Genomics England

Cancer Model

|  |  |  |  |
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| 2.0.0 | 17/03/2016 | Main Programme Release |
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# Introduction

Purpose

The purpose of this document is to describe the data that Genomic Medicine Centres are asked to supply to accompany the samples submitted for analysis. This document is intended to be read in conjunction with the User Guide and describe the classes of data expected, the association between diseases and the classes of data deemed relevant, and the datatypes employed.

Audience

This document is primarily written for informatics leads within the GMCs and those involved in the collection and submission of data for the UK 100,000 Genomes Project.

Related Documents

This document should be read in conjunction with:

• Genomics England Data Model Catalogue [(Genomics England Model Catalogue)](https://gelmc.extge.co.uk/)

* Schemas (XSDs)

• Example XML Files

• NHS England GMC Service Specification

• National Cancer Intelligence Network Cancer Outcomes and Services Dataset (COSD) Version 7.0 User Guide

* Appendix A, B, C, D, E, F and G (contained in this release pack)

How to use this document

This document is split into sections that describe the information we expect to receive within the context of each xml submission. The document is primarily split by schema. Within each schema we expect to receive a set of classes of data. Within each class we expect to receive a number of data elements, each of which is associated with a name, a brief explanation, a multiplicity, a datatype and often a business rule.

NOTE: this document should be used in conjunction with the User Guidance for Cancer Data Specification Document.

In this version of the document, the data item identifiers have been included, to facilitate look-up in the current version of the on-line metadata catalogue. In addition you can click on the value link to view the full definition for the data type and the applicable constraints.

Schemas

Define the classes and data elements included in each xml submission. Each schema describes the information within the corresponding xml document. Each class describes the data elements included within each section of the schema. Each data element has a data type and some have business rules. Click on the hyperlinks in the document to navigate to each of these.

Data types:

Types, rules and enumerations that constrain the value of a data element.

*Rules* are expressed as regular expressions and/or groovy code.

*Enumerations* are described by their code and description.

NOTE: Enumerations in grey are deprecated. Although deprecated codes will continue to be accepted they will re removed from the next release and users are encouraged to use other suitable codes.

Business rules:

Contains business rules that apply across data elements within the context of a file submission.

Completeness:

From a data modelling perspective most of the classes are ‘optional’, with the exception of the registration and consent information, in that an event of that class may not yet have occurred, or may not yet have been reported, for a particular participant.

Event records or reports are required for all relevant clinical events or observations to date (for the core data).

For some classes of event, a report will be accepted only if additional classes are provided as part of the report and/or other values are supplied for some of the data items involved: these are the ‘mandatory’ items within those classes.

An item is ‘mandatory’ for a particular class if it has a multiplicity of 1..1 or 1..\*

Where an item has a multiplicity of 0..1 it is considered ‘non-mandatory’ and a report for that class of event will be accepted even if no value has been supplied for that item.

From a contractual perspective, however, values are expected for all applicable data.

# XML Submission

All submissions in XML format must include as metadata: the date and time upon which the XML file was generated; the name and version of the schema used for validation; and the organisation within the GMC responsible for the participant. A source system identifier and a local report identifier may also be included.

The data provided in XML format must include an event date and event reference for the report in question. This reference should be unique within the GMC. If a second submission is received against the same event reference then this will be treated as an update.

XML Schema (.XSD Files)

The XML files and the Cancer Model Data Specification v3 are generated from the Genomics England Data Model Catalogue. The XML schemas can be downloaded directly from the Model Catalogue within the Assets folder for the Model.

For access to the Cancer Data Model Catalogue, and to submit any comments, observations or issues please contact the Genomics England Contact Desk *(see Section 14 in this document regarding support and queries).*

XML Validation to take place before submission of file

The use of XML was mandated in the e-Government Interoperability Framework (eGIF) as a messaging standard between government organisations and has been adopted by NHS (<http://systems.digital.nhs.uk/data/nhsdmds/ddcn/cr1345.pdf>) and therefore, this programme. XML delivers some rigour to messaging by controlling the message structure, and the data element contents and format through an XML schema definition (XSD).

It is essential that NHS GMCs send files that comply with their corresponding schema. This is done by ‘validation’, an electronic process that compares an XML message against its XSD. There are a number of online tools that provide this service – including free tools such as: Notepad++ (<https://notepad-plus-plus.org/>), freeformatter.com (<http://www.freeformatter.com/xml-formatter.html>). There are also richer paid-for tools that provide a graphical view. The NHS recommends Altova (<https://www.altova.com/>) and GeL uses oXygen XML (<https://www.oxygenxml.com/>).

The Model Catalogue also offers XML validation functionality by selecting ‘validate xml’ from the asset menu.

All submissions not passing validation will be rejected and an email will be sent advising of the failure and the reason from the Data Acquisition and Management system to any individuals subscribed to warning messages for that GMC.

# FAQs

Essential data

Patient/Ethnicity

’99 - Unknown’ has been added in the latest release.

Core Data

*RiskFactors/Breast Density*

Although Breast Density is not routinely captured by all sites, it is considered a strong indicator of breast cancer and breast cancer recurrence. Therefore, it is hoped that GMCs will use this opportunity to capture this information.

*Tumour imaging*

Images should be captured according to the requirements outlined in the GeL Tissue Handling Protocol Draft July 2016 v2.2.

Images should be appropriately labelled with Participant ID and Tumour ID, indicating whether FF or FFPE samples (linked to individual sample IDs submitted). Images should not be marked with the patient’s NHS number. Initially these images should be stored at GMCs and details for image upload to the Genomics England biorepository will be confirmed by Genomics England.

# Essential Data

The GMC clinic must provide registration information (participant information, consent, diagnosis) via EDCT or sFTP (in XML format) before any samples for that participant are sent to the Biorepository. The GMC clinic is expected to establish eligibility and to validate NHS numbers before registration. The data items described below, where applicable, are essential to the subsequent management of the participant, the sample, and any results obtained from the sequencing process.

## Registration and Consent [1..1]

*One report containing Registration and Consent must be submitted for each participant.*

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Registration and Consent report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland). Patients without an NHS number (or equivalent) should be allocated a temporary NHS number by the treating hospital.

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Registration [1..1]

*One report containing Registration must be submitted together with each Registration and Consent report.*  
  
The Registration Event Date is the date of registration.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Surname at Birth (12511@1.0.1)** | The participant's surname at birth, if available and different from current surname | 0..1 | [personFamilyNameAtBirth](#335) | PERSON FAMILY NAME (AT BIRTH) (CR0140 from Cancer Outcomes and Services Dataset) |
| **Person Stated Gender (12509@1.0.1)** | The participant's current gender | 1..1 | [personStatedGenderCode](#42058)   |  |  | | --- | --- | | **1** | Male | | **2** | Female | | **9** | Indeterminate (Unable to be classified as either male or female) | | **X** | Not Known (PERSON STATED GENDER CODE not recorded) | | PERSON STATED GENDER CODE (CR3170 from Cancer Outcomes and Services Dataset) |
| **Person Phenotypic Sex (12510@1.0.1)** | The participant's sex classification at birth. 9 - Indeterminate, may only be used if the patients chromosomal sex at birth is ambiguous. Samples cannot be sequenced until the chromosomal sex is established and therefore all patients registered with a value of 9 must confirm that the patients chromosomal sex is ambiguous rather than unknown prior to sequencing. | 1..1 | [personPhenotypicSexClassification](#42016)   |  |  | | --- | --- | | **2** | Female | | **1** | Male | | **9** | Indeterminate | |  |
| **Ethnicity (14445@1.0.1)** | The ethnicity of a PERSON, as specified by the PERSON. The 16+1 ethnic data categories defined in the 2001 census is the national mandatory standard for the collection and analysis of ethnicity. | 1..1 | [ethnicCategory >10 enumerations, please click link above to view full list.](#337) | ETHNIC CATEGORY (CR0150 from Cancer Outcomes and Services Dataset) |
| **Recruiting Trust ID (14860@1.0.1)** | ODS code of the recruiting trust – LDP (Local Delivery Partner) or main GMC trust | 1..1 | [organisationSiteCode](#42015) |  |
| **Clinical Trial Number (34570@3.2.0)** | ISRCTN number(s) of any clinical trial(s) that the patient is enrolled in. This information can be entered at a later date through resubmission of the Registration data. | 0..\* | [isrctNumber](#42155) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Registration report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Participant Contact Details [1..1]

