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|  | 2018 PDS Integration Requirements Matrix - v1.0 |
|  | 2018 PDS Integration Foundation Module - Baseline Index - v1.0 |
|  | NPFIT-FNT-TO-DSD-0120.06 Business Use Case: Sensitive Patients - Local Business Processes v1.0 |
|  | NPFIT-SI-SIGOV-0073.05 Guidance on Implementing RBAC for PSIS and PDS v2.1 |
|  |  |

Glossary of Terms

|  |  |
| --- | --- |
| Term / Abbreviation | What it stands for |
| Attribute | A ‘property’ of an object, e.g. a *use* is an attribute which defines the type of an object. |
| Birth Notification Application (BNA) | The Birth Notification Application (BNA) is a system available from within the Summary Care Record application (SCRa – see below) to allow maternity units which are not integrated with PDS to register births on PDS. It can also be used by maternity units which are integrated with PDS to handle certain exceptional circumstances. It is also available for use by Child Health Organisations which are not integrated with PDS. |
| Candidate Record | A patient record, stored on the LPI, which meets certain minimum criteria and can therefore be used for confirmation of patient identity. |
| Child Health Organisation (CHO) | An organisation responsible for the monitoring of continuing care for a child until their 17th birthday. |
| Clinical Commissioning Group (CCG) | An organization responsible for commissioning primary care services. |
| Confusion case | A PDS record which has become incorrectly used for two or more different patients and may contain updates relating to each. This may occur where the patients have similar demographic details and the user selects the wrong one. |
| De-coupled Record | A record which is explicitly exempt from synchronisation, normally because of a significant data anomaly, e.g. erroneous death notification on the PDS.  A de-coupled record is dependent on change of data on the PDS, e.g. reversal of death status, and therefore distinct from a record in a ‘deferred’ state, which is merely awaiting synchronisation. |
| Demographics Batch Service (DBS) | The DBS provides a mechanism for non-Spine-compliant organisations to perform batch uploading of files to the Spine service, in order to trace or verify the NHS Number for each patient in the batch.  The DBS provides a mechanism for Spine to receive and process these files as well as to communicate the success or failure of this processing to the DBS Operators via email.  DBS ensures that batch requests do not disrupt the standard operation of the Spine service. |
| Demographic Spine Application (DSA) | The Demographic Spine Application (DSA) is used by PDS National Back Office (NBO) staff to maintain PDS information including sensitive data items such as Date of Death and the Information Sensitivity Indicator. |
| Electronic Prescription Service (EPS) | A system which allows the electronic transfer of prescriptions from GP Practices to Pharmacies. It also provides enhanced IT support to community pharmacists to enable them to play an expanded role in primary healthcare, and further supports re-engineered business processes by reimbursement agencies. |
| Elements | Elements are parts of a complex object, such as an address, which have numerous sub-components, e.g. postcode is an element of an address. |
| e-Referral Service (e-RS) | A replacement for the Choose and Book service, combining electronic appointment booking with a choice of time date and place for first outpatient and other appointments. |
| Fast Healthcare Interoperability Resources (FHIR) | A next generation standards framework created by HL7 which combines the best features of other HL7 products whilst leveraging the latest web standards and applying a tight focus on implementability. |
| GP-to-GP (GP2GP) | GP2GP enables patients' electronic health records to be transferred directly and securely between GP practices. It improves patient care as GPs will usually have full and detailed medical records available to them for a new patient's first consultation. |
| Healthcare Professional (HCP) | Any member of NHS staff directly involved in patient care. |
| Key-Fields | A collection of data fields which, when a change is detected on synchronisation, should prompt user confirmation/acceptance.  The key-fields are currently defined as death status and gender. |
| Local Back Office (LBO) | An administrative function at organisation level, e.g. secondary care data quality team, concerned with the maintenance and data quality of records on local systems. |
| Local Patient Index (LPI) | A local data store of patient demographic information, commonly known as a Master Patient Index (MPI), but referred to here as ‘local’ to differentiate it from the PDS. |
| Local System | Any system e.g. PAS, GP Practice System that connects to the PDS. |
| Loosely coupled | This term is used in the context of a system updating PDS whereby the system should not force the user to wait until a response has been received from PDS. The user can carry on with other activities whilst the system awaits the response in the background. |
| Message Implementation Manual (MIM) | The MIM provides information to implementers regarding the use of HL7v3 messages, covering a number of domains including PDS. |
| National Back Office (NBO) | Also known as PDS Back Office, an administrative function at national level concerned with the maintenance and data quality of records on the PDS. |
| National Health Application and Infrastructure Services (NHAIS) | NHAIS is the responsible IT system for patient registrations in Primary Care and a number of other services including payments to GPs. |
| Object | An object is a data element on a patient record that must be updated in its entirety, e.g. an address is an object consisting of an id, a type, 5 lines of address, a postcode, a PAF key and effective date information. |
| Office of National Statistics (ONS) | The government body responsible for reporting the number and types of births in England and Wales. |
| Partner Child Health Organisation (PCHO) | In the context of birth notifications, there are two types of Child Health Organisation. The PCHO is the *Partner* Child Health Organisation, meaning the CHO affiliated to the organisation where the birth took place. |
| PDS Object Identifier (UID) | An alphanumeric identifier for an object on the PDS. PDS Object Identifiers are returned to the local system in the “root” and “extension” attributes of the id element. They can be considered unique on a patient record, but should not be relied upon to be unique on the PDS. |
| Postcode Address File (PAF) | A database of UK residential and business address data. |
| QAS | A proprietary postcode and address software tool. |
| Requirements Traceability Matrix (RTM) | The RTM contains a listing of all PDS Integration Requirements and provides a more concise format for suppliers to indicate their conformance with those requirements. |
| Responsible Child Health Organisation (RCHO) | The *Responsible* Child Health Organisation, meaning the CHO that will monitor the infant’s development – normally the CHO that covers the mother’s place of residence. |
| Role Based Access Control (RBAC) | RBAC is the process through which a national set of job roles, activities and workgroups can be applied to grant users access to functionality and indirectly to data within Spine services. |
| Serial Change Number (SCN) | The Serial Change Number (SCN) is used to control the synchronisation of data between PDS and local systems.  A SCN is generated by the PDS for each patient record. Every time the PDS is updated, the SCN is incremented. |
| Spine-compliant / Spine-enabled | This refers to systems which have achieved a degree of direct integration with PDS. |
| Spine Directory Service (SDS) | A repository of Spine reference data, including information about organisations, messaging endpoints and smartcard users. |
| Spine Mini Service Provider (SMSP) | A supplier of third party software to provide solutions that provide a greatly simplified interface for accessing a subset of Spine services. |
| Split-screen | The primary mechanism for manually resolving discrepancies in a patient record between the PDS and a local system. Also known as comparison screen. |
| Summary Care Record (SCR) | The Summary Care Record (SCR) is a secure, electronic patient record that contains key information derived from patients’ detailed GP records. It is accessed in emergency and unplanned care scenarios, where such information would otherwise be unavailable. |
| Summary Care Record application (SCRa) | The SCRa allows a user to search for a patient on PDS and view their SCR. |
| Suppliers | A common term to include suppliers of systems that integrate with the PDS. |
| Synchronisation | The process of either inserting a new patient record from the PDS onto the Local Patient Index, or if one exists there already, ensuring the local record and the PDS record are the same. |
| System Providers | A common term to include local system providers and Spine. |
| ‘Traced & Verified’ | This relates to an NHS Number Status Indicator Code value of ‘01’ (Number present and verified). Held against local records that have been successfully traced against a national source of NHS Numbers (now PDS), the code is used for various purposes in secondary care systems. The process of maintaining this code is outside of the scope of these requirements. |
| Tracing | The process of querying for a patient record using a variety of demographic or identifier data, either on the local system or on the PDS. |

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# Introduction

## Purpose and Scope of Document

The purpose of this document is to provide additional information to assist with the integration of local systems with the PDS.

This document is concerned with direct integration using MIM messages. It does not cover requirements or expectations of systems interacting with PDS via SMSP or FHIR or DBS.

## Document Structure

This document is organised as follows:

* Section 1 introduction.
* Sections 2 to 5 provide advice on the use and behaviour of each PDS interaction. Interaction identifiers are based on MIM 6.3.01.
* Section 6 provides advice on each object and data item.
* Section 7 lists permissible values for coded data items.
* Appendix A provides information on options for the batching of interactions with PDS.
* Appendix B provides an example RBAC mapping.

Note that additional interactions and data were supported by MIM 7.2.02. These additional items are not documented here. Suppliers who have previously implemented MIM 7.2.02 and 2008-B requirements may continue to support these additional items.

# Trace Interactions

## PDS Simple Trace Query

MIM Interaction ID: QUPA\_IN000005UK01

This interaction provides a search facility to allow a patient to be identified based on a minimal set of search criteria including name, date of birth, gender and postcode. For a match to be made, the data in the request interaction must exactly match that held on the PDS database. Where data is included in a request but is not held on a PDS record then a match will not be made.

The PDS Simple Trace Response returns a single match. The Query Act Failed interaction returns an error response. Wildcards are not supported and historic data held on the PDS is not used during the matching process.

### Query Data

The following search parameters are supported:

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Person Name**](#dgName) | | 1..1 | HL7 mapping: **Person.name** class, **value** attribute. |
|  | Family Name | 1..1 | Comparison by PDS is case-insensitive. |
|  | First Given Name | 0..1 | Comparison by PDS is case-insensitive. |
|  | Other Given Name(s) | 0..1 | This should not be used in the PDS Simple Trace as the exact PDS value can be difficult to predict. See PDS Integration Requirements Section 5.1. |
| [**Person Gender**](#dgGender) | | 1..1 | HL7 mapping: **Person.administrativeGenderCode** class, **value** attribute. |
|  | [Person Gender Code](#clGender) | 1..1 | Only records with a database value that exactly matches the parameter in the request interaction will be considered to be a match by PDS. |
| [**Person Birth Date**](#dgDOB) | | 1..1 | HL7 mapping: **Person.birthTime** class, **value** attribute. |
|  | Person Birth Date | 1..1 | A match will be made by PDS only if the Date of Birth in the request interaction has the same value as that held on PDS. |
| [**Person Death Date**](#dgDeath) | | 0..1 | HL7 mapping: **Person.deceasedTime** class, **value** attribute. |
|  | Person Death Date | 1..1 | A match will be made by PDS only if the Date of Death in the request interaction has the same value as that held on PDS. |
| [**Person Address**](#dgAddress) | | 0..1 | HL7 mapping: **Person.address** class, **value** attribute. |
|  | Postcode | 0..1 | Comparison by PDS is case-insensitive. |
|  | PAF Key | 0..1 | Do not use. PDS will ignore PAF key if provided in a Simple Trace. |

### Batching of PDS Simple Trace Query

PDS Simple Trace Query interactions may be batched using the MIM generic batching mechanism. See [Appendix A](#AppendixA) for details of batching options.

### Additional Information

*Matching Rules:*

* Only current PDS data is used during the matching process – historic data is not used.
* Business Effective Dates are ignored.
* Only exact matching is supported i.e. to successfully trace a patient, the data in the request interaction must be identical to that held on the PDS.
* Name parameters (Family Name, First Given Name) are compared to all name types (i.e. usual, all previous, preferred and alias). Note that not all name types are returned in the response so it is possible that a match is made against a name that is not actually returned.
* Postcode is compared with postcodes held for all address types. As with the previous point, not all address types are returned in the response so it is possible that a match is made against an address that is not actually returned.
* A matching sensitive record will not be returned by PDS where the postcode is present as one of the trace parameters, as this would otherwise give a clue to the patient’s location.

*String matching:*

* ***White space and punctuation characters are significant*** e.g. a postcode of LS16AA in the request interaction will not match LS1 6AA on the database.
* No wildcards may be supplied.

## PDS Simple Trace Query Response

MIM Interaction ID: QUPA\_IN000007UK01

This interaction is used when a PDS Simple Trace Query interaction has been sent to PDS and PDS has found a single matching patient record. If multiple matching records are found, an error code will be returned in a Query Act Failed response interaction instead and no patient data will be returned for any of the matches. Alternatively, if no matches are found, an error code will be returned in a Query Act Failed response interaction. When a single match is found, a subset of the current demographic data held for the patient is returned.

### Response Data

It should be noted that the 1..1 cardinalities in the table below and formats for the data (which are described in detail in section 6 via the links) relate to how data should be returned from PDS i.e. if the data was originally updated on PDS correctly. However, there may be instances where this cannot be relied upon.

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 |  |
|  | NHS Number | 1..1 | HL7 mapping: **PatientRole** class, **id** attribute. |
| [**Person Name**](#dgName) | | 0..\* | HL7 mapping: **Person** class, **name** attribute.  The current usual, alias and preferred names. |
|  | [Name Type](#clNameType) | 1..1 | Type 'L' (Usual), 'A' (Alias) and 'PREFERRED' (Preferred) only. |
|  | Family Name | 0..1 |  |
|  | First Given Name | 0..1 |  |
|  | Other Given Name(s) | 0..1 |  |
|  | Name Prefix | 0..1 |  |
|  | Name Suffix | 0..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
| [**Person Gender**](#dgGender) | | 0..1 |  |
|  | [Person Gender Code](#clGender) | 1..1 | HL7 mapping: **Person** class, **administrativeGenderCode** attribute. |
| [**Person Birth Date**](#dgDOB) | | 0..1 |  |
|  | Person Birth Date | 1..1 | HL7 mapping: **Person** class, **birthTime** attribute. |
|  | Delivery Time | 0..1 | HL7 mapping: **Person** class, **birthTime** attribute. |
| [**Person Death Date**](#dgDeath) | | 0..1 |  |
|  | Person Death Date | 1..1 | HL7 mapping: **Person** class, **deceasedTime** attribute. |
|  | Time of Death | 0..1 | HL7 mapping: **Person** class, **deceasedTime** attribute. |
|  | [Status of Death Notification](#clStatusOfDeathNotification) | 1..1 | HL7 mapping: **DeathNotification** class, **value** attribute. |
| [**Person Address**](#dgAddress) | | 0..1 | HL7 mapping: **PatientRole** class, **addr** attribute.  The current usual address only.  Will not be returned for sensitive records. |
|  | [Address Type](#clAddressType) | 1..1 | Type 'H' (Usual) only. |
|  | Address Line | 0..5 |  |
|  | Postcode | 0..1 |  |
|  | PAF Key | 0..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
| [**Telecommunication Address**](#dgTelecom) | | 0..\* | HL7 mapping: **PatientRole** class, **telecom** attribute.  The current telecommunication addresses only.  Will not be returned for sensitive records. |
|  | [Telecom Usage](#clTelecomUsage) | 1..1 | All usage types are supported in this interaction. |
|  | [Communication Contact Method](#clCommunicationContactMethod) | 1..1 |  |
|  | Communication Contact String | 1..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
| [**Person Confidentiality**](#dgPersonConfidentiality) | | 0..1 |  |
|  | [Information Sensitivity Indicator](#clInformationSensitivityIndicator) | 1..1 | HL7 mapping: **PatientRole** class, **confidentialityCode** attribute. |
| [**Previous NHS Contact**](#dgPreviousNHSContact) | | 0..1 |  |
|  | [Previous NHS Contact Indicator](#clPreviousNHSContact) | 1..1 | HL7 mapping: **PreviousNhsContact** class, **value** attribute. |
| [**Primary Care Registration**](#dgPrimaryCareRegistration) | | 0..1 | **The current primary care registration only.**  **Will not be returned for sensitive records.** |
|  | Patient Care Provision Type | 1..1 | HL7 mapping: **PatientCareProvision** class, **code** attribute.  This will contain the value '1' (Primary care). |
|  | Primary Care Identifier | 1..1 | HL7 mapping: **AssignedOrganization** class, **id** attribute. |
|  | Business Effective From Date | 0..1 | HL7 mapping: **PatientCareProvision** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | HL7 mapping: **PatientCareProvision** class, **effectiveTime** attribute. |
| [**Baby Tracing Data**](#dgBabyTracingData) | | 0..1 |  |
|  | Birth Order | 1..1 | HL7 mapping: **Person** class, **multipleBirthOrderNumber** attribute. |

### Batching of Simple Trace Query Response

Where a batch of PDS Simple Trace Query interactions has been sent to PDS, PDS will respond with a batch containing:

* PDS Simple Trace Query Response interactions for those queries resulting in successful traces where a single exact match was found;
* Query Act Failed interactions for those queries where a single exact match was not found.

See [Appendix A](#AppendixA) for more details of batching options.

## PDS Advanced Trace Query

MIM Interaction ID: QUPA\_IN000006UK02

The PDS Advanced Trace Query provides a more flexible facility for identifying patients than the PDS Simple Trace Query. It can return a single match, multiple matches or an error response.

The PDS Advanced Trace Query supports two types of search: Alphanumeric and Algorithmic. The Search Type request parameter is used to specify what type of trace should be performed. If Search Type = 1, the Alphanumeric Trace is performed and if Search Type = 2, the Algorithmic Trace is performed.

## PDS Advanced Trace Query (Alphanumeric)

PDS Advanced Alphanumeric Tracing is an extended version of PDS Simple Tracing. The data in the request interaction must exactly match that held on the PDS database; however wildcards may be used using the asterisk character (\*).

Additional search criteria are supported including ranges for birth date and death date, and primary care registration.

Historic data held on PDS is used in the matching process for the Alphanumeric Advanced Trace unless the 'Ignore History Indicator' is set.

The ‘Historic Data Indicator’ is used to determine what data is returned in the match results. If set to 0, only current PDS data will be returned. If set to 1, then current and historic PDS data will be returned.

### Query Data

The following search parameters are supported:

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| Miscellaneous Data | | 1..1 | Control data used by PDS to determine the appropriate action to carry out. |
|  | Search Type | 1..1 | HL7 mapping: **SearchParameter** class, **value** attribute.  To indicate the type of search required.  Set to '1' (Alphanumeric). |
|  | Historic Data Indicator | 1..1 | HL7 mapping: **HistoricDataIndicator** class, **value** attribute.  To indicate whether or not historic data is required to be returned in the response to a query.  Permissible values are:   * '0' (No history required); * '1' (Retrieve all historic information). |
|  | Ignore History Indicator | 1..1 | HL7 mapping: **IgnoreHistoryIndicator** class, **value** attribute.  To indicate whether or not to search historic data (i.e. as well as current data).  Permissible values are:   * '0' (Search History); * '1' (Ignore History). |
| **Patient Identifier** | | 0..1 | **Do not use in a PDS Advanced Trace. The PDS Retrieval is appropriate where the NHS Number is used for tracing. See PDS Integration Requirements - TRCPDS-2.** |
|  | NHS Number | 1..1 |  |
| [**Person Name**](#dgName) | | 1..1 | HL7 mapping: **Person.name** class, **value** attribute. |
|  | Family Name | 1..1 | A wildcard may be included following at least two characters.  Comparison by PDS is case-insensitive. |
|  | First Given Name | 0..1 | A wildcard may be included following at least two characters.  Comparison by PDS is case-insensitive. |
|  | Other Given Name(s) | 0..1 | This should not be used in the PDS Advanced Trace (Alphanumeric) as the exact PDS value can be difficult to predict. See PDS Integration Requirements Section 5.1. |
| [**Person Gender**](#dgGender) | | 1..1 | HL7 mapping: **Person.administrativeGenderCode** class, **value** attribute. |
|  | [Person Gender Code](#clGender) | 1..1 | Only records with a database value that exactly matches the parameter in the request interaction will be considered to be a match by PDS. |
| [**Person Birth Date**](#dgDOB) | | 1..1 | HL7 mapping: **Person.birthTime** class, **value** attribute.  One or other of Person Birth Date and Person Birth Date Range must be provided. |
|  | Person Birth Date | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
|  | Person Birth Date Range | 0..1 | If a Person Birth Date Range is provided, at least one of Start Birth Date Range and End Birth Date Range must be provided.  **Where used it is recommended that the range should have both a Start Date and an End Date and be no more than a year in length. When a date range for a longer period is used it could result in more than 50 matching records.** |
|  | Start Birth Date Range | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
|  | End Birth Date Range | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
| [**Person Death Date**](#dgDeath) | | 0..1 | HL7 mapping: **Person.deceasedTime** class, **value** attribute.  One or other of Person Death Date and Person Death Date Range may be provided. |
|  | Person Death Date | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
|  | Person Death Date Range | 0..1 | If a Person Death Date Range is provided, at least one of Start Death Date Range and End Death Date Range must be provided.  **Where used it is recommended that the range should have both a Start Date and an End Date and be no more than a year in length. When a date range for a longer period is used it could result in more than 50 matching records.** |
|  | Start Death Date Range | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
|  | End Death Date Range | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
| [**Person Address**](#dgAddress) | | 0..1 | HL7 mapping: **Person.address** class, **value** attribute. |
|  | Address Line | 0..5 | Do not use. Because the exact format of Address Lines are difficult to determine, these should not be used in tracing. See PDS Integration Requirements Section 5.1. |
|  | Postcode | 0..1 | A wildcard may be included following at least two characters.  Comparison by PDS is case-insensitive. |
|  | PAF Key | 0..1 | Do not use. PAF key is not comprehensively populated in PDS. For this reason it should not be used in the Alphanumeric Advanced Trace. |
| [**Primary Care Registration**](#dgPrimaryCareRegistration) | | 0..1 | HL7 mapping: **PrimaryCare.id** class, **value** attribute. |
|  | Primary Care Identifier | 1..1 | Identifier for the primary care organisation (GP Practice) or person (GP) with which the patient is or was registered.  Partial codes are not acceptable.  Comparison by PDS is case-insensitive. |

### Additional Information

*PDS Matching Rules:*

* Parameters are matched against current data, and, unless the 'Ignore History' flag is set, also matched against historic data.
* Business Effective Dates are ignored.
* Exact matching only is supported i.e. to successfully trace a patient, the data in the request interaction must be identical to that held on the PDS.
* Name parameters (Family Name, First Given Name) are compared to all name types (i.e. usual, all previous types, preferred and alias).
* Postcode is compared against postcodes held for all address types.
* A matching sensitive record will not be returned by PDS where the postcode or primary care identifier is present as one of the trace parameters, as this would otherwise give a clue to the patient’s location.

*String matching:*

* ***White space and punctuation characters are significant*** e.g. a postcode of LS16AA in the request interaction will not match LS1 6AA on the database.
* Wildcard substitutions must be preceded by a minimum of two characters. Whole word wildcard substitutions are not permitted.

The following examples illustrate the use of wildcards further:

| The Family Name (i.e. Surname) for a patient held on the PDS is ‘Brown’. The following wildcard searches are attempted: | |
| --- | --- |
| Br\* | A match will be made |
| Br\*w\* | A match will be made |
| Brown\* | A match will be made |
| B\* | Illegal wildcard usage |
| \*own | Illegal wildcard usage |
| \* | Illegal wildcard usage |

Primary Care Identifier is treated as a string for matching purposes.

*Date matching:*

* If a Person Birth Date Range or Person Death Date Range is supplied, then any date that falls between the high and the low of the range, inclusively, is considered a match. It is advised that a date range should have both a Start Date and an End Date and be no more than a year in length. Longer periods or opened ended periods will not be rejected but could result in more than 50 matching records and so result in a ‘too many matches response’ and should therefore be discouraged.
* Dates may be stored in the PDS at different resolutions, likewise date search parameters may be supplied at varying resolutions. However, it is not possible to supply dates in MMDD or DD or YYDD formats.
* The PDS matches dates at the precision of the lowest common resolution: e.g. if 201504 is supplied as the parameter, it will match against the following dates: 201504 and 20150401 to 20150430. This also applies to matching between date ranges.
* If only the start of a range is supplied any date matching or later will be considered a match, and likewise if only the end of a range is supplied any date matching or earlier is considered a match.
* Hours, minutes and seconds must not be supplied for a date or date range parameter, and the interaction will be rejected by PDS if they are.

*Use of Ignore History and Historic Data Indicators*

The table below demonstrates the use of ‘Ignore History Indicator’ along with the ‘Historic Data Indicator’.

| Ignore History Indicator | Historic Data indicator | Contents of Alphanumeric Advanced Trace Response |
| --- | --- | --- |
| Do not Search History | Return History | Illogical setting, though not prevented by PDS.  Response contains Historic data. |
| Do not Search History | Do not Return History | Response contains no Historic data. |
| Search History | Return History | Response contains Historic data. |
| Search History | Do not Return History | Response contains only current data even if a match in history was found. This may confuse the user as the patient record returned will not contain the historic data which actually matched the search criteria. |

## PDS Advanced Trace Query (Algorithmic)

Advanced Algorithmic Tracing provides a more flexible search facility. The PDS database is queried using pre-configured combinations of data items, known as blocking queries. The patient records returned by the blocking queries, known as the candidate pool, are then submitted to a matching process which determines a weighting based on statistical analysis of key fields. PDS then converts this weighting to a percentage and applies a match weight threshold.

Wildcards are not supported in Algorithmic tracing. The PDS Advanced Trace (Algorithmic) always searches historic data along with current data.

### Query Data

The following search parameters are supported:

| Object/Data Item | | | Cardinality | Notes |
| --- | --- | --- | --- | --- |
| Miscellaneous Data | | | 1..1 | Control data used by PDS to determine the appropriate action to carry out. |
|  | | Search Type | 1..1 | HL7 mapping: **SearchParameter** class, **value** attribute.  To indicate the type of search required.  Set to '2' (Algorithmic). |
|  | | Historic Data Indicator | 1..1 | HL7 mapping: **HistoricDataIndicator** class, **value** attribute.  To indicate whether or not historic data is required to be returned in the response to a query.  Permissible values are:   * '0' (No history required); * '1' (Retrieve all historic information). |
| **Patient Identifier** | | | 0..1 | **Do not use in a PDS Advanced Trace. Use of the PDS Retrieval is appropriate where the NHS Number is used for tracing. See PDS Integration Requirements - TRCPDS-2.** |
|  | | NHS Number | 1..1 |  |
| [**Person Name**](#dgName) | | | 1..1 | HL7 mapping: **Person.name** class, **value** attribute.  Either the Family Name and/or the First Given Name must be supplied. Other Given Name(s) may also be supplied. |
|  | | Family Name | 0..1 | Comparison by PDS is case-insensitive. |
|  | | First Given Name | 0..1 | Comparison by PDS is case-insensitive. |
|  | | Other Given Name(s) | 0..1 | Comparison by PDS is case-insensitive. |
| [**Person Gender**](#dgGender) | | | 1..1 | HL7 mapping: **Person.administrativeGenderCode** class, **value** attribute. |
|  | | [Person Gender Code](#clGender) | 1..1 |  |
| [**Person Birth Date**](#dgDOB) | | | 1..1 | HL7 mapping: **Person.birthTime** class, **value** attribute.  One or other of Person Birth Date and Person Birth Date Range must be provided. |
|  | Person Birth Date | | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
|  | Person Birth Date Range | | 0..1 | If a Person Birth Date Range is provided, at least one of Start Birth Date Range and End Birth Date Range must be provided.  **Where used it is recommended that the range should have both a Start Date and an End Date and be no more than a year in length. When a date range for a longer period is used it could result in more than 50 matching records.** |
|  | Start Birth Date Range | | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
|  | End Birth Date Range | | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
| [**Person Death Date**](#dgDeath) | | | 0..1 | HL7 mapping: **Person.deceasedTime** class, **value** attribute.  One or other of Person Death Date and Person Death Date Range may be provided. |
|  | Person Death Date | | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
|  | Person Death Date Range | | 0..1 | If a Person Death Date Range is provided, at least one of Start Death Date Range and End Death Date Range must be provided.  **Where used it is recommended that the range should have both a Start Date and an End Date and be no more than a year in length. When a date range for a longer period is used it could result in more than 50 matching records.** |
|  | Start Death Date Range | | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
|  | End Death Date Range | | 0..1 | One of the following formats shall be used: CCYYMMDD; CCYYMM; CCYY. |
| [**Person Address**](#dgAddress) | | | 0..1 | HL7 mapping: **Person.address** class, **value** attribute. |
|  | | Address Line | 0..5 | Do not use. Because the exact format of Address Lines are difficult to determine, these should not be used in tracing. See PDS Integration Requirements Section 5.1. |
|  | | Postcode | 0..1 | Comparison by PDS is case-insensitive. |
|  | | PAF Key | 0..1 | Do not use. PAF key is not comprehensively populated in PDS. For this reason it should not be used in the Alphanumeric Advanced Trace. |
| [**Primary Care Registration**](#dgPrimaryCareRegistration) | | | 0..1 | HL7 mapping: **PrimaryCare.id** class, **value** attribute. |
|  | | Primary Care Identifier | 1..1 | Identifier for the primary care organisation (GP Practice) or person (GP) with which the patient is or was registered.  Partial codes are not acceptable.  Comparison by PDS is case-insensitive. |

### Additional Information

*Search Parameters:*

For the PDS Advanced Trace Query (Algorithmic), at least one of the following combinations of data items (blocking queries) must be supplied:

* Family Name, First Given Name, Person Birth Date (or Person Birth Date Range)
* Family Name, Person Gender, Person Birth Date (or Person Birth Date Range), Postcode
* First Given Name, Person Gender, Person Birth Date (or Person Birth Date Range), Postcode

At the query interaction level the mandatory trace parameters are: Person Name (Family Name and/or First Given Name) and Gender. Person Birth Date (or Person Birth Date Range) is optional in the interaction. Normally, systems should seek to make Person Gender, Family Name and Person Birth Date (or Person Birth Date range) mandatory for an algorithmic trace and then conditional validation should ensure that at least one of First Given Name or Postcode is supplied. This will ensure the best possible spread of blocking queries that will be run. If a valid combination of data items is not provided to trigger at least one of the blocking queries, an error code will be returned in the response interaction.

*PDS Process Overview:*

Following validation of the request parameters, PDS performs as many as it can of the blocking queries described above. The results of the queries are combined and placed in a candidate pool of records i.e. a UNION of the results is created.

A matching algorithm is then performed against the patient records in the candidate pool.

*Blocking Queries:*

* The blocking queries are run against phoneticised data for Family Name, First Given Name and Other Given Name(s). For all other parameters they are run against data that has not been standardised in any way.
* The name components are transposed if both Family Name and First Given Name are supplied in the search criteria when executing a patient trace.
* The blocking queries are run against current and historic data.
* Matching is performed against all names and against all postcodes, regardless of type.
* Fuzzy matching is used for matching Person Birth Date and Person Death Date (as described previously for PDS Advanced Trace Query (Alphanumeric)).

*Standardisation and Phoneticisation:*

* When Person Name data (Family Name, First Given Name and Other Given Name(s)) is inserted into the PDS, it undergoes a process of standardisation.
* Standardisation ensures that the data is in the correct format for normalisation.
* Normalisation uses a configuration file to identify names that are forms of the same name, and sets them to the normalised version of this name. For example SU, SUE and SUSAN are all normalised to SUSAN.
* The PDS then uses SOUNDEX to generate a phonetic code for the normalised Name.

*Matching Algorithm:*

* The Matching Algorithm is run against standardised data where available (i.e. for Family Name, First Given Name and Other Given Name(s)).
* A blocking query is run based on the trace criteria and will use current and historic PDS data. The matching query weights for the candidates returned is based on current values only.
* When there is more than one instance of the match field in a record (e.g. a First Given Name for both a current name and an alias), the comparison is performed for each instance. The weightings achieved are compared and the highest is used as the weighting for that match field.
* If a parameter is not supplied for a particular match field, or is not present in the database record, no comparison is run and a weighting of 0 is used for that field.
* Where a date range is used, the matching algorithm calculates the match weight based on the start date.
* Wildcards are not supported. PDS will reject the trace interaction if a wildcard is provided.
* A matching sensitive record will not be returned by PDS where the postcode or primary care identifier is present as one of the trace parameters, as this would otherwise give a clue to the patient’s location.

