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

Foreword ................................................................................................................................. 1

Table of Contents .................................................................................................................... 1

Abbreviations .......................................................................................................................... 6

Inclusion and Exclusion Criteria ........................................................................................ 7

Dataset Definition Sources ................................................................................................. 8

Guide to Using This Data Dictionary ................................................................................ 9

Glossary of Terms .................................................................................................................. 13

1. Patient Fields ................................................................................................................... 14

  1.1 ADDN Identifier (ADDN ID) .................................................................................... 15

  1.2 BioGrid ID (USI) ........................................................................................................ 16

  1.3 Centre Identifier (Centre Code) ............................................................................... 17

  1.4 Primary Centre Indicator ......................................................................................... 18

  1.5 Local Identifier (Local ID) ........................................................................................ 19

  1.6 Date of Birth ............................................................................................................. 20

  1.7 Gender ..................................................................................................................... 21

  1.8 Date of ADDN Consent ............................................................................................. 22

  1.9 Consent to be Contacted for Research Purposes Indicator ..................................... 23

  1.10 Country of Birth ..................................................................................................... 24

  1.11 Ethnicity (Primary) ................................................................................................... 25

  1.12 Ethnicity (Secondary) ............................................................................................... 27

  1.13 Indigenous Status .................................................................................................... 29

  1.14 Language Spoken at Home ...................................................................................... 31

  1.15 Birth Weight ............................................................................................................. 32

  1.16 Birth Weight SDS for Gestational Age .................................................................... 33

  1.17 Birth Weight for Gestational Age Percentile ........................................................... 34

  1.18 Gestation at Birth .................................................................................................... 35

  1.19 Mode of Birth .......................................................................................................... 36

  1.20 Date of Menarche .................................................................................................... 37

  1.21 Date of Transfer of Care ........................................................................................... 38

  1.22 Transfer To ............................................................................................................... 39

  1.23 Date of ADDN Withdrawal ....................................................................................... 40
1.24 Person Date of Death
1.25 Cause of Death
1.26 Cause of Death Other
1.27 DNA Stored Indicator
1.28 HLA Data Available
1.29 Diabetes Type
1.30 Diabetes Type (Other)
1.31 Date of Diagnosis
1.32 Number of Days Hospitalised at Diagnosis
1.33 Country at Diagnosis
1.34 Postcode at Diagnosis
1.35 Diabetic Ketoacidosis (DKA) at Diagnosis Indicator
1.36 Current Postcode
1.37 CGM Start Date
1.38 Diabetic Ketoacidosis - pH
1.39 Diabetic Ketoacidosis - Bicarbonate

2 Co-Morbidity Fields
2.1 Comorbidity
2.2 Comorbidity (Other)
2.3 Date of Diagnosis of Comorbidity

3 Family History Fields
3.1 Relationship to Person
3.2 Diabetes Type (First-degree Relative)
3.3 Diabetes Type Other (First-degree Relative)
3.4 Coeliac Disease (First-degree Relative)
3.5 Thyroid Disease (First-degree Relative)
3.6 Other Autoimmune Diseases (First-degree Relative)

4 Visit Fields
4.1 Date of Visit
4.2 HbA1c (NGSP)
4.3 HbA1c (IFFC)
4.4 Height
4.5 Height SDS
4.6 Height Percentile
| 4.7 | Weight ...................................................................................................................... 80 |
| 4.8 | Weight SDS ............................................................................................................... 81 |
| 4.9 | Weight Percentile .................................................................................................... 82 |
| 4.10 | Body Mass Index (BMI) ............................................................................................ 83 |
| 4.11 | Body Mass Index SDS (BMI-SDS) .............................................................................. 84 |
| 4.12 | Body Mass Index (BMI) Percentile ........................................................................... 85 |
| 4.13 | Waist Circumference ............................................................................................... 86 |
| 4.14 | Waist to Height Ratio .............................................................................................. 87 |
| 4.15 | Systolic Blood Pressure .......................................................................................... 88 |
| 4.16 | Systolic Blood Pressure SDS .................................................................................... 89 |
| 4.17 | Systolic Blood Pressure Percentile ......................................................................... 90 |
| 4.18 | Diastolic Blood Pressure ........................................................................................ 91 |
| 4.19 | Diastolic Blood Pressure SDS ................................................................................. 92 |
| 4.20 | Diastolic Blood Pressure Percentile ........................................................................ 93 |
| 4.21 | Islet Antibody positivity – Insulin autoantibody (IAA) ............................................. 94 |
| 4.22 | Islet Antibody positivity - IA-2 antibody .................................................................. 95 |
| 4.23 | Islet antibody positivity - GAD antibody Indicator ....................................................... 96 |
| 4.24 | Islet autoantibody positivity - ZnT8 ......................................................................... 97 |
| 4.25 | ICA Positive Indicator ............................................................................................ 98 |
| 4.26 | Insulin Regimen ......................................................................................................... 99 |
| 4.27 | Insulin Pump ............................................................................................................ 101 |
| 4.28 | Insulin Pump Other .................................................................................................. 103 |
| 4.29 | Insulin to Carbohydrate Ratio (ICR) Indicator .......................................................... 104 |
| 4.30 | Insulin Sensitivity Factor (ISF) Indicator ................................................................ 105 |
| 4.31 | Number of Injections Per Day .................................................................................. 106 |
| 4.32 | Insulin Product 1 ...................................................................................................... 107 |
| 4.33 | Daily Dose of Insulin Product 1 ................................................................................ 108 |
| 4.34 | Insulin Product 2 ...................................................................................................... 109 |
| 4.35 | Daily Dose of Insulin Product 2 ................................................................................ 110 |
| 4.36 | Insulin Product 3 ...................................................................................................... 111 |
| 4.37 | Daily Dose of Insulin Product 3 ................................................................................ 112 |
| 4.38 | Insulin Product 4 ...................................................................................................... 113 |
| 4.39 | Daily Dose of Insulin Product 4 ................................................................................ 114 |
| 4.40 | Total Daily Insulin Dose .......................................................................................... 115 |
4.75  Aspartate Aminotransferase (AST) ................................................................. 154
4.76  Alanine Aminotransferase (ALAT) ................................................................. 155
4.77  Gamma Glutamyltransferase (GGT) ............................................................... 156
4.78  Abnormal Peripheral Pulse Indicator .............................................................. 157
4.79  Albumin Creatinine Ratio (ACR) ..................................................................... 158
4.80  Urine Albumin Excretion Rate (AER) ............................................................. 159
4.81  Smoking ........................................................................................................... 160
4.82  NPDR (non-proliferative Diabetic Retinopathy) .............................................. 161
4.83  PDR (Proliferative Diabetic Retinopathy) ....................................................... 162
4.84  Maculopathy .................................................................................................. 163
4.85  Cataract .......................................................................................................... 164
4.86  Cataract Extraction ......................................................................................... 165
4.87  Focal Laser ...................................................................................................... 166
4.88  Panretinal Photocoagulation .......................................................................... 167
4.89  Vitreal Injection ............................................................................................... 168
4.90  eGFR ............................................................................................................... 169
5  Medication Fields ............................................................................................... 170
  5.1  Medication Name ............................................................................................ 171
  5.2  Medication Start Date ..................................................................................... 172
  5.3  Medication End Date ....................................................................................... 173
Appendix ............................................................................................................... 174
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACHI</td>
<td>Australian Classification of Health Interventions (ACHI) 7th edition</td>
</tr>
<tr>
<td>ADDN</td>
<td>Australasian Diabetes Data Network</td>
</tr>
<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
</tr>
<tr>
<td>HREC</td>
<td>Human Research Ethics Committee</td>
</tr>
<tr>
<td>ICD-10-AM</td>
<td>International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification</td>
</tr>
<tr>
<td>ISPAD</td>
<td>International Society for Pediatric and Adolescent Diabetes</td>
</tr>
<tr>
<td>METeOR</td>
<td>Metadata Online Registry</td>
</tr>
</tbody>
</table>
Inclusion and Exclusion Criteria

INCLUSIONS

Children and Adolescents (< 18 years) 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.
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) pre-existing 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](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

Core A data element that has been determined to be important. It is strongly recommended that be collected and transmitted to ADDN. This is used to determine data quality (completeness) and calculation for per patient payments. If not specifically stated it applies to both paediatric and adult datasets.

Non-core Optional to be collected 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:

1. **Error Level 1** – Critical error which results in the record not being loaded
2. **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
3. **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

<table>
<thead>
<tr>
<th>Value</th>
<th>Valid character range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Alphabetic character set: contains the letters a-z and A-Z and may contain special characters*, but not numeric characters.</td>
</tr>
<tr>
<td>N</td>
<td>Numeric character set: contains whole and decimal numbers and may contain special characters, but not alphabetic characters.</td>
</tr>
<tr>
<td>X</td>
<td>Alphanumeric character set: contains alphabetic and numeric characters, and may contain blank characters.</td>
</tr>
<tr>
<td>DD</td>
<td>A numeric character representing the day within a date</td>
</tr>
<tr>
<td>MM</td>
<td>A numeric character representing month within a date</td>
</tr>
<tr>
<td>YYYY</td>
<td>A numeric character representing year within a date</td>
</tr>
<tr>
<td>S</td>
<td>Positive or negative sign</td>
</tr>
<tr>
<td>[ ]</td>
<td>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)).</td>
</tr>
<tr>
<td>( )</td>
<td>The character preceding the round brackets (parentheses) is repeated the number of times specified (e.g. X(9) indicates 9 alphanumeric characters).</td>
</tr>
</tbody>
</table>

* 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 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 attributes
Guide for use
If a Person doesn't have an ADDN ID, it will be generated the 1st 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 1st 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
Related metadata
1.2 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**

Core 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.

