Infection Surveillance Data Standard

HISO 10058.1:2020

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**Contributors**

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# Introduction

Surveillance of infections is required in order to understand both infection prevalence and outbreaks. This knowledge will help to significantly reduce their incidence and severity. The increasing resistance of infections to antibiotics makes it even more important to improve infection surveillance.

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

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

Infection surveillance will support the ability to monitor the occurrence of infections or an outbreak by key organisms. This data will provide valuable information to support the sector in identifying, addressing and resourcing outbreaks. It will also support the reduction of health care associated infections and improve the care of patients, generally increasing patient safety and wellbeing. A minimum set of data is required to be captured consistently to support infection surveillance.

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

## Purpose

This standard is designed to ensure that the minimum information relating to infections is consistently captured for a patient’s health care encounter.

Standardised infection information will support the ability to analyse data captured in an infection surveillance system. This information will inform patient care as well as assist in identifying improvements to address outbreaks and to significantly reduce the incidence and severity of infections. The data may also be used for research and education purposes.

## Scope

This standard defines the minimum data to be captured for a patient with a suspected or confirmed infection identified as a result of a health care encounter.

The standard covers administrative, demographic, clinical information and observation details for patients with infections. Also included are relevant details for the patient’s activities and locations within the health care setting.

This standard covers the minimum data captured for the purposes of submitting into an infection surveillance system. The standard does not define the data sent from the laboratory to the physician responsible for the patient’s care.

It is recognised that some of these data elements detailed in this standard may not be relevant or able to be captured for a general practice or community setting encounter.

## 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 1994
* Health Practitioners Competence Assurance Act 2003
* New Zealand Public Health and Disability Act 2000
* Privacy Act 1993 (revised 2008)
* Public Records Act 2005

## 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 10046 Consumer Health Identity Standard](https://www.health.govt.nz/publication/hiso-10046-consumer-health-identity-standard)
* [HISO 10008.2:2015 Pathology and Radiology Messaging Standard](https://www.health.govt.nz/publication/hiso-1000822015-pathology-and-radiology-messaging-standard)
* [HISO 10008.3:2019 Notifiable Disease Messaging Implementation Guide](https://www.health.govt.nz/publication/hiso-1000832019-notifiable-disease-messaging-implementation-guide)
* [New Zealand Pathology Observation Code Set](https://www.health.govt.nz/publication/hiso-100042019-new-zealand-pathology-observation-code-sets)
* [New Zealand Universal List of Medicines (NZULM)](https://www.health.govt.nz/our-work/ehealth/other-ehealth-initiatives/emedicines/nz-universal-list-medicines)
* [HISO 10042 Medication charting and medicine reconciliation standards](https://www.health.govt.nz/publication/hiso-10042-medication-charting-and-medicine-reconciliation-standards¬¬¬¬)
* [HISO 10029:2015 Health Information Security Framework](https://www.health.govt.nz/publication/hiso-100292015-health-information-security-framework)

The current HISO Health Practitioner Index standards are listed below. These standards were published in 2008 and while they can provide guidance on the particular HPI values referred to in this standard, they are not suitable for any other purpose.

* [HISO 10005:2008 Health Practitioner Index (HPI) Data Set](https://www.health.govt.nz/publication/hiso-100052008-health-practitioner-index-hpi-data-set)
* [HISO 10006:2008 Health Practitioner Index (HPI) Code Set](https://www.health.govt.nz/publication/hiso-100062008-health-practitioner-index-hpi-code-set)

Note: refer to the provider information section in Appendix 1: Standard data elements for the current structure and format of a provider (being either a person, facility or organisation).

### SNOMED CT

HISO has endorsed SNOMED CT as the clinical terminology to use in New Zealand and is used in various data elements in this standard. The SNOMED CT NZ Edition includes all content from the SNOMED International Edition and New Zealand specific content in a separate package called the SNOMED NZ Extension.

Refer to the Ministry of Health’s website for releases and to download the SNOMED NZ Edition.

See [www.health.govt.nz/nz-health-statistics/classification-and-terminology/new-zealand-snomed-ct-national-release-centre/snomed-ct-subsets-and-maps](http://www.health.govt.nz/nz-health-statistics/classification-and-terminology/new-zealand-snomed-ct-national-release-centre/snomed-ct-subsets-and-maps)

For data elements where the use of SNOMED CT has been identified, the preferred term or synonym for the SNOMED concept should be displayed to the user and the term recorded with the correct SNOMED CT identifier. Active SNOMED CT concepts must be selected when determining values for data elements.

For further details of SNOMED CT concepts, refer to SNOMED International’s [SNOMED CT Browser](https://browser.ihtsdotools.org/?).