## PDS Advanced Trace Query Response

MIM Interaction ID: QUPA\_IN000011UK02

This interaction is used when a PDS Advanced Trace Query interaction (either Alphanumeric or Algorithmic) has been sent to PDS and PDS has found either a single matching patient record or multiple (up to 50) matching records.

If no matches are found or too many matches are found, an error code will be returned in a Query Act Failed response interaction instead.

As with the PDS Simple Trace Query Response, the amount of data returned for a patient record is determined by the [Information Sensitivity Indicator](#dgPersonConfidentiality).

If an error response is returned the user should be offered the opportunity to perform another trace.

PDS Advanced Trace Query Responses for Advanced Trace (Algorithmic) behave in the same way as for Advanced Trace (Alphanumeric). However, in addition, a match weighting (expressed as a percentage) is returned for each matching record.

### Response Data

It should be noted that the 1..1 cardinalities in the table below and formats for the data (which are described in detail in section 6 via the links) relate to how data should be returned from PDS i.e. if the data was originally updated on PDS correctly. However, there may be instances where this cannot be relied upon.

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| Miscellaneous Data | | 0..1 | Miscellaneous items of data that may be used by the recipient of the interaction in order to carry out the appropriate action, or are provided to the recipient system for information.  **The matching level will only be present in a response to an Algorithmic PDS Advanced Trace Query.** |
|  | Matching Level | 1..1 | HL7 mapping: **MatchingLevel** class, **value** attribute.  To provide the level of confidence in the match expressed as a percentage to two decimal places.  See PDS Integration Requirements - TRCDPY-2. |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 |  |
|  | NHS Number | 1..1 | HL7 mapping: **PatientRole** class, **id** attribute. |
| [**Person Name**](#dgName) | | 0..\* | HL7 mapping: **R\_PartPersonName** CMET**, Person** class**, name** attribute (except where otherwise indicated).  **The current usual, alias and preferred names will be returned.**  **Historic usual, alias and preferred names will also be returned where history had been requested in the Advanced Trace Query.** |
|  | [Name Type](#clNameType) | 1..1 | Type 'L' (Usual), 'A' (Alias) and 'PREFERRED' (Preferred) only. |
|  | Family Name | 0..1 |  |
|  | First Given Name | 0..1 |  |
|  | Other Given Name(s) | 0..1 |  |
|  | Name Prefix | 0..1 |  |
|  | Name Suffix | 0..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | System Effective From Date | 0..1 | HL7 mapping: **R\_PartPersonName** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Advanced Trace Query. |
|  | System Effective To Date | 0..1 | HL7 mapping: **R\_PartPersonName** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Advanced Trace Query. Only present with historic data. |
|  | Source System | 0..1 | HL7 mapping: **R\_PartPersonName** CMET,  **SourceIdentified** class, **value** attribute (SDS ASID or NHS Directory Service Organisation Code).  Or:  **SourceCoded** class, **value** attribute (coded value).  Only returned where history had been requested in the Advanced Trace Query. |
| [**Person Gender**](#dgGender) | | 0..1 |  |
|  | [Person Gender Code](#clGender) | 1..1 | HL7 mapping: **Person** class, **administrativeGenderCode** attribute. |
| [**Person Birth Date**](#dgDOB) | | 0..1 |  |
|  | Person Birth Date | 1..1 | HL7 mapping: **Person** class, **birthTime** attribute. |
|  | Delivery Time | 0..1 | HL7 mapping: **Person** class, **birthTime** attribute. |
| [**Person Death Date**](#dgDeath) | | 0..1 |  |
|  | Person Death Date | 1..1 | HL7 mapping: **Person** class, **deceasedTime** attribute. |
|  | Time of Death | 0..1 | HL7 mapping: **Person** class, **deceasedTime** attribute. |
|  | [Status of Death Notification](#clStatusOfDeathNotification) | 1..1 | HL7 mapping: **DeathNotification** class, **value** attribute. |
| [**Person Address**](#dgAddress) | | 0..\* | HL7 mapping: **R\_PartAddress** CMET, **PartOfWhole** class, **addr** attribute (except where otherwise indicated).  **Will not be returned for sensitive records.**  **Where the record is not sensitive the current usual address will be returned, and any historic usual addresses will also be returned where history had been requested in the Advanced Trace Query.** |
|  | [Address Type](#clAddressType) | 1..1 | Type 'H' (Usual) only. |
|  | Address Line | 0..5 |  |
|  | Postcode | 0..1 |  |
|  | PAF Key | 0..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | System Effective From Date | 0..1 | HL7 mapping: **R\_PartAddress** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Advanced Trace Query. |
|  | System Effective To Date | 0..1 | HL7 mapping: **R\_PartAddress** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Advanced Trace Query. Only present with historic data. |
|  | Source System | 0..1 | HL7 mapping: **R\_PartAddress** CMET,  **SourceIdentified** class, **value** attribute (SDS ASID or NHS Directory Service Organisation Code).  Or:  **SourceCoded** class, **value** attribute (coded value).  Only returned where history had been requested in the Advanced Trace Query. |
| [**Telecommunication Address**](#dgTelecom) | | 0..\* | HL7 mapping: **R\_PartTelecom** CMET, **PartOfWhole** class, **telecom** attribute (except where otherwise indicated).  **Will not be returned for sensitive records.**  **Where the record is not sensitive the current telecommunication addresses will be returned, and any historic telecommunication addresses will also be returned where history had been requested in the Advanced Trace Query.** |
|  | [Telecom Usage](#clTelecomUsage) | 1..1 | All types are supported in this interaction. |
|  | [Communication Contact Method](#clCommunicationContactMethod) | 1..1 |  |
|  | Communication Contact String | 1..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | System Effective From Date | 0..1 | HL7 mapping: **R\_PartTelecom** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Advanced Trace Query. |
|  | System Effective To Date | 0..1 | HL7 mapping: **R\_PartTelecom** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Advanced Trace Query. Only present with historic data. |
|  | Source System | 0..1 | HL7 mapping: **R\_PartTelecom** CMET,  **SourceIdentified** class, **value** attribute (SDS ASID or NHS Directory Service Organisation Code).  Or:  **SourceCoded** class, **value** attribute (coded value).  Only returned where history had been requested in the Advanced Trace Query. |
| [**Person Confidentiality**](#dgPersonConfidentiality) | | 0..1 |  |
|  | [Information Sensitivity Indicator](#clInformationSensitivityIndicator) | 1..1 | HL7 mapping: **PatientRole** class, **confidentialityCode** attribute. |
| [**Previous NHS Contact**](#dgPreviousNHSContact) | | 0..1 |  |
|  | [Previous NHS Contact Indicator](#clPreviousNHSContact) | 1..1 | HL7 mapping: **PreviousNhsContact** class, **value** attribute. |
| [**Primary Care Registration**](#dgPrimaryCareRegistration) | | 0..\* | **Will not be returned for sensitive records.**  **Where the record is not sensitive, the current primary care registration will be returned and will contain a GP Practice code.**  **Historic Primary Care Registration data will be returned where history had been requested in the Advanced Trace Query and each instance of a Primary Care Registration will contain either a GP Practice code or a GP code.** |
|  | Patient Care Provision Type | 1..1 | HL7 mapping: **PatientCareProvision** class, **code** attribute.  This will contain the value '1' (Primary care). |
|  | Primary Care Identifier | 1..1 | HL7 mapping: **AssignedEntity** class, **id** attribute.  This will contain a GP Practice code for the current primary care registration.  Each instance of a historic primary care registration returned will contain either a GP Practice code or a GP code. |
|  | Business Effective From Date | 0..1 | HL7 mapping: **PatientCareProvision** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | HL7 mapping: **PatientCareProvision** class, **effectiveTime** attribute. |
|  | System Effective From Date | 0..1 | HL7 mapping: **SystemEffectiveDate** class, **value** attribute.  Only returned where history had been requested in the Advanced Trace Query. |
|  | System Effective To Date | 0..1 | HL7 mapping: **SystemEffectiveDate** class, **value** attribute.  Only returned where history had been requested in the Advanced Trace Query. Only present with historic data. |
|  | Source System | 0..1 | HL7 mapping:  **SourceIdentified** class, **value** attribute (SDS ASID or NHS Directory Service Organisation Code).  Or:  **SourceCoded** class, **value** attribute (coded value).  Only returned where history had been requested in the Advanced Trace Query. |
| [**Baby Tracing Data**](#dgBabyTracingData) | | 0..1 |  |
|  | Birth Order | 1..1 | HL7 mapping: **Person** class, **multipleBirthOrderNumber** attribute. |

## PDS Cross Check Trace Query

MIM Interaction ID: QUPA\_IN000014UK01

The primary purpose of this interaction is to confirm that an NHS Number relates to a set of supporting demographic details.

### Query Data

The following search parameters are supported:

|  |  |  |  |
| --- | --- | --- | --- |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 | HL7 mapping: **Person.id** class, **value** attribute. |
|  | NHS Number | 1..1 |  |
| [**Person Name**](#dgName) | | 0..1 | HL7 mapping: **Person.name** class, **value** attribute. |
|  | Family Name | 1..1 | Comparison by PDS is case-insensitive. |
|  | First Given Name | 1..1 | Comparison by PDS is case-insensitive. |
| [**Person Birth Date**](#dgDOB) | | 1..1 | HL7 mapping: **Person.birthTime** class, **value** attribute. |
|  | Person Birth Date | 1..1 | The following format shall be used: CCYYMMDD. |

### Additional Information

The full person birth date must be supplied without the time information. That is, time of birth and partial birth date are not supported.

Person name is optional. However it must be noted that where a name is supplied, both Family Name and First Given Name must be present. It is recommended that a name is included where available as it allows an additional verification check to be made where the full date of birth does not match (see Matching Rules below).

*Matching Rules*

The NHS Number is considered to be verified if:

* The Date of Birth in the request exactly matches the current Date of Birth in the PDS record (to CCYYMMDD resolution).
* If that check fails, the NHS Number is considered to be verified if the following data in the request matches the current data in the PDS record:
* Two out of three parts of Person Birth Date (a single ‘part’ being CCYY, MM or DD)
* First three characters of the Family Name
* Initial of the First Given Name

Name parameters are matched against all name types for a patient stored in the current table on PDS, i.e. usual, preferred, alias and any previous types.

If 3 characters are not available for the Family Name, or First Given Name is not supplied, this is not treated as an error condition. In this case the NHS Number is considered to be NOT verified. However, where the Family Name stored on PDS is only two characters in length and only two characters are supplied in the message, the NHS Number can still be verified.

## PDS Cross Check Trace Query Response

MIM Interaction ID: QUPA\_IN000015UK02

This interaction is used when a PDS Cross Check Trace Query interaction has been sent to PDS and PDS has found a matching patient record.

As with other trace responses, the amount of data returned for a patient record is determined by the [Information Sensitivity Indicator](#dgPersonConfidentiality).

If an error response is returned, the user should be offered the opportunity to perform another Trace.

For a successful Cross Check Trace, PDS will respond with the same data as a PDS Simple Trace Query Response (see [table above](#_Response_Data)), subject of course to the constraints of the [Information Sensitivity Indicator](#dgPersonConfidentiality).

A variety of responses can be expected, depending on whether the number supplied was present but not verified, whether the number was not found or whether there was a problem with the submitted criteria.

### Cross Check Trace Response Codes

The PDS shall return one of the following response codes in the response:

| Response Code | Trace Outcome | Condition | Dataset Returned |
| --- | --- | --- | --- |
| 1 | No match to a Service User Record | The NHS Number does not exist on PDS. | No |
| 22 | NHS Number Invalid | The NHS Number exists but is marked as invalid. | No |
| 40 | NHS Number Not Verified | The supplied data does not result in the correct degree of matching. | No |
| 42 | NHS Number not New Style NHS Number | The supplied NHS Number in the request is an old style NHS Number. | No |
| 43 | NHS Number Found, Verified | The NHS Number exists and the correct degree of matching was achieved. | Yes (Current data only) |
| 44 | NHS Number Superseded, Verified | The supplied NHS Number is superseded, but the correct degree of matching was achieved against the retained profile. | Yes (Current data only) |
| 0 | Generic Error | Invalid data supplied or missing data. | No |

## PDS Batch Trace Query

MIM Interaction ID: QUPA\_IN000012UK02

Although this interaction is listed in the MIM, it is recommended it is not used. Its use is not supported by Spine.

## PDS Batch Trace Query Response

MIM Interaction ID: QUPA\_IN000013UK01

Although this interaction is listed in the MIM, it is recommended it is not used. Its use is not supported by Spine.

# Retrieval Interactions

## PDS Retrieval Query

MIM Interaction ID: QUPA\_IN000008UK02

The PDS Retrieval Query interaction allows a local system to obtain demographic information for a patient, based on NHS Number, or to trace using NHS Number.

### Query Data

The following search parameters are supported:

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| Miscellaneous Data | | 1..1 | Control data used by PDS to determine the appropriate action to carry out. |
|  | Historic Data Indicator | 1..1 | HL7 mapping: **HistoricDataIndicator** class, **value** attribute.  To indicate whether or not historic data is required to be returned in the response to a query.  Permissible values are:   * '0' (No history required); * '1' (Retrieve all historic information).   Must be set to '0' where the PDS Retrieval Query is batched. |
|  | [Retrieval Item](#clRetrievalItem) | 0..\* | HL7 mapping: **RetrievalItem** class, **semanticsText** attribute.  An identification of a data item / group of data items to be retrieved.  Where no retrieval items are specified, PDS will return just the [Serial Change Number](#dgSCN). |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 | HL7 mapping: **Person.id** class, **value** attribute. |
|  | NHS Number | 1..1 |  |

### Additional Information

There are restrictions on which systems can use the following retrieval item parameters, i.e. only NHAIS:

* paperRecordTracking (details the location of the patients Paper Records);
* nhaisPosting (NHAIS Posting data).

### Batching of Retrievals

PDS Retrieval Query interactions may be batched using the MIM generic batching mechanism. See [Appendix A](#AppendixA) for details of batching options.

PDS will respond to a batch of PDS Retrieval Query interactions with a batch containing PDS Retrieval Query Response interactions for those queries that are successful and Query Act Failed interactions for those queries which were unsuccessful.

When a PDS Retrieval Query is part of a batch of PDS Retrieval Queries, the Historic Data Indicator must be set to '0' i.e. no history required.

## PDS Retrieval Query Response

MIM Interaction ID: QUPA\_IN000009UK03

This interaction is used when a PDS Retrieval Query interaction has been sent to PDS and PDS has found a matching patient record.

If the patient record identified by the Retrieval Query has been superseded, PDS retrieves the newer version. PDS includes the fact that the requested NHS Number has been superseded in the response code and text.

If historic data was requested, System Effective Dates and the Source System will be returned for the relevant items. These will also be returned for current data included in the response.

If historic data was not requested, no System Effective Dates or Source System data will be included in the response. The exception to this is for Superseded Patient Identifiers where a System Effective To Date is always returned.

Every Retrieval Response contains a Serial Change Number (SCN) for the patient record. SCN is used by PDS to ensure that updates occur in the correct order.

Other data is returned if it had been requested via the retrieval item parameters in the Retrieval Query interaction, subject to the constraints of the [Information Sensitivity Indicator](#dgPersonConfidentiality) and the historic data indicator.

If there is a failure to match the NHS Number in the Retrieval Query with an NHS Number on PDS, or other error condition is encountered, an error code will be returned in a Query Act Failed response interaction.

### Response Data

Depending on the Retrieval Items specified in the Retrieval Query interaction, the PDS Retrieval Query Response will return all, or a subset of the following data.

It should be noted that the 1..1 cardinalities in the table below and formats for the data (which are described in detail in section 6 via the links) relate to how data should be returned from PDS i.e. if the data was originally updated on PDS correctly. However, there may be instances where this cannot be relied upon.

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 |  |
|  | NHS Number | 1..1 | HL7 mapping: **PatientRole** class, **id** attribute. |
| [**Superseded** **Patient Identifier**](#dgNHSNumber) | | 0..\* |  |
|  | NHS Number  Temporary NHS Number Issued by an NHAIS Registration Authority  Old Format NHS Number | 1..1 | HL7 mapping: **SupercededId** class, **id** attribute. |
|  | System Effective To Date | 0..1 | HL7 mapping: **SupercededId** class, **effectiveTime** attribute. |
| [**Serial** **Change Number**](#dgSCN) | | 1..1 |  |
|  | Serial Change Number | 1..1 | HL7 mapping: **SerialChangeNumber** class, **value** attribute. |
| [**Person Name**](#dgName) | | 0..\* | HL7 mapping: **R\_PartPersonName** CMET**, Person** class**, name** attribute (except where otherwise indicated).  **All current names are returned.**  **Historic names will also be returned where history had been requested in the Retrieval Query.** |
|  | [Name Type](#clNameType) | 1..1 | All types are supported in this interaction.  Note that the MIM incorrectly indicates that this is restricted to type “L” (Usual name) only. |
|  | Family Name | 0..1 |  |
|  | First Given Name | 0..1 |  |
|  | Other Given Name(s) | 0..1 |  |
|  | Name Prefix | 0..1 |  |
|  | Name Suffix | 0..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | System Effective From Date | 0..1 | HL7 mapping: **R\_PartPersonName** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Retrieval Query. |
|  | System Effective To Date | 0..1 | HL7 mapping: **R\_PartPersonName** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Retrieval Query. Only present with historic data. |
|  | PDS Object Identifier | 1..1 |  |
|  | Source System | 0..1 | HL7 mapping: **R\_PartPersonName** CMET,  **SourceIdentified** class, **value** attribute (SDS ASID or NHS Directory Service Organisation Code).  Or:  **SourceCoded** class, **value** attribute (coded value).  Only returned where history had been requested in the Retrieval Query. |
| [**Person Gender**](#dgGender) | | 0..1 |  |
|  | [Person Gender Code](#clGender) | 1..1 | HL7 mapping: **Person** class, **administrativeGenderCode** attribute. |
| [**Person Birth Date**](#dgDOB) | | 0..1 |  |
|  | Person Birth Date | 1..1 | HL7 mapping: **Person** class, **birthTime** attribute. |
|  | Delivery Time | 0..1 | HL7 mapping: **Person** class, **birthTime** attribute. |
| [**Person Death Date**](#dgDeath) | | 0..1 |  |
|  | Person Death Date | 1..1 | HL7 mapping: **Person** class, **deceasedTime** attribute. |
|  | Time of Death | 0..1 | HL7 mapping: **Person** class, **deceasedTime** attribute. |
|  | [Status of Death Notification](#clStatusOfDeathNotification) | 1..1 | HL7 mapping: **DeathNotification** class, **value** attribute. |
| [**Person Address**](#dgAddress) | | 0..\* | HL7 mapping: **R\_PartAddress CMET**, **PartOfWhole** class, **addr** attribute (except where otherwise indicated).  **Will not be returned for sensitive records.**  **Where the record is not sensitive, all current addresses are returned, and historic addresses will also be returned where history had been requested in the Retrieval Query.** |
|  | [Address Type](#clAddressType) | 1..1 | All types are supported in this interaction. |
|  | Address Line | 0..5 |  |
|  | Postcode | 0..1 |  |
|  | PAF Key | 0..1 |  |
|  | Address Description | 0..1 | For temporary address only (i.e. where the Address Type='TMP'). |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | System Effective From Date | 0..1 | HL7 mapping: **R\_PartAddress** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Retrieval Query. |
|  | System Effective To Date | 0..1 | HL7 mapping: **R\_PartAddress** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Retrieval Query. Only present with historic data. |
|  | PDS Object Identifier | 1..1 |  |
|  | Source System | 0..1 | HL7 mapping: **R\_PartAddress** CMET,  **SourceIdentified** class, **value** attribute (SDS ASID or NHS Directory Service Organisation Code).  Or:  **SourceCoded** class, **value** attribute (coded value).  Only returned where history had been requested in the Retrieval Query. |
| [**Telecommunication Address**](#dgTelecom) | | 0..\* | HL7 mapping: **R\_PartTelecom CMET**, **PartOfWhole** class, **telecom** attribute (except where otherwise indicated).  **Will not be returned for sensitive records.**  **Where the record is not sensitive, all current telecommunication addresses are returned, and historic telecommunication addresses will also be returned where history had been requested in the Retrieval Query.** |
|  | [Telecom Usage](#clTelecomUsage) | 1..1 | All usage types are supported in this interaction. |
|  | [Communication Contact Method](#clCommunicationContactMethod) | 1..1 |  |
|  | Communication Contact String | 1..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | System Effective From Date | 0..1 | HL7 mapping: **R\_PartTelecom** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Retrieval Query. |
|  | System Effective To Date | 0..1 | HL7 mapping: **R\_PartTelecom** CMET**, SystemEffectiveDate** class**, value** attribute.  Only returned where history had been requested in the Retrieval Query. Only present with historic data. |
|  | PDS Object Identifier | 1..1 |  |
|  | Source System | 0..1 | HL7 mapping: **R\_PartTelecom** CMET,  **SourceIdentified** class, **value** attribute (SDS ASID or NHS Directory Service Organisation Code).  Or:  **SourceCoded** class, **value** attribute (coded value).  Only returned where history had been requested in the Retrieval Query. |
| [**Person Confidentiality**](#dgPersonConfidentiality) | | 0..1 |  |
|  | [Information Sensitivity Indicator](#clInformationSensitivityIndicator) | 1..1 | HL7 mapping: **PatientRole** class, **confidentialityCode** attribute. |
| [**Consent to NHS Care Record Sharing**](#dgConsent) | | 0..1 |  |
|  | [Consent](#clConsent) | 1..1 | HL7 mapping: **Consent** class, **value** attribute (where **code** attribute has value 4). |
|  | Date Last Changed | 1..1 | HL7 mapping: **Consent** class, **effectiveTime** attribute. |
| [**Call Centre Data**](#dgCallCentreData) | | 0..1 |  |
|  | Shared Secret | 0..1 | HL7 mapping: **SharedSecret** class, **value** attribute. |
|  | [Call Centre Call-Back Consent](#clCallCentreCallbackConsent) | 0..1 | HL7 mapping: **Consent** class, **value** attribute (where **code** attribute has value 6). |
| [**Contact Preferences**](#dgContactPreferences) | | 0..1 |  |
|  | [Preferred Contact Method](#clPreferredContactMethod) | 0..1 | HL7 mapping: **PreferredContactMethod** class, **value** attribute. |
|  | Preferred Contact Times | 0..1 | HL7 mapping: **PreferredContactTimes** class, **value** attribute. |
|  | [Preferred Written Communication Format](#clPreferredWrittenCommunicationFormat) | 0..1 | HL7 mapping: **PreferredWrittenCommunicationFormat** class, **value** attribute. |
| [**Language Communication**](#dgLanguage) | | 0..1 |  |
|  | [Language](#clLanguage) | 1..1 | HL7 mapping: **LanguageCommunication** class, **languageCode** attribute. |
|  | Interpreter Required Indicator | 1..1 | HL7 mapping: **LanguageCommunication** class, **proficiencyLevelCode** attribute. |
| [**Previous NHS Contact**](#dgPreviousNHSContact) | | 0..1 |  |
|  | [Previous NHS Contact Indicator](#clPreviousNHSContact) | 1..1 | HL7 mapping: **PreviousNhsContact** class, **value** attribute. |
| [**Primary Care Registration**](#dgPrimaryCareRegistration) | | 0..\* | **Will not be returned for sensitive records.**  **Where the record is not sensitive, the current primary care registration will be returned and will contain a GP Practice code.**  **Historic Primary Care Registration data will be returned where history had been requested in the Retrieval Query and each instance of a Primary Care Registration will contain either a GP Practice code or a GP code.** |
|  | Patient Care Provision Type | 1..1 | HL7 mapping: **PatientCareProvisionEvent** class, **code** attribute.  This will contain the value '1' (Primary care). |
|  | Primary Care Identifier | 1..1 | HL7 mapping: **AssignedEntity** class, **id** attribute.  GP Practice code or GP code. |
|  | Business Effective From Date | 0..1 | HL7 mapping: **PatientCareProvisionEvent** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | HL7 mapping: **PatientCareProvisionEvent** class, **effectiveTime** attribute. |
|  | System Effective From Date | 0..1 | HL7 mapping: **SystemEffectiveDate** class, **value** attribute.  Only returned where history had been requested in the Retrieval Query. |
|  | System Effective To Date | 0..1 | HL7 mapping: **SystemEffectiveDate** class, **value** attribute.  Only returned where history had been requested in the Retrieval Query. Only present with historic data. |
|  | PDS Object Identifier | 1..1 | HL7 mapping: **PatientCareProvisionEvent** class, **id** attribute. |
|  | Source System | 0..1 | HL7 mapping:  **SourceIdentified** class, **value** attribute (SDS ASID or NHS Directory Service Organisation Code).  Or:  **SourceCoded** class, **value** attribute (coded value).  Only returned where history had been requested in the Retrieval Query. |
| [**Pharmacy Data**](#_Pharmacy_Data) | | 0..\* | **Will not be returned for sensitive records.**  **Where the record is not sensitive, all current Pharmacy data will be returned.** |
|  | Pharmacy Identifier | 1..1 | HL7 mapping: **AssignedEntity** class, **id** attribute. |
|  | [Pharmacy type](#_Pharmacy_Type) | 1..1 | HL7 mapping: **PatientCareProvisionEvent** class, **code** attribute. |
|  | PDS Object Identifier | 1..1 | HL7 mapping: **PatientCareProvisionEvent** class, **id** attribute. |
| [**Related Person**](#_Related_Person) | | 0..\* | **Will not be returned for sensitive records.**  **Where the record is not sensitive, all current Related Person data will be returned.** |
|  | [Related Person Role](#_Related_Person_Role) | 1..1 | HL7 mapping: **RelatedPersonRole** class, **classCode** attribute.  All role types are supported in this interaction. |
|  | [Relationship Type](#_Relationship_Type) | 1..1 | HL7 mapping: **RelatedPersonRole** class, **code** attribute. |
|  | NHS Number | 0..1 | HL7 mapping: **RelatedPatient** class, **id** attribute.  If the NHS Number is NOT present then as a minimum the name and address, or name and telecom details, should be present. |
|  | Contact Ranking | 0..1 | HL7 mapping: **RelatedPersonRole** class, **positionNumber** attribute. |
|  | Next of Kin Indicator | 0..1 | HL7 mapping: **NextOfKin** class, **code** attribute.  Only used, and can only have value '1' (Yes), if the related person is a next of kin of the patient. |
|  | Copy Correspondence Indicator | 0..1 | HL7 mapping: **Correspondence** class, **code** attribute.  Only used, and can only have value '1' (Yes), if correspondence should be copied to the related person. |
|  | [Call Centre Call-Back Consent](#_Call_Centre_Call-Back) | 0..1 | HL7 mapping: **CallCentreCallBackConsent** class, **value** attribute.  This is only relevant where the role type is 'AGNT' (Agent - used for proxies). |
|  | Business Effective From Date | 0..1 | HL7 mapping: **RelatedPersonRole** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | HL7 mapping: **RelatedPersonRole** class, **effectiveTime** attribute. |
|  | System Effective From Date | 0..1 | HL7 mapping: **SystemEffectiveDate** class, **value** attribute.  Only returned where history had been requested in the Retrieval Query. |
|  | System Effective To Date | 0..1 | HL7 mapping: **SystemEffectiveDate** class, **value** attribute.  Only returned where history had been requested in the Retrieval Query. Only present with historic data. |
|  | PDS Object Identifier | 1..1 | HL7 mapping: **RelatedPersonRole** class, **id** attribute. |
|  | Source System | 0..1 | HL7 mapping:  **SourceIdentified** class, **value** attribute (SDS ASID or NHS Directory Service Organisation Code).  Or:  **SourceCoded** class, **value** attribute (coded value).  Only returned where history had been requested in the Retrieval Query. |
|  | [**Related Person Usual Name**](#dgName) | 0..1 | HL7 mapping: **R\_PartPersonName** CMET**, Person** class**, name** attribute.  **This should be present where an NHS Number for the related person is not present, and should not be present where an NHS Number for the related person is present.** |
|  | [Name Type](#clNameType) | 1..1 | Only a single code is relevant here:  'L' = Usual (current) name. |
|  | Family Name | 0..1 |  |
|  | First Given Name | 0..1 |  |
|  | Other Given Name(s) | 0..1 |  |
|  | Name Prefix | 0..1 |  |
|  | Name Suffix | 0..1 |  |
|  | [**Related Person Usual Address**](#dgAddress) | 0..1 | HL7 mapping: **R\_PartAddress** CMET, **PartOfWhole** class, **addr** attribute.  **This should be present where an NHS Number for the related person is not present, and should not be present where an NHS Number for the related person is present.** |
|  | [Address Type](#clAddressType) | 1..1 | A single code is relevant here:  ‘H’ = Usual (home) address. |
|  | Address Line | 0..5 |  |
|  | Postcode | 0..1 |  |
|  | PAF Key | 0..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | [**Related Person Telecommunication Address**](#dgTelecom) | 0..\* | HL7 mapping: **R\_PartTelecom** CMET, **PartOfWhole** class, **telecom** attribute.  **This may be present where an NHS Number for the related person is not present, and should not be present where an NHS Number for the related person is present.** |
|  | [Telecom Usage](#clTelecomUsage) | 1..1 |  |
|  | [Communication Contact Method](#clCommunicationContactMethod) | 1..1 |  |
|  | Communication Contact String | 1..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | [**Related Person Language Communication**](#dgLanguage) | 0..1 | **This may be present where an NHS Number for the related person is not present, and should not be present where an NHS Number for the related person is present.** |
|  | [Language](#clLanguage) | 1..1 | HL7 mapping: **LanguageCommunication** class, **languageCode** attribute. |
|  | Interpreter Required Indicator | 1..1 | HL7 mapping: **LanguageCommunication** class, **proficiencyLevelCode** attribute. |
|  | [**Related Person Contact Preferences**](#dgContactPreferences) | 0..1 | **This may be present where an NHS Number for the related person is not present, and should not be present where an NHS Number for the related person is present.** |
|  | [Preferred Contact Method](#clPreferredContactMethod) | 0..1 | HL7 mapping: **PreferredContactMethod** class, **value** attribute. |
|  | Preferred Contact Times | 0..1 | HL7 mapping: **PreferredContactTimes** class, **value** attribute. |
|  | [Preferred Written Communication Format](#clPreferredWrittenCommunicationFormat) | 0..1 | HL7 mapping: **PreferredWrittenCommunicationFormat** class, **value** attribute. |
| [**Baby Tracing Data**](#dgBabyTracingData) | | 0..1 |  |
|  | Birth Order | 1..1 | HL7 mapping: **Person** class, **multipleBirthOrderNumber** attribute. |
| [**Place Of Birth**](#_Place_Of_Birth) | | 0..1 | HL7 mapping: **Birthplace** class, **addr** attribute. |
|  | Town | 0..1 |  |
|  | County or District | 0..1 |  |
|  | [Country](#_Country) | 0..1 |  |
| [**NHAIS Posting**](#_NHAIS_Posting) | | 0..1 | **Only returned to NHAIS.** |
|  | System Identifier | 1..1 | HL7 mapping: **AssignedDevice** class, **id** attribute. |
|  | Business Effective From Date | 0..1 | HL7 mapping: **NHAISRegistrationEvent** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | HL7 mapping: **NHAISRegistrationEvent** class, **effectiveTime** attribute. |

## PDS Confirm NHS Number Query Request

MIM Interaction ID: QUPA\_IN000016UK02

Although this interaction is listed in the MIM, it is recommended it is not used. Its use is supported by Spine.