*One report containing Participant Contact Details must be submitted together with each Registration report.*  
  
Please include all available contact details for the participant. At least one set of the contact details field MUST be supplied.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant Email Address (12529@1.0.1)** | Email address of participant | 0..1 | [emailAddress](#34430) |  |
| **Participant Home Telephone (12532@1.0.1)** | If available, the participant's home telephone number | 0..1 | [ukTelephoneNumber](#40375) |  |
| **Participant Mobile Telephone (12533@1.0.1)** | If available, the participant's mobile telephone number | 0..1 | [ukTelephoneNumber](#40375) |  |
| **Address line 1 (12822@1.0.1)** | Premises ID and/or house name, e.g. 'Flat 1', 'The Old Schoolhouse' | 0..1 | [addressLine](#3406) |  |
| **Address line 2 (12823@1.0.1)** | House number, dependent thoroughfare name and descriptor without commas, e.g. '23 Mill Lane' | 0..1 | [addressLine](#3406) |  |
| **Address line 3 (12824@1.0.1)** | Dependent locality/village, e.g. 'Boxgrove' | 0..1 | [addressLine](#3406) |  |
| **Address line 4 (12825@1.0.1)** | Post town, e.g. 'Leeds' | 0..1 | [addressLine](#3406) |  |
| **Address line 5 (12826@1.0.1)** | County (if present), e.g. 'Hampshire', 'Hants' | 0..1 | [addressLine](#3406) |  |
| **Postcode (12827@1.0.1)** | 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. | 0..1 | [Postcode](#3412) |  |

#### Disease Information (Tumour Sample) [1..\*]

*One or more reports containing Disease Information (Tumour Sample) must be submitted for each Registration report.*  
  
Disease type and subtype refer to the sample submitted to Genomics England for sequencing. This is to enable high-level grouping and analysis of the tumour type. It is understood that this may not be available at Registration or may change between Registration and submission of Core data therefore this can be provided during Core Data submissions. As this information will initially be provided in the clinic rather than the laboratory, it is included in the participant information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Disease Type (12834@3.2.0)** | The cancer type of the tumour sample submitted to Genomics England.  The list of disease types will be validated against the types contained in Appendix A. These may be subject to change and GMCs are requested to ensure that data capture systems are flexible enough to accommodate future changes to the list of diseases contained in Appendix A.  If this is unknown at registration, it can be updated as part of the patient information in the core data submissions. | 1..1 | [xs:string](#38) |  |
| **Disease Subtype (12835@3.2.0)** | The subtype of the cancer in question, recorded against a limited set of supplied enumerations.  The list of disease subtypes will be validated against the subtypes contained in Appendix A.  These may be subject to change and GMCs are requested to ensure that data capture systems are flexible enough to accommodate changes to the list of disease contained in Appendix A.  This is to enable high-level grouping and analysis of the tumour type. It is understood that this may not be available at Registration or may change between Registration and submission of Core data. Note that the enumeration 'not\_available', although available at Registration, should not be submitted for Core Disease Information Updates.  If the diagnosis is not listed as a subtype it can be entered under “other”.  A tumour comprised of more than one subtype should be entered as follows. The predominant tumour subtype in the sample sent for whole genome sequencing should be entered first. The remaining subtypes should be entered in descending order with the most prevalant subtype in the whole tumour listed second. It is helpful to include “mixed tumour type” as a subtype but this should not be entered alone. | 1..\* | [xs:string](#38) |  |

#### Consultant Details [1..1]

*One report containing Consultant Details must be submitted together with each Registration report.*  
  
Include details of the consultant responsible for the patient’s clinical care, including receipt of clinical reports and communications with Genomics England. This should be completed for all participants including unaffected relatives, as the results may have individual clinical relevance for all participants. Please include the consultant’s GMC number to ensure the accuracy of this record.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Full Name of Responsible Consultant (12774@1.0.1)** | Nominated person responsible for patients clinical care and recipient of clinical reports and communications for Genomics England | 1..1 | [xs:string](#38) |  |
| **Consultant GMC number (31254@1.0.1)** | GMC number of consultant with responsibility for the patient's clinical care | 1..1 | [consultantCode](#32403) | CONSULTANT CODE (TREATMENT) (CR0660 from Cancer Outcomes and Services Dataset) |
| **Full Name not Consultant (4495@1.0.1)** | Full name of person entering data on behalf of consultant | 0..1 | [xs:string](#38) |  |
| **Contact number (14520@1.0.1)** | Phone number for the consultant. | 0..1 | [ukTelephoneNumber](#40375) |  |
| **Hospital of Responsible Consultant (12516@1.0.1)** | ODS code of the hospital to which the consultant is contracted under their MAIN SPECIALTY for the purposes of the current work. | 0..1 | [organisationSiteCode](#42015) |  |

### Consent [1..1]

*One report containing Consent must be submitted together with each Registration and Consent report.*  
  
This section reports information obtained at consent for cancer participants, including the overall consent status (consent given) and the individual questions and responses relating to the participant’s options regarding additional findings (Consent Details (29742.1)).  
  
Additional mandatory fields include full name of the person taking consent, and details of the version of the consent form and information sheet used for participation in the 100,000 Genomes Project.  
  
The Assent form can be used for children to sign to indicate their assent to join the project, but they must legally also have a parental consent form completed. Further, full consent should be sought from a child on their 16th birthday.  
  
No further data should be entered if the answer to the ‘Consent Given’ question is ‘No’.  
  
The Consent Event Date is the date of consent.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Name and Version of Consent Form (34549@3.2.0)** | Name and Version of form used. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 1..1 | [xs:string](#38) |  |
| **Consent Given (12545@1.0.1)** | Yes no answer to consent given | 1..1 | [yesNo](#34541)   |  |  | | --- | --- | | **yes** | Yes | | **no** | No | |  |
| **Consent Form (12546@1.0.1)** | File name of uploaded PDF copy of consent form - requested format [ParticipantId]\_consent\_[TimeStamp].pdf | 0..1 | [xs:string](#38) |  |
| **Person Taking Consent (12547@1.0.1)** | The full name of the person taking consent | 1..1 | [xs:string](#38) |  |
| **Name and Version of Participant Information Sheet (4454@1.0.1)** | Name and Version of information sheet presented. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 1..1 | [xs:string](#38) |  |
| **Name and Version of Assent Form (34552@3.2.0)** | Name and Version of Cancer Assent form used. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 0..1 | [xs:string](#38) |  |
| **Assent Form (34543@1.0.1)** | File name of the uploaded PDF copy of the assent form. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 0..1 | [xs:string](#38) |  |
| **Additional optional consent materials (40373@3.2.0)** | Names and versions of consent additional consent materials used. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 0..\* | [xs:string](#38) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Consent report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Consent Details [1..1]

*One report containing Consent Details must be submitted together with each Consent report.*  
  
Details corresponding to the questions and responses on the consent form.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Health Related Additional Findings (34544@1.0.1)** | Health-related additional findings: Does the participant want these looked for and fed back to their clinical team? | 0..1 | [yesNo](#34541)   |  |  | | --- | --- | | **yes** | Yes | | **no** | No | |  |
| **Reproductive Additional Findings (34546@1.0.1)** | Reproductive additional findings: Does the participant want these looked for and fed back to their clinical team? | 0..1 | [yesNoNotRelevant](#34545)   |  |  | | --- | --- | | **yes** | yes | | **no** | no | | **not\_relevant** | not relevant | |  |

## Withdrawals

Details related to a patient's withdrawal from the programme. Current protocol can be summarised as follows:  
  
Partial withdrawal  
The participant will no longer be contacted by 100,000 Genomes Project to request further samples or information. However, existing samples can still be used and information from the participant’s information can still be stored and updated by Genomics England.  
  
