictionary

Version 4.5 October 2021

Approved by the ADDN Committee, October 2021

Foreword

The ADDN Registry holds longitudinal de-identified data and was established to provide a national data source to foster collaborative research and improve clinical care. With the inclusion of adult diabetes centres, it is now possible for the ADDN Registry to provide surveillance of outcomes for people with Type 1 Diabetes across the lifespan.

Participating centres are based in Australia and New Zealand and upload data from their local systems to ADDN every 6 months. Comprehensive data validation rules and error reports have been implemented to ensure data quality and integrity.

Table of Contents

Forewor	d	
Table of	Contents	1
Abbrevia	ations	6
Inclusio	n and Exclusion Criteria	7
Dataset	Definition Sources	8
Guide to	Using This Data Dictionary	9
Glossary	of Terms	13
1. Pat	ient Fields	14
1.1	Centre Identifier (Centre Code)	15
1.2	Local Identifier (Local ID)	
1.3	Date of Birth	
1.4	Gender	
1.5	Diabetes Type	
1.6	Diabetes Type (Other)	21
1.7	Date of Diagnosis	22
1.8	Country of Birth	23
1.9	Indigenous Status	24
1.10	Language Spoken at Home	26
<mark>1.11</mark>	Country at Diagnosis	27
1.12	Postcode at Diagnosis	28
1.13	Diabetic Ketoacidosis (DKA) at Diagnosis Indicator	29
1.14	Current Postcode	
<mark>1.15</mark>	Date of ADDN Consent	
1.16	Consent to be Contacted for Research Purposes Indicator	32
1.17	Primary Centre Indicator	
<mark>1.18</mark>	CGM Start Date	34
1.19	Ethnicity (Primary)	35
1.20	Ethnicity (Secondary)	
1.21	Person Date of Death	
1.22	Cause of Death	40
1.23	Cause of Death Other	

	1.24	Number of Days Hospitalised at Diagnosis	.43
	1.25	Diabetic Ketoacidosis - pH	.44
	1.26	Diabetic Ketoacidosis - Bicarbonate	.45
	1.27	Date of Menarche	.46
	1.28	Date of Transfer of Care	.47
	1.29	Transfer To	.48
	1.30	DNA Stored Indicator	.49
	1.31	HLA Data Available	.50
	1.32	Birth Weight	.51
	1.33	Birth Weight SDS for Gestational Age	.52
	1.34	Birth Weight for Gestational Age Percentile	.53
	1.35	Gestation at Birth	.54
	1.36	Islet Antibody positivity – Insulin autoantibody (IAA)	.55
	1.37	Islet Antibody positivity - IA-2 antibody	.56
	1.38	Islet antibody positivity - GAD antibody Indicator	.57
	1.39	Islet autoantibody positivity - ZnT8	.58
	1.40	ICA Positive Indicator	.59
	1.41	Coeliac Disease	.60
	1.42	Date Diagnosed Coeliac Disease	.61
	1.43	BioGrid ID (USI)	.62
	1.44	ADDN Identifier (ADDN ID)	.63
2	Co-N	Aorbidity Fields	.64
	2.1	Comorbidity	.65
	2.2	Date of Diagnosis of Comorbidity	.68
3	Fam	ily History Fields	.69
	3.1	Relationship to Person	.70
	3.2	Diabetes Type (First-degree Relative)	.71
	3.3	Diabetes Type Other (First-degree Relative)	.73
	3.4	Coeliac Disease (First-degree Relative)	.74
	3.5	Thyroid Disease (First-degree Relative)	.75
	3.6	Other Autoimmune Diseases (First-degree Relative)	.76
4	Visit	Fields	.77
	4.1	Date of Visit	.78
	4.2	HbA1c (NGSP)	.79

4.3	HbA1c (IFFC)	80
4.4	Height	81
4.5	Height SDS	82
4.6	Height Percentile	83
4.7	Weight	84
4.8	Weight SDS	85
4.9	Weight Percentile	86
4.10	Body Mass Index (BMI)	87
4.11	Body Mass Index SDS (BMI-SDS)	88
4.12	Body Mass Index (BMI) Percentile	89
4.13	Systolic Blood Pressure	90
4.14	Systolic Blood Pressure SDS	91
4.15	Systolic Blood Pressure Percentile	92
4.16	Diastolic Blood Pressure	93
4.17	Diastolic Blood Pressure SDS	94
4.18	Diastolic Blood Pressure Percentile	95
4.19	Insulin Regimen	96
<mark>4.20</mark>	Insulin Pump	97
<mark>4.20</mark> 4.21	<mark>Insulin Pump</mark> Insulin Pump Other	97 99
<mark>4.20</mark> 4.21 <mark>4.22</mark>	Insulin Pump Insulin Pump Other Insulin Pump Mode	97 99 100
4.20 4.21 <mark>4.22</mark> 4.23	Insulin Pump Insulin Pump Other Insulin Pump Mode Number of Injections Per Day	97 99 100 102
4.20 4.21 4.22 4.23 4.23	Insulin Pump Insulin Pump Other Insulin Pump Mode Number of Injections Per Day Insulin Product 1	97 99 100 102 103
4.20 4.21 4.22 4.23 4.24 4.25	Insulin Pump Insulin Pump Other Insulin Pump Mode Number of Injections Per Day Insulin Product 1 Daily Dose of Insulin Product 1	97 99 100 102 103 104
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 	Insulin Pump Insulin Pump Other Insulin Pump Mode Number of Injections Per Day Insulin Product 1 Daily Dose of Insulin Product 1 Insulin Product 2	97 99
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 	Insulin Pump Insulin Pump Other Insulin Pump Mode Number of Injections Per Day Insulin Product 1 Daily Dose of Insulin Product 1 Insulin Product 2 Daily Dose of Insulin Product 2	97 99
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 4.28 	Insulin PumpInsulin Pump OtherInsulin Pump ModeNumber of Injections Per DayInsulin Product 1Daily Dose of Insulin Product 1Insulin Product 2Daily Dose of Insulin Product 2Insulin Product 3	97 99 99 100 102 103 104 105 106 107
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 4.28 4.29 	Insulin PumpInsulin Pump OtherInsulin Pump ModeNumber of Injections Per DayInsulin Product 1Daily Dose of Insulin Product 1Insulin Product 2Daily Dose of Insulin Product 2Insulin Product 3	97 99
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 4.28 4.29 4.30 	Insulin PumpInsulin Pump OtherInsulin Pump ModeNumber of Injections Per DayInsulin Product 1Daily Dose of Insulin Product 1Insulin Product 2Daily Dose of Insulin Product 2Insulin Product 3Insulin Product 4	97 99
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 4.28 4.29 4.30 4.31 	Insulin Pump Insulin Pump Other Insulin Pump Mode Number of Injections Per Day Insulin Product 1 Daily Dose of Insulin Product 1 Insulin Product 2 Daily Dose of Insulin Product 2 Insulin Product 3 Daily Dose of Insulin Product 3 Insulin Product 4 Daily Dose of Insulin Product 4	97 99 99 100 102 103 103 104 105 106 107 108 109 110
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 4.28 4.29 4.30 4.31 4.32 	Insulin PumpInsulin Pump OtherInsulin Pump ModeNumber of Injections Per DayInsulin Product 1Daily Dose of Insulin Product 1Insulin Product 2Daily Dose of Insulin Product 2Insulin Product 3Daily Dose of Insulin Product 4Daily Dose of Insulin Product 4	97 99 99 100 102 103 103 104 105 105 106 107 108 109 110
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 4.28 4.29 4.30 4.31 4.32 4.33 	Insulin PumpInsulin Pump OtherInsulin Pump ModeNumber of Injections Per DayNumber of Injections Per DayInsulin Product 1Daily Dose of Insulin Product 1Insulin Product 2Daily Dose of Insulin Product 2Insulin Product 3Daily Dose of Insulin Product 3Insulin Product 4Daily Dose of Insulin Product 4Total Daily Insulin DoseTotal Daily Dose Calculated Indicator	97 99 99 100 102 103 103 104 105 105 106 107 108 109 110 111 112
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 4.28 4.29 4.30 4.31 4.32 4.33 4.34 	Insulin PumpInsulin Pump OtherInsulin Pump ModeNumber of Injections Per DayInsulin Product 1Daily Dose of Insulin Product 1Insulin Product 2Daily Dose of Insulin Product 2Insulin Product 3Insulin Product 4Daily Dose of Insulin Product 4Insulin Product 4Daily Dose of Insulin Product 5Insulin Product 4Daily Dose of Insulin Product 4Daily Dose of Insulin Product 5Daily Dose of Insulin Product 4Daily Dose of Insulin DoseTotal Daily Dose Calculated IndicatorDaily Basal Insulin Dose	97 99
 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 4.28 4.29 4.30 4.31 4.32 4.33 4.34 4.35 	Insulin PumpInsulin Pump OtherInsulin Pump ModeNumber of Injections Per DayInsulin Product 1Daily Dose of Insulin Product 1Insulin Product 2Daily Dose of Insulin Product 2Insulin Product 3Insulin Product 4Daily Dose of Insulin DoseTotal Daily Insulin DoseTotal Daily Basal Insulin DoseTotal Daily Basal Dose Calculated Indicator	97 99

4.37	Units Per Kilogram	116
4.38	Severe Hypoglycaemia Episodes	117
4.39	Moderate Hypoglycaemia Episodes	119
4.40	Diabetic Ketoacidosis (DKA) Episodes	121
4.41	Total Cholesterol	
4.42	Triglycerides	123
4.43	High Density Lipoproteins (HDL)	124
4.44	Low Density Lipoproteins (LDL)	125
4.45	Albumin Creatinine Ratio (ACR)	126
4.46	Urine Albumin Excretion Rate (AER)	127
<mark>4.47</mark>	CGM Type	128
<mark>4.48</mark>	CGM Usage %	130
<mark>4.49</mark>	CGM Device	132
4.50	CGM Device Other	134
<mark>4.51</mark>	CGM Time in Range	135
<mark>4.52</mark>	CGM Time < 3.9	136
<mark>4.53</mark>	CGM Time < 3.0	137
<mark>4.54</mark>	CGM Glucose Mean	138
<mark>4.55</mark>	CGM Glucose Standard Deviation	139
<mark>4.56</mark>	CGM GMI (NGSP)	140
<mark>4.57</mark>	CGM GMI (IFFC)	141
4.58	Waist Circumference	142
4.59	Waist to Height Ratio	143
4.60	Biological Samples Stored Indicator	144
4.61	Fasting Lipids Indicator	145
4.62	Insulin to Carbohydrate Ratio (ICR) Indicator	146
4.63	Insulin Sensitivity Factor (ISF) Indicator	147
4.64	Vitamin B12	148
4.65	Haemoglobin	149
<mark>4.66</mark>	Serum Creatinine	150
4.67	eGFR	151
4.68	Free Thyroxine (FT4)	152
4.69	Thyroid Stimulating Hormone (TSH)	153
4.70	Vitamin D	154

4.71	Folate	155
4.72	Aspartate Aminotransferase (AST)	156
4.73	Alanine Aminotransferase (ALAT)	
4.74	Gamma Glutamyltransferase (GGT)	
4.75	Abnormal Peripheral Pulse Indicator	
4.76	Smoking	
4.77	NPDR (non-proliferative Diabetic Retinopathy)	
4.78	PDR (Proliferative Diabetic Retinopathy)	
4.79	Maculopathy	
4.80	Cataract	
4.81	Cataract Extraction	
4.82	Focal Laser	
4.83	Panretinal Photocoagulation	
4.84	Vitreal Injection	
4.85	Erectile Dysfunction	
<mark>4.86</mark>	Mode of Visit	
5 Mee	dication Fields	
5.1	Medication Name	
5.2	Medication Start Date	
5.3	Medication End Date	
Appendi	κ	

Abbreviations

ACHI	Australian Classification of Health Interventions (ACHI) 7th edition
ADDN	Australasian Diabetes Data Network
AIHW	Australian Institute of Health and Welfare
HREC	Human Research Ethics Committee
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems,
	Tenth Revision, Australian Modification
ISPAD	International Society for Pediatric and Adolescent Diabetes
METeOR	Metadata Online Registry
NMA	National Mutual Acceptance

Inclusion and Exclusion Criteria

INCLUSIONS

Children and Adolescents (< 18years) who have a diagnosis of diabetes (Type 1, Type 2, Monogenic, Neonatal, Cystic Fibrosis Related Diabetes, Other rare forms of Diabetes) and adults with a diagnosis of Type 1 Diabetes who have attended an ADDN centre for their diabetes clinical management. ADDN centres are located throughout Australia and New Zealand.

EXCLUSIONS

Adults who are not diagnosed with Type 1 Diabetes.

Any patient who has not given consent or who has withdrawn their consent to send data to ADDN.

Dataset Definition Sources

Dataset fields should offer substantial levels of international comparability while still providing usefulness for the specific local requirements of the registry. At the same time, ease of collection (in terms of time required or cost) is essential, particularly in order to obtain data from centres which do not currently have diabetes data collection (and hence are more likely to be resource-poor).

Where possible, ADDN data fields should be based on standard definitions created by authoritative Australian or New Zealand bodies, or (in the absence of such definitions) preexisting comparable or contributing datasets.

The default standard sought for each field is a definition from the Australian Institute of Health and Welfare's Australian National Health Data Dictionary (METeOR). A number of METeOR standards are in turn based on, derived from or compatible with routinely collected International Classification of Diseases (ICD) codes.

Where no METeOR standard is felt to apply to a field, best matches are provided, and note made that METeOR fields may require future development.

Guide to Using This Data Dictionary

Development of this ADDN data dictionary is based on existing national health data standards where available. The national health metadata standards are overseen by the Australian Institute of Health and Welfare (AIHW) and is hosted online at the Metadata Online Registry (METeOR) website. For more information about METeOR, please go to:

http://meteor.aihw.gov.au/content/index.phtml/itemId/181162

The format of the following data dictionary is an adaptation based on the ISO/IEC International Standard 11179-3:2003 (Information Technology - Metadata Registries - Part 3: Registry metamodel and basic attributes), as interpreted by AIHW. The following guide provides an overview of the types of data attributes and their definitions used for each of the ADDN data elements.

Dates and times are in accordance with the recommendations of ISO 8601:2004 (Data elements and interchange formats - Information interchange - Representation of dates and times)

Guide to Meaning of Categories and Headings

DATA ELEMENT NAME

Identifying and definitional attributes

Definition A concise statement that expresses the essential nature of a data item and its differentiation from all other data items.

Rationale The reason for collecting this data item.

Obligation

An indicator of whether the data element is mandatory or optional for the data collection or transmission.

- Mandatory Data element that must be collected and transmitted as a minimum for a Patient. Data cannot be loaded unless these data elements are present
- Minimum A data element that has been determined to be important. It is strongly recommended that is be collected and transmitted to ADDN. This is used to determine data quality (completeness). If not specifically stated it applies to both paediatric and adult datasets.
- Intention A data element that has been determined to be important but current data quality in ADDN precludes it from being a Minimum data item. Improvements in quality will be monitored with the intention of it being reclassified as a Minimum data item
- Optional Optional collection for ADDN. Data should be submitted to ADDN if it is collected in local systems.
- Required Data element must be collected and transmitted if other data items related to Comorbidity, Family History, Visit or Medication are being transmitted
- Derived Value is calculated in ADDN and so does not need not be sent

Representational attributes

Data domain	The set of possible values for the data item. This may take the form of a code set, or a description of the possible values. Domain values are only specified where size of the code set is small enough to be reasonably reproduced in the document. In other instances the domain may be indicated by reference to a source document.
Guide for use	These are comments designed to assist in further defining aspects of the data domain.
Validation rules	These are included to assist in reducing input error.
	When a validation rule is not met, 1 of 3 error levels are generated:
	 Error Level 1 – Critical error which results in the record not being loaded
	 Error Level 2 – Significant error which results in the data item in error being set to blank before the record is loaded. This means that the value is not included in the dataset
	 Error Level 3 – Warning which results in the value in the data item being loaded as part of the record
Related data element	Other data items in this data dictionary that have some direct relationship with the data element being described.
Data type	The type of symbol or character, or other designation used to represent the data element, for example, String, Number, Date/Time.
Representational class	Describes whether the valid values for the data item take the form of a code set or free text. If the form is described as 'Code' the relevant code set or sets will be specified in the Data Domain section.
Maximum field size	The maximum number of characters or numbers allowable to represent the data item values.
Format	A generic example of what the data element should look like in the unit record. It is a template for the presentation of values, including specification and layout of permitted characters. For example, dates should be represented in the format of YYYY-MM- DD where DD represents the day, MM represents the month, and YYYY represents the four-digit numeric for the year.

Additional information

References	Documents listed here have been used as references when designing the specified item. Also listed are names of the organisations that developed the source document or provided advice on the data item.
Related metadata	Relationship between other metadata items.

Format values and their associated meanings

Value	Valid character range
A	Alphabetic character set: contains the letters a-z and A-Z and may contain special characters*, but not numeric characters.
N	Numeric character set: contains whole and decimal numbers and may contain special characters, but not alphabetic characters.
х	Alphanumeric character set: contains alphabetic and numeric characters, and may contain blank characters.
DD	A numeric character representing the day within a date
MM	A numeric character representing month within a date
YYYY	A numeric character representing year within a date
S	Positive or negative sign
[]	The string within the square brackets is optional in any ordered combination (e.g. [XXX] indicates 0, 1, 2 or 3 alphanumeric characters (i.e. blank, X, XX or XXX)).
()	The character preceding the round brackets (parentheses) is repeated the number of times specified (e.g. X(9) indicates 9 alphanumeric characters).

* A special character is a character which has a visual representation and is neither a letter, number, ideogram, or blank. For example, punctuation marks and mathematical symbols.

Approval and Limitations

This version of the data dictionary has been approved by the ADDN Steering Committee. Work on the dataset and data dictionary is an on-going iterative process, therefore there may be limitations and refinement required of the current version. Readers will need to be aware of certain limitations in the current version but these do not affect the intended purpose or definitions for each of the data items:

Data domains – list of specific data values have been agreed and approved however may still need further refinement and clarification.

Benchmarking – the availability or consensus agreement for data items to be used for benchmarking has been agreed and is indicated but is iterative and may undergo revision when appropriate.

Glossary of Terms

Certain terms referred to throughout this dictionary are commonly used in the clinical vernacular for diabetes care. However, for the purposes of this data dictionary and also to help standardise definitions and data collection, the following definitions are used.

Primary Centre

The hospital/ diabetes clinic where the person is usually treated.

Secondary

A secondary referral service is a consultant led service usually (but no always) delivered in a hospital/clinic with the initial referral being made by the primary care professional.

Tertiary

A tertiary referral hospital or tertiary care centre is a hospital or service that provides tertiary care, which is health care from specialists in a large hospital after referral from primary care and secondary care

General Practitioner

A doctor based in the community who treats persons with minor or chronic illness and refers those with serious conditions to a hospital or specialist

ADDN Centre

The hospital/diabetes clinic participating in the ADDN collaboration.