Non-core 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**

**Related metadata**
1.3 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

Representational attributes

**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**

**Related metadata**
### 1.4 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**
Core (paediatric)

#### Representational attributes

**Guide for use**
Set to ‘true’ if this centre is the primary source of care for the person, otherwise set to ‘false’
Default to true 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**

<table>
<thead>
<tr>
<th>Data domain</th>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>true</td>
<td>Person’s primary centre is ‘Centre Code’</td>
</tr>
<tr>
<td></td>
<td>false</td>
<td>Person’s primary centre is not ‘Centre Code’</td>
</tr>
</tbody>
</table>

#### Administrative information

**References**

**Related metadata**
1.5 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
Core

Representational attributes
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 Valid identifier

Administrative information

References
Related metadata
1.6 Date of Birth

Identifying and definitional attributes

<table>
<thead>
<tr>
<th>Definition</th>
<th>The date the person was born.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justification</td>
<td>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.</td>
</tr>
</tbody>
</table>

Obligation

| Mandatory          | Core |

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 or equal to date of diagnosis and less than or equal to today’s date (Error level 1)

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
1.7 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

Core

Representational attributes

**Guide for use**
Should be confirmed if reported for people aged 90 days or greater

**Validation rules**
Field cannot be blank (Error level 1)

**Related data element**

**Data type**
String

**Representational class**
Code

**Field size maximum**
12

**Format**
AAAAA

**Data domain**

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>Gender is Male</td>
</tr>
<tr>
<td>FEMALE</td>
<td>Gender is Female</td>
</tr>
<tr>
<td>INDETERMINATE</td>
<td>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</td>
</tr>
</tbody>
</table>

Administrative information

**References**

**Related metadata**
METeOR ID: 635994
1.8 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
Core (Paediatric)

Representational attributes

Guide for use
Consent is mandatory for every paediatric person unless not required by ADDN centres’ HREC approval.

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

Related metadata
1.9 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 Non-core

Representational attributes
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
Related metadata
1.10 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
Core

Representational attributes
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+features102011

Administrative information
References
Related metadata
METeOR ID: 659454
1.11 Ethnicity (Primary)

Identifying and definitional attributes

**Definition**
The ethnic group that the person primarily identifies with or feels they belong to.

**Justification**
Ethnicity is a known demographic factor that is associated with clinical outcomes. By collecting ethnicity this variable can be included in statistical analysis.

**Obligation**
Non-core

Representational attributes

**Guide for use**
The persons ethnicity is determined by their response to the question “Does your family belong to any specific cultural or ethnic group?”

Based on the ASCCEG definition where 'ethnicity' refers to the shared identity or similarity of a group of people on the basis of one or more factors. Ethnicity is based on the self-perceived group identification approach.

The response is to be recorded according to the Australian Bureau of Statistics (ABS) standard for classification of Cultural and Ethnic Groups level 2. For detailed advice on its use and application please refer to the ABS Website

**Validation rules**
Must be allowable value (Error level 2)

**Related data element**
Ethnicity (Secondary)

**Data type**
Number

**Representational class**
Code

**Field size maximum**
4

**Format**
N(4)

**Data domain**

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>Oceanian</td>
</tr>
<tr>
<td>1100</td>
<td>Australian</td>
</tr>
<tr>
<td>1200</td>
<td>New Zealand</td>
</tr>
<tr>
<td>1300</td>
<td>Melanesian and Papuan</td>
</tr>
<tr>
<td>1400</td>
<td>Micronesian</td>
</tr>
<tr>
<td>1500</td>
<td>Polynesian</td>
</tr>
<tr>
<td>2000</td>
<td>North-West European</td>
</tr>
<tr>
<td>2100</td>
<td>British</td>
</tr>
<tr>
<td>2200</td>
<td>Irish</td>
</tr>
<tr>
<td>2300</td>
<td>Western European</td>
</tr>
<tr>
<td>2400</td>
<td>Northern European</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>3000</td>
<td>Southern and Eastern European</td>
</tr>
<tr>
<td>3100</td>
<td>Southern European</td>
</tr>
<tr>
<td>3200</td>
<td>South Eastern European</td>
</tr>
<tr>
<td>3300</td>
<td>Eastern European</td>
</tr>
<tr>
<td>4000</td>
<td>North African and Middle Eastern</td>
</tr>
<tr>
<td>4100</td>
<td>Arab</td>
</tr>
<tr>
<td>4200</td>
<td>Jewish</td>
</tr>
<tr>
<td>4300</td>
<td>Peoples of the Sudan</td>
</tr>
<tr>
<td>4900</td>
<td>Other North African and Middle Eastern</td>
</tr>
<tr>
<td>5000</td>
<td>South-East Asian</td>
</tr>
<tr>
<td>5100</td>
<td>Mainland South-East Asian</td>
</tr>
<tr>
<td>5200</td>
<td>Maritime South-East Asian</td>
</tr>
<tr>
<td>6000</td>
<td>North-East Asian</td>
</tr>
<tr>
<td>6100</td>
<td>Chinese Asian</td>
</tr>
<tr>
<td>6900</td>
<td>Other North-East Asian</td>
</tr>
<tr>
<td>7000</td>
<td>Southern and Central Asian</td>
</tr>
<tr>
<td>7100</td>
<td>Southern Asian</td>
</tr>
<tr>
<td>7200</td>
<td>Central Asian</td>
</tr>
<tr>
<td>8000</td>
<td>People of the Americas</td>
</tr>
<tr>
<td>8100</td>
<td>North American</td>
</tr>
<tr>
<td>8200</td>
<td>South American</td>
</tr>
<tr>
<td>8300</td>
<td>Central American</td>
</tr>
<tr>
<td>8400</td>
<td>Caribbean Islander</td>
</tr>
<tr>
<td>9000</td>
<td>Sub-Saharan African</td>
</tr>
<tr>
<td>9100</td>
<td>Central and West African</td>
</tr>
<tr>
<td>9200</td>
<td>Southern and East African</td>
</tr>
</tbody>
</table>

**Administrative information**

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


**Related metadata**
METeOR ID:
1.12 Ethnicity (Secondary)

Identifying and definitional attributes

Definition
The ethnic group that the person identifies with or feels they belong to in addition to the primary ethnicity they identify with.

Justification
Ethnicity is a known demographic factor that is associated with clinical outcomes. By collecting ethnicity this variable can be included in statistical analysis. People can identify with more than one ethnicity or cultural group.

Obligation
Non-core

Representational attributes

Guide for use
The persons ethnicity is determined by their response to the question

“Does your family belong to any specific cultural or ethnic group?”

Based on the ASCCEG definition where 'ethnicity' refers to the shared identity or similarity of a group of people on the basis of one or more factors. Ethnicity is based on the self-perceived group identification approach.

The response is to be recorded according to the Australian Bureau of Statistics (ABS) standard for classification of Cultural and Ethnic Groups level 2. For detailed advice on its use and application please refer to the ABS Website


Validation rules
Must be allowable value (Error level 2)
Should not be entered if Ethnicity Primary is null (Error level 2)
Must be different from ethnicity Primary (Error level 2)

Related data element
Ethnicity Primary

Data type
Number

Representational class
Code

Field size maximum
4

Format
N(4)