## Data element template

Data element specifications in this standard conform to the requirements of *ISO/IEC 11179* *Information Technology – Metadata Registries (MDR)*.[[1]](#footnote-1)

|  |  |  |  |
| --- | --- | --- | --- |
| **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  Date/time  Numeric (N)  Alphanumeric (X)  Boolean  SNOMED CT identifier | **Representational class** | Code, free text, value or identifier.  For date and time data types, use full date or partial date. |
| **Field size** | Maximum number of characters | **Representational layout** | The formatted arrangement of characters in alphanumeric elements, eg:   * X(50) for a 50-character alphanumeric string * NNN for a 3-digit number * NNAAAA for a formatted alphanumeric identifier |
| **Data domain** | The valid values or codes that are acceptable for the data element.  Each coded data element has a specified code set.  Code sets use the SNOMED CT clinical terminology standard where possible. Enumerated SNOMED concepts are denoted by preferred term and linked to descriptions in the [SNOMED International browser](http://browser.ihtsdotools.org/). Where there are many member concepts, a reference set is published in the SNOMED NZ Edition, available from the [SNOMED Member Licensing and Distribution Service](https://mlds.ihtsdotools.org/#/landing/NZ?lang=en).  To ensure compatibility between SNOMED concepts and Read Codes, a cross mapping is published in the SNOMED NZ Edition.  New Zealand Medicines Terminology (NZMT) is the standard used to identify medicines. | | |
| **Obligation** | Indicates if the data element is mandatory or optional in the context, or whether its appearance is conditional. | | |
| **Guide for use** | Additional guidance to inform the use of the data element. | | |
| **Verification rules** | Quality control mechanisms that preclude invalid values. | | |

# Patient

This section and following sections describe 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 that attends a health care setting (an encounter) and an infection is suspected.

An encounter may cover such things as observations, treatment, investigations, or surgical procedures. This encounter may also cover an admittance, attendance, a contact (mental health purposes) or delivery of care.

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

## Patient details

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

|  |  |
| --- | --- |
| **Data element** |  |
| ***Mandatory fields:*** |  |
| 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 |
| Mother’s birth name | GP practice |

*Given name, Family name (surname)* and *Date of birth* data elements are also 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.

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

See <https://www.health.govt.nz/publication/hiso-10046-consumer-health-identity-standard>

The format and content of the data elements that are marked in blue above and not included in HISO 10046 Consumer Health Identity Standard are:

### Sex

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The category into which the patients are determined based on reproductive organs. | | |
| **Source standards** |  | | |
| **Data type** | Alphabetic | **Representational class** | Code |
| **Field size** | 1 | **Representational layout** | A |
| **Data domain** | Must be a valid code from list below. | | |
| **Obligation** | Mandatory | | |
| **Guide for use** | |  |  | | --- | --- | |  | | | **Value** | **Meaning** | | F | Female | | M | Male | | U | Unknown | | I | Indeterminate | |  |  | | | |
| **Verification rules** | Valid value only | | |

### General practitioner

The patient’s general practitioner (GP).

This data element is optional. The patient’s GP information (if known) may be submitted to an infection surveillance system.

For further details on the format of the required data elements, refer to the data elements documented under the heading ‘Health care provider’ in Appendix A: Standard data elements. Health care provider

### GP practice

The GP practice where the patient is enrolled.

Use the National Enrolment Service record where possible to identify the patient’s GP practice.

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

When submitting information into an infection surveillance system for a GP practice, the data elements for a *Facility* are required. For further details on the format of these data elements, refer to ‘Facility’ in Appendix A: Standard data elements.

# Encounter

The following sections define the data elements that provide administrative details about the patient’s encounter and associated location(s).

## Encounter details

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

### Visit 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) |
| **Data domain** |  | | |
| **Obligation** | Mandatory | | |
| **Guide for use** | This may also be known as an Encounter ID, Episode ID, Event ID, PMS unique identifier. This is not the NHI. | | |
| **Verification rules** |  | | |

### Visit date and time

The date and time that the 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 content of this data element is provided under Date and time in Appendix A: Standard data elements.

### Patient class

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | This field is used by systems to categorise patients. | | |
| **Source standards** | HL7 version 2.4, HL7 User defined table 0004 – Patient class.  HISO 10008.2:2015 Pathology and Radiology Messaging Standard  <https://www.health.govt.nz/publication/hiso-1000822015-pathology-and-radiology-messaging-standard> | | |
| **Data type** | Alphabetic | Representational class | Code |
| **Field size** | 1 | Representational layout | A |
| **Data 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 | | |

### Health care provider

When submitting information into an infection surveillance system for an attending, referring or consulting health care provider, their *Name, Common person number* and *Assigning authority* are required. The health care providers 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. For further details on the format of these data elements, refer to the Health care provider section in Appendix A: Standard data elements.

#### Consulting health care provider

The details of the consulting health care provider for the patient. This information is mandatory.

#### Attending health care provider

The details of the attending health care provider assigned to the patient. This information is optional.

#### Referring health care provider

The details of the health care provider that referred the patient. This information is optional.

### Admission

For circumstances where a patient was or will be admitted into hospital, the following data elements are required to be submitted to an infection surveillance system.