1. Patient Fields

1.1 Centre Identifier (Centre Code)

Identifying and definitional attributes

Definition	ADDN identifier for Centre (ADDN generated)
Justification	Collected for administrative purposes, to assist in the identification of the ADDN centre
Obligation	Mandatory
	Minimum
Representational attribution	utes
Guide for use	A Centre Code is assigned to the contributing ADDN centre by the ADDN project team
	Concatenation of:
	Australian state/territory identifier;
	City identifier and
	ADDN Centre identifier;
	All separated by an underscore
Validation rules	Field cannot be blank (Error level 1)
	Valid centre code (Error level 1)
Related data element	
Data type	String
Representational class	Identifier
Field size maximum	11
Format	XXX_XXX_XXX or XX_XXX_XXX
Data domain	

Administrative information

References

1.2 Local Identifier (Local ID)

Identifying and definitional attributes

Definition	Local identifier for person (generated by ADDN centre)
Justification	Collected for administrative purposes, to assist in the identification of duplicates
Obligation	Mandatory
	Minimum
Representational attribution	utes
Guide for use	ADDN centres will use their own alphabetic, numeric or alphanumeric coding systems.
	The value must be non-identifying for the person e.g. a sequential number for each person or a hash key based on the hospital medical record number
	It can NOT be a hospital medical record (UR) number, or a local clinical database case number.
	The local ID for the person must remain unchanged once it is assigned at the local level
Validation rules	Field cannot be blank (Error level 1)
	Unique for centre (Error level 1)
Related data element	Centre Code
	ADDN ID
	BioGrid ID
Data type	String
Representational class	Identifier
Field size maximum	Any size
Format	Any format
Data domain	

Administrative information

References

1.3 Date of Birth

Identifying and definitional attributes

Definition	The date the person was born.
Justification	Required for a range of clinical and administrative purposes. Date of birth enables derivation of age for use in demographic analyses, assists in the unique identification of clients if other identifying information is missing or in question, and may be required for the derivation of other metadata items.

Obligation	Mandatory
	Minimum

Representational attributes

Guide for use

Validation rules	Field cannot be blank (Error level 1)
	Value must be greater than 01/01/1900 and less than date of diagnosis and less than or equal to today's date (Error level 1) Value cannot be equal to date of diagnosis (Error level 3)
Related data element	Date of Diagnosis
Data type	Date/ Time
Representational class	Date
Field size maximum	8
Format	
Data domain	

Administrative information

References Related metadata

1.4 Gender

Identifying and definitional attributes

Definition	Gender of person. The distinction between male, female, and other genders which are a combination of male and female, or neither male nor female.
Justification	Collected for administrative purposes, to assist in identification of duplicates and for identifying person characteristics in demographic analyses
Obligation	Mandatory Minimum

Representational attributes

Guide for use	Should be confirmed if r	eported for people aged 90 days or greater
Validation rules	Field cannot be blank (E	rror level 1)
Related data element		
Data type	String	
Representational class	Code	
Field size maximum	12	
Format	ΑΑΑΑΑΑΑΑΑΑΑ	
Data domain	Value	Meaning
	MALE	Gender is Male
	FEMALE	Gender is Female
	INDETERMINATE	Not able to be identified as Male or Female. Refers to a person, who because of a genetic condition, was born with reproductive organs or sex chromosomes that are not exclusively male or female or whose sex has not yet been determined for whatever reason. Do not use when gender is not recorded on
		local system

Administrative information

References

Related metadata

METeOR ID: 635994

1.5 Diabetes Type

Identifying and definitional attributes

Definition	The primary type of diabetes the person has been diagnosed with
Justification	Used to classify person groups in analysis
Obligation	Mandatory Minimum
Representational attrib	utes
Guide for use	Note where there is a Gestational diabetes mellitus (GDM) or Previous GDM and a current history of Type 2 diabetes then record 'TYPE_2' Type 2 diabetes.
	The diagnosis is derived from and must be substantiated by clinical documentation.
	Type 1 diabetes: Beta cell destruction, usually leading to absolute insulin deficiency. Type 2 diabetes: May range from insulin resistance causing relative insulin deficiency to a secretary defect with or without insulin resistance.
	Gestational diabetes: Diabetes secondary to pregnancy Monogenic diabetes: A familial form of mild, non-ketotic diabetes presenting in adolescence or early adulthood. Recognised as a group of disorders which result from dominantly acting heterozygous mutations in genes important for the development or function of beta cells
	Cystic fibrosis related diabetes: A comorbidity of Cystic Fibrosis. Neonatal diabetes: Diabetes occurring before the age of 6 months Unspecified diabetes: Type of diabetes not specified. Other diabetes: Other rare forms of diabetes that do not meet the classifications listed above.
	For detailed definitions and diagnostic criteria refer to the ISPAD Clinical Practice Guidelines 2014. Definition, epidemiology, and classification of diabetes in children and adolescents.
Validation rules	Neonatal if age at diagnosis less than or equal to 6 months (Error level 3)

Related data element	Date of diagnosi	s
	Date of Birth	
Data type	String	
Representational class	Code	
Field size maximum	11	
Format	Character	
Data domain	Value	Meaning
	TYPE_1	Diagnosis of Type 1 Diabetes
	TYPE_2	Diagnosis of Type 2 Diabetes
	GESTATIONAL	Diagnosis of Gestational Diabetes
	MONOGENIC	Diagnosis of Monogenic Diabetes
	CFRD	Diagnosis of Cystic Fibrosis Related Diabetes
	NEONATAL	Diagnosis of Neonatal Diabetes
	UNSPECIFIED	Diagnosis of diabetes, type not specified
	OTHER	Diagnosis of diabetes type other than those listed

Administrative information

References	Craig ME, Jefferies C, Dabelea D et al. ISPAD Clinical Practice
	classification of diabetes in children and adolescents. Pediatric Diabetes. 2014; 15 Suppl 20:4-17. doi: 10.1111/pedi.12186
Related metadata	METeOR ID:

1.6 Diabetes Type (Other)

Identifying and definitional attributes

Definition	The type of diabetes of the person other than Type 1, Type 2, Gestational, Monogenic, Cystic Fibrosis Related, Neonatal or unspecified.
Justification	Used to classify person groups in analysis
Obligation	Optional

Representational attributes

Guide for use

Validation rules	Diabetes Type is 'OTHER' (Error level 2)
Related data element	Diabetes type
Data type	String
Representational class	Free text
Field size maximum	
Format	Character

Data domain

Administrative information

References

1.7 Date of Diagnosis

Identifying and definitional attributes

Definition	The date the person was first diagnosed with diabetes
Justification	Required to calculate duration of diabetes
Obligation	Mandatory
	Minimum
Representational attrik	outes
Guide for use	Record the day, month and year the person was first diagnosed with diabetes. Ask the person what date they were diagnosed with diabetes. Alternatively obtain this information from appropriate documentation, if available. When only the year of diagnosis is known, record day as 01 and month as 01
Validation rules	Must be greater than date of birth and less than or equal to today's date (Error level 1) Value cannot be equal to date of birth (Error level 3) Age at diagnosis must be less than or equal to 75 (Error level 3)
Related data element	Date of Birth
Data type	Date/Time
Representational class	Date
Field size maximum	8
Format	YYYY-MM-DD

Data domain

Administrative information

References

Related metadata METeOR ID: 269930

1.8 Country of Birth

Identifying and definitional attributes

Definition	The country in which the person was born, as represented by a code.
Justification	Country of birth used in demographic analyses.
Obligation	Minimum
Representational attril	outes
Guide for use	Classification of country at birth as per the Standard Australian Classification of Countries (SACC), Australian Bureau of Statistics (ABS) lowest level (4 digits) - 2nd revision, 2011, available on ABS website.
Validation rules	Must be an allowable value (Error level 2)
Related data element	
Data type	Number
Representational class	Code
Field size maximum	4
Format	N(4)
Data domain	Refer to Standard Australian Classification of Countries, Australian Bureau of Statistics
	http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/1269.0main+fe atures102011

Administrative information

References

Related metadata

METeOR ID: 659454

1.9 Indigenous Status

Identifying and definitional attributes

Definition	Indigenous Status is a measure of whether a person identifies as being of Aboriginal or Torres Strait Islander origin (Australia) or Maori origin (New Zealand).
Justification	Indigenous peoples occupy a unique place in society and culture. In the current climate of reconciliation, accurate and consistent statistics about Aboriginal and Torres Strait Islander peoples in Australia and Maori peoples in New Zealand are needed in order to plan, promote and deliver essential services, to monitor changes in wellbeing and to account for government expenditure in this area. The purpose of this metadata item is to provide information about people who identify as being of Aboriginal, Torres Strait Islander or Maori origin.
Obligation	Minimum (Paediatric)
	Intention for Minimum (Adult)

Representational attributes

Guide for use	The term 'Indigenous Status' is an acceptable term for use in data collection only and in terms of identifying the characteristics of a person. A person's indigenous status is determined by their response to the ABS Standard Indigenous Question: "Are you of Aboriginal or Torres Strait Islander origin?" or "Is the person of Aboriginal or Torres Strait Islander origin?"	
	For Australian ADDN Centres	
	Indigenous:	
	 Aboriginal but not Torres Strait Islander origin. 	
	 Torres Strait Islander but not Aboriginal origin. 	
	 Both Aboriginal and Torres Strait Islander origin. 	
	Non-indigenous:	
	 Neither Aboriginal nor Torres Strait Islander origin. 	
	For New Zealand ADDN Centres	
	Indigenous:	
	• Maori	
	Non-Indigenous:	
	• Non-Ivraon	
Validation rules	Is an allowable value (Error level 2)	
Related data element	Centre Code	
Data type	String	
Representational class	Code	

Field size maximum

25

Format

Data domain

Value <u>Australian Centres</u>	Meaning
AU_ABORIGINAL AU_TORRES_STRAIT_ISLANDER	Identifies as Aboriginal Identifiers as Torres Strait Islander
AU_BOTH	Identifies as both Aboriginal
AU_NEITHER	Does not identify as Aboriginal or Torres Strait Islander
New Zealand Centres	

NZ_MAORI	Identifies as Maori
NZ_NON_MAORI	Does not identify as Maori

Administrative information

References	Australian Bureau of Statistics 2014. Indigenous Status Standard Version 1.5, Canberra. Viewed 29 September 2015, http://www.abs.gov.au/ausstats/abs@.nsf/ a866861f12e106e0ca25 6a38002791fa/ 5609d66dcc94996eca257d6a000fb3fc!OpenDocume nt Australian Institute of Health and Welfare 2010. National best practice guidelines for collecting Indigenous status in health data sets. Cat. no. IHW 29. Canberra: AIHW. Viewed 29 September 2015, http://www.aihw.gov.au/publication-detail/?id=6442468342.
Related metadata	METeOR ID: 291036

1.10 Language Spoken at Home

Identifying and definitional attributes

Definition	The main language spoken at the persons home
Justification	This data element is important in identifying those people most likely to suffer disadvantage in terms of their ability to access services due to language and/or cultural difficulties. In conjunction with Indigenous status and Country of birth, this data element forms the minimum core set of cultural and language indicators recommended by the Australian Bureau of Statistics (ABS). Data on main language other than English spoken at home are regarded as an indicator of 'active' ethnicity.
Obligation	Minimum (Adult)
	Intention for Minimum (Paediatric)
Representational attribution	utes
Guide for use	This metadata item is based on the Australian Bureau of Statistics (ABS) standard for classification of Languages 2 nd level. For detailed advice on its use and application please refer to the ABS Website http://www.abs.gov.au/ausstats/abs@.nsf/mf/1267.0 Recommended question: Do you/Does the person/Does (name)/ Will (name of child under two years) speak a language other than English at home? (If more than one language, indicate the one that is spoken most often.) The ABS Language Standards, 2012, Version 1.1 (cat. no. 1200.0.55.005) was released in September 2012. The recommended question recognises children under two years of age.
Validation rules	Is an allowable value (Error level 2)
Related data element	
Data type	Number
Representational class	Code
Field size maximum	4
Format	N(4)
Data domain	as per Australian Standard Classification of Languages, Australian Bureau of Statistics – 2 nd level
Administrative informat	ion
References	Australian Bureau of Statistics 2012. Language Standards, 2012, Version 1.1. Cat. no. 1200.0.55.05. Canberra: ABS.
Related metadata	METeOR ID: 460125

1.11 Country at Diagnosis

Identifying and definitional attributes

Definition Justification	The country the person was residing in when diagnosed. Country where diagnosed used in demographic analyses.
Obligation	Minimum (Paediatric) Optional (Adults)
Representational attribution	utes
Guide for use	Record the country the person was in when they were diagnosed with diabetes. This includes the country they were visiting if they were temporarily travelling overseas when they were diagnosed. Use the lowest level of the Standard Australian Classification of Countries (SACC), 2 nd edition, 2011, to record the four digit number that corresponds with the country. This standardised coding system is available from Australian Bureau of Statistics.
Validation rules	Must be an allowable value (Error level 2)
Related data element	
Data type	Numeric
Representational class	Code
Field size maximum	4
Format	NNNN
Data domain	Refer to Standard Australian Classification of Countries, Australian Bureau of Statistics lowest level

Administrative information

References	Standard Australian Classification of Countries, Australian Bureau of
	Statistics (SACC), 2011
	http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1269.0201
	1?OpenDocument

Related metadata

METeOR ID:

1.12 Postcode at Diagnosis

Identifying and definitional attributes

Definition	The Australian and New Zealand numeric descriptor for a postal delivery area for an address of the person on the day of diabetes diagnosis.
Justification	Postcode may be used in the analysis of data on a geographical basis that involves coding data containing a postcode to the Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard (ASGS) areas. Postcode can be used as marker of socioeconomic status which is an important variable associated with clinical outcomes.
Obligation	Minimum unless diagnosed overseas (Paediatric)

Representational attributes

Guide for use	For a full list of Australian postcodes visit the Australia Post website: <u>www.austpost.com.au</u>		
	For a full list of New Zealand postcodes visit New Zealand Post website: <u>https://www.nzpost.co.nz</u>		
	If diagnosed overseas, do not sent this data item		
Validation rules	Must be an allowable value (Error level 2)		
Related data element			
Data type	Numeric		
Representational class			
Field size maximum	4		

Data domain

Format

Administrative information

References	
Related metadata	METeOR ID:

N(4)

1.13 Diabetic Ketoacidosis (DKA) at Diagnosis Indicator

Identifying and definitional attributes

Definition	Indicates wheth ketoacidosis at t	er the person was diagnosed with Diabetic he time of diagnosis of diabetes.
Justification	Diabetic ketoaci diabetes and is c and in data anal	dosis is a life threatening acute complication of collected as an outcome for benchmarking purposes yses.
Obligation	Minimum	
Representational attribution	utes	
Guide for use	 Diabetes ketoacidosis is defined as a blood glucose greater than 11mmol, acidosis indicated by a venous pH of less than 7.3 or bicarbonate less than 15 mmol/mol and ketonaemia or ketonuria 	
	hyperglycemic h about diagnostic	AD Consensus Statement: Diabetes ketoacidosis and yperosmolar state (2014) for detailed information criteria.
Validation rules	When false and and Bicarbonate	values exist for pH and Bicarbonate - pH less than 7.3 less than 15 (error level 2)
Data type	String	
Representational class	Code	
Field size maximum	5	
Format		
Data domain	Value	Meaning
	true	DKA at diagnosis of diabetes
	false	No DKA at diagnosis of diabetes

Administrative information

References	Wolfsdorf JI, et al. A Consensus Statement from the International Society for Pediatric and Adolescent Diabetes: Diabetic ketoacidosis and hyperglycemic hyperosmolar state. Pediatric Diabetes 2014: 15 (Suppl. 20): 154–179.
Related metadata	METeOR ID:

1.14 Current Postcode

Identifying and definitional attributes

, 0		
Definition	The Australian and New Zealand numeric descriptor for a postal delivery area for an address of the person. It is the postcode where the person currently lives	
Justification	Postcode may be used in the analysis of data on a geographical basis that involves coding data containing a postcode to the Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard (ASGS) areas. Postcode can be used as a marker of socioeconomic status which is an important variable associated with clinical outcomes.	
Obligation	Minimum	
Representational attributes		
Guide for use	For a full list of Australian postcodes visit the Australia Post website: <u>www.austpost.com.au</u>	
	For a full list of New Zealand postcodes visit New Zealand Post website:	
	<u>nttps://www.nzpost.co.nz</u>	
Validation rules	Must be an allowable value (Error level 2)	
Related data element		
Data type	Numeric	
Representational class		
Field size maximum	4	

Format N(4) Data domain

Administrative information

References	
Related metadata	METeOR ID:

1.15 Date of ADDN Consent

Identifying and definitional attributes

Definition	The date the person consented to have their data included on the ADDN Registry
Justification	Required in order to meet HREC approval for use of the ADDN data
Obligation	Minimum (Paediatric)

Representational attributes

Guide for use	Consent is mandatory for every paediatric person unless not required by ADDN centres' HREC approval.
	Opt-out consent is now part of the ADDN NMA. When a person choses to opt-out, this date should be removed and the person's data no longer sent to ADDN. Any previous data sent for this person is retained in the ADDN archives.
Validation rules	Not missing for paediatric person (Error level 1) Greater than or equal to date of diagnosis or less than and equal to today's date (Error level 2)
Related data element	Date of Diagnosis
Data type	Date/ Time
Representational class	Date
Field size maximum	8
Format	YYYY-MM-DD
Data domain	

Administrative information

References

1.16 Consent to be Contacted for Research Purposes Indicator

Identifying and definitional attributes

Definition	Indicates persons consent to be contacted for all research purposes.
Justification	Collected for administrative purposes, to assist users who are investigating feasibility of clinical trials.
Obligation	Minimum (Paediatric)

Representational attrib	utes	
Guide for use	Indicates a person has consented to be contacted for future research.	
Validation rules		
Related data element		
Data type	String	
Representational class		
Field size maximum	5	
Format		
Data domain	Value	Meaning
	true	Person consented to be contacted
	false	Person has not consented to be contacted

Administrative information

References

1.17 Primary Centre Indicator

Identifying and definitional attributes

Definition	An indicator of the nature of the diabetes service in terms of it being the person's primary centre of diabetes care or not the person's primary centre of diabetes care. For example if the person attended a diabetes service for the majority of their diabetes care it would be their 'primary centre' whereas occasional visits to another diabetes service for complications screening would not be classified as receiving care from a 'primary centre'.
Justification	Collected for administrative purposes, to assist in the identification of primary centre of care in the instance that a person attends multiple diabetes centres for care.
Obligation	Minimum (paediatric)

Representational attributes

Guide for use	Set to 'true' if the person, otherwing Default to true	his centre is the primary source of care for the se set to 'false' if the field is blank.
Related data element	Centre Code	
	ADDN ID	
	BioGrid ID	
Data type	String	
Representational class	Code	
Field size maximum	3	
Format		
Data domain	Value	Meaning
	true	Person's primary centre is 'Centre Code'
	false	Person's primary centre is not 'Centre Code'

Administrative information

References

1.18 CGM Start Date

Identifying and definitional attributes

Definition	The date the CGM device was first used
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications. Evaluation of Federal government CGM schema is an ADDN project. Collected for the purpose of analysis of outcomes
Obligation	Minimum
Representational attribution	ıtes
Guide for use	Date that a CGM device was first used. The CGM Start Date remains the same even if stopped using a CGM or stopped and then re- started.
Validation rules	Must be greater than or equal to the patient date of birth and less than or equal to today's date and greater than or equal to the patient date of diagnosis (Error level 2). Not missing if any related data element is not missing for any visit (Error level 3)
Related data element	CGM Usage % CGM Device CGM Time In Range CGM Time < 3.9 CGM Time < 3.0 CGM Glucose Mean CGM Glucose Standard Deviation CGM GMI NGSP CGM GMI IFFC
Data type	Date
Representational class	
Field size maximum	2
Format	YYYY-MM-DD
Data domain	

Administrative information

References

Related metadata METeOR ID:
1.19 Ethnicity (Primary)

