National Patient Flow

Phase 1 – Referrals

File Specification

|  |  |
| --- | --- |
| **Owner** | National Health Board  Information Group  National Collections and Reporting |
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|  |
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# Front Matter

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# Introduction

## Purpose of this document

This Ministry of Health File Specification defines the file format used to send information to the Ministry for inclusion in the National Patient Flow Data Collection (NPF). The document includes the following information:

* File Specification
* Data Formats
* Data Code Ranges
* Global Business Rules
* Validation Rules
* Logical Data Model diagram

## Authority for collection of health information

The Ministry of Health may collect health information where this is necessary to carry out lawful purposes connected with its functions and activities. These purposes, functions and activities may be set out in legislation, such as the Health Act 1956, or may be derived from lawful instructions from the Minister. The collection, storage and use of health information are also governed by the Privacy Act 1993 and the Health Information Privacy Code 1994.

## Contact

If you have any queries regarding this file layout or the National Patient Flow load process, please email [npfadmin@moh.govt.nz](mailto:compliance@moh.govt.nz).

# Overview of the National Patient Flow Collection

## Purpose

The National Patient Flow (NPF) Collection provides complete and accurate information on a patient’s journey from referral through secondary and tertiary care. Information is gathered at key events on the patient journey to provide a view of both an individual patient’s experience and the sector’s overall performance. Related patient referrals and activities are connected in the National Patient Flow Collection to provide a complete view of the patient’s secondary care.

The National Patient Flow Collection will be used to ensure consistent measurement of key patient care indicators including the outcome of referrals and the time it takes patients to access care. It will capture the outcome of the referral decision so that the referred demand for services is better understood.

## Content

On completion of Phase 1 of the development of NPF the Collection provides information aboutFirst Specialist Assessment (FSA) referrals.

The National Booking and Reporting (NBRS) Collection currently provides information to monitor wait times for patients from when they are given certainty for inpatient treatment until they receive the treatment or are removed from the list.

Data collected currently in the National Non-admitted Patient Collection (NNPAC) and the National Minimum Dataset – Hospital Events (NMDS) Collection is also relevant to the patient journey because these collections record health care event dates and so wait times can be derived.

## Health Identity Data

The National Health Index (NHI) is used to identify the patient. Only sufficient data to identify the patient will be submitted to NPF. Demographic data for the patient will be extracted from the NHI system and stored with the referral data when loaded into NPF.

The Health Provider Index (HPI) Organisation Identifier is used to identify the organisations submitting data to NPF.

Other identity data will be added as required.

## Start Date

All referral data for First Specialist Assessment (FSA) with Date Referral Received on or after 1 July 2014 will be collected.

## Data Collection

District Health Boards (DHBs) are the point of supply.

## Frequency of Updates

DHBs are required to provide referrals data to the Ministry on a weekly basis.

## Security of Data

The NPF database is only accessed by authorised Ministry of Health staff for maintenance, data quality, analytical and audit purposes.

Authorised members of the Ministry of Health’s Elective Services Team have access to the data for analytical purposes via the Business Objects reporting tool as do authorised Health Sector users who connect to a reporting tool via the secure Connected Health Network.

## Privacy Issues

The Ministry of Health is required to ensure that the release of information recognises any legislation related to the privacy of health information, in particular the Official Information Act 1982, the Privacy Act 1993 and the Health Information Privacy Code 1994.

Information available to the general public is of a statistical and non-identifiable nature. Researchers requiring identifiable data will usually need approval from an Ethics Committee.

## Reports and Publications

The NPF will allow reports to be produced that support nominated health service performance indicators (i.e. Elective Services Performance Indicators (ESPIs) and Faster Cancer Treatment) as well as reports that serve multiple purposes depending on the needs of the audience or parties who may be consumers of the data.

## Data Provision

Customised datasets or summary reports are available on request, either electronically or on paper. Staff from the Ministry of Health Analytical Services team can help to define the specifications for a request and are familiar with the strengths and weaknesses of the data. As some data elements are added or deleted as the collection evolves, consistent time-series data may not be able to be provided.

The Ministry of Health Analytical Services team also offers a peer review service to ensure that Ministry of Health data is reported appropriately when published by other organisations.

Requestors outside the Ministry of Health may be charged a fee for data extracts.

For further information about this collection or to request specific datasets or reports, contact The Ministry of Health Analytical Services team on (04) 816 2893 or email [data-enquiries@moh.govt.nz](mailto:data-enquiries@moh.govt.nz).

# Definitions

This section describes:

* Definitions that are relevant to referrals.
* Data element type classification.
* Notation used to specify the contents of data records.

## Referrals and Events

Refer to Appendix B: Glossary for the definitions of referrals and events.

In the context of NPF a referral is associated with one or more of the following health care events:

* Referral Received
* Triage
* Assessment
* Notification
* Booking
* Exception Handling

For Phase 1 it is mandatory for DHBs to submit First Specialist Assessment (FSA) referrals.

### Event Model

The event model and associated attributes have been designed to provide two primary functional requirements.

Firstly to capture events that are related to a particular referral and secondly to be able to identify each event uniquely within an organisational domain to maintain referential data integrity.



Figure 1 : Sample Referral

The above diagram shows how various events can be generated for a referral by different facilities, using different applications. The event generation model should be generalised by each DHB based on their operational mode. The logical date sequences that health care events must follow are recorded in the business rules of section 7 of this document.

The header of each health care event for a referral identifies the health information system, facility and organisation associated with the event.



Figure 2 : Event Identification Model

Fig 2 shows how a healthcare event is uniquely identified within an organisation with multiple facilities and/or multiple PAS systems.

* < XSD reference: Identifier>

This is a unique identifier assigned by the PAS system for each of the health care events generated by the PAS system.

* < XSD reference: Local Referral Identifier>

Local referral identifier is used between applications across different facilities within an organisation to identify all the events that belong to one particular referral. If there is more than one PAS system generating the health care events for referrals within a DHB, they must ensure the local referral identifier stays unique across the referral.



Figure 3: Local Referral Identifier

The PAS system that generates the first Referral Received Event for the Referral will assign the Local Referral Identifier, which is then reused, as shown in the Fig 3.

* < XSD reference: Initial Referral Identifier>

The Initial Referral Identifier is not being used in Phase 1 but is a field on the event file for future use. A patient may have multiple concurrent referrals that are related. The Initial Referral Identifier is the Local Referral Identifier of the original referral in the set of associated referrals. For Phase 1 it will be populated by the submitting system with the same value as the Local Referral Identifier.

## Request

A request consists of a logical operation, the event on which the operation is to be performed, and the data for the event.

Logical Operations are:

* Add
* Update
* Remove

Refer to Section 8 Input Record Operations for details.

## Element Types

### Dates

* The dateTime data type is used to specify a date and a time.
* The NPFxml dateTime should be submitted in one of two ways. The method chosen should be consistent throughout the entire batch file.

1. UTC (Coordinated Universal Time)
2. NZ local time.

* The dateTime is specified in the following form "YYYY-MM-DDThh:mm:ssZ" where:
* YYYY indicates the year
* MM indicates the month
* DD indicates the day
* T indicates the start of the required time section
* hh indicates the hour
* mm indicates the minute
* ss indicates the second
* Z is the time zone designator for UTC. If the time is not in UTC it should be omitted.

**Note:** All components are required.

* If dates and times are extracted from the submitter’s data base in UTC then a ‘Z’ must be appended to the end of the field to denote the dateTime is in UTC. If the batch header is in UTC then all Dates and Times within the files included in the batch will be interpreted as being UTC. Please note that this includes the xml file headers for each file within the batch even though these only contain the date and not the time (only an issue during daylight savings).
* If there is no ‘Z’ NPF will assume the Time is NZ local time. If the batch file name is in the local standard datetime format NPF will assume all dates and times are in local date and time and will interpret them as such (NZds andNZst)

**Example**

The times below are in UTC and local time. Both denote the same time in New Zealand.

<npf:creationTime>2014-06-11T03:13:30Z</npf:creationTime>

<npf:creationTime>2014-06-11T15:13:30</npf:creationTime>

If the zip batch file name is in UTC, G00006F\_2014-04-16T084020Z\_text1\_NPF\_TEST\_1.0 then NPF will process all date and time values in the file as if they are UTC.

For Time only hours, minutes and seconds should be submitted. Time information smaller than seconds should not be included.

**Examples**

The following will be accepted:

<npe:dateReferralReceived>2014-01-01T14:46:45</npe:dateReferralReceived>

The following will be rejected:

<npe:dateReferralReceived>2014-01-01T14:46:45:45</npe:dateReferralReceived>

### Integers

* Specified as ‘Integer’.
* These are integer numbers.
* There must be no decimal points or commas included.
* All integer values must be positive.

### Decimals

* Specified as ‘Decimal’
* Decimal values must be expressed with a decimal point between the whole number and the fraction.

### Strings

* Specified as ‘String’.
* Must contain ASCII characters only.

### Y/N flags or binary indicators

* Specified as ‘Boolean’.
* Must contain ‘true’ or ‘false’.

## Element Format Notation

The format notation used in this document for elements is as follows:

|  |  |
| --- | --- |
| **Notation** | **Meaning** |
| A | Alphabetic character |
| N | Numeric character |
| C | Check digit |
| X | alphabetic, numeric or special characters  For NPF ID elements the only permissible special character is‘-‘ (dash) |
| DD | Day of date |
| MM | Month of date |
| YYYY | Year of date |
| Hh | Hours |
| Mm | Minutes |
| Ss | Seconds |
| Z | Z is the time zone designator for UTC |
| (..) | Repeats to a maximum field length  e.g. A(3) means A, AA or AAA may be submitted |

## Element Code/Domain Values

Certain elements may contain a limited set of values (domain).

The record layouts in Section 7 indicate which elements have codes or set values and the applicable code table.

Refer to Appendix A: Code Tables for the tables of valid codes or valid values.

## Mandatory/Optional Elements

Mandatory data elements must be populated. Optional data elements may be null.

Conditionally mandatory data elements must be populated under certain conditions. Note that in NPF phase 1 there are no conditionally mandatory data elements.

The following symbols are used in the record layouts in the sections that follow:

|  |  |
| --- | --- |
| Symbol | Interpretation |
| M | Mandatory |
| O | Optional |
| C | Conditionally mandatory |

## Error ID

The Error ID is the identifier of an error or warning message produced during validation and processing of an input file. Refer to Appendix C for a list of the NPF error messages.

# File Processing Overview

## File transmission

The following context diagram demonstrates the applicable environments when a DHB submits a batch to the NPF.



When a DHB submits a file to the NPF, the following steps are carried out:

1. The submitter creates a batch of input files and places them in a zip file.
2. The zip file is sent to the submitter’s NPF drop off folder. Files are transmitted via SFTP (Secure File Transfer Protocol) over the Connected Health network.
3. Zip files are transferred from the NPF drop off folders to a staging area in preparation for processing. An email is sent to the submitter to confirm receipt of the files. (Refer to Appendix F for details).
4. The NPF application processes the files.
5. Zip files containing the responses following NPF processing are placed in the submitter’s pick up folder. An email is sent to the submitter to advise availability of a return zip file. (Refer to Appendix F for details)
6. The submitter retrieves the response file through the Ministry’s SFTP gateway server and corrects any errors.
7. Corrected input files are re-sent during the next upload window in new batches.

## Event File Processing

### Pre-processing

* The application gets a batch of event files from the staging area.
* Each file in the batch goes through an initial validation process that checks that the file conforms to the XML Schema Definition (XSD), i.e. that the format and data types are correct. If a file fails this validation process it is rejected.
* The system will validate the number of files submitted for each event type against the batch totals in the Summary File. If the batch check fails the entire batch is rejected.
* Valid files go on to the next stage of processing.
* Files or batches that fail pre-processing are placed in the output folder for return to the submitter.

### Record Processing Order

* The operation types for an event include:
* Remove
* Add
* Update
* The event types include:
* Referral Received
* Triage
* Notification
* Booking
* Assessment
* Exception Handling
* Records will be processed in the following order within a single batch:

1. Records with a Remove operation type will be processed first. All event types will be processed in the order of descending processing date/time[[1]](#footnote-1) from the most recent to the oldest.
2. Records with an Add operation type will be processed second. These will be processed in the following order:
3. Referral Received events will be processed in ascending order of the event date/time[[2]](#footnote-2) from the oldest to the most recent.
4. Triage events.
5. Notifications, Bookings, Assessments and Exception Handling events will be processed in ascending order of the date portion of the event date/time from the oldest to the most recent. If two event types have the same date they are placed in the following order:
   1. Event type sequence of:
      * Notification
      * Booking
      * Assessment
      * Exception Handling
   2. Ascending order of the time portion of event date/time

Where two or more Add events of Referral Received, Triage, Exception Handling, or Assessment are sent in a single batch with the same local Referral ID, event datetime, and Event type, they will be rejected.

Where two or more add Triage events are sent in a single batch with the same Local Referral ID, they will be rejected.

1. Records with an Update operation type will be processed third. These will be processed in the following order:
2. Referral Received events will be processed in ascending order of the event date/time from the oldest to the most recent.
3. Triage events.
4. Notifications, Bookings, Assessments and Exception Handling events will be processed in ascending order of the event date/time.

* For the Add and Update operations, if two different event types (e.g a Notification and a Booking) for the same referral have the same event date/time they will be processed in the following order: Notification, Booking, Assessment, Exception Handling.
* Where two or more of the same operation type are sent in a single batch with the same Local Event ID, they will be rejected.
* Refer to Appendix E: Record Processing Examples for diagrams that illustrate examples of record processing.

### Data Verification and Validation

* The files are validated for conformance with business rules (as per Section 7 of this document).
* Rejected event files will be returned to the submitter for error correction and resubmission.
* Files that fail validation are placed in the output folder for return to the submitter.

### Data Load

* Valid records are loaded into the database.