## PDS Confirm NHS Number Query Response

MIM Interaction ID: QUPA\_IN000010UK02

Although this interaction is listed in the MIM, it is recommended it is not used. Its use is supported by Spine.

# Update Interactions

## General Notes on Updating PDS

### updateMode

The kind of update applied to a data item or object on PDS is determined by the value of the accompanying *updateMode* attribute. There are three possible *updateMode* values:

* ‘added’ – allows a new data item or object to be inserted into the patient record;
* ‘altered’ – allows an existing data item or object to be updated or amended;
* ‘removed’ – allows an existing data item or object to be deleted.

The tables below for the update interactions provide details of which of these values are permissible for each data item or object (for example, date of birth can be added or altered but it cannot be removed).

The MIM also provides this information and provides example messages which illustrate the use of each *updateMode* value for each data item or object.

Where an existing data item or object is “altered” or “removed”, the existing value is moved to history and the replacement value provided in the message will become the new current value.

It is recommended that the local system determines the *updateMode* rather than the user having to enter it.

### Multiple Data Items and PDS Object Identifiers

A PDS Object Identifier is used by the PDS to identify each instance of an object where more than one current set of data can be held. Each current instance of the object will have a different PDS Object Identifier. Objects supporting a PDS Object Identifier are:

* Person Name, e.g. usual name, maiden name
* Person Address
* Telecommunication Address, e.g. telephone numbers, email addresses
* Related Persons, also known as ‘alternative contacts’ and, sometimes, ‘carers’
* Patient Care Providers, principally the Primary Care Provider (i.e. registered GP practice), but also nominated pharmacy.

Where the *updateMode* is 'added', a PDS Object Identifier may be supplied in the update (see requirements UPDSEM-1.1/1.1.1). Where one is not supplied in the update, the PDS Object Identifier is generated by the PDS at the time of object creation.

If the *updateMode* is ’altered’, the PDS will identify the object to be altered using the PDS Object Identifier supplied in the interaction and update this instance. Where the object itself contains several data items (a 'complex object', e.g. address, related person) it is important that the entire object is sent in the update not only the changed data. Any unchanged items which are not included will be removed. The existing object being 'altered' will then be moved into history.

If the *updateMode* is ‘removed’, the PDS will identify the data set by the PDS Object Identifier received in the update and move the applicable object into history. No value data is sent when the *updateMode* is 'removed', only the PDS Object Identifier (and a type attribute where relevant).

However, some objects may only have a single current value, e.g. the preferred written communication format. In this case the object is not allocated a PDS Object Identifier as there is only one instance that can be updated. The exception to this rule is objects that are constrained to a single instance by business logic. Among these would be Usual Name, Usual Address, Primary Care information – these all still require a PDS Object Identifier to be sent in the update.

### Constraints

The following business or logical constraints should be noted.

It is not possible for local systems to perform the following operations on the PDS:

* To 'add' an additional usual name (type ‘L’) where one already exists, i.e. only one current usual name is supported.
* To 'add' an additional usual address (type ‘H’) where one already exists, i.e. only one current usual address is supported.
* To 'add' an additional patient care provider object of a type where one already exists of that type.
* To 'alter' or 'remove' any object which does not exist on the PDS, i.e. send an *updateMode* of ‘altered’ or ‘removed’ with a PDS Object Identifier that does not exist on that patient record.
* To change the type of any object using the ‘altered’ *updateMode*, i.e. the object where the type is to change must be ‘removed’ and then ‘added’ again with the different type. This change can be notified in the same update interaction though is subject to cardinality constraints already listed earlier.
* To 'remove' a current usual name (type ‘L’). The cardinality of usual name is strictly enforced so that even if the instruction to ‘remove’ the old name and ‘add’ a new one comes in the same update message, it will fail, i.e. a current usual name can only be ‘altered’.
* To 'remove' patient gender.
* To 'remove' a date of birth.
* To 'remove' a date of death.
* To ‘remove’ consent to share status.
* To ‘alter’ and then ‘remove’ any object in the same interaction, e.g. provide an end date for an address and then move it to history. Because the order in which the updates will be applied cannot be guaranteed, two separate update interactions must be sent to achieve this.
* To update any historical data whatsoever, i.e. any object that has previously been ‘altered’ or ‘removed’.
* To use the *nullFlavor*=″NA″ semantic to ‘remove’ an object.

## PDS General Update Request

MIM Interaction ID: PRPA\_IN000203UK03

### Request Data

| Object/Data Item | | Cardin-ality (Add) | Cardin-ality (Alter) | Cardin-ality (Remove) | Notes |
| --- | --- | --- | --- | --- | --- |
| **Miscellaneous** Data | | 1..1 | 1..1 | 1..1 | Control data used by PDS to determine the appropriate action to carry out. |
|  | Update Type | 1..1 | 1..1 | 1..1 | HL7 mapping: **PdsUpdateRequest** class, **code** attribute.  Indicates the type of update being made to the patient record.  Permissible values are:   * '1' (Change to existing data); * '2' (Correction to existing data).   Where an update interaction is carrying both changed and corrected data, the Update type shall be given as '1' (Change to existing data) only. |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 | 1..1 | 1..1 | **This is not updated but used to identify the patient record on PDS to be updated.** |
|  | NHS Number | 1..1 | 1..1 | 1..1 | HL7 mapping: **PatientRole** class, **id** attribute. |
| [**Serial** **Change Number**](#dgSCN) | | 1..1 | 1..1 | 1..1 | **This is not updated but used to check that the system updating the patient record has an up-to-date record.** |
|  | Serial Change Number | 1..1 | 1..1 | 1..1 | HL7 mapping: **SerialChangeNumber** class, **value** attribute. |
| [**Person Name**](#dgName) | | 0..\* | 0..\* | 0..\* | HL7 mapping: **Person** class**, name** attribute.  **Can be added, altered or removed except for type 'L' (Usual), which cannot be removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Name Type](#clNameType) | 1..1 | 1..1 | 1..1 | All types are supported in this interaction. |
|  | Family Name | 1..1 | 1..1 | n/a | Consecutive spaces are not allowed. |
|  | First Given Name | 1..1 | 1..1 | n/a | Cardinality for Add and Alter reflects requirement UPDVLD-1.7.  Consecutive spaces are not allowed. |
|  | Other Given Name(s) | 0..1 | 0..1 | n/a | Consecutive spaces are not allowed. |
|  | Name Prefix | 0..1 | 0..1 | n/a | See UPDVLD-1.8/1.8.1 for additional requirements on prefix formats. |
|  | Name Suffix | 0..1 | 0..1 | n/a | A person can have multiple occurrences of a suffix within this data item. The first character of each occurrence must be A - Z. Consecutive spaces are not allowed. Each occurrence must be separated by a space. |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | Cardinality for Add and Alter reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | 0..1 | n/a | Must not be provided for type ‘L’ (Usual). See UPDDTS-2. |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 |  |
| [**Person Gender**](#dgGender) | | 0..1 | 0..1 | n/a | HL7 mapping: **Person** class**, administrativeGenderCode** attribute.  **Can be added or altered, but cannot be removed.** |
|  | updateMode | 1..1 | 1..1 | n/a | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered'. |
|  | [Person Gender Code](#clGender) | 1..1 | 1..1 | n/a |  |
| [**Person Birth Date**](#dgDOB) | | 0..1 | 0..1 | n/a | HL7 mapping: **Person** class**, birthTime** attribute.  **Can be added or altered, but cannot be removed.** |
|  | updateMode | 1..1 | 1..1 | n/a | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered'. |
|  | Person Birth Date | 1..1 | 1..1 | n/a |  |
|  | Delivery Time | 0..1 | 0..1 | n/a |  |
| [**Person Death Date**](#dgDeath) | | 0..1 | 0..1 | **n/a** | **Can be added or altered, but cannot be removed.** |
|  | updateMode | 1..1 | 1..1 | n/a | HL7 mapping: **Person** class**, deceasedTime** attribute, and **DeathNotification** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered'. |
|  | Person Death Date | 1..1 | 1..1 | n/a | HL7 mapping: **Person** class**, deceasedTime** attribute. |
|  | Time of Death | 0..1 | 0..1 | n/a | HL7 mapping: **Person** class**, deceasedTime** attribute. |
|  | [Status of Death Notification](#clStatusOfDeathNotification) | 1..1 | 1..1 | n/a | HL7 mapping: **DeathNotification** class**, value** attribute. |
|  | [**Registering Authority**](#_Registering_Authority) | 1..1 | 1..1 | **n/a** | **This shall be present when Person Death Date is also present.** |
|  | [Registering Authority Type](#_Registering_Authority_Type) | 1..1 | 1..1 | n/a | HL7 mapping: **RegisteringAuthority** class**, code** attribute. |
|  | Organisation Identifier | 1..1 | 1..1 | n/a | HL7 mapping: **RegisteringAuthority** class**, id** attribute.  Code for the registering authority. This will be the following:   * national organisation code. |
| [**Person Address**](#dgAddress) | | 0..\* | 0..\* | 0..\* | HL7 mapping: **PatientRole** class, **addr** attribute.  **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Address Type](#clAddressType) | 1..1 | 1..1 | 1..1 | All types are supported in this interaction. |
|  | Address Line | 1..5 | 1..5 | n/a | The following address lines must be present:  • 1 or 2, and  • 4.  See UPDADD-2.1. |
|  | Postcode | 0..1 | 0..1 | n/a |  |
|  | PAF Key | 0..1 | 0..1 | n/a | Must be provided for an address derived from a PAF tool. See UPDADD-1.1.  Must not be provided for a vernacular address. See UPDADD-6.3. |
|  | Address Description | 0..1 | 0..1 | n/a | For temporary address only (i.e. where the Address Type='TMP'). See UPDADD-10. |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | Cardinality for Add and Alter reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | 0..1 | n/a | Must not be provided for type ‘H’ (Usual). See UPDDTS-2.  Must be provided for type ‘TMP’ (Temporary) or ‘PST’ (Correspondence). See UPDDTS-3/4. |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 |  |
| [**Telecommunication Address**](#dgTelecom) | | 0..\* | 0..\* | 0..\* | HL7 mapping: **PatientRole** class, **telecom** attribute.  **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Telecom Usage](#clTelecomUsage) | 1..1 | 1..1 | 1..1 | All usage types are supported in this interaction. |
|  | [Communication Contact Method](#clCommunicationContactMethod) | 1..1 | 1..1 | n/a |  |
|  | Communication Contact String | 1..1 | 1..1 | n/a |  |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | Cardinality for Add and Alter reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | 0..1 | n/a |  |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 |  |
| [**Consent to NHS Care Record Sharing**](#dgConsent) | | 0..1 | 0..1 | **n/a** | **Can be added or altered, but cannot be removed.** |
|  | updateMode | 1..1 | 1..1 | n/a | HL7 mapping: **Consent** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered'. |
|  | [Consent](#clConsent) | 1..1 | 1..1 | n/a | HL7 mapping: **Consent** class, **value** attribute (where **code** attribute has value 4). |
|  | Date Last Changed | 1..1 | 1..1 | n/a | HL7 mapping: **Consent** class, **effectiveTime** attribute. |
| [**Call Centre Data**](#dgCallCentreData) | | 0..1 | 0..1 | 0..1 |  |
|  | Shared Secret | 0..1 | 0..1 | 0..1 | HL7 mapping: **SharedSecret** class, **value** attribute.  Can be added, altered or removed. |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **SharedSecret** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | Shared Secret | 1..1 | 1..1 | n/a | HL7 mapping: **SharedSecret** class, **value** attribute.  Can be added, altered or removed. |
|  | Call centre call-back consent | 0..1 | 0..1 | 0..1 | Can be added, altered or removed. |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **Consent** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Call Centre Call-Back Consent](#clCallCentreCallbackConsent) | 1..1 | 1..1 | n/a | HL7 mapping: **Consent** class, **value** attribute (where **code** attribute has value 6). |
| [**Contact Preferences**](#dgContactPreferences) | | 0..1 | 0..1 | 0..1 |  |
|  | Preferred Contact Method and Times | 0..1 | 0..1 | 0..1 | Can be added, altered or removed. |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **PreferredContactMethod** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Preferred Contact Method](#clPreferredContactMethod) | 1..1 | 1..1 | n/a | HL7 mapping: **PreferredContactMethod** class, **value** attribute. |
|  | Preferred Contact Times | 0..1 | 0..1 | n/a | HL7 mapping: **PreferredContactTimes** class, **value** attribute. |
|  | Preferred Written Communication Format | 0..1 | 0..1 | 0..1 | Can be added, altered or removed. |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **PreferredWrittenCommunicationFormat** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Preferred Written Communication Format](#clPreferredWrittenCommunicationFormat) | 1..1 | 1..1 | n/a | HL7 mapping: **PreferredWrittenCommunicationFormat** class, **value** attribute. |
| [**Language Communication**](#dgLanguage) | | 0..1 | 0..1 | 0..1 | **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **LanguageCommunication** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Language](#clLanguage) | 1..1 | 1..1 | n/a | HL7 mapping: **LanguageCommunication** class, **languageCode** attribute. |
|  | Interpreter Required Indicator | 1..1 | 1..1 | n/a | HL7 mapping: **LanguageCommunication** class, **proficiencyLevelCode** attribute. |
| [**Primary Care Registration**](#dgPrimaryCareRegistration) | | 0..1 | 0..1 | 0..1 | **Can be added, altered or removed.**  **Can only be updated by a GP Practice, DSA or NHAIS.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **PatientCareProvision** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | Patient Care Provision Type | 1..1 | 1..1 | n/a | HL7 mapping: **PatientCareProvision** class, **code** attribute.  This will contain the value '1' (Primary care). |
|  | Primary Care Identifier | 1..1 | 1..1 | n/a | HL7 mapping: **AssignedOrganization** class, **id** attribute. |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | HL7 mapping: **PatientCareProvision** class, **effectiveTime** attribute.  Cannot be in the future. |
|  | Business Effective To Date | 0..1 | 0..1 | n/a | HL7 mapping: **PatientCareProvision** class, **effectiveTime** attribute.  Must not be provided. See UPDDTS-2. |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 | HL7 mapping: **PatientCareProvision** class, **id** attribute. |
| [**Pharmacy Data**](#_Pharmacy_Data) | | 0..3 | 0..3 | 0..3 | **Can be added, altered or removed.**  **Only one of each type is permitted.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **PatientCareProvision** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | Pharmacy Identifier | 1..1 | 1..1 | n/a | HL7 mapping: **AssignedOrganization** class, **id** attribute. |
|  | [Pharmacy Type](#_Pharmacy_Type) | 1..1 | 1..1 | n/a | HL7 mapping: **PatientCareProvision** class, **code** attribute. |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 | HL7 mapping: **PatientCareProvision** class, **id** attribute. |
| [**Related Person**](#_Related_Person) | | 0..\* | 0..\* | 0..\* | **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **RelatedPersonRole** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Related Person Role](#_Related_Person_Role) | 1..1 | 1..1 | 1..1 | HL7 mapping: **RelatedPersonRole** class, **classCode** attribute.  All role types are supported in this interaction. |
|  | [Relationship Type](#clRelationshipType) | 1..1 | 1..1 | n/a | HL7 mapping: **RelatedPersonRole** class, **code** attribute. |
|  | NHS Number | n/a | n/a | n/a | Cardinality for Add and Alter reflects requirements UPDRPS-3/4. |
|  | Contact Ranking | 0..1 | 0..1 | n/a | HL7 mapping: **RelatedPersonRole** class, **positionNumber** attribute. |
|  | Next of Kin Indicator | 0..1 | 0..1 | n/a | HL7 mapping: **NextOfKin** class, **code** attribute.  Only used, and can only have value '1' (Yes), if the related person is a next of kin of the patient. |
|  | Copy Correspondence Indicator | 0..1 | 0..1 | n/a | HL7 mapping: **Correspondence** class, **code** attribute.  Only used, and can only have value '1' (Yes), if correspondence should be copied to the related person. |
|  | [Call Centre Call-Back Consent](#clCallCentreCallbackConsent) | 0..1 | 0..1 | n/a | HL7 mapping: **CallCentreCallBackConsent** class, **value** attribute.  This is only relevant where the role type is 'AGNT' (Agent - used for proxies). |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | HL7 mapping: **RelatedPersonRole** class, **effectiveTime** attribute.  Cardinality for Add and Alter reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | 0..1 | n/a | HL7 mapping: **RelatedPersonRole** class, **effectiveTime** attribute. |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 | HL7 mapping: **RelatedPersonRole** class, **id** attribute. |
|  | [**Related Person Usual Name**](#dgName) | 1..1 | 1..1 | **n/a** | HL7 mapping: **RelatedPerson** class, **name** attribute.  **Cardinality for Add and Alter reflects requirements UPDRPS-2/3/4.** |
|  | [Name Type](#clNameType) | 1..1 | 1..1 | n/a | Only a single code is relevant here:  'L' = Usual (current) name. |
|  | Family Name | 1..1 | 1..1 | n/a |  |
|  | First Given Name | 1..1 | 1..1 | n/a | Cardinality for Add and Alter reflects requirement UPDVLD-1.7. |
|  | Other Given Name(s) | 0..1 | 0..1 | n/a |  |
|  | Name Prefix | 0..1 | 0..1 | n/a |  |
|  | Name Suffix | 0..1 | 0..1 | n/a |  |
|  | [**Related Person Usual Address**](#dgAddress) | 1..1 | 1..1 | **n/a** | HL7 mapping: **RelatedPersonRole** class, **addr** attribute.  **Cardinality for Add and Alter reflects requirements UPDRPS-2/3/4.** |
|  | [Address Type](#clAddressType) | 1..1 | 1..1 | n/a | A single code is relevant here:  ‘H’ = Usual (home) address. |
|  | Address Line | 1..5 | 1..5 | n/a | The following address lines must be present:  • 1 or 2, and  • 4.  See UPDADD-2.1. |
|  | Postcode | 0..1 | 0..1 | n/a |  |
|  | PAF Key | 0..1 | 0..1 | n/a |  |
|  | Business Effective From Date | 0..1 | 0..1 | n/a |  |
|  | Business Effective To Date | 0..1 | 0..1 | n/a |  |
|  | [**Related Person Telecommunication Address**](#dgTelecom) | 0..\* | 0..\* | **n/a** | HL7 mapping: **RelatedPersonRole** class, **telecom** attribute. |
|  | [Telecom Usage](#clTelecomUsage) | 1..1 | 1..1 | n/a | All usage types are supported in this interaction. |
|  | [Communication Contact Method](#clCommunicationContactMethod) | 1..1 | 1..1 | n/a |  |
|  | Communication Contact String | 1..1 | 1..1 | n/a |  |
|  | Business Effective From Date | 0..1 | 0..1 | n/a |  |
|  | Business Effective To Date | 0..1 | 0..1 | n/a |  |
|  | [**Related Person Language Communication**](#dgLanguage) | 0..1 | 0..1 | **n/a** |  |
|  | [Language](#clLanguage) | 1..1 | 1..1 | n/a | HL7 mapping: **LanguageCommunication** class, **languageCode** attribute. |
|  | Interpreter Required Indicator | 1..1 | 1..1 | n/a | HL7 mapping: **LanguageCommunication** class, **proficiencyLevelCode** attribute. |
|  | [**Related Person Contact Preferences**](#dgContactPreferences) | 0..1 | 0..1 | **n/a** |  |
|  | [Preferred Contact Method](#clPreferredContactMethod) | 0..1 | 0..1 | n/a | HL7 mapping: **PreferredContactMethod** class, **value** attribute. |
|  | Preferred Contact Times | 0..1 | 0..1 | n/a | HL7 mapping: **PreferredContactTimes** class, **value** attribute. |
|  | [Preferred Written Communication Format](#clPreferredWrittenCommunicationFormat) | 0..1 | 0..1 | n/a | HL7 mapping: **PreferredWrittenCommunicationFormat** class, **value** attribute. |
| [**Baby Tracing Data**](#dgBabyTracingData) | | 0..1 | 0..1 | 0..1 | HL7 mapping: **Person** class, **multipleBirthOrderNumber** attribute.  **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | Birth Order | 1..1 | 1..1 | n/a |  |
| [**Place Of Birth**](#_Place_Of_Birth) | | 0..1 | 0..1 | 0..1 | HL7 mapping: **Birthplace** class, **addr** attribute.  **Can be added, altered or removed.**  **Where this is being added or altered at least one of the Town, County or district and Country attributes shall be present.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | Town | 0..1 | 0..1 | n/a |  |
|  | County or District | 0..1 | 0..1 | n/a |  |
|  | [Country](#_Country) | 0..1 | 0..1 | n/a | From ISO 3166-1 plus codes from the UK Internal Code list which do not have entries in ISO 3166-1. |

### Additional Information

The General Update interaction may be used to alter existing data items, remove existing data items or add new data items. It is possible for a single PDS General Update interaction to hold a combination of items, some to be altered, some to be removed and some to be added.

All updates to PDS must be ‘partial’ updates, meaning only changed or corrected data is to be sent. This will greatly reduce the amount of superfluous history items created on the PDS.

The PDS will only update the patient record if the SCN in the PDS General Update interaction matches the SCN of the patient record on the PDS database. It is essential that a PDS Retrieval Query is performed before a PDS General Update interaction is created.

If the SCNs differ it means that the PDS has been updated via another source and so the PDS General Update interaction will be rejected.

The PDS compares the data in the incoming update interaction with that held in the patient record. If the data is the same:

* the PDS will not be updated, and
* the SCN for the patient record on PDS will not be incremented, and
* the PDS will return a PDS General Update Request Accepted interaction indicating success.

Note that PDS does not store future dated data, but if the interaction solely contains future dated objects then the following actions will occur:

* the PDS will not be updated but
* the SCN for the patient record on PDS will be incremented, and
* the PDS will return a PDS General Update Request Accepted interaction indicating success.

An update interaction may contain a number of data items or objects e.g. person name, person address, telecommunication address details. If the values of one or more of the data items or objects contained in the interaction differs from that held on the PDS:

* the relevant data items or objects will be updated on the PDS
* history records will be created for those data items or objects that are updated
* the SCN will be incremented, and
* the PDS will return a PDS General Update Request Accepted interaction indicating success.

If the update interaction also contains some future dated data as well as current data, the behaviour just described will still occur, with the exception that the future dated data will be ignored.

Data will be stored on the PDS in the same format as it appears in the interaction. For example, a name in uppercase in the request interaction will be stored in uppercase on the database.

There are restrictions on some data items. For example, it is not possible to delete the person birth date, gender or usual name. PDS will also not permit there to be more than one current usual name or more than one current usual address. There can also only be no more than one current patient care provider of each type (i.e. Primary Care Provider, nominated pharmacy, medical appliance provider or dispensing doctor).

If the *updateMode* is ‘altered’, then every sub component of a complex object that still has a value must be included, e.g. if only a single address lines is being corrected, all address lines (Address line 1 to 5), Postcode, PAF key and business effective date information that still has a value must be supplied instead of just the individual address line that is being altered.

If a related person on the patient record is linked by NHS Number, then the related person’s name, address, telephone details and contact preferences cannot be amended or deleted.

Systems supporting related person records should have the ability to read related person records identified by NHS Number as well as those not identified by NHS Number.

Any system supporting related persons should have the ability to add non-NHS Number identified relationships.

PDS should not be further populated with related persons identified by the NHS Number. If such records are encountered on PDS and require updating, they should be removed and a non-NHS Number identified version of the relationship added.

## PDS General Update Request Accepted

MIM Interaction ID: PRPA\_IN000202UK01

This interaction is returned by PDS when a PDS General Update Request interaction has been sent to PDS and PDS has successfully updated the patient record. This response interaction will contain the new Serial Change Number of the amended patient record.

Where a PDS General Update Request is unsuccessful, an Application Acknowledgement will be returned instead, containing details of the failure.

### Response Data

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Serial** **Change Number**](#dgSCN) | | 1..1 |  |
|  | Serial Change Number | 1..1 | HL7 mapping: **SerialChangeNumber** class, **value** attribute. |

## PDS NHAIS Update Request

MIM Interaction ID: PRPA\_IN000204UK03

This interaction is only for use by NHAIS.

### Request Data

| Object/Data Item | | Cardin-ality (Add) | Cardin-ality (Alter) | Cardin-ality (Remove) | Notes |
| --- | --- | --- | --- | --- | --- |
| **Miscellaneous** Data | | 1..1 | 1..1 | 1..1 | Control data used by PDS to determine the appropriate action to carry out. |
|  | Update Type | 1..1 | 1..1 | 1..1 | HL7 mapping: **PdsNhaisUpdateRequest** class, **code** attribute.  Indicates the type of update being made to the patient record.  Permissible values are '1' (Change to existing data) and '2' (Correction to existing data).  Where an update interaction is carrying both changed and corrected data, the Update type shall be given as '1' (Change to existing data) only. |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 | 1..1 | 1..1 | **This is not updated but used to identify the patient record on PDS to be updated.** |
|  | NHS Number | 1..1 | 1..1 | 1..1 | HL7 mapping: **PatientRole** class, **id** attribute. |
| [**Serial** **Change Number**](#dgSCN) | | 1..1 | 1..1 | 1..1 | **This information is not updated but used to check that the system updating the patient record has an up-to-date record.** |
|  | Serial Change Number | 1..1 | 1..1 | 1..1 | HL7 mapping: **SerialChangeNumber** class, **value** attribute. |
| [**Person Name**](#dgName) | | 0..\* | 0..\* | 0..\* | HL7 mapping: **Person** class**, name** attribute.  **Can be added, altered or removed except for type 'L' (Usual), which cannot be removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Name Type](#clNameType) | 1..1 | 1..1 | 1..1 | All types are supported in this interaction. |
|  | Family Name | 1..1 | 1..1 | n/a | Consecutive spaces are not allowed. |
|  | First Given Name | 1..1 | 1..1 | n/a | Cardinality for Add and Alter reflects requirement UPDVLD-1.7.  Consecutive spaces are not allowed. |
|  | Other Given Name(s) | 0..1 | 0..1 | n/a | Consecutive spaces are not allowed. |
|  | Name Prefix | 0..1 | 0..1 | n/a | See UPDVLD-1.8/1.8.1 for additional requirements on prefix formats. |
|  | Name Suffix | 0..1 | 0..1 | n/a | A person can have multiple occurrences of a suffix within this data item. The first character of each occurrence must be A - Z. Consecutive spaces are not allowed. Each occurrence must be separated by a space. |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | Cardinality for Add and Alter reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | 0..1 | n/a | Must not be provided for type ‘L’ (Usual). See UPDDTS-2. |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 |  |
| [**Person Gender**](#dgGender) | | 0..1 | 0..1 | **n/a** | HL7 mapping: **Person** class**, administrativeGenderCode** attribute.  **Can be added or altered, but cannot be removed.** |
|  | updateMode | 1..1 | 1..1 | n/a | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered'. |
|  | [Person Gender Code](#clGender) | 1..1 | 1..1 | n/a |  |
| [**Person Birth Date**](#dgDOB) | | 0..1 | 0..1 | **n/a** | HL7 mapping: **Person** class**, birthTime** attribute.  **Can be added or altered, but cannot be removed.** |
|  | updateMode | 1..1 | 1..1 | n/a | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered'. |
|  | Person Birth Date | 1..1 | 1..1 | n/a |  |
|  | Delivery Time | 0..1 | 0..1 | n/a |  |
| [**Person Death Date**](#dgDeath) | | 0..1 | 0..1 | **n/a** | **Can be added or altered, but cannot be removed.** |
|  | updateMode | 1..1 | 1..1 | n/a | HL7 mapping: **Person** class**, deceasedTime** attribute, and **DeathNotification** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered'. |
|  | Person Death Date | 1..1 | 1..1 | n/a | HL7 mapping: **Person** class**, deceasedTime** attribute. |
|  | Time of Death | 0..1 | 0..1 | n/a | HL7 mapping: **Person** class**, deceasedTime** attribute. |
|  | [Status of Death Notification](#clStatusOfDeathNotification) | 1..1 | 1..1 | n/a | HL7 mapping: **DeathNotification** class**, value** attribute. |
|  | [**Registering Authority**](#_Registering_Authority) | 1..1 | 1..1 | n/a | **This shall be present when Person Death Date is also present.** |
|  | [Registering Authority Type](#_Registering_Authority_Type) | 1..1 | 1..1 | n/a | HL7 mapping: **RegisteringAuthority** class**, code** attribute. |
|  | Organisation Identifier | 1..1 | 1..1 | n/a | HL7 mapping: **RegisteringAuthority** class**, id** attribute.  Code for the registering authority. This will be the following:   * National organisation code. |
|  | Person Identifier | 1..1 | 1..1 | n/a | HL7 mapping: **AssignedPerson** class**, id** attribute.  An identifier for the person providing the authority for registration. This will be the following:   * NHAIS user ID. |
| [**Person Address**](#dgAddress) | | 0..1 | 0..1 | 0..1 | HL7 mapping: **PatientRole** class, **addr** attribute.  **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Address Type](#clAddressType) | 1..1 | 1..1 | 1..1 | Type ‘H’ (Usual) only. |
|  | Address Line | 1..5 | 1..5 | n/a | The following address lines must be present:  • 1 or 2, and  • 4.  See UPDADD-2.1. |
|  | Postcode | 0..1 | 0..1 | n/a |  |
|  | PAF Key | 0..1 | 0..1 | n/a | Must be provided for an address derived from a PAF tool. See UPDADD-1.1.  Must not be provided for a vernacular address. See UPDADD-6.3. |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | Cardinality for Add and Alter reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | 0..1 | n/a | Must not be provided for type ‘H’ (Usual). See UPDDTS-2. |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 |  |
| [**Primary Care Registration**](#dgPrimaryCareRegistration) | | 0..1 | **0..1** | **0..1** | **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **PatientCareProvisionEvent** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | Patient Care Provision Type | 1..1 | 1..1 | n/a | HL7 mapping: **PatientCareProvisionEvent** class, **code** attribute.  This will contain the value '1' (Primary care). |
|  | Primary Care Identifier | 1..1 | 1..1 | n/a | HL7 mapping: **AssignedOrganization** class, **id** attribute. |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | HL7 mapping: **PatientCareProvisionEvent** class, **effectiveTime** attribute.  Cannot be in the future. |
|  | Business Effective To Date | 0..1 | 0..1 | 0..1 | HL7 mapping: **PatientCareProvisionEvent** class, **effectiveTime** attribute.  Not applicable when updateMode is 'removed' except when NHAIS is removing a primary care registration. |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 | HL7 mapping: **PatientCareProvisionEvent** class, **id** attribute. |
| [**Registration Encounter**](#_Registration_Encounter) | | 0..1 | **0..1** | **0..1** | **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **RegisteredRolePart** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Type of Registration](#_Type_of_Registration) | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **NHAISRegistrationEncounter** class, **reasonCode** attribute. |
|  | Date of Enlisting In | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **MilitaryPerson** class, **effectiveTime** attribute. |
|  | Date of Enlisting Out | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **MilitaryPerson** class, **effectiveTime** attribute. |
|  | Date of Patient UK Entry | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **UKResidence** class, **value** attribute. |
|  | Date of Patient UK Exit | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **UKResidence** class, **value** attribute. |
|  | Original Acceptance Posting Date | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **InitialNHAISRegistrationEvent** class, **effectiveTime** attribute. |
|  | Place of Birth | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **Birthplace** class, **addr** attribute. |
|  | Previous Name | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **RegisteredPerson** class, **name** attribute. |
|  | Previous Address | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **RegisteredPatient** class, **addr** attribute. |
|  | Previous GP | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **Person** class, **name** attribute. |
|  | Previous NHAIS Posting | 0..1 | 0..1 | n/a | HL7 mapping: **R\_RegisteredPatient** CMET, **Device** class, **name** attribute. |
| [**NHAIS Posting**](#_NHAIS_Posting) | | 0..1 | 0..1 | 0..1 | **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **NHAISRegistrationEvent** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | System Identifier | 1..1 | 1..1 | n/a | HL7 mapping: **AssignedDevice** class, **id** attribute. |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | HL7 mapping: **NHAISRegistrationEvent** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | 0..1 | 0..1 | HL7 mapping: **NHAISRegistrationEvent** class, **effectiveTime** attribute. |
| Back Office Location | | 0..1 | 0..1 | 0..1 | **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **ServiceDeliveryLocation** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | Location Identifier | 1..1 | 1..1 | n/a | HL7 mapping: **BackOffice** class, **name** attribute**.**  This will be an NHAIS cypher. |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | HL7 mapping: **ServiceDeliveryLocation** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | 0..1 | n/a | HL7 mapping: **ServiceDeliveryLocation** class, **effectiveTime** attribute. |
|  | PDS Object Identifier | 0..1 | 1..1 | 1..1 | HL7 mapping: **ServiceDeliveryLocation** class, **id** attribute. |
| [**Reason For Removal**](#_Reason_for_Removal) | | 0..1 | 0..1 | 0..1 | **Can be added, altered or removed.** |
|  | updateMode | 1..1 | 1..1 | 1..1 | HL7 mapping: **NHAISRemovalRegistrationEvent** class.  Indicates the type of update that should occur to this data on PDS. Permissible values are:   * 'added' * 'altered' * 'removed'. |
|  | [Removal Type](#_Removal_Type) | 1..1 | 1..1 | n/a | HL7 mapping: **NHAISRemovalRegistrationEvent** class, **reasonCode** attribute. |
|  | Business Effective From Date | 1..1 | 1..1 | n/a | HL7 mapping: **NHAISRemovalRegistrationEvent** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | 0..1 | n/a | HL7 mapping: **NHAISRemovalRegistrationEvent** class, **effectiveTime** attribute. |

### Additional Information

A key assumption around NHAIS Update Request is that NHAIS Posting is related to a geographic area. It is currently assumed that this is not to be treated as Location Sensitive Data i.e. posting is not filtered for "S" or "Y" type sensitive records

The only source based restriction regarding NHAIS is that updates from NHAIS are allowed to remove GP i.e. the Patient Care Provision of type Primary Care, and set Back Office Location.

