Title	Diagnostic Imaging Data Set Requirements Specification v1.0		
Document ID	SCCI1577 (Amd 10/2011 initial standard)		
Sponsor	Matt Fagg	**Status**	Final
Developer	Nicola Dawes	**Version**	1.0
Author	Nicola Dawes	**Version Date**	20/05/2016

Diagnostic Imaging Data Set (DIDS) Requirements Specification

Published October 2016

Information and technology for better health and care

SCCI Standardisation Committee for Care Information

This information standard (SCCI1577) has been approved for publication by NHS England under section 250 of the Health and Social Care Act 2012.

Assurance that this information standard meets the requirements of the Act and is appropriate for the use specified in the specification document has been provided by the Standardisation Committee for Care Information (SCCI), a sub-group of the National Information Board.

This information standard comprises the following documents:

- Requirements Specification
- Implementation Guidance.

An Information Standards Notice (SCCI1577 Amd 10/2011) has been issued as a notification of use and implementation timescales. Please read this alongside the documents for the standard.

The controlled copies of these documents can be found on the NHS Digital website. Any copies held outside of that area, in whatever format (e.g. paper, email attachment), are considered to have passed out of control and should be checked for currency and validity.

Date of publication: 5 October 2016

Amendment History:

Version	Date	Amendment History
0.1	30/12/2015	First draft for comment.
0.2	07/02/2016	Amended following SD comments
0.3	12/01/2016	Minor amendments following ED comments
0.4	09/02/2016	Minor amendment to Ethnic category in Data Specification following feedback from initial pre-SCCI review
0.5	23/02/2016	Minor amendment to clarify mandatory status of clinical imaging code following feedback from initial ISAS consideration
1.0	20/05/2016	Uploaded to final version 1.0

Reviewers:

Name	Organisation	Version	Date
Sheila Dixon	NHS England	0.1	04/01/2016
Erika Denton	NHS England	0.1	08/01/2016
Sheila Dixon	NHS England	0.1	04/07/2016

Approvals:

Name	Organisation	Version	Date
Tia Cheang	HSCIC	0.1	15/01/2016
Tia Cheang	HSCIC	1.0	02/08/2016

Glossary of Terms:

Term	Acronym	Definition
Burden Advice and Assessment Service	BAAS	The Burden Assessment and Advice Service (BAAS) process makes sure that information demands on the NHS are minimised, fit with current national health policies and are carried out in the most efficient way without duplication. It covers the Department of Health and its Arm's Length Bodies (ALBs).
Data Controller		A person who (either alone or jointly or in common with other persons) determines the purposes for which and the manner in which any personal data are, or are to be, processed. A data controller must be a “person” recognised in law, that is to say: individuals; organisations; and other corporate and unincorporated bodies of persons. Data controllers will usually be organisations, but can be individuals, for example self-employed consultants. Even if an individual is given responsibility for data protection in an organisation, they will be acting on behalf of the organisation, which will be the data controller.
Data Item		A single component of a data group that holds one piece of information relating to an event or episode.
Data Set		The full collection of data groups. See ‘Technical Output Specification’.
Diagnostic Imaging Data Set	DID	A Data collection that is extracted from Radiology Information Systems for all imaging events for diagnostic, intervention and treatment purposes on NHS patients.
DID Governance Group		Group of representatives from NHS England, NHS Digital, Clinicians, Royal Societies, National Clinical Director for Diagnostics, policy leads and senior suppliers to oversee the collection and use of the DID.
DID Service Group		Group of representatives from NHS Digital DID Service Team, NHS Digital Data Collection Team and NHS England.
Information Standard		An information standard is a formal document approved and issued by the Standardisation Committee for Care Information (SCCI). It defines technical criteria, content, methods, processes and practices for implementation across health and social care in England.
The International Health Terminology Standards Development Organisation	IHTSDO	The International Health Terminology Standards Development Organisation determines global standards for health terms and ensures that SNOMED CT is accepted as the global common language for health terms.
Information	ISN	A notice of an Information Standard approved by the