### Wrap up

* Response files and an error report are placed in the output folder.
* Once processing is complete an email notification is sent to the submitter informing them of the batch load status.

## Input Files

The following files are inputs to the NPF system:

### Event File

* Event files are submitted in batches with a unique batch identifier called a <XSD reference: businessTransactionId>.
* The Event File contains one health care event (refer to section 4.1 for a list of all possible health care events).
* Each file has a unique identifier that is the <XSD reference: correlationId>.
* Each event is identified by a <XSD reference: identifier>.
* The Event File is in XML format.

The Event File contains the following records:

|  |  |
| --- | --- |
| **Record** | **Description** |
| Header | Contains control information for the file that specifies the sender, receiver, target environment, and other identifying information. |
| Detail | Contains   * referral and event identifiers * patient NHI number * event data |

Refer to Section 7 Input Record Types for details of the fields contained in the above records.

### Summary File

* A Summary File is sent with each batch of event files.
* The Summary File contains summary counts by file type of event data submitted in a batch.
* The Summary File is in XML format.

The Summary File contains the following records:

|  |  |
| --- | --- |
| **Record** | **Description** |
| Header | Contains control information for the file that specifies the sender, receiver, target environment, and other identifying information. |
| Detail | Contains summary record counts for the event types submitted in the batch. |

Refer to Section 7 Input Record Types for details of the fields contained in the above records.

## Output Files

The following files are outputs of the NPF system.

### Event Response File

* An Event Response File is returned for each Event File.
* The Event Response File is in XML format.

The Event Response File contains the following records:

|  |  |
| --- | --- |
| **Record** | **Description** |
| Header | Contains   * control information for the input event file that specifies the sender, receiver, target environment, and other identifying information * accept/reject code. |
| Error/warning | Only present if the event file has been rejected because it contains errors or if the file has been accepted with warnings. |

Refer to Section 10 Output Record Types for details of the fields contained in the above records.

### Batch Report

* A Batch Report is produced by the NPF system at the end of batch processing to report statistics and errors encountered while processing the batch.
* The Batch Report contains the identifiers of the records that failed validation or were accepted with warnings. Also included is the associated error message for each error stating the reason for failure.
* It contains summary totals by error code.

The Batch report is in Excel (xls) format. Refer to Section 9.3 for details of the contents of the Batch Report.

## Batch Reversal

If an entire batch of events has been mistakenly loaded into the wrong processing environment where it has caused unwanted updates, a request to reverse the batch file can be sent to Data Management Services at the Ministry to reverse (undo) the changes.

|  |  |
| --- | --- |
| **WARNING:** | Only the last request processed for a referral can be reversed without business rules being compromised. Thus any referrals in the batch that have had subsequent updates will not have events reversed. |

NPF will create a summary report of the results. Data Management Services or the DHB can then reconcile the events that could not be reversed.

# Input File Definitions

## Overview

A collection of event files will be packaged into a compressed file before being uploaded to the Ministry.



Figure 4 : Events Packages

* Each batch file can contain a collection of different event type files. DHBs can upload the batches whenever they are ready providing that referrals data is submitted at least once a week as a minimum. NPF will process the batches when they are received.
* Event ordering is confined to a single batch file. NPF system will process the events contained within each batch in order. For this reason it is recommended that a second batch is only submitted after confirmation is received that the first batch has been processed in case the second batch has events that occurred after events in the first batch.

.

## Zip Batch File Name

The batch file name is in the following format:

<<Org ID>>**\_**<<Datetime>>**\_**<<Business Transaction ID>>**\_**<<Target System>>**\_**<<Target System Environment>>**\_**<<Target Version>>.zip

* Table Key: M = Mandatory. O = Optional. C = Conditional.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Org ID** | Identifier of the organisation sending the file | | X(8) – X(20) | M | ORGID[[3]](#footnote-3) |  | |
| **Business Rules** | **Description** | | | | | **Error ID[[4]](#footnote-4)** |
| PR01 | Identifier of the organisation/facility sending the file must be a valid code | | | | | NPF00101 |
| PR12 | DHB must be registered to submit files to NPF | | | | | NPF00010 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Datetime** | Datetime created | | YYYY-MM-DDThhmmssZ or YYYY-MM-DDThhmmss | M | - | If this datetime is UTC then all datetime elements in the file must be UTC. | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR02 | Datetime must be less than the processing datetime | | | | | NPF00001 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Business Transaction ID** | The batch identifier. A unique identifier assigned by the organisation for the batch of files | | X(36) | M | - | A batch identifier may be reused if the original batch was rejected. | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR08 | Duplicate or already processed batch identifier | | | | | NPF00003 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | NPF00112 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Target System** | The target system in which the file is to be processed ie NPF | | AAA | M |  | Fixed value for ”NPF”. Possible future use to specify events to be submitted to more than one collection. | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR03 | Target system must be NPF | | | | | NPF00009 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Target System Environment** | The target environment in which the file is to be processed. | | AAAA | M | SYSENV[[5]](#footnote-5) | Target system environment must be either Compliance or Production  The DHB must have the appropriate level of authorisation to submit files to the target system environment | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR04 | Target system environment must be either Compliance or Production | | | | | NPF00004 |
| BR251 | An organisation may only submit files to the NPF System if they have been authorised by the Data Manager | | | | | NPF00011 |
|  |  | | | | |  |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Target Version** | Target version of the business rules to apply to this file. Eg 1.0 | | NNN.N | M |  | Each batch should contain event files belonging to a single business rules version. Must align with active target version for this organisation | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR05 | Target version for business rules not valid | | | | | NPF00009 |

## Event/Summary File Name

The event/summary file name is in the following format:

<<Org ID>>**\_**<<Date>>**\_**<<Event Type>>**\_**<<Correlation ID>>**\_**<<Business Transaction ID>>**\_**<<Target System>>**\_**<<Target System Environment>>**\_**<<Target Version>>.xml

* Table Key: M = Mandatory. O = Optional. C = Conditional.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Org ID** | Identifier of the organisation sending the file | | X(8) – X(20) | M | ORGID |  | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR01 | Identifier of the organisation/facility sending the file must be a valid code | | | | | NPF00101 |
| PR06 | Does not match Org ID in Zip Filename. | | | | | NPF00005 |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Date** | Date sent | | YYYY-MM-DD | M |  |  | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR02 | Date should not be a future date | | | | | NPF00001 |
| PR06 | Does not match date in Zip Filename. | | | | | NPF00005 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Event Type** | The type of event data in the file | | AAA | M | EVENT | This field also applies to the summary file | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR07 | Event type must match code set | | | | | NPF00101 |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Correlation ID** | Unique identifier for the file from within the organisation. | | X(36) | M | - |  | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR14 | The Correlation ID must be unique within an organisation. | | | | | NPF00003 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | NPF00112 |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Business Transaction ID** | The batch identifier. A unique identifier assigned by the organisation for the batch of files . | | X(36) | M | - |  | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR06 | Does not match batch identifier in Zip Filename. | | | | | NPF00005 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | NPF00112 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Target System** | The target system in which the file is to be processed ie NPF | | AAA | M |  | Fixed value for “”NPF”. Possible future use to specify events to be submitted to more than one collection. | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR03 | Target system must be NPF | | | | | NPF00009 |
| PR06 | Does not match target system in Zip Filename. | | | | | NPF00005 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Target System Environment** | The target environment in which the file is to be processed. | | AAAA | M | SYSENV |  | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR04 | Target system environment must be either Compliance or Production | | | | | NPF00004 |
| PR06 | Does not match Zip Filename. | | | | | NPF00005 |
| **Data Element** | **Description** | | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| **Target Version** | Target version of for the business rules to apply to this file. Eg 1.0 | | NNN.N | M |  | Each batch should contain event files belonging to a single business rules version. Must align with active target version for this organisation | |
| **Business Rules** | **Description** | | | | | **Error ID** |
| PR05 | Target version for business rules not valid | | | | | NPF00009 |
| PR06 | Does not match Zip Filename. | | | | | NPF00005 |

## Example of File Names

An example of the names of a zip file and the files it contains:

Zip file:

G00036-D\_2014-07-01T094501\_0000000001\_NPF\_PROD\_1.0.zip

Zip file contents

G00036-D\_2014-07-01\_REF\_0000000001\_0000000001\_NPF\_PROD\_1.0.xml

G00036-D\_2014-07-01\_TRG\_0000000002\_0000000001\_NPF\_PROD\_1.0.xml

G00036-D\_2014-07-01\_SUM\_0000000003\_0000000001\_NPF\_PROD\_1.0.xml

# Input Record Types

This section describes the input record types and defines their contents.

## Header

### Function

The Header record is common to all XML files. It contains control information for the file that specifies the sender, target environment, and other identifying information.

### Data Elements

* Table Key: M = Mandatory. O = Optional. C = Conditional.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Correlation ID** | | | | | |
| **XML Element** | | npf:correlationId | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| Unique identifier for the file from within the organisation. | | String | X(36) | M | - | Must be the same as the Correlation ID in the file name. | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR09 | Match header details with Event Filename. | | | | | | NPF00006 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | NPF00112 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Business Transaction ID** | | | | | |
| **XML Element** | | npf:businessTransactionId | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The batch identifier. | | String | X(36) | M | - | Must be the same as the Business transaction ID in the file name. | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR09 | Match header details with Event Filename. | | | | | | NPF00006 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | NPF0012 |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Creation Time** | | | | | |
| **XML Element** | | npf:creationTime | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| Date and time that the file was created | | Datetime | YYYY-MM-DDThhmmssZ or YYYY-MM-DDThh:mm:ss | M | - | Must be a date in the past | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR02 | Date should not be a future date | | | | | | NPF00001 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Sending Application ID** | | | | | |
| **XML Element** | | npf:sendingApplication extension=”$” | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The ID of the application generating file. | | String | X(20) | M | - | Must contain an NNPAC extract system identifier that is currently being used by the DHB.  Populate the extension attribute of npf:sendingApplication in the xml | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
|  |  | | | | | |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Sending Application Version** | | | | | |
| **XML Element** | | npf:sendingApplicationVersion | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The version of the application generating file. | | String | X(255) | O | - |  | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
|  |  | | | | | |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Sending Organisation ID** | | | | | |
| **XML Element** | | npf:sendingOrganisation root="2.16.840.1.113883.2.18.3.3" assigningAuthorityName="HL7" extension = “$” | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The HPI Organisation Identifier of the organisation submitting the file | | String | AXXNNN-C | M | ORGID | Must be a valid Organisation Identifier in the Health Provider Index (HPI)  Populate the attributes of npf:sendingOrganisation in the xml as follows: root="2.16.840.1.113883.2.18.3.3" assigningAuthorityName="HL7" extension = “<Organisation Identifier>” | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR01 | Identifier of the organisation/facility sending the file must be a valid code | | | | | | NPF00101 |
| PR09 | Match header details with Event Filename. | | | | | | NPF00006 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Sending User ID** | | | | | |
| **XML Element** | | cor:userName | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The identifier of the user submitting the file. This field is not used for authentication. | | String | X(255) | M |  | The UserId is represented by a choice of either userName - the textual identity of the user; or id, a coded value identified by an Oid (typically the user's CPN).  Should contain ‘Batch’ for system generated files and username for manually created fix files. | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
|  |  | | | | | |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Sending Facility** | | | | | |
| **XML Element** | | npf:sendingFacility extension=”$” | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The HPI Facility Identifier of the facility submitting the file | | String | AXXNNN-C | M | FACID | ‘$’ must be populated with a valid Facility Identifier in the Health Provider Index (HPI) | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR01 | Identifier of the organisation/facility sending the file must be a valid code | | | | | | NPF00101 |
|  |  | | | | | |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Target System** | | | | | |
| **XML Element** | | npf:target collectionType="$" environment="&" version="@" | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The target system in which the file is to be processed | | String | ‘NPF’ | M | - | ‘$’ must be populated with the fixed value for “NPF”.  Possible future use to specify events to be submitted to more than one collection. | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR03 | Target system must be NPF | | | | | | NPF00009 |
| PR09 | Match header details with Event Filename. | | | | | | NPF00006 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Target System Environment** | | | | | |
| **XML Element** | | npf:target collectionType="$" environment="&" version="@" | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The target environment in which the file is to be processed | | String | AAAA | M | SYSENV | ‘&’ must be the same as the Target System Environment on the input file name. | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR04 | Target system environment must be either Compliance or Production | | | | | | NPF00004 |
| PR09 | Match header details with Event Filename. | | | | | | NPF00006 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Target Version** | | | | | |
| **XML Element** | | npf:target collectionType="$" environment="&" version="@" | | | | | |
| **Description** | | **Data**  **Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| Target version of for the business rules to apply to this file. Eg 1.0 | | String | NNN.N | M |  | ‘@’ should be populated with the target version | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR05 | Target version for business rules not valid | | | | | | NPF00009 |
| PR09 | Match header details with Event Filename. | | | | | | NPF00006 |

## REF – Referral Received

### Function

Referral Received is defined as: The event that marks the receipt of a referral by a DHB. It initiates the handling by the DHB of this referral. The initiating referrer may be primary, secondary based, or a self-referral.

