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# **Observation**

## **Data Specifications**

Version 1.1 - 29/02/2008

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# Document information

## Change history

Version	Date	Comments
1.0	29.06.2007	Initial public release
1.1	29.02.2008	<ol style="list-style-type: none"><li>1. minor typographical corrections and wording changes in Introduction</li><li>2. Figure 1 in Introduction updated to show more comprehensive information</li><li>3. there are no significant alterations that affect the data structure or use of this document</li></ol>

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- Standards Australia;
- Royal Australian College of General Practitioners;
- Society of Hospital Pharmacists of Australia;
- Members of the Australian DataTypes Project;
- Australian Institute of Health & Welfare; and
- Ocean Informatics.

# Contents page

<b>Document information</b> .....	<b>3</b>
<b>Acknowledgements</b> .....	<b>4</b>
<b>Contents page</b> .....	<b>5</b>
<b>1 Introduction</b> .....	<b>6</b>
1.1 Purpose and Scope .....	6
1.2 Intended Audience .....	6
1.3 Background .....	6
1.4 NEHTA Clinical Standards Metamodel .....	6
1.5 Terminology .....	9
<b>2 Specifications</b> .....	<b>10</b>
2.1 Obligation Legend .....	10
2.2 NEHTA Data Specifications ICON Legend .....	10
<b>Observation</b> .....	<b>14</b>
<b>Observation Description</b> .....	<b>16</b>
Observation Description values .....	17
<b>Observation Result</b> .....	<b>18</b>
<b>Reference Range</b> .....	<b>19</b>
<b>Observation Abnormal Flag</b> .....	<b>20</b>
Abnormal Flag values .....	21
<b>Observation Note</b> .....	<b>22</b>
<b>Information Provided By</b> .....	<b>23</b>
Information Provided By values .....	24
<b>Observer Identification</b> .....	<b>25</b>
<b>DateTime of Observation</b> .....	<b>27</b>
<b>Acronyms</b> .....	<b>28</b>
<b>Index</b> .....	<b>29</b>

# 1 Introduction

## 1.1 Purpose and Scope

The Observation data group specification forms part of a suite of data specifications that NEHTA is developing for the Australian Health Informatics Community. The suite comprises specifications for a range of health topics (represented as “data groups”), which are generally agreed to be of high priority to standardise in order to achieve the benefits brought about by Level 4 (semantic) interoperability in the Australian health care setting.

## 1.2 Intended Audience

This document is intended to be read by jurisdictional ICT managers, clinicians involved in Clinical Information System specifications, software architects and developers, and implementers of Clinical Information Systems in various health care settings.

It is reasonably technical in nature and expects the audience to be familiar with the language of health data specification and have some familiarity with health information standards and specifications. Definitions and examples are provided to clarify relevant terminology usage and intent.

## 1.3 Background

There are several e-health priority areas to be addressed by NEHTA specifications. One area of priority is identification of the data to be communicated and its structure. NEHTA is addressing this through Data Specifications which detail the Data Elements (logically grouped), and their associated value domains.

Data Specifications need to be independent of messaging formats. They are concerned with providing an information framework in which to achieve semantic interoperability.

Data specifications have been developed:

- Based on jurisdiction and clinician identified priorities;
- Specifically to suit the Australian model for a shared EHR;
- To define collections of related information, i.e. event summaries, data groups, data elements;
- To allow for expansion and extension as electronic systems mature;
- So they are ‘human readable’, (with information enhanced by the hierarchical structure);
- Incorporating clinical examples of use to enhance utility and adoption; and
- To provide a set of clinical terminologies, specific to the requirements of the Australian healthcare system.

Whilst shared EHR is referred to in these documents the implementation of the shared EHR is not dealt with here.

## 1.4 NEHTA Clinical Standards Metamodel

The NEHTA Event Summary and Clinical Data Standards metamodel is used to provide a high level overview of a family of structured documents which includes Observation. Within this metamodel, clinical information is organised hierarchically into five levels:

- Event Summary;
- Section;
- Data Group;
- Data Element; and
- Value Domain.

Event summary collection in a Shared EHR System shows the role and structure of an event summary in a shared EHR environment.