Term	Acronym	Definition
Standards Notice		Standardisation Committee for Care Information (SCCI). When a health and social care organisation in England receives an ISN they will ensure that they and their contractors comply with the standard in a reasonable time (such time defined within the ISN). ISNs were previously published by the Information Standards Board (ISB).
Modality		The mode through which the image is captured such as x-ray, MRI or CAT scan.
National Interim Clinical Imaging Procedure Codes	NICIP	NICIP is a comprehensive national standard set of codes and descriptions for imaging procedures and is maintained by the UK Terminology Centre. It is intended for use in all Imaging Department information systems.
Patient Level		Relating to a single data subject, as opposed to an aggregate data set.
Radiology Information System	RIS	The clinical information systems used by radiology departments to hold information regarding patient radiology appointments. The information required under this standard is extracted from the RIS.
Standardisation Committee for Care Information	SCCI	The SCCI replaces the Information Standards Board for Health and Social Care (ISB) and is a sub-group of the National Information Board (NIB). Empowered by the Health and Social Care Act 2012 the SCCI has delegated responsibility for approving information standards for the health and social care system in England. The SCCI membership is drawn from a range of organisations operating within health and social care.
Secondary Uses		Re-using clinical and operational information for purposes other than direct patient care. For example, national reporting.
SNOMED CT®		SNOMED CT stands for the 'Systematized Nomenclature of Medicine Clinical Terms' and consists of comprehensive scientifically validated content. SNOMED CT is an international clinical terminology that provides machine readable codes for clinical concepts; the clinical concepts being also represented in a consistent and human readable form through descriptions. SNOMED CT has been selected and approved as the terminology to be adopted by the NHS in England.
Technology Reference data Update Distribution	TRUD	A service which provides the NHS with clinical reference data that is updated every six months. This includes SNOMED CT, NICIP and other clinical coding frames used by NHS systems.
Validation		Process by which the format or the format and value of a data item is checked against a standard rule and/or reference data.

Contents

1 Overview

This product precisely defines the patient level Diagnostic Imaging Data set (DID) standard, 'what it is' and 'how it should be implemented'.

It is the formal definition of the standard.

1.1 Background

Standard	
Standard Number	SCCI1577
Standard Title	Diagnostic Imaging Data set
Description	The Diagnostic Imaging Dataset (DID) is a central collection of detailed information about diagnostic (and other) imaging tests carried out on NHS patients, to be extracted and submitted monthly. The data set captures information about referral source and patient type, details of the test (imaging code which can be mapped to useful information such as type of test and body site post collection), demographic information such as GP registered practice, patient postcode, ethnicity, gender and date of birth, plus key dates for events in the imaging process to allow derivation of information about waiting times for each diagnostic imaging event, from time of test request through to time of reporting. The data set is collected at patient level and includes patient identifiers to enable linkage to other data sets, most notably cancer registration data and Hospital Episode Statistics. Access to patient-identifiable data will be tightly controlled within NHS DIGITAL and granted only to those individuals with the necessary security approvals. Combined with other data sets, these data items give powerful information about access of NHS patients to diagnostic imaging tests across England. Appendix A shows how data flows through the system. **In Scope** - All imaging activity relating to people who receive NHS funded imaging services for the purpose of diagnosis, intervention and/or treatment are within scope of the DID (with the exception of breast screening services, or any other diagnostic imaging tests not typically recorded on central RIS). The scope of the data set requires record level data submission from radiology departments' Radiology Information Systems (RIS) for all activity funded by the NHS. **Out of Scope** - The following areas are currently out of scope and should consequently not be included within DID: • Imaging activity recorded in a providers system that is separate to the RIS such as:

	○ Breast screening ○ Mobile cardiac ultrasound activity • Imaging activity performed on the deceased, such as that carried out for post mortem purposes. • Primary care dental x-rays
Benefits	The benefits of compiling the data include: • To provide detailed national data on trends and patterns in NHS imaging to demonstrate how expensive equipment and trained workforce are deployed and support capacity planning. • To provide more detailed national data than is otherwise available on test type (modality), body site of test and patient demographics, which can reveal the impact of initiatives to improve outcomes for patients by influencing the type, timing and number of tests. • To allow benchmarking in the rate of provision of diagnostic tests overall and in GPs' direct access to tests, to encourage increased use of tests leading to earlier diagnosis and hence improved outcomes. • To understand and influence issues around delays in access and turnaround times for tests. • To inform accreditation processes for imaging departments through the UK Imaging Services Accreditation Scheme and the assessment of imaging services by the Care Quality Commission. • To allow the Public Health England (PHE) to calculate more accurate estimates of the distribution of individual radiation dose estimates from medical exposures. • To replace the annual KH12 collection, which may then be discontinued. • To inform work on development of accurate tariffs for all diagnostic imaging tests • To enable better analysis of cancer pathways by indicating where, what and when imaging takes place in the pathway, especially after linkage to Cancer Registry data for cancer patients to demonstrate what supports earlier diagnosis and better outcomes. A benefits map is included in Appendix B
Applies to	**Patients** Any patient (adult, adolescent or child) who receive imaging as part of diagnosis, intervention (such as surgery) or treatment (such as radiotherapy).

