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PAEREWA PĀRONGO HAUORA

Infection Surveillance Data Standard

HISO 10058.1:2021

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MINISTRY OF HEALTH
MANATŪ HAUORA

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1 Introduction

Surveillance of infections is required in order to understand infection prevalence and outbreaks. This knowledge will help to identify quality improvement measures to significantly reduce the incidence and severity of those infections. The increasing resistance of infections to antimicrobial medications makes it even more important for us to improve our infection surveillance.

Infections can cause significant pain and suffering to patients' lives and potentially impact the lives of their family and whānau. The impact of an infection on a person's health can range from relatively mild, self-limiting or asymptomatic diseases to severe life-threatening illnesses. Infections can prolong hospital stays or create long-term disabilities and may even lead to death. The consequences of an infection can be much more serious for people who have a compromised immune system.

People's behaviour and the environment play a big part in the transmission of infections within a health care setting as well as in the community. The burden and cost to the health and disability sector relating to infections can be significant and, in some cases, unnecessary. Health care-associated infections are the most common complications affecting patients in health care settings.

High-quality data will provide the ability to monitor the occurrence of health care-associated infections. Relevant data that is consistently captured electronically will provide the sector with valuable information to support it in identifying, addressing and resourcing instances of infections as well as outbreaks.

The use of consistently defined, high-quality infection surveillance data supports measures aimed at reducing health care-associated infections, and will ideally improve the care of patients, generally increasing patient safety and wellbeing.

This is particularly important for Māori and Pacific peoples, who may experience poorer access, timeliness and quality of health care, which contributes to avoidable and unequal health care outcomes.

The ACC infection prevention advisory group advocates for the implementation of infection monitoring and management information systems across all district health board hospitals within New Zealand.

The Ministry of Health (the Ministry) has developed the **Interoperability Roadmap** to support a modern, digitally enabled and data-driven health and disability system and improve equity and pae ora (healthy futures). An interoperable digital health ecosystem relies on the national adoption of data standards and collaboration across the health sector.

1.1 Purpose

This document defines the format and structure for capturing the information used to undertake surveillance of health care-associated infections. This Standard relates to the data captured and shared electronically during a patient's health care encounter. However, it may also apply to a manual collection if appropriate.

Standardised infection information will support the ability to analyse data captured in an infection surveillance system at a local level.

A key reason for collecting this information is that it will allow organisations to monitor and identify infections. Organisations can use the information they collect to identify potential service improvements to help reduce the incidence and severity of infections.

Submission of information into local infection surveillance systems consistently supports our ability to gain a national view, if required. The data could also be made available for research or education purposes at an aggregated level.

This Standard aims to support the Ministry of Health's vision to accelerate the shift to a fully interoperable digital health ecosystem. Where applicable, auto-populated information is preferred.

This Standard does not replace the Ministry's requirements for reporting notifiable diseases.

1.2 Scope

This Standard covers administrative, demographic, clinical information and observation/test details for patients with health care-associated infections. Also included are relevant details for the patient's activities and locations within the health care setting.

This document is intended to be used by publicly funded hospitals. Private hospitals and other health care providers that collect infection information electronically may also adopt this Standard.

The document provides a guide for health care providers that are purchasing or developing an infection surveillance system.

The following is out of scope for this version of the Standard:

- information required to support the treatment of health care-associated infections
- data sent from a laboratory to the health practitioner responsible for a patient's care
- surgery data related to infections
- infection information captured in primary care and community settings.

Future development will consider incorporating data requirements associated with health specialties such as surgery, as well as primary care and the community setting.

1.3 Legislation and regulations

The following Acts of Parliament and Regulations are relevant to this Standard. Readers must consider other Acts and Regulations and any amendments that are relevant to their own organisation when implementing or using this Standard.

- Health Act 1956
- Health and Disability Commissioner (Code of Health and Disability Services Consumers' Rights) Regulations 1996
- Health Information Privacy Code 2020
- Privacy Act 2020
- Health Practitioners Competence Assurance Act 2003
- New Zealand Public Health and Disability Act 2000
- Health and Safety at Work Act 2015
- Public Records Act 2005.

1.4 Related specifications

The documents listed below have been used in the development of or are referenced to in the operation of this Standard. They provide further clarity if required.

- **HISO 10001:2017 Ethnicity Data Protocols**
- **HISO 10008.2:2015 Pathology and Radiology Messaging Standard**
- **HISO 10008.3:2019 Notifiable Disease Messaging Implementation Guide**
- **HISO 10004.2019 New Zealand Pathology Observation Code Sets**
- **New Zealand Universal List of Medicines**
- **HISO 10029:2015 Health Information Security Framework**
- **HISO 10042 Medication Charting and Medicine Reconciliation Standards**
- **HISO 10046 Consumer Health Identity Standard**
- **New Zealand Antimicrobial Resistant Action Plan**
- **Guidelines for the Control of Multidrug-resistant Organisms in New Zealand**
- **HISO 10033 SNOMED CT**

  The SNOMED NZ Edition includes all content from the SNOMED International Edition alongside New Zealand-specific content in the SNOMED NZ Extension:

  https://www.health.govt.nz/publication/hiso-10033-snomed-ct

  The Ministry of Health website provides relevant information regarding SNOMED releases and the link to download the SNOMED NZ Edition.

https://www.health.govt.nz/nz-health-statistics/classification-and-terminology/new-zealand-snomed-ct-national-release-centre/snomed-ct-subsets-and-maps

Where a data element in this Standard uses SNOMED CT, the display is to show the agreed SNOMED concept term or synonym to the user and record the correct SNOMED CT identifier. Active SNOMED CT concepts must be selected when determining values for data elements.

Note: Where a SNOMED code has not been provided in this Standard, either a suitable code does not currently exist or is under development and will be added at a later date. These entries are indicated by 'To be advised' (TBA) in this Standard.

The two current HISO Health Practitioner Index (HPI) standards were published in 2008. While they can provide guidance on the particular HPI values referred to in this Standard, they are not suitable for any other purpose. They are:

- **HISO 10005:2008 Health Practitioner Index (HPI) Data Set**
- **HISO 10006:2008 Health Practitioner Index (HPI) Code Set**

Note: See the provider information section in Appendix A: Common data elements for the current structure and format of a provider (being either a person, facility or organisation).