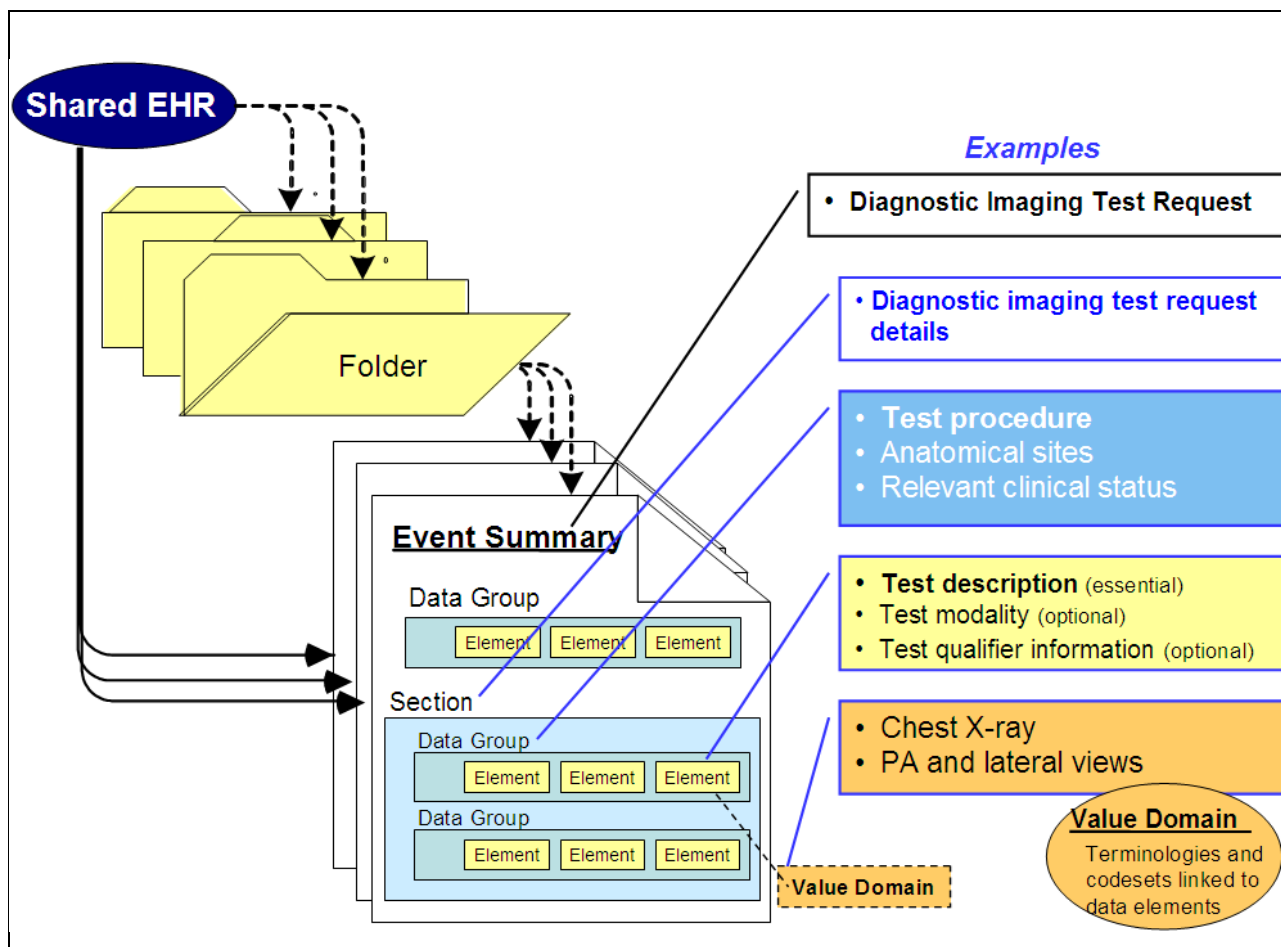


Figure 1 Event summary collection in a Shared EHR System

### 1.4.1 Event Summary

An event summary is a collection of health information pertinent to a subject of care and is derived from a healthcare event that is relevant to the ongoing care of that individual. The event summary (which is one of a family of care record summaries) is composed of one or more data groups and/or possibly data elements, which are organised into section(s) (see Section below).

Examples of commonly used care record summaries include Referral, Hospital Discharge and Diagnostic Imaging Results.

### 1.4.2 Section

The contents of an event summary may be organised into one or more sections. A section is an organising container. Its purpose is to organise information in the manner that is suitable for the primary purpose it is collected, and that is useful for healthcare providers. A section also provides a way to navigate through the data items within an event summary, thereby enabling more efficient querying to be made.

### 1.4.3 Data Group

A data group is a composite data structure (a collection of data elements or smaller data groups) for holding related items of information. Values of all the component data elements are often required to provide unambiguous meaning in a given context. A data group "organises" the data it holds. A data group can only be assigned values through the data elements that are contained within it. Examples of data groups are ADVERSE REACTION, ALERT, and MEDICATION.

### 1.4.4 Data Element

A data element is the smallest named unit of information in the model that can be assigned a value. Data elements are identified as being either simple or as a component.

A component data element is one that occurs as a member of a composite data structure. A data element that occurs in a segment outside the defined boundaries of a composite data structure is identified as a simple data element. The distinction between simple and component data elements is strictly a matter of context since a data element can be used in either capacity<sup>1</sup>.

The permissible values for a data element are constrained by a value domain (see Value Domain).

The same data element can be reused in any number of data groups; e.g. the "DateTime:Start" data element is used in both the ADVERSE REACTION and the ALERT data groups, however a data element may refer to different value domains depending on the context in which it is used.

### 1.4.5 Value Domain

A value domain constrains the permissible values for a data element. The value domain may specify the type of data value that is valid for a specific data element or be more specific about the coding system the values are drawn from or subset of codes. The values may be a subset of values based on a generic data type. Value domains are reusable components and therefore, the same value domain can be referred to by different data elements in different situations.