Definition	The ethnic they belon	group that the person primarily identifies with or feels g to.
Justification	Ethnicity is clinical out included ir	a known demographic factor that is associated with comes. By collecting ethnicity this variable can be statistical analysis.
Obligation	Intention f	or Minimum
Representational att	ributes	
Guide for use	The persor question " group?" Based on t shared ide or more fa identificati The respor Statistics (<i>J</i> Groups lev refer to the http://www	hs ethnicity is determined by their response to the Does your family belong to any specific cultural or ethnic he ASCCEG definition where 'ethnicity' refers to the ntity or similarity of a group of people on the basis of one ctors. Ethnicity is based on the self-perceived group on approach. hse is to be recorded according to the Australian Bureau of ABS) standard for classification of Cultural and Ethnic rel 2. For detailed advice on its use and application please e ABS Website w.abs.gov.au/ausstats/abs@.nsf/mf/1249.0
Validation rules	Must be al	lowable value (Error level 2)
Related data element	Ethnicity (S	Secondary)
Data type	Number	
Representational class	Code	
Field size maximum	4	
Format	N(4)	
Data domain	Value	Meaning
	1000 1100 1200 1300 1400 1500 2000 2100 2200 2300 2400 3000	Oceanian Australian New Zealand Melanesian and Papuan Micronesian Polynesian North-West European British Irish Western European Northern European Southern and Eastern European

3100	Southern European
3200	South Eastern European
3300	Eastern European
4000	North African and Middle Eastern
4100	Arab
4200	Jewish
4300	Peoples of the Sudan
4900	Other North African and Middle Eastern
5000	South-East Asian
5100	Mainland South-East Asian
5200	Maritime South-East Asian
6000	North-East Asian
6100	Chinese Asian
6900	Other North-East Asian
7000	Southern and Central Asian
7100	Southern Asian
7200	Central Asian
8000	People of the Americas
8100	North American
8200	South American
8300	Central American
8400	Caribbean Islander
9000	Sub-Saharan African
9100	Central and West African
9200	Southern and East African

Administrative information

ReferencesAustralian Bureau of Statistics (ABS) standard for classification of
Cultural and Ethnic Groups level 2http://www.abs.gov.au/ausstats/abs@.nsf/mf/1249.0

Related metadata

METeOR ID:

1.20 Ethnicity (Secondary)

Definition	The ethnic grou to in addition to	p that the person identifies with or feels they belong the primary ethnicity they identify with.
Justification	Ethnicity is a kn clinical outcome included in stat one ethnicity or	own demographic factor that is associated with es. By collecting ethnicity this variable can be istical analysis. People can identify with more than cultural group.
Obligation	Optional	
Representational attribution	utes	
Guide for use	The persons ethnicity is determined by their response to the question	
	"Does your fam	ily belong to any specific cultural or ethnic group?"
	Based on the AS shared identity or more factors identification ap The response is Statistics (ABS) Groups level 2. refer to the ABS http://www.abs	SCCEG definition where 'ethnicity' refers to the or similarity of a group of people on the basis of one . Ethnicity is based on the self-perceived group oproach. to be recorded according to the Australian Bureau of standard for classification of Cultural and Ethnic For detailed advice on its use and application please S Website s.gov.au/ausstats/abs@.nsf/mf/1249.0
Validation rules	Must be allowa Should not be e Must be differe	ble value (Error level 2) ntered if Ethnicity Primary is null (Error level 2) nt from ethnicity Primary (Error level 2)
Related data element	Ethnicity Prima	γ
Data type	Number	
Representational class	Code	
Field size maximum	4	
Format	N(4)	
Data domain	Value	Meaning
	1000 1100 1200 1300 1400 1500 2000	Oceanian Australian New Zealand Melanesian and Papuan Micronesian Polynesian North-West European

2100	British
2200	Irish
2300	Western European
2400	Northern European
3000	Southern and Eastern European
3100	Southern European
3200	South Eastern European
3300	Eastern European
4000	North African and Middle Eastern
4100	Arab
4200	Jewish
4300	Peoples of the Sudan
4900	Other North African and Middle Eastern
5000	South-East Asian
5100	Mainland South-East Asian
5200	Maritime South-East Asian
6000	North-East Asian
6100	Chinese Asian
6900	Other North-East Asian
7000	Southern and Central Asian
7100	Southern Asian
7200	Central Asian
8000	People of the Americas
8100	North American
8200	South American
8300	Central American
8400	Caribbean Islander
9000	Sub-Saharan African
9100	Central and West African
9200	Southern and East African

Administrative information

References

Australian Bureau of Statistics (ABS) standard for classification of Cultural and Ethnic Groups level 2

http://www.abs.gov.au/ausstats/abs@.nsf/mf/1249.0

Related metadata

METeOR ID:

1.21 Person Date of Death

Identifying and definitional attributes

Definition	The date on which the person ceases to live
Justification	Required for statistical survival analysis for derivation of the length of time between diagnosis with diabetes and death.
Obligation	Minimum
Representational attribution	utes
Guide for use	
Validation rules	Must be greater than or equal to date of diagnosis and less than or equal to today's date (Error level 2)
Related data element	Date of Diagnosis
Data type	Date/Time
Representational class	Date
Field size maximum	8
Format	YYYY-MM-DD
Data domain	

Administrative information

References

Related metadata METeOR ID: 646025

1.22 Cause of Death

Definition	The disease or circumstance which initiated the train of morbid events leading directly to a person's death.
Justification	Collected for administrative purposes, and for analyses concerning morbidity.
Obligation	Optional
Representational attribution	utes
Guide for use	 The cause of the persons death to be coded as per below Diabetic Ketoacidosis (DKA) The person died as a consequence of DKA defined as a blood glucose greater than 11mmol, acidosis indicated by a venous pH of less than 7.3 or bicarbonate less than 15 mmol/mol and ketonaemia or ketonuria Hypoglycaemia The person died as a consequence of an episode of severe hypoglycaemia Dead-in-bed The person died in their sleep of unknown cause Sepsis The person died secondary to sepsis Other Diabetes Related The person died from another diabetes related cause not already listed. For example a cardio vascular event; Renal failure, motor vehicle accident secondary to hypoglycaemia Not Diabetes Related The cause of the persons death was not related to their diabetes
Validation rules	Must be an allowable value (Error level 2)
Related data element	Date Deceased Cause of Death Other
Data type	String
Representational class	Code
Field size maximum	22
Format	

Data domain

Value	Meaning
DKA	Cause of death Diabetic Ketoacidosis
HYPOGLYCAEMIA	Cause of death Hypoglycaemia
DEAD_IN_BED	Cause of death unknown and person died during sleep
SEPSIS	Cause of death sepsis
OTHER_DIABETES_RELATED	Cause of death diabetes related and not already listed
NOT_DIABETES_RELATED	Cause of death not diabetes related

Administrative information

References

1.23 Cause of Death Other

Identifying and definitional attributes

Definition	The disease or circumstance which initiated the train of morbid events leading directly to a person's death other than diabetic ketoacidosis, hypoglycaemia, dead in bed, sepsis or not diabetes related
Justification	Collected for administrative purposes, and for analyses concerning morbidity
Obligation	Optional
Representational attribution	utes
Guide for use	
Validation rules	Cause of death is 'OTHER_DIABETES_RELATED'(Error level 2)
Related data element	Date Deceased
	Cause of death
Data type	Free text
Representational class	
Field size maximum	
Format	Character
Data domain	
A 1	•

Administrative information

References

1.24 Number of Days Hospitalised at Diagnosis

Definition	The number of days that the person was hospitalised at diagnosis of diabetes
Justification	Identify treatment pathway and outcomes. Measuring the number of days hospitalized assists in assessing the appropriateness and effectiveness of clinical management. This information also facilitates interstate and cross regional comparisons and comparisons between different service user sub-populations.
Obligation	Optional
Representational attribution	utes
Guide for use	Formula:
	Subtract patient's date of admission from their date of discharge and record as number of days
	A same-day patient should be allocated a length of stay of one day.
Validation rules	Must be greater than or equal to 0 and less than 15 days (Error level 3)
Related data element	
Data type	Numeric
Representational class	Total
Field size maximum	2
Format	NN
Data domain	
Unit of measure	Day
Administrative informat	ion
References	
Related metadata	METeOR ID: 329889

1.25 Diabetic Ketoacidosis - pH

Identifying and definitional attributes

Definition	The persons pH level at diagnosis
Justification	To define severity of DKA. Enable ADDN data to be included in international studies and benchmarking with other registries
Obligation	Optional
Representational att	ributes
Guide for use	Record the pH value in DKA episodes at diagnosis. This may be the last result or the lowest pH value used to determine DKA
Validation rules	Must be greater than or equal to 6.5 and less than or equal to 8.0 (Error level 3)
Related data element	DKA At Diagnosis
Data type	Number
Representational class	
Field size maximum	4
Format	nn.nn
Unit of measure	
Data domain	

Administrative information

ReferencesCraig ME, Jefferies C, Dabelea D et al. ISPAD Clinical Practice
Consensus Guidelines 2014. Definition, epidemiology, and
classification of diabetes in children and adolescents. Pediatric
Diabetes. 2014; 15 Suppl 20:4-17. doi: 10.1111/pedi.12186

1.26 Diabetic Ketoacidosis - Bicarbonate

Identifying and definitional attributes

Definition	The persons Bicarbonate level at diagnosis in DKA
Justification	To define severity of DKA. Enable ADDN data to be included in international studies and benchmarking with other registries
Obligation	Optional
Representational att	ributes
Guide for use	Record the bicarbonate value in DKA episodes at diagnosis. This may be the last result or the lowest result that was used to determine DKA.
	If value has been recorded with decimal places, it should be rounded to the nearest whole integer.
Validation rules	Must be greater than or equal to zero and less than or equal to 30 (Error level 3)
Related data element	DKA At Diagnosis
Data type	Number
Representational class	
Field size maximum	2
Format	nn
Unit of measure	mmol/L
Data domain	

Administrative information

References	Craig ME, Jefferies C, Dabelea D et al. ISPAD Clinical Practice
	Consensus Guidelines 2014. Definition, epidemiology, and
	classification of diabetes in children and adolescents. Pediatric
	Diabetes. 2014; 15 Suppl 20:4-17. doi: 10.1111/pedi.12186
Deleted westedate	

1.27 Date of Menarche

Identifying and definitional attributes

Definition	The date of the first occurrence of menstruation of the person	
Justification	The timing of puberty is an important variable which may be associated with clinical outcomes. Earlier onset may be associated with higher risk for diabetes complications. It is the most accurately recalled indicator of puberty among girls.	
Obligation	Optional	
Representational attribution	utes	
Guide for use	The date of menarche can be determined by asking the person the date at which menarche occurred and the age, in years and months, at which menarche occurred.	
Validation rules	Must be greater than Date of Birth (Error 2) Must be less than or equal to today's date (Error level 2) Gender must be female (Error level 2) Age must be more than 8 years at date of menarche calculated from Date of Birth (Error level 3)	
Related data element	Gender	
	Date of Birth	
Data type	Date/Time	
Representational class	Date	
Field size maximum	8	
Format	YYYY-MM-DD	
Data domain		
Administrative information		
References		

1.28 Date of Transfer of Care

Definition	The date of transfer of care of the person to another diabetes service. For example the transfer of care from paediatric to adult diabetes service.	
Justification	Collected for administrative purposes, and for analyses concerning transition from paediatric to adult services. Transition is an important area of investigation as emerging adults can experience suboptimal health care utilization, deteriorating glycaemic control, increased occurrence of acute complications and emergence of chronic complications of diabetes.	
Obligation	Optional	
Representational attribution	utes	
Guide for use		
Validation rules	Must be greater than or equal to date of diagnosis and less than or equal to today's date (Error level 2)	
Related data element	Date of diagnosis	
Data type	Date/Time	
Representational class	Date	
Field size maximum	8	
Format	YYYY-MM-DD	
Data domain		
Administrative information		
References		
Related metadata		

1.29 Transfer To

Definition	The type of se	ervice to which the person has transferred.
Justification	Collected for transition from important are suboptimal he increased occ chronic comp	administrative purposes, and for analyses concerning m paediatric to adult services. Transition is an ea of investigation as emerging adults can experience ealth care utilization, deteriorating glycaemic control, urrence of acute complications and emergence of lications of diabetes.
Obligation	Optional	
Representational att	ributes	
Guide for use	Record the ty according to t A tertiary Dial which is care secondary car A primary car be a Nurse Pr point of conta persons comp Private diabet	pe of service to which the person was transferred the data domain below. betes Service refers to a service where tertiary care, from specialists after referral from primary or re, is delivered. e provider is most often a General Practitioner but can actitioner, who provides definitive care at the first act, and takes continuing responsibility for providing the prehensive care. tes providers work from the Private Health System.
Validation rules		
Related data element	Date of Trans	fer
Data type	String	
Representational class	Code	
Field size maximum	8	
Format	Character	
Data domain	Value	Meaning
	TERTIARY	Person has transferred to a tertiary diabetes service
	PRIMARY	Person has transferred to a primary care provider
	PRIVATE	Person has transferred to a private diabetes provider
	UNKNOWN	Service Person has transferred to is not recorded
Administrative inform	nation	
References		
Related metadata		

1.30 DNA Stored Indicator

Identifying and definitional attributes

Definition	An indicator o tissue sample	f whether DNA has been extracted and stored from a collected from the person, as represented by a code.
Justification	Collected for a who have DNA	administrative purposes, to assist identifying persons A stored.
Obligation	Optional	
Representational attri	butes	
Guide for use	Record wheth stored.	er DNA has been collected from the person and
Validation rules		
Related data element		
Data type	string	
Representational class	Code	
Field size maximum	5	
Format		
Data domain	Value	Meaning
	true	DNA of person stored
	false	DNA of person not stored

Administrative information

References

Related metadata METeOR ID:

1.31 HLA Data Available

Identifying and definitional attributes

Definition	HLA genotyping	g available
Justification	Collected as an with the develo disease.	important person characteristic which is associated pment of type 1 diabetes and other autoimmune
Obligation	Optional	
Representational attrib	outes	
Guide for use	Record whether the person has had HLA genotyping done and stored	
Validation rules		
Related data element		
Data type	String	
Representational class	Code	
Field size maximum	5	
Format		
Data domain	Value	Meaning
	true	HLA genotyping of person stored
	false	HLA genotyping of person not stored

Administrative information

References

1.32 Birth Weight

Identifying and definitional attributes

Definition	The first weight of the live-born or stillborn baby obtained after birth, or the weight of the neonate or infant on the date admitted if this is different from the date of birth.
Justification	Birth weight is used to calculate birth weight for gestational age, standard deviation score and birth weight for gestational age percentile which are required for the presentation of anthropometric data and identification of risk groups.
Obligation	Optional

Representational attributes

Guide for use	A continuous variable measured to the nearest 0.1kg
Validation rules	Expected Value more than 0.4 and less than or equal to 6.0 (Error level 3)
	Greater than 0 (Error level 2)
Related data element	
Data type	Number
Representational class	Total
Field size maximum	
Format	N.N
Unit of measure	Kilogram

Data domain

Administrative information

References

Related metadata METeOR ID: 269938

1.33 Birth Weight SDS for Gestational Age

Identifying and definitional attributes

Definition	The standard deviation score of the person's birth weight relative to babies of the same gestational age (ADDN calculated field)	
Justification	Standard deviation scores provide a method of comparing the person or group of persons to the reference population. This is required for population based assessment and national surveillance. The standard deviation score is widely recognized as the best system for analysis and presentation of anthropometric data.	
Obligation	Derived	
Representational attributes		
Guide for use	Can be derived from:	
	• Birth weight; and	
	Gestation at birth	
	If both data items are available, this should be derived as a calculated field.	
	The standard deviation score is an expression of the anthropometric value as a number of standard deviations below or above the reference mean or median value.	
Validation rules	Expected value or more than -5.0 to less than or equal to 5.0 (Error level 3)	
Related data element	Gestation at Birth	
	Birth weight	
Data type	Number	
Representational class	Total	
Field size maximum	3	
Format	sN.N	
Unit of measure	standard deviation score	
Data domain		

Administrative information

References	Beeby, PJ. et al. New South Wales population-based birth weight
	percentile charts. J. Paediatr. Child Health (1996) 32,512-51 8

1.34 Birth Weight for Gestational Age Percentile

Identifying and definitional attributes

Definition	The percentile score of the person's birth weight relative to babies of the same gestational age (ADDN calculated field)
Justification	Percentile scores provide a method of comparing the person or group of persons to the reference population. This is required for population based assessment and national surveillance and for analysis and presentation of anthropometric data.
Obligation	Derived
Representational attribution	utes
Guide for use	Can be derived from:
	Birth weight; and
	Gestation at birth
	If both data items are available, this should be derived as a calculated field.
Validation rules	Must be within range 0.0 - 100.0 (Error level 3)
Related data element	Gestation at Birth
	Birth weight
Data type	Number
Representational class	Total
Field size maximum	
Format	NNN.N
Unit of measure	percent
Data domain	

Administrative information

References	Beeby, PJ. et al. New South Wales population-based birth
	weight percentile charts. J. Paediatr. Child Health (1996)
	32,512-51 8

1.35 Gestation at Birth

Definition	The completed weeks gestation at the birth of the person.
Justification	Gestational age is a key marker in pregnancy and an important risk factor for neonatal outcomes. Required to calculate birth weight SDS for gestational age and birth weight for gestational age percentile. Needed for analysis and presentation of anthropometric data.
Obligation	Optional
Representational attribution	ıtes
Guide for use	The duration of gestation can be determined from the first day of the last normal menstrual period, from ultrasound or clinical assessment. For the purpose of the national collection, gestational age is expressed in completed weeks.
Validation rules	Must be greater than or equal to 20 weeks, or less than and equal to 43 weeks (Error level 3)
Related data element	
Data type	Numeric
Representational class	Total
Field size maximum	
Format	NN.N
Unit of measure	Weeks
Data domain	
Administrative informat	ion
References	
Related metadata	METeOR ID:

1.36 Islet Antibody positivity – Insulin autoantibody (IAA)

Identifying and definitional attributes

Definition	The person's IAA s	tatus, usually tested at diagnosis.
Justification	Insulin autoantibo autoimmunity defi	dies are one of the established markers of islet ning type 1 diabetes.
Obligation	Optional	
Representational attribution	utes	
Guide for use	Record the latest result. While this is usually tested around the time of diagnosis, it will occasionally be retested	
Validation rules		
Related data element		
Data type	string	
Representational class	Code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	person is positive for IAA
	false	person is not positive for IAA

Administrative information

References

1.37 Islet Antibody positivity - IA-2 antibody

Identifying and definitional attributes

Definition	The person's IA-2 a	antibody status, usually tested at diagnosis.
Justification	IA-2 antibodies are autoimmunity defi	e one of the established markers of islet ining type 1 diabetes.
Obligation	Optional	
Representational attribution	utes	
Guide for use	Record the latest result. While this is usually tested around the time of diagnosis, it will occasionally be retested	
Validation rules Related data element		
Data type	string	
Representational class	code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	person is IA-2 positive
	false	person is not IA-2 positive

Administrative information

References

1.38 Islet antibody positivity - GAD antibody Indicator

Identifying and definitional attributes

Definition	The person's GAD	antibody status, usually tested at diagnosis
Justification	Glutamic Acid Dec markers of islet au	arboxylase (GAD) are one of the established toimmunity defining type 1 diabetes
Obligation	Optional	
Representational attribution	utes	
Guide for use	Record the latest result. While this is usually tested around the time of diagnosis, it will occasionally be retested	
Validation rules Related data element		
Data type	string	
Representational class	code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	person is GAD positive
	false	Person is not GAD positive