Data domain

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>Oceanian</td>
</tr>
<tr>
<td>1100</td>
<td>Australian</td>
</tr>
<tr>
<td>1200</td>
<td>New Zealand</td>
</tr>
<tr>
<td>1300</td>
<td>Melanesian and Papuan</td>
</tr>
<tr>
<td>1400</td>
<td>Micronesian</td>
</tr>
<tr>
<td>1500</td>
<td>Polynesian</td>
</tr>
<tr>
<td>Code</td>
<td>Region</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>2000</td>
<td>North-West European</td>
</tr>
<tr>
<td>2100</td>
<td>British</td>
</tr>
<tr>
<td>2200</td>
<td>Irish</td>
</tr>
<tr>
<td>2300</td>
<td>Western European</td>
</tr>
<tr>
<td>2400</td>
<td>Northern European</td>
</tr>
<tr>
<td>3000</td>
<td>Southern and Eastern European</td>
</tr>
<tr>
<td>3100</td>
<td>Southern European</td>
</tr>
<tr>
<td>3200</td>
<td>South Eastern European</td>
</tr>
<tr>
<td>3300</td>
<td>Eastern European</td>
</tr>
<tr>
<td>4000</td>
<td>North African and Middle Eastern</td>
</tr>
<tr>
<td>4100</td>
<td>Arab</td>
</tr>
<tr>
<td>4200</td>
<td>Jewish</td>
</tr>
<tr>
<td>4300</td>
<td>Peoples of the Sudan</td>
</tr>
<tr>
<td>4900</td>
<td>Other North African and Middle Eastern</td>
</tr>
<tr>
<td>5000</td>
<td>South-East Asian</td>
</tr>
<tr>
<td>5100</td>
<td>Mainland South-East Asian</td>
</tr>
<tr>
<td>5200</td>
<td>Maritime South-East Asian</td>
</tr>
<tr>
<td>6000</td>
<td>North-East Asian</td>
</tr>
<tr>
<td>6100</td>
<td>Chinese Asian</td>
</tr>
<tr>
<td>6900</td>
<td>Other North-East Asian</td>
</tr>
<tr>
<td>7000</td>
<td>Southern and Central Asian</td>
</tr>
<tr>
<td>7100</td>
<td>Southern Asian</td>
</tr>
<tr>
<td>7200</td>
<td>Central Asian</td>
</tr>
<tr>
<td>8000</td>
<td>People of the Americas</td>
</tr>
<tr>
<td>8100</td>
<td>North American</td>
</tr>
<tr>
<td>8200</td>
<td>South American</td>
</tr>
<tr>
<td>8300</td>
<td>Central American</td>
</tr>
<tr>
<td>8400</td>
<td>Caribbean Islander</td>
</tr>
<tr>
<td>9000</td>
<td>Sub-Saharan African</td>
</tr>
<tr>
<td>9100</td>
<td>Central and West African</td>
</tr>
<tr>
<td>9200</td>
<td>Southern and East African</td>
</tr>
</tbody>
</table>

**Administrative information**

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


**Related metadata**
METeOR ID:
1.13 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**
Core

**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?”

The classification is as follows:

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-Maori

**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

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Australian Centres</strong></td>
<td></td>
</tr>
<tr>
<td>AU_ABORIGINAL</td>
<td>Identifies as Aboriginal</td>
</tr>
<tr>
<td>AU_TORRES_STRAIT_ISLANDER</td>
<td>Identifies as Torres Strait Islander</td>
</tr>
<tr>
<td>AU_BOTH</td>
<td>Identifies as both Aboriginal and Torres Strait Islander</td>
</tr>
<tr>
<td>AU_NEITHER</td>
<td>Does not identify as Aboriginal or Torres Strait Islander</td>
</tr>
<tr>
<td><strong>New Zealand Centres</strong></td>
<td></td>
</tr>
<tr>
<td>NZ_MAORI</td>
<td>Identifies as Maori</td>
</tr>
<tr>
<td>NZ_NON_MAORI</td>
<td>Does not identify as Maori</td>
</tr>
</tbody>
</table>

Administrative information

References


Related metadata

METeOR ID: 291036
1.14 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
Core

Representational attributes

Guide for use
This metadata item is based on the Australian Bureau of Statistics (ABS) standard for classification of Languages 2nd 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 – 2nd level

Administrative information

References

Related metadata
METeOR ID: 460125
1.15 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
Non-core

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
N.N

Format
N.N

Unit of measure
Kilogram

Data domain

Administrative information

References

Related metadata
METeOR ID: 269938
1.16 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

**Administrative information**

**References**


**Related metadata**
1.17 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 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.

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


Related metadata
1.18 Gestation at Birth

Identifying and definitional attributes

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
Non-core

Representational attributes

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 information

References

Related metadata
METeOR ID:
### 1.19 Mode of Birth

**Identifying and definitional attributes**

**Definition**
The method of complete expulsion or extraction from its mother of a product of conception in a birth event.

**Justification**
Mode of birth is an environmental factor which may play a role in the cause of diabetes. This field is collected for the identification of risk groups.

**Obligation**
Non-core

**Representational attributes**

**Guide for use**
- In a vaginal breech with forceps to the after coming head, code as vaginal - forceps.
- In a vaginal breech that has been manually rotated, code as vaginal - normal.
- Where forceps/vacuum extraction are used to assist the extraction of the baby at caesarean section, code as caesarean section.
- Where a hysterectomy is performed to extract the baby, code as caesarean section.

**Validation rules**
Must be an allowable value (Error level 2)

**Related data element**

**Data type**
String

**Representational class**
Code

**Field size maximum**
16

**Data domain**

<table>
<thead>
<tr>
<th>Permissible values</th>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAESAREAN</td>
<td>Delivered by caesarean section</td>
<td></td>
</tr>
<tr>
<td>NVD</td>
<td>Normal vaginal delivery</td>
<td></td>
</tr>
<tr>
<td>FORCEPS_ASSISTED</td>
<td>Vaginal delivery with forceps/ assisted</td>
<td></td>
</tr>
</tbody>
</table>

**Administrative information**

**References**

**Related metadata**
METeOR ID: 295349
1.20 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**
Non-core

Representational attributes

**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
Related metadata
1.21 Date of Transfer of Care

Identifying and definitional attributes

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
Non-core

Representational attributes

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
1.22 Transfer To

Identifying and definitional attributes

**Definition**
The type of service to which the person has transferred.

**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**
Non-core

Representational attributes

**Guide for use**
Record the type of service to which the person was transferred according to the data domain below.

A tertiary Diabetes Service refers to a service where tertiary care, which is care from specialists after referral from primary or secondary care, is delivered.

A primary care provider is most often a General Practitioner but can be a Nurse Practitioner, who provides definitive care at the first point of contact, and takes continuing responsibility for providing the persons comprehensive care.

Private diabetes providers work from the Private Health System.

Validation rules

**Related data element**
Date of Transfer

**Data type**
String

**Representational class**
Code

**Field size maximum**
8

**Format**
Character

**Data domain**

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>TERTIARY</td>
<td>Person has transferred to a tertiary diabetes service</td>
</tr>
<tr>
<td>PRIMARY</td>
<td>Person has transferred to a primary care provider</td>
</tr>
<tr>
<td>PRIVATE</td>
<td>Person has transferred to a private diabetes provider</td>
</tr>
<tr>
<td>UNKNOWN</td>
<td>Service Person has transferred to is not recorded</td>
</tr>
</tbody>
</table>

Administrative information

**References**

**Related metadata**
1.23 Date of ADDN Withdrawal

Identifying and definitional attributes
Definition  The date of withdrawal of consent to ADDN
Justification  For use in the instance that an ADDN participant withdraws consent for their data to be collected in the ADDN Registry.

Obligation  Non-core

Representational attributes
Guide for use
Validation rules  Date is blank (Error level 1)

Related data element
Data type  Date/Time
Representational class  Date
Field size maximum  8
Format  YYYY-MM-DD

Data domain

Administrative information
References
Related metadata
1.24 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: Core

Representational attributes

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
1.25 Cause of Death

Identifying and definitional attributes

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
Non-core

Representational attributes

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

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>DKA</td>
<td>Cause of death Diabetic Ketoacidosis</td>
</tr>
<tr>
<td>HYPOGLYCAEMIA</td>
<td>Cause of death Hypoglycaemia</td>
</tr>
<tr>
<td>DEAD_IN_BED</td>
<td>Cause of death unknown and person died during sleep</td>
</tr>
<tr>
<td>SEPSIS</td>
<td>Cause of death sepsis</td>
</tr>
<tr>
<td>OTHER_DIABETESRELATED</td>
<td>Cause of death diabetes related and not already listed</td>
</tr>
<tr>
<td>NOT_DIABETESRELATED</td>
<td>Cause of death not diabetes related</td>
</tr>
</tbody>
</table>

## Administrative information

References

Related metadata
1.26 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
Non-core

Representational attributes

Guide for use

Validation rules
Cause of death is ‘OTHER_DIABETES_RELATED’ (Error level 2)

Related data element
Date Deceased

Data type
Free text

Administrative information

References

Related metadata
1.27 DNA Stored Indicator

Identifying and definitional attributes

Definition
An indicator of whether DNA has been extracted and stored from a tissue sample collected from the person, as represented by a code.

Justification
Collected for administrative purposes, to assist identifying persons who have DNA stored.

Obligation
Non-core

Representational attributes

Guide for use
Record whether DNA has been collected from the person and stored.

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:
1.28 HLA Data Available

Identifying and definitional attributes

Definition
HLA genotyping available

Justification
Collected as an important person characteristic which is associated with the development of type 1 diabetes and other autoimmune disease.

Obligation
Non-core

Representational attributes

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

Related metadata
1.29 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

Core

Representational attributes

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 secretory 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 diagnosis
- Date of Birth

### Data type
- String

### Representational class
- Code

### Field size maximum
- 11

### Format
- Character

### Data domain

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE_1</td>
<td>Diagnosis of Type 1 Diabetes</td>
</tr>
<tr>
<td>TYPE_2</td>
<td>Diagnosis of Type 2 Diabetes</td>
</tr>
<tr>
<td>GESTATIONAL</td>
<td>Diagnosis of Gestational Diabetes</td>
</tr>
<tr>
<td>MONOGENIC</td>
<td>Diagnosis of Monogenic Diabetes</td>
</tr>
<tr>
<td>CFRD</td>
<td>Diagnosis of Cystic Fibrosis Related Diabetes</td>
</tr>
<tr>
<td>NEONATAL</td>
<td>Diagnosis of Neonatal Diabetes</td>
</tr>
<tr>
<td>UNSPECIFIED</td>
<td>Diagnosis of diabetes, type not specified</td>
</tr>
<tr>
<td>OTHER</td>
<td>Diagnosis of diabetes type other than those listed</td>
</tr>
</tbody>
</table>

### Administrative information

### References

### Related metadata
- METeOR ID:
1.30 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
Non-core

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

Related metadata
1.31 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
Core

Representational attributes
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 or equal to date of birth and less than or equal to today’s date (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: 269930
1.32 Number of Days Hospitalised at Diagnosis

Identifying and definitional attributes

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
Non-core

Representational attributes

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 information

References

Related metadata
METeOR ID: 329889
1.33 Country at Diagnosis

Identifying and definitional attributes

Definition
The country the person was residing in when diagnosed.