## PDS NHAIS Update Request Accepted

MIM Interaction ID: PRPA\_IN000209UK01

This interaction is returned by PDS when a PDS NHAIS Update Request interaction has been sent to PDS and PDS has successfully updated the patient record. This response interaction will contain the new Serial Change Number of the amended patient record.

Where a PDS NHAIS Update Request is unsuccessful, an Application Acknowledgement will be returned instead, containing details of the failure.

### Response Data

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Serial** **Change Number**](#dgSCN) | | 1..1 |  |
|  | Serial Change Number | 1..1 | HL7 mapping: **SerialChangeNumber** class, **value** attribute. |

# NHS Number Allocation and Birth Related Interactions

## PDS NHS Number Allocation Request

MIM Interaction ID: PRPA\_IN000200UK03

The PDS NHS Number Allocation Request interaction allows a local system to create a new patient record on PDS. This interaction must only be used if a patient cannot be found on PDS using one of the Trace options and should only be available to suitably authorised Local Back Office users with specialist tracing skills.

The associated response interaction includes the NHS Number of the newly created record.

### Request Data

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Person Name**](#dgName) | | 1..\* | HL7 mapping: **Person** class**, name** attribute.  **One occurrence of current usual name shall be provided.**  **One occurrence of a preferred name may be provided.**  **Any number of occurrences of alias and previous name types may also be provided.** |
|  | [Name Type](#clNameType) | 1..1 | All types are supported in this interaction. |
|  | Family Name | 1..1 | Consecutive spaces are not allowed. |
|  | First Given Name | 1..1 | Cardinality reflects requirement LBOALT-9.  Consecutive spaces are not allowed. |
|  | Other Given Name(s) | 0..1 | Consecutive spaces are not allowed. |
|  | Name Prefix | 0..1 | See UPDVLD-1.8/1.8.1 for additional requirements on prefix formats. |
|  | Name Suffix | 0..1 | A person can have multiple occurrences of a suffix within this data item. The first character of each occurrence must be A - Z. Consecutive spaces are not allowed. Each occurrence must be separated by a space. |
|  | Business Effective From Date | 1..1 | Cardinality reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | Must not be provided for type ‘L’ (Usual). See UPDDTS-2. |
| [**Person Gender**](#dgGender) | | 1..1 | HL7 mapping: **Person** class**, administrativeGenderCode** attribute. |
|  | [Person Gender Code](#clGender) | 1..1 | The local system should encourage the user to select 'Male' or 'Female' rather than 'Not known'. The fourth value of Gender 'Not specified' should never pro-actively be set by local systems. Setting gender to anything other than 'Male' or 'Female' will make the patient difficult to trace. |
| [**Person Birth Date**](#dgDOB) | | 1..1 | HL7 mapping: **Person** class**, birthTime** attribute. |
|  | Person Birth Date | 1..1 | The following format shall be used: CCYYMMDD. |
| [**Person Address**](#dgAddress) | | 1..\* | HL7 mapping: **PatientRole** class, **addr** attribute.  **A current address of type 'H' (Usual) must be provided.**  **A single address of type 'TMP' (Temporary) may also be provided.**  **A single address of type 'PST' (Correspondence) may also be provided.** |
|  | [Address Type](#clAddressType) | 1..1 | All types are supported in this interaction. |
|  | Address Line | 1..5 | The following address lines must be present:  • 1 or 2, and  • 4.  See UPDADD-2.1. |
|  | Postcode | 0..1 | The postcode MUST conform to the PAF format i.e. A single space character must separate the ‘outcode’ and ‘incode’ (UPDADD-5). |
|  | PAF Key | 0..1 | Must be provided for an address derived from a PAF tool. See UPDADD-1.1.  Must not be provided for a vernacular address. See UPDADD-6.3. |
|  | Address Description | 0..1 | For temporary address only (i.e. where the Address Type='TMP'). |
|  | Business Effective From Date | 1..1 | Cardinality reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | Must not be provided for type ‘H’ (Usual). See UPDDTS-2.  Must be provided for type ‘TMP’ (Temporary) or ‘PST’ (Correspondence). See UPDDTS-3/4. |
| [**Telecommunication Address**](#dgTelecom) | | 0..\* | HL7 mapping: **PatientRole** class, **telecom** attribute. |
|  | [Telecom Usage](#clTelecomUsage) | 1..1 | All usage types are supported in this interaction. |
|  | [Communication Contact Method](#clCommunicationContactMethod) | 1..1 |  |
|  | Communication Contact String | 1..1 |  |
|  | Business Effective From Date | 1..1 | Cardinality reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 |  |
| [**Call Centre Data**](#dgCallCentreData) | | 0..1 |  |
|  | Shared Secret | 1..1 | HL7 mapping: **SharedSecret** class, **value** attribute. |
| [**Contact Preferences**](#dgContactPreferences) | | 0..1 |  |
|  | [Preferred Contact Method](#clPreferredContactMethod) | 0..1 | HL7 mapping: **PreferredContactMethod** class, **value** attribute. |
|  | Preferred Contact Times | 0..1 | HL7 mapping: **PreferredContactTimes** class, **value** attribute. |
|  | [Preferred Written Communication Format](#clPreferredWrittenCommunicationFormat) | 0..1 | HL7 mapping: **PreferredWrittenCommunicationFormat** class, **value** attribute. |
| [**Language Communication**](#dgLanguage) | | 0..1 |  |
|  | [Language](#clLanguage) | 1..1 | HL7 mapping: **LanguageCommunication** class, **languageCode** attribute. |
|  | Interpreter Required Indicator | 1..1 | HL7 mapping: **LanguageCommunication** class, **proficiencyLevelCode** attribute. |
| [**Previous NHS Contact**](#dgPreviousNHSContact) | | 1..1 |  |
|  | [Previous NHS Contact Indicator](#clPreviousNHSContact) | 1..1 | HL7 mapping: **PreviousNhsContact** class, **value** attribute.  Set to ‘1’ (Yes). See LBOALT-4. |
| [**Primary Care Registration**](#dgPrimaryCareRegistration) | | 0..1 | **Can only be provided by a GP Practice, DSA or NHAIS.** |
|  | Patient Care Provision Type | 1..1 | HL7 mapping: **PatientCareProvision** class, **code** attribute.  This will contain the value '1' (Primary care). |
|  | Primary Care Identifier | 1..1 | HL7 mapping: **AssignedOrganisation** class, **id** attribute.  This will be a National GP Practice Code. |
|  | Business Effective From Date | 1..1 | HL7 mapping: **PatientCareProvision** class, **effectiveTime** attribute.  Cannot be in the future. Cardinality reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | Must not be provided. See UPDDTS-2. |
| [**Registration Encounter**](#_Registration_Encounter) | | 0..1 | **Can only be provided by NHAIS.** |
|  | [Type of Registration](#_Type_of_Registration) | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **NHAISRegistrationEncounter** class, **reasonCode** attribute. |
|  | Date of Enlisting In | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **MilitaryPerson** class, **effectiveTime** attribute. |
|  | Date of Enlisting Out | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **MilitaryPerson** class, **effectiveTime** attribute. |
|  | Date of Patient UK Entry | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **UKResidence** class, **value** attribute. |
|  | Date of Patient UK Exit | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **UKResidence** class, **value** attribute. |
|  | Original Acceptance Posting Date | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **InitialNHAISRegistrationEvent** class, **effectiveTime** attribute. |
|  | Place of Birth | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **Birthplace** class, **addr** attribute. |
|  | Previous Name | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **RegisteredPerson** class, **name** attribute. |
|  | Previous Address | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **RegisteredPatient** class, **addr** attribute. |
|  | Previous GP | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **Person** class, **name** attribute. |
|  | Previous NHAIS Posting | 0..1 | HL7 mapping: **R\_RegisteredPatient** CMET, **Device** class, **name** attribute. |
| [**Pharmacy Data**](#_Pharmacy_Data) | | 0..3 | **Only one of each type is permitted.** |
|  | Pharmacy Identifier | 1..1 | HL7 mapping: **AssignedOrganisation** class, **id** attribute. |
|  | [Pharmacy Type](#_Pharmacy_Type) | 1..1 | HL7 mapping: **PatientCareProvision** class, **code** attribute. |
| [**Registering Authority**](#_Registering_Authority) | | 1..1 |  |
|  | [Registering Authority Type](#_Registering_Authority_Type) | 1..1 | HL7 mapping: **RegisteringAuthority** class**, code** attribute. |
|  | Organisation Identifier | 1..1 | HL7 mapping: **RegisteringAuthority** class**, id** attribute. |
|  | Person Identifier | 0..1 | HL7 mapping: **AssignedPerson** class**, id** attribute.  Shall be present if the Registering Authority is NHAIS.  Shall not be present if the Registering Authority is not NHAIS. |
| [**NHAIS Posting**](#_NHAIS_Posting) | | 0..1 | **Can only be provided by NHAIS.** |
|  | System Identifier | 1..1 | HL7 mapping: **AssignedDevice** class, **id** attribute. |
|  | Business Effective From Date | 1..1 | HL7 mapping: **NHAISRegistrationEvent** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | HL7 mapping: **NHAISRegistrationEvent** class, **effectiveTime** attribute. |
| Back Office Location | | 0..1 | **Can only be provided by NHAIS.** |
|  | Location Identifier | 1..1 | HL7 mapping: **BackOffice** class, **name** attribute**.**  This will be an NHAIS cypher. |
|  | Business Effective From Date | 1..1 | HL7 mapping: **ServiceDeliveryLocation** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | HL7 mapping: **ServiceDeliveryLocation** class, **effectiveTime** attribute. |

## PDS NHS Number Allocation Request Accepted

MIM Interaction ID: PRPA\_IN000201UK01

This interaction is returned by PDS when a PDS NHS Number Allocation Request interaction has been sent to PDS and PDS has successfully created a patient record and allocated an NHS Number. This response interaction will contain the NHS Number of the newly created record.

### Response Data

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 |  |
|  | NHS Number | 1..1 | HL7 mapping: **PatientRole** class, **id** attribute. |
| [**Serial** **Change Number**](#dgSCN) | | 1..1 |  |
|  | Serial Change Number | 1..1 | HL7 mapping: **SerialChangeNumber** class, **value** attribute. |

### Additional Information

If an Exact Match already exists on PDS or an error occurs then this interaction is not returned. Instead an Application Acknowledgement is returned with an error code. The user will need to trace again on PDS.

The Exact Match check incorporates a PDS Advanced Trace Query (Algorithmic) search, making use of the following data items:

* Family Name
* First Given Name
* Person Gender Code
* Person Birth Date
* Postcode (From usual address, or temporary address if usual address not provided)

Other Given Name(s) is not included in the check. The result is based on the match weight returned from the Advanced Trace request taking into account the exclusion of Other Given Name(s). The formula for determining an exact match is:

* Match Weight = 100% - (% proportion of match weight associated with Other Given Name(s))

## PDS Create Initial Record Request

MIM Interaction ID: PRPA\_IN000205UK03

The PDS Create Initial Record Request interaction enables the creation of new a record on PDS following a birth. A maternity unit sends a PDS Create Initial Record Request interaction to PDS containing a number of demographic and clinical details about a birth.

### Request Data

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| **Miscellaneous** Data | | 1..1 | Control data used by PDS to determine the appropriate action to carry out. |
|  | Ignore Possible Duplicates | 1..1 | HL7 mapping: **IgnoreDuplicateRecordCriterion** class, **value** attribute.  Boolean. Permissible values are 'true' and 'false'.  Indicates whether duplicate patients should be ignored when creating a new birth record on PDS.  This should be set to ‘false’ with the first attempt to register a baby’s birth. If that attempt fails due to one or more potential duplicate(s) being found and the user determines that the potential duplicate(s) did not relate to the baby, this field should be set to ‘true’ with a second attempt.  If a second attempt, with this field set to ‘true,’ fails due to one or more potential duplicate(s) being found and the user determines that the potential duplicate(s) did not relate to the baby, then (one of) the potential duplicate(s) can be determined to be an exact match, in which case the baby will need registering in another way. See the section on [exact match](#exactMatch) below for more information. |
| [**Person Name**](#dgName) | | 1..1 | HL7 mapping: **Person** class**, name** attribute.  **Cardinality reflects requirement BRNVLD-2.4.** |
|  | [Name Type](#clNameType) | 1..1 | Type 'L' (Usual) only. |
|  | Family Name | 1..1 | Consecutive spaces are not allowed.  See BRNVLD-2.4 and sub-clauses for default values where baby's name is unknown or not available. |
|  | First Given Name | 1..1 | Consecutive spaces are not allowed.  See BRNVLD-2.4 and sub-clauses for default values where baby's name is unknown or not available. |
|  | Other Given Name(s) | 0..1 | Consecutive spaces are not allowed. |
|  | Name Prefix | 0..1 | See UPDVLD-1.8/1.8.1 for additional requirements on prefix formats. |
|  | Name Suffix | 0..1 | A person can have multiple occurrences of a suffix within this data item. The first character of each occurrence must be A - Z. Consecutive spaces are not allowed. Each occurrence must be separated by a space. |
|  | Business Effective From Date | 1..1 | Cardinality reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | Must not be provided for type ‘L’ (Usual). See UPDDTS-2. |
| [**Person Gender**](#dgGender) | | 1..1 | HL7 mapping: **Person** class**, administrativeGenderCode** attribute. |
|  | [Person Gender Code](#clGender) | 1..1 |  |
| [**Person Birth Date**](#dgDOB) | | 1..1 | HL7 mapping: **Person** class**, birthTime** attribute. |
|  | Person Birth Date | 1..1 | The following format shall be used: CCYYMMDD. |
|  | Delivery Time | 1..1 | The following format shall be used: hhmm. |
| [**Person Death Date**](#dgDeath) | | 0..1 | **Used where the birth is a still birth or a baby ‘born alive & died’ prior to notification.** |
|  | Person Death Date | 1..1 | HL7 mapping: **Person** class**, deceasedTime** attribute.  The following format shall be used: CCYYMMDD. |
|  | Time of Death | 0..1 | HL7 mapping: **Person** class**, deceasedTime** attribute.  The following format shall be used: hhmm. |
|  | [Status of Death Notification](#clStatusOfDeathNotification) | 1..1 | HL7 mapping: **DeathNotification** class**, value** attribute.  Will have value ‘1’ (Informal) for a baby born alive & died.  Will have value ‘2’ (Formal) for a still birth. |
| [**Person Address**](#dgAddress) | | 1..2 | HL7 mapping: **Patient** class, **addr** attribute.  **One instance of usual (home) address (type 'H') is mandatory.**  **One instance of a discharge address (i.e. temporary - type 'TMP') is optional, where different from usual address.** |
|  | [Address Type](#clAddressType) | 1..1 | Type 'H' (Usual) and type 'TMP' (Temporary) only supported in this interaction. |
|  | Address Line | 1..5 | The following address lines must be present:  • 1 or 2, and  • 4.  See UPDADD-2.1. |
|  | Postcode | 0..1 | The postcode MUST conform to the PAF format i.e. A single space character must separate the ‘outcode’ and ‘incode’ (UPDADD-5). |
|  | PAF Key | 0..1 | Must be provided for an address derived from a PAF tool. See UPDADD-1.1.  Must not be provided for a vernacular address. See UPDADD-6.3. |
|  | Address Description | 0..1 | For temporary address only (i.e. where the Address Type='TMP'). |
|  | Business Effective From Date | 1..1 | Cardinality reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 | Must not be provided for type ‘H’ (Usual). See UPDDTS-2.  Must be provided for type ‘TMP’ (Temporary). See UPDDTS-4. A default value of 30 days into the future must be given where an actual date is not known. See UPDDTS-7. |
| [**Telecommunication Address**](#dgTelecom) | | 0..\* | HL7 mapping: **Patient** class, **telecom** attribute.  **One occurrence of a telephone number of usage type ‘HP’ (Home Primary) is recommended to be included where available.**  **One occurrence of a telephone number of usage type ‘MC’ (Mobile) is also recommended to be included where available.** |
|  | [Telecom Usage](#clTelecomUsage) | 1..1 | All usage types are supported in this interaction though only types ‘HP’ and ‘MC’ are recommended – see immediately above. |
|  | [Communication Contact Method](#clCommunicationContactMethod) | 1..1 | All communication Contact Method values are supported although only ‘tel’ is recommended as above. |
|  | Communication Contact String | 1..1 |  |
|  | Business Effective From Date | 1..1 | Cardinality reflects requirement UPDDTS-1. |
|  | Business Effective To Date | 0..1 |  |
| [**Baby Tracing Data**](#dgBabyTracingData) | | 1..1 |  |
|  | Birth Order | 1..1 | HL7 mapping: **Person** class, **multipleBirthOrderNumber** attribute.  For multiple births of 8 or more babies, the first seven babies will be registered via the PDS Create Initial Record Request message. For the remaining babies, it will be necessary to use the NHS Number Allocate messaging process via a PDS-compliant system, if this is possible, or via a national service desk call. |
|  | Birth Weight | 1..1 | HL7 mapping: **BirthWeight** class, **value** attribute.  This data is only stored on PDS for a period of 6 months for the purposes of tracing and deduplication when initially allocating an NHS Number for the baby, after which it is automatically removed. It is not retrievable from PDS.  Fixed length, 4 digits. |
| [**Place Of Birth**](#_Place_Of_Birth) | | 1..1 | HL7 mapping: **PlaceOfBirth** class, **addr** attribute.  **At least one of the Town, County or District and Country attributes shall be present.** |
|  | Town | 0..1 |  |
|  | County or District | 0..1 |  |
|  | [Country](#_Country) | 0..1 | Restricted to the following values in this interaction:   * ‘1’ – England * ‘3’ – Wales * ‘IMN’ – Isle of Man |
| [**Mother’s Details**](#_Mother’s_Details) | | 1..1 |  |
|  | NHS Number | 1..1 | HL7 mapping: **Mother** class, **id** attribute.  This data is used to create a mother-baby link on PDS. The mother's NHS Number is stored in a Related Person object and, by being linked by NHS Number, will therefore become a 'Related Patient'. See [Related Person](#dgRelatedPerson) section for more details. |
|  | Person Birth Date | 1..1 | HL7 mapping: **MotherPerson** class, **birthTime** attribute.  CCYYMMDD format only.  This data is only stored on PDS for a period of 6 months for the purposes of tracing and deduplication when initially allocating an NHS Number for the baby, after which it is automatically removed. It is not retrievable from PDS. |
|  | [**Mother’s Usual Name Details**](#dgName) | 1..1 | HL7 mapping: **MotherPerson** class, **name** attribute.  **This data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on PDS.** |
|  | Family Name | 1..1 | Consecutive spaces are not allowed. |
|  | First Given Name | 1..1 | Consecutive spaces are not allowed. |
|  | Second Given Name | 0..1 | Consecutive spaces are not allowed. |
| [**Mother’s Primary Care Registration**](#_Mother’s_Primary_Care) | | 1..1 | **This data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on PDS.**  **Spine will supplement this information with a GP code derived from SDS using the GP Practice code, prior to sending the outbound Birth Notification.** |
|  | Patient Care Provision Type | 1..1 | HL7 mapping: **PrimaryCareProvision** class, **code** attribute.  This shall contain the value '1' (Primary care). |
|  | Primary Care Identifier | 1..1 | HL7 mapping: **PrimaryCareProvider** class, i**d** attribute.  National GP Practice code.  Where the mother is not registered with a GP Practice, code ‘V81997’ shall be used. It should be noted though that this scenario only applies when the mother is not registered with a GP Practice. If the mother is registered, all attempts should be made to identify the corresponding practice code. |
|  | Business Effective From Date | 0..1 | HL7 mapping: **PrimaryCareProvision** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | HL7 mapping: **PrimaryCareProvision** class, **effectiveTime** attribute. |
| [**Partner Child Health**](#_Partner_Child_Health) | | 1..1 | **This data is only stored on PDS for a period of 6 months for the purposes of tracing and deduplication when initially allocating an NHS Number for the baby, after which it is automatically removed. It is not retrievable from PDS.** |
|  | Child Health Organisation Code | 1..1 | HL7 mapping: **PartnerChildHealth** class, **id** attribute. |
| [**Responsible Child Health**](#_Responsible_Child_Health) | | 0..1 | **Only included with an ‘out-of area’ birth.**  **This data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on PDS.** |
|  | Child Health Organisation Code | 1..1 | HL7 mapping: **ResponsibleChildHealth** class, **id** attribute. |
| [**Clinical Information**](#_Clinical_Information) | | 1..1 | **This data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on PDS.** |
|  | [Ethnic Category](#_Ethnic_Category) | 1..1 | HL7 mapping: **Person** class, **ethnicGroupCode** attribute. |
|  | Gestation Age | 1..1 | HL7 mapping: **GestationAge** class, **value** attribute.  Fixed length, 2 digits. |
|  | Number of Births in Confinement | 1..1 | HL7 mapping: **NumberOfFoetusInConfinement** class, **value** attribute. |
|  | [Still Born Indicator](#_Still_Born_Indicator) | 1..1 | HL7 mapping: **StillbirthIndicator** class, **value** attribute. |
|  | [Suspected Congenital Abnormality Indicator](#_Suspected_Congenital_Abnormality) | 1..1 | HL7 mapping: **SuspectedCongenitalAbnormality** class, **value** attribute. |
| [**Delivery Place**](#_Delivery_Place) | | 1..1 | **This data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on PDS.** |
|  | [Delivery Place Type](#_Delivery_Place_Type) | 1..1 | HL7 mapping: **IdentifiedDeliveryLocation** class, **code** attribute or **DeliveryLocation** class, **code** attribute. |
|  | Delivery Place Code | 0..1 | HL7 mapping: **IdentifiedDeliveryLocation** class, **id** attribute.  Must be present if Delivery Place Type is one of: [0,2,3,4,7].  (Note that the MIM incorrectly indicates that this must be present if Delivery Place Type is one of: [0,2,3,4,5,6,7]. This is a known issue.) |
|  | Delivery Place Name | 0..1 | HL7 mapping: **PlaceOfBirth** class, **name** attribute.  Must be present if Delivery Place Type is one of: [0,2,3,4,5,6,7].  Optional otherwise. |
| [**Notifying Person**](#_Notifying_Person) | | 1..1 | HL7 mapping: **NotifierPerson** class, **name** attribute.  **This data will be forwarded on to other systems (Child Health) but will not be stored on PDS.** |
|  | Family Name | 1..1 | Consecutive spaces are not allowed. |
|  | First Given Name | 1..1 | Consecutive spaces are not allowed. |
|  | Second Given Name | 0..1 | Consecutive spaces are not allowed. |
| [**Registering Authority**](#_Registering_Authority) | | 1..1 |  |
|  | [Registering Authority Type](#_Registering_Authority_Type) | 1..1 | HL7 mapping: **RegisteringAuthority** class, **code** attribute. |
|  | Organisation Identifier | 1..1 | HL7 mapping: **RegisteringAuthority** class, **id** attribute.  Code for the Registering Authority. This will be the following:   * NACS organisation code. |

### Additional Information

*Recording Deaths at Birth*

For still births, a PDS Create Initial Record Request interaction must contain death notification details as well. All still births are recorded as 'Formal Death' on PDS.

Babies that are born alive and then die in a short period of time are recorded as 'informal' deaths on PDS. In this case the Still Birth Indicator is set to '1' (Live) but will also have a death status recorded.

*Duplicate Checking*

These next sections are about recognising the various duplicate responses which can occur should PDS not allocate an NHS Number for the baby because it has detected an exact match, or one or more potential matches, or too many matches. It covers recommendations on how to differentiate between exact match and potential match scenarios, and refers to some approaches that can be used to handle these.

In order to determine whether there is an existing match already on PDS, the following three Matching Algorithms may be run by PDS:

| Matching Algorithm | Matching Data Items |
| --- | --- |
| 1 | Mother’s NHS Number AND Birth Order |
| 2 | Date of Birth AND Time of Birth AND Birth Order AND Birth Weight AND Gender |
| 3 | Mother’s Date of Birth AND Partner Child Health Organisation AND 4 out of 5 of the following:   * Date of Birth * Time of Birth * Birth Order * Birth Weight * Gender |

Matching Algorithm 1 will always be run. If it finds a match then there is an Exact Match scenario and Matching Algorithms 2 and 3 will not be run.

If Matching Algorithm 1 does not find a match then Matching Algorithms 2 and 3 will be run. If one or more matching records are then found there is a Potential Match scenario.

If the birth is confirmed to be unique (i.e. the algorithms above do not find any potential duplicates), then PDS will allocate an NHS Number for the baby and store it together with demographic data for the baby. It will also create a ‘mother and baby link’, whereby the mother's details will be stored as a related person within the baby's record. Likewise, the mother’s record is also updated to include some of the baby’s details in a related person object. Finally a PDS Create Initial Record Request Accepted interaction is returned.

*Too Many Matches*

In the very unlikely scenario that PDS detects that there are more than 50 existing records which match the details submitted in a PDS Create Initial Record Request interaction according to the three matching algorithms, PDS will respond with an Application Acknowledgement interaction. It will include two detectedIssueEvent instances, as follows:

<hl7:reason typeCode="RSON">

<hl7:justifyingDetectedIssueEvent classCode="ALRT" moodCode="EVN">

<hl7:code code="1002" codeSystem="2.16.840.1.113883.2.1.3.2.4.17.42" displayName="Failed to process Message in Outer-PDS due to Business Validation failure.[2:Too Many Matches]">

<hl7:qualifier code="ER"/>

</hl7:code>

</hl7:justifyingDetectedIssueEvent>

</hl7:reason>

<hl7:reason typeCode="RSON">

<hl7:justifyingDetectedIssueEvent classCode="ALRT" moodCode="EVN">

<hl7:code code="BT004" codeSystem="2.16.840.1.113883.2.1.3.2.4.17.42" displayName="Too Many Matches">

<hl7:qualifier code="ER"/>

</hl7:code>

</hl7:justifyingDetectedIssueEvent>

</hl7:reason>

It is recommended that the presence of a BT004 code is used to identify the “too many matches” scenario.

Note that if a PDS Create Initial Record Request is resent with the same business data but with the override flag set to ignore possible matches, the Application Acknowledgement response will again be returned by PDS.

*Exact Match*

An exact match scenario occurs where a single matching record is identified according to Matching Algorithm 1.

Where PDS detects an exact match scenario, then PDS will respond with a PDS Create Initial Record Request (Duplicates Response) interaction. It will include two detectedIssueEvent instances, as follows:

<hl7:reason typeCode="RSON">

<hl7:justifyingDetectedIssueEvent classCode="ALRT" moodCode="EVN">

<hl7:code code="1002" codeSystem="2.16.840.1.113883.2.1.3.2.4.17.42" displayName="Failed to process Message in Outer-PDS due to Business Validation failure.[ 34:Exact Match ]">

<hl7:qualifier code="ER"/>

</hl7:code>

</hl7:justifyingDetectedIssueEvent>

</hl7:reason>

<hl7:reason typeCode="RSON">

<hl7:justifyingDetectedIssueEvent classCode="ALRT" moodCode="EVN">

<hl7:code code="IB113" codeSystem="2.16.840.1.113883.2.1.3.2.4.17.42" displayName="Create Initial Record- Duplicate Baby">

<hl7:qualifier code="ER"/>

</hl7:code>

</hl7:justifyingDetectedIssueEvent>

</hl7:reason>

However, it is not recommended that the displayName text is parsed in order to determine the exact match scenario. It is recommended this scenario is determined from the presence of a single returned duplicate and that the mother’s NHS Number and birth order of the returned duplicate are identical to the values sent in the PDS Create Initial Record Request interaction.

Note that if a PDS Create Initial Record Request is resent with the same business data but with the override flag set to ignore possible matches, the PDS Create Initial Record Request (Duplicates Response) interaction will again be returned by PDS.

*Potential Match*

A potential match scenario occurs when no match is made according to Matching Algorithm 1 but one or more matching records are found according to Matching Algorithms 2 or3.