Administrative information

References

1.39 Islet autoantibody positivity - ZnT8

Identifying and definitional attributes

Definition	The person's ZnT8	Positivity status, usually tested at diagnosis
Justification	Zinc Transporter 8 markers of islet au	(ZnT8) Autoantibodies are one of the established toimmunity defining type 1 diabetes
Obligation	Optional	
Representational attribution	utes	
Guide for use	Record the latest result. While this is usually tested around the time of diagnosis, it will occasionally be retested	
Validation rules Related data element		
Data type	string	
Representational class	code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	person is ZnT8 positive
	false	person is not ZnT8 positive

Administrative information

References

1.40 ICA Positive Indicator

Identifying and definitional attributes

Definition	An indication	n of the person's ICA positivity status	
Justification	Positivity to important sc natural histo	Islet Cell Cytoplasmic Autoantibodies is recorded as ar ource of information to help the understanding of the ory of diabetes.	
Obligation	Optional		
Representational attr	ributes		
Guide for use	Record the la While this is occasionally	Record the latest result. While this is usually tested around the time of diagnosis, it will occasionally be retested	
Validation rules Related data element			
Data type	String		
Representational class	Code		
Field size maximum	5		
Format			
Unit of measure			
Data domain	Value	Description	
	true	Person is ICA positive	
	false	person is not ICA positive	

Administrative information

References

1.41 Coeliac Disease

Identifying and definitional attributes

Definition	Indicates a person	has been diagnosed with Coeliac disease
Justification	Number of patient Benchmarking	s with Coeliac disease is reported as part of ADDN
Obligation	Optional	
Representational attrib	utes	
Guide for use	Set to 'true' if patient has Coeliac disease, otherwise set to 'false'. Can be diagnosed by biopsy or if 10 fold increase in coeliac serology.	
Validation rules		
Related data element	Date Diagnosed Co	peliac Disease
Data type	String	
Representational class	Code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	Person has Coeliac Disease
	false	Person does not have Coeliac Disease

Administrative information

References

1.42 Date Diagnosed Coeliac Disease

Identifying and definitional attributes

Definition	The date the person was diagnosed with Coeliac Disease
Justification	Collected to determine age when diagnosed and duration of coeliac disease
Obligation	Optional
Representational attribution	utes
Guide for use	Record the day, month and year the person was diagnosed with Coeliac Disease. Ask the person what date they were diagnosed with Coeliac Disease. Alternatively obtain this information from appropriate test results, if available.
	When only the year of diagnosis is known, record day as 01 and month as 01
Validation rules	Must be greater than date of birth and less than or equal to today's date (Error level 2) Coeliac Disease is true (Error level 3)
Related data element	Date of Birth
	Coeliac Disease
Data type	Date/Time
Representational class	Date
Field size maximum	8
Format	YYYY-MM-DD
Data domain	

Administrative information

References

1.43 BioGrid ID (USI)

Identifying and definitional attributes

Definition	BioGrid person identifier
Justification	Collected for administrative purposes, to assist in identification of duplicate persons and linking person data across ADDN centres
Obligation	Minimum for ADDN centres using the BioGrid Diabetes Clinical and Research Database or who have BioGrid Web Service installed or who have been provided with BioGrid ID via a spreadsheet. Optional for all other centres

Representational attributes

Guide for use	Identifying person data, (first name, last name, date of birth, gender and optionally also middle initial) is passed from the ADDN centre over a secure internet connection, to BioGrid Australia, who will use the information to generate a Unique Subject Identifier (USI) for each person. This USI is returned over a secure internet connection for incorporation into the ADDN centre's local diabetes database.
Validation rules	Unique for centre (Error level 2)
Related data element	ADDN ID, Local ID
Data type	Numeric
Representational class	Identifier
Field size maximum	10
Format	N (10)
Data domain	

Administrative information

References

1.44 ADDN Identifier (ADDN ID)

Identifying and definitional attributes

Definition	ADDN person identifier (ADDN generated)
Justification	Collected for administrative purposes, to assist in identification of duplicate persons.
Obligation	Optional
Representational attribution	utes
Guide for use	If a Person doesn't have an ADDN ID, it will be generated the 1 st time the Person data is loaded into ADDN.
	The ADDN ID must be saved with the person record along with the Local ID at the source centre.
	If a person has come from another ADDN centre, they may already have an ADDN ID. This ID should be included with the Person data (including the 1 st time person loaded to ADDN at this centre)
Validation rules	Unique for centre (Error level 2)
Related data element	Local ID, USI
Data type	Numeric
Representational class	Identifier
Field size maximum	10
Format	N(10)
Data domain	

Administrative information

References

2 Co-Morbidity Fields

2.1 Comorbidity

Identifying and definitional attributes

Definition	The presence of a disease or disorder co-occurring with the diabetes in the person
Justification	Collecting information on comorbid conditions contributes to the understanding of why different comorbidities occur which may provide important opportunities for prevention. Comorbidities are associated with clinical outcomes.
Obligation	Required

Representational attributes

Guide for use	Record comorbidity using the ADDN specific list to code disorder or disease.
	History of Depression must be diagnosed by Paediatrician or Mental Health professional and includes persons who are being treated with counselling and/or medication.
	Anorexia Nervosa diagnosed by appropriate medical practitioner and is defined as severe restriction of energy intake leading to a significantly low body weight with an intense fear of gaining weight and disturbance in self-perceived weight or shape. Subtypes: 1) Restricting type; 2) Binge eating / purging type characterised by recurrent episodes of binge eating, at least once per week for 3 months. Binge eating is defined as eating an amount of food that is definitely larger than what most individuals would eat in a similar period of time and a sense of lack of control over eating
	Bulimia characterised by recurrent binge eating episodes, at least once per week for 3 months, AND inappropriate weight control compensatory behaviours (self-induced vomiting, laxatives, insulin omission)
	Other Eating Disorders (Other Specified Feeding and Eating Disorder (OSFED)) is a category of disordered eating that does not meet the criteria for a specific eating disorder. It is characterised by symptoms of feeding or eating disorders causing clinically significant distress or impact on daily functioning, but that do not meet the diagnostic criteria for any of the disorders.
	Reference: American Psychiatric Association. Diagnostic and statistical manual of mental disorders, Fifth Edition. Arlington: American Psychiatric Association; 2013
	Amputation is when diabetes related not as result of an accident or other reasons

Validation rules	Must be an allowable value (Error level 1)	
Related data element		
Data type	String	
Representational class	Code	
Field size maximum	37	
Format		
Data domain	THALASSAEMIA HYPOTHYROIDISM HYPERTHYROIDISM THYROID_AUTOIMMUNITY WOLFRAM_SYNDROME ADDISON_DISEASE OVARIAN_FAILURE POLYCYSTIC_OVARIAN_SYNDROME CYSTIC_FIBROSIS HISTORY_OF_DEPRESSION HISTORY_OF_ANXIETY OTHER_EATING_DISORDERS ANOREXIA BULIMIA INTELLECTUAL_DISABILITY AUTISM_SPECTRUM_DISORDER ADD FRIEDREICH_ATAXIA EPILEPSY TIA MONONEURITIS PERIPHERAL_NEUROPATHY MYOTONIC_DYSTROPHY AUTONOMIC_NEUROPATHY AUTONOMIC_NEUROPATHY ANGINA AMI ANGIOPLASTY_STENTING BYPASS_GRAFT HEART_FAILURE STROKE CAROTID_ARTERY_DISEASE PERIPHERAL_VASCULAR_DISEASE AMPUTATION GASTROPARESIS CHARCOTS_JOINT OSTEOMYELITIS ESRF PRADER_WILLI_SYNDROME LAURENCE_MOON_BIEDL_SYNDROME DOWN_SYNDROME TURNER_SYNDROME KLINEFELTER_SYNDROME	

Administrative information

References

Related metadata

METeOR ID:

2.2 Date of Diagnosis of Comorbidity

Identifying and definitional attributes

Definition The date the person with diabetes was first diagnosed with the comorbidity. Justification Obligation Optional **Representational attributes** Guide for use Validation rules Must be greater than or equal to date of birth and less than or equal to today's date (Error level 2) **Related data element** Comorbidity Date of Birth Data type Date/time **Representational class** Date Field size maximum 8 Format YYYY-MM-DD Data domain

Administrative information

References

Related metadata METeOR ID:

3 Family History Fields

3.1 Relationship to Person

Identifying and definitional attributes

Definition	The relationship of first-degree relatives of the person with diabetes, who have been diagnosed with either diabetes or another autoimmune disease.	
Justification	Collecting family history will provide information to improve understanding of the aetiology and natural history of diabetes.	
Obligation	Required (for positive family history as below)	
Representational attribution	utes	
Guide for use	Family History is only required if a first-degree relative (as specified in the Data domain) has either diabetes or another related autoimmune disease	
Validation rules		
Related data element	Diabetes Type (First-degree Relative) Coeliac Disease (First-degree Relative) Thyroid Disease (First-degree Relative) Other Autoimmune Diseases (First-degree Relative)	
Data type	string	
Representational class	Code	
Field size maximum	12	
Format		
Data domain	Value	Meaning
	FATHER	the biological father of the person
	MOTHER	the biological mother of the person
	SIBLING	the biological sibling of the person
	HALF_SIBLING	the sibling of the person based on at least one biological parent
	CHILD	the biological child of the person

Administrative information

References
3.2 Diabetes Type (First-degree Relative)

Identifying and definitional attributes

Definition	The type of diabetes diagnosed in the first-degree relative of the person
Justification	Collecting family history will provide information to improve understanding of the aetiology and natural history of diabetes.
Obligation	Required (or Coeliac Disease or Thyroid Disease or Other Autoimmune diseases)

Representational attributes

Guide for use	If the family history is positive, then one or more of Diabetes Type or Coeliac Disease or Thyroid Disease or Other Autoimmune Diseases is required. Note where there is a Gestational diabetes mellitus (GDM) or Previous GDM and a current history of Type 2 diabetes then record 'TYPE_2' diabetes.
	The diagnosis is derived from and must be substantiated by clinical documentation.
	Type 1 diabetes: Beta cell destruction, usually leading to absolute insulin deficiency.
	Type 2 diabetes: May range from insulin resistance causing relative insulin deficiency to a secretary defect with or without insulin resistance.
	Monogenic diabetes: A familial form of mild, non-ketotic diabetes presenting in adolescence or early adulthood. Recognized as a group of disorders which result from dominantly acting heterozygous mutations in genes important for the development or function of beta cells.
	Cystic fibrosis related diabetes: A comorbidity of Cystic Fibrosis. Neonatal diabetes: Diabetes occurring before the age of 6 months Unspecified diabetes: Type of diabetes not specified. Other diabetes: Other rare forms of diabetes that do not meet the classifications listed above.
	For detailed definitions and diagnostic criteria refer to the ISPAD Clinical Practice Guidelines 2014. Definition, epidemiology, and classification of diabetes in children and adolescents.
Validation rules	Not missing if Other Autoimmune Disease (First-degree Relative) or Coeliac Disease (First-degree Relative) or Thyroid Disease (First- degree Relative) are missing (Error code 1)
Related data element	Coeliac disease (First-degree Relative)

	Thyroid disease (First-degree Relative)	
	Other Autoimmune diseases (First-degree Relative)	
	Diabetes type Other	
Data type	String	
Representational class	Code	
Field size maximum	11	
Format		
Data domain	Value	Meaning
	TYPE_1	Diagnosis of Type 1 Diabetes
	TYPE_2	Diagnosis of Type 2 Diabetes
	GESTATIONAL	Diagnosis of Gestational Diabetes
	MONOGENIC	Diagnosis of Monogenic Diabetes
	CFRD	Diagnosis of Cystic Fibrosis Related Diabetes
	NEONATAL	Diagnosis of Neonatal Diabetes
	UNSPECIFIED	Diagnosis of diabetes, type not specified
	OTHER	Diagnosis of diabetes type other than those listed

Administrative information

References	Craig ME, Jefferies C, Dabelea D et al. ISPAD Clinical Practice Consensus Guidelines 2014. Definition, epidemiology, and
	classification of diabetes in children and adolescents. Pediatric Diabetes. 2014; 15 Suppl 20:4-17. doi: 10.1111/pedi.12186
Related metadata	METeOR ID:

3.3 Diabetes Type Other (First-degree Relative)

Identifying and definitional attributes

Definition	The type of diabetes diagnosed in the first-degree relative of the person with diabetes other than Type 1, Type 2, Gestational, Monogenic, Cystic Fibrosis Related, Neonatal or unspecified.	
Justification	Collecting family history will provide information to improve understanding of the aetiology and natural history of diabetes.	
Obligation	Optional	
Representational attributes		
Guide for use	Must be included when the Diabetes Type (First-degree Relative) = 'OTHER'	
Validation rules	Diabetes type is 'OTHER' (Error level 2)	
Related data element	Diabetes type (First-degree Relative)	
Data type	string	
Representational class	Free text	
Field size maximum		
Format		
Data domain		

Administrative information

3.4 Coeliac Disease (First-degree Relative)

Identifying and definitional attributes

Definition	The first-degree relative of the person with diabetes has been diagnosed with Coeliac disease.	
Justification	Collecting family history understanding of the ae	will provide information to improve tiology and natural history of diabetes.
Obligation	Required (or Diabetes Ty diseases)	pe or Thyroid Disease or Other Autoimmune
Representational attribu	ıtes	
Guide for use	If the family history is positive, then one or more of 'Diabetes Type' or 'Coeliac Disease' or 'Thyroid Disease' or 'Other Diseases' is required	
	Include only when the fa Coeliac	amily member has been diagnosed with
Validation rules	Not missing if Diabetes Disease (First-degree Re degree Relative) are mis	Type (First-degree Relative) or Thyroid elative) or Other Autoimmune Disease (First- ssing (Error code 1)
Related data element	Diabetes Type (First-deg	ree Relative)
	Thyroid Disease (First-de	egree Relative)
	Other Autoimmune Dise	eases (First-degree Relative)
Data type	String	
Representational class	Code	
Field size maximum	5	
Format		
Data domain	Value	Meaning
	true	Diagnosis of Coeliac disease

Administrative information

References

3.5 Thyroid Disease (First-degree Relative)

Identifying and definitional attributes

Definition	The first-degree relative of the person with diabetes has been diagnosed with an autoimmune Thyroid disease.	
Justification	Collecting family history understanding of the ae	will provide information to improve tiology and natural history of diabetes.
Obligation	Required (or Diabetes Ty diseases)	pe or Coeliac Disease or Other Autoimmune
Representational attribution	ıtes	
Guide for use	If the family history is positive, then one or more of 'Diabetes Type' or 'Coeliac Disease' or 'Thyroid Disease' or 'Other Diseases' is required	
	Include only when the fa Thyroid autoimmune dis	amily member has been diagnosed with a sease
Validation rules	Not missing if Diabetes Disease (First-degree Re degree Relative) are mis	Type (First-degree Relative) or Coeliac elative) or Other Autoimmune Disease (First- ssing (Error code 1)
Related data element	Diabetes Type (First-deg	ree Relative)
	Coeliac Disease (First-de	gree Relative)
	Other Autoimmune Dise	eases (First-degree Relative)
Data type	String	
Representational class	Code	
Field size maximum	5	
Format		
Data domain	Value	Meaning
	true	Diagnosis of a Thyroid disease

Administrative information

References

3.6 Other Autoimmune Diseases (First-degree Relative)

Identifying and definitional attributes

Definition	Other autoimmune disease or diseases diagnosed in the first-degree relative of the person with diabetes, other than thyroid disease and coeliac disease.
Justification	Collecting family history will provide information to improve understanding of the aetiology and natural history of diabetes.
Obligation	Required (or Diabetes Type or Coeliac Disease or Thyroid Disease)
Representational attrib	utes
Guide for use	If the family history is positive, then one or more of 'Diabetes Type' or 'Coeliac Disease' or 'Thyroid Disease' or 'Other Diseases' is required.
	If more than one autoimmune disease for the family member, separate each word with a comma.
Validation rules	Not missing if Diabetes Type (First-degree Relative) or Coeliac Disease (First-degree Relative) or Thyroid Disease (First-degree Relative) are missing (Error code 1)
Related data element	Diabetes Type (First-degree Relative)
	Coeliac Disease (First-degree Relative)
	Thyroid Disease (First-degree Relative)
	Diabetes Type Other
Data type	String
Representational class	Free Text
Field size maximum	
Format	
Data domain	

Administrative information

References

4 Visit Fields

4.1 Date of Visit

Identifying and definitional attributes

Definition	The date the person attended the diabetes clinic for follow-up.
Justification	This field is used to calculate number of service contacts for bench marking purposes and to calculate duration of diabetes and age at time of visit.
Obligation	Mandatory
	Minimum
Representational attribu	utes
Guide for use	Requires the ADDN centre to record the date of each clinic visit. In the case of the person having multiple visits on one day, each visit must be combined into one Visit
Validation rules	Must be greater than or equal to the persons date of birth and less than or equal to today's date (Error level 1) Must be unique for a LocalID (Error level 1)
Related data element	Date of birth
Data type	date/time
Representational class	date
Field size maximum	8
Format	YYYY-MM-DD
Data domain	

Administrative information

References	
Related metadata	METeOR ID:

4.2 HbA1c (NGSP)

Identifying and definitional attributes

Definition	The persons HbA1c measure in NGSP units at time of visit
Justification	HbA1c is an important marker for glycaemic control which is associated with the risk for complications of diabetes.
Obligation	Minimum (if no HbA1c (IFFC))
	Derived (if HbA1c (IFFC))
Representational att	ributes
Guide for use	Prior to 2013, glycosylated haemoglobin levels were usually recorded as percentage in Australia. However the International HbA1c Consensus Committee recommends the best way to record glycosylated haemoglobin levels is mmol/mol.
	HbA1c results should be recorded for all persons regardless of the manner in which their HbA1c is recorded.
	If the HbA1c has been recorded in mmol/mol do not include this data item as it will be calculated from the data item HbA1c (IFFC).
	A baseline HbA1c value to be taken at the last visit prior to commencing CGM (CGM Start date)
Validation rules	Must be within range >=3.0 or <=20 (Error level 3)
	Null if HbA1c IFFC not null (Error level 2)
Related data element	HbA1c IFFC
Data type	Numeric
Representational class	
Field size maximum	3
Format	nn.n
Unit of measure	%

Data domain

Administrative information

References

4.3 HbA1c (IFFC)

Identifying and definitional attributes

Definition	The persons HbA1c measure in IFFC units at time of visit
Justification	HbA1c is an important marker for glycaemic control which is associated with the risk for complications of diabetes.
Obligation	Minimum (if no HbA1c (NGSP))
	Derived (if HbA1c (NGSP))

Representational attributes

Guide for use	HbA1c results should be recorded for all persons regardless of the manner in which their HbA1c is recorded.	
	If the HbA1c has been recorded in NGSP units do not include this data item as it will be calculated from the data item HbA1c (NGSP).	
	A baseline HbA1c value to be taken at the last visit prior to commencing CGM (CGM Start date)	
Validation rules	Must be within range >=9 or <=195 (Error level 3)	
	Null if HbA1c NGSP not null. (Error level 2)	
Related data element	HbA1c NGSP	
Data type	Numeric	
Representational class		
Field size maximum	3	
Format	nnn	
Unit of measure	IFFC units	
Data domain		

Administrative information

References	
Related metadata	METeO

METeOR ID: 589601

4.4 Height

Identifying and definitional attributes

Definition	The person's body height measured in centimetres at the time of visit.	
Justification	Height is an important anthropometric measure and needed for calculation of body mass index.	
Obligation	Minimum	
Representational attributes		
Guide for use		
Validation rules	Must be greater than 0 and less than 210 centimetres (Error level 3)	

Related data element	
Data type	Numeric
Representational class	
Field size maximum	4
Format	nnn.n
Unit of measure	centimetres
Data domain	