1.5 Data element template

Data element specifications are presented in the following templated form based on publicly available standard **ISO/IEC 11179 Information Technology – Metadata Registries (MDR)**.

Definition	A statement that expresses the essential nature of the data element and its differentiation from other elements in the data set			
Source standards	Established data definitions or guidelines pertaining to the data element			
Data type	Alphabetic (A) Date/time Numeric (N) Alphanumeric (X) Boolean	**Representational class**	Code Identifier Text Date	Date/time Indicator Value
Field size	Maximum number of characters	**Representational layout**	The formatted arrangement of characters in alphanumeric elements; for example: • X(50) for a 50-character alphanumeric string • NNN for a three-digit number	
Value domain	The named, enumerated or described set of valid values or codes that are acceptable for the data element. Each coded data element has a specified code set.			
Obligation	Indicates if the data element is mandatory, optional or conditional.			
Guide for use	Additional guidance to inform use of the data element.			
Verification rules	Quality control mechanisms that preclude invalid values.			

2 Patient

This Standard sets out the minimum data required for submission into an infection surveillance system in order to effectively monitor the prevalence and outbreaks of infections. The data elements are to be submitted for any patient who attends a health care setting (an encounter) and an infection is suspected.

The term 'encounter' may cover cover an admittance, an attendance, a contact (for mental health purposes) or the delivery of care. 'Encounter' may also observations, treatments, investigations or surgical procedures.

Where data elements are defined in other HISO standards, a reference to the source standard is provided for the relevant data element.

2.1 Patient details

The patient entity details the data elements required for submission into an infection surveillance system for each person who attends an encounter in a health care setting.

Personal information related to the patient should be captured according to the **HISO 10046 Consumer Health Identity Standard**.

Ethnicity details should be captured according to **HISO 10007 Ethnicity Data Protocols**.

Data element	
Mandatory fields:	
National Health Index (NHI) number	Ethnicity
Given name	Date of birth
Family name (surname)	Sex
Optional fields:	
Other given name(s)	Address details (includes postcode)
Title (prefix)	Country code
Name suffix	Contact details
Date of death	General practitioner (GP)
Mother's birth name	GP practice

Given name, **Family name (surname)** and **Date of birth** data elements are required for verification against the NHI. Address details for the patient are not mandatory; however, if the information is submitted into an infection surveillance system, it must be supplied in the correct format.

The format and content of the data elements that are marked in blue in the previous table and not included in HISO 10046 Consumer Health Identity Standard are as follows.

2.1.1 Sex

Definition	The category into which patients are determined based on reproductive organs		
Source standards			
Data type	Alphabetic	**Representational class**	Code
Field size	1	**Representational layout**	A
Value domain	**Value** / **Meaning** F / Female M / Male		
Obligation	Mandatory		
Guide for use			
Verification rules	Valid code		

At the time of publication, Stats NZ was undertaking a review of the data elements for gender and sex. This data element will be updated based on the outcome of this review.

2.1.2 General practitioner

The patient's GP information (if known) may be submitted to an infection surveillance system. Providing this information is optional.

The relevant data elements for submitting general practitioner information are set out under 'Health care practitioner' in **Appendix A: Common data elements**.

2.1.3 GP practice

The GP practice where the patient is enrolled.

Use the National Enrolment Service record where possible to identify the GP practice the patient is enrolled in.

If a patient is currently not enrolled with a GP practice, but has been in the past, record the last known GP practice where the patient was enrolled.

When submitting information into an infection surveillance system for a GP practice, the data elements for a 'Facility' are required. The structured format of this information is set out under 'Facility' in **Appendix A: Common data elements**.

3 Encounter

The following sections define the data elements that provide administrative details about a patient's encounter and associated location(s). An encounter may also be known as a visit or episode of care. Each hospital or district health board should determine what they define as an encounter.

3.1 Encounter details

This section specifies the information regarding the patient's encounter required for submission into an infection surveillance system.

3.1.1 Encounter unique identifier

Definition	A unique identifier that is assigned by the source system for the patient's encounter		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	36	**Representational layout**	X(36)
Value domain	Unique to the organisation		
Obligation	Mandatory		
Guide for use	This may also be known as an Encounter ID, Episode ID or Event ID or have a PMS unique identifier. This is not the patient's NHI number.		
Verification rules			

3.1.2 Encounter date and time

This element defines the date and time that a patient either attended an encounter in a health care setting or was admitted to hospital.

This may also be known as 'admission date'. This data element is mandatory. The format and description of this field are set out under 'Date and time' in **Appendix A: Common data elements**.

3.1.3 Patient class

Definition	A code systems use to categorise patients		
Source standards	**HISO 10008.2:2015 Pathology and Radiology Messaging Standard**		
Data type	Alphabetic	**Representational class**	Code
Field size	1	**Representational layout**	A
Value domain			

Code	Description
E	Emergency
I	Inpatient
O	Outpatient
P	Pre-admit
B	Obstetrics
R	Recurring patient
U	Unknown
N	Not applicable

Obligation	Optional
Guide for use	For encounters with a general practice, use (R) for recurring patient or (N) if the patient is not registered with that practice. If using the FHIR value set/code system that is part of the FHIR Specification, refer to: **https://www.hl7.org/fhir/v2/0004/index.html**
Verification rules	Valid code

3.1.4 Health care practitioner

When submitting information into an infection surveillance system for a senior medical officer or a referring health care practitioner, their **Name** and **Common person number** are required. The health care practitioner's role in the patient's care and their scope of practice are optional data elements that can also be submitted into an infection surveillance system. The structured format for these fields is set out under 'Health care practitioner' in **Appendix A: Common data elements**.

Senior medical officer

This element defines the details of the senior medical officer responsible for the health care of the patient. This information is mandatory.

Referring health care practitioner

This element defines the details of the health care practitioner who referred the patient. This information is optional.

3.1.5 Admission

For circumstances where a patient has been admitted into hospital, the following data elements need to be submitted to an infection surveillance system.