### XSD Mandatory/optional validations

|  |  |  |
| --- | --- | --- |
| **Business Rules** | **Description** | **Error ID** |
| BR04 | A Referral Received event must include the following mandatory data elements:  - Local Referral Identifier  - Local Event Identifier  - Initial Referral Identifier  - National Health Index Number  - Date Referral Received  - Health Specialty Code  - Principal Health Service Purchaser  - Referred From Professional Group Type  - Referred To DHB ID | NPF00008 |
| BR224 | A Referral Received event may include the following optional data element: Referred From Organisation Type. | None |

### Data Elements

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Local Referral Identifier** | | | | | | |
| **XML Element** | | npe:localReferralIdentifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of the Referral that is unique within the DHB. | | String | X(36) | M | M | - | Used to associate event data for a referral.  Must be unique for a DHB | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR112 | Each referral must be uniquely identified | | | | | | | NPF00100 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Identifier** | | | | | | |
| **XML Element** | | com:identifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of each Health Care Event that is unique within the submitting organisation | | String | X(36) | M | M | - | Used to identify an event from other events in a referral.  Must be unique for a submitting organisation | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR232 | Each Health Care Event must be uniquely identified. | | | | | | | NPF00100 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **National Health Index Number (NHI)** | | | | | | |
| **XML Element** | | pat:patientNHI | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The National Health Index (NHI) is a mechanism for uniquely identifying every healthcare user. It assigns each person a unique number (known as the NHI number). The NHI includes demographic information such as name, address, date of birth, sex and ethnicity. | | String | AAANNNC | M | M | - | Must be a valid number – refer to Appendix D: NHI Number Validation.  Must exist in the NHI system.  If a dormant NHI is submitted the record would be accepted with a warning message.  The record is accepted with a warning if the patient is deceased. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| PR13 | NHI must have a valid format | | | | | | | NPF00105 |
| BR230 | The NHI number submitted must be already existent within the NHI system. | | | | | | | NPF00106 |
| BR268 | The NHI number submitted may be either a live or a dormant NHI | | | | | | | NPF00214 |
| BR273 | The NHI number submitted may be for a patient who is either deceased or alive | | | | | | | NPF00217 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Initial Referral Identifier** | | | | | | | |
| **XML Element** | | npe:initialReferralIdentifier | | | | | | | |
| **Description** | | **Data Type** | | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The Local Unique Identifier for the first referral to which this referral is related. | | | String | X(36) | M | - | - | Used to associate related referrals for a patient in Phase 2.  Must be populated with the Local Unique Identifier for Phase 1. | |
| **Business Rules** | **Description** | | | | | | | | **Error ID** |
| PR11 | Must be populated with the Local Unique Identifier for Phase 1. | | | | | | | | NPF00104 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Date Referral Received** | | | | | | |
| **XML Element** | | npe:dateReferralReceived | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The date the referral is first received in the receiving DHB | | Datetime | YYYY-MM-DDThhmmssZ or YYYY-MM-DDThh:mm:ss | M | M | - | Must be earlier than or the same as Creation Time in the header record | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR233 | The Date Referral Received must be earlier than or the same as the date it is received into the NPF system. | | | | | | | NPF00103 |
| PR24 | Date Referral Received must be on or after 01 July 2014 | | | | | | | NPF00102 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Health Specialty Code** | | | | | | |
| **XML Element** | | npe:healthSpecialty codeSystem="HLTHSP" value=”$” | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The health specialty of the services referred to. | | String | ANN | M | - | HLTHSP | ‘$’ must be populated with a valid health specialty code. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Principal Health Service Purchaser** | | | | | | |
| **XML Element** | | npe:principleHealthServicePurchaser codeSystem=" SVCPURCH " value=”$” | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The organisation or body that purchased the healthcare service provided. In the case of more than one purchaser, the one who paid the most. | | String | XX | M | - | SVCPURCH | ‘$’ must be populated with a valid Principal Health Service Purchaser code. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |

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| **Data Element** | **Referred From Professional Group Type** | | | | | | |
| **XML Element** | referredFromProfessionalGroupType codeSystem="PROFGRP" value=”$” | | | | | | |
| **Description** | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The health professional group of the referrer. | String | N(2) | M | - | PROFGRP | ‘$’ must be populated with a valid health professional group code. | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | NPF00101 |

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| **Data Element** | | **Referred From Organisation Type** | | | | | | |
| **XML Element** | | referredFromOrganisationType codeSystem=" ORGTYP" value=”$” | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| Organisation type of the referred from organisation. | | String | N(2) | O | - | ORGTYP | If this field is supplied, ‘$’ must be populated with a valid Organisation Type code. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |

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| **Data Element** | | **Referred To DHB ID** | | | | | | |
| **XML Element** | | npe:referredToDhbId codeSystem="DHB" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The Health Provider Index (HPI) Identifier for the referred to DHB, which is the DHB that received the Referral. E.g G00011-K (Auckland District Health Board). | | String | ANNNNN-C | M | - | DHB | ‘$’ must be populated with a valid DHB code. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR103 | A referral can only be made to one health care provider who has a currently registered Referred To DHB ID. | | | | | | | NPF00101 |

## TRG – Triage

### Function

Triage is defined as: the sorting and classification of patients to determine priority of need and proper place of Treatment.

### XSD Mandatory/optional validation

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| **Business Rules** | **Description** | **Error ID** |
| BR25 | A Triage event must include the following mandatory data elements:  - Local Referral Identifier  - Local Event Identifier  - National Health Index Number  - Clinician Defined Triage Category  - Clinician Defined Suspicion Cancer  - Service Type  - Triage Outcome | NPF00008 |
| BR225 | A Triage event may include the following optional data elements:  - Service Sub-Type  - Optimal Date For Assessment  - Clinical Exclusion Code | None |

### Data Elements

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| **Business Rules** | **Description** | **Error ID** |
| BR110 | A health care event must be associated with only one referral. |  |

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| **Data Element** | | **Local Referral Identifier** | | | | | | |
| **XML Element** | | npe:localReferralIdentifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of the referral that is unique within the DHB. | | String | X(36) | M | M | - | Used to associate event data for a referral.  Must be the same as an existing Referral Received (REF). | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

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| **Data Element** | | **Identifier** | | | | | | |
| **XML Element** | | com:identifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of each Health Care Event that is unique within the submitting organisation | | String | X(36) | M | M | - | Used to identify an event from other events in a referral.  Must be unique for a submitting organisation | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR232 | Each Health Care Event must be uniquely identified. | | | | | | | NPF00100 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

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| **Data Element** | | **National Health Index Number (NHI)** | | | | | | |
| **XML Element** | | pat:patientNHI | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The National Health Index (NHI) is a mechanism for uniquely identifying every healthcare user. It assigns each person a unique number (known as the NHI number). The NHI includes demographic information such as name, address, date of birth, sex and ethnicity. | | String | AAANNNC | M | M | - | Must be a valid number – refer to Appendix D: NHI Number Validation  Must exist in the NHI system  If a dormant NHI is submitted the record would be accepted with a warning message.  The record is accepted with a warning if the patient is deceased. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| PR13 | NHI must have a valid format | | | | | | | NPF00105 |
| BR230 | The NHI number submitted must be already exists within the NHI system. | | | | | | | NPF00106 |
| BR111 | Each referral must be associated with exactly one patient | | | | | | | NPF00211 |
| BR268 | The NHI number submitted may be either a live or a dormant NHI | | | | | | | NPF00214 |
| BR273 | The NHI number submitted may be for a patient who is either deceased or alive | | | | | | | NPF00217 |

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| **Data Element** | | **Clinician Defined Triage Category** | | | | | | |
| **XML Element** | | npe:clinicianDefinedTriageCategory codeSystem="TRICAT" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A code indicating the urgency of the referral determined by Triage process. | | String | NNN | M | - | TRICAT | ‘$’ must be populated with a valid Clinician Defined Triage Category code. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |
| BR242 | A Triage Outcome of 'not decided - pending test results' is always accompanied by a Clinician Defined Triage Category of 'not determined - pending test'. | | | | | | | NPF00110 |

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| **Data Element** | | **Clinician Defined Suspicion of Cancer (SCAN)** | | | | | | |
| **XML Element** | | npe:clinicianDefinedSuspicionOfCancer codeSystem="SCAN" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A code indicating the level of suspicion of cancer for the patient determined by Triage process. | | String | N(2) | M | - | SCAN | ‘$’ must be populated with a valid Clinician Defined Suspicion of Cancer code | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |

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| **Data Element** | | **Service Type** | | | | | | |
| **XML Element** | | npe:serviceType codeSystem="SRV" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A code indicating what type of service the referral was made for. | | String | N | M | - | SRV | ‘$’ must be populated with a valid Service Type code  For Phase 1 it is mandatory to submit referrals with a Service Type code of ‘FSA’ | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |

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| **Data Element** | | **Service Sub-Type** | | | | | | |
| **XML Element** | | npe:serviceSubType codeSystem="SRVSUB" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A further definition of the Service Type | | String | N(2) | O | - | SRVSUB | If this element is supplied, ‘$’ must be populated with a valid Service Sub-Type code and it must be valid for the Service Type.  Refer to the Service Sub-Type code table in Appendix A for details of valid Service Type/Service Sub Type combinations. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |
| BR190 | When the Service Type is 'FSA', then the Service Sub-Type may be one of the following:  - Face to face  - Non contact FSA  - Telemed FSA | | | | | | | NPF00107 |
| BR191 | When the Service Type is ‘procedure’, and the Service Sub-Type is present, then the Service Sub-Type may be one of the following:  - Botulinum Toxin Therapy  - Bronschoscopy  - Chemotherapy  - Colonoscopy  - Cystoscopy  - Dental Treatment  - ERCP  - Eye Injection  - Eye Laser  - Gastroscopy  - Lithotripsy  - Minor Eye Procedure  - Minor Operation  - Radiotherapy  - Skin Lesion Removal  - Urodynamics  - Procedure – Other | | | | | | | NPF00107 |
| BR192 | When the Service Type is ‘test’, and the Service Sub-Type is present, then the Service Sub-Type may be one of the following:  - MRI scan  - CT scan  - CT colonography  - Ultrasound  - PET scan  - Xray (plain)  - Nuclear medicine  - Audiology  - Echo cardiogram  - ETT  - ECG  - Nerve studies  - Sleep study  - Test - Other | | | | | | | NPF00107 |

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| **Data Element** | | **Optimal Date for Assessment** | | | | | | |
| **XML Element** | | npe:optimalDateForAssessment | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The date by which the patient should be seen according to the assigned priority. | | Datetime | YYYY-MM-DDThhmmssZ or YYYY-MM-DDThh:mm:ss | O | - | - | Must be later than or the same as the Date Referral Received. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR234 | When the Optimal Date for Assessment data element is present, it must be later than or the same as the Date Referral Received. | | | | | | | NPF00102 |

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| **Data Element** | | **Clinical Exclusion Code** | | | | | | |
| **XML Element** | | npe:clinicalExclusionCode codeSystem="CLINEX" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A code indicating whether the procedure is normal, planned, or surveillance (exclude from KPI). | | String | A | O | - | CLINEX | If this element is supplied, ‘$’ must be populated with a valid Clinical Exclusion Code | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |

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| **Data Element** | | **Triage Outcome** | | | | | | |
| **XML Element** | | npe:triageOutcome codeSystem="TRIOUT" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The outcome of the Triage as determined by the clinician. | | String | N | M | - | TROUT | ‘$’ must be populated with a valid Triage Outcome code  Must contain 1 (Not decided - pending test results) or 5 (Declined – insufficient information) if Clinician Defined Triage Category is 000 (Not determined - pending test). | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR209 | A Clinician Defined Triage Category of 'not determined - pending test' is always accompanied by a Triage Outcome of either 'not decided - pending test results' or ‘declined – insufficient information. | | | | | | | NPF00107 |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |

## NFY – Notification

### Function

Notification is defined as: the acknowledgement sent to the patient and referrer detailing the outcome of the Triage, Assessment, or for a new Booking.

### XSD Mandatory/optional validations

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| **Business Rules** | **Description** | **Error ID** |
| BR199 | A Notification event must include the following mandatory data elements:  - Local Referral Identifier  - Local Event Identifier  - National Health Index Number  - Date Triage Outcome Notified | NPF00008 |

### Data Elements

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| **Business Rules** | **Description** | **Error ID** |
| BR110 | A health care event must be associated with only one referral. |  |
| BR104 | Each patient who will receive a Notification must first have been Triaged with a Triage Outcome of one of the following:  - Accepted  - Transferred – to another DHB  - Declined - insufficient information  - Declined - Assessment not required  - Declined - below threshold  - Declined – not eligible for publicly funded care. | NPF00204 |

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| **Data Element** | | **Local Referral Identifier** | | | | | | |
| **XML Element** | | npe:localReferralIdentifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of the referral that is unique within the DHB. | | String | X(36) | M | M | - | Used to associate event data for a referral.  Must be the same as an existing Referral Received (REF). | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

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| **Data Element** | | **Identifier** | | | | | | |
| **XML Element** | | com:identifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of each Health Care Event that is unique within the submitting organisation | | String | X(36) | M | M | - | Used to identify an event from other events in a referral.  Must be unique for a submitting organisation | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR232 | Each Health Care Event must be uniquely identified. | | | | | | | NPF00100 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

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| **Data Element** | | **National Health Index Number (NHI)** | | | | | | |
| **XML Element** | | pat:patientNHI | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The National Health Index (NHI) is a mechanism for uniquely identifying every healthcare user. It assigns each person a unique number (known as the NHI number). The NHI includes demographic information such as name, address, date of birth, sex and ethnicity. | | String | AAANNNC | M | M | - | Must be a valid number – refer to Appendix D: NHI Number Validation.  Must exist in the NHI system.  If a dormant NHI is submitted the record would be accepted with a warning message.  The event is accepted with a warning if the patient is deceased. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| PR13 | NHI must have a valid format | | | | | | | NPF00105 |
| BR230 | The NHI number submitted must already be existent within the NHI system. | | | | | | | NPF00106 |
| BR268 | The NHI number submitted may be either a live or a dormant NHI | | | | | | | NPF00214 |
| BR273 | The NHI number submitted may be for a patient who is either deceased or alive | | | | | | | NPF00217 |
| BR111 | Each referral must be associated with exactly one patient. | | | | | | | NPF00211 |

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| **Data Element** | | **Date Triage Outcome Notified** | | | | | | |
| **XML Element** | | npe:dateTriageOutcomeNotified | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The date on which the DHB notified the patient of the Triage Outcome. | | Datetime | YYYY-MM-DDThhmmssZ or YYYY-MM-DDThh:mm:ss | M | - | - | The Notification is expected to be sent to the patient after Triage confirming outcome.  The Notification date will be treated as the date the Notification is sent to both patient and the Referrer in phase 1  Must be later than or the same as the Date Referral Received.  Note that as well as being sent to the patient, the notification is also sent to the referrer and the patient’s GP (if not the referrer). However the date of significance is the date it is sent to the patient. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR128 | Within the same referral, the Date Triage Outcome Notified must be equal to or later than the Date Referral Received. | | | | | | | NPF00102 |

## BKG – Booking

### Function

Booking is defined as: the scheduling of a patient for Assessment, Treatment or diagnostic test.