Full withdrawal  
The participant will no longer be contacted, all samples will be destroyed and all data will be put beyond further use except for audit purposes and no further clinical information will be gathered.  
Patients who have had registration data submitted but are ineligible as no tumour sample can be provided.  
  
Withdrawal Event Date is the Date of Withdrawal of Consent on the withdrawal form.

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Withdrawals report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Withdrawal [1..\*]

*One or more reports containing Withdrawal must be submitted for each Withdrawals report.*  
  
A report of withdrawal of consent.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Withdrawal Form (12730@1.0.1)** | Filename of uploaded copy of scanned withdrawal form pdf - requested format is [ParticipantId]\_withdrawal\_[TimeStamp].pdf | 0..1 | [xs:string](#38) |  |
| **Withdrawal Option (12728@1.0.1)** | Indicating full or partial withdrawal | 1..1 | [consentWithdrawalOptions](#34417)   |  |  | | --- | --- | | **full\_withdrawal** | OPTION 2: FULL WITHDRAWAL: No further use | | **partial\_withdrawal** | OPTION 1: PARTIAL WITHDRAWAL: No further contact | |  |
| **Name and Version of the Withdrawal Form Used (12729@1.0.1)** | Name and Version of form used - list of names and versions available from genomicsengland.co.uk/library-and-resources/ | 1..1 | [genomicsEnglandConsentWithdrawalForms](#34451)   |  |  | | --- | --- | | **6a** | Withdrawal information and form – for adult or child participants (6a) | | **6b** | Consultee declaration of advice regarding adult participant withdrawal information – for consultees (withdrawal) (6b) | |  |
| **Person Reporting Withdrawal (12731@1.0.1)** | Full name, including forenames and surname, of person reporting withdrawal. | 1..1 | [xs:string](#38) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Withdrawal report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

# Core Data

The core data required for a cancer participant consists of reports on clinical events in the existing medical history, and should be supplied within eight weeks of sample collection.  
  
All of the clinical events correspond to items in a specific longitudinal record model, in which each piece of data reported is associated with a date, usually the date of a relevant clinical event and one or more relevant diagnoses.  
  
Every submission must include a set of participant identifiers.

## Disease Information Update

Disease type and subtype of the sample submitted to GEL for sequencing. This is to enable high-level grouping and analysis of the tumour type. It is understood that this may not be available at Registration or may change between Registration and submission of Core data therefore this can be provided during Core data submissions.  
  
The Disease Information Update Event Date will be the date that the information was updated.  
  
Multiple instances of this section can be provided where multiple tumour samples are submitted with different disease types.

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Disease Information Update (Tumour Sample) report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Event Details [1..1]

*One report containing Event Details must be submitted together with each Disease Information Update report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

### Disease Information Update (Tumour Sample) [1..\*]

*Multiple reports containing Disease Information Updates (Tumour Sample) can be submitted together with each Disease Information Update report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Disease Type (12834@3.2.0)** | The cancer type of the tumour sample submitted to Genomics England.  The list of disease types will be validated against the types contained in Appendix A. These may be subject to change and GMCs are requested to ensure that data capture systems are flexible enough to accommodate future changes to the list of diseases contained in Appendix A.  If this is unknown at registration, it can be updated as part of the patient information in the core data submissions. | 1..1 | [xs:string](#38) |  |
| **Disease Subtype (12835@3.2.0)** | The subtype of the cancer in question, recorded against a limited set of supplied enumerations.  The list of disease subtypes will be validated against the subtypes contained in Appendix A.  These may be subject to change and GMCs are requested to ensure that data capture systems are flexible enough to accommodate changes to the list of disease contained in Appendix A.  This is to enable high-level grouping and analysis of the tumour type. It is understood that this may not be available at Registration or may change between Registration and submission of Core data. Note that the enumeration 'not\_available', although available at Registration, should not be submitted for Core Disease Information Updates.  If the diagnosis is not listed as a subtype it can be entered under “other”.  A tumour comprised of more than one subtype should be entered as follows: The predominant tumour subtype in the sample sent for whole genome sequencing should be entered first. The remaining subtypes should be entered in descending order with the most prevalant subtype in the whole tumour listed second. It is helpful to include “mixed tumour type” as a subtype but this should not be entered alone. | 1..\* | [xs:string](#38) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

## Risk Factor Assessment

Clinical event corresponding to the assessment of risk factors for a cancer participant.  
The Risk Factor Assessment Event Date will be the date that the risk factors were recorded.

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Risk Factor Assessment report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### General Risk Factors [0..\*]

*Multiple reports containing General Specific Risk Factors can be submitted together with each Risk Factors report.*   
  
Risk factors for each participant.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Smoking (14446@3.2.0)** | Specify the current smoking status of the patient | 0..1 | [smokingStatus](#1024)   |  |  | | --- | --- | | **1** | Current smoker | | **2** | Ex smoker | | **3** | Non-smoker - history unknown | | **4** | Never smoked | | **Z** | Not Stated (PERSON asked but declined to provide a response) | | **9** | Unknown | | SMOKING STATUS (LU10190 from Cancer Outcomes and Services Dataset) |
| **Alcohol Consumption (14447@1.0.1)** | The ALCOHOL WEEKLY UNITS reported by the patient. | 0..1 | [xs:nonNegativeInteger](#50) |  |
| **Height (4531@1.0.1)** | Person height / length in metres to 2 decimal places. Height and weight to be used to calculate BMI as an indicator of the patient being overweight or obese. Provide the most relevant information that will inform this. Will relate to new data item in COSD v7, CR6430 PERSON OBSERVATION HEIGHT IN METERS | 0..1 | [personHeightInMetres](#34505) |  |
| **Weight (14760@1.0.1)** | Weight in kg. Height and weight to be used to calculate BMI as an indicator of the patient being overweight or obese. Provide the most relevant information that will inform this. Will relate to new data item in COSD v7, CR6440 PERSON OBSERVATION (WEIGHT) | 0..1 | [personObservationWeight](#963) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each General Risk Factors report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

### Cancer Specific Risk Factors [0..\*]

*Multiple reports containing Cancer Specific Risk Factors can be submitted together with each Risk Factors report.*   
  
Submission of cancer specific risk factors is optional however, if risk factors are submitted, one of the specific risk factors must be provided

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Cancer Specific Risk Factors report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Risk Factors [1..1]

*One report containing Risk Factors must be submitted together with each Cancer Specific Risk Factors report.*  
  
Choice of risk factors for specific cancers:

##### Risk Factors for Ovarian Cancer [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Age of Menarche (14473@3.2.0)** | The age in years at the first menstrual period. | 0..1 | [Age](#32719) |  |
| **Age of Menopause (14474@3.2.0)** | The age in years at which menstruation ceased. | 0..1 | [Age](#32719) |  |
| **Duration of OCP (14475@3.2.0)** | The duration of oral contraceptive use, in years. | 0..1 | [durationInYears](#32958) |  |
| **Duration of HRT (14476@3.2.0)** | The duration of hormone replacement therapy, in years. | 0..1 | [durationInYears](#32958) |  |
| **Number of Pregnancies (14477@3.2.0)** | The total number of pregnancies (including live births, still births, miscarriages and termination of pregnancies) | 0..1 | [xs:nonNegativeInteger](#50) |  |
| **Number of Births (14478@3.2.0)** | This is the number of registrable live births by the participant | 0..1 | [xs:nonNegativeInteger](#50) |  |
| **Endometriosis (14479@3.2.0)** | Medical diagnosis of endometriosis made. | 0..1 | [positiveNegativeUnknown](#34507)   |  |  | | --- | --- | | **unknown** | unknown | | **negative** | negative | | **positive** | positive | |  |
| **Previous Tubal Ligation (14480@3.2.0)** | Previous Tubal Ligation | 0..1 | [yesNoUnk](#34542)   |  |  | | --- | --- | | **yes** | Yes | | **no** | No | | **unknown** | Unknown | |  |
| **Use of IUD (14481@3.2.0)** | Intrauterine Device (IUD) ever used for duration of over 1 month | 0..1 | [yesNoUnk](#34542)   |  |  | | --- | --- | | **yes** | Yes | | **no** | No | | **unknown** | Unknown | |  |
| **Use of Non-Steroidal Anti Inflammatory Drugs (14482@3.2.0)** | Any episode of chronic use = NSAIDS used more than half the days of the week, more than half the weeks of the year for over 1 year | 0..1 | [yesNoUnk](#34542)   |  |  | | --- | --- | | **yes** | Yes | | **no** | No | | **unknown** | Unknown | |  |
| **Number of Children Breastfed (29104@3.2.0)** | Number of children breastfed over 3 months duration | 0..1 | [xs:nonNegativeInteger](#50) |  |
| **Number Cycles IVF (29105@3.2.0)** | Number of cycles of IVF | 0..1 | [xs:nonNegativeInteger](#50) |  |

**or in the case of,**

##### Risk Factors for Breast Cancer [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Age of Menarche (14473@3.2.0)** | The age in years at the first menstrual period. | 0..1 | [Age](#32719) |  |
| **Age of Menopause (14474@3.2.0)** | The age in years at which menstruation ceased. | 0..1 | [Age](#32719) |  |
| **Duration of OCP (14475@3.2.0)** | The duration of oral contraceptive use, in years. | 0..1 | [durationInYears](#32958) |  |
| **Duration of HRT (14476@3.2.0)** | The duration of hormone replacement therapy, in years. | 0..1 | [durationInYears](#32958) |  |
| **Number of Pregnancies (14477@3.2.0)** | The total number of pregnancies (including live births, still births, miscarriages and termination of pregnancies) | 0..1 | [xs:nonNegativeInteger](#50) |  |
| **Number of Children Breastfed (29104@3.2.0)** | Number of children breastfed over 3 months duration | 0..1 | [xs:nonNegativeInteger](#50) |  |
| **Number Cycles IVF (29105@3.2.0)** | Number of cycles of IVF | 0..1 | [xs:nonNegativeInteger](#50) |  |
| **Breast Density (29108@3.2.0)** | Breast density at most recent available pre-surgical mammogram: based on percentage of fibroglandular tissue relative to total area on the two view mammogram. | 0..1 | [breastDensity](#32729)   |  |  | | --- | --- | | **birads\_0** | additional imaging evaluation and/or comparison to prior mammogram is needed | | **birads\_1** | glandular tissue is less than 25% | | **birads\_2** | scattered fibroglandular densities (25-50%) | | **birads\_3** | heterogeneously dense (50-75%) | | **birads\_4** | extremely dense breast (75-100%) | |  |

**or in the case of,**

##### Risk Factors for Glioma Cancer [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Radiotherapy in Childhood (38862@3.2.0)** | Was radiotherapy received in childhood for a Central Nervous System (CNS) or non CNS tumour? | 1..1 | [radiotherapyInChildhood](#39052)   |  |  | | --- | --- | | **cns** | CNS | | **non\_cns** | non\_CNS | | **none** | none | | **unknown** | unknown | |  |

**or in the case of,**

#### Risk Factors for Endometrial Cancer [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Age of Menarche (14473@3.2.0)** | The age in years at the first menstrual period. | 0..1 | [Age](#32719) |  |
| **Age of Menopause (14474@3.2.0)** | The age in years at which menstruation ceased. | 0..1 | [Age](#32719) |  |
| **Duration of OCP (14475@3.2.0)** | The duration of oral contraceptive use, in years. | 0..1 | [durationInYears](#32958) |  |
| **Duration of HRT (14476@3.2.0)** | The duration of hormone replacement therapy, in years. | 0..1 | [durationInYears](#32958) |  |
| **Number of Pregnancies (14477@3.2.0)** | The total number of pregnancies (including live births, still births, miscarriages and termination of pregnancies) | 0..1 | [xs:nonNegativeInteger](#50) |  |
| **Tamoxifen use age (39005@3.2.0)** | If treated with tamoxifen, age in years at which treatment started. | 0..1 | [Age](#32719) |  |

**or in the case of,**

##### Risk Factors for Renal Cancer [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Dialysis Duration (39011@3.2.0)** | Number of years dialysis received | 1..1 | [xs:nonNegativeInteger](#50) |  |

**or in the case of,**

##### Risk Factors for Malignant Melanoma [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Childhood Chronic Exposure (39012@3.2.0)** | Number of years spent living in a country with high UV light between 0 and15 years. | 0..1 | [childhoodChronicExposure](#41973) |  |
| **Sunbed use age (39014@3.2.0)** | Age, in years, when sunbed first used. | 0..1 | [Age](#32719) |  |
| **Skin type (39016@3.2.0)** | Skin type according to the Fitzpatrick Scale. Link http://archderm.jamanetwork.com/article.aspx?articleid=549509 | 0..1 | [Skintype](#39015)   |  |  | | --- | --- | | **i** | I Always burns, never tans | | **ii** | II Usually burns, tans minimally | | **iii** | III Sometimes mild burn, tans uniformly | | **iv** | IV Burns minimally, always tans well | | **v** | V Very rarely burns, tans very easily | | **vi** | VI Never burns, never tans | | **unknown** | unknown | |  |

**or in the case of,**

##### Risk Factors for Testicular Cancer [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Cryptorchidism (39019@3.2.0)** | Presence or history of cryptorchidism (the absence of one or both testes from the scrotum). | 0..1 | [yesNoUnk](#34542)   |  |  | | --- | --- | | **yes** | Yes | | **no** | No | | **unknown** | Unknown | |  |
| **Cryptorchidism Age (39097@3.2.0)** | If participant has a history of cryptorchidism, age at its correction in years. | 0..1 | [Age](#32719) |  |

**or in the case of,**

##### Risk Factors for HPB Cancer [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Hepatitis B infection (39025@3.2.0)** | History of hepatitis B infection | 0..1 | [infectionHistory](#39027)   |  |  | | --- | --- | | **none** | none | | **previous** | previous | | **current** | current | | **unknown** | unknown | |  |
| **Hepatitis C infection (39028@3.2.0)** | History of hepatitis C infection | 0..1 | [infectionHistory](#39027)   |  |  | | --- | --- | | **none** | none | | **previous** | previous | | **current** | current | | **unknown** | unknown | |  |
| **Cirrhosis (39030@3.2.0)** | History of cirrhosis, total duration in years. | 0..1 | [durationInYears](#32958) |  |

**or in the case of,**

## Investigations

Investigation events may be associated with multiple diagnosis events.   
  
Investigations include imaging, sample investigation, including biopsies, with associated pathology, and tumour markers, and other investigation (e.g. blood tests).  
  
The Investigation Event Date will be the date of the reported investigation.  
  
If investigations aren't imaging investigations or sample investigations please use the generic 'Investigations - Other' class to record the appropriate results and metadata.