Where PDS detects a potential match scenario, then PDS will respond with a PDS Create Initial Record Request (Duplicates Response) interaction. It will include two detectedIssueEvent instances, as follows:

<hl7:reason typeCode="RSON">

<hl7:justifyingDetectedIssueEvent classCode="ALRT" moodCode="EVN">

<hl7:code code="1002" codeSystem="2.16.840.1.113883.2.1.3.2.4.17.42" displayName="Failed to process Message in Outer-PDS due to Business Validation failure.[ 35:Potential Match ]">

<hl7:qualifier code="ER"/>

</hl7:code>

</hl7:justifyingDetectedIssueEvent>

</hl7:reason>

<hl7:reason typeCode="RSON">

<hl7:justifyingDetectedIssueEvent classCode="ALRT" moodCode="EVN">

<hl7:code code="IB113" codeSystem="2.16.840.1.113883.2.1.3.2.4.17.42" displayName="Create Initial Record- Duplicate Baby">

<hl7:qualifier code="ER"/>

</hl7:code>

</hl7:justifyingDetectedIssueEvent>

</hl7:reason>

Alternatively, PDS may respond as follows:

<hl7:reason typeCode="RSON">

<hl7:justifyingDetectedIssueEvent classCode="ALRT" moodCode="EVN">

<hl7:code code="1002" codeSystem="2.16.840.1.113883.2.1.3.2.4.17.42" displayName="Failed to process Message in Outer-PDS due to Business Validation failure.[ 33:Multiple Potential Matches ]">

<hl7:qualifier code="ER"/>

</hl7:code>

</hl7:justifyingDetectedIssueEvent>

</hl7:reason>

<hl7:reason typeCode="RSON">

<hl7:justifyingDetectedIssueEvent classCode="ALRT" moodCode="EVN">

<hl7:code code="IB113" codeSystem="2.16.840.1.113883.2.1.3.2.4.17.42" displayName="Create Initial Record- Duplicate Baby">

<hl7:qualifier code="ER"/>

</hl7:code>

</hl7:justifyingDetectedIssueEvent>

</hl7:reason>

Again it is not recommended that the displayName text is parsed to determine the potential match scenario. The scenario should be determined from the presence of:

* More than a single returned duplicate
* Or a single returned duplicate and one or other of the mother’s NHS Number and birth order of the returned duplicate are not identical to the values sent in the PDS Create Initial Record Request interaction.

Note that if a PDS Create Initial Record Request is resent with the same business data but with the override flag set to ignore possible matches, the request should be successful (assuming no other error condition occurs and no exact match) and a PDS Create Initial Record Request Accepted will be returned by PDS with a new NHS Number for the baby.

*Approaches*

It is not absolutely necessary to differentiate between exact and potential match scenarios. However, guidance is provided as above on how to do this if desired.

Note that where an exact match scenario occurs, the returned record does not necessarily relate to the baby for whom an NHS Number is being requested. Though very unlikely, it is possible, for example, that a previous birth was registered for the same mother within the past 6 months, or even possible that the wrong mother’s NHS Number has been used, either in the case of the matching baby record or for the mother whose baby as NHS Number is being requested.

For this reason, it is important that there is no assumption that the NHS Number of the returned baby record must be used. It is recommended that suppliers offer the ability to store the NHS Number for a returned record, be it an exact match or a potential match, and allow the user to determine whether the returned record does relate to the same baby.

An alternative approach to differentiating the exact and potential match scenarios that may be used is, assuming that the user has determined that none of the returned matches are for the same baby, to always allow the user to set the override flag in order to re-request an NHS Number for the baby where the PDS Create Initial Record Request (Duplicates Response) interaction has been returned by PDS. If this second request fails then an exact match scenario can be assumed.

## PDS Create Initial Record Request Accepted

MIM Interaction ID: PRPA\_IN000206UK01

This interaction is the successful response to the PDS Create Initial Record Request interaction, and contains the newly assign NHS Number for the baby together with an initial value for the Serial Change Number (SCN).

### Response Data

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 |  |
|  | NHS Number | 1..1 | HL7 mapping: **PatientRole** class, **id** attribute. |
| [**Serial** **Change Number**](#dgSCN) | | 1..1 |  |
|  | Serial Change Number | 1..1 | HL7 mapping: **SerialChangeNumber** class, **value** attribute. |

## PDS Create Initial Record Request Rejected (Duplicate Found)

MIM Interaction ID: PRPA\_IN000207UK03

This interaction is returned by PDS when a PDS Create Initial Record Request interaction has been sent to PDS and PDS has rejected the request as one or more potential duplicate records were found on PDS. It contains details of the potentially matching record(s).

### Response Data

It should be noted that the 1..1 cardinalities in the table below and formats described in section 3 relate to how data should be returned from PDS i.e. if the data was originally updated on PDS correctly. However, there may be instances where this cannot be relied upon.

Note also that the dataset below will be repeated for each duplicate record returned.

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 |  |
|  | NHS Number | 1..1 | HL7 mapping: **PatientRole** class, **id** attribute. |
| [**Person Name**](#dgName) | | 0..\* | HL7 mapping: **R\_PartPersonName** CMET**, Person** class**, name** attribute (except where otherwise indicated).  **The current and any historic usual names will be returned where they exist.** |
|  | [Name Type](#clNameType) | 1..1 | Type 'L' (Usual) only. |
|  | Family Name | 0..1 |  |
|  | First Given Name | 0..1 |  |
|  | Other Given Name(s) | 0..1 |  |
|  | Name Prefix | 0..1 |  |
|  | Name Suffix | 0..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | System Effective From Date | 1..1 | HL7 mapping: **R\_PartPersonName** CMET**, SystemEffectiveDate** class**, value** attribute. |
|  | System Effective To Date | 0..1 | HL7 mapping: **R\_PartPersonName** CMET**, SystemEffectiveDate** class**, value** attribute.  Only present with historic data. |
| [**Person Gender**](#dgGender) | | 0..1 |  |
|  | [Person Gender Code](#clGender) | 1..1 | HL7 mapping: **Person** class, **administrativeGenderCode** attribute. |
| [**Person Birth Date**](#dgDOB) | | 0..1 | HL7 mapping: **Person** class, **birthTime** attribute. |
|  | Person Birth Date | 1..1 |  |
|  | Delivery Time | 1..1 |  |
| [**Person Address**](#dgAddress) | | 0..\* | HL7 mapping: **R\_PartAddress** CMET, **PartOfWhole** class, **addr** attribute (except where otherwise indicated).  **The current and any historic addresses will be returned where they exist. Note that the MIM incorrectly lists the cardinality as 1..\*.This is a known issue. The correct cardinality of 0..\* reflects the possibility that the record has become sensitive, in which case any person address data would be withheld by PDS.** |
|  | [Address Type](#clAddressType) | 1..1 | All types are supported in this interaction. |
|  | Address Line | 0..5 |  |
|  | Postcode | 0..1 |  |
|  | PAF Key | 0..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
|  | System Effective From Date | 1..1 | HL7 mapping: **R\_PartAddress** CMET**, SystemEffectiveDate** class**, value** attribute. |
|  | System Effective To Date | 0..1 | HL7 mapping: **R\_PartAddress** CMET**, SystemEffectiveDate** class**, value** attribute.  Only present with historic data |
| [**Person Confidentiality**](#dgPersonConfidentiality) | | 0..1 | HL7 mapping: **PatientRole** class, **confidentialityCode** attribute. |
|  | [Information Sensitivity Indicator](#clInformationSensitivityIndicator) | 1..1 | Person Address and Partner Child Health data will be withheld if this is set to 'S'. |
| [**Baby Tracing Data**](#dgBabyTracingData) | | 1..1 |  |
|  | Birth Order | 1..1 | HL7 mapping: **Person** class, **multipleBirthOrderNumber** attribute. |
|  | Birth Weight | 1..1 | HL7 mapping: **BirthWeight** class, **value** attribute. |
| [**Mother’s Details**](#_Mother’s_Details) | | 1..1 | **At least one of mother's NHS Number and mother's Date of birth will be returned.** |
|  | NHS Number | 0..1 | HL7 mapping: **Patient** class, **id** attribute. |
|  | Person Birth Date | 0..1 | HL7 mapping: **Mother** class, **birthTime** attribute. |
|  | [**Mother’s Usual Name Details**](#dgName) | 1..1 | HL7 mapping: **Mother** class, **name** attribute. |
|  | Family Name | 1..1 |  |
|  | First Given Name | 1..1 |  |
|  | Second Given Name | 0..1 |  |
| [**Partner Child Health**](#_Partner_Child_Health) | | 0..1 | **Note that the MIM incorrectly lists the cardinality as 1..1. This is a known issue. The correct cardinality of 0..1 reflects the possibility that the record has become sensitive, in which case Partner Child Health data would be withheld by PDS.** |
|  | Child Health Organisation Code | 1..1 | HL7 mapping: **PartnerChildHealth** class, **id** attribute. |

## PDS Birth Notification

MIM Interaction ID: PRPA\_IN000208UK03

This interaction is sent by PDS to notify other systems of a birth. This interaction contains a number of demographic and clinical details about a birth.

### Notification Data

*Child Health*

When PDS successfully inserts a birth record on to PDS and successfully transforms the data into a Birth Notification interaction, a Birth Notification is sent to the Partner Child Health Organisation if it is Spine-enabled.

*New Born Screening*

When PDS successfully inserts a birth record on to PDS and successfully transforms the data into a Birth Notification interaction, if the partner Child Health Organisation (Spine-enabled or not) is in England and the death date is not set a Birth Notification is sent to the New Born Screening system.

This is a New Born Screening Programme requirement to notify them of all eligible births so as to accurately perform and monitor babies through the screening programme.

*ONS*

When PDS successfully inserts a birth record on to PDS and successfully transforms the data into a Birth Notification interaction, if the partner Child Health Organisation (Spine-enabled or not) is in England or Wales a Birth Notification is sent to the Office for National Statistics. This is a statutory requirement.

| Object/Data Item | | Cardinality | Notes |
| --- | --- | --- | --- |
| [**Patient Identifier**](#dgNHSNumber) | | 1..1 |  |
|  | NHS Number | 1..1 | HL7 mapping: **Patient** class, **id** attribute. |
| [**Person Name**](#dgName) | | 0..1 | HL7 mapping: **Person** class**, name** attribute. |
|  | [Name Type](#clNameType) | 1..1 | Type 'L' (Usual) only. |
|  | Family Name | 0..1 |  |
|  | First Given Name | 0..1 |  |
|  | Other Given Name(s) | 0..1 |  |
|  | Name Prefix | 0..1 |  |
|  | Name Suffix | 0..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
| [**Person Gender**](#dgGender) | | 1..1 | HL7 mapping: **Person** class**, administrativeGenderCode** attribute. |
|  | [Person Gender Code](#clGender) | 1..1 |  |
| [**Person Birth Date**](#dgDOB) | | 1..1 | HL7 mapping: **Person** class**, birthTime** attribute. |
|  | Person Birth Date | 1..1 |  |
|  | Delivery Time | 1..1 |  |
| [**Person Death Date**](#dgDeath) | | 0..1 | **Details of babies which are still born or died after birth are not forwarded to New Born Screening.** |
|  | Person Death Date | 1..1 | HL7 mapping: **Person** class**, deceasedTime** attribute. |
|  | Time of Death | 0..1 | HL7 mapping: **Person** class**, deceasedTime** attribute. |
|  | [Status of Death Notification](#clStatusOfDeathNotification) | 1..1 | HL7 mapping: **DeathNotification** class**, value** attribute. |
| [**Person Address**](#dgAddress) | | 1..2 | HL7 mapping: **Patient** class, **addr** attribute.  **One instance of usual (home) address (type 'H') is mandatory and one instance of a discharge address (i.e. temporary - type 'TMP') is optional, where different from usual address.** |
|  | [Address Type](#clAddressType) | 1..1 | Type 'H' (Usual) and type 'TMP' (Temporary) only are supported in this interaction. |
|  | Address Line | 1..5 |  |
|  | Postcode | 0..1 |  |
|  | PAF Key | 0..1 |  |
|  | Address Description | 0..1 | For temporary address only (i.e. where the Address Type='TMP'). |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
| [**Telecommunication Address**](#dgTelecom) | | 0..\* | HL7 mapping: **Patient** class, **telecom** attribute. |
|  | [Telecom Usage](#clTelecomUsage) | 1..1 | All usage types are supported in this interaction. |
|  | [Communication Contact Method](#clCommunicationContactMethod) | 1..1 |  |
|  | Communication Contact String | 1..1 |  |
|  | Business Effective From Date | 0..1 |  |
|  | Business Effective To Date | 0..1 |  |
| [**Baby Tracing Data**](#dgBabyTracingData) | | 1..1 |  |
|  | Birth Order | 1..1 | HL7 mapping: **Person** class, **multipleBirthOrderNumber** attribute. |
|  | Birth Weight | 1..1 | HL7 mapping: **BirthWeight** class, **value** attribute.  Fixed length, 4 digits. |
| [**Place Of Birth**](#_Place_Of_Birth) | | 0..1 | HL7 mapping: **PlaceOfBirth** class, **addr** attribute.  **At least one of the Town, County or District and Country attributes should be present.** |
|  | Town | 0..1 |  |
|  | County or District | 0..1 |  |
|  | [Country](#_Country) | 0..1 | Restricted to the following values in this interaction:   * ‘1’ – England * ‘3’ – Wales * ‘IMN’ – Isle of Man |
| [**Mother’s Details**](#_Mother’s_Details) | | 1..1 |  |
|  | NHS Number | 0..1 | HL7 mapping: **Mother** class, **id** attribute.  Not forwarded to New Born Screening. |
|  | Person Birth Date | 0..1 | HL7 mapping: **MotherPerson** class, **birthTime** attribute.  Not forwarded to New Born Screening. |
|  | [**Mother’s Usual Name Details**](#dgName) | 1..1 | HL7 mapping: **MotherPerson** class, **name** attribute. |
|  | Family Name | 1..1 |  |
|  | First Given Name | 1..1 |  |
|  | Second Given Name | 0..1 |  |
| [**Mother’s Primary Care Registration**](#_Mother’s_Primary_Care) | | 1..1 | **When received into the Child Health system, this data should not be stored as if it represented the baby’s registered GP Practice, as at that point in time the baby will not actually be registered at any GP Practice.** |
|  | Patient Care Provision Type | 1..1 | HL7 mapping: **PrimaryCareProvision** class, **code** attribute.  This will contain the value '1' (Primary care). |
|  | Primary Care Identifier | 0..1 | HL7 mapping: **PrimaryCareProviderWithDetail** class, i**d** attribute.  Not forwarded to ONS. |
|  | Business Effective From Date | 0..1 | HL7 mapping: **PrimaryCareProvision** class, **effectiveTime** attribute. |
|  | Business Effective To Date | 0..1 | HL7 mapping: **PrimaryCareProvision** class, **effectiveTime** attribute. |
|  | GP Practice Name | 0..1 | HL7 mapping: **PrimaryCarePractice** class, **name** attribute. |
|  | Senior Partner Code | 0..1 | HL7 mapping: **SeniorPartner** class, **id** attribute. |
|  | Senior Partner Name | 0..1 | HL7 mapping: **SeniorPartner** class, **name** attribute. |
|  | GP Practice Address | 1..1 | HL7 mapping: **PrimaryCarePractice** class, **addr** attribute. |
|  | Address Line | 1..5 |  |
|  | Postcode | 0..1 |  |
| [**Partner Child Health**](#_Partner_Child_Health) | | 1..1 |  |
|  | Child Health Organisation Code | 1..1 | HL7 mapping: **PartnerChildHealth** class, **id** attribute. |
| [**Responsible Child Health**](#_Responsible_Child_Health) | | 0..1 |  |
|  | Child Health Organisation Code | 1..1 | HL7 mapping: **ResponsibleChildHealth** class, **id** attribute. |
| [**Clinical Information**](#_Clinical_Information) | | 1..1 |  |
|  | [Ethnic Category](#_Ethnic_Category) | 1..1 | HL7 mapping: **Person** class, **ethnicGroupCode** attribute. |
|  | Gestation Age | 1..1 | HL7 mapping: **GestationAge** class, **value** attribute.  Fixed length, 2 digits. |
|  | Number of Births in Confinement | 1..1 | HL7 mapping: **NumberOfFoetusInConfinement** class, **value** attribute. |
|  | [Still Born Indicator](#_Still_Born_Indicator) | 1..1 | HL7 mapping: **StillbirthIndicator** class, **value** attribute. |
|  | [Suspected Congenital Abnormality Indicator](#_Suspected_Congenital_Abnormality) | 0..1 | HL7 mapping: **SuspectedCongenitalAbnormality** class, **value** attribute.  Not forwarded to New Born Screening. |
| [**Delivery Place**](#_Delivery_Place) | | 1..1 |  |
|  | [Delivery Place Type](#_Delivery_Place_Type) | 1..1 | HL7 mapping: **IdentifiedDeliveryLocation** class, **code** attribute or **DeliveryLocation** class, **code** attribute. |
|  | Delivery Place Code | 0..1 | HL7 mapping: **IdentifiedDeliveryLocation** class, **id** attribute.  Must be present if Delivery Place Type is one of: [0,2,3,4,7]. |
|  | Delivery Place Name | 0..1 | HL7 mapping: **PlaceOfBirth** class, **name** attribute.  Must be present if Delivery Place Type is one of: [0,2,3,4,5,6,7].  Optional otherwise. |
| [**Notifying Person**](#_Notifying_Person) | | 0..1 | HL7 mapping: **NotifierPerson** class, **name** attribute.  **Not forwarded to New Born Screening or ONS.** |
|  | Family Name | 1..1 |  |
|  | First Given Name | 1..1 |  |
|  | Second Given Name | 0..1 |  |
| [**Registering Authority**](#_Registering_Authority) | | 1..1 |  |
|  | [Registering Authority type](#_Registering_Authority_Type) | 1..1 | HL7 mapping: **RegisteringAuthority** class, **code** attribute. |
|  | Organisation identifier | 1..1 | HL7 mapping: **RegisteringAuthority** class, **id** attribute. |

# PDS Data Dictionary

This section lists data that is held by PDS that may be relevant to systems integrating with PDS using MIM interactions.

## General Notes on the Data Dictionary

### Notes on the tables within this section

Category of data:

* Objects are referred to in **bold**.
* Data Items are constituents of Objects and are referred to in normal text (i.e. not bold).
* Sub-objects are also constituents of Objects, but contain component Data Items indented in rows immediately after. Sub-objects are referred to in normal text.
* Coded data items have a hyperlink to a listing of allowable code values in section 7.

Data Types:

* Boolean - Represents the values of two-valued logic.
* Coded - Coded data from a fixed list of values. For most coded items, a hyperlink to the list of permissible values in section 7 is provided.
* Date only - Point in time represented as a calendar expression beginning with a four digit year (CCYY) then two digit month (MM) then two digit day (DD).
* Date with time - Point in time represented as a calendar expression beginning with a four digit year (CCYY) then two digit month (MM) then two digit day (DD) then two digit hours (hh) then two digit minutes (mm) and then two digit seconds (ss).
* Integer - Integer number.
* String - Character string representing text data.
* Time - Point in time represented as two digit hours (hh) then two digit minutes (mm).

Format (examples):

* n1 - Fixed length 1 numeric character.
* an..8 - Variable length up to 8 alphanumeric (including punctuation) characters.

### Multiple Data Items

The following objects on PDS can have multiple values:

* Person Name, e.g. usual name, maiden name
* Person Address
* Telecommunication Address, e.g. telephones, email addresses
* Related Persons, also known as ‘alternative contacts’ and sometimes, ‘carers’
* Patient Care Providers, principally the Primary Care Provider (i.e. registered GP practice), but also Nominated Pharmacy.

Some objects which appear to be multiple are constrained at a business level to a single value, e.g. there can be only one usual name on PDS and one registered GP Practice. However, even objects with only a single current value can have other values specified for past timescales.

### Effective Dates

Two different sets of effective dates (Business Effective and System Effective Dates) are supported for the following objects:

* Person Name
* Person Address
* Telecommunication Address
* Primary Care Registration
* Related Person
* NHAIS Posting
* Back Office Location
* Reason for Removal

The following examples illustrate why it is necessary to record date information:

* A patient, normally in the care of their family is moved to a nursing home during house renovations lasting a month. The patient’s children inform the local GP of the new address and the period of time they will be resident there. The practice updates the patient’s record with the new temporary address and associated dates.
* A carer in need of a holiday has organised for someone else to step in while they are away. The patient asks their GP to record the new carer’s details for the duration of the holiday. The practice adds this information, recording the exact duration (start date and end date) on the PDS.

*Business Effective Dates*

Business Effective Dates are supplied by the end-user. They are stored as part of the patient record and are returned when available if data is retrieved or traced. Business Effective Dates are optional as far as PDS goes, though ‘Business Effective From’ values are usually required by the integration requirements when updating PDS (see UPDDTS-1).

Data may be returned from PDS with a ‘business effective to’ date set in the past. This indicates that this data is no longer valid and that no current data has been supplied to replace that value.

Suppliers will need to take user guidance on preferences in this scenario. It may, for instance, be preferable to take some data such as Usual name and Usual Address even if the business effective to date is set in the past, as these items should not normally be removed from PDS without providing a current alternative. If displayed in this way, it should be indicated that the data is out-of-date.

An alternative to indicating that items are out of date is to ignore the presence of such data in a retrieval.

*System Effective Dates*

System Effective Dates are populated by PDS. The System Effective From Date is the date that an object was initially saved to the PDS database. The System Effective To Date does not apply to current data – this date records when an object was moved into history, i.e. 'altered' or 'removed'. System Effective Dates are only returned by PDS when history is requested in the trace or retrieval, i.e. when the *Historic Data Indicator* is set to ‘1’ (Retrieve all historic information).

## Patient Identifier and Superseded Patient Identifier

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Patient Identifier** |  | A number used to identify a person uniquely within the NHS in England and Wales. |  |  |
| NHS Number |  | The NHS Number of the patient. A number used to identify a person uniquely within the NHS in England and Wales.  New Style NHS Number. | String | n10 |
| **Superseded Patient Identifier** |  | A number used to identify a person uniquely within the NHS in England and Wales which has been superseded. |  |  |
| NHS Number  Temporary NHS Number Issued by an NHAIS Registration Authority  Old Format NHS Number |  | The NHS Number of the patient. A number used to identify a person uniquely within the NHS in England and Wales which has been superseded.  This can either be: - New Style NHS Number; - Temporary NHS Number issued by an NHAIS registration authority; - Old style NHS Number. | String | n10 (New Style NHS Number)  an..14 (Temporary NHS Number Issued by an NHAIS Registration Authority)  an..20 (Old Style NHS Number) |
| System Effective To Date | SET date | The date at which this ID was superseded. | Date only | n8 (CCYYMMDD) |

### Key Information

A PDS patient record has one and only one current Patient Identifier object and may have zero or more Superseded (i.e. historic) Patient Identifiers.

The Patient Identifier object contains the patient's unique identifier on the PDS. Duplicates are not possible and all records on the PDS are now identified by a (new style) NHS Number.

Where a patient record has been merged with another, a superseded number will be added to the patient record. This enables local systems to examine their own patient records and to update their identifiers as required, as outlined in the flagged records use case.

### Additional Information

*Patient Identifier Format*

The NHS Number is a fixed 10 digits in length. The 10th digit is a modulus 11 check digit. The validation rules are specified in NHS Number Check-Digit, below.

*NHS Number Check-Digit*

Wherever a (new format) NHS Number is entered, the systems must check the validity of the number by verifying the check digit as follows:

1. The check digit is calculated using the "Modulus 11 Algorithm". There are 5 steps in the calculation:

a. Multiply each of the first 9 digits by a weighting factor as follows:

|  |  |
| --- | --- |
| Digit Position | Weighting Factor |
| 1 | 10 |
| 2 | 9 |
| 3 | 8 |
| 4 | 7 |
| 5 | 6 |
| 6 | 5 |
| 7 | 4 |
| 8 | 3 |
| 9 | 2 |

b. Add the results of each multiplication together.

c. Divide the total by 11 and establish the remainder.

d. Subtract the remainder from 11 to calculate the check digit.

e. If the result of step d is 11 then a check digit of 0 is used.

2. If the check digit from this calculation is not equal to the 10th digit of the entered NHS Number or the check digit from this calculation is equal to 10, the NHS Number entered is not in a valid format.

*Superseded NHS Numbers*

Superseded numbers are returned in non-historical retrievals and a dedicated retrievalItem parameter value (supercededId [sic]) exists to request only superseded IDs to be returned.

### Constraints

An NHS Number on the PDS cannot be changed by local systems.

Local systems should not allow NHS Numbers to be manually updated except under the supervision of National Back Office or the CCG; even then all numbers entered must pass the standard modulus 11 check-digit. Instead all NHS Number entering local systems should be traced from the PDS.

A superseded number cannot be created by local systems; only the Demographic Spine Application (DSA) can change NHS Numbers on the PDS or merge national records.

## Serial Change Number

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Serial Change Number** |  | A unique number for the service user record which is incremented when the record is updated. |  |  |
| Serial Change Number | Record Version Number  SCN | A unique number for the service user record which is incremented when the record is updated. | Integer | n..16 |

### Key Information

A PDS patient record has one and only one current Serial Change Number.

The Serial Change Number (SCN) is used to control the synchronisation of data between the PDS and local systems. A SCN is generated by PDS for each patient record.

Every time the PDS is updated, the SCN is incremented. The SCN provides an 'optimistic locking' mechanism i.e. it must be used to update the record and is then incremented, meaning other systems cannot subsequently alter the record using the old SCN.

It is also useful in verifying the concurrency of local records against PDS records. Prior to an update, a local system must retrieve the SCN from the PDS. If the returned SCN equals any SCN held locally against a patient record, data retrieval from the PDS is not required. If they differ, the local system must perform data retrieval and synchronisation before updating the PDS.

The SCN must be reset to 0 locally upon sending an update to PDS, so that pending a positive acknowledgement from PDS of the update, systems recognise that they are temporarily out of synch with PDS. This means that if for some reason the update did not reach PDS or the response was not received by the local system, a manual synchronisation will be required. See also PDS Integration Requirements - UPDGEN-7.

### Constraints

The SCN can only be set by the PDS; it is not available for update by local systems. Local systems must also not increment SCNs independently from the PDS; that is, must not optimistically set local SCNs to a higher value in anticipation of a successful response from the PDS.

## Person Name

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Person Name** |  | Structured name details for a person within the NHS. |  |  |
| [Name Type](#clNameType) |  | A code to indicate the type of name. | Coded | an..17 |
| Family Name | Surname | That part of a person's name which is used to describe family, clan, tribal group, or marital association (from NHS Data Dictionary).  Consecutive spaces are not allowed. | String | an..35 |
| First Given Name | Forename  First forename | The first forename or given name of a person.  Consecutive spaces are not allowed. | String | an..35 |
| Other Given Name(s) | Middle name(s) | The second and subsequent forenames or given names (or initials) of a person. Each such name must be separated by a single space character.  Consecutive spaces are not allowed. | String | an..100 |
| Name Prefix | Prefix  Title  Name title | Standard form of address used to precede a person's name. A person can have multiple occurrences of a prefix within this data item.  The full available range of generally recognised titles is permitted. However, if any of the following are used then the value input must conform to the following format:  - Mr - Mrs - Ms - Dr - Rev - Sir - Lady - Lord | String | an..35 |
| Name Suffix | Suffix | A textual suffix that may be added to the end of a person's name, for example, Jnr, Snr, OBE, MBE, BSc, JP, GM.  A person can have multiple occurrences of a suffix within this data item. The first character of each occurrence must be A - Z. Consecutive spaces are not allowed. Each occurrence must be separated by a space. | String | an..35 |
| Business Effective From Date | BEF date | The date from which the name has been indicated to be valid. | Date only | n8 (CCYYMMDD) |
| Business Effective To Date | BET date | The date until which the name has been indicated to be valid. | Date only | n8 (CCYYMMDD) |
| System Effective From Date | SEF date | The date at which the data was first added to PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| System Effective To Date | SET date | The date at which the data was moved to history on PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| PDS Object Identifier | UID | A unique identifier for this object within the patient record, which is used to control the update semantics. | String | an..14 |
| Source System | Source | An identification of the source system providing this data to PDS.  This could be any of the following: - SDS Accredited System Identifier (ASID); - NHS Directory Service Organisation Code; - A coded value (see [National System Code](#clNationalSystemCode) vocabulary). | String | an..40 (SDS ASID)  an..8 (NHS Directory Service Organisation Code)  an..4 (coded value) |

### Key Information

A PDS patient record may have zero or one current Usual Name (type 'L').

A PDS Patient record may have zero or more historic Usual Names (type 'L').

A PDS Patient record may have zero or more current Alias Names (type 'A').

A PDS Patient record may have zero or more historic Alias Names (type 'A').

A PDS Patient record may have zero or one current Preferred Name (type 'PREFERRED').

A PDS Patient record may have zero or more historic Preferred Name (type 'PREFERRED').

A PDS Patient record may have zero or more current previous names (other types).

A PDS Patient record may have zero or more historic previous names (other types).

The Person Name object will contain all name data for a patient record. The 'L' (legal or usual name) type is the most important and is provided for every single record on the PDS. Only one current usual name can exist in the patient record, though multiple historical instances may be encountered.

### Additional Information

In most of the PDS interactions, where the Person Name is featured, it must contain at least a Family Name. For tracing, only the First Given Name, Family Name and Other Given Name(s) elements of the name are used: Prefix and Suffix are not. However, if they exist on the database, Prefix and Suffix will be returned in the Simple and Advanced Trace Responses. Additionally, the Table of PDS Tracing Parameters (section 5.1 of the PDS Integration Requirements) indicates that Other Given Name(s) should not be used in Simple and Advanced (Alphanumeric) Trace queries, as the format of the Other Given Name(s) is unpredictable, reducing the chance of a trace match.

It is also possible that there are variations in the way that Prefix is formatted, specifically relating to the use of full stops. Some local systems may include a trailing full stop (Mr.), whereas others may not (Mr). This may lead to spurious differences being indicated during comparison of local and PDS data i.e. during synchronisation. For this reason, it is recommended that local systems ignore trailing full stops in the Title field when comparing against the PDS (see SNCSPL-2.1) and there is a requirement not to send them in updates (see UPDVLD-1.8.1).

When a Person Name is used as a trace parameter, PDS will match against all Name Types held in the database. However, in the Trace Response none of the Previous Name types are returned even if the name supplied in the trace query matched one of the Previous Name types. This can lead to the name being returned not matching the name used in the trace query.

For names that contain punctuation characters (hyphens, apostrophes, etc.) it is recommended that patients are traced using wildcards, i.e. via an Advanced Trace (Alphanumeric) instead of using the punctuation characters. This will increase the likelihood of a match. This could be done automatically by the local system or guidance could be included in the local system help documentation. Alternatively, suppliers may consider strategies to send an additional trace automatically (without punctuation) should the initial query with punctuation fail to find a match. (See TRCPDS-8 and its sub-clauses).

Updating a current name does not mean that the Name Type will change, e.g. a current ‘usual’ name will become a historical ‘usual’ name. It will not become a ‘previous’ name unless it is ‘added’ again with the different type.

For any type of name, when an update to PDS is made, Family Name and First Given Name must always be included.

| Type | Definition | Notes |
| --- | --- | --- |
| Usual | The current, legal name of the patient | PDS only supports a single current instance of the usual name. Additional current usual names cannot be added and it cannot be removed.  The terms ‘current’, ‘legal’ and ‘usual’ are synonymous; the HL7 use attribute is ‘L’ (legal) |
| Alias | Any other names by which this patient may have been known, e.g. in some cultures an alternative name is common |  |
| Preferred | The name the patient prefers to be known as, e.g. a nickname or an abbreviated name. |  |
| Maiden | The unmarried name (usually the birth name) for a woman |  |
| Previous | Any other names that the patient used to be called, typically a previous married name |  |
| Birth | The name of the patient at birth | A birth name would not normally change, but may not be the same as the maiden or bachelor name, e.g. as a result of adoption |
| Bachelor | The unmarried name (usually the birth name) for a man |  |

### Constraints

Only a single current usual name is supported on the PDS. It cannot be removed, though it can be altered and multiple historical values can exist.