### XSD Mandatory/optional validations

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| **Business Rules** | **Description** | **Error ID** |
| BR54 | A Booking event must include the following mandatory data elements:  - Local Referral Identifier  - Local Event Identifier  - National Health Index Number  - Date Booking Made  - Date Patient Booked | NPF00008 |
| BR226 | A Booking event may include the following optional data element: Service Type. | None |

### Data Elements

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| **Business Rules** | **Description** | **Error ID** |
| BR110 | A health care event must be associated with only one referral. |  |
| BR210 | A Booking is always preceded by a Triage with a Triage Outcome of "Accepted". | NPF00204 |

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| **Data Element** | | **Local Referral Identifier** | | | | | | |
| **XML Element** | | npe:localReferralIdentifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of the referral that is unique within the DHB. | | String | X(36) | M | M | - | Used to associate event data for a referral.  Must be the same as an existing Referral Received (REF). | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

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| **Data Element** | | **Identifier** | | | | | | |
| **XML Element** | | com:identifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of each Health Care Event that is unique within the submitting organisation | | String | X(36) | M | M | - | Used to identify an event from other events in a referral.  Must be unique for a submitting organisation | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR232 | Each Health Care Event must be uniquely identified. | | | | | | | NPF00100 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

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| **Data Element** | | **National Health Index Number (NHI)** | | | | | | |
| **XML Element** | | pat:patientNHI | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The National Health Index (NHI) is a mechanism for uniquely identifying every healthcare user. It assigns each person a unique number (known as the NHI number). The NHI includes demographic information such as name, address, date of birth, sex and ethnicity. | | String | AAANNNC | M | M | - | Must be a valid number – refer to Appendix D: NHI Number Validation  Must exist in the NHI system  If a dormant NHI is submitted the record would be accepted with a warning message.  The record is accepted with a warning if the patient is deceased. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR230 | The NHI number submitted must be already existent within the NHI system. | | | | | | | NPF00106 |
| BR111 | Each referral must be associated with exactly one patient. | | | | | | | NPF00211 |
| BR268 | The NHI number submitted may be either a live or a dormant NHI | | | | | | | NPF00214 |
| BR273 | The NHI number submitted may be for a patient who is either deceased or alive | | | | | | | NPF00217 |
| PR13 | NHI must have a valid format | | | | | | | NPF00105 |

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| **Data Element** | | **Date Booking Made** | | | | | | | |
| **XML Element** | | npe:dateBookingMade | | | | | | | |
| **Description** | | **Data Type** | | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The date that the health care provider organisation sent or provided the patient with firm advice about the date on which their Assessment would occur. | | | Datetime | YYYY-MM-DDThhmmssZ or YYYY-MM-DDThh:mm:ss | M | - | - | Must be equal to or later than the Date Triage Outcome Notified. | |
| **Business Rules** | **Description** | | | | | | | | **Error ID** |
| BR130 | Within the same referral, the Date Booking Made must be equal to or later than the Date Triage Outcome Notified. | | | | | | | | NPF00102 |

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| **Data Element** | | **Date Patient Booked** | | | | | | |
| **XML Element** | | npe:datePatientBooked | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The current date that the patient’s Assessment is scheduled for. | | Datetime | YYYY-MM-DDThhmmssZ or YYYY-MM-DDThh:mm:ss | M | - | - | If not equal to or later than Date Booking Made the system will accept the event but a warning message will be generated. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR229 | Within the same referral, the Date Patient Booked must be equal to or later than the Date Booking Made | | | | | | | NPF00111 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Service Type** | | | | | | |
| **XML Element** | | npe:serviceType codeSystem="SRV" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A code indicating the type of service the patient is Booked for. | | String | N | O | - | SRV | If this element is supplied, ‘$’ must be populated with a valid Service Type code | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |

## ASS – Assessment

### Function

Assessment is defined as: the process used to learn about a patient’s condition. This may include a complete medical history, medical tests, a physical exam, a test of learning skills, tests to find out if the patient is able to carry out the tasks of daily living, a mental health evaluation, and a review of social support and community resources available to the patient.

### XSD Mandatory/optional validations

|  |  |  |
| --- | --- | --- |
| **Business Rules** | **Description** | **Error ID** |
| BR67 | An Assessment event must include the following mandatory data elements:  - Local Referral Identifier  - Local Event Identifier  - National Health Index Number  - Date Patient Assessed  - Attendance Outcome  - Attendance Outcome Decision | NPF00008 |
| BR227 | An Assessment event may include the following optional data elements:  - NNPAC PMS Unique Identifier  - Specialty Referred To  - DHB Referred To | None |

### Data Elements

|  |  |  |
| --- | --- | --- |
| **Business Rules** | **Description** | **Error ID** |
| BR110 | A health care event must be associated with only one referral. |  |
| BR59 | Each patient who will be Assessed must have first been Booked. | NPF00204 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Local Referral Identifier** | | | | | | |
| **XML Element** | | npe:localReferralIdentifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of the referral that is unique within the DHB. | | String | X(36) | M | M | - | Used to associate event data for a referral.  Must be the same as an existing Referral Received (REF). | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Identifier** | | | | | | |
| **XML Element** | | com:identifier | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| A local unique identifier of each Health Care Event that is unique within the submitting organisation | | String | X(36) | M | M | - | Used to identify an event from other events in a referral.  Must be unique for a submitting organisation | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR232 | Each Health Care Event must be uniquely identified. | | | | | | | NPF00100 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | | NPF00112 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **National Health Index Number (NHI)** | | | | | | |
| **XML Element** | | pat:patientNHI | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The National Health Index (NHI) is a mechanism for uniquely identifying every healthcare user. It assigns each person a unique number (known as the NHI number). The NHI includes demographic information such as name, address, date of birth, sex and ethnicity. | | String | AAANNNC | M | M | - | Must be a valid number – refer to Appendix D: NHI Number Validation  Must exist in the NHI system  If a dormant NHI is submitted the record would be accepted with a warning message.  The record is accepted with a warning if the patient is deceased. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR230 | The NHI number submitted must be already existent within the NHI system. | | | | | | | NPF00106 |
| BR111 | Each referral must be associated with exactly one patient. | | | | | | | NPF00211 |
| BR268 | The NHI number submitted may be either a live or a dormant NHI | | | | | | | NPF00214 |
| BR273 | The NHI number submitted may be for a patient who is either deceased or alive | | | | | | | NPF00217 |
| PR13 | NHI must have a valid format | | | | | | | NPF00105 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Date Patient Assessed** | | | | | | |
| **XML Element** | | npe:datePatientAssessed | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| Date the patient was seen by the specialist for the Assessment. | | Datetime | YYYY-MM-DDThhmmssZ or YYYY-MM-DDThh:mm:ss | M | - | - | The date portion must be the same as the date portion of Date Patient Booked for the “active” Booking event. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR141 | Within the same referral, the Date Patient Assessed must be the same as the Date Patient Booked. | | | | | | | NPF00118 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **NNPAC PMS Unique Identifier** | | | | | | |
| **XML Element** | | npe:NNPACId | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The assessment event ID of the related National Non-Admitted Patients’ Collection (NNPAC) event. | | String | X(14) | O | - | - | This will enable NNPAC to be linked with the NPF using a common ID to enable additional analysis. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
|  |  | | | | | | |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Attendance Outcome** | | | | | | |
| **XML Element** | | npe:attendanceOutcome codeSystem="ATTOUT" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The outcome of the Assessment. | | String | N | M | - | ATTOUT | ‘$’ must be populated with a valid Attendance Outcome code. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Attendance Outcome Decision** | | | | | | |
| **XML Element** | | npe:attendanceOutcomeDecision codeSystem="ATTOUTD" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The result of the Attendance Outcome, where the decision on the next step for the patient is reported. | | String | N(2) | M | - | ATTOUTD | ‘$’ must be populated with a valid Attendance Decision Outcome code.  Must be valid Attendance Decision Outcome code for the Attendance Outcome. Refer to the Attendance Outcome Decision code table in Appendix A for valid combinations of .Attendance Outcome and Attendance Outcome Decision. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |
| BR195 | When the Attendance Outcome is 'attended', then the Attendance Outcome Decision must be one of the following:  - Discharge to GP  - Clinic follow up  - Referred to another specialty within DHB  - Referred to another DHB  - Referred for Procedure  - Referred for test  - Referred to elective waiting list  - Admit Acutely  - Admit Arranged (< 7 days)  - Palliative Care  - Targeted Therapy  - Non Interventional Management  - Radiotherapy  - Chemotherapy | | | | | | | NPF00107 |
| BR196 | When the Attendance Outcome is 'DNA', then the Attendance Outcome Decision must be one of the following:  - New appointment required  - Discharge to GP | | | | | | | NPF00107 |
| BR197 | When the Attendance Outcome is 'DNW', then the Attendance Outcome Decision must be one of the following:  - New appointment required  - Discharge to GP | | | | | | | NPF00107 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Specialty Referred To** | | | | | | |
| **XML Element** | | npe:specialtyReferredTo codeSystem="HLTHSP" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The next specialty the referral is referred to if the Attendance Outcome Decision one of the following:   * Referred for test * Referred for procedure * Referred to another specialty within DHB   (Any other Attendance Outcome Decision data elements preclude Specialty Referred To data) | | String | ANN | O | - | HLTHSP | If this element is supplied, ‘$’ must be populated with a valid health specialty code | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |
| BR179 | The Specialty Referred To data element may only be recorded if the Attendance Outcome Decision includes one of the following items:.  - Referred for test  - Referred for procedure  - Referred to another specialty within DHB | | | | | | | NPF00119 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **DHB Referred To** | | | | | | |
| **XML Element** | | npe:DhbReferredTo codeSystem="DHB" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The next DHB the referral is referred to if the Attendance Outcome Decision is ‘Referred to another DHB’. | | String | ANNNNN-C | O | - | DHB | Must be null if Attendance Outcome Decision is not 4 (Referred to another DHB).  If this element is supplied, ‘$’ must be populated with a valid DHB code | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |
| BR180 | The DHB Referred To data element may only be recorded if the Attendance Outcome Decision includes the value of 'referred to another DHB'. | | | | | | | NPF00108 |
| BR276 | The DHB Referred To data element in the Assessment Event must be different to the DHB Referred To data element in the Referral Received Event | | | | | | | NPF00116 |

## EXH – Exception Handling

### Function

Exception Handling is defined as: an administration event that results in a referral being suspended, closed or reactivated.

### XSD Mandatory/optional validations

|  |  |  |
| --- | --- | --- |
| **Business Rules** | **Description** | **Error ID** |
| BR155 | An Exception Handling event must include the following mandatory data elements:  - Local Referral Identifier  - Local Event Identifier  - National Health Index Number  - Date Exception Outcome Assigned  - Exception Outcome  - Exception Reason. | NPF00008 |

### Data Elements

|  |  |  |
| --- | --- | --- |
| **Business Rules** | **Description** | **Error ID** |
| BR110 | A health care event must be associated with only one referral. |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Local Referral Identifier** | | | | | |
| **XML Element** | | npe:localReferralIdentifier | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| A local unique identifier of the referral that is unique within the DHB. | | String | X(36) | M | - | Used to associate event data for a referral.  Must be the same as an existing Referral Received (REF). | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | NPF00112 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Identifier** | | | | | |
| **XML Element** | | com:identifier | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| A local unique identifier of each Health Care Event that is unique within the submitting organisation | | String | X(36) | M | - | Used to identify an event from other events in a referral.  Must be unique for a submitting organisation | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| BR232 | Each Health Care Event must be uniquely identified. | | | | | | NPF00100 |
| PR21 | PR21: An ID field may only contain the following characters   1. A-Z 2. a-z 3. 0-9 4. - (dash) | | | | | | NPF00112 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **National Health Index Number (NHI)** | | | | | | |
| **XML Element** | | pat:patientNHI | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C For Add or Update** | **M/O/C For Remove** | **Code Table** | **Notes** | |
| The National Health Index (NHI) is a mechanism for uniquely identifying every healthcare user. It assigns each person a unique number (known as the NHI number). The NHI includes demographic information such as name, address, date of birth, sex and ethnicity. | | String | AAANNNC | M | M | - | Must be a valid number – refer to Appendix D: NHI Number Validation  Must exist in the NHI system  If a dormant NHI is submitted the record would be accepted with a warning message.  The record is accepted with a warning if the patient is deceased. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR230 | The NHI number submitted must be already existent within the NHI system. | | | | | | | NPF00106 |
| BR111 | Each referral must be associated with exactly one patient. | | | | | | | NPF00211 |
| BR268 | The NHI number submitted may be either a live or a dormant NHI | | | | | | | NPF00214 |
| BR273 | The NHI number submitted may be for a patient who is either deceased or alive | | | | | | | NPF00217 |
| PR13 | NHI must have a valid format | | | | | | | NPF00105 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Date Exception Outcome Assigned** | | | | | |
| **XML Element** | | npe:dateExceptionOutcomeAssigned | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| Date of status change of the referral. | | Datetime | YYYY-MM-DDThhmmssZ or YYYY-MM-DDThh:mm:ss | M |  | Must be later than or the same as the Date Referral Received. | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| BR135 | The Date Exception Outcome Assigned must be equal to or later than the Date Referral Received. | | | | | | NPF00102 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Exception Outcome** | | | | | |
| **XML Element** | | npe:exceptionOutcome codeSystem="EXPOUT" value="$" | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The status of the referral at a particular point in time. | | String | N | M | EXCPOUT | ‘$’ must be populated with a valid exception outcome code | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | NPF00101 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Exception Reason** | | | | | | |
| **XML Element** | | npe:exceptionReason codeSystem="EXCPREA" value="$" | | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C** |  | **Code Table** | **Notes** | |
| The reason for the exception. | | String | N | M |  | EXCPREA | ‘$’ must be populated with a valid exception reason code.  Must be a valid Exception Reason for the Exception Outcomes. Refer to the Exception Reason code table in Appendix A for valid combinations of Exception Outcomes and Exception Reason. | |
| **Business Rules** | **Description** | | | | | | | **Error ID** |
| BR241 | All data elements collected that are codified must comply with the codes held by the Ministry for that data element. | | | | | | | NPF00101 |
| BR200 | When the Exception Outcome is 'suspended', then the Exception Reason must be 'suspended - patient not available' | | | | | | | NPF00107 |
| BR201 | When the Exception Outcome is 'closed', then the Exception Reason must be one of the following:  - Referral cancelled – patient reason  - Referral cancelled – advised patient deceased  - Referral cancelled – patient went private  - Referral cancelled – opened in error  - Referral cancelled – patient assessed acutely  - Referral cancelled - Not eligible for publicly funded care | | | | | | | NPF00107 |
| BR207 | The Exception Reason can only be the code value of 'reactivated - patient available' if the Exception Reason was 'suspended - patient not available' previously within the same referral. | | | | | | | NPF00117 |
| BR244 | When the Exception Outcome is 'reactivated', then the Exception Reason must be 'reactivated - patient available'. | | | | | | | NPF00107 |

## SUM – Summary Details

### Function

The Summary Details record contains summary totals for the batch. There is a count of the number of event files per event type. Summary details are used to reconcile the batch.