Administrative information

References

4.5 Height SDS

Identifying and definitional attributes

Definition	Standard deviation score for height measured against a standardised population
Justification	
Obligation	Derived
Representational att	ributes
Guide for use	Calculated field based on the Centers for Disease Control and Prevention (CDC) growth charts
Validation rules	Must be greater than or equal to -5.0 or less than or equal to 5.0. (Error level 3)
Related data element	Height
Data type	Numeric
Representational class	
Field size maximum	3
Format	sn.n
Data domain	

Administrative information

References	Centers for Disease Control and Prevention (CDC) Growth Charts
	http://www.cdc.gov/growthcharts/data/zscore/wtage.xls [as of 12/6/2013]

4.6 Height Percentile

Identifying and definitional attributes

Definition	Percentile height as measured against a standardised population
Justification	
Obligation	Derived

Representational attributes

Guide for use	calculated field
Validation rules	
Related data element	Height
Data type	Numeric
Representational class	
Field size maximum	4
Format	nnn.n
Data domain	

Administrative information

References Related metadata

4.7 Weight

Identifying and definitional attributes

Definition	The person's body weight measured in kilograms
Justification	Weight is an important anthropometric measure and needed for calculation of body mass index.
Obligation	Minimum
Representational attrib	utes
Guide for use	
Validation rules	Must be greater than 0 and less than 200 kilograms (Error level 3)
Related data element	
Data type	Numeric
Representational class	
Field size maximum	4
Format	nnn.n
Unit of measure	Kilograms
Data domain	

Administrative information

References Related metadata

METeOR ID: 270208

4.8 Weight SDS

Identifying and definitional attributes

Definition	The standard deviation score for weight measured against a standardised population
Justification	
Obligation	Derived
Representational attri	butes
Guide for use	Calculated field based on the Centers for Disease Control and Prevention (CDC) growth charts
Validation rules	Must be greater than or equal to -5.0 or less than or equal to 5.0. (Error level 3)
Related data element	Weight
Data type	Numeric
Representational class	
Field size maximum	3
Format	sn.n
Data domain	

Administrative information

References	Centers for Disease Control and Prevention (CDC) Growth Charts
	http://www.cdc.gov/growthcharts/data/zscore/wtage.xls [as of 12/6/2013]

4.9 Weight Percentile

Identifying and definitional attributes

DefinitionPercentile weight as measured against a standardised populationJustification

Obligation Derived

Representational attributes

Guide for use	Calculated field
Validation rules	
Related data element	Weight
Data type	Numeric
Representational class	
Field size maximum	4
Format	nnn.n
Data domain	

Administrative information

References

4.10 Body Mass Index (BMI)

Identifying and definitional attributes

Definition	Body Mass Index is the person's weight in kilograms divided by height in metres squared.
Justification	BMI is an important anthropometric measure which can be used to determine overweight or obesity.
Obligation	Derived
Representational attrib	outes
Guide for use	This field will be calculated from entries at the 'Weight' and Height' fields where the age at visit is >2.0 or <20years.
Validation rules	Must be greater than or equal to 13 or less than or equal to 50 (Error level 3)
Related data element	Height
	Weight
	Date of Birth
	Date of Visit
Data type	Numeric
Representational class	
Field size maximum	3
Format	nn.n
Unit of measure	
Data domain	

Administrative information

References	Centers for Disease Control and Prevention (CDC) Growth Charts
	http://www.cdc.gov/growthcharts/data/zscore/bmiagerev.xls [as of 12/6/2013]
Related metadata	METeor ID:

4.11 Body Mass Index SDS (BMI-SDS)

Identifying and definitional attributes

Definition	The standard deviation score for Body Mass Index measured against a standardised population.
Justification	
Obligation	Derived
Representational attribution	utes
Guide for use	This field is a calculated field for patients between the ages of 2 and 20.
Validation rules	must be greater than or equal to -5.0 or less than or equal to 5.0. (Error level 3)
Related data element	Height
	Weight
	BMI
	Gender
Data type	Numeric
Representational class	
Field size maximum	3
Format	sn.n
Unit of measure	
Data domain	

Administrative information

References	Centers for Disease Control and Prevention (CDC) Growth Charts
	http://www.cdc.gov/growthcharts/data/zscore/bmiagerev.xls [as of 12/6/2013]
Related metadata	METeor ID:

4.12 Body Mass Index (BMI) Percentile

Identifying and definitional attributes

Definition	Percentile BMI as measured against a standardised population	
Justification		
Obligation	Derived	
Representational attributes		
Guide for use	Calculated Field, derived from BMI	
Validation rules		
Related data element	Height	
	Weight	
	BMI	
Data type	Numeric	
Representational class		
Field size maximum	4	
Format	nnn.n	
Unit of measure		
Data domain		

Administrative information

References	Centers for Disease Control and Prevention (CDC) Growth Charts
	http://www.cdc.gov/growthcharts/data/zscore/bmiagerev.xls [as of 12/6/2013]

4.13 Systolic Blood Pressure

Identifying and definitional attributes

Definition	The person's systolic blood pressure, measured in millimetres of mercury (mmHg).	
Justification	High blood pressure is a risk factor for complications of diabetes and cardiovascular disease	
Obligation	Minimum	
Representational attributes		
Guide for use		
Validation rules	Must be greater than or equal to 50 and less than or equal to 250 mmHg (Error level 3)	
Related data element		
Data type	Number	
Representational class	Total	
Field size maximum	3	
Format	nnn	
Unit of measure	Millimetre of mercury (mmHg)	

Administrative information

References	
Related metadata	METeOR ID: 270073

4.14 Systolic Blood Pressure SDS

Identifying and definitional attributes

Definition	The standard deviation score of the person's systolic blood pressure as measured against a standardised population	
Justification		
Obligation	Derived	
Representational attributes		
Guide for use	This is a calculated field derived from the entry in the 'Systolic Blood Pressure' field	
Validation rules	Must be greater than or equal to -5.0 or less than or equal to 5.0. (Error level 3)	
Related data element	Systolic Blood Pressure, Gender, Date of Birth	
Data type	Numeric	
Representational class		
Field size maximum	3	
Format	sn.n	
Unit of measure		
Data domain		

Administrative information

References

The Fourth Report On The Diagnosis, Evaluation, And Treatment Of High Blood Pressure In Children And Adolescents - NIH PUBLICATION NO. 05-5267

4.15 Systolic Blood Pressure Percentile

Identifying and definitional attributes

Definition	Percentile systolic blood pressure as measured against a standardised population
Justification	
Obligation	Derived
Representational attrib	utes
Guide for use	This is a calculated field derived from the entry in the 'Systolic Blood Pressure' field
Validation rules	
Related data element	Systolic blood Pressure, Gender, Date of Birth
Data type	Numeric
Representational class	
Field size maximum	4
Format	nnn.n
Unit of measure	
Data domain	

Administrative information

References

4.16 Diastolic Blood Pressure

Identifying and definitional attributes

Definition	The person's diastolic blood pressure, measured in millimetres of mercury (mmHg).	
Justification	High blood pressure is a risk factor for complications of diabetes and cardiovascular disease	
Obligation	Minimum	
Representational attributes		
Guide for use		
Validation rules	Must be greater than or equal to 30 and less than or equal to 120 mmHg (Error level 3)	
Related data element		
Data type	Numeric	
Representational class		
Field size maximum	3	
Format	nnn	
Unit of measure	Millimetre of mercury (mmHg)	
Data domain		

Administrative information

References

4.17 Diastolic Blood Pressure SDS

Identifying and definitional attributes

Definition	The standard deviation score of the persons diastolic blood pressure
Justification	
Obligation	Derived
Representational attribu	ıtes
Guide for use	This is a calculated field derived from the entry in the 'Diastolic Blood Pressure' field
Validation rules	Must be greater than or equal to -5.0 or less than or equal to 5.0. (Error level 3)
Related data element	Diastolic Blood Pressure, Gender, Date of Birth
Data type	Numeric
Representational class	
Field size maximum	4
Format	sn.nn
Unit of measure	
Data domain	

Administrative information

ReferencesThe Fourth Report On The Diagnosis, Evaluation, And Treatment Of
High Blood Pressure In Children And Adolescents - NIH PUBLICATION
NO. 05-5267

4.18 Diastolic Blood Pressure Percentile

Identifying and definitional attributes

Definition	Percentile diastolic blood pressure as measured against a standardised population	
Justification		
Obligation	Derived	
Representational attributes		
Guide for use	This is a calculated field derived from the entry in the 'Diastolic Blood Pressure' field	
Validation rules		
Related data element	Diastolic Blood Pressure	
	Gender	
	Date of Birth	
Data type	Numeric	
Representational class		
Field size maximum	4	
Format	nnn.n	
Unit of measure		
Data domain		

Administrative information

References

4.19 Insulin Regimen

Identifying and definitional attributes

Definition	The insulin regime	n of the person at time of visit
Justification	Insulin is the main surveillance of the important aspect of are most effective	stay of treatment for type 1 diabetes and methods of insulin delivery or regimens is an of benchmarking for determining which therapies
Obligation	Minimum	
Representational attrib	utes	
Guide for use	Record the metho	d of insulin therapy at the time of visit.
	CSII: the person is 'insulin pump ther	using continuous subcutaneous insulin infusion or apy'
	BD: the person inje	ects insulin at two time points per day
	MDI: the person ir	jects insulin on at least three time points per day
	Other: the person above. For example	is managed on an insulin regimen not described e 'one injection of insulin per day'.
	Leave blank if no r	egimen recorded
Validation rules	The entry is an allo	owable value (Error level 2)
	The entry is CSII, B	D/Twice daily , or MDI (Error level 3)
Related data element	ICR, ISF, No of inje	ctions per day, Insulin Pump
Data type	String	
Representational class	Code	
Field size maximum	14	
Format		
Unit of measure		
Data domain	Value	Description
	CSII	continuous subcutaneous insulin infusion
	BD_TWICE_DAILY	twice daily injections
	MDI	at least 3 injection times per day
	OTHER	insulin regimen other than CSII, BD/Twice daily or MDI. Do not use if no regimen recorded for the visit
Administrative information	tion	

References	Diabetes Australia, Position Statements, People with type 1 diabetes
	and Do It Yourself (DIY) technology solutions, accessed 11 October
	2018 < https://static.diabetesaustralia.com.au/s/fileassets/diabetes-
	australia/ee67e929-5ffc-411f-b286-1ca69e181d1a.pdf>

4.20 Insulin Pump

Identifying and definitional attributes

Definition	The brand (or manufacturer) as well as model of the insulin pump in use by the person at the time of visit
Justification	
Obligation	Minimum
Representational attribution	utes
Guide for use	If model is not known, choose the "pump make name_UNSPECIFIED". For example, if the pump brand is Medtronic but the model is unknown, chose MEDTRONIC_UNSPECIFIED.
	If model is not in the list for an existing Make, choose the "pump make name_OTHER" and fill in the InsulinPumpOther field with details
	If Make is not in the list, choose the "OTHER" definition and fill in the InsulinPumpOther field with details
Validation rules	If entered then insulin Regimen must be CSII (Error level 3)
	Entry is an allowable value (Error level 2)
Related data element	Insulin Regimen
	Insulin Pump Other
	Insulin Pump Mode
	CGM Type
Data type	String
Representational class	Code
Field size maximum	30
Format	
Unit of measure	
Data domain	
	ANIMAS_1200 ANIMAS_2020 ANIMAS_VIBE ANIMAS_UNSPECIFIED ANIMAS_OTHER CELLNOVO_GEN3 CELLNOVO_UNSPECIFIED CELLNOVO_OTHER DELTEC_1800 DELTEC_COZMO

DELTEC_UNSPECIFIED DELTEC_OTHER INSULET_OMNIPOD INSULET_OMNIPOD_HORIZON INSULET_OMNIPOD_EROS INSULET_OMNIPOD_DASH INSULET_UNSPECIFIED INSULET_OTHER MEDTRONIC_640 MEDTRONIC_640G MEDTRONIC_640G_1551 MEDTRONIC_640G_1711 MEDTRONIC_640G_1751 MEDTRONIC_670G MEDTRONIC_770G MEDTRONIC_780G MEDTRONIC_PARADIGM_515 MEDTRONIC_PARADIGM_522 MEDTRONIC_PARADIGM_554 MEDTRONIC_PARADIGM_715 MEDTRONIC_PARADIGM_722 MEDTRONIC_PARADIGM_754 MEDTRONIC_PARADIGM_757 MEDTRONIC_PARADIGM_UNSPECIFIED MEDTRONIC_PARADIGM_OTHER MEDTRONIC_VEO MEDTRONIC_UNSPECIFIED MEDTRONIC_OTHER ROCHE_COMBO ROCHE_SPIRIT ROCHE_UNSPECIFIED ROCHE_OTHER SOOIL_DANA SOOIL_UNSPECIFIED SOOIL OTHER TANDEM_TSLIM_X2 TANDEM_UNSPECIFIED TANDEM OTHER YPSOMED_MYLIFE_YPSOPUMP YPSOMED_UNSPECIFIED **YPSOMED OTHER** OTHER UNSPECIFIED

Administrative information

References Related metadata

4.21 Insulin Pump Other

Identifying and definitional attributes

Definition	Make and Model of insulin pump in use by person at time of visit, not captured by the ADDN specific Insulin Pump list	
Justification		
Obligation	Optional	
Representational attributes		
Guide for use	Provide the Make and Model of the pump when the Insulin Pump = 'OTHER'. Provide the Model of the pump when the model is not one in the list of Insulin Pump	
Validation rules	Insulin Pump is "OTHER" or "make_OTHER" (Error level 2)	
Related data element	Insulin Pump	
Data type	string	
Representational class	free text	
Field size maximum		
Format		
Data domain		

Administrative information

References

4.22 Insulin Pump Mode

Identifying and definitional attributes

Definition	The mode of the insulin pump in use by the person at the time of visit
Justification	There are different insulin pump modes which differ in their impact on glycaemic control. This information is required for benchmarking
Obligation	Optional

Representational attributes

Guide for use	The following modes refer to those that are different to the default mode and is what is being used at the time of visit.
	DIY: the person is connecting their CGM device with their insulin pump via computer or phone ('close the loop' or 'looping') to determine and automate insulin delivery
	HCL/CIQ/AHCL: the person is using their Insulin Pump and CGM device in an integrated manner such that the insulin pump can predict low and high glucose levels and adjust insulin delivery accordingly
	PLGS/BIQ: the person is using their Insulin Pump and CGM device in an integrated manner such that the insulin delivery via the pump is automatically shut off when glucose level is predicted to drop too low in the near future
	LGS: the person is using their Insulin Pump and CGM device in an integrated manner such that the insulin delivery via the pump is automatically shut off when glucose level reaches a predefined level
	If unsure which mode (not the default mode) is being used, choose UNKNOWN
	If only being used in default mode choose DEFAULT
	If the pump can't be used in different modes (usually the case with older pumps) choose NOT_APPLICABLE
	If mode being used is not in the list, choose OTHER
Validation rules	Insulin Pump not missing (Error level 3)
	Entry is an allowable value (Error level 2)
Related data element	Insulin Pump
	CGM Type
Data type	String
Representational class	Code
Field size maximum	50

Format

Data domain

Value	Description
DIY	Do it yourself
HCL	Hybrid Closed Loop or Control IQ or Advanced Hybrid Closed Loop
PLGS	Predictive Low Glucose Suspend or Basal IQ
LGS	Low Glucose Suspend
OTHER	A mode not in the list
UNKNOWN	Mode being used is unknown
DEFAULT	Using default mode
NOT_APPLICABLE	The pump doesn't have different modes (older pump models)

4.23 Number of Injections Per Day

Identifying and definitional attributes

Definition	The number of injections of insulin the person has on a usual day at the time of visit	
Justification	To identify number of injections used where regimen is MDI, or Other	
Obligation	Minimum when Regimen not CSII	
Representational attributes		
Guide for use		
Validation rules	Not null if Regimen is not CSII (Error level 3) Value must be greater than 0 and less than or equal to 10 (Error level 3)	
Related data element	Insulin Regimen	
Data type	Numeric	
Representational class		
Field size maximum	2	
Format	nn	
Unit of measure		
Data domain		

Administrative information

References

4.24 Insulin Product 1

Identifying and definitional attributes

Definition	The name of the insulin product used by the person at time of visit.
Justification	
Obligation	Minimum
Representational attrib	utes
Guide for use	Record the name of an insulin product in this field. Subsequent insulin products can be captured in the fields 'Insulin Product 2' 'Insulin product 3' and Insulin Product 4'
Validation rules	Is an allowable value (Error level 2)
Related data element	
Data type	String
Representational class	code
Field size maximum	14
Format	
Unit of measure	
Data domain	Value
	ACTRAPID HUMULIN_R APIDRA HUMALOG NOVORAPID HUMULIN_NPH PROTOPHANE LANTUS PREMIX LEVEMIR HUMALOG_MIX_25 HUMALOG_MIX_50 HUMULIN_30_70 HUMULIN_50_50 MIXTARD_20_80 MIXTARD_20_80 MIXTARD_30_70 MIXTARD_50_50 NOVOMIX_30 TRESIBA FIASP TOUJEO RYZODEG_30_70 OTHER

Administrative information

References

4.25 Daily Dose of Insulin Product 1

Identifying and definitional attributes

Definition	The dosage as measured in units of insulin 1 injected or infused on a usual day.	
Justification		
Obligation	Optional	
Representational attribution	utes	
Guide for use	Calculate the total of the usual insulin doses for insulin product 1 injected or infused on a usual day. i.e. where multiple doses are usually given record the total dose by adding the doses together.	
Validation rules	Insulin 1 not missing (Error level 2)	
	Must be greater than 0 and less than or equal to 200 (Error level 3)	
Related data element	Insulin 1	
Data type	Numeric	
Representational class		
Field size maximum	5	
Format	nnn.nn	
Unit of measure	units	
Data domain		

Administrative information

References

4.26 Insulin Product 2

Identifying and definitional attributes

Definition	The name of the insulin product used by the person at time of visit in addition to 'Insulin 1' $% \left(1+\frac{1}{2}\right) =0$	
Justification		
Obligation	Minimum when more than 1 insulin used	
Representational attrib	utes	
Guide for use	Only required for persons prescribed more than one insulin product	
	Record the name of an insulin product in this field. Subsequent insulin products can be captured in the fields 'Insulin Product 3' and 'Insulin product 4'	
Validation rules	Is an allowable value (Error level 2)	
Related data element		
Data type	String	
Representational class	code	
Field size maximum	14	
Format		
Unit of measure		
Data domain	Value ACTRAPID HUMULIN_R APIDRA HUMALOG NOVORAPID HUMULIN_NPH PROTOPHANE LANTUS PREMIX LEVEMIR HUMALOG_MIX_25 HUMALOG_MIX_50 HUMULIN_30_70 HUMULIN_50_50 MIXTARD_20_80 MIXTARD_20_80 MIXTARD_30_70 MIXTARD_50_50 NOVOMIX_30 TRESIBA FIASP TOUJEO RYZODEG_30_70 OTHER	
Administrative information		
References		

4.27 Daily Dose of Insulin Product 2

Identifying and definitional attributes

Definition	The dosage as measured in units of insulin 2 injected on a usual day.
Justification	
Obligation	Optional when more than 1 insulin used
Representational attributes	
Guide for use	Calculate the total of the usual insulin doses injected on a usual day. i.e. where multiple doses are usually given record the total dose by adding the multiple doses together.
Validation rules	Insulin 2 not missing (Error level 2)
	Must be greater than 0 and less than or equal to 200 (Error level 3)
Related data element	Insulin 2
Data type	Numeric
Representational class	
Field size maximum	5
Format	nnn.nn
Unit of measure	Units
Data domain	