#### Admission type

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The circumstances under which the patient was or will be admitted. | | |
| **Source standards** | HL7 version 2.4, HL7 User defined table 0007 – Admission type.  HISO 10008.2:2015 Pathology and Radiology Messaging Standard  <https://www.health.govt.nz/publication/hiso-1000822015-pathology-and-radiology-messaging-standard> | | |
| **Data type** | Alphabetic | Representational class | Code |
| **Field size** | 1 | Representational layout | A |
| **Data domain** | |  |  | | --- | --- | |  | | | **Code** | **Description** | | A | Accident | | E | Emergency | | L | Labour and delivery | | R | Routine | | N | Newborn | | U | Urgent | | C | Elective | |  |  | | | |
| **Obligation** | Conditional. Required for pre-admissions and admissions. | | |
| **Guide for use** |  | | |
| **Verification rules** | Valid code only | | |

#### Admission source

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | This indicates the process for the patient’s admission. | | |
| **Source standards** | HL7 version 2.4, HL7 User defined table 0023 – Admit source.  HISO 10008.2:2015 Pathology and Radiology Messaging Standard  <https://www.health.govt.nz/publication/hiso-1000822015-pathology-and-radiology-messaging-standard> | | |
| **Data type** | Numeric | Representational class | Code |
| **Field size** | 1 | Representational layout | N |
| **Data domain** | |  |  | | --- | --- | |  | | | **Code** | **Description** | | 1 | Physician referral | | 2 | Clinical referral | | 3 | HMO referral | | 4 | Transfer from a hospital | | 5 | Transfer from a skilled nursing facility | | 6 | Transfer from another health care facility | | 7 | Emergency room | | 8 | Court/law enforcement | | 9 | Information not available | |  |  | | | |
| **Obligation** | Conditional. Required for pre-admissions and admissions | | |
| **Guide for use** |  | | |
| **Verification rules** | Valid code only | | |

### Health specialty

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The health specialty under which the patient is seen and/or receives treatment. | | |
| **Source standards** | Ministry of Health’s Health Specialty code table. <https://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables/health-specialty-code-table> | | |
| **Data type** | Alphanumeric | **Representational class** | Code |
| **Field size** | 3 | **Representational layout** | X(3) |
| **Data domain** | A valid health specialty code from the Ministry of Health’s Health Specialty code table. | | |
| **Obligation** | Optional | | |
| **Guide for use** |  | | |
| **Verification rules** | Valid code only | | |

### Provisional / working diagnosis

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | A code that identifies the clinical description of a patient’s condition that is chiefly responsible for the encounter. | | |
| **Source standards** |  | | |
| **Data type** | SNOMED CT Identifier | Representational class | Code |
| **Field size** | 18 | Representational layout | N(18) |
| **Data domain** | An active SNOMED CT term from the *Clinical finding (404684003)* hierarchy that identifies the reason for the encounter. | | |
| **Obligation** | Optional | | |
| **Guide for use** | It’s 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 history of illness, any mental status evaluation, specialist consultations, physical examination, diagnostic tests or procedures, any surgical procedures, and any pathological or radiological examination. | | |
| **Verification rules** | Must be an active SNOMED CT concept. | | |

### Date/time of provisional diagnosis

The date and time that the provisional diagnosis was made.

This information is generally conditional. However, it is mandatory if a *Provisional/working diagnosis* has been recorded. For the format and content of this data element, refer to the date and time section of Appendix A: Standard data elements.

### Infection site

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The site (body structure) in which the infection is suspected or identified. | | |
| **Source standards** |  | | |
| **Data type** | SNOMED CT Identifier | **Representational class** | Code |
| **Field size** | 18 | **Representational layout** | N(18) |
| **Data domain** | Must be 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** | An active SNOMED CT concept. | | |

### Readmission

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | An indication of whether the patient was admitted to hospital due to an infection contracted as a result of a previous admission/treatment from the same or different service provider | | |
| **Source standards** |  | | |
| **Data type** | Boolean | **Representational class** | N/A |
| **Field size** | 1 | **Representational layout** | N(1,0) |
| **Data 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 *Infection site* is captured. | | |
| **Guide for use** | There may be multiple instances | | |
| **Verification rules** | Valid value only | | |

## Patient location

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

There may be multiple location instances 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, discharge, updates to the associated location of the patient are all important parameters to capture in real time.

### Facility

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. For further details on the format of these data elements, refer to the facility and address sections in Appendix A: Standard data elements.

### Organisation

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. For further details on the format of these data elements, refer to ‘Organisation’ in Appendix A: Standard data elements.

### Point of care

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | Details 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) |
| **Data domain** |  | | |
| **Obligation** | Mandatory | | |
| **Guide for use** | This may be the GP’s room, ward, or clinic/department. | | |
| **Verification rules** |  | | |

### Room

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The number or name of the room that the patient is assigned. | | |
| **Source standards** |  | | |
| **Data type** | Alphanumeric | Representational class | Free text |
| **Field size** | 50 | Representational layout | X(50) |
| **Data domain** |  | | |
| **Obligation** | Conditional. Mandatory if patient is placed in a room | | |
| **Guide for use** | This also refers to the theatre where an operation is/was held in. | | |
| **Verification rules** | Must be a valid room name or number within the facility. | | |

### Bed

|  |  |  |  |
| --- | --- | --- | --- |
| **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) |
| **Data domain** |  | | |
| **Obligation** | Conditional. Mandatory if assigned a bed | | |
| **Guide for use** | This also refers to the bed an operation took place on. | | |
| **Verification rules** | Must be a valid bed within the facility. | | |

### Bay/cubicle

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

### Floor/level

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The number 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** | 2 | Representational layout | X(2) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** |  | | |
| **Verification rules** | Must be a valid floor/level within the facility. | | |

### Location identifier

For service locations that are unable to be identified with a Health Provider Identifier (HPI), a global location number is required.