### Data Elements

* Table Key: M = Mandatory. O = Optional. C = Conditional.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Event Type** | | | | | |
| **XML Element** | | npf:eventType codeSystem="EVENT" value="$" | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The type of event data in the file | | String | AAA | M | EVENT | ‘$’ must be populated with a valid Event Type code | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR07 | Event type must match code set | | | | | | NPF00101 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data Element** | | **Number of Files** | | | | | |
| **XML Element** | | npf:numberOfFiles | | | | | |
| **Description** | | **Data Type** | **Format** | **M/O/C** | **Code Table** | **Notes** | |
| The total number of files in the batch with the Event Type | | Integer | N(5) | M | - |  | |
| **Business Rules** | **Description** | | | | | | **Error ID** |
| PR10 | Number of files for an event type in the batch must match the batch total for the event type | | | | | | NPF00007 |

# Input Record Operations

This section contains the details of the types of operations that can be requested in input records. It also contains the rules that apply for an operation to be accepted and actioned by the system.

## Operation Types

The operation types for an event record are:

* Add
* Update
* Remove

## Operation Rules and Validation

### Add

The Add operation allows a new referral event to be inserted into the NPF database.

During the add process the system does the following checks:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Check** | **Notes** | **Error ID** |
| 1 | The event already exists in the database for the referral. | The combination of Organisation, Local Referral Identifier and Identifier on the input record must not be the same as an already existent record in the NPF database. | NPF00100 |
| 2 | The event already exists in the database for a different referral than the one on the input record. | The combination of Organisation and Identifier on the input record must not be the same as an already existent record in the NPF database. | NPF00212 |
| 3 | The first event of a new referral is a Referral Received (REF). | When the combination of Organisation and Local Referral Identifier on the input record is not the same as an already existent record in the NPF database the input record must be an AddReferral request. | NPF00202 |
| 4 | Only one Referral Received event is allowed per referral. | An AddReferral request will be rejected if the combination of Organisation and Local Referral Identifier on the input record is the same as an already existent Referral Received record in the NPF database. | NPF00205 |
| 5 | An ‘active’ Triage event with a Triage Outcome of 2 (Accepted) must already exist when a new Booking or Assessment event is being added. |  | NPF00204 |
| 6 | A Triage event must already exist in the database.with a Triage Outcome of one of the following when a Notification event is being added:  - 2 (Accepted)  - 4 (Transferred – to another DHB)  - 5 (Declined - insufficient information)  - 6 (Declined - Assessment not required)  - 7 (Declined - below threshold)  - 8 (Declined – not eligible for publicly funded care). | Notification events that are preceded by a Triage that is pending are rejected | NPF00204 |
| 7 | A Triage event must already exist in the database when a Booking event is being added. |  | NPF00204 |
| 8 | A Booking event must already exist in the database when an Assessment event is being added |  | NPF00204 |
| 9 | Only one Assessment event with Attendance Outcome of 1 (Attended) is allowed for a referral |  | NPF00213 |
| 10 | Only a Notification event is accepted if the referral has a Referral Status of ‘closed’ and the preceding Triage event has Triage Outcome of:   * + 4 (Transferred – to another DHB)   + 5 (Declined - insufficient information)   + 6 (Declined - Assessment not required)   + 7 (Declined - below threshold)   + 8 (Declined – not eligible for publicly funded care) |  | NPF00218 |
| 11 | An event must be in the sequence in which it occurred | An event cannot be added to a referral if it predates the last event that was added in the same referral | NPF00216 |
| 12 | The NHI on all events for the same referral must be for the same patient | For AddReferral NPF will look up and record the ‘live’ NHI for the patient from the NHI system. For subsequent events the NHI on the input record must be the same as the ‘live’ NHI or one of the ‘dormant’ NHIs associated with the ‘live’ NHI as determined by a lookup of the NHI system. | NPF00211 |

**Validation business rules for Add**

The following business rules will be used as a criterion to ensure the integrity of the NPF database.

| **Business Rule ID** | **Business rule Description** | **Rationale / Comments** | **Error ID** |
| --- | --- | --- | --- |
| BR232 | Each Health Care Event must be uniquely identified. |  | NPF00100 |
| BR02 | A Referral Received event is always the first event in a referral. |  | NPF00202 |
| BR26 | One referral may have one or more of the following event types:  - Triage - Notification - Assessment - Booking - Exception Handling |  |  |
| BR210 | A Booking is always preceded by a Triage with a Triage Outcome of "Accepted". | This ensures that the Triage Outcome is not in a pending state prior to the patient being Booked. | NPF00204 |
| BR104 | Each patient who will receive a Notification must first have been Triaged with a Triage Outcome of one of the following:   * + Accepted   + Transferred – to another DHB   + Declined - insufficient information   + Declined - Assessment not required   + Declined - below threshold   + Declined – not eligible for publicly funded care. | A Notification Event will only be accepted into the NPF collection if the preceding Triage event had a Triage Outcome that was accepted or rejected, but not pending.  The elective services performance indicator (ESPI) 1 report shows the “number of referrals acknowledged within 10 working days” and will exclude Notification events that are pending | NPF00204 |
| BR59 | Each patient who will be Assessed must have first been Booked |  | NPF00204 |
| BR111 | Each referral must be associated with exactly one patient. |  | NPF00211 |
| BR110 | A health care event must be associated with only one referral. | This ensures that all health care events received by the Ministry have appropriate context. E.g. if a Booking event is received, important contextual and relational information would not be known if the Booking was not associated to a referral. |  |
| BR166 | A record must not be associated with a referral when the following events associated with the same referral have taken place:   * + an Assessment with an Attendance Outcome of 'attended',   + an Assessment with an Attendance Outcome of 'DNA' or ‘DNW’, and an Attendance Outcome Decision of 'discharge to GP', or   + an Exception Handling with an Exception Outcome of 'closed'   unless the event is a Notification that follows a Triage Outcome of one of the following:   * + Transferred – to another DHB   + Declined - insufficient information   + Declined - Assessment not required   + Declined - below threshold   + Declined – not eligible for publicly funded care.” | This ensures that events are grouped into referrals correctly after the referral is closed.  The Notification is allowed to be included so that ESPI 1 can be measured. | NPF00218 |
| BR243 | Health care events must be collected in the sequence in which they occurred | This ensures that an event cannot be added to a referral if it predates the last event that was added in the same referral. This is because the Referral Status is derived from the latest event processed in a referral. The Referral Status should not be updated from an event that is not the latest in a referral, as it would result in a Referral Status being derived from superseded events.  This business rule prevents events from being added that will affect the integrity of the collection with regards to the updating of the Referral Status. | NPF00216 |
| BR270 | A referral can only have one ‘attended’ Assessment |  |  |
| BR271 | A Referral can only be received once by an organisation | There should only be one Referral Received event per Referral | NPF00205 |

### Update

The Update operation allows an existing referral event to be updated in the NPF database.

When an event is to be updated, the organisation must send the event with the new information and all associated mandatory data elements included. If optional data elements are left blank they will be treated as null.

All data associated with the event is updated with the new data supplied in the update.

For an event to be updated, the system confirms the event already exists within the NPF database by using the event identifier.

Updates will be made only when the resulting records do not break the integrity and validation rules that have been applied to events that have already been collected.

Note that in phase 1 if an NHI needs to be updated the referral can be removed and re-entered.

During the update process the system does the following checks:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Check** | **Notes** | **Error ID** |
| 1 | Only the organisation who sent the event or the system administrator can update it. | If the combination of Local Referral Identifier and Identifier on the input record matches an already existent record in the NPF database then the Organisation Identifier on the input file must also match that of the existing record.  (No additional check is required for system administrator because the fixfile will contain the Organisation Identifier. The database will, however, record that the update was performed by the system administrator) | NPF00208 |
| 2 | The event exists in the database. | The combination of Organisation, Local Referral Identifier and Identifier on the input record must be the same as an already existent record in the NPF database. | NPF00207 |
| 3 | The following fields are the same on the input record as the database:  **Referral Received:**  - Local Referral Identifier  - Identifier  - NHI  - Date Referral Received  **Triage:**  - Local Referral Identifier  - Identifier  - NHI  - Triage Outcome  **Notification:**  - Local Referral Identifier  - Identifier  - NHI  - Date Triage Outcome Notified  **Booking:**  - Local Referral Identifier  - Identifier  - NHI  - Date Booking Made  - Date Patient Booked  **Assessment:**  - Local Referral Identifier  - Identifier  - NHI  - Date Patient Assessed  - Attendance Outcome  - Attendance Outcome Decision  **Exception Handling:**  - Local Referral Identifier  - Identifier  - NHI  - Date Exception Outcome Assigned  - Exception Outcome  - Exception Reason.” | Updating of any of these fields affects the integrity of the collection | NPF00215 |

**Validation business rules for Update**

The following business rules will be used as a criterion to ensure the integrity of the NPF database.

| **Business Rule ID** | **Business rule Description** | **Rationale / Comments** | **Error ID** |
| --- | --- | --- | --- |
| BR235 | An event may be updated only by the submitting organisation who added it. | The data manager may use a "fixfile" to update a record on behalf of a submitting organisation on occasions when the submitting organisation is unable to complete the task themselves. | NPF00208 |
| BR269 | Once an event has been recorded, only the following data elements cannot be updated:  **Referral Received:**  - Local Referral Identifier  - Identifier  - NHI  - Date Referral Received  **Triage:**  - Local Referral Identifier  - Identifier  - NHI  - Triage Outcome  **Notification:**  - Local Referral Identifier  - Identifier  - NHI  - Date Triage Outcome Notified  **Booking:**  - Local Referral Identifier  - Identifier  - NHI  - Date Booking Made  - Date Patient Booked  **Assessment:**  - Local Referral Identifier  - Identifier  - NHI  - Date Patient Assessed  - Attendance Outcome  - Attendance Outcome Decision  **Exception Handling:**  - Local Referral Identifier  - Identifier  - NHI  - Date Exception Outcome Assigned  - Exception Outcome  - Exception Reason. | This ensures that data integrity is maintained when an update takes place. E.g. this rule prevents the referral status being updated from records that are not the latest record in a referral. | NPF00215 |

### Remove

The Remove operation allows a referral event to be deleted from the NPF database.

When an event is to be removed, the organisation must send the Organisation, Local Referral Identifier, event Identifier and NHI number.

For an event to be removed, the system confirms the event already exists within the NPF database by using the above three fields.

Updates will be made only when the resulting records do not break the integrity and validation rules that have been applied to events that have already been collected.

Important Note: It is possible to use a Remove and an Add to achieve an update.

During the remove process the system does the following checks:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Check** | **Notes** | **Error ID** |
| 1 | Only the organisation who sent the event or the system administrator can remove it. | If the combination of Local Referral Identifier and Identifier on the input record matches an already existent record in the NPF database then the Organisation Identifier on the input file must also match that of the existing record.  (No additional check is required for system administrator because the fixfile will contain the Organisation Identifier. The database will, however, record that the remove was performed by the system administrator) | NPF00208 |
| 2 | The event exists in the database. | The combination of Organisation, Local Referral Identifier and Identifier on the input record must be the same as an already existent record in the NPF database. | NPF00207 |

**Validation business rules for Remove**

The following business rules will be used as a criterion to ensure the integrity of the NPF database.

| **Business Rule ID** | **Business rule Description** | **Rationale / Comments** | **Error ID** |
| --- | --- | --- | --- |
| BR236 | An event may be removed only by the submitting organisation who added it. | The data manager may use a "fixfile" to remove a record on behalf of a submitting organisation on occasions when the submitting organisation is unable to complete the task themselves | NPF00208 |
| BR267 | A remove operation can only be undertaken on the latest event of the referral. |  | NPF00209 |

# Output File Definitions

This section describes the files that are sent back to the DHB.

## Response Batch File

This is a zip-compressed file containing the response files for an input batch.