Only a single current preferred name (optional) is allowed on PDS. Again, multiple historical values can exist.

As with all multiple objects, it is not possible to simply alter the 'use' type of a name; to achieve a change in 'use' of a name, the object must first be removed and then added back with the new 'use' type, although removal is not possible in the case of the usual name (see UPDSEM-5).

## Person Gender

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Person Gender** |  | Details of a person's administrative gender. |  |  |
| [Person Gender Code](#clGender) | Gender  Administrative Gender  Sex | Classification of the sex of a Person. The classification is phenotypical rather than genotypical, i.e. it does not provide codes for medical or scientific purposes. Note that '0 Not Known' means that the sex of a person has not been recorded. '9 Not Specified' means ‘indeterminate’, i.e. unable to be classified as either male or female. | Coded | n1 |

### Key Information

A PDS patient record may have zero or one current Person Gender.

A PDS patient record may have zero or more historic Person Genders (NB these are not retrievable via messaging).

This data item holds the Administrative Gender that the patient wishes to be known as. In some cases this may not be the same as the patient’s registered birth gender, or their current clinical gender.

Gender is a required field in all trace types, even the Advanced Trace (Algorithmic) where some blocking queries do not require a gender to be present.

### Additional Information

When allocating a new NHS Number, the local system should encourage the user to select 'Male' or 'Female' rather than 'Not known'. The fourth value of Gender, 'Not specified', should never pro-actively be set by local systems. Setting gender to anything other than 'Male' or 'Female' will make the patient difficult to trace. This applies to Simple Trace and Advanced Trace (Alphanumeric) because of the exact matching used by these interactions. To a lesser extent it also applies to Advanced Trace (Algorithmic) where the match weight will be reduced.

### Constraints

Gender cannot be removed once it is set on the PDS although it can be altered.

## Person Birth Date

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Person Birth Date** |  | Details of a person's birth date and time. |  |  |
| Person Birth Date | Birth date  Date of birth  DOB  DoB | The date on which a person was born or is officially deemed to have been born.  Date must not be in the future.  Date must not be later than Person Death Date where held.  NB: a date range can be used in the PDS Advanced Trace Query interaction. | Date only | n..8 (CCYYMMDD or CCYYMM or CCYY) |
| Delivery Time | Time of birth  Birth Time | The time of delivery for a registrable birth. | Time | n4 (hhmm) |

### Key Information

A PDS patient record may have zero or one Person Birth Date.

A PDS patient record may have zero or more historic Person Birth Dates (NB these are not retrievable via messaging).

The Person Birth Date records the patient's birthday in CCYYMMDD format. Where a date of birth is not known some systems use 'default' values (of 01) for the day or day and month components, e.g. 01/01/1970.

### Additional Information

A Birth Date (Range) can be included in the PDS Advanced Trace Query interaction (both Alphanumeric and Algorithmic variants). If used, it is advised that the range should have both a Start Date and an End Date and be no more than a year in length. When a date range for a longer period is used it could result in more than 50 matching records and so should be discouraged.

The PDS Advanced Trace Query supports a partial date. In this case, any Birth Date on the PDS database of the same or greater detail which matches the partial date will be considered a match. For example, if only a month and year are supplied, then any Birth Date in the PDS database containing the same month and year will be considered a match i.e. March 1967 in the Trace Request will match 19th March 1967 in the PDS database.

Delivery Time and Birth Order are normally used to assist with duplicate checking of babies, especially for multiple births. These would not normally be updated in any other case.

### Constraints

A Birth Date cannot be removed from the PDS, though it can be altered.

## Person Death Date

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Person Death Date** | Death data | Data associated with a person's date of death. |  |  |
| Person Death Date | Death date  Date of death  Deceased date  DOD  DoD | The date on which a person died or is officially deemed to have died.  Date must not be in the future.  Date must not be earlier than Person Birth Date.  NB: a date range can be used in the PDS Advanced Trace Query interaction. | Date only | n..8 (CCYYMMDD or CCYYMM or CCYY) |
| Time of Death | Death time  Deceased time | The time at which a person died or is officially deemed to have died. | Time | n4 (hhmm) |
| [Status of Death Notification](#clStatusOfDeathNotification) | Death notification status  Death status | Indicates whether the death notification is formal or informal. | Coded | n1 |

### Key Information

A PDS patient record may have zero or one Person Death Date.

A PDS patient record may have zero or more historic Person Death Dates (NB these are not retrievable via messaging).

The PDS stores a Person Death Date as it does a Birth Date. In addition, it stores a death status - Status of Death Notification - which can be one of two values:

* Informal death – where the NHS has recorded a patient has died, e.g. where the patient had died whilst in hospital or a doctor within a hospital has notified the death.
* Formal death – where a death certificate has been issued by the Registrar of Births and Deaths and the death has been notified to Spine via the Office for National Statistics (ONS), or where a maternity unit has recorded a still birth.

Until formal status has been assigned, the Death Date and the Status of Death Notification can be altered, though to do so, both date and status must be sent to the PDS with the same updateMode, i.e. both must be set to 'altered'. After the ONS has formally notified the death, no other update is permitted.

It is suggested that local systems process death information regardless of the status, e.g. to cancel clinic appointments, however as Death Status is a 'key field', interactive system users must be notified and given the opportunity to handle an erroneously reported death appropriately. See the synchronisation use case for more information.

### Additional Information

A Death Date (Range) can be included in the PDS Advanced Trace Query interaction (both Alphanumeric and Algorithmic variants). If used, it is advised that the range should have both a Start Date and an End Date and be no more than a year in length. When a date range for a longer period is used it could result in more than 50 matching records and so should be discouraged.

Tracing on partial dates is also possible in the Advanced Trace, though if a partial date is supplied, a match will be made only if the Death Date in the request interaction has the same or greater detail as that held on PDS. For example, if only a month and year are supplied, then any Death Date in the PDS database containing the same month and year will be considered a match i.e. March 2017 in the Trace Request will match 19th March 2017 in the PDS database.

### Constraints

The Death Date must not be in the future and must not be earlier than Person Birth Date. If Death Date and Status of Death Notification data items are retrieved from the PDS, but this information is incorrect (i.e. the patient is still alive), it is not possible for local systems to remove either object on PDS. In these cases, a correction will need to be made via the National Back Office.

When adding or altering a Death Date, a Status of Death Notification must also be supplied and must be internally consistent, i.e. also be assigned an updateMode of 'added' or 'altered'.

## Person Address

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Person Address** |  | The identification of a place of relevance to the patient. |  |  |
| [Address Type](#clAddressType) | Address association type | A code to indicate the type of address. | Coded | an..3 |
| Address Line | Street address line | 5 lines excludes postcode, may be vernacular or PAF-derived.  For PAF-derived and vernacular addresses, the following formatting convention should apply although there may be some exceptions in data returned from PDS: • line 1: premises ID, house name, e.g. ‘Flat 1’, ‘The Old Schoolhouse’ • line 2: house number, dependent thoroughfare name and descriptor (if present), thoroughfare name and descriptor, e.g. ’23 Mill Lane’ • line 3: dependent locality, locality (if present) e.g. ‘Boxgrove’ • line 4: post town, e.g. ‘Leeds’ • line 5: county (if present), e.g. ‘Hampshire’, ‘Hants’  The following address lines should normally be present although there may be some exceptions: • 1 or 2, and • 4 | String | an..35 x 5 |
| Postcode | Postal code | The UK format Postcode, 8 character string, as per BS7666.  A space must be inserted to differentiate between the inward and outward segments of the code, enabling full use to be made of Royal Mail postcode functionality. | String | an..8 |
| PAF Key | PAF address key  Postal Address File key | A unique identifier keyed to Royal Mail PAF Directory. | String | an..8 |
| Address Description | Address usage | Textual description of the usage of a temporary address. For temporary address only (i.e. where the Address Type='TMP'). | String | an..100 |
| Business Effective From Date | BEF date | The date from which the address has been indicated to be useable. | Date only | n8 (CCYYMMDD) |
| Business Effective To Date | BET date | The date until which the address has been indicated to be useable. | Date only | n8 (CCYYMMDD) |
| System Effective From Date | SEF date | The date at which the data was first added to PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| System Effective To Date | SET date | The date at which the data was moved to history on PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| PDS Object Identifier | UID | A unique identifier for this object within the patient record, which is used to control the update semantics. | String | an..14 |
| Source System | Source | An identification of the source system providing this data to PDS.  This could be any of the following: - SDS Accredited System Identifier (ASID); - NHS Directory Service Organisation Code; - A coded value (see [National System Code](#_National_System_Code) vocabulary). | String | an..40 (SDS ASID)  an..8 (NHS Directory Service Organisation Code)  an..4 (coded value) |

### Key Information

A PDS patient record may have zero or one current Usual Address (type 'H').

A PDS patient record may have zero or more historic Usual Address (type 'H').

A PDS patient record may have zero or more current Temporary Addresses (type 'TMP').

A PDS patient record may have zero or more historic Temporary Addresses (type 'TMP').

A PDS patient record may have zero or more current Correspondence Addresses (type 'PST').

A PDS patient record may have zero or more historic Correspondence Addresses (type 'PST').

An Address consists of 5 lines of unstructured text, postcode and PAF key. Local systems must apply the following formatting convention when inserting or updating addresses on the PDS (see UPDADD-2) though addresses returned from PDS may not always comply with this convention:

* Address Line 1: premises ID and/or house name, e.g. 'Flat 1', 'The Old Schoolhouse'
* Address Line 2: house number, dependent thoroughfare name and descriptor (if present), thoroughfare name and descriptor, e.g. '23 Mill Lane'
* Address Line 3: dependent locality/village, locality (if present), e.g. 'Boxgrove'
* Address Line 4: post town, e.g. 'Leeds'
* Address Line 5: county (if present), e.g. 'Hampshire', 'Hants'
* Postcode

When updating PDS, lines 1 or 2, and line 4 must be populated; line 5 should not be included in vernacular addresses but may be included in PAF-derived addresses.

The following address types are supported by PDS:

| Type | Definition | Notes |
| --- | --- | --- |
| Usual | The usual address is the patient’s normal residence. Usual address is also known as ‘main’, ‘registered’, ‘current’ or ‘permanent’ address | GP payments are derived from the postcode of the patient’s usual address, but a change in usual address may not automatically result in removal from the practice list. |
| Temporary | A temporary address is an address used for a set period of time, but where the patient’s usual, permanent address remains unchanged | Any temporary address updated on to PDS must have both a Business Effective From (BEF) date and a Business Effective To date. The provision of a business effective to (BET) date has particular importance in order to avoid temporary addresses that are no longer relevant to the patient still being held as current data available to any system retrieving the patient record. A suggested default where no actual BET is known is 30 days later than the BEF, up to a maximum of 3 months.  The PDS integration requirements state that where a temporary address is provided a descriptor text must be stored for it on PDS (see UPDADD-10). The list of possible values is:  ‘Second Home’ – a patient’s second home  ‘Student Accommodation’ – a patient’s place of residence while at university  ‘Respite Care Address’ – where the patient resides during respite care  ‘Temporary Residence Address’ – where the patient resides for a specific period of time  ‘Convalescence Home’ – the address for a patient during a period of recovery  ‘Mobile Home’ – the address of a patient’s mobile home, parked for a specific period of time, e.g. the address of a caravan park  ‘Holiday Home’ – the address for a patient during a holiday  A patient can also register temporarily at a GP practice using a temporary address. Temporary GP registration information will not appear on the PDS, but the address used for it may. |
| Correspondence | An address used for correspondence purposes only. | Any correspondence address updated on to PDS must have both a Business Effective From (BEF) date and a Business Effective To date. The provision of a business effective to (BET) date has particular importance in order to avoid correspondence addresses that are no longer relevant to the patient still being held as current data available to any system retrieving the patient record. A suggested default where no actual BET is known is 30 days later than the BEF, up to a maximum of 12 months.  The PDS integration requirements state that where a correspondence address is provided a descriptor text should be stored for it (see UPDADD-9). However, the interaction used to add the address does not support sending this text to the PDS and it must therefore be stored on the local system database. The list of possible values is:  ‘Always’ – a correspondence address to be used under all circumstances  ‘Temporary Correspondence’ – a correspondence address for a specific period of time  ‘Specific Purpose’ – a correspondence address for a specific purpose only |

### Additional Information

Systems should not use address lines in tracing, given that their format can vary greatly. This is also an issue for postcodes in that spaces are significant e.g. a postcode of LS16AA in the request interaction will not match LS1 6AA on the database. For Simple Trace and Advanced Trace (Alphanumeric), no match would be made between these two example postcodes; for Advanced Trace (Algorithmic), the match weight would be reduced.

The Temporary Address also has an Address Description associated with it on the PDS; there are requirements to locally maintain descriptors for the Correspondence Address.

### Address Precedence in Correspondence

A usual address is the patient’s main residential address and should normally be used for all clinical and demographic purposes, including clinical and appointment correspondence.

However additionally, Temporary and Correspondence addresses may be provided by a patient when there is a requirement to record an alternative location for the purposes of unbroken care.

When sending correspondence to a patient:

1. A present and valid Correspondence Address may take precedence over Usual and Temporary Addresses. A patient should have only a single current Correspondence Address. An address is considered 'valid' according to its business effective from and to dates
2. If no current Correspondence Address is provided, a Temporary Address may take precedence over the Usual Address, again if it is valid according to its business effective from and to dates
3. If there is no valid, current Correspondence and/or Temporary Address, the Usual Address must be used.

It should be noted that not all local systems support Temporary and Correspondence addresses, so these are not uniformly maintained on PDS. Therefore, where the patient contact has clinical or business significance, the precedence of these addresses over the PDS usual address should be determined by a user wherever possible.

When the end date for a temporary or correspondence address passes, local systems should use the patient’s usual address. It will be extremely rare that no Usual Address is present on a patient record.

### Constraints

A patient can have only one current usual address. Additional historical values can exist. This limitation has implications for the use of the updateMode in the HL7 messaging to PDS, i.e. the ‘added’ updateMode value cannot be used where a current usual address is already present on the patient record.

A patient should have no more than one current temporary and/or correspondence address. However, this is constrained only by the PDS integration requirements (see UPDADD-11 & 12) and is not enforced by PDS itself so theoretically more than one can exist on PDS. Where multiple instances already exist on PDS it is not expected that systems synchronising with PDS should manage those, but should choose the most appropriate one to maintain (e.g. by examining business effective dates).

## Telecommunication Address

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Telecommunication Address** | Telecom | A means of communicating with the patient by telephone, fax, e-mail etc.  In messaging, the Communication Contact Method and Communication Contact String, together with a colon character between the two, are concatenated to provide a single URL string with a maximum length of 100 characters. |  |  |
| [Telecom Usage](#clTelecomUsage) |  | A code to indicate the type or usage of the telecommunication address. | Coded | an..2 |
| [Communication Contact Method](#clCommunicationContactMethod) |  | A code to indicate the method of communication. | Coded | an..9 |
| Communication Contact String | Telephone number  E-mail address | A string of characters providing the contact number or e-mail address. | String | an..32 (telephone numbers, fax numbers and textphone numbers)  an..90 (e-mail addresses) |
| Business Effective From Date | BEF date | The date from which the telecommunication address has been indicated to be useable. | Date only | n8 (CCYYMMDD) |
| Business Effective To Date | BET date | The date until which the telecommunication address has been indicated to be useable. | Date only | n8 (CCYYMMDD) |
| System Effective From Date | SEF date | The date at which the data was first added to PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| System Effective To Date | SET date | The date at which the data was moved to history on PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| PDS Object Identifier | UID | A unique identifier for this object within the patient record, which is used to control the update semantics. | String | an..14 |
| Source System | Source | An identification of the source system providing this data to PDS.  This could be any of the following: - SDS Accredited System Identifier (ASID); - NHS Directory Service Organisation Code; - A coded value (see [National System Code](#_National_System_Code) vocabulary). | String | an..40 (SDS ASID)  an..8 (NHS Directory Service Organisation Code)  an..4 (coded value) |

### Key Information

A PDS patient record may have zero or more current Telecommunication Addresses of each type.

A PDS patient record may have zero or more historic Telecommunication Addresses of each type.

The Telecommunication Address object holds contact details for a patient's telephone, fax, email and textphone (Minicom) addresses. Telecommunication Addresses are defined by a combination of Telecom Usage, Communication Contact Method and Communication Contact String, with the method being prepended in PDS messaging to the actual value itself with the two separated by a colon character, e.g. 'tel:01234567890' or 'mailto:patient@isp.com'.

A telecom address contains the following components:

* A usage
* A Communication Contact String
* A Communication Contact Method, prepended to the Communication Contact String
* Start and/or end dates

The full range of usage types supported by PDS is:

* The primary home after business hours (*usage* type ‘HP)
* An address at a home (usage type ‘H’)
* A vacation/holiday home (usage type ‘HV’)
* An office address (usage type ‘WP’)
* An automated answering machine (usage type ‘AS’)
* Designated emergency address (usage type ‘EC’)
* A paging device to solicit call-back/leave a short message (usage type ‘PG’)
* A device that moves with its owner (usage type ‘MC’)

Four Communication Contact Method values exist.

* Telephone numbers (‘tel’)
* Fax numbers (‘fax’)
* E-mail addresses (‘mailto’)
* Minicom or textphone numbers (‘textphone’)

### Additional Information

Whilst support for a single home telephone number is recommended, because both types ‘HP’ and ‘H’ have been used on PDS to indicate a home telephone number, systems supporting the concept of a home telephone number can support both these types, with type ‘HP’ being the primary home telephone number and type ‘H’ a secondary home telephone number.

Where only one home telephone number is supported by a system, then it is recommended that when retrieving data, the system should make use of and maintain the type ‘HP’ value, and where that value is not present in the retrieved data but a type ‘H’ values is present, then make use of and maintain that value.

If multiple values of the same type exist then systems can use effective dates to determine which value to use (e.g. the one with the most recent business effective from date).

### Constraints

A local system must not change the usage type of a telecom object – indeed any object – to 'fit' local database limitations. Where a local system is unable to support all the telecom usage/communication contact method combinations, unless that type is received it must not attempt to save an object to its local database. For example, a system must not change a received home telecom of type 'H' to be a primary home telecom, usage type 'HP', to satisfy a local constraint.

Local systems must be able to support the same combinations for related person telecoms as they do for patient telecoms. This is to allow for NHS Number linked related persons to be retrieved and their contact data/preferences to be stored and displayed.

## Person Confidentiality

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Person Confidentiality** |  | Sensitivity of the patient record. |  |  |
| [Information Sensitivity Indicator](#clInformationSensitivityIndicator) | ISI  Sensitivity information status  Suppress data indicator (SDI)  Stop note  Confidentiality code | Identifies the status of a patient record with regard to Stop Noting and Sensitivity. | Coded | a1 |

### Key Information

A PDS patient record has one and only one current set of Person Confidentiality details.

A PDS patient record may have zero or more historic sets of Person Confidentiality details (NB these are not retrievable via messaging).

The Person Confidentiality object contains the Information Sensitivity Indicator. This indicator is used to specify whether a patient record has been marked as sensitive or invalid (also known as 'logically deleted') on the PDS. It can only be inserted or updated by National Back Office staff using the Demographic Spine Application (DSA). It is used to determine what (if any) data will be returned in the response interactions from PDS which carry patient data. The Information Sensitivity Indicator must only be displayed to the local system user when required for local processing. It must not appear on lists of patient data.

### Additional Information

The PDS database supports five values for the Information Sensitivity Indicator: 'N', 'Y', 'S', ‘B’ and 'I'. Of these, there are no longer any 'Y' flagged records on the PDS and 'I' flagged records are not visible to local systems: they are ignored in traces and attempts to retrieve them will return an error. The value ‘N’ is not returned.

Where patient record information has been restricted by an Information Sensitivity Indicator of type 'S' (Sensitive), contact or 'location' information for a patient is not available from the PDS and special processing is required of the local system. In these cases, where such sensitive data is added to the local system, it must be protected according to the requirements for flagged records (see FLGSEN and FLGLCL requirements).

Records with an 'I' (Invalid) value of the Information Sensitivity Indicator have been logically deleted by the National Back Office and again, this requires special processing by the local system, also in the requirements for flagged records (see PDS Integration Requirements - FLGINV and LBOINV).

All 'Y' flagged records have been purged from the PDS. 'Y' is a legacy value and in previous releases, only an NHS Number would have been returned to local systems.

The Information Sensitivity Indicator is also used to denote a record under data quality investigation through use of a 'B' flag.

The following table describes the principle business reasons for flagging patient record and indicates how they are categorised for management in the PDS.

| Purpose | Comment |
| --- | --- |
| Change of identity for formal and informal witness protection | The record relating to the previous ID is flagged **INVALID** **(I).**  The new record is flagged **BUSINESS (B)** until National Back Office is notified that the protected witness has registered with a GP (via an update from an NHAIS system). This is a short-term requirement. Thereafter, the new record is not flagged. |
| Change of identity for gender re-assignment | The record relating to the previous identity is flagged **INVALID (I)**. The new record is not flagged.  Until gender reassignment is complete the patient may alternate between both records. Therefore, both records remain flagged as **BUSINESS (B)** until the reassignment is complete. This is a short – term requirement. |
| Change of identity for adoption | In the majority of cases when the NBO is notified of an adoption a new NHS Number is allocated.  Initially, the new record and old record will be flagged **BUSINESS (B)** until the adopted child is registered a new GP.  When this happens the record relating to the previous identity is flagged **INVALID (I)**. The new record is not flagged. |
| Known duplicate records | Investigation with the user organisation to agree which of the records should remain ‘live’. The ‘live’ record is not flagged.  The other record(s) are flagged **INVALID** **(I)** |
| Multiple birth registrations against a single NHS Number | The same NHS Number has been issued to two or more babies. The affected records are flagged **INVALID (I)**.  New NHS Numbers are issued for all affected babies – these are not flagged. |
| ‘Protection of identity for people at risk not involving change of identity, e.g. battered wives, etc. | The current record is flagged **SENSITIVE (S).** |
| Protection of identity for confidentiality reasons – for celebrities etc. | The current record is flagged **SENSITIVE (S).** |
| Protection of identity where there have been bogus enquiries | Where the NBO has reason to believe that bogus enquiries have been made about a person’s details, the record will be flagged **BUSINESS** **(B)** for a limited period. |
| Protection of identity where there has been fraudulent use of person identity | Where there is reason to suspect that someone is using another’s identity fraudulently the record will be flagged **BUSINESS (B).** |
| Possible mis-associations | Record(s) involved are flagged **BUSINESS (B)** until investigations are completed. |
| Possible duplicates | All records (normally two) involved are flagged **BUSINESS (B)** until investigations are completed.  If they are confirmed as duplicate(s) all but one of the records will remain flagged **INVALID (I)** (i.e. will become a known duplicate(s) as described above). The B flag will then be removed from the remaining ‘live’ record. |
| Temporary / short term | There are a variety of business reasons for adding a **BUSINESS (B)** flag to a patient record, for example where a query has been raised by a user organisation regarding the record and it is important that the record should not be updated [without verifying its accuracy with the patient]. Also, see gender re-assignment and adoption above. |
| Suspected Deliberate Multiple GP registrations by patient | Records that are suspected to be deliberate multiple registrations for the same person (often using aliases) are flagged **BUSINESS (B)**. |

### Constraints

It is not possible for systems other than the DSA to update any part of a record that has an Information Sensitivity Indicator of 'I' or 'S' on the PDS.

## Consent to NHS Care Record Sharing

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Consent to NHS Care Record Sharing** |  | Details of consent status for care record sharing. Patients may opt in or out of having their care records shared with other clinicians. |  |  |
| [Consent](#clConsent) | Consent to share  Consent status | Indicates whether a patient has expressly consented to or expressly dissented from having their detailed clinical data shared.  Consent to share relates to systems and organisations that are capable of sharing detailed electronic clinical records across legal organisational boundaries for purposes other than direct clinical communication such as referrals. One example where the consent option may be relevant is the sharing of electronic clinical details between trusts for data analysis purposes. | Coded | n1 |
| Date Last Changed |  | The date when the Consent to NHS Care Record Sharing status was last changed. | Date only | n8 (CCYYMMDD) |

### Key Information

A PDS patient record may have zero or one current set of Consent to NHS Care Record Sharing details.

A PDS patient record may have zero or more historic sets of Consent to NHS Care Record Sharing details (NB these are not retrievable via messaging).

Consent to Share has two values ('Express Consent' and 'Express Dissent'), but a value of Null should be regarded as ‘Implied Consent’, i.e. where no value is recorded, the patient should be considered as having consented to sharing their clinical record across Spine.

There is explicit IG guidance on updating the value of the consent to share status; the patient must be present and the functionality restricted to a defined set of RBAC roles. There are also circumstances when a patient's consent (dissent) to share may be overridden. Details on this can be found in NPFIT-FNT-TO-IG-DES-0135: NHS CRS Consent / Dissent: Information Sharing Rules.

### Additional Information

In the MIM, the ‘code’ attribute for Consent contains a value from the DemographicObservationType vocabulary and describes the type of consent being updated or returned. Codes ‘4’ (Consent to NHS Care Record Sharing) and ‘6’ (Call Centre Call-Back Consent) are used to specify the type of consent being updated. The ‘value’ attribute for Consent contains the actual consent/dissent value from the Consent vocabulary.

Consent is technically also a multiple object, but is constrained to a single instance for each of the two types – Consent to NHS Care Record Sharing, Call-Centre Call-Back Consent. Because of this, and unlike the care provider object which is similarly constrained, consent is not allocated a PDS Object Identifier when it is added to PDS.

### Constraints

It is not possible to specify a time period for Consent to Share, because it does not support a 'business Effective To' date. Consent/Dissent will have to be explicitly granted or revoked.

## Call Centre Data

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Call Centre Data** |  | Personal information provided by the patient of particular use with e-RS call centres. |  |  |
| Shared Secret | Certificate text | Personal information provided by the patient to be used by a call centre in verifying that the caller is this patient. | String | an..200 |
| [Call Centre Call-Back Consent](#clCallCentreCallbackConsent) | Call-back consent | Willingness to accept calls from a call centre, such as used by e-RS. | Coded | n1 |

### Key Information

A PDS patient record may have zero or one current set of Call Centre Data.

A PDS patient record may have zero or more historic sets of Call Centre Data (NB these are not retrievable via messaging).

Call Centre Data specifically relates to e-RS. It is used to identify those patients who have agreed to being called back from the e-RS call centre.

It consists of two values:

* For the consent flag itself; and
* For the Shared Secret, which is an encrypted security question and answer used by e-RS.

### Additional Information

If the Shared Secret exists, the Call Centre Call-Back Consent will normally be set to ‘Yes’. However, if the patient decides to change their Call Centre Call-Back Consent to ‘No’, there is no requirement to remove a Shared Secret and it may therefore continue to be returned.

## Contact Preferences

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Contact Preferences** |  | Contact preferences of the patient. |  |  |
| [Preferred Contact Method](#clPreferredContactMethod) |  | A coded value for the patient's preferred method of being contacted. | Coded | an1 |
| Preferred Contact Times |  | A text string specifying the patient's preferred times for being contacted. | String | an..40 |
| [Preferred Written Communication Format](#clPreferredWrittenCommunicationFormat) |  | A coded value for the patient's preferred written method of being contacted. | Coded | an..2 |

### Key Information

A PDS patient record may have zero or one current set of Contact Preferences.

A PDS patient record may have zero or more historic sets of Contact Preferences (NB these are not retrievable via messaging).

This group contains several data items covering the patient's preferences for how they should be contacted by the NHS, including:

* A contact method e.g. telephone or e-mail.
* A format specifying a written communication format in case a patient is visually or hearing impaired e.g. Braille.
* A free-text field where contact times can be recorded.

### Additional Information

Contact Method and Communication Format are numeric and either is optional.

The Preferred Contact Time is a 40 character text string, used to record the preferred contact times, e.g. weekday evenings. It is recommended that this value be from a dropdown list and is not left as true free-text. For example, the user may be given the options ‘Anytime’, ‘AM only’, ‘PM only’, to select from.

### Constraints

Where a Contact Time is specified a Contact Method must also exist.

## Language Communication

### Object data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Language Communication** |  | Details of the language preference of the patient where not English. |  |  |
| [Language](#clLanguage) |  | Coded value for the person's preferred language. From ISO639-1 plus extensions for Braille, Makaton and sign languages. | Coded | an..2 |
| Interpreter Required Indicator |  | Indicates whether or not the patient requires an interpreter in the preferred language specified.  Permissible values are 'true' and 'false'. | Boolean |  |

### Key Information

A PDS patient record may have zero or one current set of Language Communication details.

A PDS patient record may have zero or more historic sets of Language Communication details (NB these are not retrievable via messaging).

PDS provides the facility to record the primary language for verbal communication. Language is stored on the PDS as a coded value from the ISO 639-1 standard, plus 5 other codes denoting languages for patients with communication and learning disabilities, e.g. British Sign Language. Preferred language must not be supplied where it is English even though the code lists contains a value for English.

If the preferred language is set the Interpreter Flag must be also set, indicating whether the patient requires interpretation or not.

### Additional Information

Language and interpreter details for Related Persons can also be recorded on the PDS, but only where the contact is a ‘free-text’ related person. See the [Related Person](#dgRelatedPerson) object.

Where a language code is not contained in the MIM or IS0 639-1 dataset, and there is a business need to record additional languages, local systems should provide the ability to record free-text languages locally. The language code ‘qa’ should be used for this purpose. Codes ‘qaa’ to ‘qtz’ are also reserved for local use in the ISO639-2 dataset.

### Constraints

A language should be set only where it is not ‘en’ (English).

Upper case equivalent code values must not be sent to PDS in an update.

The local use code 'qa' must not be sent to the PDS in any update.

## Previous NHS Contact

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Previous NHS Contact** |  | An indication of whether the patient has previously had NHS contact. |  |  |
| [Previous NHS Contact Indicator](#clPreviousNHSContact) |  | Coded value to indicate whether the patient has previously had NHS contact. | Coded | n1 |

### Key Information

A PDS patient record may have zero or one current set of Previous NHS Contact details.

A PDS patient record may have zero or more historic sets of Previous NHS Contact details (NB these are not retrievable via messaging).

The Previous NHS Contact Indicator is a flag set when requesting the allocation of a new NHS Number to a patient. Experience has shown that business processes within the National Back Office do not differentiate between the two possible values. The safest option therefore is for it to always be set to ‘1’ (Yes).

## Primary Care Registration

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Primary Care Registration** |  | Details of the patient's association with a Primary Care Provider. |  |  |
| Patient Care Provision Type |  | A coded value to distinguish different types of patient care provision.  For a primary care registration, this will only take value '1' (Primary care). | Coded | an..2 |
| Primary Care Identifier | GP Practice code  Organisation code  NACS code  GP code  GNC code | Identifier for the primary care organisation (GP Practice) with which the patient is registered.  For historic data stored on PDS, this may identify a General Practitioner or a General Practice. | String | an6 (GP Practice code)  an8 (GP code) |
| Business Effective From Date | BEF date | The date from which the primary care registration has been indicated to be effective. Cannot be in the future. | Date only | n8 (CCYYMMDD) |
| Business Effective To Date | BET date | The date to which the primary care registration has been indicated to be effective. | Date only | n8 (CCYYMMDD) |
| System Effective From Date | SEF date | The date at which the data was first added to PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| System Effective To Date | SET date | The date at which the data was moved to history on PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| PDS Object Identifier | UID | A unique identifier for this object within the patient record, which is used to control the update semantics. | String | an..14 |
| Source System | Source | An identification of the source system providing this data to PDS.  This could be any of the following: - SDS Accredited System Identifier (ASID); - NHS Directory Service Organisation Code; - A coded value (see [National System Code](#_National_System_Code) vocabulary). | String | an..40 (SDS ASID)  an..8 (NHS Directory Service Organisation Code)  an..4 (coded value) |

### Key Information

A PDS patient record may have zero or one current set of Primary Care Registration details.