	Organisation and Service Types The standard will be used across the range of Service Providers and organisations that provide imaging services including: • NHS Acute Trusts • NHS Care Trusts • NHS Foundation Trusts • NHS Mental Health Trusts • Independent sector / social enterprise providers offering a service model that includes NHS funded patients • Community-based providers of NHS funded imaging services* * This excludes imaging carried out in a primary care setting such as dental x-rays due to the additional burden this would place on NHS and the DID system. There would be thousands of primary care providers as opposed to the ~180 Secondary Care providers required to submit to DID. Since such examinations are unlikely to be used to diagnose cancer and contribute little to an individual's overall lifetime exposure to radiation there would be very little benefit of including them in the scope of the DID collection. **Departments** The standard must be read and used by all radiology departments and other clinical and support services, including community services, that have an active involvement in delivering imaging services. **Professionals** The standard applies to all professions working in or supporting imaging services for diagnosis, intervention or treatment including community services. **IT Systems** The standard predominantly, but not exclusively, relates to Radiological Information Systems (RIS). It may also relate to Patient Administration Systems (PAS) where the RIS and PAS are linked and share data.
Impact on Existing Information Standards	In terms of the progression through the SCCI process, this is technically a change to the existing DID standard (ref: ISB 1577). There are no changes to the existing standard. This application is to uplift the existing standard from ISB 1577 to SCCI 1577 under the Health and Social Care Act 2012. Once successfully uplifted, this standard will allow the cessation of central return KH12 and therefore the retirement of DSCN47/96/P40. The retirement of this collection requires no extra data items to be collected as part of, or changes to, DID.

	Other related standards are: • DSCN 27/2009 National Interim Clinical Imaging Procedure Codes • ISB 0034 SNOMED CT However as there are no changes to DID there will be no impact on these standards
Release	
Release Number	Amd 10/2011
Release Title	Diagnostic Imaging Data Set (DID) Version 1.0
Description	Uplift of the existing standard (ISB 1577) to SCCI1577 under the Health and Social Care Act section 250, 2012 without any changes to the existing data set.
Implementation Completion Date	**System Suppliers** There are no changes for system suppliers to implement from the original conformance date 1 April 2012 **Care Providers** From 1st April 2016 providers of imaging services as defined in this Information Standard ***MUST*** be able to collect the information as defined in this specification for local use. From 1st May 2016, providers of NHS-funded imaging services ***MUST*** submit DID submissions in accordance with this standard.

1.2 Supporting Documents

	Reference	Title
1	Page 45 http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_123371	Department of Health: Improving Outcomes: A Strategy for Cancer
2	Page 14 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/486674/nhse-mandate16-17.pdf	The Government's mandate to NHS England for 2016-17
3	https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2014/06/Annex-5-Diagnostic-Imaging-Activity-Comparisons-2013-14.pdf	NHS England : Diagnostic Imaging Activity Comparisons 2013/14 - Comparing DID with KH12 and DM01
4	Recommendations c and d, page 10 https://www.nao.org.uk/wp-content/uploads/2015/01/Progress-improving-cancer-services-and-outcomes-in-England.pdf	National Audit Office : Progress in improving cancer services and outcomes in England
5	Page 9 'must do' area 6 https://www.england.nhs.uk/wp-content/uploads/2015/12/planning-guid-16-	NHS Planning guidance 2016/17 to 2020/21 - around diagnostic capacity

	17-20-21.pdf	
6	Recommendation 20 http://www.cancerresearchuk.org/sites/default/files/achieving_world-class_cancer_outcomes_-_a_strategy_for_england_2015-2020.pdf	Achieving World-Class Cancer Outcomes – A strategy for England 2015-2020

1.3 Related Standards

	Reference	Title
1	ISB 0148	National Interim Clinical Imaging Procedure Codes
2	ISB 0149-02	NHS Number for Secondary Care
3	ISB 0149-01	NHS Number for General Practice
4	ISB 0034	SNOMED CT
5	ISB 0092	Commissioning Data Sets (CDS) version 6.2
6	ISB 0090	Organisation Data Service (ODS)