Administrative information

References
4.28 Insulin Product 3

Identifying and definitional attributes

Definition	The name of the insulin product used by the person at time of visit in addition to 'Insulin 1' and 'insulin 2'
Justification	
Obligation	Minimum when more than 2 insulins used
Representational attrib	utes
Guide for use	Only required for persons prescribed more than two insulin products
	Record the name of an insulin product in this field. Subsequent insulin products can be captured in the fields 'Insulin Product 3' and 'Insulin product 4'
Validation rules	Is an allowable value (Error level 2)
Related data element	
Data type	String
Representational class	Code
Field size maximum	14
Format	
Unit of measure	
Data domain	Value ACTRAPID HUMULIN_R APIDRA HUMALOG NOVORAPID HUMULIN_NPH PROTOPHANE LANTUS PREMIX LEVEMIR HUMALOG_MIX_25 HUMALOG_MIX_50 HUMULIN_30_70 HUMULIN_50_50 MIXTARD_20_80 MIXTARD_30_70 MIXTARD_50_50 NOVOMIX_30 TRESIBA FIASP TOUJEO RYZODEG_30_70 OTHER

Administrative information

References

4.29 Daily Dose of Insulin Product 3

Identifying and definitional attributes

Definition	The dosage as measured in units of insulin 3 injected on a usual day.
Justification	
Obligation	Optional when more than 2 insulins used
Representational attribu	ites
Guide for use	Calculate the total of the usual insulin doses injected on a usual day. i.e. where multiple doses are usually given record the total dose by adding the multiple doses together.
Validation rules	Insulin 3 not missing (Error level 2) Must be greater than 0 and less than or equal to 200 (Error level 3)
Related data element	
Data type	Numeric
Representational class	
Field size maximum	5
Format	nnn.nn
Unit of measure	Unit
Data domain	

Administrative information

References

4.30 Insulin Product 4

Identifying and definitional attributes

The name of the insulin product used by the person at time of visit in addition to 'Insulin 1' 'insulin 2' and 'insulin 3'
Minimum when more than 3 insulins used
utes
Only required for persons prescribed more than three insulin products
Record the name of an insulin product in this field. Subsequent insulin products can be captured in the field 'Insulin product 4'
is an allowable value (Error 2)
string
code
14
Value ACTRAPID HUMULIN_R APIDRA HUMALOG NOVORAPID HUMULIN_NPH PROTOPHANE LANTUS PREMIX LEVEMIR HUMALOG_MIX_25 HUMALOG_MIX_50 HUMULIN_30_70 HUMULIN_50_50 MIXTARD_20_80 MIXTARD_20_80 MIXTARD_30_70 MIXTARD_50_50 NOVOMIX_30 TRESIBA FIASP TOUJEO RYZODEG_30_70 OTHER

Administrative information

References

4.31 Daily Dose of Insulin Product 4

Identifying and definitional attributes

Definition	The dosage as measured in units of insulin 4 injected on a usual day
Justification	
Obligation	Optional when more than 3 insulins used

Representational attributes

Guide for use	Calculate the total of the usual insulin doses injected on a usual day. i.e. where multiple doses are usually given record the total dose by adding the multiple doses together
Validation rules	Insulin 4 not missing (Error level 2)
	Must be greater than 0 and less than or equal to 200 (Error level 3)
Related data element	Insulin 4
Data type	Numeric
Representational class	
Field size maximum	5
Format	nnn.nn
Unit of measure	Units
Data domain	

Administrative information

References

4.32 Total Daily Insulin Dose

Identifying and definitional attributes

Definition Justification	The total number o	of units of insulin the person injects on a usual day
Obligation	Minimum	
Representational attribution	utes	
Guide for use	Can be recorded m insulin 1, insulin 2,	nanually. If missing will be derived from entries in in insulin 3 and insulin 4
Validation rules	Must be greater th	an 0 and less than or equal to 300 (Error level 3)
Related data element	Insulin daily dose 1 Insulin daily dose 2 Insulin daily dose 3 Insulin daily dose 4	 2 3 1
Data type	Numeric	
Representational class		
Field size maximum	4	
Format	nnn.n	
Unit of measure	Units	
Data domain	Value	Description

Administrative information

References

4.33 Total Daily Dose Calculated Indicator

Identifying and definitional attributes

Definition	Indicates whether for insulin1, insulir	the total daily dose has been derived from entries a 2, insulin3 and insulin 4 or recorded manually
Justification		
Obligation	Derived	
Representational attribution	utes	
Guide for use	This a calculated fi recorded by ADDN	eld and there is no requirement for this to be centres
Validation rules		
Related data element	Total Daily Insulin Insulin 1 Insulin 2 Insulin 3 Insulin 4	Dose
Data type	string	
Representational class	code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	the entry at Total Daily Insulin Dose is a derived value
	false	the entry at Total Daily Insulin dose is not a derived value

Administrative information

References

4.34 Daily Basal Insulin Dose

Identifying and definitional attributes

Definition	The total number of units of basal insulin the person injects on a usual day
Justification	
Obligation	Minimum
Representational attribution	ıtes
Guide for use	Can be reported manually by adding all the doses of basal insulin injected on a usual day by the person. If missing will be derived from the addition of entries in daily dose insulin 1, daily dose insulin 2, daily dose insulin3 and daily dose insulin 4 where the corresponding insulin type is identified as a basal type of insulin.
Validation rules	Must be greater than 0 and less than or less than or equal to 200. (Error level 3)
Related data element	Insulin 1 Insulin daily dose 1 Insulin 2 Insulin daily dose 2 Insulin 3 Insulin daily dose 3 Insulin 4 Insulin daily dose 4
Data type	Number
Representational class	
Field size maximum	4
Format	nnn.n
Unit of measure	Units
Data domain	

Administrative information

References

4.35 Total Daily Basal Dose Calculated Indicator

Identifying and definitional attributes Definition Indicates whether the total daily basal dose has been derived from entries for insulin1, insulin 2, insulin3 and insulin 4 or recorded manually Justification Obligation Derived **Representational attributes** Guide for use This a calculated field and there is no requirement for this to be recorded by ADDN centres Validation rules **Related data element** Daily Basal Insulin Dose Insulin 1 Insulin 2 Insulin 3 Insulin 4 Data type string **Representational class** code Field size maximum 5 Format Unit of measure Data domain Value Description true the entry at basal insulin dose is a calculated value false the entry at basal Insulin dose is not a calculated value

Administrative information

References

4.36 Basal Insulin Percent

Identifying and definitional attributes

Definition	The proportion of basal insulin to the total insulin dose injected per day, presented as a percentage	
Justification		
Obligation	Derived	
Representational attributes		
Guide for use	This a calculated field and there is no requirement for this to be recorded by ADDN centres	
Validation rules	Allowable values 0-100	
Related data element	Total daily insulin dose Basal daily insulin dose	
Data type	number	
Representational class		
Field size maximum	3	
Format	nn.n	
Unit of measure	Percentage	
Data domain		

Administrative information

References

4.37 Units Per Kilogram

Identifying and definitional attributes

Definition Justification	The number of units of insulin injected by the person on a usual day per kilo of body weight as measured at the visit
Obligation	Derived
Representational attribu	utes
Guide for use	This is a calculated field and there is no requirement for this to be recorded by ADDN centres
	Formula is Total daily insulin dose divided by the person body weight in kilos
Validation rules	Must be in the range 0-2.5 units per kilo (Error level 3)
Related data element	Total daily insulin dose Weight
Data type	
Representational class	
Field size maximum	2
Format	n.n
Unit of measure	
Data domain	

Administrative information

References

4.38 Severe Hypoglycaemia Episodes

Identifying and definitional attributes

Definition	The number of episodes of severe hypoglycaemia experienced by the person since the last visit.
lustification	Hypoglycaemia is often underestimated but is a sentinel outcome in diabetes management that needs to be recorded for patient care, clinic audit and assessment of therapies. To be able to compare between sites requires a standardised meticulous approach. It should be recorded at every clinic visit as studies have shown that individuals may forget how many episodes they have had over time.
	Hypoglycaemia rates will be a key outcome of the CGM study but all investigations will likely have hypoglycaemia rates as an important measure.
	Collected for surveillance and analyses.
Obligation	Minimum

Representational attributes

Guide for use	Paediatric The number of hypoglycaemic events resulting in coma or convulsion since last visit or if last visit > 6 months ago then in the last 6 months.
	It is important that the occurrence of hypoglycaemic events is specifically asked about on the clinic visit with questions such as:
	"has the child been unconscious or had a convulsion as a result of hypoglycaemia?"
	Where there have not been any episodes of severe hypoglycaemia record '0'. Null entries will be treated as 'missing data'.
	Note: This is not the ISPAD guidelines 2018 definition but the historical definition. The new ISPAD definition matches the adult definition. For ADDN record coma/convulsion separately to events requiring assistance due to cognitive dysfunction (designated "moderate" as per below)
	Adult
	The number of events associated with severe cognitive impairment (including coma and convulsion) requiring external assistance of another person to actively administer carbohydrates, glucagon, or take corrective actions since last visit or if last visit > 6months ago then in the last 6 months.
	It is important that the occurrence of hypoglycaemic events is specifically asked about on the clinic visit with questions such as: "have you had a hypoglycaemic episode that was so severe someone had to help you correct it?"

"have you been unconscious or had a convulsion as a result of hypoglycaemia?" "have you needed a glucagon injection?"

Where there have not been any episodes of severe hypoglycaemia record '0'. Null entries will be treated as 'missing data'.

Validation rules	Allowable values must be >=0 (Error code 2)
Related data element	
Data type	Number
Representational class	
Field size maximum	3
Format	nnn
Unit of measure	
Data domain	

Administrative information

References	International Hypoglycaemia Study Group. Diabetes Care, Vol 40, Jan 2017, pg 155-157
Related metadata	METeOR ID: 302825 (adults)

4.39 Moderate Hypoglycaemia Episodes

Identifying and definitional attributes

Definition	The number of episodes of moderate hypoglycaemia experienced by the person since the last visit
Justification	Hypoglycaemia is often underestimated but is a sentinel outcome in diabetes management that needs to be recorded for patient care, clinic audit and assessment of therapies. To be able to compare between sites requires a standardised meticulous approach. It should be recorded at every clinic visit as studies have shown that individuals may forget how many episodes they have had over time.
	Hypoglycaemia rates will be a key outcome of the CGM study but all investigations will likely have hypoglycaemia rates as an important measure.
	Collected for surveillance and analyses.
Obligation	Minimum (Paediatric)

Representational attributes

Guide for use	Paediatric
	The number of events associated with severe cognitive impairment requiring external assistance of another person to actively administer carbohydrates, glucagon, or take other corrective actions since the last visit or if last visit > 6 months ago then in the last 6 months. This does not include coma and convulsion.
	In young children this requires an assessment and a judgement by the caregiver and clinician as to the presence or not of hypoglycaemia induced cognitive dysfunction (because at this age they all may require assistance to correct even mild hypoglycaemia).
	Recommended screening question: Since your last visit has your child had any episodes of hypoglycaemia associated with drowsiness or inability to walk properly, not "with it" Or for older children/adolescents: Since you last visit have there been any episodes of hypoglycaemia that you need someone to help you with because you weren't able to treat yourself
	Adults
	Moderate hypoglycaemia is not collected in adults
Validation rules	Allowable values must be >=0(Error code 2)
Related data element	
Data type	Number
Representational class	

Field size maximum3FormatnnnUnit of measureData domain

Administrative information

References

International Hypoglycaemia Study Group. Diabetes Care, Vol 40, Jan 2017, pg 155-157

4.40 Diabetic Ketoacidosis (DKA) Episodes

Identifying and definitional attributes

Definition	The number of episodes of DKA since last visit or if last visit greater than 6 months ago then the number of episodes of DKA in the last 6 months
	The biochemical criteria for the diagnosis of diabetic ketoacidosis (DKA) are • hyperglycaemia (blood glucose >11 mmol/L), • venous pH <7.3 or bicarbonate <15 mmol/L • ketonaemia and ketonuria
Justification	Diabetic ketoacidosis is a life threatening acute complication of diabetes and is collected as an outcome for benchmarking purposes and in data analyses.
Obligation	Minimum
Representational attribu	ıtes
Guide for use	Refer to the ISPAD Consensus Statement: Diabetes ketoacidosis and hyperglycemic hyperosmolar state (2018) for detailed information about diagnostic criteria.
Validation rules	Allowable values must be >=0 (Error code 2)
Related data element	
Data type	Number
Representational class	
Field size maximum	3
Format	nnn
Unit of measure	
Data domain	

Administrative information

References	Wolfsdorf JI, et al. A Consensus Statement from the International
	Society for Pediatric and Adolescent Diabetes: Diabetic ketoacidosis
	and hyperglycemic hyperosmolar state. Pediatric Diabetes 2018: 19
	(Suppl. 27): 155–177.

4.41 Total Cholesterol

Identifying and definitional attributes

Definition	The persons total cholesterol measure in mmol/L
Justification	
Obligation	Minimum
Poprosontational attribu	itos
Representational attribu	les
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result
Validation rules	Must be greater than or equal to 1 and less than or equal to 20 (Error level 3)
Related data element	
Data type	Number
Representational class	
Field size maximum	3
Format	nn.n
Unit of measure	mmol/L
Data domain	

Administrative information

References

4.42 Triglycerides

Identifying and definitional attributes

Definition	The person's triglycerides measured in mmol/L	
Justification		
Obligation	Minimum	
Representational attributes		
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result	
Validation rules	Must be greater than or equal to 0.1 or less than or equal to 20 (Error level 3)	
Related data element		
Data type	Number	
Representational class		
Field size maximum	3	
Format	nn.n	
Unit of measure	mmol/L	
Data domain		

Administrative information

References

4.43 High Density Lipoproteins (HDL)

Identifying and definitional attributes

Definition	The persons High Density Lipoproteins measured in mmol/L
Justification	
Obligation	Minimum
Representational attribu	utes
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result
Validation rules	Must be greater than or equal to 0.1 or less than or equal to 20 (Error level 3)
Related data element	
Data type	number
Representational class	
Field size maximum	3
Format	nn.n
Unit of measure	mmol/L
Data domain	

Administrative information

References

4.44 Low Density Lipoproteins (LDL)

Identifying and definitional attributes Definition The persons Low Density Lipoproteins measured in mmol/L Justification Obligation Minimum **Representational attributes** Guide for use Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result Validation rules Must be greater than or equal to 1.0 or less than or equal to 20 (Error level 3) **Related data element** Number Data type **Representational class** Field size maximum 3 Format nn.n Unit of measure mmol/L Data domain

Administrative information

References

4.45 Albumin Creatinine Ratio (ACR)

Identifying and definitional attributes

Definition	The persons urine albumin creatinine ratio (ACR)
Justification	Renal disease is serious complication of diabetes. ACR is an important measure of renal function. Collected for surveillance of complications of diabetes. ACR is also an important marker of cardiovascular risk.
Obligation	Minimum (if AER not provided)
Representational attr	ibutes
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result
Validation rules	Must be greater than or equal to zero or less than or equal to 50.0 (Error level 3)
Related data element	AER
Data type	Number
Representational class	
Field size maximum	3
Format	nn.n
Unit of measure	milligram per millimole (mg/mmol)
Data domain	

Administrative information

References	Kidney Health Australia 2012. Chronic Kidney Disease (CKD) Management in General Practice (2nd edition). Melbourne: Kidney Health Australia. Viewed 11 November 2014
Related metadata	METeOR ID: 594120

4.46 Urine Albumin Excretion Rate (AER)

Identifying and definitional attributes

Definition	The person's urine albumin excretion rate.
Justification	Renal disease is serious complication of diabetes. AER is an important indicator of renal function. Collected for surveillance of complications of diabetes. ACR is also an important marker of cardiovascular risk.
Obligation	Minimum (if ACR not provided)
Representational attril	outes
Guide for use	Test results are assigned to the visit record prior to the test date. When AER testing is performed on 2 or 3 sequential days, the average of these days should be used. If multiple tests have been performed that are not on sequential days since the last visit, use the most recent test result
Validation rules	Must be greater than or equal to zero
Related data element	ACR
Data type	Number
Representational class	
Field size maximum	4
Format	nnn.n
Unit of measure	microgram/minute (mcg/minute)
Data domain	

Administrative information

References

4.47 CGM Type

Identifying and definitional attributes

Definition	Category of CGM device used since last visit
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications.
	Collected for the purpose of evaluation and analysing outcomes
Obligation	Derived
Representational attribution	utes
Guide for use	Calculated field, derived from CGM Device, Insulin Pump, Insulin Pump Mode showing the category of CGM device used since last visit.
	Categories are Retrospective, Interactive CGM, Pump algorithm or Stand alone
	<u>Retrospective</u> CGM involves the wearing of a glucose sensor under the skin which delivers information to the receiver about current glucose levels and trends. This information is not displayed on the receiver but is stored and can be downloaded for analysis retrospectively.
	<u>Interactive CGM (iCGM)</u> devices are otherwise known as Flash Glucose Systems. They involve the wearing of a glucose sensor under the skin and the use of a 'Reader' held over the sensor to give a glucose reading and see glucose level trends and tracking patterns. It can be downloaded for analysis.
	Other types of CGM involve the wearing of a glucose sensor under the skin which delivers information to the receiver about current glucose levels and trends. This information is displayed on the receiver and is visible to the user. There are 2 types of Real-time monitoring:
	<u>Pump algorithm</u> involves the wearing of both a CGM device and an insulin Pump that are linked. The algorithms are: Low glucose suspend (LGS), or Predictive Glucose Suspend (suspend before low) or Hybrid Closed Loop
	<u>Stand-alone</u> involves using a CGM device that is independent of an Insulin Pump e.g. Dexcom G5, G4 or Medtronic Guardian Connect
Validation rules	

Related data element

CGM Device Insulin Pump Insulin Pump Mode

Data type	String	
Representational class	Code	
Field size maximum	14	
Format		
Data domain	Value	Meaning
	RETROSPECTIVE	Patient has worn a retrospective monitor
	ICGM	Patient has worn an interactive monitor
	PUMP_ALGORITHM	Patient has worn a linked CGM monitor
	STAND_ALONE	Patient has worn a non-linked CGM monitor

Administrative information

References



Identifying and definitional attributes

Definition	The percent of time the last 14 days.	e person has spent using a CGM device in the
Justification	Continuous glucose mor innovation that has the reduce the risk of diabet	nitoring is an important technological potential to improve clinical outcomes and tes complications.
	Collected for the purpo	se of evaluation and analysing outcomes.
Obligation	Minimum	
Representational attribution	utes	
Guide for use	A CGM can collect inform under the skin to deliver glucose levels and trend receiver and is visible to	mation by the wearing of a glucose sensor r information to the receiver about current ls. This information is displayed on the the user.
	Record the sensor usage	e in the last 14 days
	Different CGM manufac Active, Sensor Usage, Se	tures call this different things e.g. Time CGM ensor Wear.
	Whenever possible, use device. If this is not avai used it in the last 14 day	information downloaded from the CGM lable ask the patient how often they have /s.
	To be recorded as per d	ata domain below.
	If a patient has not used still on a CGM device an as zero. If no value reco extraction rather than se	I their CGM in the last 14 days but they are d may use it in the future, record the value rded, leave this field blank at time of etting it to zero.
Validation rules		
Related data element	CGM Device CGM Device Other CGM Start Date	
Data type	String	
Representational class	Code	
Field size maximum	36	
Data domain		
Value		Description
ZERO		CGM was not worn
LESS_THAN_TWENTY_FIVE		CGM has been worn less than 25% of time
TWENTY_FIVE_TO_ FIFTY		CGM has been worn between 25% and 50% of time