A PDS patient record may have zero or more historic sets of Primary Care Registration details.

When retrieving the Primary Care Provider from PDS, historic data may contain either or both of GP Practice codes and GP (GNC) codes. The local system must be capable of handling either of these types of code.

When updating the Primary Care Provider on PDS, only GP Practice codes may be used.

The GP practice code must only be updated by legacy systems (NHAIS etc), Primary Care systems or National Back Office staff via the Demographic Spine Application (DSA). All other systems must not update this information.

### Constraints

Only a single current value for each of the Patient Care Provider objects is supported, including Primary Care Registration. Emergency, temporary and additional GP Practice registrations are not supported on PDS and must be maintained in the local system only.

The Primary Care Provider object, type '1', must be assigned a Business Effective From date, cannot be future-dated and cannot be assigned an end date.

## Registration Encounter

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Registration Encounter** |  | Further details associated with a patient's registration with a Primary Care Provider. |  |  |
| [Type of Registration](#_Type_of_Registration) |  | The type of registration with the Primary Care Provider. | Coded | an1 |
| Date of Enlisting In |  | The date when the patient enlisted in the armed forces. | Date only | n8 (CCYYMMDD) |
| Date of Enlisting Out |  | The date when the patient enlisted out of the armed forces. | Date only | n8 (CCYYMMDD) |
| Date of Patient UK Entry |  | The date when the patient most recently entered the UK. | Date only | n8 (CCYYMMDD) |
| Date of Patient UK Exit |  | The date when the patient exited the UK. | Date only | n8 (CCYYMMDD) |
| Original Acceptance Posting Date |  | The date the patient first registered with a GP practice in the NHAIS area. | Date only | n8 (CCYYMMDD) |
| Place of Birth |  | The patient's place of birth as a single unstructured string value. | String | an..22 |
| Previous Name |  | The patient's previous name as a single unstructured string value. | String | an..20 |
| Previous Address |  | The patient's previous address as a single unstructured string value. | String | an..90 |
| Previous GP |  | Identification of the General Practitioner or General Practice the patient was previously registered with as a single unstructured string value. | String | an..18 |
| Previous NHAIS Posting |  | Identification of the NHAIS system on which the patient was previously registered with as a single unstructured string value. | String | an..3 |

### Key Information

A Registration Encounter is associated with one and only one Primary Care Registration.

Registration Encounter can only be updated by NHAIS or the DSA.

The data stored in the Registration Encounter object does not form part of the patient’s demographic record per se; it is information that will be used by Back Office in tracing for duplicate patient records/registrations. For example, the object will contain previous patient name information, but this data is not stored as a true ‘PREVIOUS’ name type for the patient and is not returned among other patient names.

## Pharmacy Data

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Pharmacy Data** |  | Details of a pharmacy nominated by the patient for a particular type of provision. |  |  |
| Pharmacy Identifier | Pharmacy code  NACS code | Identifier for a pharmacy nominated by the patient.  This will be a NACS code. | String | an..5 |
| [Pharmacy Type](#_Pharmacy_Type) | Patient Care Provision Type | A coded value for the type of pharmacy provision.  Only one of each type is permitted. | Coded | an..2 |
| PDS Object Identifier | UID | A unique identifier for this object within the patient record, which is used to control the update semantics. | String | an..14 |

### Key Information

A PDS patient record may have zero or one current set of Pharmacy Data of each type.

A PDS patient record may have zero or more historic sets of Pharmacy Data of each type (NB these are not retrievable via messaging).

Pharmacy types, like GP practices, are types of Patient Care Provider. There are three pharmacy types:

* ‘P1’ – Nominated Pharmacy
* ‘P2’ – Medical Appliance
* ‘P3’ – Dispensing Doctor

### Additional Information

Each patient record may only have one current entry of each pharmacy type. The Pharmacy Identifier will be a National Pharmacy code and must relate to a pharmacy that has a Spine compliant local system. Unlike Primary Care information, Pharmacy types do not support effective dates.

### Constraints

As the Pharmacy Data object does not support effective dates only a single current instance of each type is supported. A patient record can have multiple historical values, though the retrieval of historical Pharmacy Data is not possible from local systems.

## Related Person

### Object Data

| **Object/Data Item** | | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- | --- |
| **Related Person** | | Alternate Contact | Details of a relationship between the patient and another party which is relevant to the PDS. This may be with a Proxy, Legal Guardian, or Family/Close Contact type relationship. |  |  |
| [Related Person Role](#_Related_Person_Role) | |  | Coded value specifying the role for this relationship. | Coded | an..8 |
| [Relationship Type](#clRelationshipType) | |  | This indicates further typing of the related person within the overall relationship role - i.e. the type of proxy, the type of guardian or the type of personal relationship. | Coded | an..2 |
| NHS Number | |  | The NHS Number of the related person. A number used to identify a person uniquely within the NHS in England and Wales.  This can only be New Style NHS Number. | String | n10 |
| Contact Ranking | | Position number | The order in which contact should normally be made with related persons. Value will be in the range 1-99. | Integer | n..2 |
| Next of Kin Indicator | |  | Indicates that the related person is also a next of kin.  Only used, and can only have value '1' (Yes), if the related person is a next of kin of the patient. | Boolean |  |
| Copy Correspondence Indicator | |  | Indicates that correspondence should be copied to this contact.  Only used, and can only have value '1' (Yes), if correspondence should be copied to the related person. | Boolean |  |
| [Call Centre Call-Back Consent](#clCallCentreCallbackConsent) | | Call-back consent | Willingness of the related person to accept calls from a call centre, such as used by e-RS, on behalf of the patient.  This is only relevant where the related person role is 'AGNT' (Agent - used for Proxies). | Coded | n1 |
| Business Effective From Date | | BEF date | The date from which the relationship has been indicated to be effective. | Date only | n8 (CCYYMMDD) |
| Business Effective To Date | | BET date | The date to which the relationship has been indicated to be effective. | Date only | n8 (CCYYMMDD) |
| System Effective From Date | | SEF date | The date at which the data was first added to PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| System Effective To Date | | SET date | The date at which the data was moved to history on PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| PDS Object Identifier | | UID | A unique identifier for this object within the patient record, which is used to control the update semantics. | String | an..14 |
| Source System | | Source | An identification of the source system providing this data to PDS.  This could be any of the following: - SDS Accredited System Identifier (ASID); - NHS Directory Service Organisation Code; - A coded value (see [National System Code](#_National_System_Code) vocabulary). | String | an..40 (SDS ASID)  an..8 (NHS Directory Service Organisation Code)  an..4 (coded value) |
| **Related Person Usual Name** | |  | The usual name of the related person.  Only used where the related person data is not identified by NHS Number. |  |  |
|  | [Name Type](#clNameType) |  | A code to indicate the type of name. A single code is relevant here: 'L' = Usual (current) name | Coded | an..17 |
|  | Family Name | Surname | That part of a person's name which is used to describe family, clan, tribal group, or marital association (from NHS Data Dictionary).  Consecutive spaces are not allowed. | String | an..35 |
|  | First Given Name | Forename  First forename | The first forename or given name of a person.  Consecutive spaces are not allowed. | String | an..35 |
|  | Other Given Name(s) | Middle name(s) | The second and subsequent forenames or given names (or initials) of a person. Each such name must be separated by a single space character.  Consecutive spaces are not allowed. | String | an..100 |
|  | Name Prefix | Prefix  Title  Name title | Standard form of address used to precede a person's name. A person can have multiple occurrences of a prefix within this data item.  The full available range of generally recognised titles is permitted. However if any of the following are used then the value input must conform to the following format:  - Mr - Mrs - Ms - Dr - Rev - Sir - Lady - Lord | String | an..35 |
|  | Name Suffix | Suffix | A textual suffix that may be added to the end of a person's name, for example, Jnr, Snr, OBE, MBE, BSc, JP, GM.  A person can have multiple occurrences of a suffix within this data item. The first character of each occurrence must be A - Z. Consecutive spaces are not allowed. Each occurrence must be separated by a space. | String | an..35 |
| **Related Person Usual Address** | |  | The usual address of the related person.  Only used where the related person data is not identified by NHS Number. |  |  |
|  | [Address Type](#clAddressType) | Address association type | A code to indicate the type of address. A single code is relevant here: ‘H’ = Usual (home) address | Coded | an..3 |
|  | Address Line | Street address line | See Person [Address Line](#diAddressLine) definition. | String | an..35 x 5 |
|  | Postcode | Postal code | The UK format Postcode, 8 character string, as per BS7666.  The 8 characters field allows a space to be inserted to differentiate between the inward and outward segments of the code, enabling full use to be made of Royal Mail postcode functionality. | String | an..8 |
|  | PAF Key | PAF address key  Postal Address File key | A unique identifier keyed to Royal Mail PAF Directory. | String | an..8 |
|  | Business Effective From Date | BEF date | The date from which the address has been indicated to be useable. | Date only | n8 (CCYYMMDD) |
|  | Business Effective To Date | BET date | The date until which the address has been indicated to be useable. | Date only | n8 (CCYYMMDD) |
| **Related Person Telecommunication Address** | | Telecom | A telecommunication address of the related person.  Only used where the related person data is not identified by NHS Number. |  |  |
|  | [Telecom Usage](#clTelecomUsage) |  | A code to indicate the type or usage of the telecommunication address. | Coded | an..2 |
|  | [Communication Contact Method](#clCommunicationContactMethod) |  | A code to indicate the method of communication. | Coded | an..9 |
|  | Communication Contact String | Telephone number  E-mail address | A string of characters providing the contact number or e-mail address. | String | an..32 (telephone numbers, fax numbers and textphone numbers)  an..90 (e-mail addresses) |
|  | Business Effective From Date | BEF date | The date from which the telecommunication address has been indicated to be useable. | Date only | n8 (CCYYMMDD) |
|  | Business Effective To Date | BET date | The date until which the telecommunication address has been indicated to be useable. | Date only | n8 (CCYYMMDD) |
| **Related person language communication** | |  | Details of the language preference of the related person where not English.  Only used where the related person data is not identified by NHS Number. |  |  |
|  | [Language](#clLanguage) |  | Coded value for the person's preferred language. From ISO639-1 plus extensions for Braille, Makaton and sign languages. | Coded | an..2 |
|  | Interpreter Required Indicator |  | Indicates whether or not the related person requires an interpreter in the preferred language specified.  Permissible values are 'true' and 'false'. | Boolean |  |
| **Related person contact preferences** | |  | Contact preferences of the related person.  Each of these items is only used where the related person data is not identified by NHS Number. |  |  |
|  | [Preferred Contact Method](#clPreferredContactMethod) |  | A coded value for the related person's preferred method of being contacted. | Coded | an1 |
|  | Preferred Contact Times |  | A text string specifying the related person's preferred times for being contacted. | String | an..40 |
|  | [Preferred Written Communication Format](#clPreferredWrittenCommunicationFormat) |  | A coded value for the related person's preferred written method of being contacted. | Coded | an..2 |

### Key Information

A PDS patient record may have zero or more current sets of Related Person details.

A PDS patient record may have zero or more historic sets of Related Person details (NB these are not retrievable via messaging).

Related Persons, also known as Alternate Contacts, are complicated objects and they contain many 'sub-objects', e.g. a related person address. This is further complicated by being able to express the relationship in two ways. The terms 'related patient' and 'free-text related person' are used here to differentiate the two modes:

* A 'related patient' is where a relationship is created between two PDS records using the NHS Number. The most common form of this type of relationship is the 'mother-baby link', created on birth notification. There are stringent integration requirements on how this mode may be used outside of that context.
* A 'free-text related person' is where the detailed data is stored on the patient record, bearing no physical link to any other patient record on the PDS.

Related Persons are unique in that they have both a class and a type. There are three classes drawn from the Related Person Role (x\_RelatedPerson in the MIM) vocabulary and twenty-three types from the Relationship Type (PersonRelationshipType in the MIM) vocabulary. There is no relation between the class and type of a related person and local systems should allow any combination to be entered. Note that the types need not be mutually exclusive, e.g. a parent may also be a child's next of kin. Where a related person plays multiple roles, they must be recorded more than once, e.g. a child who is also a carer must be listed twice on the PDS.

Related Persons of both types should not be used to infer a formal, 'legal' or 'professional' definition of the relationship. The purpose of recording them on the PDS is for alternative contact details only. For example, because a parent or guardian is recorded on the PDS, it does not automatically mean they should receive correspondence for a child under 16. If such local system functionality is required it must be driven and maintained on the local system alone.

The position order - mandated by PDS integration requirements (see UPDRPS-2) - should be properly supported by local systems. That is, a system should:

* Be able to cope with absent or non-contiguous position orders on retrieval;
* Maintain the position order on update, even when removing a position order in the middle of a series, i.e. if position 2 is removed from a series of 5, positions 3, 4 and 5 should be updated - renumbering them as 2, 3, and 4 respectively.

As with all complex objects on the PDS, the entire object must be sent in an update, even those components that have not changed, otherwise the missing elements will be removed. For example, if a free-text related person name is updated, the (unchanged) related person language communication object must also be sent in the update, otherwise the PDS will remove it. The net result of these update semantics is that a local system must entirely support the object, or risk deleting data legitimately maintained by another system. In the case of the Related Person, this is an unusually large amount of data.

### Constraints

The Position Order field is only 2 characters in length, imposing a theoretical limit on the number of related persons at 99. It is unlikely that this limit will ever be encountered.

If a related person type or role is to change, local systems must 'remove' the related person object first and then 'add' the object with the new type and/or role values (see UPDRPS-9/9.1). The removal of an existing related person object and the addition a new one can be done in a single update interaction. This is analogous to the limitations on changing a 'use' type on the PDS (e.g. for person name or address); a 'use' type similarly cannot be 'altered' (see UPDSEM-5).

Similarly, if a related patient's 'core' data (name, address, telecoms) needs to be changed, the nature of the relationship must be changed from a related patient linked by NHS Number to a 'free-text' related person. The existing relationship must be removed and a new related person added to the patient record. This constraint applies also to the semantics of the update interaction.

## Baby Tracing Data

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Baby Tracing Data** |  | Data associated with a baby, mainly used for the purposes of tracing and deduplication when initially allocating an NHS Number for the baby. |  |  |
| Birth Order | Multiple birth order number | The sequence in which the baby was born, with 1 indicating the first or only birth in the sequence (i.e. singleton), 2 indicating the second birth in the sequence, 3 indicating the third, and so on up to 7, then 8 - Not applicable, 9 - Not known. | Integer | n1 |
| Birth Weight |  | The baby's weight in grams between 0001 to 9998 grams, with 9999 meaning unweighed (according to NHS Data Dictionary). If 0000 is supplied, it will be treated as 9999.  Fixed length, 4 digits.  This data is only stored on PDS for a period of 6 months for the purposes of tracing and deduplication when initially allocating an NHS Number for the baby, after which it is automatically removed. It is not retrievable from PDS. | Integer | n4 |

### Key Information

A PDS patient record may have zero or one current set of Baby Tracing Data.

A PDS patient record may have zero or more historic sets of Baby Tracing Data (NB these are not retrievable via messaging).

Baby tracing data is data associated with a baby, mainly used for the purposes of tracing and de-duplication when initially allocating an NHS Number for the baby. Birth order is stored on the PDS and is not merely pass-through data. It is returned in each of the Trace Query Response interactions and can also be returned in the PDS Retrieval interaction.

### Additional Information

Although birth order is supplied in the PDS Create Initial Record Request to the PDS, it can be updated using the PDS General Update interaction.

### Constraints

Only the birth order can be retrieved from the PDS. Birth weight is not retrievable.

## Place Of Birth

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Place Of Birth** |  | Details of a person's place of birth. |  |  |
| Town |  | Town/City of birth. | String | an..35 |
| County or District |  | County/Metropolitan district of birth. | String | an..35 |
| [Country](#_Country) |  | A coded value for the person's country of birth.  From ISO 3166-1 plus codes from the UK Internal Code list which do not have entries in ISO 3166-1. | Coded | an..3 |

### Key Information

A PDS patient record may have zero or one current set of Place Of Birth details.

A PDS patient record may have zero or more historic sets of Place Of Birth details (NB these are not retrievable via messaging).

Place Of Birth was introduced as part of the Birth Notification work. It is a structured address consisting of three fields: a Country (coded value), County or District and Town/City. The format of this address is therefore different from the five line address for residential addresses.

### Additional Information

Note that the Place Of Birth object described above is NOT related to the Place of Birth data item that is included in the Registration Encounter object.

## Mother’s Details

### Object Data

| **Object/Data Item** | | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- | --- |
| **Mother's Details** | |  | Details of a baby's mother, when associated with a set of new born baby details to be inserted on to PDS.  Some of these details are stored on PDS against the baby's record as a related person. Some details are stored on PDS against the baby's record for a period of 6 months and then removed. Some details are not stored on PDS but are forwarded on to other systems. |  |  |
| NHS Number | |  | The NHS Number of the patient. A number used to identify a person uniquely within the NHS in England and Wales.  This can only be a New Style NHS Number. | String | n10 |
| Date of Birth | |  | The date on which a person was born or is officially deemed to have been born.  This data is only stored on PDS for a period of 6 months for the purposes of tracing and deduplication when initially allocating an NHS Number for the baby, after which it is automatically removed. It is not retrievable from PDS. | Date only | n8 (CCYYMMDD) |
| **Mother's Usual Name Details** | |  | Name details of a baby's mother, when associated with a set of new born baby details. |  |  |
|  | Family Name | Surname | That part of a person's name which is used to describe family, clan, tribal group, or marital association (from NHS Data Dictionary).  Consecutive spaces are not allowed. | String | an..35 |
|  | First Given Name | Forename  First forename | The first forename or given name of a person.  Consecutive spaces are not allowed. | String | an..35 |
|  | Second Given Name | Middle name  Second forename | The second forename or given name of the mother.  Consecutive spaces are not allowed. | String | an..35 |

### Key Information

Any Mother's Details stored on PDS against a (baby's) patient record will be stored as a Related Person of type Mother.

## Mother’s Primary Care Registration

### Object Data

| **Object/Data Item** | | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- | --- |
| **Mother's Primary Care Registration** | |  | Details of a baby's mother's association with a Primary Care Provider, when associated with a set of new born baby details to be inserted on to PDS.  This data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on the PDS. |  |  |
| Primary Care Identifier | | GP Practice code  Organisation code  NACS code | Identifier for the primary care organisation with which the mother is registered. | String | an6 (GP Practice code) |
| Business Effective From Date | | BEF date | The date from which the primary care registration has been indicated to be effective. | Date only | n8 (CCYYMMDD) |
| Business Effective To Date | | BET date | The date to which the primary care registration has been indicated to be effective. | Date only | n8 (CCYYMMDD) |
| Patient Care Provision Type | |  | A coded value to distinguish different types of patient care provision.  For a primary care registration, this will take value '1' (Primary care). | Coded | an..2 |
| GP Practice Name | |  | The name of the GP Practice where the mother is registered. | String | an..35 |
| Senior Partner Code | |  | The GP National code of the Senior Partner at the practice. | String | an8 |
| Senior Partner Name | |  | The name of the Senior Partner at the practice. | String | an..35 |
| **GP Practice Address** | |  | The address of the General Practice where the mother is registered. |  |  |
|  | Address Line | Street address line | 5 lines excludes postcode.  The address of the GP Practice. A minimum of either Address Line 1 or Address Line 2 must be present. | String | an..35 x 5 |
|  | Postcode | Postal code | The UK format Postcode, 8 character string, as per BS7666.  The 8 characters field allows a space to be inserted to differentiate between the inward and outward segments of the code, enabling full use to be made of Royal Mail postcode functionality. | String | an..8 |

### Key Information

This data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on the PDS.

## Partner Child Health

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Partner Child Health** |  | Child Health department associated with the maternity unit where a baby is born.  This data is only stored on PDS for a period of 6 months for the purposes of tracing and deduplication when initially allocating an NHS Number for the baby, after which it is automatically removed. It is not retrievable from PDS. |  |  |
| Child Health Organisation Code |  | Unique identifier for a Child Health department. This will be an SDS Organisation Identifier. | String | an..12 |

### Key Information

A PDS patient record may have zero or one current set of Partner Child Health Data.

This data is only stored on PDS for a period of 6 months for the purposes of tracing and deduplication when initially allocating an NHS Number for the baby, after which it is automatically removed. It is not retrievable from PDS.

## Responsible Child Health

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Responsible Child Health** |  | Child Health department associated with a mother's registered General Practice or, if that is not known, with the postcode of a baby's usual address, where different from the Partner Child Health department.  Where provided as part of a birth notification inbound to the PDS, this data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on the PDS. |  |  |
| Child Health Organisation Code |  | Unique identifier for a Child Health department. This will be an SDS Organisation Identifier. | String | an..12 |

### Key Information

Where provided as part of a birth notification inbound to the PDS, this data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on the PDS.

## Clinical Information

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Clinical Information** |  | Clinical information associated with a baby's birth.  Where provided as part of a birth notification inbound to the PDS, this data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on the PDS. |  |  |
| [Ethnic Category](#_Ethnic_Category) |  | A coded value for the ethnicity of a person, as specified by the person. | Coded | an..2 |
| Gestation Age |  | Records a period of between 10 and 49 weeks in completed weeks at delivery. 00 and 99 are also supported meaning 'unknown'.  Fixed length, 2 digits. | Integer | n2 |
| Number of Births in Confinement |  | Details of the number of births in confinement. Values 1-6 and 9 are permissible, with 6 meaning 6 or more, and 9 indicating a validation error. | Integer | n1 |
| [Still Born Indicator](#_Still_Born_Indicator) |  | An indicator of whether the birth was a live or still birth. | Coded | n1 |
| [Suspected Congenital Abnormality Indicator](#_Suspected_Congenital_Abnormality) |  | Indicates if a congenital abnormality is suspected. | Coded | a1 |

### Key Information

Where provided as part of a birth notification inbound to the PDS, this data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on the PDS.

## Delivery Place

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Delivery Place** |  | Details about the actual place of delivery of a baby.  Where provided as part of a birth notification inbound to the PDS, this data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on the PDS. |  |  |
| [Delivery Place Type](#_Delivery_Place_Type) |  | This is the actual place type of delivery. | Coded | n1 |
| Delivery Place Code |  | The relevant national code for the hospital or maternity unit where the birth took place.  Must be present if Delivery Place Type is one of: [0,2,3,4,7].  This will be identified using an SDS Organisation Identifier. | String | an..12 |
| Delivery Place Name |  | The name of the hospital or maternity unit where the birth took place.  This field should be bypassed if Delivery Place Type is not in a hospital.  Must be present if Delivery Place Type one of: [0,2,3,4,5,6,7].  Optional otherwise.  Each element of the name must be separated by a space.  Consecutive spaces are not allowed. | String | an..35 |

### Key Information

Where provided as part of a birth notification inbound to the PDS, this data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on the PDS.

## Notifying Person

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Notifying Person** |  | Details of a person responsible for notifying the NHS of a baby's birth.  Where provided as part of a birth notification inbound to the PDS, this data will be forwarded on to other systems (Child Health, ONS and New Born Screening) but will not be stored on the PDS. |  |  |
| Family Name | Surname | That part of a person's name which is used to describe family, clan, tribal group, or marital association (from NHS Data Dictionary).  Consecutive spaces are not allowed. | String | an..35 |
| First Given Name | Forename  First forename | The first forename or given name of a person.  Consecutive spaces are not allowed. | String | an..35 |
| Second Given Name | Middle name  Second forename | The second forename or given name of the notifying person.  Consecutive spaces are not allowed. | String | an..35 |

### Key Information

Where provided as part of a birth notification inbound to the PDS, this data will be forwarded on to other systems (Child Health) but will not be stored on the PDS.

## Registering Authority

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Registering Authority** |  | Details of the authority for a PDS registration. These details can be associated with a birth, a death or the allocation of an NHS Number. |  |  |
| [Registering Authority Type](#_Registering_Authority_Type) |  | A coded value specifying the type of NHS organisation. | Coded | an..2 |
| Organisation Identifier |  | Code for the registering authority. This could be any of the following: - NACS organisation code; - SDS organisation identifier; - NHAIS cypher. | String | an..12 (NACS organisation code)  an..12 (SDS organisation identifier)  an..3 (NHAIS cypher) |
| Person Identifier |  | An identifier for the person providing the authority for registration.  This will be a NHAIS user ID. | String | an..20 |

### Key Information

There are many types of Registering Authority, and information is required in this object whenever a new allocation is being requested, or when a birth or death is being reported.

### Additional Information

The Registering Authority requires an authority type, e.g. ‘y' (NHAIS) or ‘d' (GP practice) and an organisation code from SDS.

## NHAIS Posting

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **NHAIS Posting** |  | Details of the NHAIS System associated with the patient. Can only be updated by NHAIS. |  |  |
| System Identifier | NHAIS posting  NHAIS cypher | The identifier of the NHAIS system on which the patient is registered. This will be the two or three character NHAIS cypher. | String | an..3 |
| Business Effective From Date | BEF date | The date from which the NHAIS Posting has been indicated to be effective. | Date only | n8 (CCYYMMDD) |
| Business Effective To Date | BET date | The date to which the NHAIS Posting has been indicated to be effective. | Date only | n8 (CCYYMMDD) |
| System Effective From Date | SEF date | The date at which the data was first added to PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| System Effective To Date | SET date | The date at which the data was moved to history on PDS. | Date with time | n14 (CCYYMMDDhhmmss) |
| Source System | Source | An identification of the source system providing this data to PDS.  This could be any of the following: - SDS Accredited System Identifier (ASID); - NHS Directory Service Organisation Code; - A coded value (see [National System Code](#_National_System_Code) vocabulary). | String | an..40 (SDS ASID)  an..8 (NHS Directory Service Organisation Code)  an..4 (coded value) |

### Key Information

A PDS patient record may have zero or one current set of NHAIS Posting details.

A PDS patient record may have zero or more historic sets of NHAIS Posting details (NB are only retrievable via messaging by NHAIS).

The NHAIS Posting contains details of the system maintaining the patient’s NHAIS registration. This will be in the form of a two or three character NHAIS cipher.

### Constraints

The NHAIS Posting can only be set on the PDS by the NHAIS system.

## Reason for Removal

### Object Data

| **Object/Data Item** | **Aliases** | **Definition and Rules** | **Data Type** | **Format** |
| --- | --- | --- | --- | --- |
| **Reason For Removal** |  | Details relating to the reason a patient has been (or will be, if future dated) removed from a Primary Care Provider's list. |  |  |
| [Removal Type](#_Removal_Type) |  | Coded value to indicate the reason for removal. | Coded | an..3 |
| Business Effective From Date | BEF date | The date from which the reason for removal has been indicated to be effective. This is used by NHAIS only. | Date only | n8 (CCYYMMDD) |
| Business Effective To Date | BET date | The date to which the reason for removal has been indicated to be effective. This is used by NHAIS only. | Date only | n8 (CCYYMMDD) |

### Key Information

A PDS patient record may have zero or one current set of Reason For Removal details.

A PDS patient record may have zero or more historic sets of Reason For Removal details (NB are only retrievable via messaging by NHAIS).

Reason for Removal (RfR) expresses the reason for a patient being removed from care by the service and treatment through their GP.

Some removal types, specifically, 'RDR', 'RPR', 'OPA' and 'CGA' have a pending period, meaning they are not applied straight away. In this case, the 'business effective from' date will contain the date the removal should become effective.

NHAIS Posting and Reason for Removal are separate objects and should not be confused. The former contains details of the patient’s NHAIS system location and not their NHAIS status.

### Constraints

Only the National Back Office via the Demographic Spine Application (DSA) or NHAIS can update the Reason for Removal. Only the PDS NHAIS Update Request interaction supports its update.