Admission type

Definition	The circumstances under which the patient has been admitted to hospital		
Source standards	**HISO 10008.2:2015 Pathology and Radiology Messaging Standard**		
Data type	Alphabetic	**Representational class**	Code
Field size	1	**Representational layout**	A
Value domain			

Code	Description
A	Accident
E	Emergency
L	Labour and delivery
R	Routine
N	Newborn
U	Urgent
C	Elective

Obligation	Mandatory
Guide for use	
Verification rules	Valid code only

Admission source

Definition	The process for the patient's admission		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Value domain	Ministry of Health's **Admission Source code table**		
Obligation	Mandatory		
Guide for use			
Verification rules	Valid code only		

3.1.6 Health specialty

Definition	The health specialty under which the patient is seen and/or receives treatment		
Source standards			
Data type	Alphanumeric	**Representational class**	Code
Field size	3	**Representational layout**	X(3)
Value domain	**Ministry of Health's Health Specialty code table**		
Obligation	Optional		
Guide for use	To support the implementation and use of SNOMED CT, the Ministry of Health will provide mapping between the Health Specialty codes and SNOMED CT on its website, once this is completed.		
Verification rules	Valid code only		

3.1.7 Provisional/working diagnosis

Definition	A term that identifies the clinical description of a patient's condition(s) that is responsible for the encounter		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	250	**Representational layout**	X(250)
Value domain	Active SNOMED CT term(s) from the **Clinical finding (404684003)** hierarchy		
Obligation	Optional		
Guide for use	At least one provisional/working diagnosis should be recorded.		
Verification rules	Must be either the preferred term or synonym for the active SNOMED CT concept identified in **3.1.8 Provisional/working diagnosis code**.		

3.1.8 Provisional/working diagnosis code

Definition	A code that identifies the clinical description of a patient's condition(s) that is responsible for the encounter		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	Active SNOMED CT term(s) from the **Clinical finding (404684003)** hierarchy		
Obligation	Optional		
Guide for use	At least one provisional/working diagnosis should be recorded. This is the clinical information within an encounter that includes codes for diagnosis, injury, cause of intentional and unintentional injury. This diagnosis is subject to change as tests are carried out and findings are evaluated. Findings evaluated may include information gained from the patient's history of illness, any mental status evaluation, specialist consultations, physical examinations, diagnostic tests or procedures, surgical procedures and pathological or radiological examinations.		
Verification rules	Valid code		

3.1.9 Procedure

Definition	The procedure(s) performed during the patient's encounter with the health service		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	250	**Representational layout**	X(250)
Value domain	Active SNOMED CT term(s) from the **Procedure (71388002)** hierarchy		
Obligation	Optional		
Guide for use	At least one procedure should be recorded. This also includes diagnostic procedures.		
Verification rules	Must be either the preferred term or synonym for the active SNOMED CT concept identified in **3.1.10 Procedure code**.		

3.1.10 Procedure code

Definition	A code that identifies the procedure(s) performed during the patient's encounter with the health service		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	Active SNOMED CT term(s) from the **Procedure (71388002)** hierarchy		
Obligation	Optional		
Guide for use	At least one procedure should be recorded. This also includes diagnostic procedures.		
Verification rules	Valid code		

3.1.11 Date/time of provisional diagnosis

This element defines the date and time at which the provisional diagnosis was made.

This information is generally conditional. However, it is mandatory if a **Provisional/working diagnosis** has been recorded. The format for this data element is set out under 'Date and time' in **Appendix A: Common data elements**.

3.1.12 Infection site

Definition	The site (body structure) in which the infection is suspected or identified		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	250	**Representational layout**	X(250)
Value domain	Active SNOMED CT term(s) that is a subtype of the **Body region structure (38866009)** from SNOMED CT		
Obligation	Optional		
Guide for use	More than one site must be able to be selected.		
Verification rules	Must be either the preferred term or the synonym for the active SNOMED CT concept identified in **3.1.13 Infection site code**.		

3.1.13 Infection site code

Definition	A code that identifies the site (body structure) in which the infection is suspected or identified		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	Active SNOMED CT term(s) that is a subtype of the **Body region structure (38866009)**		
Obligation	Optional		
Guide for use	More than one site must be able to be selected.		
Verification rules	Valid code		

3.1.14 Readmission

Definition	An indication of whether the patient was readmitted to hospital with an infection that was contracted as a result of a previous hospital health care encounter		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Value domain	**Value** / **Meaning** 1 / Yes, the patient was readmitted due to an infection 0 / No, the patient was not readmitted due to an infection		
Obligation	Conditional; mandatory if **3.1.12 Infection site** is captured		
Guide for use	There may be multiple instances. The original hospital health care encounter may be from either the same or a different service provider.		
Verification rules	Valid value only		

3.2 Patient location

This section includes the data elements that detail the location of the patient's encounter, and where the patient is based, going to be moved to or going to be discharged to.

Multiple location instances may be recorded for each patient during their health care encounter.

In order to understand a patient's movement within a health care facility, patient admission, transfer, leave and discharge, and updates to the associated location of the patient, are all important parameters to capture in real time.

3.2.1 Facility

This element defines the facility that the patient is/was assigned to.

When submitting information into an infection surveillance system for a facility, the **Facility name** and **Facility identifier** are required. **Facility type** and address details are optional. The structured format for these fields is set out under 'Facility' in **Appendix A: Common data elements**.

3.2.2 Organisation

This element defines the organisation that the patient is/was assigned to.

When submitting information into an infection surveillance system for an organisation, the **Organisation name** and **Organisation identifier** are required. The structured format for these fields is set out under 'Organisation' in **Appendix A: Common data elements**.