Value domains constrain by either specifying a lower and/or upper bound on the range of permissible values or else specify a finite set of prescribed values. Such a set of prescribed values can be specified directly with the definition of the data element, or in a separate but associated specification or else by reference to one or more external vocabulary/terminology sets. Value domain examples (below) are shown below:

Data Element	Data Type	Example of Value Set	Example of Value Domain
Severity	Coded text	Code-set that describes severity of problem, diagnosis, or allergic reaction	"mild", "disabling", "life threatening"
Diagnosis	Coded text	Code set that describe diagnosis, problems, or issues	Valid SNOMED-CT codes drawn from the disorders hierarchy

Table 1: Value domain examples

### 1.4.6 Classification Scheme

A classification scheme is a terminological system used to classify objects. It is organised in some specified structure, limited in content by a scope, and designed for assigning objects to concepts defined within it. Concepts are usually assigned to an object by linking the terms representing those concepts in the terminological system to the object. This process is called classification, and the terms assigned through classification are used for retrieval. In general, any terminological system is a classification scheme if its intent is for classifying objects<sup>2</sup>.

A classification scheme is used to encompass terminologies and vocabularies used for various uses such as direct clinical use and statistical analysis. Classification schemes are referred to in NEHTA's data specifications where they exist externally and are required in value domains. Often these classifications schemes are underpinned by a set of codes, where each code maps to one or more entries in the classification scheme. Classification schemes are sometimes referred to as codesets.

1. Adapted from the Texas Department of State Health Services, *THCIC Hospital Discharge Data Collection*, THCIC 837\ Technical Specifications (version 13), November 19, 2004.
2. As defined by ISO/IEC 11179.

A value domain may consist of permissible values sourced from zero or more existing, external classification schemes, depending upon the completeness and sufficiency of those classification schemes. Values that are not available in one classification scheme may be obtained from other classification schemes, or depending upon the context and/or local system requirements, a preferred classification scheme may be used from a selection of valid classification schemes for that value domain.

## 1.5 Terminology

NEHTA is defining a national approach to clinical terminology. An interim licence with the College of American Pathology (CAP) for use of SNOMED CT® within Australia was in place from 2006. The International Health Terminology Standards Development Organisation (IHTSDO) was formed in April 2007 and Australia is one of the foundation member countries. New national SNOMED CT licence arrangements are now in place, managed by NEHTA.

Although SNOMED CT is a comprehensive clinical reference terminology it is recognised that this does not provide a total solution and will need to be supplemented by local extensions. NEHTA is therefore establishing a National Terminology Service to manage Australian extensions to SNOMED CT. The primary hierarchies of SNOMED CT which are relevant are:

- Observable Entity for the Observation Description, and
- Clinical Finding for the Observation Result.

## 2 Specifications




The objective of this specification is to provide detailed information regarding the data elements (and their associative hierarchies and value domains) relevant to the transfer of information within the Observation domain.

The specification references other data group information, the details of which may be found in other NEHTA Specifications.

A Section can be thought of as an organisational heading. A data group is a collection of related data elements and/or data groups that can be treated as a single block, which might be subject to cardinality and obligation constraints.

### 2.1 Obligation Legend

In the following specifications, data obligation may be categorised as:

- Essential:**  Indicating that the data item is considered to be a core component of information and required in order for the entry to make sense, e.g. Alert without an Alert description does not make sense;
- Desirable:**  Indicating that the data item is considered worthy of being supplied where the data is known. The data item is deemed important in terms of providing additional or supplementary information in conjunction with essential data items. The data item should be supplied to provide as much context as possible for users to make informed decisions and/or to support various implementation requirements such as efficient indexing, querying and electronic decision support;
- Optional:**  Indicating that the data item may be supplied if required within a context and if the data is available, but it is not necessary for the data entry to make sense. It is recognised that for more complex or specialised healthcare provider settings, some items deemed optional may be viewed essential to them; or
- Conditional:** *a→b* Indicating that the data item is required on the condition of some other data item(s) being supplied, or based on the value(s) of another data item(s).

### 2.2 NEHTA Data Specifications ICON Legend







Icon	Metadata Types
	Event Summary
	Sections
	Packages
	Data Groups
	Data Elements
	Value Domains

Table 3 Metadata types





Icon	Explanation
	"Choice data group" - a single data group to be chosen from a set of data groups. Data groups of the same hierarchical depth within a hierarchical data group that make up a "choice set" are indicted using this icon.
	Multiple occurrences.*
	Externally sourced specifications.
	Externally sourced Data Group Specifications.