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Investigations report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Imaging [0..\*]

*Multiple reports containing imaging can be submitted together with each investigations report.*  
  
If the investigation involves imaging, the following should be included:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Imaging Modality (29094@3.2.0)** | \*IMAGING CODE (NICIP) and/or \*IMAGING CODE (SNOMED CT) and/or \*CANCER IMAGING MODALITY and IMAGING ANATOMICAL SITE and ANATOMICAL SIDE (IMAGING) is required. The type of imaging procedure used during an Imaging or Radiodiagnostic Event for a Cancer Care Spell. NB: PET Scan also includes PET-CT Scan. | 0..1 | [cancerImagingModality >10 enumerations, please click link above to view full list.](#393) | CANCER IMAGING MODALITY (CR0330 from Cancer Outcomes and Services Dataset) |
| **Anatomical Site (12753@3.2.0)** | A classification of the part of the body that is the subject of an Imaging Or Radiodiagnostic Event.  The coding frame used is the OPCS-4 'Z' coding, plus two additional local codes:  Whole body CZ001  Multiple sites CZ002 | 0..1 | [imagingAnatomicalSite](#395) | IMAGING ANATOMICAL SITE (CR0340 from Cancer Outcomes and Services Dataset) |
| **Anatomical Side (33444@3.2.0)** | The side of the body that is the subject of an Imaging or Radiodiagnostic Event. | 0..1 | [anatomicalSideImaging](#397)   |  |  | | --- | --- | | **L** | Left | | **R** | Right | | **M** | Midline | | **B** | Bilateral | | **8** | Not applicable | | **9** | Not Known | | ANATOMICAL SIDE (IMAGING) (CR3000 from Cancer Outcomes and Services Dataset) |
| **Imaging Report Reference (29096@3.2.0)** | This is an internal reference that will allow your centre to retrieve the imaging report associated with this imaging event | 1..1 | [xs:string](#38) |  |
| **Image File Reference (14897@3.2.0)** | If not possible to submit Image File, please supply Image File local reference, according to local imaging guidance. | 0..\* | [xs:string](#38) |  |
| **Ultrasound Examination Result (42053@3.2.0)** | Relates to COSD v7, CR6000. Result of the ultrasound examination. For example in Breast Cancer, this will normally be the result of the ultrasound examination of the breast undertaken at the first outpatient appointment at the breast clinic. If the patient attends more than one breast clinic, the result of each ultrasound examination of the breast should be recorded. | 0..1 | [ultrasoundExaminationResult](#151)   |  |  | | --- | --- | | **U1** | Normal | | **U2** | Benign | | **U3** | Indeterminate/probably benign | | **U4** | Suspicious of malignancy | | **U5** | Highly suspicious of malignancy | |  |
| **Imaging Report Text (42266@3.2.0)** | This is the full text provided in the imaging report. | 0..1 | [xs:string](#38) | IMAGING REPORT TEXT (CR0160 from Cancer Outcomes and Services Dataset) |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Imaging report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Imaging report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

#### Sample Details [0..1]

*A maximum of one report containing Sample Details can be submitted together with each Imaging report. The Imaging report can be submitted without this information.*  
  
All sample investigations relating to germline or tumour molecular genetics should have the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Local Sample ID (12762@1.0.1)** | The local identifier for the source sample | 0..1 | [xs:string](#38) |  |
| **Sample Taken Date (12760@1.0.1)** | The date upon which the sample was taken | 0..1 | [xs:date](#58) | SAMPLE COLLECTION DATE (CR1010 from Cancer Outcomes and Services Dataset) |
| **Sample Receipt Date (12761@1.0.1)** | The date upon which the sample was received at the laboratory | 0..1 | [xs:date](#58) | SAMPLE RECEIPT DATE (CR0770 from Cancer Outcomes and Services Dataset) |

#### Imaging Code [1..1]

*One report containing Imaging Code must be submitted together with each Imaging report.*  
  
Choice of SNOMED CT or NICIP imaging codes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Imaging Code (SNOMEDCT) (12752@3.2.0)** | \*IMAGING CODE (NICIP) and/or \*IMAGING CODE (SNOMED CT) and/or \*CANCER IMAGING MODALITY and IMAGING ANATOMICAL SITE and ANATOMICAL SIDE (IMAGING) is required. IMAGING CODE (NICIP) is the National Interim Clinical Imaging Procedure Code Set code which is used to identify both the test modality and body site of the test | 1..1 | [snomedCt](#34520) | IMAGING ANATOMICAL SITE (CR0340 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Imaging Code (NICIP) (33449@3.2.0)** | \*IMAGING CODE (NICIP) and/or \*IMAGING CODE (SNOMED CT) and/or \*CANCER IMAGING MODALITY and IMAGING ANATOMICAL SITE and ANATOMICAL SIDE (IMAGING) is required. IMAGING CODE (NICIP) is the National Interim Clinical Imaging Procedure Code Set code which is used to identify both the test modality and body site of the test. | 1..1 | [imagingCode(NICIP)](#389) | IMAGING CODE (NICIP) (CR1610 from Cancer Outcomes and Services Dataset) PROCEDURE DATE (CANCER IMAGING) (CR0320 from Cancer Outcomes and Services Dataset) |

#### Cancer Specific Imaging [0..1]

*A maximum of one report containing Cancer Specific Imaging can be submitted together with each Imaging report. The Imaging report can be submitted without this information.*  
  
Submission of cancer specific risk imaging is optional however, if cancer specific imaging is submitted, one of the following must be provided:

##### Imaging (Breast) [1..1]

Priority COSD data items from BREAST - IMAGING. To carry imaging mammogram, ultrasound and axilla ultrasound details for breast cancer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Mammogram result (38883@3.2.0)** | Result of the mammogram. This will normally be the result of the mammogram taken at the first outpatient appointment at the breast clinic. If the patient attends more than one breast clinic, the result of each mammogram should be recorded. | 1..1 | [mammogramResult](#137)   |  |  | | --- | --- | | **R1** | Normal | | **R2** | Benign | | **R3** | Uncertain | | **R4** | Suspicious | | **R5** | Malignant | | MAMMOGRAM RESULT (BR4050 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

##### Imaging (CNS) [1..1]

Priority COSD data items from CNS - IMAGING. To carry imaging details for CNS cancer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Lesion location (radiological) (38930@3.2.0)** | Radiologically determined anatomical location of lesion (largest lesion if more than one) or where centred. This is recorded prior to treatment. | 0..1 | [locationSurgical >10 enumerations, please click link above to view full list.](#282) | LESION LOCATION (RADIOLOGICAL) (BA3000 from Cancer Outcomes and Services Dataset) |
| **Number of lesions (radiological) (38931@3.2.0)** | Radiologically determined number of lesions. (From UPPER GI - STAGING - LIVER HCC) | 0..1 | [numberOfLesionsRadiological](#268) | NUMBER OF LESIONS (RADIOLOGICAL) (UG14540 from Cancer Outcomes and Services Dataset) |
| **Principal diagnostic imaging type (38934@3.2.0)** | Indicate the principal imaging procedure undertaken to diagnose the tumour. NB: PET Scan also includes PET-CT Scan | 0..1 | [principalDiagnosticImagingType](#274)   |  |  | | --- | --- | | **1** | CT Scan | | **2** | MRI Scan | | **3** | PET Scan | | PRINCIPAL DIAGNOSTIC IMAGING TYPE (BA3050 from Cancer Outcomes and Services Dataset) |
| **Features of largest lesion (radiological) (38933@3.2.0)** | Radiologically identified features of the largest lesion such as density, necrosis recorded pre treatment. This may involve selection of more than one value. | 0..1 | [featuresOfLargestLesionRadiological](#272)   |  |  | | --- | --- | | **01** | Contrast-enhancement | | **02** | Calcification | | **03** | Mass effect | | **04** | Hydrocephalus | | **05** | Haemorrhage | | **06** | Cystic/multi-cystic | | **07** | Dural tail | | **08** | Brain oedema | | **09** | Cord signal change | | **10** | Cord compression | | FEATURES OF LARGEST LESION (RADIOLOGICAL) (BA3040 from Cancer Outcomes and Services Dataset) |
| **Lesion Size (Radiological) (38932@3.2.0)** | Radiological estimate in millimetres of the maximum diameter of the tumour measured prior to treatment (largest lesion if more than one). Record as "0" to indicate not assessable for diffuse tumours (e.g. gliomatosis cerebri). | 0..1 | [lesionSizeRadiological](#270) | LESION SIZE (RADIOLOGICAL) (BA3030 from Cancer Outcomes and Services Dataset) |

### Sample Pathology [0..\*]

*Multiple reports containing sample pathology can be submitted together with each Investigations report.*   
  
Clinical event corresponding to a pathology report.   
  