3.2.3 Point of care

Definition	The name of the area where the patient is or was based within the health care setting during their encounter		
Source standards			
Data type	Alphanumeric	**Representational class**	Free text
Field size	100	**Representational layout**	X(100)
Value domain			
Obligation	Mandatory		
Guide for use	This may be the ward or the clinic/department.		
Verification rules	Valid name for the ward/clinic/department within the facility		

3.2.4 Room

Definition	The number or name of the room the patient is assigned to		
Source standards			
Data type	Alphanumeric	**Representational class**	Free text
Field size	50	**Representational layout**	X(50)
Value domain			
Obligation	Conditional; mandatory if the patient is placed in a room		

Guide for use	This also refers to the theatre where an operation is to be or was held.
Verification rules	Valid room number or name within the facility

3.2.5 Bed number

Definition	The number or name of the bed the patient is assigned to		
Source standards			
Data type	Alphanumeric	**Representational class**	Free text
Field size	50	**Representational layout**	X(50)
Value domain			
Obligation	Conditional; mandatory if the patient is assigned a bed		
Guide for use	This may also refer to the bed an operation took place on.		
Verification rules	Valid bed number or name within the facility		

3.2.6 Bay/cubicle

Definition	The number or name of the bay or cubicle that the patient is in during point of care		
Source standards			
Data type	Alphanumeric	**Representational class**	Free text
Field size	50	**Representational layout**	X(50)
Value domain			
Obligation	Conditional; mandatory if the patient is assigned to a bay/cubicle		
Guide for use			
Verification rules	Valid bay/cubicle number or name within the facility		

3.2.7 Floor/level

Definition	The number or name of the floor or level that the patient is on during point of care		
Source standards			
Data type	Alphanumeric	**Representational class**	Free text
Field size	50	**Representational layout**	X(250)
Value domain			
Obligation	Optional		
Guide for use			
Verification rules	Valid floor/level number or name within the facility		

3.2.8 Location identifier

This element is for service locations that are unable to be identified with a health provider identifier. In this case a global location number is required.

Definition	A business location or sub-location identifier		
Source standards	**New Zealand Business Number (NZBN) Organisation Part API Use Case Specification**		
Data type	Numeric	**Representational class**	Identifier
Field size	13	**Representational layout**	N(13)
Value domain	Global location number (GLN)		
Obligation	Optional when a GLN exists		
Guide for use	GLN is the primary identifier in the NZBN Register for the locations and sub-locations of an organisation. This is not the organisation's GLN. The last digit is a check digit – see the **GS1 check digit calculator**.		
Verification rules	Valid GLN		

3.2.9 Location name

Definition	The location or sub-location name		
Source standards	**NZBN Organisation Part API Use Case Specification**		
Data type	Alphanumeric	**Representational class**	Free text
Field size	100	**Representational layout**	X(100)
Value domain			
Obligation	Mandatory if location identifier is provided		
Guide for use	This maps to an NZBN organisation part name, where a valid GLN exists. It is used to distinguish an organisation's different locations, or to distinguish one sub-location from another belonging to the same organisation at the same address.		
Verification rules			

3.2.10 Location description

Definition	Additional information that describes the patient's location		
Source standards			
Data type	Alphanumeric	**Representational class**	Free text
Field size	500	**Representational layout**	X(500)
Value domain			
Obligation	Optional		
Guide for use	This data element provides the ability to capture further information that describes the patient's location during an encounter at the time of an activity. The element should be used for describing locations that cannot be captured within the other patient location data elements: for example, where a person has been discharged home or to an aged care facility (where the description might read '16 Smiths Road, Dipton'). This may also be the location name that maps to an NZBN organisation part name, where a GLN exists.		
Verification rules			

3.3 Discharge

The following data elements are to be submitted into an infection surveillance system when the care being given to a patient ends with one service and the patient is discharged, or the service ends and the care of the patient is transferred elsewhere.

3.3.1 Encounter unique identifier

The unique identifier for the patient's encounter needs to be included with discharge information. Refer to **3.1.1 Encounter unique identifier** for details of this data element.

3.3.2 Discharge date and time

This element defines the date and time of the physical departure of the patient from the location of point of care.

Discharges include moving between an emergency department and an in-patient ward, discharge to another hospital and discharge to the community. 'Discharge' may also be known as 'Event end date'.

This element is mandatory if a patient is admitted for health care. The format is set out under 'Date and time' in **Appendix A: Common data elements**.

3.3.3 Discharge diagnosis

Definition	The diagnosis/diagnoses identified as responsible for the episode of patient care		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	250	**Representational layout**	X(250)
Value domain	Active SNOMED CT term(s) from the **Clinical finding (404684003)** hierarchy		
Obligation	Conditional; mandatory if patient is discharged		
Guide for use	This is determined by evaluating all the findings carried out during the episode of care. Findings evaluated may include information gained from the history of illness, any mental status evaluation, specialist consultations, physical examinations, diagnostic tests or procedures, surgical procedures and pathological or radiological examinations. There may be multiple diagnoses recorded when the patient is discharged.		
Verification rules	Must be either the preferred term or the synonym for the active SNOMED CT concept identified in **3.3.3 Discharge diagnosis code**. May be the same as the **Provisional/working diagnosis**.		

3.3.4 Discharge diagnosis code

Definition	A code that identifies the diagnosis/diagnoses identified as responsible for the episode of patient care		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	Active SNOMED CT term(s) from the **Clinical finding (404684003)** hierarchy		
Obligation	Conditional; required if patient is discharged		
Guide for use	This is determined by evaluating all the findings carried out during the episode of care. Findings evaluated may include information gained from the history of illness, any mental status evaluation, specialist consultations, physical examinations, diagnostic tests or procedures, surgical procedures and pathological or radiological examinations. There may be multiple diagnoses recorded when the patient is discharged.		
Verification rules	Valid code		

3.3.5 Discharge disposition

Definition	The final place or setting to which the patient was discharged from on the day of discharge		
Source standards			
Data type	Alphabetic	**Representational class**	Code
Field size	2	**Representational layout**	AA
Value domain	**Ministry of Health's Event end type code table**		
Obligation	Conditional; mandatory if patient is discharged		
Guide for use	Where a patient is discharged to a managed isolation or quarantine facility, use 'DR – Ended routinely'.		
Verification rules	Valid code only		

3.3.6 Discharge to location

This element defines the place or setting the patient was discharged to on the day of discharge.

If a patient is discharged to a ward/bed or to a managed isolation facility, then the information to be submitted should include the data elements identified in **3.2 Patient location**.

When a patient is discharged to a place of residence, refer to **3.2.10 Location description** for the format of this data element.

4 Observations

Observations provide information about the general health of a patient. They can be provided by a variety of systems, including but not limited to pathology; surgery; admission, discharge and transfer (ADT); electronic patient record (EPR) and nursing documentation/charting systems. In addition, information on antimicrobial use is also documented in this section.

The following sections detail the supporting data about observations that are undertaken during or as a result of a patient's encounter with a health care facility.