Table 4 Other Icons







Icon	Datatype	Explanation
	Text	Character strings (with optional language). Unless otherwise constrained by an implementation, can be any combination of alpha, numeric or symbols from the Unicode character set. (Sometimes referred to as free text).
	CodedText	Coded text <i>without</i> exceptions; text with code mappings.
	CodeableText	Coded text with exceptions; flexible datatype to support various ways of holding text, both free text, coded text and combinations of free + coded.
	DateTime	Used for specifying a single date and/or time. Has the ability to indicate a level of precision, as well as an indication that the date/time is estimated. String representations of known dates should conform to ISO 8601.
	Duration	The period of time during which something continues.  <b>Usage/Examples</b> Example (1) 3 hours. Example (2) 6 months. Example (3) 1 year.
	Number	A whole number or positive integer, and where (according to ISO 11404) - <i>integer</i> is the mathematical datatype comprising the exact integral values  <b>Usage/Examples</b> Example (1) 1. Example (2) 50. Example (3) 125.

Table 5 Datatypes






Icon	Datatype	Explanation
	Boolean	A value of true or false.  <b>Usage/Example</b> Example (1) An actual value entered by the user might be "yes" or could be chosen by a mouse click on an icon such as <input checked="" type="checkbox"/>
<b>ID</b>	UniqueIdentifier	A general unique identifier to identify a physical or virtual object or concept.
	TimeInterval	Two Date/Time values that define the initial and later points in time.  <b>Usage/Examples</b> Example (1) 12:00 – 18:00. Example (2) 1:30 a.m. – 6:00 p.m.
	Quantity	Used for recording many real world measurements and observations. Consists of the property being recorded, the magnitude value, and the units. It may also include precision and number of decimal places.  <b>Usage/Examples</b> Example (1) Property = width. Example (2) Units = centimetres. Example (3) Value = 100.
	QuantityRange	Two <i>Quantity</i> values that define the minimum and maximum values, i.e. lower and upper bounds. This is typically used for defining the valid range of values for a particular measurement or observation.  <b>Usage/Examples</b> Example (1) Temperature range of -20 to 100 °C Example (2) 30-50 mg of a prescribed drug.
	EncapsulatedData	Used to specify how to supply metadata such as the type of data encapsulated (such as JPEG images, HTML, etc. using RFC 1521 MIME types), whether the data is inline or passed by reference, what character set is used to encode the data, any low resolution "thumbnail" representation included, any compression algorithm or integrity check information included.

Table 5 Datatypes


Icon	Datatype	Explanation
	Link	<p>This is a general link, reference or pointer to an object, data, or application that exists logically or stored electronically in a computer system.</p> <p><b>Usage/Examples</b></p> <p>Example (1) URL (Uniform Resource Locator) – the World Wide Web address of a site on the Internet, such as the URL for the Google Internet search engine – “<a href="http://www.google.com">http://www.google.com</a>”.</p> <p>Example (2) An absolute or relative path within a file/directory structure – e.g. in Windows operating system, the ‘link’ or absolute path to a particular letter (Word document) may be – “C:\Documents and Settings\guestUser\My Documents\Letter.doc”.</p>
A:B	Ratio	<p>The relative magnitudes of two Quantity values (usually expressed as a quotient).</p> <p><b>Usage/Examples</b></p> <p>Example (1) 1/3. Example (2) 1:3.</p>
a,b,c...	Sequence	<p>Ordered collection of items.</p> <p><b>Usage/Example</b></p> <p>Example (1) A person’s given names, e.g. “David Phillip Andrew” would be held as 3 items grouped in order to form a single entity.</p>
{b,a,c}	Set	<p>Unordered collection of items with values that must be unique within the set.</p>

Table 5 Datatypes

# OBSERVATION

## Identification

<b>Name</b>	OBSERVATION	
<b>Metadata Type</b>	Data Group	
<b>Identifier</b>	DG-029	<i>External Identifier</i>
<b>Version</b>	1.0	

## Definition

<b>Definition</b>	Observations that may be subjective (e.g. symptoms, appearance, etc.) or objective (e.g. weight, heart rate, blood pressure, blood sugar etc.).
<b>Definition Source</b>	NEHTA
<b>Synonymous Names</b>	Clinical observation, Measurement.
<b>Scope</b>	This data group will capture first hand results, observations and measurements made at physical clinical examination and/or clinical monitoring. It indicates the observable manifestation of an underlying physiological state.
<b>Scope Source</b>	NEHTA
<b>Assumptions</b>	

## Hierarchical Structure

OBSERVATION		Obligation O denotes optional
 OBSERVATION		
$T/T_{010}$ Observation Description		!
 $T/T_{010}$ Observation Result		!
 Reference Range		O
$T/T_{010}$ Observation Abnormal Flag		O
<b>T</b> Observation Note		O
 Observer Identification		!
 DateTime of Observation		!
$T_{010}$ Information Provided By		O

## Usage

<b>Conditions of Use</b>	This data group is repeated for every instance of an observation.
<b>Conditions of Use Source</b>	NEHTA
<b>Misuse</b>	

## Data Flow

<b>Sender Type</b>	Either system or human.
<b>Sender Role(s)/Organisation(s)/Jurisdiction(s)</b>	Sender Role(s) can include: Healthcare provider. Sender Organisation(s) can include: Healthcare institution, Medical practice.
<b>Recipient Type</b>	Either system or human.
<b>Recipient Role(s)/Organisation(s)/Jurisdiction(s)</b>	Recipient Role(s) can include: Healthcare provider. Recipient Organisation(s) can include: Healthcare institution, Medical practice.