We expect to receive at least one or more Sample Pathology records for each participant and for each Diagnosis.   
  
The Sample Pathology Event Date will be the date of final authorisation of the corresponding pathology report.  
  
The pathology report, as well as Event Details, should include Morphology, Topography, and, where applicable, Cancer Specific Tumour Markers, Cancer Specific Pathology and Cancer Specific Grading information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Primary Diagnosis (ICD Pathological) (38876@3.2.0)** | PRIMARY DIAGNOSIS (ICD PATHOLOGICAL) is the PRIMARY DIAGNOSIS based on the evidence from a pathological examination. | 0..1 | [primaryDiagnosisIcd](#311) | PRIMARY DIAGNOSIS (ICD PATHOLOGICAL) (CR0810 from Cancer Outcomes and Services Dataset) |
| **Primary Diagnosis (SNOMED CT Pathological) (42275@3.2.0)** | PRIMARY DIAGNOSIS (SNOMED CT PATHOLOGICAL) is the PRIMARY DIAGNOSIS based on the evidence from a pathological examination. Multiple SNOMED CT codes may be provided. | 0..\* | [snomedCt](#34520) |  |
| **Pathology Investigation Type (14903@3.2.0)** | The type of pathology investigation carried out. Although this item is based on COSD CR0760, an additional value 'BM' for Bone Marrow Aspirate has been added for the purposes of this project in order to collect haematological bone marrow aspirate samples. | 1..1 | [pathologyInvestigationType >10 enumerations, please click link above to view full list.](#42046) |  |
| **Excision Margin (14904@3.2.0)** | An indication of whether the excision margin was clear of the tumour and if so, by how much.  Where there is more than one measurement, record the closest or closest relevant margin.  Where actual measurements are not taken use options 01, 05 or 06 as applicable. | 0..1 | [excisionMargin >10 enumerations, please click link above to view full list.](#589) | EXCISION MARGIN (CR0880 from Cancer Outcomes and Services Dataset) |
| **Grade of Differentiation (14905@3.2.0)** | GRADE OF DIFFERENTIATION (PATHOLOGICAL) is the definitive grade of the Tumour based on the evidence from a pathological examination. Not applicable for CNS, Haematology, Melanoma and Sarcoma. Either Grade of Differentiation and/or individual cancer specific grading should be provided, where available. Where applicable, both may be provided, e.g. in the case of urothelial cancers. Where cancer specific grading is available and provided, GX should be recorded for general Grade of Differentiation. | 1..1 | [gradeOfDifferentiation(pathological)](#3552)   |  |  | | --- | --- | | **G4** | Undifferentiated / anaplastic | | **G3** | Poorly differentiated | | **G2** | Moderately differentiated | | **G1** | Well differentiated | | **GX** | Grade of differentiation is not appropriate or cannot be assessed | | GRADE OF DIFFERENTIATION (PATHOLOGICAL) (CR0860 from Cancer Outcomes and Services Dataset) |
| **Pathology Report (14907@3.2.0)** | The full text from the pathology report (uploaded copy of pathology report) | 0..1 | [pathologyReportText](#581) | PATHOLOGY REPORT TEXT (CR1020 from Cancer Outcomes and Services Dataset) |
| **Number of Nodes Examined (14908@3.2.0)** | Number of nodes examined, where applicable | 0..1 | [numberOfNodesExamined](#593) | NUMBER OF NODES EXAMINED (CR0890 from Cancer Outcomes and Services Dataset) |
| **Number of Nodes Positive (38882@3.2.0)** | The number of local and regional nodes reported as being positive for the presence of Tumour metastases (in this specimen report only) | 0..1 | [numberOfNodesPositive](#595) | NUMBER OF NODES POSITIVE (CR0900 from Cancer Outcomes and Services Dataset) |
| **Pathology Image File Reference (14912@3.2.0)** | Image of the section from block submitted to GEL | 0..\* | [xs:string](#38) |  |
| **Tumour Type (14721@3.2.0)** | The type of the tumour sampled and sent for sequencing  For haematological cancers only 'primary' is applicable. | 0..1 | [tumourType](#32950)   |  |  | | --- | --- | | **primary** | Primary; source of cancer tumour sample | | **recurrence\_of\_primary\_tumour** | Recurrence; a tumour has returned at the site of the original cancer | | **metastatic\_recurrence** | Metastatic (different cancer site) which developed and was sampled after presentation | | **metastases** | Metastatic (different cancer site) which was present and sampled at diagnosis instead of the primary tumour | |  |
| **Pre-operative Therapy (35534@3.2.0)** | Has the patient received pre-operative therapy? | 1..1 | [yesNoUnk](#34542)   |  |  | | --- | --- | | **yes** | Yes | | **no** | No | | **unknown** | Unknown | |  |
| **Investigation Result Date (40107@3.2.0)** | The date on which an investigation was concluded e.g. the date the result was authorised. | 0..1 | [xs:date](#58) | INVESTIGATION RESULT DATE (UG14500 from Cancer Outcomes and Services Dataset) |
| **Service Report Identifier (39088@3.2.0)** | Priority COSD data item from CORE - PATHOLOGY DETAILS. A unique identifier of a SERVICE REPORT. max an18 | 0..1 | [serviceReportIdentifier](#162) | SERVICE REPORT IDENTIFIER (UG14510 from Cancer Outcomes and Services Dataset) |
| **Cancer vascular or lymphatic invasion (38881@3.2.0)** | An indication of the presence or absence of unequivocal tumour in lymphatic and/or vascular spaces. | 0..1 | [cancerVascularOrLymphaticInvasion](#587)   |  |  | | --- | --- | | **NU** | No - vascular/lymphatic invasion not present | | **YU** | Yes - vascular/lymphatic invasion present | | **YV** | Vascular invasion only present | | **YL** | Lymphatic invasion only present | | **YB** | Both lymphatic and vascular invasion present" | | **UU** | Uncertain whether vascular/lymphatic invasion is present or not | | **XX** | Cannot be assessed | | **99** | Not Known | | CANCER VASCULAR OR LYMPHATIC INVASION (CR0870 from Cancer Outcomes and Services Dataset) |
| **Tumour Size (29075@3.2.0)** | Maximum dimension of the largest tumour in mm on the histopathology report. | 0..1 | [diameterInMm](#40396) |  |
| **Pre-invasive Elements (14872@3.2.0)** | Description of atypia or in situ disease, if present. Input needs to be surrounded by double quotes i.e. "xxxx, xxxx xxxx" | 0..1 | [xs:string](#38) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Sample Pathology report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Sample Pathology report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

#### Sample Details [0..1]

*A maximum of one report containing Sample Details can be submitted together with each Sample Pathology report. The Sample Pathology report can be submitted without this information.*  
  
All sample investigations relating to germline or tumour molecular genetics should have the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Local Sample ID (12762@1.0.1)** | The local identifier for the source sample | 0..1 | [xs:string](#38) |  |
| **Sample Taken Date (12760@1.0.1)** | The date upon which the sample was taken | 0..1 | [xs:date](#58) | SAMPLE COLLECTION DATE (CR1010 from Cancer Outcomes and Services Dataset) |
| **Sample Receipt Date (12761@1.0.1)** | The date upon which the sample was received at the laboratory | 0..1 | [xs:date](#58) | SAMPLE RECEIPT DATE (CR0770 from Cancer Outcomes and Services Dataset) |