Justification
Country where diagnosed used in demographic analyses.

Obligation
Core (Paediatric)

Representational attributes

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), 2nd 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

Related metadata
METeOR ID:
1.34 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
Core unless diagnosed overseas (Paediatric)

Representational attributes

Guide for use
For a full list of Australian postcodes visit the Australia Post website: www.austpost.com.au

For a full list of New Zealand postcodes visit New Zealand Post website: https://www.nzpost.co.nz

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

Format
N(4)

Data domain

Administrative information

References

Related metadata
METeOR ID:
1.35 Diabetic Ketoacidosis (DKA) at Diagnosis Indicator

Identifying and definitional attributes

**Definition** Indicates whether the person was diagnosed with Diabetic ketoacidosis at the time of diagnosis of diabetes.

**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** Core

Representational attributes

**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

Refer to the ISPAD Consensus Statement: Diabetes ketoacidosis and hyperglycemic hyperosmolar state (2014) for detailed information about diagnostic criteria.

**Validation rules** When false and values exist for pH and Bicarbonate - pH less than 7.3 and Bicarbonate less than 15 (error level 2)

**Data type** String

**Representational class** Code

**Field size maximum** 5

**Format**

**Data domain**

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>true</td>
<td>DKA at diagnosis of diabetes</td>
</tr>
<tr>
<td>false</td>
<td>No DKA at diagnosis of diabetes</td>
</tr>
</tbody>
</table>

Administrative information


**Related metadata** METeOR ID:
1.36 Current Postcode

Identifying and definitional attributes

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
Core

Representational attributes

Guide for use
For a full list of Australian postcodes visit the Australia Post website: www.austpost.com.au

For a full list of New Zealand postcodes visit New Zealand Post website: https://www.nzpost.co.nz

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:
1.37 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
Core

Representational attributes

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)

Related data element
CGM %
CGM Make
CGM Model
CGM

Data type
Date

Representational class

Field size maximum
2

Format
YYYY-MM-DD

Data domain

Administrative information

References

Related metadata
METeOR ID:
1.38  Diabetic Ketoacidosis - pH

Identifying and definitional attributes

Definition
The person’s 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
Non-core

Representational attributes

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

References

Related metadata
1.39  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  Non-core

Representational attributes

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.
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

Administrative information


Related metadata
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
Core

Representational attributes

Guide for use
Record comorbidity using the ADDN specific list to code disorder or disease. Where comorbidity is recorded as ‘other’ or ‘other-(system name) use free text to record the comorbidity in the ‘Comorbidity Other’ field.

For psychological disorders, comorbidity includes persons who are being treated with counselling and/or medication.

Validation rules
Must be an allowable value (Error level 1)

Related data element
Comorbidity Other

Data type
String

Representational class
Code

Field size maximum
37

Format

Data domain
OTHER_HAEMATOLOGICAL
THALASSAEMIA
OTHER_ENDOCRINE_NUTRITIONAL_METABOLIC
HYPOTHYROIDISM
HYPERTHYROIDISM
THYROID_AUTOIMMUNITY
WOLFRAM_SYNDROME
ADDISON_DISEASE
OVARIAN_FAILURE
POLYCYSTIC_OVARIAN_SYNDROME
OBESITY
DYSLIPIDAEMIA
HYPERCHOLESTEROLAEMIA
CYSTIC_FIBROSIS
OTHER_MENTAL_BEHAVIOURAL
DEPRESSION
NEEDLE_PHOBIA
ANXIETY
EATING_DISORDERS
ANOREXIA
BULIMIA
MENTAL_RETARDATION
AUTISM
ADD_ADHD
ADHD
ADD
OTHER_NERVOUS_SYSTEM
FRIEDREICH_ATAXIA
EPILEPSY
TIA
MONONEURITIS
PERIPHERAL_NEUROPATHY
MYOTONIC_DYSTROPHY
AUTONOMIC_NEUROPATHY
OTHER_EYE
CATARACTS
RETINOPATHY
NON_PROLIFERATIVE_RETINOPATHY
PROLIFERATIVE_RETINOPATHY
OTHER_CIRCULATORY_SYSTEM
HYPERTENSION
ANGINA
AMI
ANGIOPLASTY
BYPASS_GRAFT
HEART_FAILURE
STROKE
CAROTID_ARTERY_DISEASE
CLAUDICATION
AMPUTATION
OTHER_RESPIRATORY_SYSTEM
ASTHMA
OTHER_DIGESTIVE_SYSTEM
GASTROPARESIS
COELIAC_DISEASE
OTHER_SKIN_SUBCUTANEOUS_TISSUE
ULCERATION
INFECTION
OTHER_MUSCULOSKELETAL_SYSTEM
CHARCOTS_JOINT
OSTEOMYELITIS
OTHER_GENITOURINARY
ESRF
ALBUMINURIA
MICROALBUMINURIA
ERECTILE_DYSFUNCTION
OTHER_CONGENITAL_CHROMOSOMAL
Administrative information

References

Related metadata METeOR ID:
2.2 Comorbidity (Other)

Identifying and definitional attributes

Definition
The presence of a disease or disorder co-occurring with the diabetes in the person, not captured by the ADDN specific comorbidities list.

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
Non-core

Representational attributes

Guide for use

Validation rules
Comorbidity is "OTHER" or "OTHER _system name" (Error Level 2)

Related data element
Comorbidity

Data type
string

Representational class
free text

Field size maximum

Format

Data domain

Administrative information

References

Related metadata
METeOR ID:
2.3 Date of Diagnosis of Comorbidity

Identifying and definitional attributes
Definition The date the person with diabetes was first diagnosed with the comorbidity.

Justification

Obligation Non-core

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, Comorbidity Other, Date of Birth

Data type Date/time
Representational class Date
Field size maximum 8
Format YYYY-MM-DD

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 attributes

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

Related metadata
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 secretory 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. 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**
Mot 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)
<table>
<thead>
<tr>
<th>Related data element</th>
<th>Coeliac disease (First-degree Relative)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thyroid disease (First-degree Relative)</td>
</tr>
<tr>
<td></td>
<td>Other Autoimmune diseases (First-degree Relative)</td>
</tr>
<tr>
<td></td>
<td>Diabetes type Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data type</th>
<th>String</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representational class</td>
<td>Code</td>
</tr>
<tr>
<td>Field size maximum</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Format</th>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data domain</td>
<td>TYPE_1</td>
<td>Diagnosis of Type 1 Diabetes</td>
</tr>
<tr>
<td></td>
<td>TYPE_2</td>
<td>Diagnosis of Type 2 Diabetes</td>
</tr>
<tr>
<td></td>
<td>GESTATIONAL</td>
<td>Diagnosis of Gestational Diabetes</td>
</tr>
<tr>
<td></td>
<td>MONOGENIC</td>
<td>Diagnosis of Monogenic Diabetes</td>
</tr>
<tr>
<td></td>
<td>CFRD</td>
<td>Diagnosis of Cystic Fibrosis Related Diabetes</td>
</tr>
<tr>
<td></td>
<td>NEONATAL</td>
<td>Diagnosis of Neonatal Diabetes</td>
</tr>
<tr>
<td></td>
<td>UNSPECIFIED</td>
<td>Diagnosis of diabetes, type not specified</td>
</tr>
<tr>
<td></td>
<td>OTHER</td>
<td>Diagnosis of diabetes type other than those listed</td>
</tr>
</tbody>
</table>

**Administrative information**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Related metadata</td>
<td>METeOR ID:</td>
</tr>
</tbody>
</table>
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
Non-core

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

Related metadata
### 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 will provide information to improve understanding of the aetiology and natural history of diabetes.

**Obligation**
Required (or Diabetes Type 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 Diseases’ is required

Include only when the family member has been diagnosed with Coeliac

**Validation rules**
Not missing if Diabetes Type (First-degree Relative) or Thyroid Disease (First-degree Relative) or Other Autoimmune Disease (First-degree Relative) are missing (Error code 1)

**Related data element**
Diabetes Type (First-degree Relative)

Thyroid Disease (First-degree Relative)

Other Autoimmune Diseases (First-degree Relative)

**Data type**
String

**Representational class**
Code

**Field size maximum**
5

**Format**

<table>
<thead>
<tr>
<th>Data domain</th>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>true</td>
<td>Diagnosis of Coeliac disease</td>
</tr>
</tbody>
</table>

#### Administrative information

**References**

**Related metadata**
METeOR ID:
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 will provide information to improve understanding of the aetiology and natural history of diabetes.