The response batch file name is the same as the input batch file name with a prefix of ‘RESP’. It is in the following format:

RESP**\_**<<Org ID>>**\_**<<Datetime>>**\_**<<Business Transaction ID>>**\_**<<Target System>>**\_**<<Target System Environment>>**\_**<<Target Version>>.zip

Refer to 6.2 Zip Batch File Name for the definition of the elements.

**Note:** Regardless of whether Datetime was submitted in UTC or NZ time, in the Response Batch File name will be in UTC.

## Event Response File

A response file is generated by the Ministry during validation/loading for each event file in the batch.

The response file name is the same as the event file name with a prefix of ‘RESP’. It is in the following format:

RESP**\_**<<Org ID>>**\_**<<Date>>**\_**<<Event Type>>**\_**<<Correlation ID>>**\_**<<Business Transaction ID>>**\_**<<Target System>>**\_**<<Target System Environment>>**\_**<<Target Version>>.xml

Refer to 6.3 Event File Name for the definition of the elements.

## Batch Report

A Batch Report is generated by the Ministry during validation/loading of a batch of event files.

The Batch Report contains:

* Summary totals by event type of accepted, accepted with warnings and rejected records.
* List of events accepted with warnings
* List of events that were rejected and the errors associated with each.
* Totals of errors by error code.

The Batch Report file name is the same as the input batch file name with a prefix of ‘RPT:’. It is in the following format:

RPT**\_**<<Org ID>>**\_**<<Date>>**\_**<<Event Type>>**\_**<<Correlation ID>>**\_**<<Business Transaction ID>>**\_**<<Target System>>**\_**<<Target System Environment>>**\_**<<Target Version>.xls

Refer to 6.1 Zip Batch File Name for the definition of the elements.

A sample Batch Report appears on the following page.

**National Patient Flow Batch Report**

|  |  |
| --- | --- |
| **Sending Organisation** | Capital and Coast DHB |
| **Target System Environment** | PROD |
| **Business Transaction ID** | 5034819 |
| **Date Received** | 03/07/2014 |
| **Date Processed** | 03/07/2014 |

**Summary by Event Type**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Event Type | Accepted | Accepted with Warnings | Rejected | Total |
| REF | 44 | 0 | 3 | 47 |
| BKG | 29 | 1 | 1 | 31 |
| Total | 73 | 1 | 4 | 78 |

**Summary by Error Type**

|  |  |
| --- | --- |
| Error ID | Number of Rejections |
| NPF00101 | 2 |
| NPF00103 | 1 |
| NPF00106 | 1 |

**Events Accepted with Warnings**

| Correlation ID | Local Referral Identifier | Identifier | NHI | Error ID | Error  Description |
| --- | --- | --- | --- | --- | --- |
| BKG000020 | 435352457 | 2304 | JJU653 | NPF00111 | Warning: Date Patient Booked 2014-07-14 not equal to or later than Date Booking Made 2014-07-15 |

**Events Rejected**

| Correlation ID | Local Referral Identifier | Identifier | NHI | Error ID | Error  Description |
| --- | --- | --- | --- | --- | --- |
| REF000002 | 5789255 | 8527 | EFR675 | NPF00101 | Referred From Professional Group Type XYZ is not a valid code or identifier |
| REF000005 | 3984540 | 24708 | NNF432 | NPF00103 | Date Referral Received 07/01/2014 not equal to or earlier than Date Sent 01/07/2014 |
| REF000007 | 05912509 | 8073 | WSD654 | NPF00101 | Referred From Professional Group Type XYZ is not a valid code or identifier |
| BKG000004 | 430196 | 4164 | MNB543 | NPF00106 | Patient NHI MNB5432 does not exist in the NHI |



# Output Record Types

This section describes the output record types and defines their contents.

## Response Header

### Function

The Response Header record is present for all response files. It contains the same information as the input file header plus an acknowledgement code.

### Data Elements

* Table Key: M = Mandatory. O = Optional. C = Conditional.

| Data Element | XML Element | Description | Data Type | Format | M/O/C | Code Table |
| --- | --- | --- | --- | --- | --- | --- |
| Correlation ID | npf:correlationId | Unique identifier for the file from within the organisation. | String | X(36) | M | - |
| Business Transaction ID | npf:businessTransactionId | The batch identifier. | String | X(36) | M | - |
| Creation Time | npf:creationTime | Date and time that the file was created | Datetime | YYYY-MM-DDThhmmssZ  (i.e. UTC only) | M | - |
| Sending Application ID | npf:sendingApplication extension="$" | The ID of the application generating file. | String | X(255) | M | - |
| Sending Application Version | npf:sendingApplicationVersion | The version of the application generating file. | String | X(255) | O | - |
| Sending Organisation ID | npf:sendingOrganisation root="2.16.840.1.113883.2.18.3.3" assigningAuthorityName="HL7" extension="$" | The HPI Organisation Identifier of the organisation submitting the file | String | ANNNNN-C | M | ORGID |
| Sending User ID | cor:userName | The identifier of the user submitting the file. This field is not used for authentication. | String | X(255) | M |  |
| Sending Facility | npf:sendingFacility extension="$" | The HPI Facility Identifier of the facility submitting the file | String | AXXNNN-C | M | FACID |
| Target System | npf:target collectionType="**$**" environment="&" version="@" | The target system in which the file is to be processed | String | ‘NPF’ | M | - |
| Target System Environment | npf:target collectionType="$" environment="**&**" version="@" | The target environment in which the file is to be processed | String | AAAA | M | SYSENV |
| Target System Version | npf:target collectionType="$" environment="&" version="**@**" | Target version of for the business rules to apply to this file. Eg 1.0 | String | NNN.N | M | SYSENV |
| Acknowledgement Code | npf:acknowledgementCode | A code indicating the result of the NPF system processing the input file. | String | AA | M | ACK |

## Error

### Function

The response file may contain error records. An error record is output for each error detected while processing the input file.

### Data Elements

* Table Key: M = Mandatory. O = Optional. C = Conditional.

| Data Element | XML Element | Description | Data Type | Format | M/O/C | Code Table |
| --- | --- | --- | --- | --- | --- | --- |
| Code | mes:code codeSystem=”ERROR” value=”$”  where ‘$’ contains the error code | NPF error code | String | AAANNNNN | M | See Appendix C |
| Message | mes:message | A description of the error | String | X(256) | M | See Appendix C |

## Warning

### Function

The response file may contain warning records. A warning record is output if data from the input file was loaded but it triggered a warning.

### Data Elements

* Table Key: M = Mandatory. O = Optional. C = Conditional.

| Data Element | XML Element | Description | Data Type | Format | M/O/C | Code Table |
| --- | --- | --- | --- | --- | --- | --- |
| Code | mes:code codeSystem=”WARN” value=”$”  where ‘$’ contains the warning code | NPF warning code | String | AAANNNNN | M | See Appendix C |
| Message | mes:message | A description of the warning | String | X(256) | M | See Appendix C |

# Logical Data Model



# Appendix A: Code Tables

## A.1 Versioning of code tables

Changes to codes used in NPF is managed by start and end dates for individual codes.

In this method each code has a date when the code was introduced and/or a date when the code was withdrawn from use. Code validation will include the date checks.

* If the code Start Date is not null the event date on the input record must be greater than or equal to the code Start Date.
* If the code End Date is not null the event date on the input record must be less than or equal to the code End Date.

Must be supplied in the xml file thus:

<npe:healthSpecialty codeSystem=*"HLTHSP"* value=*"Y58"*/>

## ACK – Acknowledgement Code

|  |  |
| --- | --- |
| **Code** | **Description** |
| AA | Application accept – The file was processed successfully with no errors or warnings |
| AE | Application error |
| AR | Application reject – The file was rejected |
| AW | Application warning – The file was processed successfully with warnings |

## ATTOUT – Attendance Outcome

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Start Date** | **End date** |
| 1 | Attended | 01/07/2014 | 31/12/9999 |
| 2 | Did not wait | 01/07/2014 | 31/12/9999 |
| 3 | Did not attend | 01/07/2014 | 31/12/9999 |

## ATTOUTD – Attendance Outcome Decision

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Code | Description | Start Date | End Date | Valid for Attendance Outcome Code |
| 1 | Discharge to GP | 01/07/2014 | 31/12/9999 | 1, 2, 3 |
| 2 | Clinic follow-up | 01/07/2014 | 31/12/9999 | 1 |
| 3 | Referred to another specialty within DHB | 01/07/2014 | 31/12/9999 | 1 |
| 4 | Referred to another DHB | 01/07/2014 | 31/12/9999 | 1 |
| 5 | Referred for procedure | 01/07/2014 | 31/12/9999 | 1 |
| 6 | Referred for test | 01/07/2014 | 31/12/9999 | 1 |
| 7 | Referred to elective waiting list | 01/07/2014 | 31/12/9999 | 1 |
| 8 | Admit Acutely | 01/07/2014 | 31/12/9999 | 1 |
| 9 | Admit Arranged (less than 7 days) | 01/07/2014 | 31/12/9999 | 1 |
| 10 | Palliative care | 01/07/2014 | 31/12/9999 | 1 |
| 11 | Targeted therapy | 01/07/2014 | 31/12/9999 | 1 |
| 12 | Non-intervention management | 01/07/2014 | 31/12/9999 | 1 |
| 13 | Radiotherapy | 01/07/2014 | 31/12/9999 | 1 |
| 14 | Chemotherapy | 01/07/2014 | 31/12/9999 | 1 |
| 15 | New appointment required | 01/07/2014 | 31/12/9999 | 2, 3 |

## CLINEX – Clinical Exclusion Code

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Start Date** | **End Date** |
| N | Normal | 01/07/2014 | 31/12/9999 |
| P | Planned | 01/07/2014 | 31/12/9999 |
| S | Surveillance | 01/07/2014 | 31/12/9999 |

## DHB – District Health Board

|  |  |
| --- | --- |
| **Code** | **Description** |
| G00005-D | Canterbury District Health Board |
| G00006-F | Hutt Valley District Health Board |
| G00011-K | Auckland District Health Board |
| G00012-A | Counties Manukau District Health Board |
| G00013-C | Waitemata District Health Board |
| G00025-K | South Canterbury District Health Boar |
| G00026-A | Northland District Health Board |
| G00027-C | Waikato District Health Board |
| G00028-E | Lakes District Health Board |
| G00029-G | Tairawhiti District Health Board |
| G00030-C | Taranaki District Health Board |
| G00031-E | Bay of Plenty District Health Board |
| G00032-G | Hawkes Bay District Health Board |
| G00033-J | Mid Central District Health Board |
| G00035-B | Whanganui District Health Board |
| G00036-D | Capital and Coast District Health Board |
| G00037-F | Wairarapa District Health Board |
| G00038-H | Nelson Marlborough District Health Board |
| G00039-K | West Coast District Health Board |
| G02328-E | Southern District Health Board |

## EVENT – Event Type

|  |  |
| --- | --- |
| **Code** | **Description** |
| REF | Referral Received |
| TRG | Triage |
| ASS | Assessment |
| NFY | Notification |
| BKG | Booking |
| EXH | Exception handling |
| SUM | Summary detail |

## FACID – Facility ID

For Phase 1 DHBs will be asked to supply the facility code/s they wish to use.

|  |  |
| --- | --- |
| **HPI\_FACILITY\_CODE** | **HPI\_FACILITY\_DESCRIPTION** |
| F03023 | Ashburton Hospital |
| F03029 | Middlemore Hospital |
| F03031 | North Shore Hospital |
| F03032 | Waitakere Hospital |
| F03033 | Wilson Centre |
| F03036 | Pukekohe Maternity Unit |
| F03037 | Papakura Primary Birthing Unit |
| F03047 | Franklin Memorial Hospital |
| F03049 | Auckland Spinal Rehabilitation Unit |
| F03053 | Botany Downs Maternity Unit |
| F03065 | Manukau SuperClinic |
| F03067 | Auckland City Hospital |
| F03070 | Whakatane Hospital |
| F03073 | Opotiki Community Care Centre |
| F03076 | Gisborne Hospital |
| F03084 | Hawkes Bay Regional Hospital |
| F03085 | Wairoa Hospital & Health Centre |
| F03091 | Maniototo Health Services Ltd |
| F03093 | Wairau Hospital |
| F03099 | Nelson hospital |
| F04003 | Alexandra Rest Home |
| F04006 | Golden Bay Community Hospital |
| F04008 | Arthur Mcaa Community Hospital, Murchison Hospital and Health Centre |
| F04028 | Christchurch Hospital |
| F04030 | Burwood Hospital |
| F2V023 | Chatham Islands Community Hospital |
| F04053 | Whangarei Hospital |
| F04054 | Kaitaia Hospital |
| F04055 | Dargaville Hospital |
| F04056 | Bay of Islands Hospital |
| F04084 | Palmerston North Hospital |
| F04086 | Horowhenua Health Centre |
| F05013 | Timaru Hospital |
| F3J043 | Abbotsford Mobile Dental Clinic |
| F3J045 | Alexandra Dental Clinic |
| F3J046 | Arrowtown Dental Clinic |
| F3J047 | Ascot Mobile Dental Clinic |
| F3J048 | Balcutha Dental Clinic |
| F3J049 | Bluff Mobile Dental Clinic |
| F3J050 | Brockville Dental Clinic |
| F3J051 | Catlins Dental Clinic |
| F3J052 | Clutha Valley Dental Clinic |
| F3J053 | Cromwell Primary Dental Clinic |
| F3J093 | Dental School (BOH) |
| F3J094 | Dental School Community Dental Clinic |
| F3J055 | Donovan Dental Clinic |
| F3J057 | Dunedin South Dental Clinic |
| F3J058 | Glenorchy Medical Centre |
| F3J060 | Kaitangata Dental Clinic |
| F3J061 | Lawrence Dental Clinic |
| F3J062 | Mataura Dental Clinic |
| F3J063 | Middlemarch Dental Clinic |
| F3J064 | Milton Dental Clinic |
| F3J065 | Mosgiel Dental Clinic |
| F3J067 | Newfield Park Dental Clinic |
| F3J068 | Oamaru Dental Clinic |
| F3J069 | Omakau Dental Clinic |
| F3J070 | Otautau Dental Clinic |
| F3A025 | Windsor Park Specialist Senior Care Centre |
| F3J071 | Port Chalmers Dental Clinic |
| F3J072 | Portobello Dental Clinic |
| F3J074 | Queenstown Dental Clinic |
| F3J075 | Ranfurly Dental Clinic |
| F3J076 | Roxburgh Dental Clinic |
| F3J077 | Takitimu Dental Clinic |
| F3J078 | Tapanui Dental Clinic |
| F3J079 | Te Anau Dental Clinic |
| F3J080 | Te Wharekura Dental Clinic |
| F3J081 | Tuatapere Dental Clinic |
| F3J082 | Waikouaiti Dental Clinic |
| F3J083 | Waitaki ValleyDental Clinic |
| F3J085 | Wakari Mobile Clinic |
| F3J088 | Wyndham Dental Clinic |
| F3J091 | Wanaka Dental Clinic |
| F2W070 | Pact Southland |
| F05038 | Taranaki Base Hospital |
| F05039 | Hawera Hospital |
| F05049 | Taumarunui Community Hospital |
| F05051 | Tauranga Hospital |
| F05065 | Thames Hospital |
| F05076 | Waikato Hospital |
| F05077 | Rotorua Hospital |
| F05078 | Te Kuiti Community Hospital |
| F05089 | Tokoroa Hospital |
| F05095 | Taupo Hospital |
| F05096 | Rhoda Read Hospital |
| F06005 | Waipukurau Hospital |
| F06007 | Wairarapa Hospital |
| F06022 | Whanganui Hospital |
| F06027 | Waimarino Health Centre |
| F06028 | Rangitikei Health Centre |
| F06033 | Wellington Hospital |
| F06034 | Hutt Hospital |
| F06037 | Kenepuru Community Hospital |
| F06040 | Kapiti Health Centre |
| F06046 | Greymouth Base Hospital |
| F06048 | Reefton Hospital |
| F06053 | Buller Hospital |
| F06054 | Whataroa Clinic |
| F14095 | Hokitika Health Centre |