#### Morphology [1..\*]

*One or more reports containing Morphology must be submitted for each Sample Pathology report.*  
  
Choice of ICD03 or SNOMED morphology codes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Morphology (ICD) (14871@3.2.0)** | The morphology code for the diagnosed cancer as defined by ICDO3. This can be recorded as well as or instead of MORPHOLOGY (SNOMED). | 1..1 | [morphology(icd)](#40406) | MORPHOLOGY (ICDO3) (CR0180 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Morphology (SNOMEDCT) (31244@3.2.0)** | The morphology code for the diagnosed cancer as defined by SNOMED CT. This can be recorded as well as or instead of MORPHOLOGY (ICD). | 1..1 | [morphology(snomedCt)](#407) | MORPHOLOGY (SNOMED CT) (CR3070 from Cancer Outcomes and Services Dataset) MORPHOLOGY (SNOMED) (CR0850 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Morphology (SNOMEDRT) (31243@3.2.0)** | The morphology code for the diagnosed cancer as defined by SNOMED RT. This can be recorded as well as or instead of MORPHOLOGY (ICD). | 1..1 | [morphology(snomed)](#32845) | MORPHOLOGY (SNOMED) (CR0850 from Cancer Outcomes and Services Dataset) |

**Or in the case of,**

##### Morphology (SNOMED) [1..1]

This is the morphology of the tumour as categorised by SNOMED and the version of SNOMED.  
  
Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017 other than for historical content.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Morphology (SNOMED) (42048@3.2.0)** | This is the morphology of the tumour as categorised by SNOMED International / SNOMED CT  Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017 other than for historical content | 1..1 | [snomed](#42181) |  |
| **SNOMED version (42049@3.2.0)** | The version of SNOMED used to encode MORPHOLOGY (SNOMED) and TOPOGRAPHY (SNOMED)  Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017 other than for historical content | 1..1 | [snomedVersion](#42050)   |  |  | | --- | --- | | **01** | SNOMED II | | **02** | SNOMED 3 | | **03** | SNOMED 3.5 | | **04** | SNOMED RT | | **05** | SNOMED CT | | **99** | Not Known | |  |

#### Topography [0..1]

*A maximum of one report containing Topography can be submitted together with each Sample Pathology report. The Sample Pathology report can be submitted without this information.*  
  
Choice of ICD03 or SNOMED topography codes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Topography (ICD) (31228@3.2.0)** | This is the topographical site of the tumour as categorised by ICD03 | 1..1 | [topographyIcdo3](#414) | Morphology (ICD) (Cancer Model) MORPHOLOGY (ICDO3) (CR0180 from Cancer Outcomes and Services Dataset) TOPOGRAPHY (ICDO3) (CR0480 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Topography (SNOMEDCT) (14876@3.2.0)** | This is the topographical site of the tumour as categorised by SNOMED CT. | 1..1 | [topographySnomedCt](#573) | TOPOGRAPHY (SNOMED CT) (CR3060 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Topography (SNOMEDRT) (31227@3.2.0)** | This is the topographical site of the tumour as categorised by SNOMED RT | 1..1 | [topographySnomed](#571) | TOPOGRAPHY (SNOMED) (CR0530 from Cancer Outcomes and Services Dataset) |

**Or in the case of,**

##### Topography (SNOMED) [1..1]

This is the topographical site of the tumour as categorised by SNOMED International / SNOMED CT.  
  
Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Topography (SNOMED) (42052@3.2.0)** | This is the topographical site of the tumour as categorised by SNOMED International / SNOMED CT   Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017. | 1..1 | [snomed](#42181) |  |
| **SNOMED version (42049@3.2.0)** | The version of SNOMED used to encode MORPHOLOGY (SNOMED) and TOPOGRAPHY (SNOMED)  Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017 other than for historical content | 1..1 | [snomedVersion](#42050)   |  |  | | --- | --- | | **01** | SNOMED II | | **02** | SNOMED 3 | | **03** | SNOMED 3.5 | | **04** | SNOMED RT | | **05** | SNOMED CT | | **99** | Not Known | |  |

#### pTNM [0..1]

*A maximum of one report containing pTNM can be submitted together with each Sample Pathology report. The Sample Pathology report can be submitted without this information.*  
  
Record the details of the Union for International Cancer Control (UICC) pathological Tumour, Node and Metastasis (TNM) staging for cancer and the UICC version used.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **TNM Version (14909@3.2.0)** | Relates to CR2070 v7.0 - The AJCC (Skin) or UICC edition number used for Tumour, Node and Metastasis (TNM) staging for cancer diagnosis. | 1..1 | [tnmEditionNumber](#483) | Integrated TNM Version (Cancer Model) TNM EDITION NUMBER (CR2070 from Cancer Outcomes and Services Dataset) |
| **pT (14910@3.2.0)** | T CATEGORY (PATHOLOGICAL) is the Union for International Cancer Control (UICC) code which classifies the size and extent of the primary Tumour based on the evidence from a pathological examination.  (COSD User Guidance: not applicable for CNS, Gynaecology, Haematology, stageable Skin and most CTYA diagnosis. Please see site specific datasets for further information on collecting this data item, including the site specific values to be used.) See COSD User Guidance for recommended staging to be collected for individual cancer sites. | 0..1 | [tCategoryPathological](#597) | T CATEGORY (PATHOLOGICAL) (CR0910 from Cancer Outcomes and Services Dataset) |
| **pN (14911@3.2.0)** | N CATEGORY (PATHOLOGICAL) is the Union for International Cancer Control (UICC) code which classifies the absence or presence and extent of regional lymph node metastases based on the evidence from a pathological examination. | 0..1 | [nCategoryPathological](#599) | N CATEGORY (PATHOLOGICAL) (CR0920 from Cancer Outcomes and Services Dataset) |
| **pM (29098@3.2.0)** | M CATEGORY (PATHOLOGICAL) is the Union for International Cancer Control (UICC) code which classifies the absence or presence of distant metastases based on the evidence from a pathological examination. | 0..1 | [mCategoryPathological](#601) | M CATEGORY (PATHOLOGICAL) (CR0930 from Cancer Outcomes and Services Dataset) |

#### Cancer Specific Tumour Markers [0..1]

*A maximum of one report containing Cancer Specific Tumour Markers can be submitted together with each Sample Pathology report. The Sample Pathology report can be submitted without this information.*  
  
Cancer specific markers for colorectal or breast or lung or ovarian or childhood tumours.  
  
Where applicable, and if available, one set of cancer specific tumour markers information should be submitted as part of the pathology information submission.  
*If submitted, one of the following must be submitted together with each Cancer Specific Tumour Markers report*

##### Colorectal Tumour Markers [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **MLH1 IHC (14916@3.2.0)** | Indication of biomarkers presence | 0..1 | [biomarkerPresent](#32725)   |  |  | | --- | --- | | **present** | present | | **not\_tested** | no tested | | **equivocal** | equivocal | | **absent** | absent | |  |
| **MSH2 IHC (14917@3.2.0)** | Indication of biomarkers presence | 0..1 | [biomarkerPresent](#32725)   |  |  | | --- | --- | | **present** | present | | **not\_tested** | no tested | | **equivocal** | equivocal | | **absent** | absent | |  |
| **MSH6 IHC (14918@3.2.0)** | Indication of biomarkers presence | 0..1 | [biomarkerPresent](#32725)   |  |  | | --- | --- | | **present** | present | | **not\_tested** | no tested | | **equivocal** | equivocal | | **absent** | absent | |  |
| **PMS2 IHC (14919@3.2.0)** | Indication of biomarkers presence | 0..1 | [biomarkerPresent](#32725)   |  |  | | --- | --- | | **present** | present | | **not\_tested** | no tested | | **equivocal** | equivocal | | **absent** | absent | |  |