Obligation
Required (or Diabetes Type or Coeliac 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 Diseases’ is required
Include only when the family member has been diagnosed with a Thyroid autoimmune disease

Validation rules
Not missing if Diabetes Type (First-degree Relative) or Coeliac Disease (First-degree Relative) or Other Autoimmune Disease (First-degree Relative) are missing (Error code 1)

Related data element
Diabetes Type (First-degree Relative)
Coeliac Disease (First-degree Relative)
Other Autoimmune Diseases (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

Related metadata
METeOR ID:
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 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 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

Related metadata
METeOR ID:
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 benchmarking purposes and to calculate duration of diabetes and age at time of visit.

Obligation
Mandatory
Core

Representational attributes

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 person’s 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
Core (if no HbA1c (IFFC))
Derived (if HbA1c (IFFC))

Representational attributes

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
Related metadata
METeOR ID: 589601
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
Core (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

Administrative information

References
Related metadata
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
Core

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

Related metadata
METeOR ID: 270361
4.5 Height SDS

Identifying and definitional attributes
Definition: Standard deviation score for height measured against a standardised population

Justification

Obligation: Derived

Representational attributes
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]

Related metadata
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          Core

Representational attributes
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 attributes
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]

Related metadata
4.9  Weight Percentile

**Identifying and definitional attributes**

**Definition**  Percentile weight as measured against a standardised population

**Justification**

**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**

**Related metadata**
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 attributes

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 <20 years.

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 attributes

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]

Related metadata
4.13 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: Non-core

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
4.14  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 attributes

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

Related metadata
4.15 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
Core

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
4.16  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

Related metadata
4.17 Systolic Blood Pressure Percentile

Identifying and definitional attributes

**Definition**
Percentile 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**

**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

Related metadata
4.18 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**
Core

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**

**Related metadata**
METeOR ID: 270072
4.19 Diastolic Blood Pressure SDS

Identifying and definitional attributes
Definition The standard deviation score of the persons diastolic blood pressure
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 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
References The Fourth Report On The Diagnosis, Evaluation, And Treatment Of High Blood Pressure In Children And Adolescents - NIH PUBLICATION NO. 05-5267

Related metadata
4.20 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

Related metadata
4.21 Islet Antibody positivity – Insulin autoantibody (IAA)

Identifying and definitional attributes

Definition: The person’s IAA status at diagnosis.

Justification: Insulin autoantibodies are one of the established markers of islet autoimmunity defining type 1 diabetes.

Obligation: Non-core

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 is positive for IAA
false | person is not positive for IAA

Administrative information

References

Related metadata
4.22 Islet Antibody positivity - IA-2 antibody

Identifying and definitional attributes

Definition  
The person’s IA-2 antibody status at diagnosis.

Justification  
IA-2 antibodies are one of the established markers of islet autoimmunity defining type 1 diabetes.

Obligation  
Non-core

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 is IA-2 positive

false  
person is not IA-2 positive

Administrative information

References

Related metadata
4.23 Islet antibody positivity - GAD antibody Indicator

Identifying and definitional attributes
Definition  The person’s GAD antibody status at diagnosis
Justification  Glutamic Acid Decarboxylase (GAD) are one of the established markers of islet autoimmunity defining type 1 diabetes

Obligation  Non-core

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 is GAD positive
false  Person is not GAD positive

Administrative information
References
Related metadata
4.24 Islet autoantibody positivity - ZnT8

Identifying and definitional attributes
Definition
The person’s ZnT8 Positivity status at diagnosis

Justification
Zinc Transporter 8 (ZnT8) Autoantibodies are one of the established markers of islet autoimmunity defining type 1 diabetes

Obligation
Non-core

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 is ZnT8 positive
false
person is not ZnT8 positive

Administrative information
References
Related metadata
4.25  ICA Positive Indicator

Identifying and definitional attributes

**Definition**  An indication of the person’s ICA positivity status

**Justification**  Positivity to Islet Cell Cytoplasmic Autoantibodies is recorded as an important source of information to help the understanding of the natural history of diabetes.

**Obligation**  Non-core

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**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>true</td>
<td>Person is ICA positive</td>
</tr>
<tr>
<td>false</td>
<td>person is not ICA positive</td>
</tr>
</tbody>
</table>

Administrative information

**References**

**Related metadata**
4.26 Insulin Regimen

Identifying and definitional attributes

Definition
The insulin regimen of the person at time of visit

Justification
Insulin is the mainstay of treatment for type 1 diabetes and surveillance of the methods of insulin delivery or regimens is an important aspect of benchmarking for determining which therapies are most effective.

Obligation
Core

Representational attributes

Guide for use
Record the method of insulin therapy at the time of visit.

CSII: the person is using continuous subcutaneous insulin infusion or ‘insulin pump therapy’ that is not DIY or HCL.

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: 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

BD: the person injects insulin at two time points per day

MDI: the person injects insulin on at least three time points per day

Other: the person is managed on an insulin regimen not described above. For example ‘one injection of insulin per day’.

CSII, DIY and HCL all indicate that ‘insulin pump therapy’ is being used.

Leave blank if no regimen recorded

Validation rules
The entry is an allowable value (Error level 2)

The entry is CSII, BD/Twice daily, DIY, HCL or MDI (Error level 3)

Related data element
ICR, ISF, No of injections per day, InsulinPump

Data type
String

Representational class
Code

Field size maximum
14

Format

Unit of measure

Data domain

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSII</td>
<td>continuous subcutaneous insulin infusion</td>
</tr>
<tr>
<td>BD_TWICE_DAILY</td>
<td>twice daily injections</td>
</tr>
<tr>
<td>MDI</td>
<td>at least 3 injection times per day</td>
</tr>
</tbody>
</table>
DIY  Do it yourself
HCL  Hybrid Closed Loop
OTHER  insulin regimen other than CSII, BD/Twice daily, MDI, DIY or HCL. Do not use if no regimen recorded for the visit

Administrative information


Related metadata
4.27 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
Core

Representational attributes
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 or DIY or HCL (Error level 3)
Entry is an allowable value (Error level 2)

Related data element
Insulin Regimen
InsulinPumpOther

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_UNSPECIFIED
INSULET_OTHER
MEDTRONIC_640
MEDTRONIC_640G
MEDTRONIC_640G_1551
MEDTRONIC_640G_1711
MEDTRONIC_640G_1751
MEDTRONIC_670G
MEDTRONIC_PARADIGM_515
MEDTRONIC_PARADIGM_522
MEDTRONIC_PARADIGM_554
MEDTRONIC_PARADIGM_715
MEDTRONIC_PARADIGM_722
MEDTRONIC_PARADIGM_754
MEDTRONIC_PARADIGM_757
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
OTHER
UNSPECIFIED

Administrative information
References
Related metadata
4.28 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 InsulinPump list
Justification
Obligation  Non-core

Representational attributes
Guide for use  Provide the Make and Model of the pump when the InsulinPump = ‘OTHER’.
Provide the Model of the pump when the model is not one in the list of InsulinPump
Validation rules  InsulinPump 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
Related metadata
4.29 Insulin to Carbohydrate Ratio (ICR) Indicator

Identifying and definitional attributes

Definition
An indication that the person calculates insulin doses given for meals and snacks by applying the ratio of units of insulin injected to number of carbohydrates eaten.

Justification

Obligation
Non-core

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

Related metadata
4.30 Insulin Sensitivity Factor (ISF) Indicator

Identifying and definitional attributes
Definition
An indication that the person calculates insulin doses given for high blood glucose by applying a measure of their sensitivity to insulin known as the insulin sensitivity factor

Justification

Obligation Non-core

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 The person uses an insulin sensitivity factor
true the person does not use an insulin sensitivity factor

Administrative information
References
Related metadata
4.31 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  Core when Regimen not CSII or DIY or HCL

Representational attributes
Guide for use
Validation rules  Not null if Regimen is not CSII / DIY / HCL (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
Related metadata
4.32 Insulin Product 1

Identifying and definitional attributes
Definition
The name of the insulin product used by the person at time of visit.
Justification

Obligation Core

Representational attributes
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 | Description
---|---|---
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
OTHER

Administrative information
References
Related metadata
4.33 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
Core

Representational attributes
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
Related metadata
4.34 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’

Justification

Obligation Core when more than 1 insulin used

Representational attributes

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 Description
ACTRAPID
HUMULIN_R
APIDRA
HUMALOG
NOVORAPID
HUMULIN_NPH
PROTOPHANE
LANTUS
PREMIX
LEVEMIR
HUMALOG_MIX_25
HUMALOG_MIX_50
HUMULIN_30_70
HUMULIN_50_50
MIKTARD_20_80
MIKTARD_30_70
MIKTARD_50_50
NOVOMIX_30
OTHER

Administrative information

References

Related metadata
4.35 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
Core 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

Related metadata
4.36 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
Core when more than 2 insulins used

Representational attributes

Guide for use
Only required for persons prescribed more than two insulin products

Validation rules
Is an allowable value (Error level 2)