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | A business location or sub-location identifier. | | |
| **Source standards** | [NZBN Organisation Part API Use Case Specification](https://api.business.govt.nz/api/apis/info?name=NZBN&version=v4&provider=mbiecreator) | | |
| **Data type** | Numeric | Representational class | Identifier |
| **Field size** | 13 | Representational layout | N(13) |
| **Data domain** | Global Location Number (GLN) | | |
| **Obligation** | Optional | | |
| **Guide for use** | GLN is the primary identifier in the New Zealand Business Number (NZBN) register for locations and sub-locations of an organisation.  This is not the GLN for the organisation itself.  Use GLN where it exists  The last digit is a check digit – see the [GS1 check digit calculator](https://www.gs1.org/services/check-digit-calculator) | | |
| **Verification rules** | A valid Global Location Number | | |

### Location name

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | Location or sub-location name | | |
| **Source standards** | [NZBN Organisation Part API Use Case Specification](https://api.business.govt.nz/api/apis/info?name=NZBN&version=v4&provider=mbiecreator) | | |
| **Data type** | Alphanumeric | Representational class | Text |
| **Field size** | 100 | Representational layout | X(100) |
| **Data domain** | Free text | | |
| **Obligation** | Mandatory if location identifier is provided. | | |
| **Guide for use** | Maps to NZBN organisation part name, where GLN exists  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** |  | | |

### 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) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** | This data element provides the ability to capture further information that describes the patient’s location during an activity or as a result of an activity.  This should be used for describing locations that cannot be captured within the other patient location data elements. An example of the type of information captured in this field would be a person that has been discharged home or an aged care facility like (eg, home, Cashmere Heights Home, 16 Helston Road, Johnsonville).  This may also be the location name that maps to a NZBN organisation part name, where a GLN exists. | | |
| **Verification rules** |  | | |

## Discharge

The following data elements are to be submitted into an infection surveillance system when the care being given to a patient ends and the patient is discharged.

### Visit unique identifier

A unique identifier that is assigned by the source system for the patient’s encounter.

This is a mandatory field to be included with discharge information. Refer to 3.1.1 Visit unique identifier for details of this data element.

### Discharge date and time

The date and time of the physical departure of the patient from the location of point of care.

Examples of discharges may be moving between ED to an in-patient ward, discharged to another hospital, or discharged to the community. This may also be known as *Event end date.*

This is mandatory if a patient is admitted for health care. For the format and content of this data element, refer to the date and time section of Appendix A: Standard data elements.

### Discharge diagnosis

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The diagnosis identified as chiefly responsible for the episode of patient care covering admission, residential care or attendance at the healthcare establishment. | | |
| **Source standards** |  | | |
| **Data type** | SNOMED CT Identifier | **Representational class** | Code |
| **Field size** | 18 | **Representational** **layout** | N(18) |
| **Data domain** | An active SNOMED CT term 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 examination, diagnostic tests or procedures, any surgical procedures, and any pathological or radiological examination. | | |
| **Verification rules** | Must be an active SNOMED CT concept. May be the same as the *Provisional/working diagnosis.* | | |

### Discharge disposition

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The final place or setting to which the patient was discharged from on the day of discharge. | | |
| **Source standards** | Ministry of Health’s Event end type code table.  <https://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables/event-end-type-code-table> | | |
| **Data type** | Alphabetic | Representational class | Code |
| **Field size** | 2 | Representational layout | AA |
| **Data domain** | A valid Event end type code   |  |  | | --- | --- | |  | | |  | | | **Code** | **Description** | | DA | Discharge to an acute facility | | DC | Psychiatric patient discharged to community care | | DD | Died | | DF | Change of funder | | DI | Self-discharge from hospital - Indemnity signed | | DL | Committed psychiatric patient discharged to leave for more than 10 days | | DN | Psychiatric remand patient discharged without committal | | DO | Discharge of a patient kept sustainable for organ donation | | DP | Psychiatric patient transferred for further psychiatric care | | DR | Ended routinely | | DS | Self-discharge from hospital - No Indemnity | | DT | Discharge of patient to another health care facility | | DW | Discharge to another service within the same facility | | EA | Discharge from Emergency department acute facility to specialist facility for neonates and burns only | | ED | Died while still in Emergency department acute facility | | EI | Self-discharge from treatment in an Emergency department acute facility with indemnity signed | | ER | Routine discharge from an Emergency department acute facility | | ES | Self-discharge from treatment in an Emergency department acute facility without indemnity | | ET | Discharge from Emergency department acute facility to another health care facility | |  |  | | | |
| **Obligation** | Conditional. Mandatory if patient is discharged. | | |
| **Guide for use** |  | | |
| **Verification rules** | Valid code only | | |

### Discharge to location

The place or setting to which the patient was discharged to on the day of discharge.