2 Requirements

2.1 Health and Care organisations Requirements

Requirement [1]	
Timeframe	
1	From 1st April 2016 providers of Imaging Services as defined in this Information Standard ***MUST*** be able to collect the information as defined in this specification for local use.
2	From 1st May 2016 providers of Imaging Services as defined in this Information Standard ***MUST*** submit monthly Mental Health Services Data Set submissions centrally as per the instructions in the DID Guidance.
3	The providers ***MUST*** allow time to review and implement corrections to their submission files within the designated window.
Scoping	
4	Providers ***SHOULD*** review all related documentation to fully understand the background, objectives and scope to this information standard.
5	NHS Digital will continue to provide a local codes mapping service for Imaging Service Providers where within system mapping would be burdensome. Imaging Services Providers and Data Submitters ***MUST*** make sure that local mapping files are uploaded to the DID submission portal as per the instructions in the DID Guidance and ***MUST*** ensure mapping files are kept up to date.
Feasibility Assessment	
6	As the DID Guidance is intended to only define “what should be extracted” from local IT systems, not “what should be captured”, A clinical data set will need data items beyond what the DID specifies; consequently, providers of Imaging Services ***SHOULD NOT*** use this data set to define their clinical and operational data capture. The DID is collected to only re-use clinical data and not specify standards for capturing clinical data.
7	Providers of Imaging Services ***MUST*** make submissions only for those data items defined in the DID Guidance and no additional data items should be included.
Information Governance	
8	The DID Guidance Document explains the Information Governance issues surrounding the data set. Caldicott Guardians and the Heads of Information Services ***MUST*** review the Information Governance Guidelines within the DID Guidance Document to ensure their understanding is correct: - How data submission, storage and reporting processes handle identifiable and sensitive data items - How consent issues should be best managed This standard does not change what is being collected in DID or the Information Governance issues surrounding the data set.
9	Providers of Imaging Services ***MUST*** make available information and guidance to patients stating that their clinical care data ***MAY*** be re-used for the purpose of data analysis and reporting.

[1] The key words ***MUST***, ***SHOULD*** and ***MAY*** are defined in RFC-2119.

	It ***MUST*** be the sole responsibility of the care provider's Caldicott Guardian to ensure the subject information is withheld where appropriate. Any immediate concerns ***SHOULD*** be addressed to the DID Service Team at the NHS DIGITAL or the Health Research Authority (HRA) Confidentiality Advisory Group (CAG).
10	With immediate effect, providers of Imaging Services ***SHOULD*** read the 'NHS Confidentiality Code of Practice', 'Caldicott Report' and subsequent 'Information: To share or not to share?' Information Governance Review (second Caldicott review) for guidance and technical support related to data and information sharing at both operational and secondary use levels.
11	Providers of Imaging Services ***SHOULD*** also consult and adhere to the good practice advice and guidance set out in 'A Guide to Confidentiality in Health and Social Care' to prevent breaches of confidentiality.
12	It ***MUST*** be the sole responsibility of the care provider's Caldicott Guardian to ensure the subject information is withheld where appropriate.
13	Any immediate concerns regarding Information Governance ***SHOULD*** be addressed to the DID Service Team at the NHS DIGITAL or the Health Research Authority (HRA) Confidentiality Advisory Group (CAG).
Clinical Governance	
14	Clinical governance is defined by Department of Health as 'the system through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care, by creating an environment in which clinical excellence will flourish'. As an Information Standard that approves a national patient-level data set: - Governing and audit bodies ***MAY*** use the data set to monitor whether providers of Imaging Services are making year on year improvements. - Providers of Imaging Services ***MAY*** use the data set to compare and contrast performance to drive service improvements. - The National Cancer Intelligence Network (NCIN) ***MAY*** use the data set benchmark GPs. - The Public Health England Cancer Registry ***MAY*** use the data set to extend the cancer pathway information. It is therefore clear that the data set can be used for clinical governance purposes.
Clinical Risks	
15	Providers of Imaging Services ***SHOULD*** always seek to understand the context of published national reports and be aware that the information presented depends greatly upon the quality of information submitted. Ongoing efforts ***SHOULD*** be made to ensure that data quality is of the highest standard before forming judgements about reports and introducing changes. As an Information Standard that approves a national patient-level data set: - The Public Health England ***MAY*** use the data set to estimate exposure to radiation through use of imaging tests for diagnosis, intervention or treatment.
Central Data Submission	
16	Providers of Imaging Services* ***MUST*** create a monthly data submission as set out in the DID Guidance.
17	Providers of Imaging Services ***MUST*** be able to: Collate and extract data from local IT (RIS) systems as per the DID