Related data element

Data type
String

Representational class
Code

Field size maximum
14

Administrative information

References

Related metadata

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTRAPID</td>
<td></td>
</tr>
<tr>
<td>HUMULIN_R</td>
<td></td>
</tr>
<tr>
<td>APIDRA</td>
<td></td>
</tr>
<tr>
<td>HUMALOG</td>
<td></td>
</tr>
<tr>
<td>NOVORAPID</td>
<td></td>
</tr>
<tr>
<td>HUMULIN_NPH</td>
<td></td>
</tr>
<tr>
<td>PROTOPHANE</td>
<td></td>
</tr>
<tr>
<td>LANTUS</td>
<td></td>
</tr>
<tr>
<td>PREMIX</td>
<td></td>
</tr>
<tr>
<td>LEVEMIR</td>
<td></td>
</tr>
<tr>
<td>HUMALOG_MIX_25</td>
<td></td>
</tr>
<tr>
<td>HUMALOG_MIX_50</td>
<td></td>
</tr>
<tr>
<td>HUMULIN_30_70</td>
<td></td>
</tr>
<tr>
<td>HUMULIN_50_50</td>
<td></td>
</tr>
<tr>
<td>MIXTARD_20_80</td>
<td></td>
</tr>
<tr>
<td>MIXTARD_30_70</td>
<td></td>
</tr>
<tr>
<td>MIXTARD_50_50</td>
<td></td>
</tr>
<tr>
<td>NOVOMIX_30</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>
4.37 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**
Core when more than 2 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 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**

**Related metadata**

ADDN Data Dictionary v4.2 September 2018 - page 112
4.38 Insulin Product 4

Identifying and definitional attributes

Definition
The name of the insulin product used by the person at time of visit in addition to ‘Insulin 1’ ‘insulin 2’ and ‘insulin 3’

Justification

Obligation
Core when more than 3 insulins used

Representational attributes

Guide for use
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’

Validation rules
is an allowable value (Error 2)

Related data element

Data type
string

Representational class
code

Field size maximum
14

Format

Unit of measure

Data domain

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTRAPID</td>
<td></td>
</tr>
<tr>
<td>HUMULIN_R</td>
<td></td>
</tr>
<tr>
<td>APIDRA</td>
<td></td>
</tr>
<tr>
<td>HUMALOG</td>
<td></td>
</tr>
<tr>
<td>NOVORAPID</td>
<td></td>
</tr>
<tr>
<td>HUMULIN_NPH</td>
<td></td>
</tr>
<tr>
<td>PROTOPHANE</td>
<td></td>
</tr>
<tr>
<td>LANTUS</td>
<td></td>
</tr>
<tr>
<td>PREMIX</td>
<td></td>
</tr>
<tr>
<td>LEVEMIR</td>
<td></td>
</tr>
<tr>
<td>HUMALOG_MIX_25</td>
<td></td>
</tr>
<tr>
<td>HUMALOG_MIX_50</td>
<td></td>
</tr>
<tr>
<td>HUMULIN_30_70</td>
<td></td>
</tr>
<tr>
<td>HUMULIN_50_50</td>
<td></td>
</tr>
<tr>
<td>MIXTARD_20_80</td>
<td></td>
</tr>
<tr>
<td>MIXTARD_30_70</td>
<td></td>
</tr>
<tr>
<td>MIXTARD_50_50</td>
<td></td>
</tr>
<tr>
<td>NOVOMIX_30</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

Administrative information

References

Related metadata
4.39 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
Core 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

Related metadata
4.40 Total Daily Insulin Dose

Identifying and definitional attributes
Definition
The total number of units of insulin the person injects on a usual day

Justification

Obligation
Core

Representational attributes
Guide for use
Can be recorded manually. If missing will be derived from entries in insulin 1, insulin 2, insulin 3 and insulin 4

Validation rules
Must be greater than 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

Data type
Numeric

Representational class

Field size maximum
4

Format
nnn.n

Unit of measure
Units

Data domain
Value Description

Administrative information
References
Related metadata
4.41 Total Daily Dose Calculated Indicator

Identifying and definitional attributes

Definition
Indicates whether the total daily 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
Total Daily 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
true
false

Description
the entry at Total Daily Insulin Dose is a derived value
the entry at Total Daily Insulin dose is not a derived value

Administrative information

References
Related metadata
4.42 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 Core

Representational attributes

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 insulin 3 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

Related metadata
4.43 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**

**Related metadata**

ADDN Data Dictionary v4.2 September 2018 - page 118
4.44 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
Related metadata
4.45 Units Per Kilogram

Identifying and definitional attributes
Definition The number of units of insulin injected by the person on a usual day per kilo of body weight as measured at the visit
Justification
Obligation Derived

Representational attributes
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
Related metadata
4.46 SMBG Frequency Per Day

Identifying and definitional attributes

Definition
The average number of blood glucose measurements per day undertaken by the person or carer

Justification
Blood glucose monitoring is a self management behaviour that has been associated with glycaemic outcome.

Obligation
Core

Representational attributes

Guide for use
Average frequency of self-monitoring of blood glucose per day since last visit or if last visit more than 6 months ago then average frequency of self-monitoring of blood glucose per day in the last 6 months. If available use the 7 day average from glucometer.

Validation rules
Must be greater than or equal zero and 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

Administrative information

References
Related metadata
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. Evaluation of Federal government CGM schema is an ADDN project. Collected for the purpose of analysis of outcomes.

**Obligation**
Core

Representational attributes

**Guide for use**
Category of CGM device used since last visit or if last visit > 6 months ago then in the last 6 months.

To be recorded as per data domain below.

Retrospective CGM involves the wearing of a glucose sensor under the skin which delivers continuous 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.

iCGM 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.

Real-Time CGM involves the wearing of a glucose sensor under the skin which delivers continuous 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:

- **Pump algorithm** 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
- **Stand-alone** involves using a CGM device that is independent of an Insulin Pump e.g. Dexcom G5, G4 or Medtronic Guardian Connect

**Validation rules**
CGM Start Date not missing (Error level 3)
Related data element
CGM %
CGM Make
CGM Model
CGM Start Date

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

Related metadata
METeOR ID:
4.48 Continuous Glucose Monitoring Usage (CGM %)

Identifying and definitional attributes

Definition
An estimate of the percent of time the person has spent using a real-time CGM device since the 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. Evaluation of Federal government CGM schema is an ADDN project. Collected for the purpose of analysis of outcomes.

Obligation
Core

Representational attributes

Guide for use
Record any usage, continuous or intermittent, of a CGM real-time or iCGM device since the last visit or if the date of the last visit is greater than 6 months ago, record use of CGM in the past 6 months.

Whenever possible, record information downloaded from the CGM device as percentage of days used.

To be recorded as per data domain below.

Real-Time CGM involves the wearing of a glucose sensor under the skin which delivers continuous information to the receiver about current glucose levels and trends. This information is displayed on the receiver and is visible to the user.

If a patient has not used it but they are still on a CGM device, record the value as zero. If no value recorded, leave this field as blank at time of extraction.

Validation rules
CGM Start Date not missing (Error level 3)

Related data element
CGM Type
CGM Make
CGM Model
CGM Start Date

Data type
String

Representational class
Code

Field size maximum
36

Data domain

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZERO</td>
<td>CGM was not worn</td>
</tr>
<tr>
<td>LESS_THAN_TWENTY_FIVE</td>
<td>CGM has been worn less than 25% of time</td>
</tr>
<tr>
<td>TWENTY_FIVE_TO_FIFTY</td>
<td>CGM has been worn between 25% and 50% of time</td>
</tr>
</tbody>
</table>
GREATER_THAN_FIFTY_TO_SEVENTY_FIVE
CGM has been worn between 51% and 75% of time

GREATER_THAN_SEVENTY_FIVE
CGM has been worn more than 75% of time

Administrative information
References
Related metadata
4.49 CGM Make

Identifying and definitional attributes

**Definition**
The brand or manufacturer 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. Evaluation of Federal government CGM schema is an ADDN project. Collected for the purpose of analysis of outcomes

**Obligation**
Core

Representational attributes

**Guide for use**

**Validation rules**
Entry is an allowable value (Error level 2)
CGM Start Date not missing (Error level 3)

**Related data element**
CGM %
CGM Type
CGM Model
CGM Start Date

**Data type**
String

**Representational class**
Code

**Field size maximum**
12

**Format**

**Data domain**

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABBOT</td>
<td>Device brand is Abbot</td>
</tr>
<tr>
<td>DEXCOM</td>
<td>Device brand is Dexcom</td>
</tr>
<tr>
<td>MEDTRONIC</td>
<td>Device brand is Medtronic</td>
</tr>
<tr>
<td>OTHER</td>
<td>Device brand is other than Abbot, Dexcom or Medtronic</td>
</tr>
</tbody>
</table>

Administrative information

**References**
**Related metadata**
METeOR ID:
4.50 CGM Model

Identifying and definitional attributes

Definition: Model of CGM device in use by patient at 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. Evaluation of Federal government CGM schema is an ADDN project. Collected for the purpose of analysis of outcomes

Obligation: Core

Representational attributes

Guide for use: While this is a free format data item, for consistency the following suggestions for values are:

- G2
- G4
- G5
- FreeStyle Libre
- Guardian Connect
- Minilink

This is not an exclusive list
It is optional whether the CGM Make is included again in this data item

Validation rules

Related data element: CGM Make

Data type: String

Representational class: Free Text

Field size maximum: 

Format:

Data domain:

Administrative information

References

Related metadata: METeOR ID:
4.51 Severe Hypoglycaemia Episodes

Identifying and definitional attributes

**Definition**
The number of episodes of severe 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**
Core

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’.