## HLTHSP – Health Specialty Code

Refer to Common Codes for National Collections on the Ministry’s website:

<http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables/health-specialty-code-table>

## ORGTYP – Referred From Organisation Type

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Start Date** | **End Date** |
| 10 | Health Centre | 01/07/2014 | 31/12/9999 |
| 20 | Accident & Medical Centre | 01/07/2014 | 31/12/9999 |
| 30 | Own DHB | 01/07/2014 | 31/12/9999 |
| 40 | Other DHB | 01/07/2014 | 31/12/9999 |
| 50 | Private Practice | 01/07/2014 | 31/12/9999 |
| 60 | Other | 01/07/2014 | 31/12/9999 |

## ORGID – Organisation ID

For Phase 1 refer to DHB – District Health Board table.

## PROFGRP – Referred From Professional Group Type

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Start Date** | **End date** |
| 1 | General Practitioner | 01/07/2014 | 31/12/9999 |
| 2 | Specialist Medical Officer (Own DHB) | 01/07/2014 | 31/12/9999 |
| 3 | Specialist Medical Officer (Other DHB) | 01/07/2014 | 31/12/9999 |
| 4 | Specialist Medical Officer (Private) | 01/07/2014 | 31/12/9999 |
| 5 | Registered medical practitioner (other) | 01/07/2014 | 31/12/9999 |
| 6 | Nurse | 01/07/2014 | 31/12/9999 |
| 7 | Midwife | 01/07/2014 | 31/12/9999 |
| 8 | Allied Health Practitioner | 01/07/2014 | 31/12/9999 |
| 9 | Dentist | 01/07/2014 | 31/12/9999 |
| 10 | Self | 01/07/2014 | 31/12/9999 |
| 11 | Other | 01/07/2014 | 31/12/9999 |

## EXCPOUT – Exception Outcome

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Start Date** | **End Date** |
| 1 | Suspended | 01/07/2014 | 31/12/9999 |
| 2 | Closed | 01/07/2014 | 31/12/9999 |
| 3 | Reactivate | 01/07/2014 | 31/12/9999 |

## EXCPREA – Exception Reason

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | **Description** | **Start Date** | **End date** | **Valid for Exception Outcome Code** |
| 1 | Suspended – patient not available | 01/07/2014 | 31/12/9999 | 1 |
| 2 | Reactivated – Patient available | 01/07/2014 | 31/12/9999 | 3 |
| 3 | Referral cancelled – patient reason | 01/07/2014 | 31/12/9999 | 2 |
| 4 | Referral cancelled – advised patient deceased | 01/07/2014 | 31/12/9999 | 2 |
| 5 | Referral cancelled – patient went private | 01/07/2014 | 31/12/9999 | 2 |
| 6 | Referral cancelled – opened in error | 01/07/2014 | 31/12/9999 | 2 |
| 7 | Referral cancelled – patient assessed acutely | 01/07/2014 | 31/12/9999 | 2 |
| 8 | Referral cancelled – Not eligible for publicly funded care | 01/07/2014 | 31/12/9999 | 2 |

## SRV – Service Type

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Start date** | **End date** |
| 1 | FSA | 01/07/2014 | 31/12/9999 |
| 2 | Follow Up | 01/07/2014 | 31/12/9999 |
| 3 | Acute Assessment | 01/07/2014 | 31/12/9999 |
| 4 | Procedure | 01/07/2014 | 31/12/9999 |
| 5 | Test | 01/07/2014 | 31/12/9999 |
| 6 | Inpatient/day-patient Treatment | 01/07/2014 | 31/12/9999 |
| 7 | Advice | 01/07/2014 | 31/12/9999 |
| 8 | Allied Health Treatment | 01/07/2014 | 31/12/9999 |

## SRVSUB – Service Sub-Type

| **Code** | **Description** | **Start date** | **End date** | **Valid for Service Type** |
| --- | --- | --- | --- | --- |
| 1 | Face to face | 01/07/2014 | 31/12/9999 | 1 |
| 2 | Non-contact FSA | 01/07/2014 | 31/12/9999 | 1 |
| 3 | Telemed FSA | 01/07/2014 | 31/12/9999 | 1 |
| 4 | Botulinum Toxin Therapy | 01/07/2014 | 31/12/9999 | 4 |
| 5 | Bronchoscopy | 01/07/2014 | 31/12/9999 | 4 |
| 6 | Chemotherapy | 01/07/2014 | 31/12/9999 | 4 |
| 7 | Colonoscopy | 01/07/2014 | 31/12/9999 | 4 |
| 8 | Cystoscopy | 01/07/2014 | 31/12/9999 | 4 |
| 9 | Dental Treatment | 01/07/2014 | 31/12/9999 | 4 |
| 10 | ERCP | 01/07/2014 | 31/12/9999 | 4 |
| 11 | Eye Injection | 01/07/2014 | 31/12/9999 | 4 |
| 12 | Eye Laser | 01/07/2014 | 31/12/9999 | 4 |
| 13 | Gastroscopy | 01/07/2014 | 31/12/9999 | 4 |
| 14 | Lithotripsy | 01/07/2014 | 31/12/9999 | 4 |
| 15 | Minor Eye Procedure | 01/07/2014 | 31/12/9999 | 4 |
| 16 | Minor Operation | 01/07/2014 | 31/12/9999 | 4 |
| 17 | Radiotherapy | 01/07/2014 | 31/12/9999 | 4 |
| 18 | Skin lesion removal | 01/07/2014 | 31/12/9999 | 4 |
| 19 | Urodynamics | 01/07/2014 | 31/12/9999 | 4 |
| 20 | Procedure – Other | 01/07/2014 | 31/12/9999 | 4 |
| 21 | MRI scan | 01/07/2014 | 31/12/9999 | 5 |
| 22 | CT scan | 01/07/2014 | 31/12/9999 | 5 |
| 23 | CT colonography | 01/07/2014 | 31/12/9999 | 5 |
| 24 | Ultrasound | 01/07/2014 | 31/12/9999 | 5 |
| 25 | PET scan | 01/07/2014 | 31/12/9999 | 5 |
| 26 | X-ray (plain) | 01/07/2014 | 31/12/9999 | 5 |
| 27 | Nuclear Medicine | 01/07/2014 | 31/12/9999 | 5 |
| 28 | Audiology | 01/07/2014 | 31/12/9999 | 5 |
| 29 | Echo cardiogram | 01/07/2014 | 31/12/9999 | 5 |
| 30 | ETT | 01/07/2014 | 31/12/9999 | 5 |
| 31 | ECG | 01/07/2014 | 31/12/9999 | 5 |
| 32 | Nerve study | 01/07/2014 | 31/12/9999 | 5 |
| 33 | Sleep study | 01/07/2014 | 31/12/9999 | 5 |
| 34 | Test – Other | 01/07/2014 | 31/12/9999 | 5 |

## SVCPURCH – Principal Health Service Purchaser

Refer to Common Codes for National Collections on the Ministry’s website:

<http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables/principal-health-service-purchaser-code-table>

## SYSENV – Target System Environment

|  |  |
| --- | --- |
| **Code** | **Description** |
| PROD | Production |
| CMPL | Compliance |
| TEST | Test |

## TRICAT – Clinician Defined Triage Category

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Start date** | **End date** |
| 000 | Not Determined - Pending Test | 01/07/2014 | 31/12/9999 |
| 001 | Immediate | 01/07/2014 | 31/12/9999 |
| 002 | Urgent | 01/07/2014 | 31/12/9999 |
| 003 | Semi-urgent | 01/07/2014 | 31/12/9999 |
| 004 | Routine | 01/07/2014 | 31/12/9999 |
| 005 | Low priority | 01/07/2014 | 31/12/9999 |

## TRIOUT – Triage Outcome

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Start date** | **End date** |
| 1 | Not Decided - Pending Test Results | 01/07/2014 | 31/12/9999 |
| 2 | Accepted | 01/07/2014 | 31/12/9999 |
| 3 | Transferred – to another Specialty | 01/07/2014 | 31/12/9999 |
| 4 | Transferred – to another DHB | 01/07/2014 | 31/12/9999 |
| 5 | Declined - insufficient information | 01/07/2014 | 31/12/9999 |
| 6 | Declined - Assessment not required | 01/07/2014 | 31/12/9999 |
| 7 | Declined - below threshold | 01/07/2014 | 31/12/9999 |
| 8 | Declined – not eligible for publicly funded care | 01/07/2014 | 31/12/9999 |

## SCAN – Clinician Defined Suspicion of Cancer

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Start date** | **End date** |
| 10 | The patient had a confirmed diagnosis of cancer at triage | 01/07/2014 | 31/12/9999 |
| 20 | There is **NOT A HIGH** suspicion of cancer | 01/07/2014 | 31/12/9999 |
| 30 | There **IS A HIGH** suspicion of cancer | 01/07/2014 | 31/12/9999 |

Appendix B: Glossary

| **Term** | **Definition** |
| --- | --- |
| Assessment | A process used to learn about a patient’s condition. This may include a complete medical history, medical tests, a physical exam, a test of learning skills, tests to find out if the patient is able to carry out the tasks of daily living, a mental health evaluation, and a review of social support and community resources available to the patient. Assessment also includes how patient, family/whanau and/or caregivers are coping. Within the context of NPF, Assessment is attended for service. |
| Booking | The scheduling of a patient for Assessment, Treatment, or diagnostic test. |
| DHB | District Health Board |
| Discharge | The relinquishing of patient care in whole or in part by a health care provider or organisation. (Not included in Phase 1). |
| Event | See Health Care Event (Referrals) |
| Exception Handling | The process whereby the referral is closed prior to completion due to either cancellation by the patient, or being opened in error. |
| FSA | First Specialist Assessment |
| Health Care Event (Referrals) | The activities that represent the experience of the patient on the referral episode. For example, an FSA, diagnostic test, Triage, or Treatment. |
| HPI | Health Provider Index |
| NHI | National Health Index |
| Notification | The acknowledgement sent to the patient and referrer detailing the outcome of the Triage, Assessment, or for a new Booking. |
| NPF | National Patient Flow |
| Record | A set of data elements that are stored in a database that relate to an event. One record consists of one operation only. There may be many records for one event. E.g. there may be an add record, an update record, and a remove record all for the same Assessment event. |
| Referral | A referral is a communication by one health practitioner to another health practitioner whose intent is the transfer of care, in part or in whole of a patient in regards to a specific condition. eg if another specialty is asked to take over management of the patient. |
| Referral Received | The event that marks the receipt of a referral by a secondary health care provider. It initiates the handling by the secondary health care provider of this request for service (referral).The initiating referrer may be primary, secondary based, or a self-referral. |
| SFTP | Secure File Transfer Protocol |
| Treatment | Medical or surgical management of a patient. Also known as intervention. (Not included in Phase 1). |
| Triage | The sorting and classification of patients to determine priority of need and proper place of Treatment. |
| XSD | XML Schema Definition  XSD can be used to express a set of rules to which an XML document (file) must conform in order to be considered 'valid' according to that schema. |

Also refer to the online National Collections Glossary at the following link:

<http://www.health.govt.nz/nz-health-statistics/data-references/appendix-b-national-collections-glossary>

# Appendix C: Error Messages List

The following table lists all the error and warning messages that can be generated by the NPF system as part of input file validation.