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

When a patient is discharged to a place of residence, then refer to 3.2.9 Location descriptionfor the format of this data element.

# Observations

Observations provide information about the general health of the patient. They can be provided by a variety of systems, including but not limited to pathology, surgery, ADT (admission, discharge, and transfer), electronic patient record (EPR) and nursing documentation / charting systems.

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

For the purposes of this standard, there are two different types of observations, laboratory and non-laboratory observations.

The following sections document the core dataset for observations 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.

In addition, information on antibiotic use is also captured under Observations.

## Non-laboratory data

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

The following data elements can be submitted.

### Activity unique identifier

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | A unique identifier that is assigned by the source system for an activity under taken in relation to a patient’s infection. | | |
| **Source standards** |  | | |
| **Data type** | Alphanumeric | **Representational class** | Identifier |
| **Field size** | 36 | **Representational layout** | X(36) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** |  | | |
| **Verification rules** |  | | |

### Observation date/time

For observations taken directly on the patient, the observation date/time is the date/time that the observation was performed.

This data element is mandatory. This must be a valid date and time that is less than or equal to the current date and time. For the format and content of this data element, refer to the date and time section of Appendix A: Standard data elements.

### Activity location

The location where the activity or observation was performed on the patient.

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

### 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 |
| **Data domain** | Metres | | |
| **Obligation** | Optional | | |
| **Guide for use** | Record height to two decimal places. | | |
| **Verification rules** |  | | |

### 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 |
| **Data domain** | Kilograms | | |
| **Obligation** | Optional | | |
| **Guide for use** | May also be known as weight on admission, admission weight. Record weight to one decimal place. | | |
| **Verification rules** |  | | |

### Blood pressure (systolic/diastolic)

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The blood pressure level recorded during an encounter. | | |
| **Source standards** |  | | |
| **Data type** | Numeric | **Representational class** | Value |
| **Field size** | 7 | **Representational layout** | NNN/NNN |
| **Data domain** | Millimetres of mercury (mmHg/mmHg) | | |
| **Obligation** | Optional | | |
| **Guide for use** | Both the highest reading (systolic) and the lowest reading (diastolic) must be captured. | | |
| **Verification rules** | Valid measurement in units of millimetres of mercury (mmHg) | | |

### Temperature

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The body temperature of the patient taken during an encounter. | | |
| **Source standards** |  | | |
| **Data type** | Numeric | **Representational class** | Value |
| **Field size** | 4 | **Representational layout** | NN.N |
| **Data domain** | Celsius (oC) | | |
| **Obligation** | Optional | | |
| **Guide for use** | Record temperature to one decimal place. | | |
| **Verification rules** |  | | |

### Heart rate

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The heart rate of the patient taken during an encounter. | | |
| **Source standards** |  | | |
| **Data type** | Numeric | **Representational class** | Value |
| **Field size** | 3 | **Representational layout** | NNN |
| **Data domain** | Beats per minute (BPM) | | |
| **Obligation** | Optional | | |
| **Guide for use** | Must be greater than zero | | |
| **Verification rules** |  | | |

### Respiratory rate

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The respiratory rate of the patient taken during an encounter. | | |
| **Source standards** |  | | |
| **Data type** | Numeric | **Representational class** | Value |
| **Field size** | 3 | **Representational layout** | NNN |
| **Data domain** | Breaths per minute | | |
| **Obligation** | Optional | | |
| **Guide for use** |  | | |
| **Verification rules** | Must be greater than zero | | |

### Oxygen saturation (Sp02)

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The blood oxygen level of the patient taken during an encounter | | |
| **Source standards** |  | | |
| **Data type** | Numeric | **Representational class** | Value |
| **Field size** | 3 | **Representational layout** | NNN |
| **Data domain** | Percentage | | |
| **Obligation** | Optional | | |
| **Guide for use** |  | | |
| **Verification rules** | Must be greater than zero | | |

## Laboratory data - request

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

### Laboratory accession number

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

### Laboratory test

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The observation being requested or undertaken by a laboratory | | |
| **Source standards** | New Zealand Pathology Observation Code Set  <https://www.health.govt.nz/publication/hiso-100042019-new-zealand-pathology-observation-code-sets>  SNOMED CT International | | |
| **Data type** | Numeric | **Representational class** | Code |
| **Field size** | 18 | **Representational layout** | N(18) |
| **Data domain** | An active LOINC or SNOMED CT code. | | |
| **Obligation** | Mandatory | | |
| **Guide for use** | Must include the observation test name and code when submitting information to an infection surveillance system.  May also be known as Requested investigations | | |
| **Verification rules** | Must be an active LOINC code and short name or SNOMED CT identifier and clinical term. | | |

### Requesting health care provider

The details of the health care provider responsible for requesting/ordering/actioning an observation.

May also be known as ‘*Ordering provider’.* Refer to Appendix A, Health care providerfor further information on the structure of the data elements required. This is a mandatory field.

### Requesting facility

The facility that the *Requesting health care provider* is representing at the time of the request.