**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 > 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:

“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**

**Unit of measure**

**Data domain**

**Administrative information**

**References**

**Related metadata**
METeOR ID: 302825 (adults)
4.52 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**
Core (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 maximum 3

Format nnn

Unit of measure

Data domain

Administrative information


Related metadata
4.53 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
Core

Representational attributes

Guide for use
Refer to the ISPAD Consensus Statement: Diabetes ketoacidosis and hyperglycemic hyperosmolar state (2014) for detailed information about diagnostic criteria.

Validation rules
Allowable values must be >=0 (Error code 2)

Related data element
Data type
Number

Field size maximum
3

Format
nnn

Unit of measure

Data domain

Administrative information

References

Related metadata
4.54  Hyperosmolar Hyperglycemic State Episodes (HHS)

Identifying and definitional attributes

Definition
The number of times the individual has been hospitalised in hyperosmolar hyperglycemic state since last visit or if last visit greater than 6 months ago then the number of episodes of HSS in the last 6 months.

Justification
HHS is a serious complication of diabetes with a high mortality rate that more frequently occurs in older people.

Obligation
Core (adults)

Representational attributes

Guide for use
Record the number of times the person has been hospitalised with hyperosmolar hyperglycemic state since last visit or if last visit > 6 months ago, then in the last 6 months.

Validation rules
Allowable values must be >=0 (error code 2)

Related data element
Number

Data type
Number

Representational class
Field size maximum
3
Format
nnn
Unit of measure
Data domain

Administrative information

References
Related metadata
4.55 Biological Samples Stored Indicator

Identifying and definitional attributes

Definition
An indication of whether a biological sample from the person has been stored at this visit

Justification

Obligation
Non-core

Representational attributes

Guide for use
Biological sample includes 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

Related metadata
### 4.56 Tanner Stage (Breast)

**Identifying and definitional attributes**

**Definition**
The Tanner Stage (breast) of the person at time of visit.

**Justification**
The tanner stage is a scale of physical development in children, adolescents and adults which provides an estimate of pubertal stage.

**Obligation**
Non-core

**Representational attributes**

**Guide for use**
Applicable to persons in puberty

**Validation rules**
Must be within range 1-5 (Error level 2)

**Related data element**

**Data type**
Number

**Representational class**

**Field size maximum**
1

**Format**
\( n \)

**Unit of measure**

**Data domain**

**Administrative information**

**References**

**Related metadata**
4.57 Tanner Stage (Genitalia)

Identifying and definitional attributes

Definition
The Tanner Stage (genitalia) of the person at the time of visit

Justification
The tanner stage is a scale of physical development in children, adolescents and adults which provides an estimate of pubertal stage.

Obligation
Non-core

Representational attributes

Guide for use

Validation rules
Must be within range 1-5 (Error level 2)
Must be male gender (Error level 2)

Related data element
gender

Data type
number

Representational class
Field size maximum
1

Format
n

Unit of measure

Data domain

Administrative information

References

Related metadata
4.58 Tanner Stage (Pubic Hair)

Identifying and definitional attributes
Definition The Tanner Stage (Pubic Hair) of the person at the time of visit
Justification The tanner stage is a scale of physical development in children, adolescents and adults which provides an estimate of pubertal stage.

Obligation Non-core

Representational attributes
Guide for use
Validation rules Must be within range 1-5 (Error level 2)

Related data element
Data type Number
Representational class
Field size maximum 1
Format n
Unit of measure
Data domain

Administrative information
References
Related metadata
4.59 Right Testicular Volume

Identifying and definitional attributes

**Definition**
The right testicular volume as measured in millilitres of the person at the time of visit

**Justification**
Testicular provides an estimate of pubertal stage.

**Obligation**
Non-core

Representational attributes

**Guide for use**

**Validation rules**
Must be greater than 0 and less than or equal to 30 (Error level 3)
Must be male gender (Error level 2)

**Related data element**
Gender

**Data type**
Number

**Representational class**

**Field size maximum**
2

**Format**
nn

**Unit of measure**
MILLILITRES (MLS)

Administrative information

**References**

**Related metadata**
4.60  Left Testicular Volume

Identifying and definitional attributes

Definition  The left testicular volume as measured in millilitres of the person at the time of visit

Justification  Testicular provides an estimate of pubertal stage.

Obligation  Non-core

Representational attributes

Guide for use

Validation rules  Must be greater than 0 and less than or equal to 30 (Error level 3)

Must be male gender (Error level 2)

Related data element  Gender

Data type  Number

Representational class

Field size maximum  2

Format  nn

Unit of measure  MILLILITRES (MLS)

Data domain

Administrative information

References

Related metadata
4.61 Fasting Lipids Indicator

Identifying and definitional attributes

Definition
An indication of whether the blood lipids have been measured whilst the person is in a state of fasting.

Justification

Obligation
Non-core

Representational attributes

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

Related metadata
4.62 Total Cholesterol

Identifying and definitional attributes
Definition
The persons total cholesterol measure in mmol/L
Justification

Obligation
Core

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 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

Administrative information
References
Related metadata
4.63 Triglycerides

**Identifying and definitional attributes**

**Definition**

The person’s triglycerides measured in mmol/L

**Justification**


**Obligation**

Core

**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**

3

**Field size maximum**

3

**Format**

nn.n

**Unit of measure**

mmol/L

**Data domain**


**Administrative information**

**References**

**Related metadata**


4.64 High Density Lipoproteins (HDL)

Identifying and definitional attributes
Definition
The persons High Density Lipoproteins measured in mmol/L
Justification

Obligation
Core

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
Related metadata
4.65 Low Density Lipoproteins (LDL)

Identifying and definitional attributes

Definition
The persons Low Density Lipoproteins measured in mmol/L

Justification

Obligation
Core

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

Data type
Number

Representational class

Field size maximum
3

Format
nn.n

Unit of measure
mmol/L

Data domain

Administrative information

References

Related metadata
4.66 Vitamin B12

Identifying and definitional attributes
Definition
The person’s level of Vitamin B12 in the blood measured in pmol/L
Justification

Obligation
Non-core

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
Related metadata
4.67 Haemoglobin

Identifying and definitional attributes
Definition
The persons Haemoglobin level in the blood measured in g/L

Justification

Obligation
Non-core

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
Related metadata
4.68 Serum Creatinine

Identifying and definitional attributes
Definition
The person’s serum creatinine level measured in mmol/L

Justification

Obligation
Non-core

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 20 or less than or equal to 400 (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
4.69 Free Thyroxine (FT4)

Identifying and definitional attributes

Definition
The person’s thyroxin level in the blood measured in pmol/L

Justification

Obligation
Non-core

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 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

Related metadata
4.70 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
Non-core

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

Data type
Number

Representational class

Field size maximum
5

Format
nnn.nn

Unit of measure
mU/L

Data domain

Administrative information

References

Related metadata
4.71 Vitamin D

**Identifying and definitional attributes**

**Definition**  The persons 25 Vitamin D level measured in nmol/L

**Justification**

**Obligation**  Non-core

**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**

**Related metadata**
4.72 Folate

Identifying and definitional attributes

Definition
The person’s folate level measured in nmol/L

Justification

Obligation
Non-core

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
Related metadata
4.73 Alkaline Phosphatase

Identifying and definitional attributes

Definition The person’s alkaline phosphatase level measured in IU/L
Justification A measure of liver function

Obligation Non-core

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 500 (Error level 3)

Related data element

Data type Number

Representational class

Field size maximum 3
Format nnn
Unit of measure IU/L

Administrative information

References
Related metadata
4.74 Bilirubin

Identifying and definitional attributes

Definition
The person’s bilirubin level measured in umol/L

Justification
A measure of liver function

Obligation
Non-core

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 40 (Error level 3)

Related data element

Data type
Number

Representational class

Field size maximum
2

Format
nn

Unit of measure
umol/L

Data domain

Administrative information

References

Related metadata
4.75 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
Non-core

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
Related metadata
4.76 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 Non-core

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
Related metadata
4.77 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 Non-core

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
Related metadata
4.78 Abnormal Peripheral Pulse Indicator

Identifying and definitional attributes
Definition Indicates whether an abnormal peripheral pulse is present in the person
Justification Peripheral vascular disease in the feet is a serious complication of diabetes. Collected for purposes of surveillance and analysis of complications
Obligation Non-core

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)
### 4.79 Albumin Creatinine Ratio (ACR)

#### Identifying and definitional attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>The person’s urine albumin creatinine ratio (ACR)</td>
</tr>
<tr>
<td><strong>Justification</strong></td>
<td>Renal disease is a 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.</td>
</tr>
</tbody>
</table>

#### Obligation
- Core (if AER not provided)

#### Representational attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Guide for use</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Validation rules</strong></td>
<td>Must be greater than or equal to zero or less than or equal to 50.0 (Error level 3)</td>
</tr>
<tr>
<td><strong>Related data element</strong></td>
<td>AER</td>
</tr>
<tr>
<td><strong>Data type</strong></td>
<td>Number</td>
</tr>
<tr>
<td><strong>Representational class</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Field size maximum</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td>nn.n</td>
</tr>
<tr>
<td><strong>Unit of measure</strong></td>
<td>milligram per millimole (mg/mmol)</td>
</tr>
</tbody>
</table>

#### Administrative information

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Related metadata</strong></td>
<td>METeOR ID: 594120</td>
</tr>
</tbody>
</table>
4.80 Urine Albumin Excretion Rate (AER)

Identifying and definitional attributes

Definition
The person’s urine albumin excretion rate.