## Relationships

## Children

Data Type	Name	Version	Obligation	Condition	Occurrence
<b>T/T</b> <sub>010</sub>	Observation Description	1.0	Essential		Single
 /  ↑↓ / <b>T/T</b> <sub>010</sub>	Observation Result	1.0	Essential		Single
 ↑↓	Reference Range	1.0	Optional		Single
<b>T/T</b> <sub>010</sub>	Observation Abnormal Flag	1.0	Optional		Single
<b>T</b>	Observation Note	1.0	Optional		Single
<b>T</b> <sub>010</sub>	Information Provided By	1.0	Optional		Single
	Observer Identification	1.0	Essential		Single
	DateTime of Observation	1.0	Essential		Single

## Observation Description

### Identification

<b>Name</b>	Observation Description		
<b>Metadata Type</b>	Data Element		
<b>Identifier</b>	DE-215	<i>External Identifier</i>	
<b>Version</b>	1.0		

### Definition

<b>Definition</b>	A description of the type of observation undertaken.		
<b>Definition Source</b>	NEHTA		
<b>Synonymous Names</b>			
<b>Context</b>			
<b>Context Source</b>			
<b>Assumptions</b>			
<b>Data Type</b>	CodeableText		
<b>Value Domain</b>	Observation Description values		

### Usage


<b>Conditions of Use</b>			
<b>Conditions of Use Source</b>			
<b>Examples</b>	Example 1) Blood Pressure. Example 2) Apgar 1 minute. Example 3) Temperature.		
<b>Misuse</b>			

### Data Flow

<b>Sender Type</b>	Either system or human.		
<b>Sender Role(s)/Organisation(s)/Jurisdiction(s)</b>	Sender Role(s) can include: Healthcare provider. Sender Organisation(s) can include: Healthcare institution, Medical practice.		
<b>Recipient Type</b>	Either system or human.		
<b>Recipient Role(s)/Organisation(s)/Jurisdiction(s)</b>	Recipient Role(s) can include: Healthcare provider. Recipient Organisation(s) can include: Healthcare institution, Medical practice.		

### Relationships

#### Parents

Data Type	Name	Version	Obligation within parent	Condition within parent	Occurrence within parent
	OBSERVATION	1.0	Essential		Single

## VD Observation Description values

### Identification

<b>Name</b>	Observation Description values
<b>Metadata Type</b>	Value Domain
<b>Identifier</b>	VD-135
<b>Version</b>	1.0

### Definition

<b>Definition</b>	A description of the type of observation undertaken.
<b>Definition Source</b>	NEHTA

### Value Domain

<b>Source</b>	
<b>Version Number</b>	
<b>Permissible Values</b>	Use Local terminology until a national standard is defined.

### Usage

<b>Default Value</b>	
<b>Conditions of Use</b>	The value domain options are mutually exclusive and cannot be used in conjunction with each other.
<b>Conditions of Use Source</b>	NEHTA
<b>Misuse</b>	

### Relationships

#### Parents

Data Type	Name	Version
<b>T/T</b> <sub>010</sub>	Observation Description	1.0

## Observation Result

### Identification

<b>Name</b>	Observation Result		
<b>Metadata Type</b>	Data Element		
<b>Identifier</b>	DE-216	<i>External Identifier</i>	
<b>Version</b>	1.0		

### Definition

<b>Definition</b>	The outcome of the observation undertaken.		
<b>Definition Source</b>			
<b>Synonymous Names</b>			
<b>Context</b>			
<b>Context Source</b>			
<b>Assumptions</b>			
<b>Data Type</b>	QuantityRange		
<b>Value Domain</b>			

### Usage


<b>Conditions of Use</b>			
<b>Conditions of Use Source</b>			
<b>Examples</b>			
<b>Misuse</b>	Recording an outcome or prognosis of a course of treatment.		

### Data Flow

<b>Sender Type</b>	Either system or human.		
<b>Sender Role(s)/Organisation(s)/ Jurisdiction(s)</b>	Sender Role(s) can include: Healthcare provider. Sender Organisation(s) can include: Healthcare institution, Medical practice.		
<b>Recipient Type</b>	Either system or human.		
<b>Recipient Role(s)/ Organisation(s)/Jurisdiction(s)</b>	Recipient Role(s) can include: Healthcare provider. Recipient Organisation(s) can include: Healthcare institution, Medical practice.		