For further details on the format of the data elements for *Requesting facility,* refer to Appendix A, Facility. This is a mandatory field.

### Sample date/time

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

This data element is mandatory. This must be a valid date and time that is less than or equal to the current date and time. For the format and content of this data element, refer to the date and time section of Appendix A: Standard data elements.

### Patient location

The patient’s location at the time the sample was taken, is to be submitted. Refer to section 3.2 Patient location for the required data elements.

### Observation end date/time

The last date and time that the test or service was performed.

This data element is optional. The data element can be used to capture an expiry date. Must be a valid date and time that is greater than or equal to the Sample date and time.

For the format and content of this data element, refer to the date and time section of Appendix A: Standard data elements.

### Specimen received date/time

The date and time when the specimen(s) were received in the laboratory.

This data element is mandatory for specimens received in a laboratory. Must be a valid date and time that is less than or equal to the current date and time. For the format and content of this data element, refer to the date and time section of Appendix A: Standard data elements.

### Laboratory facility name

The name of the receiving laboratory that actions the observation.

This is a mandatory field when providing laboratory facility information to an infection surveillance system. The ‘Facility name’ format is to be used to provide the *Laboratory facility name. R*efer to the data elements under Facility in Appendix A: Standard data elements.

### Laboratory facility identifier

The unique identifier for the receiving laboratory that actions the observation.

This is a mandatory field when providing laboratory facility information to an infection surveillance system. The ‘Facility identifier’ format is to be used to provide the *Laboratory facility identifier. R*efer to the data elements under Facility in Appendix A: Standard data elements.

### Organisation

The organisation that operates the laboratory that actions the observation.

This is a mandatory field. When submitting information into an infection surveillance system for an organisation, the *Organisation name* and *Organisation identifier* are required. For further details on the format of these data elements, refer to ‘Organisation’ in Appendix A: Standard data elements. **Error! Reference source not found.**

## Laboratory data - result

### Observation result unique identifier

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | A laboratory’s unique identifier for the observation result. | | |
| **Source standards** | N/A | | |
| **Data type** | Alphanumeric | **Representational class** | Identifier |
| **Field size** | 30 | **Representational layout** | X(30) |
| **Data domain** | As defined by the laboratory. | | |
| **Obligation** | Mandatory | | |
| **Guide for use** | This is also known as *Observation identifier* | | |
| **Verification rules** |  | | |

### Observation result date/time

The date and time when the observation result was recorded.

This data element is mandatory for observation results. Must be a valid date and time that is less than or equal to the current date and time. For the format and content of this data element, refer to the date and time section of Appendix A: Standard data elements.

### Observation result

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The code associated with the result identified by the observation. | | |
| **Source standards** |  | | |
| **Data type** | SNOMED CT Identifier | **Representational class** | Code |
| **Field size** | 18 | **Representational layout** | N(18) |
| **Data domain** | An active SNOMED CT code from the *Clinical finding (404684003)* hierarchy. | | |
| **Obligation** | Mandatory | | |
| **Guide for use** | Must include the *observation result name* and *code* when submitting information to an infection surveillance system. | | |
| **Verification rules** | Must be an active SNOMED CT identifier and clinical term. | | |

### Units

The units of measurement are required when reporting a result.

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The units of measurement are required when reporting a result. | | |
| **Source standards** | See [HISO 10008.2:2015 Pathology and Radiology Messaging Standard.](https://www.health.govt.nz/publication/hiso-1000822015-pathology-and-radiology-messaging-standard) | | |
| **Data type** | Alphanumeric | **Representational class** | Code |
| **Field size** | 250 | **Representational layout** | X(250) |
| **Data 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 | | |

### Organism

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The organism identified by an observation. | | |
| **Source standards** |  | | |
| **Data type** | SNOMED CT Identifier | **Representational class** | Code |
| **Field size** | 18 | **Representational layout** | N(18) |
| **Data domain** | Must be an identifier from the [New Zealand microorganism reference set](https://refset.ihtsdotools.org/#/directory?refsetId=22846778) of the SNOMED CT New Zealand Edition. | | |
| **Obligation** | Mandatory | | |
| **Guide for use** | This also includes multi-drug resistant organisms.  Record up to five organism codes. | | |
| **Verification rules** | Must be an active SNOMED CT identifier and clinical term. | | |

### Organism growth

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | Description of the organism growth type. | | |
| **Source standards** |  | | |
| **Data type** | SNOMED CT Identifier | **Representational class** | Code |
| **Field size** | 18 | **Representational layout** | N(18) |
| **Data domain** | Should be a subtype of the *Finding of organism growth (365698005)* from the SNOMED CT New Zealand edition. | | |
| **Obligation** | Optional | | |
| **Guide for use** |  | | |
| **Verification rules** | Must be an active SNOMED CT identifier and clinical term. | | |

### Multi-drug resistant organism

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | Indicates whether it is a multi-drug resistant organism | | |
| **Source standards** |  | | |
| **Data type** | Boolean | **Representational class** | N/A |
| **Field size** | 1 | **Representational layout** | N(1,0) |
| **Data domain** | |  |  | | --- | --- | |  | | | **Value** | **Meaning** | | 1 | Yes, it is a multi-drug resistant organism | | 0 | No, it is not a multi-drug resistant organism | |  |  | | | |
| **Obligation** | Mandatory if patient has been diagnosed with an infection. | | |
| **Guide for use** |  | | |
| **Verification rules** | Valid value only | | |