For the purposes of this Standard, there are two types of observations: non-laboratory observations and laboratory tests.

The following sections document the core data set for observations/tests relating to suspected and/or confirmed infections. It can be summarised as the item being measured, the date/time of the measurement, the observed value and any units of measure applicable to the observed value.

4.1 Non-laboratory observations

Non-laboratory observations are quantitative measures about the patient that are typically captured through direct examination of a patient. Such information may provide indirect evidence of an infection.

4.1.1 Observation unique identifier

Definition	A unique identifier assigned by the source system for a test, activity or observation undertaken in relation to a patient's infection		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	36	**Representational layout**	X(36)
Value domain	Unique to the organisation		
Obligation	Optional		
Guide for use	This may also be known as an Encounter ID, Episode ID or Event ID or have a PMS unique identifier.		
Verification rules			

4.1.2 Observation date/time

Information to be recorded is the date/time that the observation was performed.

This data element is mandatory. The entry must be a valid date and time that is less than or equal to the current date and time. The format for this data element is set out under 'Date and time' in **Appendix A: Common data elements**.

4.1.3 Activity location

This element defines the location where the activity was performed, or the observation was undertaken as part of the episode of care on the patient.

The information to be submitted should include the data elements identified in **3.2 Patient location**.

4.1.4 Height

Definition	The measured height of the patient at the time of the encounter		
Source standards			
Data type	Numeric	**Representational class**	Value
Field size	4	**Representational layout**	N.NN
Value domain	Metres		
Obligation	Optional		
Guide for use	Record height to two decimal places. Neither the word 'metres' nor the abbreviation 'M' should be included in the value of this data element.		
Verification rules	Value greater than zero		

4.1.5 Weight

Definition	The measured weight of the patient at the time of the encounter		
Source standards			
Data type	Numeric	**Representational class**	Value
Field size	5	**Representational layout**	NNN.N
Value domain	Kilograms		
Obligation	Optional		
Guide for use	This may also be known as weight on admission or admission weight. Record weight to one decimal place. Neither the word 'kilograms' nor the abbreviation 'kg' should be included in the value of this data element.		
Verification rules	Value greater than zero.		

4.2 Laboratory data – request

Where there is a suspicion of infection, the following data elements are to be submitted with each requested test.

4.2.1 Laboratory accession number

Definition	A laboratory's unique accession number or 'day number' for the report		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	30	**Representational layout**	X(30)
Value domain	As defined by the individual laboratory		
Obligation	Mandatory		
Guide for use	This may be the number under which the specimens are or episode is documented in the laboratory information system.		
Verification rules			

4.2.2 Laboratory test code

The following describes the format when capturing a code from the **Logical Observation Identifiers Names and Codes (LOINC), New Zealand Pathology Observation Code Sets** (NZPOCS) **or SNOMED CT**.

Laboratory test

Definition	The name of the test being requested or undertaken by a laboratory		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	250	**Representational layout**	X(250)
Value domain	**LOINC**, **NZPOCS** or **SNOMED CT** name		
Obligation	Mandatory		
Guide for use	This may also be known as requested investigations.		
Verification rules	Must be the name assigned to the LOINC, NZPOCS or SNOMED CT code.		

LOINC/NZPOCS code

Definition	A code that identifies the test being requested or undertaken by a laboratory		
Source standards			
Data type	Alphanumeric	**Representational class**	Code
Field size	7	**Representational layout**	NNNNN-N
Value domain	**LOINC** or **NZPOCS** code		
Obligation	Mandatory if using LOINC/NZPOCS to describe the test		
Guide for use	Providers must include the test name and code when submitting information to an infection surveillance system. This may also be known as 'Requested investigations'.		
Verification rules	Valid code		

SNOMED CT code

Definition	The SNOMED CT code for the test being requested or undertaken by a laboratory		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	**SNOMED CT code**		
Obligation	Mandatory if using SNOMED to describe the test		
Guide for use	Providers must include the test name and code when submitting information to an infection surveillance system. This may also be known as 'Requested investigations'.		
Verification rules	Must be an active SNOMED CT concept.		

When submitting the laboratory test codes to an infection surveillance system, the type of coding system used should be noted. See Table 15 of **HISO 10008.2: Pathology and Radiology Messaging Standard** for more details.

4.2.3 Requesting health care practitioner

This element defines the details of the health care practitioner responsible for requesting/ordering/actioning a test. This may also be known as 'ordering provider'. This is a mandatory field. The structured format for these fields is set out under 'Health care practitioner' in **Appendix A: Common data elements**.

4.2.4 Requesting facility

This element defines the facility that the 'Requesting health care practitioner' is representing at the time of the request.

The structured format of this information is set out under 'Facility' in **Appendix A: Common data elements**. This is a mandatory field.

4.2.5 Sample date/time

For laboratory tests, this is the date and time that is provided on the test request form when the specimen was collected.

This data element is mandatory. The entry must be a valid date and time that is less than or equal to the current date and time. The format for this data element is set out under 'Date and time' in **Appendix A: Common data elements**.

4.2.6 Patient location

This element defines the patient's location at the time the sample was taken. See **3.2 Patient location** for the required formats and obligations.

4.2.7 Specimen received date/time

This element defines the date and time at which the specimen(s) were received by the laboratory.

This data element is mandatory for specimens received in a laboratory. The entry must be a valid date and time that is greater than or equal to the date and time recorded in **4.2.5 Sample date/time**. The format for this data element is set out under 'Date and time' in **Appendix A: Common data elements**.

4.2.8 Specimen source

Definition	A description of the site and method by which the specimen was taken		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	250	**Representational layout**	X(250)
Value domain	Active SNOMED CT term(s) that is a subtype of **Specimen (123038009)**		
Obligation	Optional		
Guide for use			
Verification rules	Must be the name assigned to the SNOMED CT concept identified in **4.2.9 Specimen source code**.		

4.2.9 Specimen source code

Definition	A code that identifies the site and method by which the specimen was taken		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	Active SNOMED CT term(s) that is a subtype of **Specimen (123038009)**		
Obligation	Optional		
Guide for use			
Verification rules	Valid code		

4.2.10 Laboratory facility name

This element defines the name of the receiving laboratory that actions the test.