Justification
Renal disease is a 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
Core (if ACR not provided)

Representational attributes

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

Related metadata
METeOR ID: 270336
4.81 Smoking

Identifying and definitional attributes
Definition
The persons current and past smoking behaviour

Justification
Tobacco consumption increases a person’s risk for the development of diabetes complications. Smoker type is used to define subpopulations of adults based on their smoking behaviour

Obligation
Non-core

Representational attributes

Guide for use
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
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
4.82 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
Non-core

Representational attributes
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
Related metadata
4.83  PDR (Proliferative Diabetic Retinopathy)

Identifying and definitional attributes

Definition  Indicate if a person has PDR – neovascularisation - new retinal blood vessels

Justification  Retinopathy is a serious complication of Diabetes

Obligation  Non-core

Representational attributes

Guide for use  Set to ‘true’ if patient has 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

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>true</td>
<td>Person has PDR</td>
</tr>
<tr>
<td>false</td>
<td>Person does not have PDR</td>
</tr>
</tbody>
</table>

Administrative information

References

Related metadata
4.84 Maculopathy

Identifying and definitional attributes
Definition
Indicate if a person has Maculopathy - leakage of vessels close to the centre of the macula leading to macular oedema

Justification
This is a serious complication of Diabetes

Obligation
Non-core

Representational attributes
Guide for use
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
<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>true</td>
<td>Person has Maculopathy</td>
</tr>
<tr>
<td>false</td>
<td>Person does not have Maculopathy</td>
</tr>
</tbody>
</table>

Administrative information

References

Related metadata
4.85 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: Non-core

Representational attributes
Guide for use: Set to ‘true’ if patient has a cataract, 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
false | Person does not have cataract

Administrative information
References
Related metadata
4.86 Cataract Extraction

Identifying and definitional attributes
Definition
Indicate if a person has a cataract extraction and therefore no longer has a Cataract

Justification
Cataract is a serious complication of Diabetes

Obligation
Non-core

Representational attributes
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
Related metadata
4.87 Focal Laser

Identifying and definitional attributes

**Definition**
Indicate if a person has Focal Laser treatment

**Justification**

**Obligation**
Non-core

Representational attributes

**Guide for use**
Set to ‘true’ if patient has a Focal Laser treatment, otherwise set to ‘false’

**Validation rules**

**Related data element**

<table>
<thead>
<tr>
<th>Data type</th>
<th>String</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representational class</td>
<td>Code</td>
</tr>
<tr>
<td>Field size maximum</td>
<td>3</td>
</tr>
</tbody>
</table>

**Administrative information**

**References**

**Related metadata**
4.88 Panretinal Photocoagulation

Identifying and definitional attributes
Definition
Indicate if a person has Panretinal photocoagulation
Justification
Retinopathy is a serious complication of Diabetes
Obligation
Non-core

Representational attributes
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
Related metadata
4.89 Vitreal Injection

Identifying and definitional attributes
Definition: Indicate if a person has had Vitreal injection(s)
Justification: Retinopathy is a serious complication of Diabetes. Vitreal injections are usually indicative of presence of macular oedema.

Obligation: Non-core

Representational attributes
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
Related metadata
4.90  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 attributes

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/1.73m²

Data domain

Administrative information

References  Age at visit < 19 years old – ACE Inhibitors and Statins in Adolescents with Type 1 Diabetes¹

Age at visit ≥ 19 years old – CKD-EPI eGFR equation²

Related metadata  METeor ID:


5 Medication Fields
5.1 Medication Name

Identifying and definitional attributes
Definition
The 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
Related metadata
5.2 Medication Start Date

Identifying and definitional attributes
Definition The date the medication was commenced
Justification

Obligation Non-core

Representational attributes
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
Related metadata
5.3 Medication End Date

Identifying and definitional attributes
Definition
The date the medication was ceased

Justification

Obligation
Non-core

Representational attributes
Guide for use

Validation rules
Must be greater or equal to the start date and less than or equal to today's 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

Related metadata
Appendix
## Version History

<table>
<thead>
<tr>
<th>Date</th>
<th>Author</th>
<th>Version</th>
<th>Change Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>13/12/2016</td>
<td>MT Mok</td>
<td>0.01</td>
<td>Original document</td>
</tr>
<tr>
<td>16/05/2017</td>
<td>H Phelan</td>
<td>2.0</td>
<td>This version reflects the excel version 2.0</td>
</tr>
<tr>
<td>5/06/2017</td>
<td>J Makin</td>
<td>V2.1</td>
<td>Updated according to the schema. General formatting changes</td>
</tr>
<tr>
<td>26/6/2017</td>
<td>J Makin</td>
<td>V2.2</td>
<td>Further updates</td>
</tr>
<tr>
<td>23/08/2017</td>
<td>H Phelan</td>
<td>V2.1.1</td>
<td>Further updates. Version number changed to reflect current version number of the excel spread sheet data dictionary</td>
</tr>
<tr>
<td>24/8/17</td>
<td>H Clapin, J Makin</td>
<td>V2.1.1</td>
<td>Further updates</td>
</tr>
<tr>
<td>15/09/17</td>
<td>H Phelan</td>
<td>V2.2.2</td>
<td>Updated in prep for face to face ADDN meeting</td>
</tr>
<tr>
<td>30/10/17</td>
<td>J Makin</td>
<td>V2.2.1</td>
<td>Updated after Steering Committee Face to Face meeting and including CGM fields for CGM evaluation</td>
</tr>
<tr>
<td>24/11/17</td>
<td>J Makin</td>
<td>V2.2.1</td>
<td>Update values for CGM %, add paragraph for Guide for Use for HbA1c</td>
</tr>
<tr>
<td>28/11/17</td>
<td>J Makin, MT Mok</td>
<td>V3.0</td>
<td>Finalise for distribution; format updates</td>
</tr>
<tr>
<td>14/12/17</td>
<td>J Makin</td>
<td>V3.1</td>
<td>Removed Autoimmune Disease and added Coeliac disease and thyroid disease for Family History</td>
</tr>
<tr>
<td>16/07/18</td>
<td>MT Mok</td>
<td>V3.1.1</td>
<td>%CGM</td>
</tr>
<tr>
<td>19/07/18</td>
<td>J Makin</td>
<td>V3.1.1</td>
<td>Changed USI to BioGrid ID. Changed range for ACR and AER</td>
</tr>
<tr>
<td>19/07/18</td>
<td>J Makin</td>
<td>V3.1.1</td>
<td>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.</td>
</tr>
<tr>
<td>11/09/18</td>
<td>MT Mok</td>
<td>V3.1.2</td>
<td>Revised Gender – from ‘Undetermined’ to ‘Indeterminate’</td>
</tr>
<tr>
<td>Date</td>
<td>Author</td>
<td>Version</td>
<td>Change Reference</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>---------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>25/09/18</td>
<td>J Makin</td>
<td>V3.1.3</td>
<td>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.</td>
</tr>
<tr>
<td>26/09/18</td>
<td>MT Mok</td>
<td>V3.1.4</td>
<td>Updated Insulin Pump Model, CGM Model.</td>
</tr>
<tr>
<td>02/10/18</td>
<td>P Colman</td>
<td>V3.1.5</td>
<td>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 Panretinopahy Photocoagulaton to Panretinal Photocoagulaton. Renamed Intraocular Injections to Vitreal Injections</td>
</tr>
<tr>
<td>08/10/18</td>
<td>J Makin</td>
<td>V3.1.6</td>
<td>Added eGFR to Visit.</td>
</tr>
<tr>
<td>11/10/18</td>
<td>J Makin</td>
<td>V3.1.7</td>
<td>Added DIY and HCL to Insulin regimen. Removed range on AER. Finalised eGFR validation. Corrected validation for DKA at diagnosis</td>
</tr>
<tr>
<td>18/10/18</td>
<td>MT Mok</td>
<td>V4.0</td>
<td>Promoted to final version after Steering Committee approval</td>
</tr>
<tr>
<td>22/11/18</td>
<td>J Makin</td>
<td>V4.1</td>
<td>Moved data items pH and Bicarbonate from Visit to Patient. Added back into 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</td>
</tr>
<tr>
<td>26/2/19</td>
<td>J Makin</td>
<td>V4.2</td>
<td>Added References for eGFR Corrected unit of measure for Serum Creatinine</td>
</tr>
</tbody>
</table>
## Associated Documents

<table>
<thead>
<tr>
<th>No</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>ADDN Data Dictionary.xls</td>
</tr>
<tr>
<td>2.</td>
<td>addnExport.xsd</td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>