### Abnormal flags

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | Indicates the normality status of the test result. | | |
| **Source standards** | HISO 10008.2:2015 Pathology and Radiology Messaging Standard.  <https://www.health.govt.nz/publication/hiso-1000822015-pathology-and-radiology-messaging-standard> | | |
| **Data type** | Alphabetic | **Representational class** | Code |
| **Field size** | 2 | **Representational layout** | A(2) |
| **Data 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 | | S | Susceptible. Indicator for microbiology susceptibilities only. | | R | Resistant. Indicator for microbiology susceptibilities only. | | I | Intermediate. Indicator for microbiology susceptibilities only. | |  |  | | | |
| **Obligation** | Mandatory for observation results and antibiotic susceptibilities associated with an organism. | | |
| **Guide for use** | To be collected for observation results and antibiotic susceptibilities associated with an organism. | | |
| **Verification rules** |  | | |

### Additional details

|  |  |  |  |
| --- | --- | --- | --- |
|  | Further details relating to the observation of the organism and/or it’s growth. | | |
| **Source standards** |  | | |
| **Data type** | Alphanumeric | **Representational class** | Free text |
| **Field size** | 500 | **Representational layout** | X(500) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** |  | | |
| **Verification rules** |  | | |

## Antibiotic details

The following sets out the details for recording and submitting information regarding antibiotics administered to the patient in relation to an encounter.

For each instance that an antibiotic is captured, the *Antibiotic name, Administered date and time, Dose, and Dose unit* must be submitted to an infection surveillance system.

### Antibiotic

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The generic name of the antibiotic used | | |
| **Source standards** | New Zealand Universal List of Medicines (NZULM)  https://[www.health.govt.nz/our-work/ehealth/other-ehealth-initiatives/emedicines/nz-universal-list-medicines](file:///C:\Users\bmarwick\AppData\Local\Temp\notes2D2695\www.health.govt.nz\our-work\ehealth\other-ehealth-initiatives\emedicines\nz-universal-list-medicines) | | |
| **Data type** | Numeric | **Representational class** | Code |
| **Field size** | 18 | **Representational layout** | N(18) |
| **Data domain** | A valid NZULM code | | |
| **Obligation** | Optional | | |
| **Guide for use** | A system should provide the ability to record multiple antibiotics. | | |
| **Verification rules** | Must be an active NZULM concept. | | |

### Administered date and time

The date and time the antibiotic was administered to the patient.

This data element is mandatory if an antibiotic has been administered. For the format and content of this data element, refer to the date and time section of Appendix A: Standard data elements.

### Dose

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | A specified quantity of a therapeutic agent prescribed to be taken at one time or at stated intervals. | | |
| **Source standards** |  | | |
| **Data type** | Alphanumeric | **Representational class** | Value |
| **Field size** | 4 | **Representational layout** | N(4) |
| **Data domain** |  | | |
| **Obligation** | Mandatory if an antibiotic has been specified. | | |
| **Guide for use** | The most common dose the patient takes.  Capture the dose for each antibiotic recorded. | | |
| **Verification rules** | Valid value | | |

### Dose unit

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The amount of a medication administered to a patient in a single dose. | | |
| **Source standards** |  | | |
| **Data type** | Alphabetic | **Representational class** | Free text |
| **Field size** | 30 | **Representational layout** | A(30) |
| **Data domain** |  | | |
| **Obligation** | Mandatory if an antibiotic has been specified. | | |
| **Guide for use** | The most common dose the patient takes.  Capture the dose for each antibiotic recorded. | | |
| **Verification rules** | Valid value | | |

# Appendix A: Standard 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 |
| **Field size** | 14 | Representational layout | CCYYMMDD [hh]:[mm]:[ss] |
| **Data domain** | Valid date and time | | |
| **Obligation** | Refer to the relevant section for specific obligational requirements. | | |
| **Guide for use** |  | | |
| **Verification rules** | Refer to the specific data element. | | |

### **Provider information**

Information relating to the health provider (being an individual, facility or organisation that provides health care) should be captured following the representational layout below:

### Health care provider

The following provides details of data elements for the health care provider referred to in this document. If a submission includes a *Health care provider name,* the health care provider’s *Common person number* and *assigning authority* must also be supplied.