### Relationships

#### Parents

Data Type	Name	Version	Obligation within parent	Condition within parent	Occurrence within parent
	OBSERVATION	1.0	Essential		Single

# DE Reference Range

## Identification

<b>Name</b>	Reference Range		
<b>Metadata Type</b>	Data Element		
<b>Identifier</b>	DE-111	<i>External Identifier</i>	
<b>Version</b>	1.0		

## Definition

<b>Definition</b>	The upper and lower acceptable limits of a normal result as determined from a reference population.		
<b>Definition Source</b>	HL7		
<b>Synonymous Names</b>			
<b>Context</b>			
<b>Context Source</b>			
<b>Assumptions</b>			
<b>Data Type</b>	Quantity or QuantityRange or CodeableText		
<b>Value Domain</b>			

## Usage


<b>Conditions of Use</b>			
<b>Conditions of Use Source</b>			
<b>Examples</b>	Example 1) <i>Body temperature</i> : 35.8 - 37.2C. Example 2) <i>Pulse</i> : 60 - 80 bpm. Example 3) <i>Blood pressure</i> : diastolic 60 - 90 mmHg; systolic 110 - 140 mmHg. Example 4) 135 mmol/L - 145 mmol/L. Example 5) 130 g/dL - 180 g/dL.		
<b>Misuse</b>			

## Data Flow

<b>Sender Type</b>	Either system or human.		
<b>Sender Role(s)/Organisation(s)/Jurisdiction(s)</b>	Sender Role(s) can include: Healthcare provider. Sender Organisation(s) can include: Healthcare institution, Medical practice.		
<b>Recipient Type</b>	Either system or human.		
<b>Recipient Role(s)/Organisation(s)/Jurisdiction(s)</b>	Recipient Role(s) can include: Healthcare provider. Recipient Organisation(s) can include: Healthcare institution, Medical practice.		

## Relationships

### Parents

Data Type	Name	Version	Obligation within parent	Condition within parent	Occurrence within parent
	OBSERVATION	1.0	Optional		Single

## Observation Abnormal Flag

### Identification

<b>Name</b>	Observation Abnormal Flag		
<b>Metadata Type</b>	Data Element		
<b>Identifier</b>	DE-505	<i>External Identifier</i>	
<b>Version</b>	1.0		

### Definition

<b>Definition</b>	A flag indicating the degree of abnormality from the normal limits of the result.		
<b>Definition Source</b>	NEHTA		
<b>Synonymous Names</b>			
<b>Context</b>	An indication of the level of variation from 'normality' of an observation on the clinical physiological state of the subject of care.		
<b>Context Source</b>	NEHTA		
<b>Assumptions</b>			
<b>Data Type</b>	CodeableText		
<b>Value Domain</b>	Abnormal Flag values		

### Usage


<b>Conditions of Use</b>	
<b>Conditions of Use Source</b>	
<b>Examples</b>	
<b>Misuse</b>	

### Data Flow

<b>Sender Type</b>	Either system or human.
<b>Sender Role(s)/Organisation(s)/Jurisdiction(s)</b>	Sender Role(s) can include: Healthcare provider. Sender Organisation(s) can include: Healthcare institution, Medical practice.
<b>Recipient Type</b>	Either system or human.
<b>Recipient Role(s)/Organisation(s)/Jurisdiction(s)</b>	Recipient Role(s) can include: Healthcare provider. Recipient Organisation(s) can include: Healthcare institution, Medical practice.

### Relationships

#### Parents

Data Type	Name	Version	Obligation within parent	Condition within parent	Occurrence within parent
	OBSERVATION	1.0	Optional		Single

## VD Abnormal Flag values

### Identification

<b>Name</b>	Abnormal Flag values
<b>Metadata Type</b>	Value Domain
<b>Identifier</b>	VD-015
<b>Version</b>	1.0

### Definition

<b>Definition</b>	A flag indicating the degree of abnormality from the normal limits of the result.
<b>Definition Source</b>	NEHTA

### Value Domain

<b>Source</b>	HL7
<b>Version Number</b>	2.6
<b>Permissible Values</b>	<p>Abnormal (<i>applies to non-numeric results</i>);          Above absolute high - off instrument scale;          Above high normal;          Above upper panic limits;          Below absolute low - off instrument scale;          Below low normal;          Below lower panic limits;          Better (use when direction not relevant);          Intermediate;          Moderately susceptible;          No range defined, or normal ranges don't apply;          Normal (<i>applies to non-numeric results</i>);          Resistant;          Significant change down;          Significant change up;          Susceptible;          Very abnormal (<i>applies to non-numeric units, analogous to panic limits for numeric units</i>);          Very susceptible; and          Worse - use when direction not relevant.</p>

### Usage

<b>Default Value</b>	
<b>Conditions of Use</b>	The value domain options are mutually exclusive and cannot be used in conjunction with each other.
<b>Conditions of Use Source</b>	NEHTA
<b>Misuse</b>	

### Relationships

#### Parents

Data Type	Name	Version
T/T <sub>010</sub>	Observation Abnormal Flag	1.0

## Observation Note

### Identification

<b>Name</b>	Observation Note
<b>Metadata Type</b>	Data Element
<b>Identifier</b>	DE-600 <i>External Identifier</i>
<b>Version</b>	1.0