	Guidance. Structure the data and create a data submission file as per the DID Guidance. - Apply the basic validation rules and ensure that the submission file conforms to these. - Submit the data submission file on the secure DID submission portal using a personal login by authorised personnel only.
18	Providers of Imaging Services*** *MUST*** submit data monthly to the DID, based on a schedule that is available on the NHS Digital DID website.
19	Providers of Imaging Services* ***MUST*** check for error reports, correct errors and make re-submissions at the earliest opportunity. Further details on error correction and re-submissions are explained within the DID Guidance.
20	*In some circumstances one organisation may submit data to DID on behalf of other providers of Imaging Services. In these cases: - The imaging providers ***MUST*** agree who will be responsible for submitting to the DID and avoid submitting duplicate records. - The submitting organisation ***MUST*** use the correct ODS Site Code for the imaging activity so that the activity can be mapped to the correct provider.
Constructing a Data Submission File	
21	Data Submitters ***MUST*** familiarise themselves with the DID Guidance Document which provides information on how to create a monthly submission file. However, noted below are key requirements of the technical submission architecture:
22	A submission ***MUST***: Meet the conditions and validation rules explained in the DID Guidance.
23	Each Data Submission File - ***SHOULD*** be in .xml format - ***MAY*** be in .csv format if submission in .xml is not possible
24	Each Data Submission File ***MUST NOT*** contain duplicate records with the same Radiological Accession Number
25	Each .xml submission: - ***MUST*** conform to the published .xml schema. - ***MUST*** contain all Mandatory data items and at least one item from each Mandatory Group for every record as described in the DID Guidance.
26	Each .csv submission will be converted to .xml by the system before being validated therefore each .csv file: - ***MUST NOT*** contain a header row. - ***MUST*** be in the correct column order as described in the DID Guidance. - ***MUST NOT*** contain any blank rows after the last record. - ***MUST*** contain all Mandatory data items and at least one item from each Mandatory Group for every record as described in the DID Guidance. - ***MUST*** have all data items formatted correctly to allow necessary leading zeros and correct date formats as described in the DID Guidance.
27	Providers of Imaging Services ***MUST*** include in their submission all eligible completed imaging activity recorded in their RIS.

28	Providers of Imaging Services ***SHOULD*** include in their submission all Required data items where these are available for extraction from their RIS.
Validation Rules	
29	Existing data validation rules will not be affected by this standard. However, providers of Imaging Services ***MUST*** review the DID Guidance on the NHS Digital DID website to understand the data validation rules that will be applied upon submission to all incoming Data Submission Files. Any hard validation rules not adhered to will result in entire submission being rejected.
30	Where error reports are generated due to non-conformance against validation rules, DID submitters ***MUST*** take immediate action and resubmit the corrected file within the submission window.
Data Quality Feedback	
31	Data quality issues will be reported back to data submitters on an ad-hoc basis as they arise by the NHS Digital Data Collections team. Providers of Imaging Services and submitters of DID data ***SHOULD*** make every effort to resolve inherent systemic errors and address recurring data quality issues.
32	Coverage, Completeness and Quality measures are published monthly on the NHS England Website for DID. Providers of Imaging Services and submitters of DID data ***SHOULD*** review these reports regularly and consider how the completeness and quality of their data can be improved.
Monthly Submission	
33	A submission ***MUST*** be loaded onto the portal on a monthly basis and as per instructions laid out in the DID Guidance.
Requirements of Key Personnel Involved in the Delivery of this Data Set	
34	Heads of Imaging Services are responsible for capturing the information as part of the on-going care of patients. They MUST: - Familiarise themselves with the DID Guidance to understand what data items are mandated by this Information Standard - Ensure they understand and implement the Information Governance approach adopted for this data set, which can be found in the Consent section of the DID Guidance Document - Explain to operational and clinical staff the importance of capturing data for the DID.
35	**Clinical staff *MUST***: - Capture the DID data items in an accurate and timely manner. - Understand the deployed IG approach, especially in relation to the handling of sensitive data.
36	**Informatics staff** are responsible for producing extracts that conform to the DID Guidance. They ***MUST***: - Familiarise themselves with the DID Guidance to understand what data items are mandated by this Information Standard. - Configure Radiology Information Systems and/or associated data extracts to allow compliance with the standard. - Submit the data to the DID submission portal within the prescribed reporting periods and deadlines. - Review and work with clinicians to resolve data quality issues identified in the output reports. - Ensure they understand and implement the Information Governance approach adopted for this data set, which can be found in the Consent

	section of the DID Guidance Document.