##### Health care provider 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.  <https://www.health.govt.nz/publication/hiso-100052008-health-practitioner-index-hpi-data-set> | | |
| **Data type** | Alphabetic | **Representational class** | Text |
| **Field size** | 50 | **Representational layout** | A(50) |
| **Data domain** | The text is case-sensitive and can include spaces, apostrophes and hyphens, as well as macrons and other diacritic characters | | |
| **Obligation** | Refer to the various sections for specific obligational requirements. | | |
| **Guide for use** |  | | |
| **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 |
| **Data domain** | Valid CPN only | | |
| **Obligation** | Mandatory if a *Health care provider name* is submitted. | | |
| **Guide for use** | 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 | | |
| **Verification rules** | N – is a number excluding number zero “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. | | |

##### Assigning authority

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The source of the unique identifier for the health care provider. | | |
| **Source standards** |  | | |
| **Data type** | Alphanumeric | **Representational class** | Code |
| **Field size** | 10 | **Representational layout** | X(10) |
| **Data domain** |  | | |
| **Obligation** | Mandatory if a *Common person number* is submitted. | | |
| **Guide for use** |  | | |
| **Verification rules** | Assigning authority can be obtained from the clinician but must be validated with the HPI system. | | |

##### Health care provider role

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The role that the health care provider played as part of the care of patient. | | |
| **Source standards** |  | | |
| **Data type** | Alphanumeric | **Representational class** | Free text |
| **Field size** | 30 | **Representational layout** | X(30) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** |  | | |
| **Verification rules** |  | | |

##### Health care provider scope of practice

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | A code identifying the scope of practice that is applied to a healthcare provider under the Health Practitioners Competence Assurance Act 2003 | | |
| **Source standards** |  | | |
| **Data type** | Alphabetic | **Representational class** | Code |
| **Field size** | 4 | **Representational layout** | A(4) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** | This code classifies the type or range of healthcare services that a healthcare provider is authorised to provide. | | |
| **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) |
| **Data domain** | The text is case-sensitive and can include spaces, apostrophes and hyphens, as well as macrons and other diacritic characters | | |
| **Obligation** | Mandatory | | |
| **Guide for use** |  | | |
| **Verification rules** | Must be the same as the organisation name assigned to the HPI ORG ID. | | |

##### Organisation identifier

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | A unique 8-character ID assigned by the HPI system to an individual organisation. | | |
| **Source standards** |  | | |
| **Data type** | Alphanumeric | Representational class | Identifier |
| **Field size** | 8 | Representational layout | GXXNNN-C |
| **Data domain** | Valid HPI ORG ID only | | |
| **Obligation** | Mandatory | | |
| **Guide for use** | Only the HPI system generates an HPI organisation identification (HPI ORG ID).  This ID is not re-used once assigned.  Where more than one HPI ORG 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 organisation identification 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** | A valid HPI ORG identifier | | |

### 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 visit. | | |
| **Source standards** |  | | |
| **Data type** | Alphanumeric | Representational class | Text |
| **Field size** | 255 | Representational layout | X(255) |
| **Data domain** | The text is case-sensitive and can include spaces, apostrophes and hyphens, as well as macrons and other diacritic characters | | |
| **Obligation** | Mandatory | | |
| **Guide for use** |  | | |
| **Verification rules** | Must be the same as the organisation name assigned to the HPI FAC ID. | | |

##### Facility identifier

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | The unique identifier for the facility that is providing services associated with the patient’s visit. | | |
| **Source standards** |  | | |
| **Data type** | Alphanumeric | Representational class | Identifier |
| **Field size** | 8 | Representational layout | FXXNNN-C |
| **Data domain** | Valid HPI FAC ID only | | |
| **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** | A valid HPI FAC identifier | | |

##### Facility type

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | A code that classifies the facility entities | | |
| **Source standards** |  | | |
| **Data type** | Numeric | Representational class | Code |
| **Field size** | 3 | Representational layout | X(3) |
| **Data domain** | Optional | | |
| **Obligation** |  | | |
| **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.

##### Additional address details

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition** | A field to record for example, building names or institution names | | |
| **Source standards** | NZ Post Address Standard | | |
| **Data type** | Alphanumeric | **Representational class** | Free text |
| **Field size** | 1000 | **Representational layout** | Z(1000) |
| **Data 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** | NZ Post Address Standard | | |
| **Data type** | Alphanumeric | **Representational class** | Free text |
| **Field size** | 100 | **Representational layout** | X(100) |
| **Data domain** |  | | |
| **Obligation** | Mandatory | | |
| **Guide for use** | This is address line 1 and 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** | NZ Post Address Standard | | |
| **Data type** | Alphanumeric | **Representational class** | Free text |
| **Field size** | 100 | **Representational layout** | X(100) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** | This is address line 2 and is used to record the Unit, Street Address, RD 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** | NZ Post Address Standard | | |
| **Data type** | Alphabetic | **Representational class** | Free text |
| **Field size** | 50 | **Representational layout** | A(50) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** | This is address line 3 and 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** | NZ Post Address Standard | | |
| **Data type** | Alphabetic | **Representational class** | Free text |
| **Field size** | 50 | **Representational layout** | A(50) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** | This is address line 4 and 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** | NZ Post Address Standard | | |
| **Data type** | Alphanumeric | **Representational class** | Code |
| **Field size** | 15 | **Representational layout** | X(15) |
| **Data domain** |  | | |
| **Obligation** | Optional | | |
| **Guide for use** | In some cases, the post code may appear with the city element in the same line | | |
| **Verification rules** |  | | |

1. See https://standards.iso.org/ittf/PubliclyAvailableStandards/index.html [↑](#footnote-ref-1)