# Code lists

## Address Type

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| H | Usual (home) address |  |
| PST | Correspondence address |  |
| TMP | Temporary address |  |

## Call Centre Call-Back Consent

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 4 | No |  |
| 5 | Yes |  |

## Communication Contact Method

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| fax | By fax |  |
| mailto | By e-mail |  |
| tel | By telephone |  |
| textphone | By textphone |  |

## Consent to NHS Care Record Sharing

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 1 | Express consent | For consent to NHS Care Record Sharing, the description has been modified from "Consent given" since P1R1 release as there has been an agreed change of emphasis relating to consent codes. |
| 2 | Express dissent | For consent to NHS Care Record Sharing, the description has been modified from "Consent not given" since P1R1 release as there has been an agreed change of emphasis relating to consent codes. |

## Country

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 1 | England |  |
| 2 | Scotland |  |
| 3 | Wales |  |
| 4 | Northern Ireland |  |
| 7 | Sark |  |
| 9 | Alderney |  |
| 10 | Channel Islands |  |
| AFG | Afghanistan |  |
| ALA | Aland Islands |  |
| ALB | Albania |  |
| DZA | Algeria |  |
| ASM | American Samoa |  |
| AND | Andorra |  |
| AGO | Angola |  |
| AIA | Anguilla |  |
| ATA | Antarctica |  |
| ATG | Antigua and Barbuda |  |
| ARG | Argentina |  |
| ARM | Armenia |  |
| ABW | Aruba |  |
| AUS | Australia |  |
| AUT | Austria |  |
| AZE | Azerbaijan |  |
| BHS | Bahamas |  |
| BHR | Bahrain |  |
| BGD | Bangladesh |  |
| BRB | Barbados |  |
| BLR | Belarus |  |
| BEL | Belgium |  |
| BLZ | Belize |  |
| BEN | Benin |  |
| BMU | Bermuda |  |
| BTN | Bhutan |  |
| BOL | Bolivia |  |
| BIH | Bosnia and Herzegovina |  |
| BWA | Botswana |  |
| BVT | Bouvet Island |  |
| BRA | Brazil |  |
| IOT | British Indian Ocean Territory |  |
| BRN | Brunei Darussalam |  |
| BGR | Bulgaria |  |
| BFA | Burkina Faso |  |
| BDI | Burundi |  |
| KHM | Cambodia |  |
| CMR | Cameroon |  |
| CAN | Canada |  |
| CPV | Cape Verde |  |
| CYM | Cayman Islands |  |
| CAF | Central African Republic |  |
| TCD | Chad |  |
| CHL | Chile |  |
| CHN | China |  |
| CXR | Christmas Island |  |
| CCK | Cocos (Keeling) Islands |  |
| COL | Colombia |  |
| COM | Comoros |  |
| COG | Congo |  |
| COD | Congo, the Democratic Republic of the |  |
| COK | Cook Islands |  |
| CRI | Costa Rica |  |
| CIV | Cote d'Ivoire |  |
| HRV | Croatia |  |
| CUB | Cuba |  |
| CYP | Cyprus |  |
| CZE | Czech Republic |  |
| DNK | Denmark |  |
| DJI | Djibouti |  |
| DMA | Dominica |  |
| DOM | Dominican Republic |  |
| ECU | Ecuador |  |
| EGY | Egypt |  |
| SLV | El Salvador |  |
| GNQ | Equatorial Guinea |  |
| ERI | Eritrea |  |
| EST | Estonia |  |
| ETH | Ethiopia |  |
| FLK | Falkland Islands (Malvinas) |  |
| FRO | Faroe Islands |  |
| FJI | Fiji |  |
| FIN | Finland |  |
| FRA | France |  |
| GUF | French Guiana |  |
| PYF | French Polynesia |  |
| ATF | French Southern Territories |  |
| GAB | Gabon |  |
| GMB | Gambia |  |
| GEO | Georgia |  |
| DEU | Germany |  |
| GHA | Ghana |  |
| GIB | Gibraltar |  |
| GRC | Greece |  |
| GRL | Greenland |  |
| GRD | Grenada |  |
| GLP | Guadeloupe |  |
| GUM | Guam |  |
| GTM | Guatemala |  |
| GGY | Guernsey |  |
| GIN | Guinea |  |
| GNB | Guinea-Bissau |  |
| GUY | Guyana |  |
| HTI | Haiti |  |
| HMD | Heard Island and McDonald Islands |  |
| VAT | Holy See (Vatican City State) |  |
| HND | Honduras |  |
| HKG | Hong Kong |  |
| HUN | Hungary |  |
| ISL | Iceland |  |
| IND | India |  |
| IDN | Indonesia |  |
| IRN | Iran, Islamic Republic of |  |
| IRQ | Iraq |  |
| IRL | Ireland |  |
| IMN | Isle of Man |  |
| ISR | Israel |  |
| ITA | Italy |  |
| JAM | Jamaica |  |
| JPN | Japan |  |
| JEY | Jersey |  |
| JOR | Jordan |  |
| KAZ | Kazakhstan |  |
| KEN | Kenya |  |
| KIR | Kiribati |  |
| PRK | Korea, Democratic People's Republic of |  |
| KOR | Korea, Republic of |  |
| KWT | Kuwait |  |
| KGZ | Kyrgyzstan |  |
| LAO | Lao People's Democratic Republic |  |
| LVA | Latvia |  |
| LBN | Lebanon |  |
| LSO | Lesotho |  |
| LBR | Liberia |  |
| LBY | Libyan Arab Jamahiriya |  |
| LIE | Liechtenstein |  |
| LTU | Lithuania |  |
| LUX | Luxembourg |  |
| MAC | Macao |  |
| MKD | Macedonia, the former Yugoslav Republic of |  |
| MDG | Madagascar |  |
| MWI | Malawi |  |
| MYS | Malaysia |  |
| MDV | Maldives |  |
| MLI | Mali |  |
| MLT | Malta |  |
| MHL | Marshall Islands |  |
| MTQ | Martinique |  |
| MRT | Mauritania |  |
| MUS | Mauritius |  |
| MYT | Mayotte |  |
| MEX | Mexico |  |
| FSM | Micronesia, Federated States of |  |
| MDA | Moldova, Republic of |  |
| MCO | Monaco |  |
| MNG | Mongolia |  |
| MNE | Montenegro |  |
| MSR | Montserrat |  |
| MAR | Morocco |  |
| MOZ | Mozambique |  |
| MMR | Myanmar |  |
| NAM | Namibia |  |
| NRU | Nauru |  |
| NPL | Nepal |  |
| NLD | Netherlands |  |
| ANT | Netherlands Antilles |  |
| NCL | New Caledonia |  |
| NZL | New Zealand |  |
| NIC | Nicaragua |  |
| NER | Niger |  |
| NGA | Nigeria |  |
| NIU | Niue |  |
| NFK | Norfolk Island |  |
| MNP | Northern Mariana Islands |  |
| NOR | Norway |  |
| OMN | Oman |  |
| PAK | Pakistan |  |
| PLW | Palau |  |
| PSE | Palestinian Territory, Occupied |  |
| PAN | Panama |  |
| PNG | Papua New Guinea |  |
| PRY | Paraguay |  |
| PER | Peru |  |
| PHL | Philippines |  |
| PCN | Pitcairn |  |
| POL | Poland |  |
| PRT | Portugal |  |
| PRI | Puerto Rico |  |
| QAT | Qatar |  |
| REU | Reunion |  |
| ROU | Romania |  |
| RUS | Russian Federation |  |
| RWA | Rwanda |  |
| SHN | Saint Helena |  |
| KNA | Saint Kitts and Nevis |  |
| LCA | Saint Lucia |  |
| SPM | Saint Pierre and Miquelon |  |
| VCT | Saint Vincent and the Grenadines |  |
| WSM | Samoa |  |
| SMR | San Marino |  |
| STP | Sao Tome and Principe |  |
| SAU | Saudi Arabia |  |
| SEN | Senegal |  |
| SRB | Serbia |  |
| SYC | Seychelles |  |
| SLE | Sierra Leone |  |
| SGP | Singapore |  |
| SVK | Slovakia |  |
| SVN | Slovenia |  |
| SLB | Solomon Islands |  |
| SOM | Somalia |  |
| ZAF | South Africa |  |
| SGS | South Georgia and the South Sandwich Islands |  |
| ESP | Spain |  |
| LKA | Sri Lanka |  |
| SDN | Sudan |  |
| SUR | Suriname |  |
| SJM | Svalbard and Jan Mayen |  |
| SWZ | Swaziland |  |
| SWE | Sweden |  |
| CHE | Switzerland |  |
| SYR | Syrian Arab Republic |  |
| TWN | Taiwan, Province of China |  |
| TJK | Tajikistan |  |
| TZA | Tanzania, United Republic of |  |
| THA | Thailand |  |
| TLS | Timor-Leste |  |
| TGO | Togo |  |
| TKL | Tokelau |  |
| TON | Tonga |  |
| TTO | Trinidad and Tobago |  |
| TUN | Tunisia |  |
| TUR | Turkey |  |
| TKM | Turkmenistan |  |
| TCA | Turks and Caicos Islands |  |
| TUV | Tuvalu |  |
| UGA | Uganda |  |
| UKR | Ukraine |  |
| ARE | United Arab Emirates |  |
| GBR | United Kingdom |  |
| USA | United States |  |
| UMI | United States Minor Outlying Islands |  |
| URY | Uruguay |  |
| UZB | Uzbekistan |  |
| VUT | Vanuatu |  |
| VEN | Venezuela |  |
| VNM | Viet Nam |  |
| VGB | Virgin Islands, British |  |
| VIR | Virgin Islands, U.S. |  |
| WLF | Wallis and Futuna |  |
| ESH | Western Sahara |  |
| YEM | Yemen |  |
| ZMB | Zambia |  |
| ZWE | Zimbabwe |  |

## Delivery Place Type

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 0 | NHS hospital - delivery facilities associated with midwife ward |  |
| 1 | Domestic Address |  |
| 2 | NHS hospital - delivery facilities associated with consultant ward |  |
| 3 | NHS hospital - delivery facilities associated with GMP ward |  |
| 4 | NHS hospital - delivery facilities associated with consultant/GMP/midwife ward inclusive of any combination of two of the professionals mentioned |  |
| 5 | Private hospital |  |
| 6 | Other hospital or institution |  |
| 7 | NHS hospital - ward or unit without delivery facilities |  |
| 8 | None of the above |  |
| 9 | Not known |  |

## Ethnic Category

One character codes should be regarded as the primary list of codes for this data and is the list used by BNA.

Two character codes can optionally be used locally.

### One character codes

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| A | British, Mixed British |  |
| B | Irish |  |
| C | Any other White background |  |
| D | White and Black Caribbean |  |
| E | White and Black African |  |
| F | White and Asian |  |
| G | Any other mixed background |  |
| H | Indian or British Indian |  |
| J | Pakistani or British Pakistani |  |
| K | Bangladeshi or British Bangladeshi |  |
| L | Any other Asian background |  |
| M | Caribbean |  |
| N | African |  |
| P | Any other Black background |  |
| R | Chinese |  |
| S | Any other ethnic group |  |
| Z | Not stated |  |

### Two character codes

|  |  |  |
| --- | --- | --- |
| C2 | Northern Irish |  |
| C3 | Other white, white unspecified |  |
| CA | English |  |
| CB | Scottish |  |
| CC | Welsh |  |
| CD | Cornish |  |
| CE | Cypriot (part not stated) |  |
| CF | Greek |  |
| CG | Greek Cypriot |  |
| CH | Turkish |  |
| CJ | Turkish Cypriot |  |
| CK | Italian |  |
| CL | Irish Traveller |  |
| CM | Traveller |  |
| CN | Gypsy/Romany |  |
| CP | Polish |  |
| CQ | All republics which made up the former USSR |  |
| CR | Kosovan |  |
| CS | Albanian |  |
| CT | Bosnian |  |
| CU | Croatian |  |
| CV | Serbian |  |
| CW | Other republics which made up the former Yugoslavia |  |
| CX | Mixed white |  |
| CY | Other white European, European unspecified, European mixed |  |
| GA | Black and Asian |  |
| GB | Black and Chinese |  |
| GC | Black and White |  |
| GD | Chinese and White |  |
| GE | Asian and Chinese |  |
| GF | Other Mixed, Mixed Unspecified |  |
| LA | Mixed Asian |  |
| LB | Punjabi |  |
| LC | Kashmiri |  |
| LD | East African Asian |  |
| LE | Sri Lanka |  |
| LF | Tamil |  |
| LG | Sinhalese |  |
| LH | British Asian |  |
| LJ | Caribbean Asian |  |
| LK | Other Asian, Asian unspecified |  |
| PA | Somali |  |
| PB | Mixed Black |  |
| PC | Nigerian |  |
| PD | Black British |  |
| PE | Other Black, Black unspecified |  |
| SA | Vietnamese |  |
| SB | Japanese |  |
| SC | Filipino |  |
| SD | Malaysian |  |
| SE | Any Other Group |  |

## Information Sensitivity Indicator

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| B | Business reason |  |
| I | Invalid | This value is not returned in messaging. |
| N | Not stop noted | This value is not returned in messaging. |
| S | Sensitive |  |
| Y | Stop noted | NSTS legacy value. No longer exists on any PDS record. |

## Language

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| q1 | Braille | For people who are unable to see |
| q2 | American Sign Language |  |
| q3 | Australian Sign Language |  |
| q4 | British Sign Language |  |
| q5 | Makaton | Devised for children and adults with a variety of communication and learning disabilities. |
| aa | Afar |  |
| ab | Abkhazian |  |
| af | Afrikaans |  |
| ak | Akan |  |
| sq | Albanian |  |
| am | Amharic |  |
| ar | Arabic |  |
| an | Aragonese |  |
| hy | Armenian |  |
| as | Assamese |  |
| av | Avaric |  |
| ae | Avestan |  |
| ay | Aymara |  |
| az | Azerbaijani |  |
| ba | Bashkir |  |
| bm | Bambara |  |
| eu | Basque |  |
| be | Belarusian |  |
| bn | Bengali |  |
| bh | Bihari |  |
| bi | Bislama |  |
| bo | Tibetan |  |
| bs | Bosnian |  |
| br | Breton |  |
| bg | Bulgarian |  |
| my | Burmese |  |
| ca | Catalan; Valencian |  |
| cs | Czech |  |
| ch | Chamorro |  |
| ce | Chechen |  |
| zh | Chinese |  |
| cu | Church Slavic; Old Slavonic; Church Slavonic; Old Bulgarian; Old Church Slavonic |  |
| cv | Chuvash |  |
| kw | Cornish |  |
| co | Corsican |  |
| cr | Cree |  |
| cy | Welsh |  |
| da | Danish |  |
| de | German |  |
| dv | Divehi; Dhivehi; Maldivian |  |
| nl | Dutch; Flemish |  |
| dz | Dzongkha |  |
| el | Greek, Modern (1453-) |  |
| en | English |  |
| eo | Esperanto |  |
| et | Estonian |  |
| ee | Ewe |  |
| fo | Faroese |  |
| fa | Persian |  |
| fj | Fijian |  |
| fi | Finnish |  |
| fr | French |  |
| fy | Western Frisian |  |
| ff | Fulah |  |
| ka | Georgian |  |
| gd | Gaelic; Scottish Gaelic |  |
| ga | Irish |  |
| gl | Galician |  |
| gv | Manx |  |
| gn | Guarani |  |
| gu | Gujarati |  |
| ht | Haitian; Haitian Creole |  |
| ha | Hausa |  |
| he | Hebrew |  |
| hz | Herero |  |
| hi | Hindi |  |
| ho | Hiri Motu |  |
| hr | Croatian |  |
| hu | Hungarian |  |
| ig | Igbo |  |
| is | Icelandic |  |
| io | Ido |  |
| ii | Sichuan Yi |  |
| iu | Inuktitut |  |
| ie | Interlingue |  |
| ia | Interlingua (International Auxiliary Language Association) |  |
| id | Indonesian |  |
| ik | Inupiaq |  |
| it | Italian |  |
| jv | Javanese |  |
| ja | Japanese |  |
| kl | Kalaallisut; Greenlandic |  |
| kn | Kannada |  |
| ks | Kashmiri |  |
| kr | Kanuri |  |
| kk | Kazakh |  |
| km | Central Khmer |  |
| ki | Kikuyu; Gikuyu |  |
| rw | Kinyarwanda |  |
| ky | Kirghiz; Kyrgyz |  |
| kv | Komi |  |
| kg | Kongo |  |
| ko | Korean |  |
| kj | Kuanyama; Kwanyama |  |
| ku | Kurdish |  |
| lo | Lao |  |
| la | Latin |  |
| lv | Latvian |  |
| li | Limburgan; Limburger; Limburgish |  |
| ln | Lingala |  |
| lt | Lithuanian |  |
| lb | Luxembourgish; Letzeburgesch |  |
| lu | Luba-Katanga |  |
| lg | Ganda |  |
| mk | Macedonian |  |
| mh | Marshallese |  |
| ml | Malayalam |  |
| mi | Maori |  |
| mr | Marathi |  |
| ms | Malay |  |
| mg | Malagasy |  |
| mt | Maltese |  |
| mo | Moldavian |  |
| mn | Mongolian |  |
| na | Nauru |  |
| nv | Navajo; Navaho |  |
| nr | Ndebele, South; South Ndebele |  |
| nd | Ndebele, North; North Ndebele |  |
| ng | Ndonga |  |
| ne | Nepali |  |
| nn | Norwegian Nynorsk; Nynorsk, Norwegian |  |
| nb | Bokmål, Norwegian; Norwegian Bokmål |  |
| no | Norwegian |  |
| ny | Chichewa; Chewa; Nyanja |  |
| oc | Occitan (post1500); Provençal |  |
| oj | Ojibwa |  |
| or | Oriya |  |
| om | Oromo |  |
| os | Ossetian; Ossetic |  |
| pa | Panjabi; Punjabi |  |
| pi | Pali |  |
| pl | Polish |  |
| pt | Portuguese |  |
| ps | Pushto |  |
| qu | Quechua |  |
| rm | Romansh |  |
| ro | Romanian |  |
| rn | Rundi |  |
| ru | Russian |  |
| sg | Sango |  |
| sa | Sanskrit |  |
| sr | Serbian |  |
| si | Sinhala; Sinhalese |  |
| sk | Slovak |  |
| sl | Slovenian |  |
| se | Northern Sami |  |
| sm | Samoan |  |
| sn | Shona |  |
| sd | Sindhi |  |
| so | Somali |  |
| st | Sotho, Southern |  |
| es | Spanish; Castilian |  |
| sc | Sardinian |  |
| ss | Swati |  |
| su | Sundanese |  |
| sw | Swahili |  |
| sv | Swedish |  |
| ty | Tahitian |  |
| ta | Tamil |  |
| tt | Tatar |  |
| te | Telugu |  |
| tg | Tajik |  |
| tl | Tagalog |  |
| th | Thai |  |
| ti | Tigrinya |  |
| to | Tonga (Tonga Islands) |  |
| tn | Tswana |  |
| ts | Tsonga |  |
| tk | Turkmen |  |
| tr | Turkish |  |
| tw | Twi |  |
| ug | Uighur; Uyghur |  |
| uk | Ukrainian |  |
| ur | Urdu |  |
| uz | Uzbek |  |
| ve | Venda |  |
| vi | Vietnamese |  |
| vo | Volapük |  |
| wa | Walloon |  |
| wo | Wolof |  |
| xh | Xhosa |  |
| yi | Yiddish |  |
| yo | Yoruba |  |
| za | Zhuang; Chuang |  |
| zu | Zulu |  |

## National System Code

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| DSA | Demographic Spine Application |  |
| NI | Northern Ireland | This entry is not listed in the MIM |
| NN4B | NHS Numbers For Babies | This entry is not listed in the MIM |
| NSTS | NHS Strategic Tracing Service |  |
| ONS | Office for National Statistics | This entry is not listed in the MIM |
| SCT | Scotland | This entry is not listed in the MIM |

## Person Gender Code

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 0 | Not known | This value means that the sex of a person has not been recorded. |
| 1 | Male |  |
| 2 | Female |  |
| 9 | Not specified | This value means ‘indeterminate’, i.e. unable to be classified as either male or female. |

## Person Name Type

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| A | Alias name |  |
| L | Usual (current) name |  |
| PREFERRED | Preferred name |  |
| PREVIOUS | Other previous name |  |
| PREVIOUS-BACHELOR | Bachelor name |  |
| PREVIOUS-BIRTH | Birth name |  |
| PREVIOUS-MAIDEN | Maiden name |  |

## Pharmacy Type

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| P1 | Nominated pharmacy |  |
| P2 | Medical appliance |  |
| P3 | Dispensing Doctor |  |

## Preferred Contact Method

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 1 | Letter |  |
| 2 | Visit |  |
| 3 | Telephone |  |
| 4 | E-mail |  |
| 5 | Minicom (Textphone) |  |
| 6 | Telephone contact via proxy |  |
| 7 | Sign language |  |
| 8 | No Telephone contact |  |

## Preferred Written Communication Format

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 11 | Large print |  |
| 12 | Braille |  |
| 13 | Audio tape |  |

## Previous NHS Contact Indicator

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 0 | No | Do not use when allocating |
| 1 | Yes | Always use this value when allocating |

## Registering Authority Type

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| a | Strategic Health Authority |  |
| b | Director of Health and Social Care |  |
| c | NHS Trust |  |
| d | GP Practice |  |
| e | Other NHS Organisation |  |
| f | Armed Forces |  |
| g | MOD Hospital |  |
| h | IM&T Service |  |
| i | Special Trustee |  |
| j | University |  |
| k | Other Statutory Authority |  |
| l | NHS Administration Unit |  |
| m | Breast Screening Unit |  |
| n | Pathology Laboratory |  |
| o | Department of Health |  |
| p | Other Government Department |  |
| q | Registered non-NHS Provider |  |
| r | Unregistered non-NHS Provider (except Local Authority) |  |
| s | Non-NHS Commissioner (except Local Authority) |  |
| t | Local Authority |  |
| u | Pharmacy |  |
| v | Appliance Contractor |  |
| w | Specialised Services Commissioning Consortium |  |
| x | Primary Care Trust |  |
| y | NHAIS |  |

## Related Person Role

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| AGNT | Agent | Used for Proxies |
| GUARD | Guardian |  |
| PRS | Personal Relationship |  |

## Relationship Type

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 01 | Spouse | Either a person who is legally married to the patient or a person with whom the patient has a committed same-sex relationship which has been granted legal recognition as a civil partnership |
| 02 | Partner | A person who has a relationship with the patient having the characteristics of a marriage, but is not legally married to the patient, includes cohabiters, but excludes civil partners |
| 03 | Parent | A person who gave birth to or fathered the patient or in the case of adoption, a person who has legally adopted the patient |
| 04 | Next of kin | The next of kin should be nominated by the patient. Where no nomination has been made, a next of kin default can be identified, which is likely to be the person most closely related to the patient.  Note that a ‘next of kin’ indicator also exists in the related person object. This flag should be used and the formal relationship type specified where possible, e.g. a ‘mother’ might have a next of kin indicator set to '1' (Yes). |
| 05 | Guardian | A person appointed by a parent to act in the parent's place in the event of his or her death |
| 06 | Foster parent | A person approved by a Local Authority to look after the patient in the capacity of parent |
| 07 | Step parent | A person who is married to or the partner of the person with parental responsibility over the patient.  Codes ‘07’ and ‘08’ are currently listed in the opposite order in the NHS Data Dictionary. This issue will be addressed in a future Data Set Change Notice (DSCN). |
| 08 | Polygamous partner | A person who is accepted as another spouse/civil partner of the patient under the law of another country. Under UK law, only one such partner can be afforded ‘Spouse’ status |
| 09 | Child | A person under the age of 18 over whom the patient exercises appropriate parental responsibility |
| 10 | Dependant | A person is dependent on the patient if he/she depends on him/her financially, for food, shelter and warmth and for any other essential care. |
| 11 | Non-dependant | A non-relative, not dependent on the patient financially, for food, shelter and warmth and for any other essential care, e.g. a friend |
| 12 | Mother | The person who gave birth to the patient or in the case of adoption, a female who has legally adopted the patient |
| 13 | Father | The person who fathered the patient or in the case of adoption, a male who has legally adopted the patient |
| 14 | Sister | Female sibling of the patient, whether biological or otherwise |
| 15 | Brother | Male sibling of the patient, whether biological or otherwise |
| 16 | Relative | A blood relative, not specifically listed in this vocabulary. Includes:   * Son/daughter (over 18) * Grandparent * Aunt/uncle * Grandchild * Nephew/niece   Other, e.g. cousin |
| 17 | Proxy – Contact | This value should not be updated on the PDS |
| 18 | Proxy – Communication | This value should not be updated on the PDS |
| 19 | Proxy – Contact and Communication | A person who can communicate on behalf of a patient who has difficulty in doing so, to ensure that their opinions, wishes and needs are taken into account. A proxy cannot make decisions on behalf of the patient for whom they speak |
| 20 | Carer | “Someone who cares for, or expects to care for, a husband, wife or partner, a relative such as a child, uncle, sister, parent-in-law, son-in-law or grandparent, or someone who falls into neither category but lives at the same address as the carer.” Source: Work and Families Act 2006.  This excludes some carers, for example those caring for an elderly neighbour.  The classification or its inverse should not be used to denote ‘cares for’, i.e. when the related person relies on the patient for care. |
| 21 | Self | This value should not be updated on the PDS |
| 98 | Not known | To be used where the type of relationship is unknown, but where the related person must be recorded on the PDS |
| 99 | Not specified | The type of relationship has never been set. This value should not be set pro-actively by compliant Spine systems |

## Removal Type

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| AFL | Armed forces enlistment (notified locally) | Cannot overwrite AFN |
| AFN | Armed forces enlistment (notified by armed forces) | National Back Office use only (can overwrite AFL) |
| CAN | Cancelled |  |
| CGA | Gone away - address not known / FP69 |  |
| DEA | Death |  |
| DIS | Practice dissolution | Can be provided by DSA only |
| EMB | Embarkation |  |
| LDN | Logical deletion | National Back Office use only - used for change of identity, duplicates etc. |
| NIT | Transferred to Northern Ireland | National Back Office use only |
| OPA | Address out of practice area |  |
| ORR | Other Reason |  |
| RDI | Practice request immediate removal |  |
| RDR | Practice request |  |
| RFI | Removal from residential institute |  |
| RPR | Patient request |  |
| SCT | Transferred to Scotland | National Back Office use only |
| SDL | Services dependant (notified locally) | Cannot overwrite SDN |
| SDN | Services dependant (notified by SMO) | National Back Office use only (can overwrite SDL) |
| TRA | Temporary resident not returned |  |
| X | No current NHAIS posting | Historical value from load of data from NSTS denoting no current NHAIS registration. Cannot be supplied in new transactions. |

## Retrieval Item

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| callCentreData | Call centre call-back consent / shared secret |  |
| consent | Consent to NHS Care Record sharing / date last changed |  |
| guardian | All legal guardian details |  |
| nhaisPosting | NHAIS Posting data |  |
| paperRecordTracking | Details the location of the patients Paper Records |  |
| person.addressTelecom | Usual addresses / temporary addresses / correspondence addresses / telecommunication contact details |  |
| person.allData | person.fullDemographics, callCentreData, person.addressTelecom, person.misc, pharmacy, guardian, proxy, personalRelationship, primaryCare |  |
| person.confidentiality | Sensitivity information status / reason for removal / previous NHS contact |  |
| person.fullDemographics | supercededId, person.nameUsual, person.nameOther, person.otherDemographics, consent, person.confidentiality |  |
| person.misc | Preferred language / interpreter required / preferred contact method / preferred contact times / preferred communication format |  |
| person.nameOther | Previous / alias / preferred names |  |
| person.nameUsual | Current usual name |  |
| person.otherDemographics | Birth date / death date / status of death notification / sex / delivery time / birth order |  |
| person.placeOfBirth | Place of Birth |  |
| person.reasonForRemoval | Reason for Removal related data |  |
| personalRelationship | All family / close contacts details |  |
| pharmacy | All pharmacy details |  |
| primaryCare | Primary care registration information |  |
| proxy | All proxy details |  |
| supercededId | All previous or superceded [sic] nationally recognised identifiers |  |

## Status of Death Notification

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 1 | Informal | (Informal) death notice received via an update from a local NHS Organisation such as GP or Trust |
| 2 | Formal | (Formal) death notice received from Registrar of Deaths |

## Still Born Indicator

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 1 | Live |  |
| 2 | Still birth, ante-partum |  |
| 3 | Still birth, intra-partum |  |
| 4 | Still birth, indeterminate |  |

## Suspected Congenital Abnormality Indicator

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| N | No |  |
| U | Uncertain - further review required |  |
| Y | Yes |  |

## Telecom Usage

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| AS | An automated answering machine |  |
| EC | A contact specifically designated to be used for emergencies |  |
| H | A communication address at a home |  |
| HP | The primary home, to reach a person after business hours |  |
| HV | A vacation home, to reach a person while on vacation |  |
| MC | A telecommunication device that moves and stays with its owner |  |
| PG | A paging device suitable to solicit a callback or to leave a very short message |  |
| WP | An office address |  |

## Type of Registration

| **Code** | **Description** | **Notes** |
| --- | --- | --- |
| 1 | Patient birth |  |
| 2 | Patient first acceptance |  |
| 3 | Patient transfer in from another NHAIS area |  |
| 4 | Patient immigrant |  |
| 5 | Patient ex-services |  |
| 6 | Patient internal transfer within the NHAIS area |  |

# Appendix A – Batching Options

## A.1 MIM Batch Mechanism

The MIM Batch Mechanism enables business users to undertake batch tracing for small business volumes to support appointment letter generation process. Volumes SHOULD be restricted to no greater than 500 records per batch request to negate the need for implementing a split/join solution at the local system side.

The Spine will accommodate a maximum of 1000 records per batch in any one request. If the business user exceeds this limit, then the local system MUST either have a functionality to restrict the numbers or ‘split’ the out-bound batch locally before submission, else the transaction will be rejected by the Spine Message Handling Service. Local systems MUST ensure that they can accommodate the larger volumes, should they be needed.

The local system solution MUST also have the functionality to ‘join’ the subsequent in-bound batch. It must be noted that the batch file size will increase once all traced demographic information is linked to the appropriate patient. The Spine solution will only be able to return a maximum of 750 records per batch. Where this number of records in the in-bound batch exceeds the 750 limit, the Spine Message Handling Service will return 2 or more in-bound batches and it will be for the local systems to ‘join’ the returning file.

Although Spine has the capacity to handle messages of up to a 5mb limit, the MIM Batch Mechanism MUST NOT be used for any other business process other than that for the creation of appoint letters. The functionality MUST NOT for example be utilised for data cleansing processes.

*Business Rules*

The following rules define a valid batch request message:

* The root element will be as defined in the MIM
* The number of batch items will be the same as the transmissionQuantity
* No batch items can have the same message id
* The batch must be well formed XML – even if only one item in the batch is badly formed the whole batch is considered invalid
* The manifestItems must agree with the batch items
* The batch will contain a batchSequenceNo (see clars)
* A conversation (correlated by conversationId) will only ever occur within the context of one accredited local system.

*Assumptions*

Spine will process the batch items in the normal way; that is, they will not have any special behaviour beyond the following:

* They will route messages back to a message aggregating (batching) service
* They will not send any messages in the batch to retry mechanisms such as RUSM and HAM

Malformed batches will be rejected in their entirety.

De-duplication on HL7 batches is not required – de-duplication at the ebXML and batch item level is sufficient.

The standard Spine message size restrictions apply – messages over 5MB in size will be rejected, and batch responses will not exceed 5MB.

Spine will not provide any functionality to deal with missing items in sequences of batch requests.

ConversationId is the primary correlation property for marrying batch requests to the one or more batch responses.

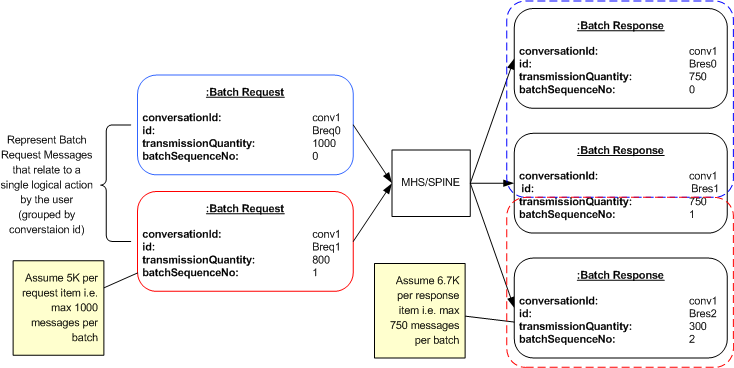
The Sender does not require a single response to each batch request containing all and only the responses to the requests in that request. Response data for a single batch request can be spread across many response messages.

A batch response manifest, containing an entry for each response in the batch is sufficient to satisfy the requirement to provide a summary.

Batch items (queries) within the batch are treated unreliably even though the overall batch requests and responses are reliable. The possibility of this is that the sender may not get a complete set of responses if individual message requests are not responded to by PDS.

It is up to the sender whether or not they want to use conversation id for correlation - should they want to separate the individual batch requests they simply need to create different conversation ids for the requests - Spine will then send one or more batch responses that correlate with that individual request.

*Logical layers of a batch message showing significant properties from each layer*



## A.2 Local System Generated Batch

An alternative to using the MIM Batch mechanism is for systems to create their own batches, and then submit to PDS one interaction at a time from the local batch. Systems utilising this kind of approach will need to be able to throttle submissions to PDS to avoid overwhelming it. This can be accomplished either by not sending another request to PDS until the response to the previous request has been received and processed by the local system, or by providing a configurable throttle that submits no more than one interaction per second.

# Appendix B – Example Mapping of PDS-related Function to RBAC Activity Codes

The table below provides an example of which activities in the local system (involving interaction with PDS) might be available with specific RBAC activity codes.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RBAC Activity Code | RBAC Activity Name | Patient Trace (including Advanced Trace)  & Retrieve | View Multiple Patients from Advanced Trace Response | Update Demo-graphic Data | NHS Number Allocation | Sensitive Record Access | Decease Patient | Update Consent to NHS Care Record Sharing |
| B0820 | View Patient Demographics (Local access only) | N | N | N | N | N | N | N |
| B0825 | Amend Patient Demographics | Y | N | Y | N | N | N | N |
| B1610 | Allocate NHS Number | Y | Y | Y | Y | N | N | N |
| B1611 | Access Sensitive(S) Flagged Records | N | N | N | N | Y | N | N |
| B0264 | Access SCR Application (Perform Patient Trace) | Y | Y | N | N | N | N | N |
| B0837 | Decease Patient | N | N | N | N | N | Y | N |
| B0020 | Control Consent Status | N | N | N | N | N | N | Y |