### Definition

<b>Definition</b>	Free text comments relevant to the observation in question.
<b>Definition Source</b>	NEHTA
<b>Synonymous Names</b>	
<b>Context</b>	Used to provide additional narrative information in relation to the observation.
<b>Context Source</b>	NEHTA
<b>Assumptions</b>	
<b>Data Type</b>	Text
<b>Value Domain</b>	

### Usage


<b>Conditions of Use</b>	
<b>Conditions of Use Source</b>	
<b>Examples</b>	
<b>Misuse</b>	

### Data Flow

<b>Sender Type</b>	Either system or human.
<b>Sender Role(s)/Organisation(s)/ Jurisdiction(s)</b>	Sender Role(s) can include: Healthcare provider. Sender Organisation(s) can include: Healthcare institution, Medical practice.
<b>Recipient Type</b>	Either system or human.
<b>Recipient Role(s)/ Organisation(s)/Jurisdiction(s)</b>	Recipient Role(s) can include: Healthcare provider. Recipient Organisation(s) can include: Healthcare institution, Medical practice.

### Relationships

#### Parents

Data Type	Name	Version	Obligation within parent	Condition within parent	Occurrence within parent
	OBSERVATION	1.0	Optional		Single

## Information Provided By

### Identification

<b>Name</b>	Information Provided By		
<b>Metadata Type</b>	Data Element		
<b>Identifier</b>	DE-503	<i>External Identifier</i>	
<b>Version</b>	1.0		

### Definition

<b>Definition</b>	A category of the source of the health information in this record.		
<b>Definition Source</b>	NEHTA		
<b>Synonymous Names</b>			
<b>Context</b>			
<b>Context Source</b>			
<b>Assumptions</b>			
<b>Data Type</b>	CodedText		
<b>Value Domain</b>	Information Provided By values		

### Usage


<b>Conditions of Use</b>	To specify the source of the subject of care's health information when information is being captured by a healthcare provider.		
<b>Conditions of Use Source</b>	NEHTA		
<b>Examples</b>	Example 1) Subject of care. Example 2) Carer. Example 3) Other.		
<b>Misuse</b>			

### Data Flow

<b>Sender Type</b>	Either system or human.		
<b>Sender Role(s)/Organisation(s)/Jurisdiction(s)</b>	Sender Role(s) can include: Healthcare provider. Sender Organisation(s) can include: Healthcare institution, Medical practice.		
<b>Recipient Type</b>	Either system or human.		
<b>Recipient Role(s)/Organisation(s)/Jurisdiction(s)</b>	Recipient Role(s) can include: Healthcare provider. Recipient Organisation(s) can include: Healthcare institution, Medical practice.		

### Relationships

#### Parents

Data Type	Name	Version	Obligation within parent	Condition within parent	Occurrence within parent
	<a href="#">OBSERVATION</a>	1.0	Desirable		Single

## VD Information Provided By values

### Identification

<b>Name</b>	Information Provided By
<b>Metadata Type</b>	Value Domain
<b>Identifier</b>	VD-050
<b>Version</b>	1.0

### Definition

<b>Definition</b>	A category which specifies the source of the information.
<b>Definition Source</b>	NEHTA

### Value Domain

<b>Source</b>	NEHTA
<b>Version Number</b>	
<b>Permissible Values</b>	Carer; Device; Healthcare provider; Other; and Subject of care.

### Usage

<b>Default Value</b>	Healthcare provider.
<b>Conditions of Use</b>	The value domain options are mutually exclusive and cannot be used in conjunction with each other. Carer: An individual who provides regular and sustained care and/or assistance to the subject of care. Other: An individual who does not provide regular and sustained care and/or assistance to the subject of care.
<b>Conditions of Use Source</b>	NEHTA
<b>Misuse</b>	

### Relationships

#### Parents

Data Type	Name	Version
T <sub>010</sub>	Information Provided By	1.0

# OBSERVER IDENTIFICATION

## Identification

<b>Name</b>	OBSERVER IDENTIFICATION		
<b>Metadata Type</b>	Data group		
<b>Identifier</b>	DG-15562	<b>External Identifier</b>	AS4846-2006
<b>Version</b>	1.0		

## Definition

<b>Definition</b>	Details pertinent to the identification of a healthcare provider individual who will make, is making, or has made the observation.
<b>Definition Source</b>	NEHTA
<b>Synonymous Names</b>	
<b>Context</b>	
<b>Context Source</b>	NEHTA
<b>Scope</b>	
<b>Scope Source</b>	NEHTA
<b>Assumptions</b>	

## Usage


<b>Conditions of Use</b>	
<b>Conditions of Use Source</b>	
<b>Misuse</b>	

## Data Flow



<b>Sender Type</b>	Either system or human.
<b>Sender Role(s)/Organisation(s)/Jurisdiction(s)</b>	Sender Role(s) can include: Healthcare provider. Sender Organisation(s) can include: Healthcare institution, Medical practice.
<b>Recipient Type</b>	Either system or human.
<b>Recipient Role(s)/Organisation(s)/Jurisdiction(s)</b>	Recipient Role(s) can include: Healthcare provider. Recipient Organisation(s) can include: Healthcare institution, Medical practice.