|  |  |  |
| --- | --- | --- |
| Error ID | Description | Business Rule |
| NPF00001 | ${element}: ${value} should not be in the future | PR02 |
| NPF00003 | Duplicate or already processed ${element}: ${value} | PR08, PR14 |
| NPF00004 | Batch submitted to wrong Target System Environment: ${environment} | PR04 |
| NPF00005 | ${element} in Filename does not match corresponding element in Zip Filename | PR06 |
| NPF00006 | ${element} in Header does not match corresponding element in Filename | PR09 |
| NPF00007 | Wrong number of files for Event Type: ${eventType}, expected: ${headerNumFiles}, found: ${batchNumFiles} | PR10 |
| NPF00008 | File failed XSD validation. ${details} | BR04, BR25, BR54, BR67, BR155, BR199,PR23 |
| NPF00009 | ${element}: ${value} not valid | PR03, PR05 |
| NPF00010 | Not registered to submit referrals to NPF | PR12 |
| NPF00011 | Not authorised to submit batch to Target System Environment: ${environment} | BR251 |
| NPF00012 | Batch does not contain a ${fileType} | PR17, PR18 |
| NPF00013 | Number of files in the batch exceeds ${maxFiles} | PR19 |
| NPF00014 | File extension not ${fileExtension} | PR22 |
| NPF00015 | Deleted |  |
| NPF00016 | ${fileEventType} file does not contain a ${eventType} | PR20 |
| NPF00017 | Batch for ${batchOrganisationId} in ${value} folder for ${folderOrganisationId} | PR29 |
| NPF00018 | Filename: ${filename} invalid | PR30 |
| NPF00019 | Invalid ${element} format or length | PR31 |
| NPF00020 | ${fileType} file corrupted or is not a ${fileType} | PR33, PR34 |
| NPF00021 | Batch contains more than one summary file. | PR17 |
| NPF00022 | ${Record type} record not present in file ${filename} | PR35, PR36 |
| NPF00023 | Duplicate event type: ${eventType} in summary record | PR37 |
| NPF00024 | Invalid operation: ${operation} | PR38 |
| NPF00025 | A value should be supplied for ${element} | PR40 |
| NPF00100 | ${element} not unique | BR112, BR232 |
| NPF00101 | ${element}: ${value} is not a valid code or identifier | BR103, BR241, PR01, PR07, PR32, PR39 |
| NPF00102 | ${firstElement}: ${firstValue} not equal to or later than ${secondElement}: ${secondValue} | BR128, BR135, BR234 PR24 |
| NPF00103 | ${firstElement}: ${firstValue} not equal to or earlier than ${secondElement}: ${secondValue} | BR233 |
| NPF00104 | ${firstElement}: ${firstValue} must be the same as ${secondElement}: ${secondValue} | PR11 |
| NPF00105 | National Health Index Number (NHI): ${nhi} is not a valid NHI number | PR13 |
| NPF00106 | National Health Index Number (NHI): ${nhi} does not exist in the NHI system | BR230 |
| NPF00107 | Invalid ${firstElement}: ${firstValue} for ${secondElement}: ${secondValue} | BR190, BR191, BR192, BR195, BR196, BR197 BR200, BR201, BR209 BR244 |
| NPF00108 | Attendance Outcome Decision must be '4' when DHB Referred To is not null | BR180 |
| NPF00109 | ${element}: ${value} is not an active code or identifier | PR39 |
| NPF00110 | Invalid Clinician Defined Triage Category: ${triageCategory}. Should contain '000' if Triage Outcome is '1' | BR242 |
| NPF00111 | Warning: ${firstElement}: ${firstValue} not equal to or later than ${secondElement}: ${secondValue | BR229 |
| NPF00112 | ${element} contains an invalid character | PR21 |
| NPF00113 | Two or more records of operation type: ${operationType} with the same Identifier: ${eventId} | PR26 |
| NPF00114 | Two or more Add records with the same Local Referral ID: ${referralId}, ${element}: ${elementValue}, and Event Type: ${eventType} | PR27 |
| NPF00115 | Two or more Add Triage records with the same Local Referral ID: ${localReferralId} | PR28 |
| NPF00116 | ${firstElement}: ${firstValue} must not be the same as ${secondElement}: ${secondValue} | BR276 |
| NPF00117 | Referral is not currently suspended | BR207 |
| NPF00118 | There is no Booking with Date Patient Booked the same as Date Patient Assessed: ${elementValue} | BR141 |
| NPF00119 | Attendance Outcome Decision must be '3', ‘5’ or ‘6’ when Specialty Referred To is not null | BR179 |
| NPF00202 | First event for Organisation ID: ${organisationId}, Local Referral ID: ${localReferralId}, Identifier: ${eventId} is not a Referral Received | BR02 |
| NPF00204 | Deleted |  |
| NPF00205 | An event of type ${eventType} already exists | BR271 |
| NPF00207 | Event for Organisation ID: ${organisationId}, Local Referral ID: ${localReferralId}, Identifier: ${eventId} does not exist in the database | PR15, PR16 |
| NPF00208 | Event can only be updated/removed by ${organisationId} | BR235, BR236 |
| NPF00209 | Event cannot be removed. It is not the latest event of the referral. | BR267 |
| NPF00211 | Event NHI: ${eventNhi} is not a related NHI for the Referral NHI ${referralNhi} | BR111 |
| NPF00212 | Deleted |  |
| NPF00213 | Deleted |  |
| NPF00214 | Warning: Event NHI ${eventNhi} is a dormant NHI. The live NHI of ${liveNhi} should be used | BR268 |
| NPF00215 | ${element}: ${value} of event: ${eventType} cannot be updated | BR269 |
| NPF00216 | Event cannot be added. It is not the latest event of the referral. | BR243 |
| NPF00217 | Warning: Event NHI: ${eventNhi} is for a deceased patient for the Referral: ${referralId} | BR273 |
| NPF00218 | Record ${eventId} rejected. Referral Status is 'closed' | BR166 |
| NPF00219 | A Booking event must be preceded by a Triage event with a Triage Outcome of ‘Accepted’. | BR210 |
| NPF00220 | A Booking does not exist for Assessment event | BR59 |
| NPF00221 | A Notification with Date Triage Outcome Notified earlier than or the same as Date Booking Made does not exist | BR130 |
| NPF00222 | A Triage with a Triage Outcome as specified in BR104 does not exist | BR104 |
| NPF00223 | An Exception Handling event with an Exception Outcome of ‘Suspended’ has already been submitted as the last event of the referral | BR275 |

# Appendix D: NHI Number Validation

To establish if an NHI Number is valid or not, the provider should use the following validation routine below.

**Validation Steps**

| **Step** | **Description** | **Example: EPT6335** | **Example: CGC2720** | **Example: DAB8233** |
| --- | --- | --- | --- | --- |
| 1 | Alphabetic characters must be within the Alphabet Conversion Table (see above), that is, they aren’t ‘I’ or ‘O’. | EPT | CGC | DAB |
| 2 | NNNC numbers must be numeric. | 6335 | 2720 | 8233 |
| 3 | Assign first alpha character its corresponding value from the Alphabet Conversion Table and multiply value by 7. | 5\*7 = 35 | 3\*7 = 21 | 4\*7 = 28 |
| 4 | Assign second alpha character its corresponding value from the Alphabet Conversion Table and multiply value by 6. | 14\*6 = 84 | 7\*6 = 42 | 1\*6 = 6 |
| 5 | Assign third alpha character its corresponding value from the Alphabet Conversion Table and multiply value by 5. | 18\*5 = 90 | 3\*5 = 15 | 2\*5 = 10 |
| 6 | Multiply first number by 4. | 6\*4 = 24 | 2\*4 = 8 | 8\*4 = 32 |
| 7 | Multiply second number by 3. | 3\*3 = 9 | 7\*3 = 21 | 2\*3 = 6 |
| 8 | Multiply third number by 2. | 3\*2 = 6 | 2\*2 = 4 | 3\*2 = 6 |
| 9 | Total the results of steps 3 to 8. | 35+84+90+24+9+6 = 248 | 21+42+15+8+21+4 = 111 | 28+6+10+32+6+6 = 88 |
| 10 | Apply modulus 11 to create a checksum.  NB: Excel has a modulus function MOD (n,d) where n is the number to be converted (eg the sum calculated in step 9), and d equals the modulus (in the case of the NHI this is 11). | 248/11 =22 r 6  (6 is the checksum) | 111/11 = 10 r 1  (1 is the checksum) | 88/11 = 8 r 0  (0 is the checksum) |
| 11 | If checksum is ‘0’ then the NHI number is not used. | Continue to step 12 | Continue to step 12 | NHI number bad.  Continue to step 15. |
| 12 | Subtract checksum from 11 to create check digit. | 11-6 = 5 | 11-1 = 10 |  |
| 13 | If the check digit equals ‘10’ convert to ‘0’ | Continue to step 14 | Convert ‘10’ to ‘0’ |  |
| 14 | Fourth number must equal the checksum. | 5 = 5 | 0 = 0 |  |
| 15 | NHI number passes the NHI validation routine. | Yes | Yes | No (see note 1) |
| **Note 1:** No digit can be added to the end of DAB823 to create a valid NHI number | | | | |

**Alpha Conversion Table**

Use this table to determine the Alpha characters value within the NHI Validation Routine.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| A | 1 | K | 10 | U | 19 |
| B | 2 | L | 11 | V | 20 |
| C | 3 | M | 12 | W | 21 |
| D | 4 | N | 13 | X | 22 |
| E | 5 | P | 14 | Y | 23 |
| F | 6 | Q | 15 | Z | 24 |
| G | 7 | R | 16 |  |  |
| H | 8 | S | 17 |  |  |
| J | 9 | T | 18 |  |  |

This validation routine allows submitters of data to confirm the NHI is in the correct format and that it is a valid NHI number. Its main purpose is to identify mistyped NHI numbers.

The validation routine does not confirm that a health care provider has assigned the NHI number to a correct individual, nor does it mean the NHI number has been registered on the NHI.

# Appendix E: Record Processing Examples





## Example of Event Ordering



# Appendix F: Emails

The NPF system automatically sends emails to the Submitter to:

1. acknowledge receipt of files
2. inform the Submitter that a batch file has been rejected
3. inform the Submitter that return files are available in the Submitter’s pick-up directory.

## F.1 Acknowledgement Email

This email is sent when a batch file has successfully passed batch and file level validation by the NPF System.

**Email Content:**

**Subject:**

<<Organisation Name>>: NPF batch file <<filename>> was received by the Ministry of Health and submitted for processing

**Email Body:**

<<Organisation Name>>: Your National Patient Flow (NPF) batch file, <<filename>>, has been received by the Ministry of Health.

Kind regards,

National Collections and Reporting

Information Delivery and Operations

National Health Board

Ministry of Health

## F.1 Batch Rejection Email

This email is sent when a batch file is rejected by the NPF System.

**Email Content:**

**Subject:**

<<Organisation Name>>: NPF batch/file <<filename>> has been rejected

**Email Body:**

<<Organisation Name>>: Your National Patient Flow (NPF) batch/file, <<filename>>, has failed batch processing and has been rejected. Please refer to the attached Batch Error Report for details.

Kind regards,

National Collections and Reporting

Information Delivery and Operations

National Health Board

Ministry of Health

## F.2 Return File Email

This email is sent on completion of processing a batch, after the NPF system has loaded the return file into the Submitter’s pick-up directory. The return files are a compressed (zip) file containing response files and a batch report.

**Email Content:**

**Subject:**

<<Organisation Name>>: NPF batch file <<filename>> has completed processing and an output is available

**Email Body:**

<<Organisation Name>>: Your National Patient Flow (NPF) batch file, <filename>>, has completed processing and an output file is available at you pick-up directory. Of <<xx>> submitted files, << yy>> were rejected: a pass rate of <<zz>>%.

Kind regards,

National Collections and Reporting

Information Delivery and Operations

National Health Board

Ministry of Health

# Appendix G: Quick Reference - Input Record Contents List

**Header**

Correlation ID

Business Transaction ID

Creation Time

Sending Application ID

Sending Application Version

Sending Organisation ID

Sending User ID

Sending Facility

Target System

Target System Environment

Target Version

**Referral Received**

Local Referral Identifier

Identifier

National Health Index Number (NHI)

Initial Referral Identifier

Date Referral Received

Health Specialty Code

Principle Health Service Purchaser

Referred From Professional Group Type

Referred From Organisation Type

Referred To DHB ID

**Triage**

Local Referral Identifier

Identifier

National Health Index Number (NHI)

Clinician Defined Triage Category

Clinician Defined Suspicion of Cancer (SCAN)

Service Type

Service Sub-Type

Optimal Date for Assessment

Clinical Exclusion Code

Triage Outcome

**Notification**

Local Referral Identifier

Identifier

National Health Index Number (NHI)

Date Triage Outcome Notified

**Booking**

Local Referral Identifier

Identifier

National Health Index Number (NHI)

Date Booking Made

Date Patient Booked

Service Type

**Assessment**

Local Referral Identifier

Identifier

National Health Index Number (NHI)

Date Patient Assessed

NNPAC PMS Unique Identifier

Attendance Outcome

Attendance Outcome Decision

Specialty Referred To

DHB Referred To

**Exception Handling**

Local Referral Identifier

Identifier

National Health Index Number (NHI)

Date Exception Outcome Assigned

Exception Outcome

Exception Reason

# Appendix H: References

National Patient Flow Structured Business Vocabulary V1.4

National Patient Flow Business Rules Catalogue

1. The Processing date/time is the time in which the event was added in the National Patient Flow (NPF) System. [↑](#footnote-ref-1)
2. The event date/time includes the following data elements: “Date Referral Received”, “Date Triage Outcome Notified”, “Date Patient Booked”, “Date Patient Assessed”, “Date Exception Outcome Assigned”. [↑](#footnote-ref-2)
3. Refer Appendix A: Code Tables [↑](#footnote-ref-3)
4. Refer Appendix C: Error Message list [↑](#footnote-ref-4)
5. Refer Appendix A: Code Tables [↑](#footnote-ref-5)