2.2 Health and Care organisations Conformance Criteria

	Conformance Criteria This section describes the tests that can be measured to indicate that the information standard is being used correctly by a provider organisation (conformance criteria).
1	All providers of Imaging Services ***MUST*** be able to collect the information, as defined in the DID Guidance, for local use.
2	All providers of Imaging Services ***MUST*** submit the monthly DID submissions under the standard as per the instructions in the DID Guidance. The first submission under this standard ***MAY*** contain updates to previously submitted data within the permitted update window
3	The first submission under the standard ***MUST*** include ALL data relating to imaging activity carried out in the month following the previous submission.
4	The first submission under this standard ***MAY*** contain updates to previously submitted data within the permitted update window.
5	Providers of Imaging Services ***MUST*** review and act on the validation and data quality reports provided by the NHS Digital after each submission. All providers are expected to have reviewed and acted on the reports within two months of issue and made a further submission to address the issues if appropriate and the submission window allows.
6	When the DID submission portal rejects a complete submission, providers of Imaging Services ***MUST*** rapidly introduce corrections and re-submit rectified data within the submission window.
7	The providers ***MUST*** allow time to review and implement corrections to their submission files within the designated window.
8	Providers ***SHOULD*** document lessons learned from validation errors to avoid repetitive mistakes.

2.3 IT Systems Requirements

	Requirement [2]
Timeframe	
1	Radiology Information Systems ***MUST*** be able to capture and/or derive the data items defined within this standard. This includes mapping of local codes to national codes, and the ability to extract this information as envisaged within this standard,

[2] The key words MUST, SHOULD and MAY are defined in RFC-2119.

2	IT systems ***MUST*** ensure that the increase in burden for providers for capturing and extracting the information defined in the DID Guidance is proportionate.
3	When considering potential developments, minimising the burden on providers and supporting good data quality ***MUST*** be prioritised.
Scoping	
4	IT Systems Suppliers ***SHOULD*** review all related documentation to fully understand the background, objectives and scope of this information standard.
Feasibility Assessment	
5	With immediate effect, IT Systems Suppliers ***SHOULD*** review the DID Guidance to understand the scope and definition of each data item.
6	As an Output Data Set, the DID is intended to only define "what should be extracted" from local IT systems, not "what should be captured". A clinical data set will need data items beyond what the DID specifies. While IT Systems Suppliers ***SHOULD*** use this data set to support their system development, they ***SHOULD NOT*** use the data set exclusively and ***SHOULD*** also consider the full requirements of the care setting where it is used. The whole ethos around the DID is to only re-use clinical data, not specify standards for capturing clinical data.
7	IT Systems ***SHOULD*** provide the ability to extract the required data items from Radiology Information Systems in .xml format without the need for further manipulation of the extracted data.
8	IT Systems Suppliers ***SHOULD*** familiarise themselves with the .xml schema to understand how data items are grouped and formatted for the Data Submission File.
9	IT Systems Suppliers ***SHOULD*** provide tools to enable a 'data mapping exercise' to be carried out and where possible complete the mappings to the national codes on behalf of the providers of Imaging Services.
Information Governance	
10	The DID Guidance Document explains the Information Governance issues surrounding the data set. IT Systems ***MUST*** provide a mechanism to allow providers to identify records where patients have objected to the use of their data for secondary purposes or where there is a legal requirement to restrict the flow of identifiable information for a patient.
Clinical Risks	
11	IT System Suppliers ***SHOULD*** always ensure that any changes resulting from the implementation of the DID are compliant with the safety standards ISB 0129 and ISB 0160.
Validation rules	
12	IT Systems Suppliers ***SHOULD*** review the DID Guidance on the NHS Digital website to understand the data validation rules that will be applied upon submission to all incoming Data Submission Files. Any hard validation rules not adhered to will result in the entire Data Submission File being rejected. Soft validation rules not adhered to will generate warnings in the Validation Error Report available on the DID submission portal.