This is a mandatory field when providing laboratory facility information to an infection surveillance system. The 'Facility name' is to be used to provide the **Laboratory facility name**. The structured format for this field is set out under 'Facility' in **Appendix A: Common data elements**.

4.2.11 Laboratory facility identifier

This element defines the unique identifier for the receiving laboratory that actions the test.

This is a mandatory field when providing laboratory facility information to an infection surveillance system. The 'Facility identifier' is to be used to provide the **Laboratory facility identifier**. The structured format for this field is set out under 'Facility' in **Appendix A: Common data elements**.

4.2.12 Organisation

This element defines the name and identifier for the organisation that operates the laboratory that actions the test.

The **Organisation name** and **Organisation identifier** are mandatory fields. The structured format for this field is set out under 'Organisation' in **Appendix A: Common data elements**.

4.3 Laboratory data – result

4.3.1 Test result unique identifier

Definition	A laboratory's unique identifier for the test result		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	30	**Representational layout**	X(30)
Value domain	As defined by the laboratory		
Obligation	Mandatory		
Guide for use			
Verification rules			

4.3.2 Test result date/time

This element defines the date and time when the test result was recorded.

This data element is mandatory for test results. The entry must be a valid date and time that is greater than or equal to **4.2.7 Specimen received date/time** and less than or equal to the current date and time. The format for this data element is set out under 'Date and time' in **Appendix A: Common data elements**.

4.3.3 Test result

Definition	The result identified by the test		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	250	**Representational layout**	X(250)
Value domain	Active SNOMED CT code from the **Clinical finding (404684003)** hierarchy		
Obligation	Mandatory		
Guide for use			
Verification rules	Must be the name assigned to the SNOMED CT concept identified in **4.3.4 Test result code**.		

4.3.4 Test result code

Definition	A code that identifies the result of the test		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	Active SNOMED CT code from the **Clinical finding (404684003)** hierarchy		
Obligation	Mandatory		
Guide for use			
Verification rules	Valid code		

4.3.5 Units

Definition	The units of measurement used when reporting a result		
Source standards	**HISO 10008.2:2015 Pathology and Radiology Messaging Standard.**		
Data type	Alphanumeric	**Representational class**	Code
Field size	250	**Representational layout**	X(250)
Value domain	Valid code/abbreviation from Table 155: Common ISO Derived Units and ISO+ extensions in Appendix B of **HISO 10008.2:2015 Pathology and Radiology Messaging Standard**		
Obligation	Mandatory		
Guide for use			
Verification rules	Valid code or abbreviation		

4.3.6 Organism

Definition	The organism(s) identified by a test		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	250	**Representational layout**	X(250)
Value domain	**New Zealand microorganism reference set**		
Obligation	Mandatory		
Guide for use	This also includes multidrug-resistant organisms.		
Verification rules	Must be the name assigned to the SNOMED CT concept identified in **4.3.7 Organism code**.		

4.3.7 Organism code

Definition	A code that identifies the organism(s) identified by a test		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	**New Zealand microorganism reference set**		
Obligation	Mandatory		
Guide for use	This also includes multidrug-resistant organisms.		
Verification rules	Valid code		

4.3.8 Multidrug-resistant organism

Definition	An indication of whether the organism is a multidrug-resistant organism		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain			

SCTID	Preferred term
115329001	**MRSA - Methicillin resistant Staphylococcus aureus**
734351004	**CPE - Carbapenemase-producing Enterobacteriaceae**
726500000	**ESBL (Extended spectrum beta-lactamase producing) Enterobacteriaceae**
113727004	**VRE - Vancomycin resistant Enterococcus**
870561008	**AmpC beta-lactamase producing bacteria**

Obligation	Mandatory if patient has been diagnosed with an infection
Guide for use	The code and name of each **Multidrug-resistant organism** must be included when submitting information to an infection surveillance system.
Verification rules	Valid code

4.3.9 Susceptibility indicator

Definition	An indication of the normality status of the test result		
Source standards	**HISO 10008.2:2015 Pathology and Radiology Messaging Standard**		
Data type	Alphabetic	**Representational class**	Code
Field size	2	**Representational layout**	A(2)

Value domain

Code	Description	SCTID
S	**Susceptible**: Indicator for microbiology susceptibilities only	131196009
R	**Resistant**: Indicator for microbiology susceptibilities only	30714006
I	**Intermediate**: Indicator for microbiology susceptibilities only (SNOMED Preferred term: Intermediately susceptible)	264841006

Obligation	Optional
Guide for use	This information is to be collected for antimicrobial susceptibilities associated with an organism. Mapping has been provided for organisations capturing this information using SNOMED CT. If storing this susceptibility indicator using SNOMED CT, mapping to the relative **code (S, R, I)** must be applied, to support the electronic transfer of the test result.
Verification rules	Valid code

4.3.10 Abnormal flags

Definition	An indication of the normality status of the test result		
Source standards	**HISO 10008.2:2015 Pathology and Radiology Messaging Standard**		
Data type	Alphabetic	**Representational class**	Code
Field size	2	**Representational layout**	A(2)

Value domain

Code	Description
L	Low
H	High
LL	Below lower panic limit
HH	Above upper panic limit
N	Normal: applies only to non-numeric values
A	Abnormal
AA	Extremely abnormal

Obligation	Optional
Guide for use	This information is to be collected for test results associated with an organism.

Verification rules	Valid code only

4.3.11 Additional details

	Further details relating to the test of the organism and/or its growth		
Source standards			
Data type	Alphanumeric	**Representational class**	Free text
Field size	500	**Representational layout**	X(500)
Value domain			
Obligation	Optional		
Guide for use			
Verification rules			

4.4 Antimicrobial details

This section sets out the details for recording and submitting information regarding antimicrobial drugs administered to the patient in relation to an encounter.

Capturing this information will support the objectives outlined in the **New Zealand Antimicrobial Resistance Action Plan**. Having data recorded consistently will help strengthen the knowledge and evidence base in regard to antimicrobial resistance. This information will also help improve the infection prevention and control measures we take in the health care setting to prevent infection and transmission of micro-organisms.

For each instance in which an antimicrobial is captured, the following must be submitted to an infection surveillance system.