GREATER_THAN_FIFTY_TO_SEVENTY_FIVE

GREATER_THAN_SEVENTY_FIVE

CGM has been worn between 51% and 75% of time

CGM has been worn more than 75% of time

Administrative information References Related metadata

Identifying and definitional attributes

Definition	The brand or manufacturer as well as the model of the CGM device used by the patient at the time of visit
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications.
	Collected for the purpose of evaluation and analysing outcomes
Obligation	Minimum

Representational attributes

Guide for use	If model is not known, chose the "CGM device_UNSPECIFIED". For example, if the CGM Make is Medtronic but the model is unknown, choose MEDTRONIC_UNSPECIFIED. If model is not in the list for an existing Make, choose the "pump make name_OTHER" and fill in the CgmDeviceOther field with the details. If Make is not in the list, choose the "OTHER" definition and fill in the CgmOtherOther field with the details
Validation rules	Entry is an allowable value (Error level 2)
Related data element	CGM Usage % CGM Type CGM Device Other CGM Start Date
Data type	String
Representational class	Code
Field size maximum	30
Format	
Data domain	ABBOT_FREESTYLE_LIBRE ABBOT_FREESTYLE_LIBRE_2 ABBOT_FREESTYLE_LIBRE_MIAOMIAO ABBOT_FREESTYLE_LIBRE_MIAOMIAO_2 ABBOT_UNSPECIFIED ABBOT_OTHER DEXCOM_G4 DEXCOM_G5 DEXCOM_G6 DEXCOM_G7 DEXCOM_UNSPECIFIED DEXCOM_OTHER

MEDTRONIC_GUARDIAN_LINK_2 MEDTRONIC_GUARDIAN_LINK_3 MEDTRONIC_GUARDIAN_CONNECT_2 MEDTRONIC_GUARDIAN_CONNECT_3 MEDTRONIC_GUARDIAN_CONNECT MEDTRONIC_GUARDIAN_UNSPECIFIED MEDTRONIC_GUARDIAN_OTHER MEDTRONIC_MINILINK MEDTRONIC_IPRO2 MEDTRONIC_UNSPECIFIED MEDTRONIC_OTHER OTHER UNSPECIFIED

Administrative information

References	
Related metadata	

METeOR ID:

4.50 CGM Device Other

Identifying and definitional attributes

Definition	Make and Model of CGM device in use by person at time of visit, not captured by the ADDN specific CGM Device list
Justification	
Obligation	Optional
Representational attribution	utes
Guide for use	Provide the Make and Model of the device when the CGM Device = 'OTHER'. Provide the Model of the device when the model is not one in the list of CGM Device
Validation rules	CGM Device is 'OTHER' or make_OTHER' (Error level 2)
Related data element	CGM Device
Data type	String
Representational class	Free Text
Field size maximum	
Format	
Data domain	

Administrative information

References

4.51 CGM Time in Range

Identifying and definitional attributes

Definition	The percentage of time in the last 2 weeks the person's blood glucose has been in the target range between 3.9 and 10.0 mmol/L
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications.
	Collected for the purpose of evaluating and analysing outcomes.
Obligation	Intention for Minimum
Representational attri	butes
Guide for use	Record the percentage of time in the range 3.9 – 10.0 in the last 2 weeks. This value can be found on the CGM online technology report for the person e.g. Clarity, Diasend or Medtronic Carelink.
Validation rules	Must be greater than or equal to zero and less than or equal to 100 (Error level 2) The sum of CGM Time in Range + CGM Time < 3.9 must be less than or equal to 100 (Error level 2)
Related data element	CGM Time < 3.9 CGM Time < 3.0 CGM Glucose Mean CGM Glucose Standard Deviation CGM Start Date
Data type	number
Representational class	
Field size maximum	3
Format	nnn
Unit of Measure	
Data domain	

Administrative information

References

4.52 CGM Time < 3.9

Identifying and definitional attributes

Definition	The percentage of time in the last 2 weeks the person's blood glucose has been below 3.9 mmol/L
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications.
	Collected for the purpose of evaluating and analysing outcomes.
Obligation	Intention for Minimum
Representational att	ributes
Guide for use	Record the percentage of time below 3.9 in the last 2 weeks. This value can be found on the CGM online technology report for the person e.g. Clarity, Diasend or Medtronic Carelink.
Validation rules	Must be greater than or equal to zero and less than or equal to 100 (Error level 2) The sum of CGM Time in Range + CGM Time < 3.9 must be less than or equal to 100 (Error level 2)
Related data element	CGM Time in Range CGM Time < 3.0 CGM Glucose Mean CGM Glucose Standard Deviation

CGM Start Date

number

3

nnn

Administrative information

References

Data type

Format

Unit of Measure

Data domain

Representational class Field size maximum

4.53 CGM Time < 3.0

Identifying and definitional attributes

Definition	The percentage of time in the last 2 weeks the person's blood glucose has been below 3.0 mmol/L
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications.
	Collected for the purpose of evaluating and analysing outcomes.
Obligation	Intention for Minimum

Representational attributes

Guide for use	Record the percentage of time below 3.0 in the last 2 weeks. This value can be found on the CGM online technology report for the person e.g. Clarity, Diasend or Medtronic Carelink.
Validation rules	Must be greater than or equal to zero and less than or equal to 100 (Error level 2)
Related data element	CGM Time in Range CGM Time < 3.9 CGM Glucose Mean CGM Glucose Standard Deviation CGM Start Date
Data type	number
Representational class	
Field size maximum	3
Format	nnn
Unit of Measure	
Data domain	

Administrative information

References

4.54 CGM Glucose Mean

Identifying and definitional attributes

Definition	The average blood glucose for the last 2 weeks
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications. Evaluation of Federal government CGM schema is an ADDN project.
	Together with the CGM Glucose Standard Deviation, the Coefficient of Variation can be determined
Obligation	Intention for Minimum

Representational attributes

Guide for use	Record the Mean Glucose in the last 2 weeks. This value can be found on the CGM online technology report for the person e.g. Clarity, Diasend or Medtronic Carelink.
Validation rules	Must be greater than or equal to 2.2 and less than or equal to 30 (Error level 3)
Related data element	CGM Time in Range CGM Time < 3.9 CGM Time < 3.0 CGM Glucose Standard Deviation CGM Start Date
Data type	number
Representational class	
Field size maximum	
Format	nn.n
Unit of Measure	mmol/L
Data domain	

Administrative information

References

4.55 CGM Glucose Standard Deviation

Identifying and definitional attributes

Definition	The glucose Standard Deviation for the last 2 weeks	
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications. Evaluation of Federal government CGM schema is an ADDN project.	
	Together with the CGM Glucose Mean, the Coefficient of Variation can be determined	
Obligation	Intention for Minimum	
Representational attribution	ıtes	
Guide for use	Record the glucose Standard Deviation for the last 2 weeks. This value can be found on the CGM online technology report for the person e.g. Clarity, Diasend or Medtronic Carelink.	
Validation rules	Must be greater than or equal to zero and less than or equal to 10 (Error level 3)	
Related data element	CGM Time in Range CGM Time < 3.9 CGM Time < 3.0 CGM Glucose Mean CGM Start Date	
Data type	number	
Representational class		
Field size maximum		
Format	nn.n	
Unit of Measure	mmol/L	
Data domain		
Administrative information		

References

4.56 CGM GMI (NGSP)

Identifying and definitional attributes

Definition	The persons Glucose Management Indicator (GMI), in NGSP units (%), in the last 2 weeks. This is also called Estimated A1C or Estimated HbA1c.
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications.
	COVID-19 lockdowns have changed how often a patient is able to have a HbA1c test. Adult centres are also finding it difficult to collect at other times.
	As more patients are using CGM devices, the opportunity to collect GMI is now available, and while not a replacement for HbA1c, it is another important clinical measure.
	Collected for the purpose of evaluating and analysing outcomes.
Obligation	Intention for Minimum (if no CGM GMI (IFFC)
	Derived (if CGM GMI(IFFC))
Representational attributes	
Guide for use	Record the GMI value in the last 2 weeks. This value can be found on the CGM online technology report for the person e.g. Clarity, Diasend, Tidepool, Medtronic Carelink. It may be called Estimated A1C or Estimated HbA1c.
	Do not include this data item if the CGM GMI has been recorded in

IFFC units (mmol/mol) as it will be calculated from the data item CGM GMI (IFFC).

Validation rulesMust be within range >=3.0 or <=20 (Error level 3)</th>

Null if CGM GMI IFFC not null (Error level 2)

Data type Numeric

Representational class	
Field size maximum	3
Format	nn.n
Unit of measure	%

Data domain

Administrative information

References

4.57 CGM GMI (IFFC)

Identifying and definitional attributes

, .	
Definition	The persons Glucose Management Indicator (GMI), in IFFC units (mmol/mol), in the last 2 weeks. This is also called Estimated A1C or Estimated HbA1c.
Justification	Continuous glucose monitoring is an important technological innovation that has the potential to improve clinical outcomes and reduce the risk of diabetes complications.
	COVID-19 lockdowns have changed how often a patient is able to have a HbA1c test. Adult centres are also finding it hard to collect at other times.
	As more patients are using CGM devices, the opportunity to collect GMI is now available, and while not a replacement for HbA1c, it is another important clinical measure.
	Collected for the purpose of evaluating and analysing outcomes.
Obligation	Intention for Minimum (if no CGM GMI (NGSP)
	Derived (if CGM GMI(NGSP))
Representational attrib	utes
Guide for use	Record the GMI value in the last 2 weeks. This value can be found on the CGM online technology report for the person e.g. Clarity, Diasend, Tidepool, Medtronic Carelink. It may be called Estimated A1C or Estimated HbA1c.
	Do not include this data item If the CGM GMI has been recorded in NGSP units (%) as it will be calculated from the data item CGM GMI (NGSP).
Validation rules	Must be within range >=9 or <=195 (Error level 3)
	Null if CGM GMI NGSP not null. (Error level 2)
Related data element	CGM GMI NGSP
Data type	Numeric
Representational class	
Field size maximum	3
Format	nnn
Unit of measure	IFFC units (mmol/mol)

Data domain

Administrative information

References

4.58 Waist Circumference

Identifying and definitional attributes

Definition	Waist circumference of the person as measured in centimetres	
Justification	Waist circumference is an indicator of health risk associated with excess fat.	
Obligation	Optional	
Representational attributes		
Guide for use		
Validation rules	Must be greater than 0 or less than 210cm (Error level 3)	
Related data element		
Data type	Numeric	
Representational class		
Field size maximum	4	
Format	nnn.n	
Unit of measure	centimetre (cm)	
Data domain		

Administrative information

References Related metadata METeor ID:270129
4.59 Waist to Height Ratio

Identifying and definitional attributes

Definition	The person's waist circumference in centimetres divided by their height in centimetres
Justification	Waist to height ratio is a measure of distribution of body fat and a risk indicator for cardiovascular disease
Obligation	Derived
Representational att	ributes
Guide for use	This is a Calculated field and will be derived from entries for 'Height' and for 'Waist Circumference'
Validation rules	
Related data element	Height
	Waist circumference
Data type	Numeric
Representational class	
Field size maximum	3
Format	n.nn
Unit of measure	
Data domain	

Administrative information

References

4.60 Biological Samples Stored Indicator

Identifying and definitional attributes

Definition	An indication of w been stored at this	hether a biological sample from the person has s visit
Justification		
Obligation	Optional	
Representational attribution	utes	
Guide for use	Biological sample i	ncludes urine, blood, etc
Validation rules		
Related data element		
Data type	string	
Representational class	code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	Persons biological sample has been stored
	false	Persons biological sample has not been stored

Administrative information

References

4.61 Fasting Lipids Indicator

Identifying and definitional attributes

Definition	An indication of which the person is in a structure of the second	hether the blood lipids have been measured whilst tate of fasting.
Justification		
Obligation	Optional	
Representational attribution	utes	
Guide for use		
Validation rules		
Related data element	Total cholesterol TG HDL LDL	
Data type	String	
Representational class	Code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	the lipids have been collected while fasting
	false	the lipids have not been collected while fasting

Administrative information

References

4.62 Insulin to Carbohydrate Ratio (ICR) Indicator

Identifying and definitional attributes

Definition	An indication that and snacks by appl number of carbohy	the person calculates insulin doses given for meals ying the ratio of units of insulin injected to /drates eaten.
Justification		
Obligation	Optional	
Representational attributes		
Guide for use		
Validation rules		
Related data element		
Data type	String	
Representational class	code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	person uses ICR to calculate dose of insulin
	false	person does not use ICR to calculate insulin dose

Administrative information

References

4.63 Insulin Sensitivity Factor (ISF) Indicator

Identifying and definitional attributes

Definition	An indication that blood glucose by a known as the insul	the person calculates insulin doses given for high pplying a measure of their sensitivity to insulin lin sensitivity factor
Justification		
Obligation	Optional	
Representational attribution	utes	
Guide for use		
Validation rules		
Related data element		
Data type	string	
Representational class	code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Description
	true	The person uses an insulin sensitivity factor
	false	the person does not use an insulin sensitivity factor

Administrative information

References

4.64 Vitamin B12

Identifying and definitional attributes

Definition	The person's level of Vitamin B12 in the blood measured in pmol/L		
Justification			
Obligation	Optional		
Representational attributes			
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result		
Validation rules	Must be greater than or equal to 50 or less than or equal to 1000 (Error level 3)		
Related data element			
Data type	Number		
Representational class			
Field size maximum	4		
Format	nnnn		
Unit of measure	pmol/L		

Administrative information

References

Data domain

4.65 Haemoglobin

Identifying and definitional attributes

Definition	The persons Haemoglobin level in the blood measured in $\ensuremath{g/L}$
Justification	

Obligation

Optional

Representational attributes

Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result
Validation rules	Must be greater than or equal to 60 or less than or equal to 180 (Error level 3)
Related data element	
Data type	number
Representational class	
Field size maximum	3
Format	nnn
Unit of measure	g/L
Data domain	

Administrative information

References

4.66 Serum Creatinine

Identifying and definitional attributes

Definition Justification	The person's serum creatinine level measured in μ mol/L
Obligation	Optional
Representational attribu	ıtes
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result
Validation rules	Must be greater than or equal to 20 or less than or equal to 600 (Error level 3)
Related data element	
Data type	Number
Representational class	
Field size maximum	3
Format	nnn
Unit of measure	μmol/L
Data domain	

Administrative information

References

Related metadata METeOR ID: 360936

4.67 eGFR

Identifying and definitional attributes

Definition	The estimated Glomerular filtration rate (eGFR) is the best measure of kidney function
Justification	Renal disease is serious complication of diabetes. eGFR is an important measure of renal function. Collected for surveillance of complications of diabetes
Obligation	Derived
Representational attribu	utes
Guide for use	This field is a calculated field.
Validation rules	must be greater than or equal to zero (error level 2)
Related data element	Date of Birth and Date of Visit in order to calculate age at visit Gender Serum Creatinine
Data type	Numeric
Representational class	
Field size maximum	3
Format	nnn
Unit of measure	mL/min/1.73m ²

Data domain

Administrative information

References	Age at visit < 19 years old – ACE Inhibitors and Statins in Adolescents with Type 1 Diabetes ¹ Age at visit \ge 19 years old – CKD-EPI eGFR equation ²
Related metadata	METeor ID:

 ¹ Marcovecchio ML, Chiesa ST, Bond S, Daneman D, Dawson S, Donaghue KC, et al. ACE Inhibitors and Statins in Adolescents with Type 1 Diabetes. N Engl J Med. 2017 Nov 2;377(18):1733–45.
² Florkowski, C. M., & Chew-Harris, J. S. (2011). Methods of Estimating GFR - Different Equations

Florkowski, C. M., & Chew-Harris, J. S. (2011). Methods of Estimating GFR - Different Equations Including CKD-EPI. *The Clinical biochemist. Reviews*, *32*(2), 75-9.

4.68 Free Thyroxine (FT4)

Identifying and definitional attributes

Definition	The person's thyroxin level in the blood measured in pmol/L
Justification	
Obligation	Optional
Development of a static	
Representational attribu	ltes
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result
Validation rules	Must be greater than or equal to 5 or less than or equal to 30 (Error level 3)
Related data element	
Data type	Number
Representational class	
Field size maximum	2
Format	nn
Unit of measure	pmol/L
Data domain	

Administrative information

References

4.69 Thyroid Stimulating Hormone (TSH)

Identifying and definitional attributes Definition The thyroid-stimulating hormone level measured in the person's blood in mU/L Justification Obligation Optional **Representational attributes** Guide for use Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result Validation rules Must be greater than or equal to 0 or less than or equal to 20 (Error level 3) **Related data element** Number Data type **Representational class** Field size maximum 5 Format nnn.nn Unit of measure mU/L Data domain

Administrative information

References

4.70 Vitamin D

Identifying and definitional attributes

Definition	The persons 25 Vitamin D level measured in nmol/L		
Justification			
Obligation	Optional		
Representational attributes			
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result		
Validation rules	Must be greater than or equal to 10 or less than or equal to 300 (Error level 3)		
Related data element			
Data type	Number		
Representational class			
Field size maximum	3		
Format	nnn		
Unit of measure	nmol/L		
Data domain			

Administrative information

References

4.71 Folate

Identifying and definitional attributes

Definition	The person's folate level measured in nmol/L		
Justification			
Obligation	Ontional		
Obligation	Optional		
Representational attributes			
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result		
Validation rules	Must be greater than or equal to 2 or less than or equal to 1000 (Error level 3)		
Related data element			
Data type	Number		
Representational class			
Field size maximum	4		
Format	nnnn		
Unit of measure	nmol/L		
Data domain			

Administrative information

References

4.72 Aspartate Aminotransferase (AST)

Identifying and definitional attributes

Definition	The person's aspartate aminotransferase level measured in IU/L	
Justification	A measure of liver function	
Obligation	Optional	
Representational attribution	utes	
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result	
Validation rules	Must be greater than or equal to 5 or less than or equal to 300 (Error level 3)	
Related data element		
Data type	Number	
Representational class		
Field size maximum	3	
Format	nnn	
Unit of measure	IU/L	
Data domain		

Administrative information

References

4.73 Alanine Aminotransferase (ALAT)

Identifying and definitional attributes

Definition	The person's alanine aminotransferase level measured in IU/L		
Justification	A measure of liver function		
Obligation	Ontional		
Obligation	Ορτισπαί		
Representational attributes			
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result		
Validation rules	Must be greater than or equal to 5 or less than or equal to 300 (Error level 3)		
Related data element			
Data type	Number		
Representational class			
Field size maximum	3		
Format	nnn		
Unit of measure	IU/L		
Data domain			

Administrative information

References

4.74 Gamma Glutamyltransferase (GGT)

Identifying and definitional attributes

Definition	The person's gamma-glutamyltransferase level measured in IU/L	
Justification	A measure of liver function	
Obligation	Optional	
Representational attribution	utes	
Guide for use	Test results are assigned to the visit record prior to the test date. If multiple tests have been performed since the last visit, use the most recent test result	
Validation rules	Must be greater than or equal to 5 or less than or equal to 300 - error level 3	
Related data element		
Data type	Number	
Representational class		
Field size maximum	3	
Format	nnn	
Unit of measure	IU/L	
Data domain		