2.4 IT Systems Suppliers Conformance Criteria

	Conformance Criteria This section describes the tests that can be measured to indicate that the information standard is being used correctly by an IT system supplier.
1	Radiology Information Systems ***MUST*** be able to capture and/or derive the data items defined within this standard, which includes functionality to map local codes/values to national codes/values.
2	Radiology Imaging Systems ***MUST*** be able to extract data for the DID with minimal additional burden to providers in a format which is compatible with DID system, avoiding interim workarounds.

2.5 NHS Digital Requirements

	Requirement [3]
Timeframe	
1	NHS Digital ***MUST*** continue to provide a secure DID submission portal for the safe upload and validation of the Data Submission Files.
2	NHS Digital ***SHOULD*** continue to provide a .csv to .xml conversion service to allow submitters who are not able to extract or convert their files to .xml to continue to submit to DID.
3	NHS Digital ***MAY*** continue to provide a local codes mapping service, allowing submitters to upload a local codes mapping file which the system will use during submission to map local codes in the provider's Data Submission File to appropriate national codes as specified in the mapping file by the submitter.
4	NHS Digital ***MUST*** continue to provide NHS England with a monthly extract of data for analysis and publication.
Information Governance	
5	NHS Digital ***MUST*** include a facility for NHS Digital administrators of the DID system to respect a member of the public's wishes regarding the prevention of use of their personal data.
6	NHS Digital ***MUST*** provide a facility to uphold any patient preferences regarding the dissemination and release of their personal data.
Clinical Risks	
7	NHS Digital ***MUST*** keep reference data used by the DID system for validation of incoming data and derivations up to date so that published data is as accurate as possible.
Validation Rules	
8	NHS Digital ***MUST*** continue to validate Submission Data Files upon submission.
9	NHS Digital ***MUST*** inform providers of imaging Services and Submitters of any changes to validation rules.
10	NHS Digital ***MAY*** carry out additional post submission validations.
11	NHS Digital ***MAY*** publish Data Quality Key Performance Indicators relating to

[3] The key words ***MUST***, ***SHOULD*** and ***MAY*** are defined in RFC-2119.

	DID.
Data Quality Feedback	
12	NHS Digital ***MUST*** continue to provide timely feedback of any on-submission validation errors or warnings via the DID submission portal.
13	NHS Digital ***SHOULD*** feedback any post submission validation issues to providers of Imaging Services or Submitters to DID on an ad-hoc basis or via tailored reports.

2.6 NHS Digital Conformance Criteria

	Conformance Criteria
1	The secure DID submission portal ***MUST*** continue to be operational.

3 Data Set Specification

Column No/ Order	M/R	Schema Matching Name (Expected Element Name)	Format
1	M*	NHS NUMBER	n10
2	R	NHS NUMBER STATUS INDICATOR CODE	an2
3	M*	PERSON BIRTH DATE	an10 CCYY-MM-DD
4	M*	ETHNIC CATEGORY	max an2
5	M*	PERSON GENDER CODE CURRENT	an1
6	M*	POSTCODE OF USUAL ADDRESS	max an8
7	M*	GENERAL MEDICAL PRACTICE CODE (PATIENT REGISTRATION)	an6
8	M	PATIENT SOURCE SETTING TYPE (DIAGNOSTIC IMAGING)	an2
9	R	REFERRER CODE	an8
10	R	REFERRING ORGANISATION CODE	max an6
11	R	DIAGNOSTIC TEST REQUEST DATE	an10 CCYY-MM-DD
12	R	DIAGNOSTIC TEST REQUEST RECEIVED DATE	an10 CCYY-MM-DD
13	M	DIAGNOSTIC TEST DATE	an10 CCYY-MM-DD
14	M	IMAGING CODE (NICIP)	max an6
15	M	IMAGING CODE (SNOMED CT)	min an6, max n18
16	R	SERVICE REPORT ISSUE DATE	an10 CCYY-MM-DD
17	M	SITE CODE (OF IMAGING)	min an5 max an9
18	M	RADIOLOGICAL ACCESSION NUMBER	max an20