4.4.1 Antimicrobial

Definition	The generic name of the antimicrobial		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	250	**Representational layout**	X(250)
Value domain	**New Zealand Medicines Terminology** (NZMT)		
Obligation	Optional		
Guide for use	A system should be able to record multiple antimicrobials.		
Verification rules	A valid name assigned to NZMT Trade Product Unit of Use (TPUU) code that aligns with the code captured in **4.4.2 Antimicrobial code**.		

4.4.2 Antimicrobial code

Definition	A code that identifies the generic identifier for the antimicrobial used		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	**New Zealand Medicines Terminology TPUU**		
Obligation	Optional		
Guide for use	A system should be able to record multiple antimicrobials.		
Verification rules	Valid NZMT TPUU code.		

4.4.3 Administered date and time

Definition	The date and time the antimicrobial was administered to the patient		
Source standards			
Data type	Date	**Representational class**	Full date and time
Field size	14	**Representational layout**	YYYYMMDD HH:MM:SS
Value domain			
Obligation	Optional		
Guide for use	If known, the date and time the antimicrobial was administered to the patient can be recorded.		
Verification rules	Valid value		

4.4.4 Dose quantity

This element defines the size of the dose of antimicrobial administered to the person.

Dose quantity relates to the TPUU, and is expressed as a numeric value with a coded unit of measure. This can be either (a) a counted quantity that is a multiple of a TPUU unit dose or (b) a measured quantity that is a multiple of the strength of the TPUU.

This field is mandatory if an antimicrobial has been specified.

Dose quantity value

Definition	The number of units the patient was prescribed to take at one time or at stated intervals		
Source standards			
Data type	Numeric	**Representational class**	Value
Field size	1	**Representational layout**	N
Value domain	1, 2, 3, …		
Obligation	Mandatory if an antimicrobial has been specified		
Guide for use			
Verification rules	Valid value		

Dose quantity unit of measure

Definition	A code that identifies the dose quantity unit of measure that, when combined with the dose quantity value, identifies the unit-of-use of the antimicrobial administered to the patient		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	Active SNOMED CT term(s) that is a subtype of **Unit of measure**		
Obligation	Mandatory if an antimicrobial has been specified		
Guide for use	Use the **SNOMED CT Unit of measure** hierarchy to identity the correct **International System of Units (SI)** unit to represent the counted or measured dose quantity.		
Verification rules	Valid code		

4.4.5 Frequency

Definition	The frequency at which the antimicrobial was administered		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	TBA		
Obligation	Mandatory if an antimicrobial has been specified		
Guide for use	A SNOMED CT reference set is under development and will be included in the SNOMED CT NZ Edition once released.		
Verification rules	Valid code		

4.4.6 Route of administration

Definition	The pathway by which the antimicrobial was administered		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Value domain	Active SNOMED CT term(s) that is a subtype of **Route of administration value (284009009)**		
Obligation	Mandatory if an antimicrobial has been specified		
Guide for use	Use the **SNOMED CT** Route of administration value to identify the route that was used to administer the antimicrobial.		
Verification rules	Valid code		

5 Implementation requirements

This section sets out the key requirements when implementing this standard. Any such system:

- must support the capturing and sharing of information electronically while ensuring it is secure and protects the patient's privacy according to the **Privacy Act 2020**, the **Health Information Privacy Code 2020** and the **HISO 10029:2015 Health Information Security Framework**
- should support integration with the NHI, HPI, NZBN and other master data sources referenced in this document
- should integrate with other health information systems
- should use automatically populated information where applicable
- must provide the ability for health care practitioners to monitor and analyse instances of infections or local outbreaks using the information submitted to an infection surveillance system
- must be able to apply new and modified data element requirements when future updates are published.

6 Adoption plan

Over a period of two years, it is intended that district health boards implementing an infection surveillance platform will become pilot sites to trial this standard. As part of these implementations, if ACC is involved, the ACC Treatment Safety team will work with these district health boards, their associated laboratories and vendors to promote and support the implementation of this standard. The standard will be reviewed one year after these implementations have been completed to ensure the standard is fit for purpose.

Organisations that have existing infection surveillance systems will be encouraged to adopt this standard. Where it's possible, the level of adoption of this standard will be tracked by ACC and reported to HISO.

Appendix A: Common data elements

This appendix identifies data elements within this document that use a consistent format.

Date and time

Definition	The date and time for the associated data element		
Source standards			
Data type	Date/time	**Representational class**	Full date and time
Field size	14	**Representational layout**	YYYYMMDD[hh][mm][ss]
Value domain			
Obligation	See the relevant section		
Guide for use			
Verification rules	See the relevant data element		

Provider information

Information relating to the health provider (individual, facility or organisation that provides health care) should be captured following the representational layout set out below.

Health care practitioner

This section provides details of data elements for the health care practitioner referred to in this document. If a submission includes a **Health care practitioner name**, the health care practitioner's **Common person number** (CPN) may also be supplied.

The HPI person identifier (HPI-CPN) for the health care practitioner is the recommended identifier. Otherwise, where appropriate, use the person's Medical Council number or Nursing Council number and name.

Health care practitioner name

Definition	The full name of the individual contributing to the care of the patient		
Source standards	**HISO 10005 Health Practitioner Index (HPI) Data Set**		
Data type	Alphabetic	**Representational class**	Text
Field size	50	**Representational layout**	A(50)
Value domain			
Obligation	See the relevant section		
Guide for use	The text is case-sensitive and can include spaces, apostrophes and hyphens, as well as macrons and other diacritic characters. This information can be obtained from the clinician but must be validated with the HPI system.		
Verification rules			

Common person number

Definition	A unique six-character identifier assigned by the HPI system to an individual person contributing to the care of the patient		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	6	**Representational layout**	NCAAAA
Value domain			
Obligation	Mandatory if a **Health care practitioner name** is submitted and an HPI CPN has been assigned		
Guide for use	This should be automatically populated. Only the HPI system generates a new unique CPN, which is the primary key for person records. This CPN is not re-used once assigned. Where more than one CPN exists for a single person, one CPN is declared 'live' and all other CPNs are made 'dormant' and attached to the live record. The CPN is the primary key for person records. A Modulus 11 routine is used to produce the identifier check digit. The HPI CPN can be obtained from the clinician, but must be validated with the HPI system. N is a number excluding number '0' A is an alpha character excluding letter 'I' or 'O' C is a check digit number in the second position calculated using check digit Modulus 11.		
Verification rules	Valid HPI CPN		