## Relationships

### Parents

Data Type	Name	Version	Obligation within parent	Condition within parent	Occurrence within parent
	<a href="#">OBSERVATION</a>	1.0	Essential		Single

### Children

Data Type	Name	Version	Obligation	Condition	Occurrence
	<a href="#">HEALTHCARE PROVIDER IDENTIFIER-INDIVIDUAL</a> (see external reference for full specification: AS4846 - 2006)	1.0	Desirable		Single
	<a href="#">PERSON NAME</a> (see external reference for full specification: AS4846 - 2006)	1.0	Essential		Single

	<p><b>ORGANISATION NAME</b> (see external reference for full specification: AS4846 - 2006)</p>	1.0	Conditional	(required if requesting healthcare provider facility is external to the Diagnostic Imaging Service provider facility)	Single
	<p><b>ADDRESS</b> (see external reference for full specification: AS4846 - 2006)</p>	1.0	Conditional	(required if requesting healthcare provider facility is external to the Diagnostic Imaging Service provider facility)	Single
	<p><b>ELECTRONIC COMMUNICATION DETAILS</b> (see external reference for full specification: AS4846 - 2006)</p>	1.0	Essential		Single
	<p><b>Provider Occupation Category</b></p>	1.0	Optional	(may be required for certain test requests, e.g. MRI)	Single

## DateTime of Observation

### Identification

<b>Name</b>	DateTime of Observation		
<b>Metadata Type</b>	Data Element		
<b>Identifier</b>	DE-15561	<i>External Identifier</i>	
<b>Version</b>	1.0		

### Definition

<b>Definition</b>	The date or date and time that the specific observation was made. <i>The date and time could be automatically generated the system, or could be entered or overridden by a user if required.</i>		
<b>Definition Source</b>	NEHTA		
<b>Synonymous Names</b>			
<b>Context</b>			
<b>Context Source</b>			
<b>Assumptions</b>			
<b>Data Type</b>	DateTime		
<b>Value Domain</b>			

### Usage

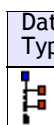
<b>Conditions of Use</b>	Where possible, exact dates should be used. Incomplete dates should generally only be used for retrospective data collection.
<b>Conditions of Use Source</b>	NEHTA
<b>Examples</b>	Example 1) 31/03/2004. Example 2) 03/2004. Example 3) 2004. Example 4) 31/03/2004 13:10.
<b>Misuse</b>	Entering approximate dates when an exact date is available.

### Data Flow

<b>Sender Type</b>	Either system or human.
<b>Sender Role(s)/Organisation(s)/Jurisdiction(s)</b>	Sender Role(s) can include: Healthcare provider. Sender Organisation(s) can include: Healthcare institution, Medical practice.
<b>Recipient Type</b>	Either system or human.
<b>Recipient Role(s)/Organisation(s)/Jurisdiction(s)</b>	Recipient Role(s) can include: Healthcare provider. Recipient Organisation(s) can include: Healthcare institution, Medical practice.

### Relationships

#### Parents

Data Type	Name	Version	Obligation within parent	Condition within parent	Occurrence within parent
	<a href="#">OBSERVATION</a>	1.0	Optional		Single

# Acronyms

<b>AIHW</b>	Australian Institute of Health & Welfare
<b>EHR</b>	Electronic Health Record
<b>HL7</b>	Health Level Seven
<b>MBS</b>	Medical Benefits Scheme
<b>METeOR</b>	MEtadata On-line Registry ( <a href="http://meteor.aihw.gov.au">http://meteor.aihw.gov.au</a> )
<b>NEHTA</b>	National E-Health Transition Authority
<b>SEHR</b>	Shared Electronic Health Record

# Index

## A

abnormal flag 20  
Abnormal Flag values 21

## C

clinical observation 14  
conditional 10

## D

Data Element  
DE-111 - Reference Range 19  
DE-15561 - DateTime of Observation 27  
DE-215 - Observation Description 16  
DE-216 - Observation Result 18  
DE-503 - Information Provided By 23  
DE-505 - Observation Abnormal Flag 20  
DE-600 - Observation Note 22

Data Group  
DG-15562 - Observer Identification 25

date  
observed 27  
DateTime of Observation 27  
description 16  
desirable 10

## E

essential 10

## I

Information Provided By 23  
Information Provided By values 24

## M

measurement 14

## N

note 22

## O

obligation  
Conditional 10  
Desirable 10  
Essential 10  
Optional 10  
Observation 14  
Observation Abnormal Flag 20  
observation date 27  
Observation Description 16  
Observation Description values 17  
Observation Note 22  
Observation Result 18  
Observer Identification 25  
optional 10  
out of range 20

## R

range 19  
Reference Range 19  
result 18

## S

source of information 23  
Specifications 10

## V

Value Domain  
VD-015 - Abnormal Flag values 21  
VD-050 - Information Provided By 24  
VD-135 - Observation Description  
values 17

End of  
Observation Data Specifications