Administrative information

References

4.75 Abnormal Peripheral Pulse Indicator

Identifying and definitional attributes

Definition	Indicates whether person	an abnormal peripheral pulse is present in the	
Justification	Peripheral vascula diabetes. Collected complications	r disease in the feet is a serious complication of d for purposes of surveillance and analysis of	
Obligation	Optional		
Representational attributes			
Guide for use	To be recorded in adults		
Validation rules			
Related data element			
Data type	String		
Representational class	Code		
Field size maximum	5		
Format			
Unit of measure			
Data domain	Value	Description	
	true	person has an abnormal peripheral pulse	
	false	person does not have abnormal peripheral pulse	

Administrative information

References

Related metadata

METeOR ID: 302409 (adults)

4.76 Smoking

Identifying and definitional attributes

Definition	The persons curr	The persons current and past smoking behaviour	
Justification	Tobacco consum of diabetes comp subpopulations c	ption increases a person's risk for the development blications. Smoker type is used to define of adults based on their smoking behaviour	
Obligation	Optional		
Representational attri	butes		
Guide for use	Record if the per been a past smol unknown	Record if the person is a current smoker regardless of frequency, has been a past smoker, has never smoked or the smoking status is unknown	
Validation rules			
Related data element			
Data type	String		
Representational class	Code	Code	
Field size maximum	7		
Format			
Unit of measure			
Data domain	Value	Description	
	CURRENT	current smoker	
	PAST	past smoker	
	NEVER	has never smoked	
	UNKNOWN	smoking status unknown	

Administrative information

References

Related metadata

METeOR ID: 588811

4.77 NPDR (non-proliferative Diabetic Retinopathy)

Identifying and definitional attributes

Definition	Indicate if a person has NPDR – microaneurysms, intraretinal haemorrhages and/or retinal hypoperfusion	
Justification	Retinopathy is a	serious complication of Diabetes
Obligation	Optional	
Representational attribution	utes	
Guide for use	Set to 'true' if patient has non-proliferative Diabetic retinopathy otherwise set to 'false'	
Validation rules		
Related data element		
Data type	String	
Representational class	Code	
Field size maximum	3	
Format		
Unit of measure		
Data domain	Value	Meaning
	true	Person has NPDR
	false	Person does not have NPDR

Administrative information

References

4.78 PDR (Proliferative Diabetic Retinopathy)

Identifying and definitional attributes

Indicate if a pers vessels	son has PDR – neovascularisation - new retinal blood		
Retinopathy is a serious complication of Diabetes			
Optional			
Representational attributes			
Set to 'true' if patient has Proliferative Diabetic retinopathy, otherwise set to 'false'			
String			
Code			
3			
Value	Meaning		
true	Person has PDR		
false	Person does not have PDR		
	Indicate if a persiversels Retinopathy is a Optional Utes Set to 'true' if pa otherwise set to String Code 3 Value true false		

Administrative information

References

4.79 Maculopathy

Identifying and definitional attributes

Definition	Indicate if a centre of the ce	Indicate if a person has Maculopathy - leakage of vessels close to the centre of the macula leading to macular oedema	
Justification	This is a se	This is a serious complication of Diabetes	
Obligation	Optional	Optional	
Representational att	ributes		
Guide for use	Set to 'true	Set to 'true' if patient has Maculopathy, otherwise set to 'false'	
Validation rules			
Related data element			
Data type	String		
Representational class	Code		
Field size maximum	3		
Format			
Unit of measure			
Data domain	Value	Meaning	
	true	Person has Maculopathy	
	false	Person does not have Maculopathy	

Administrative information

References

4.80 Cataract

Identifying and definitional attributes

Definition	Indicate if a person has a cataract during a visit
Justification	Cataract is a serious complication of Diabetes

Obligation	Optional
------------	----------

Representational attributes

Set to 'true' if p	atient has a cataract, otherwise set to 'false'
String	
Code	
3	
Value	Meaning
true	Person has a cataract
false	Person does not have cataract
	Set to 'true' if p String Code 3 Value true false

Administrative information

References

4.81 Cataract Extraction

Identifying and definitional attributes

Definition	Indicate if a pers has a Cataract	son has a cataract extraction and therefore no longer
Justification	Cataract is a seri	ous complication of Diabetes
Obligation	Optional	
Representational attribution	utes	
Guide for use	Set to 'true' if patient has a cataract extraction, otherwise set to 'false'	
Validation rules		
Related data element		
Data type	String	
Representational class	Code	
Field size maximum	3	
Format		
Unit of measure		
Data domain	Value	Meaning
	true	Person has a cataract extraction performed
	false	Person has not had a cataract extraction performed

Administrative information

References

4.82 Focal Laser

Identifying and definitional attributes

Definition Justification	Indicate if a pers	son has Focal Laser treatment
Obligation	Optional	
Representational attribution	utes	
Guide for use	Set to 'true' if patient has a Focal Laser treatment, otherwise set to 'false'	
Validation rules		
Related data element		
Data type	String	
Representational class	Code	
Field size maximum	3	
Format		
Unit of measure		
Data domain	Value	Meaning
	true	Person has a Focal Laser treatment
	false	Person has not had Focal Laser treatment

Administrative information

References

4.83 Panretinal Photocoagulation

Identifying and definitional attributes

Definition	Indicate if a pers	on has Panretinal photocoagulation
Justification	Retinopathy is a	serious complication of Diabetes
Obligation	Optional	
Representational attribu	utes	
Guide for use	Set to 'true' if patient has Panretinal Photocoagulation, otherwise set to 'false'	
Validation rules		
Related data element		
Data type	String	
Representational class	Code	
Field size maximum	3	
Format		
Unit of measure		
Data domain	Value	Meaning
	true	Person has Panretinal Photocoagulation
	false	Person does not have Panretinal Photocoagulation

Administrative information

References

4.84 Vitreal Injection

Identifying and definitional attributes

Definition	Indicate if a pers	son has had Vitreal injection(s)
Justification	Retinopathy is a are usually indic	serious complication of Diabetes. Vitreal injections ative of presence of macular oedema.
Obligation	Optional	
Representational attribution	utes	
Guide for use	Set to 'true' if patient has had an Intraocular Injection since their last visit, otherwise set to 'false'	
Validation rules		
Related data element		
Data type	String	
Representational class	Code	
Field size maximum	3	
Format		
Unit of measure		
Data domain	Value	Meaning
	true	Person has had an Intraocular injection
	false	Person has not had an Intraocular injection

Administrative information

References

4.85 Erectile Dysfunction

Identifying and definitional attributes

Definition	Indicate if a pers	son has experienced Erectile Dysfunction
Justification	Erectile Dysfunc	tion is a serious complication of Diabetes
Obligation	Optional	
	•	
Representational attribu	utes	
Guide for use	Set to 'true' if patient has experienced erectile dysfunction since their last visit, otherwise set to 'false'	
Validation rules	Must be male gender (Error level 2)	
Related data element		
Data type	String	
Representational class	Code	
Field size maximum	5	
Format		
Unit of measure		
Data domain	Value	Meaning
	true	Person has experienced erectile dysfunction
	false	Person has not experienced erectile dysfunction

Administrative information

References

4.86 Mode of Visit

Identifying and definitional attributes

Definition How an outpatient appointment was conducted. Justification With COVID-19 changing the way 3 monthly face to face outpatient visits were conducted, it is relevant to collect if the patient attended in person at the hospital or via teleheath. The impact on Benchmarking outcomes for the different modes would be useful from a clinical perspective and may result in changes to model of care. Obligation Optional Representational attributes Indicate if patient attended their appointment in person at the hospital or via telehealth (video conference). Validation rules Must be an allowable value (Error level 2) Representational class Code Field size maximum 12 Format Unit of measure Unit of measure FACE_TO_FACE Pate domain Value Meaning FACE_TO_FACE Patient attended in person TELEHEALTH Appointment conducted via video conference between the patient and their clinical care team				
Justification With COVID-19 changing the way 3 monthly face to face outpatient visits were conducted, it is relevant to collect if the patient attended in person at the hospital or via teleheath. The impact on Benchmarking outcomes for the different modes would be useful from a clinical perspective and may result in changes to model of care. Obligation Optional Representational attributes Guide for use Indicate if patient attended their appointment in person at the hospital or via telehealth (video conference). Validation rules Must be an allowable value (Error level 2) Representational class Code Field size maximum 12 Format 12 Valid of measure Value Mact Sector_To_FACE Patient attended in person FACE_TO_FACE Patient attended in person TELEHEALTH Appointment conducted via video conference between the patient and their clinical care team	Definition	How an outpatient appointment was conducted.		
The impact on Benchmarking outcomes for the different modes would be useful from a clinical perspective and may result in changes to model of care. Obligation Optional Representational attribues Indicate if patient attended their appointment in person at the hospital or via telehealth (video conference). Validation rules Must be an allowable value (Error level 2) Representational class Code Field size maximum 12 Format Jata type Data domain Value Maxes Meaning FACE_TO_FACE Patient attended in person TELEHEALTH Appointment conducted via video conference between the patient and their clinical care team	Justification	With COVID-19 changing the way 3 monthly face to face outpatient visits were conducted, it is relevant to collect if the patient attended in person at the hospital or via teleheath.		
Obligation Optional Representational attribut Indicate if patient attend their appointment in person at the hospital or via telehealt (video conference). Guide for use Indicate if patient attend their appointment in person at the hospital or via telehealt (video conference). Validation rules Must be an allowable view (Error level 2) Validation rules String Representational class Code Format 12 Format Jata type Data domain Value Maening FACE_TO_FACE Pate Adomain FACE_TO_FACE FACE_TO_FACE Appointment conducted via video conference between the patient and their cincical care team		The impact on Benchma would be useful from a to model of care.	rking outcomes for the different modes clinical perspective and may result in changes	
Representational attributes Indicate if patient atter appointment in person at the hospital or via telehealth (video conference). Guide for use Indicate if patient atterehealth (video conference). Validation rules Must be an allowable value (Error level 2) Validation rules Must be an allowable value (Error level 2) Related data element Value Data type String Representational class Code Field size maximum 12 Format Value Unit of measure Value Pata domain Value FACE_TO_FACE Patient attended in person TELEHEALTH Appointment conducted via video conference between the patient and their clinical care team	Obligation	Optional		
Guide for useIndicate if patient attended their appointment in person at the hospital or via telehealth (video conference).Validation rulesMust be an allowable value (Error level 2)Related data elementError level 2)Data typeStringRepresentational classCodeField size maximum12FormatI2Unit of measureFACE_TO_FACEData domainValueKele_TO_FACEPatient attended in personTELEHEALTHAppointment conducted via video conference between the patient and their clinical care team	Representational attribution	utes		
Validation rulesMust be an allowable value (Error level 2)Related data elementData typeStringRepresentational classCodeField size maximum12Format12Unit of measureStringData domainValueFACE_TO_FACEPatient attended in personFACE_TO_FACEPatient attended in personTELEHEALTHAppointment conducted via video conference between the patient and their clinical care team	Guide for use	Indicate if patient attended their appointment in person at the hospital or via telehealth (video conference).		
Related data elementStringData typeStringRepresentational classCodeField size maximum12FormatStringUnit of measureStringData domainValueFACE_TO_FACEPatient attended in personTELEHEALTHAppointment conducted via video conference between the patient and their clinical care team	Validation rules	Must be an allowable value (Error level 2)		
Data typeStringRepresentational classCodeField size maximum12FormatTerretUnit of measureValuePata domainValueFACE_TO_FACEPatient attended in personTELEHEALTHAppointment conducted via video conference between the patient and their clinical care team	Related data element			
Representational classCodeField size maximum12Format	Data type	String		
Field size maximum12Format	Representational class	Code		
FormatUnit of measureData domainValueMeaningFACE_TO_FACEPatient attended in personTELEHEALTHAppointment conducted via video conference between the patient and their clinical care team	Field size maximum	12		
Unit of measureValueMeaningData domainFACE_TO_FACEPatient attended in personFACE_TO_FACEPatient attended in personTELEHEALTHAppointment conducted via video conference between the patient and their clinical care team	Format			
Data domainValueMeaningFACE_TO_FACEPatient attended in personTELEHEALTHAppointment conducted via video conference between the patient and their clinical care team	Unit of measure			
FACE_TO_FACEPatient attended in personTELEHEALTHAppointment conducted via video conference between the patient and their clinical care team	Data domain	Value	Meaning	
TELEHEALTHAppointment conducted via videoconference between the patient and theirclinical care team		FACE_TO_FACE	Patient attended in person	
		TELEHEALTH	Appointment conducted via video conference between the patient and their clinical care team	

Administrative information

References

Related metadata METeOR ID:

5 Medication Fields

5.1 Medication Name

Identifying and definitional attributes

DefinitionThe name of any medication other than insulin being taken by the
person

Justification

Obligation Required

Representational attributes

Guide for use

Validation rules

Related data element

Data type String

Representational class Free text

Field size maximum

Format

Unit of measure

Data domain

Administrative information

References

5.2 Medication Start Date

Identifying and definitional attributes

Definition	The date the medication was commenced
Justification	
Obligation	Optional
Representational attrib	outes
Guide for use	
Validation rules	Must be greater than or equal to the person date of birth and less than or equal to today's date (Error level 2)
Related data element	Medication
	Date of Birth
Data type	Date
Representational class	
Field size maximum	8
Format	YYYY-MM-DD
Unit of measure	
Data domain	

Administrative information

References

5.3 Medication End Date

Identifying and definitional attributes

Definition	The date the medication was ceased
Justification	
Obligation	Optional
Representational attrib	outes
Guide for use	
Validation rules	Must be greater or equal to the start date and less than or equal to todays date (Error level 2)
Related data element	
	Medication Start Date
Data type	date
Representational class	
Field size maximum	8
Format	YYYY-MM-DD
Unit of measure	
Data domain	

Administrative information

References

Appendix

Version History

Date	Author	Version	Change Reference
13/12/2016	MT Mok	0.01	Original document
16/05/2017	H Phelan	2.0	This version reflects the excel version 2.0
5/06/2017	J Makin	V2.1	Updated according to the schema. General formatting changes
26/6/2017	J Makin	V2.2	Further updates
23/08/2017	H Phelan	V2.1.1	Further updates. Version number changed to reflect current version number of the excel spread sheet data dictionary
24/8/17	H Clapin, J Makin	V2.1.1	Further updates
15/09/17	H Phelan	V2.2.2	Updated in prep for face to face ADDN meeting
30/10/17	J Makin	V2.2.1	Updated after Steering Committee Face to Face meeting and including CGM fields for CGM evaluation
24/11/17	J Makin	V2.2.1	Update values for CGM %, add paragraph for Guide for Use for HbA1c
28/11/17	J Makin, MT Mok	V3.0	Finalise for distribution; format updates
14/12/17	J Makin	V3.1	Removed Autoimmune Disease and added Coeliac disease and thyroid disease for Family History
16/07/18	MT Mok	V3.1.1	%CGM
19/07/18	J Makin	V3.1.1	Changed USI to BioGrid ID. Changed range for ACR and AER
19/07/18	J Makin	V3.1.1	Changed validation rules for CGM Type, CGM %, CGM Make and CGM Model. Removed data item CGM Used. Add range and validation for BMI. Changed validation level for Diabetes Type Neonatal from critical error to a warning. Change name of CGM Brand to CGM Make. Change name of Insulin Pump Brand to Insulin Pump Make. Add new data items pH and Bicarbonate. Removed 'Retinopathy, non-proliferative retinopathy' and 'proliferative retinopathy' for list of comorbidities. Replace with 7 new data items collected at a visit – NPDR, PDR, Maculopathy, Cataract, Cataract Extraction, Focal Laser, Panretinopathy Photocoagulation.
11/09/18	MT Mok	V3.1.2	Revised Gender – from 'Undetermined' to 'Indeterminate'

Date	Author	Version	Change Reference
25/09/18	J Makin	V3.1.3	Renamed USI to BioGrid ID. Removed Cataract from list of comorbidities as now a data item for Visit. Added Intraocular Injections to Visit. Amended list of valid Insulin Pump Makes. Changed Insulin Pump Model from free format text to a list of valid models. Added error level 3 to Insulin Regimen. Changed BMI range from 15-50 to 13-50. Added new data item eGFR. Corrected the unit of measure for AER. Added error level 3 to DKA at Diagnosis Indicator.
26/09/18	MT Mok	V3.1.4	Updated Insulin Pump Model, CGM Model.
02/10/18	P Colman	V3.1.5	Changed definition and justification for IAA, IA2, GAD and ZnT8. Renamed Free Thyroxine. Renamed HONK to HSS and amended definition and justification. Renamed Phosphatase to Alkaline Phosphatase. Changed justification for AER. Added to the definition for NPDR, PDR and Maculopathy. Rename Panretinopathy Photocoagulaton to Panretinal Photocoagulaton. Renamed Intraocular Injections to Vitreal Injections
8/10/18	J Makin	V3.1.6	Added eGFR to Visit.
11/10/18	J Makin	V3.1.7	Added DIY and HCL to Insulin regimen. Removed range on AER. Finalised eGFR validation. Corrected validation for DKA at diagnosis
18/10/18	MT Mok	V4.0	Promoted to final version after Steering Committee approval
22/11/18	J Makin	V4.1	Moved data items pH and Bicarbonate from Visit to Patient. Added back in to list of comorbidities 'Retinopathy, non-proliferative retinopathy' and 'proliferative retinopathy'. Replaced PumpMake and PumpModel with InsulinPump and InsulinPumpOther. Added the 'Guide for Use' definition for test results
26/2/19	J Makin	V4.2	Added References for eGFR Corrected unit of measure for Serum Creatinine

Date	Author	Version	Change Reference
21/10/2019	J Makin	V4.3	Renamed Core to Minimum and non-Core to Optional to better reflect what this means. Rearranged order of data items so data items in Minimum Data Set are at the start of each entity. Removed Date of ADDN Withdrawal, SMBG Frequency, Alkaline Phosphatase and Bilirubin. Moved IAA, IA2, GAD and ZnT8 antibodies data items from Visit to Patient and updated their guide for use. Changed CGM Model from free format text to a list of valid models and renamed to CGM Device. Updated Insulin Pump Models list. Updated Insulin Product list. Added new data items CGM Time in Range, CGM Time < 3.9, CGM Time < 3.0, Glucose Mean, CGM Glucose Std Deviation, CGM Device Other
6/10/2020	J Makin	V4.4	Bicarbonate at diagnosis - added to Guide for use Change CGM Time in Range, CGM Time < 3.9, CGM Time < 3.0, Glucose Mean, CGM Glucose Std Deviation from Optional to Intention for Minimum Changed validation rules for Date of Birth and Date of Diagnosis Add age related warning to Date of Diagnosis Removed DIY and HCL from Insulin Regimen Added Insulin Pump Mode to Visit Added new items to Insulin Pump Model list Changes to Comorbidity list including renaming or removing from list Remove Comorbidity Other Added Coeliac Disease and date diagnosed with coeliac to Patient Added Erectile Dysfunction to Visit
8/10/2021	J Makin	V4.5	New Visit items Mode of Visit, CGM GMI NGSP and CGM GMI IFFC. Removed Mode of Birth from Patient, Tanner Stage Breast, Tanner Stage Genitalia, Tanner Stage Pubic Hair, Testicular Volume Left and Right from Visit. Changed definitions/guide for use for CGM Usage % and ADDN Consent. Removed warning about missing CGM Start Date from CGM Usage %, CGM Device, CGM Time in Range, CGM Time < 3.9, CGM Time < 3.0, CGM Glucose Mean, CGM Glucose Standard Deviation. Added warning to CGM Start Date if any of the CGM items on a Visit contain a value. Changed range for Serum Creatinine. Changed CGM Type to a derived item
Associated Documents

No	Document
1.	ADDN Data Dictionary.xlxs
2.	ADDN-Schema.xsd
3.	ADDN_Data_Dictionary Min_Dataset_Summary_Sheet