Health care practitioner role

Definition	The role that the health care practitioner played as part of the care of patient		
Source standards			
Data type	Alphanumeric	**Representational class**	Free text
Field size	50	**Representational layout**	X(50)
Value domain			
Obligation	Optional		
Guide for use			
Verification rules			

Health care practitioner scope of practice

Definition	A code that identifies the scope of practice of a particular health care practitioner under the Health Practitioners Competence Assurance Act 2003		
Source standards	HISO 10005 Health Practitioner Index (HPI) Data Set		
Data type	Alphabetic	**Representational class**	Code
Field size	4	**Representational layout**	A(4)
Value domain			
Obligation	Optional		
Guide for use	This code classifies the type or range of health care services that a health care provider is authorised to provide. Scope of practice information can be obtained from the clinician but must be validated with the HPI system.		
Verification rules			

Organisation

This section describes the data elements needed to identify an organisation.

When submitting information into an infection surveillance system for an organisation, the **Organisation name** and **Organisation identifier** are required.

Organisation name

Definition	The name of the entity that either provides health care directly or is involved in the business of supporting or providing health care		
Source standards			
Data type	Alphanumeric	**Representational class**	Free text
Field size	255	**Representational layout**	X(255)
Value domain			
Obligation	Mandatory		
Guide for use	The text is case-sensitive and can include spaces, apostrophes and hyphens, as well as macrons and other diacritic characters.		

Verification rules	Must be the same as the organisation name assigned to the HPI organisation identifier (HPI ORG ID): see below.

Organisation identifier

Definition	A unique eight-character identification assigned by the HPI system to an individual organisation		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	8	**Representational layout**	GXXNNN-C
Value domain			
Obligation	Mandatory		
Guide for use	Only the HPI system generates an HPI ORG ID. This is not re-used once assigned. Where more than one HPI ORG ID exists for an organisation, one is declared 'live' and all other HPI ORG IDs are made 'dormant' and attached to the live record. The HPI ORG ID is the primary key for organisation records. A Modulus 11 check digit routine is run over the organisation identifier to produce the organisation identifier check digit. G is a constant prefix – all HPI ORG ID numbers start with 'G'. X is either an alphabetic or a numeric. N is a number. C is the check digit established using the Modulus 11 system.		
Verification rules	Valid HPI ORG ID		

Facility

When submitting information into an infection surveillance system for a facility, the **Facility name** and **Facility identifier** are required. **Facility type** and address details are optional.

Facility name

Definition	The name of the facility that is providing services associated with the patient's encounter		
Source standards			
Data type	Alphanumeric	**Representational class**	Text
Field size	255	**Representational layout**	X(255)
Value domain			
Obligation	Mandatory		
Guide for use	The text is case-sensitive and can include spaces, apostrophes and hyphens, as well as macrons and other diacritic characters.		
Verification rules	Must be the same as the organisation name assigned to the HPI facility identifier.		

Facility identifier

Definition	The unique identifier for the facility that is providing services associated with the patient's encounter		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	8	**Representational layout**	FXXNNN-C
Value domain			
Obligation	Mandatory		
Guide for use	The Facility identifier is assigned by the HPI system at the time that the facility record in the HPI is created. F is a constant prefix – all facility identification numbers start with 'F'. X is either an alphabetic or a numeric. N is a number. C is the check digit established using the Modulus 11 system.		
Verification rules	Valid HP FAC ID		

Facility type

Definition	A code that identifies the facility entity		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	2	**Representational layout**	NN
Value domain	Ministry of Health's **Facility type code table**		
Obligation	Optional		
Guide for use			
Verification rules	Valid code set value if present		

Address information

The following data elements are required when submitting address details into an infection surveillance system for a health provider (individual, facility or organisation that provides health care).

Additional address details

Definition	The address of the building or institution		
Source standards	New Zealand Post Address Standard		
Data type	Alphanumeric	**Representational class**	Free text
Field size	1000	**Representational layout**	X(1000)
Value domain			
Obligation	Optional		
Guide for use	When printing or displaying address, this field should be placed at top of the address.		
Verification rules			

Street address/address line 1

Definition	The street or mailing address of a facility		
Source standards	New Zealand Post Address Standard		
Data type	Alphanumeric	**Representational class**	Free text
Field size	100	**Representational layout**	X(100)
Value domain			
Obligation	Mandatory		
Guide for use	This is used to record the floor, unit, street address or service delivery information; whichever is applicable.		
Verification rules			

Additional street address/address line 2

Definition	Other geographic information related to the facility address		
Source standards	New Zealand Post Address Standard		
Data type	Alphanumeric	**Representational class**	Free text
Field size	100	**Representational layout**	X(100)
Value domain			
Obligation	Optional		
Guide for use	This is used to record the unit, street address, rural delivery number, suburb, town/city, box lobby, post shop or post centre, as applicable.		
Verification rules			

Suburb/address line 3

Definition	The name of the suburb within a city or town situation or other delivery information		
Source standards	New Zealand Post Address Standard		
Data type	Alphabetic	**Representational class**	Free text
Field size	50	**Representational layout**	A(50)
Value domain			
Obligation	Optional		
Guide for use	This is used to record the rural delivery number, suburb, town/city, box lobby, post shop or post centre, as applicable.		
Verification rules			

Town or city/address line 4

Definition	The name of the city		
Source standards	New Zealand Post Address Standard		
Data type	Alphabetic	**Representational class**	Free text
Field size	50	**Representational layout**	A(50)
Value domain			
Obligation	Optional		
Guide for use	This is used to record the town/city.		
Verification rules			

Postcode (zip/postal code)

Definition	The numeric descriptor for a postal delivery area, aligned with the locality, suburb or place for the address		
Source standards	New Zealand Post Address Standard		
Data type	Alphanumeric	**Representational class**	Code
Field size	15	**Representational layout**	X(15)
Value domain			
Obligation	Optional		
Guide for use	In some cases, the post code may appear with the city element in the same line.		
Verification rules			