n=Number

An=Alphanumeric

Numbers = length i.e. n10 states that a 10 digit number is required

Date formatting = CCYY-MM-DD i.e. Century/Century/Year/Year-Month/Month-Day/Day

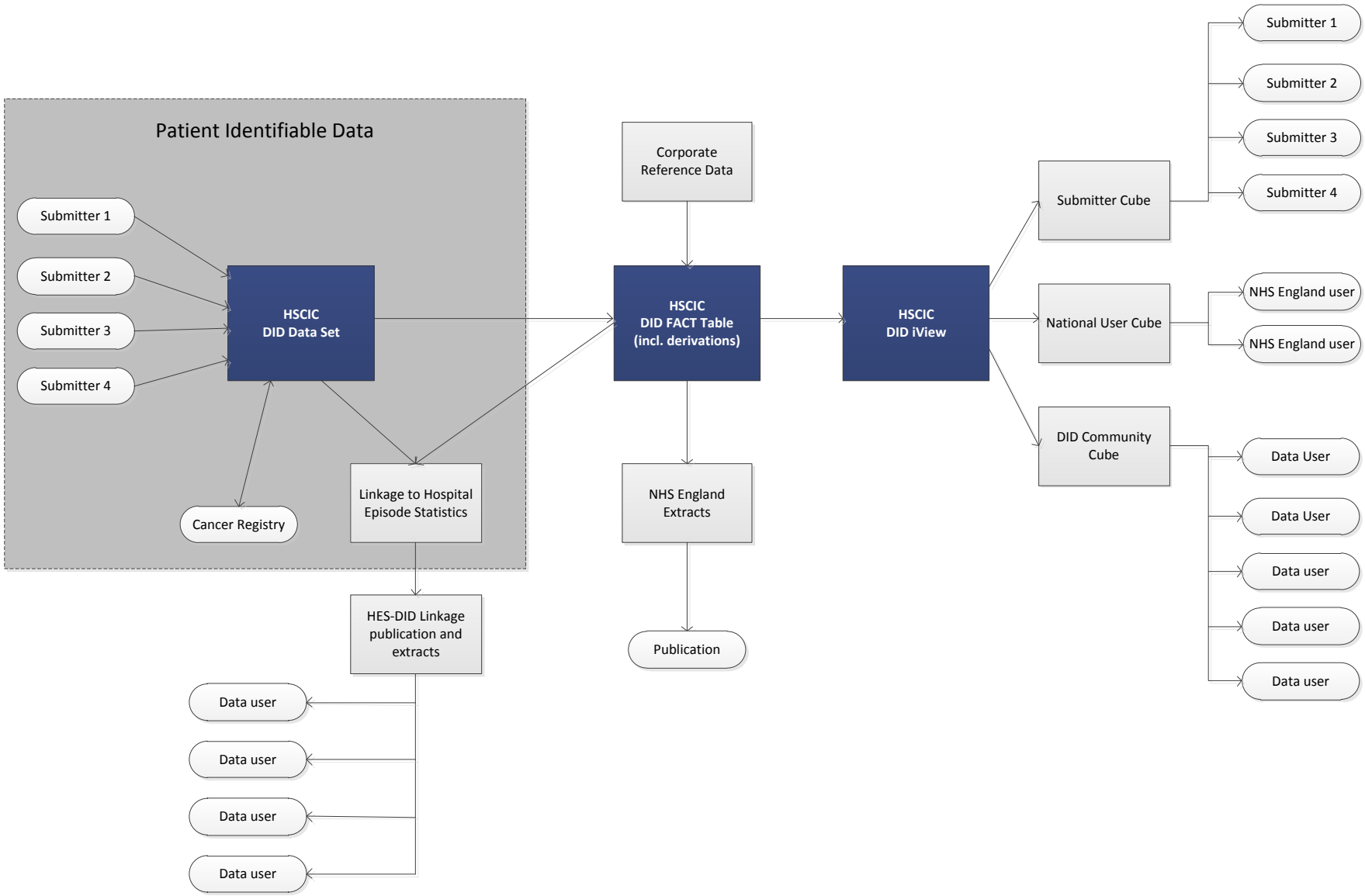
For example the 31st of January 2012 would be 2012-01-31

Note that while ethnic category is normally expressed as a single letter, the default value, used for where ethnicity is unknown, is 99

max indicates a maximum length limit for the data item.

Note that NHS Number Status Indicator and Patient Source Setting both require a leading zero. If you open a .csv file in Excel, Excel will identify these as numbers and drop the leading zeros; therefore you should reformat these columns as text before saving as .csv again.

Appendix A – DID Data Flow Diagram



Appendix B – DID Benefits Map