**or in the case of,**

##### Ovarian Tumour Markers [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **WT1 IHC (14923@3.2.0)** | Indication of biomarkers presence | 1..1 | [biomarkerPresent](#32725)   |  |  | | --- | --- | | **present** | present | | **not\_tested** | no tested | | **equivocal** | equivocal | | **absent** | absent | |  |

**or in the case of,**

##### Lung Tumour Markers [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Epidermal growth factor receptor mutational status (38900@3.2.0)** | Relates to COSD v7, LU10090. Epidermal Growth Factor Receptor Mutational Status | 1..1 | [epidermalGrowthFactorReceptorMutationalStatus](#42059)   |  |  | | --- | --- | | ***1*** | *Wild type* | | ***2*** | *Mutation* | | **3** | Failed analysis | | **4** | Not assessed | | **5** | Wild type/non-sensitising mutation | | **6** | Sensitising/activating mutation | |  |

**or in the case of,**

##### Childhood Tumour Markers [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Molecular subgroup (medulloblastoma) (38992@3.2.0)** | molecular subgroup (medulloblastoma) | 0..1 | [molecularSubgroupMedulloblastoma](#38988)   |  |  | | --- | --- | | **not\_tested** | Not tested | | **shh** | SHH | | **wnt** | WNT | | **non\_shh** | Non-SHH | | **non\_wnt** | Non-WNT | |  |
| **TP53 (medulloblastoma) (38993@3.2.0)** | TP53 (medulloblastoma) | 0..1 | [alkBlastomaMarker](#38997)   |  |  | | --- | --- | | **not\_tested** | not tested | | **wild\_type** | wild-type | | **mutant** | mutant | |  |
| **MYC (medulloblastoma and neuroblastoma) (38994@3.2.0)** | MYC (medulloblastoma and neuroblastoma) | 0..1 | [blastomaMarker](#38990)   |  |  | | --- | --- | | **not\_tested** | not tested | | **amplified** | amplified | | **non\_amplified** | non amplified | |  |
| **MYCN (medulloblastoma and neuroblastoma) (38995@3.2.0)** | MYCN (medulloblastoma and neuroblastoma) | 0..1 | [blastomaMarker](#38990)   |  |  | | --- | --- | | **not\_tested** | not tested | | **amplified** | amplified | | **non\_amplified** | non amplified | |  |
| **ALK (neuroblastoma) (38998@3.2.0)** | ALK (neuroblastoma) | 0..1 | [alkBlastomaMarker](#38997)   |  |  | | --- | --- | | **not\_tested** | not tested | | **wild\_type** | wild-type | | **mutant** | mutant | |  |
| **Chromosomal abnormality (neuroblastoma) (39000@3.2.0)** | Chromosomal abnormality in neuroblastoma tumour | 0..1 | [chromosomalabnormalityNeuroblastoma](#38999)   |  |  | | --- | --- | | **not\_tested** | not tested | | **segmental** | segmental | | **non\_segmental** | non-segmental | |  |

#### Cancer Specific Grading [0..1]

*A maximum of one report containing Cancer Specific Grading can be submitted together with each Sample Pathology report. The Sample Pathology report can be submitted without this information.*  
  
Cancer specific grades.   
  
Where applicable, and if available, one set of cancer specific grading information should be submitted as part of the pathology information submission.

*One of the following must be submitted together with each Cancer Specific Grading report*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Fuhrman Grade (33070@3.2.0)** | Specific Grading for Renal Cancer. Fuhrman grade according to RCP guidance: https://www.rcpath.org/Resources/RCPath/Migrated%20Resources/Documents/G/G037FINAL\_AdultrenaldatasetNov06.pdf | 1..1 | [fuhrmanGradingSystem](#32792)   |  |  | | --- | --- | | **1** | 1 | | **2** | 2 | | **3** | 3 | | **4** | 4 | |  |
| **Or in the case of,** | | | | |
| **Figo Grade (33065@3.2.0)** | Specific Grading for Ovarian and Endometrial Cancer  Figo Grade as per updated RCPath guidelines: http://www.rcpath.org/Resources/RCPath/Migrated%20Resources/Documents/C/CEU\_FIGO1988vs2013ovarianstaging\_Dec13.pdf | 1..1 | [figoGrade](#32781)   |  |  | | --- | --- | | **1** | 1 | | **2** | 2 | | **3** | 3 | |  |
| **Or in the case of,** | | | | |
| **Invasive Grade (Breast) (33062@3.2.0)** | Specific Grading for Breast Cancer as defined by the modified Bloom–Richardson:   https://www.rcpath.org/Resources/RCPath/Migrated%20Resources/Documents/P/PosterFinal.pdf   The Bloom–Richardson grading system from 1957[1] refers to a breast cancer classification system to grade breast cancers, and was the precursor of the present criteria, the modified Bloom–Richardson–Elston grading system (also called the Nottingham system.)[2][3] | 1..1 | [breastInvasiveTumourGrade](#32730)   |  |  | | --- | --- | | **1** | 1 | | **2** | 2 | | **3** | 3 | | **x** | Not assessable | |  |
| **Or in the case of,** | | | | |
| **DCIS Grade (33063@3.2.0)** | DCIS based on nuclear grade Please see Ref: http://www.cancerscreening.nhs.uk/breastscreen/publications/nhsbsp58-low-resolution.pdf for further guidance | 1..1 | [dcisTumourGrade](#32751)   |  |  | | --- | --- | | **l** | Low | | **i** | Intermediate | | **h** | High | | **x** | Not assessable | |  |
| **Or in the case of,** | | | | |
| **Serum tumour markers (38869@3.2.0)** | TESTICULAR ONLY. Based on serum tumour markers AFP, HCG and LDH. For Testicular Cancer S category is an additional prognostic factor. | 1..1 | [SCATEGORY](#1154)   |  |  | | --- | --- | | **SX** | Marker studies not available or not performed | | **S0** | Normal | | **S1** | LDH (UNITS/LITRE) - Less than 1.5 x normal, HCG (MILLIUNITS/MILLILITRE) - Less than 5,000, AFP (NANOGRAMS/MILLILITRE) - Less than 1,000 | | **S2** | LDH (UNITS/LITRE) - 1.5-10 x normal, HCG (MILLIUNITS/MILLILITRE) - 5,000-50,000, AFP (NANOGRAMS/MILLILITRE) - 1,000-10,000 | | **S3** | LDH (UNITS/LITRE) - Greater than 10 x normal, HCG (MILLIUNITS/MILLILITRE) - Greater than 50,000, AFP (NANOGRAMS/MILLILITRE) - Greater than 10,000 | | S-CATEGORY (UR15030 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **WHO tumour grade (CNS) (38941@3.2.0)** | The grade of the tumour using WHO classification for tumours of the central nervous system. FOR INTRA AXIAL AND EXTRA AXIAL ONLY. | 1..1 | [whoTumourGradeCns](#296)   |  |  | | --- | --- | | **1** | I | | **2** | II | | **3** | III | | **4** | IV | | WHO TUMOUR GRADE (CNS) (BA3160 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Glioma (WHO 2007) (39032@3.2.0)** | Glioma (WHO 2007) | 1..1 | [gliomagrading](#39031)   |  |  | | --- | --- | | **i** | I | | **ii** | II | | **iii** | III | | **iv** | IV | |  |
| **Or in the case of,** | | | | |
| **Sarcomatoid change (39036@3.2.0)** | As per core data items in RCPath minimum data set for renal cell carcinoma. | 1..1 | [sarcomatoidGrading](#39035)   |  |  | | --- | --- | | **present** | present | | **absent** | absent | |  |
| **Or in the case of,** | | | | |
| **Histopathological tumour grade sarcoma (39038@3.2.0)** | The 3-grade French system, as per RCPath sarcoma minimum dataset. | 1..1 | [frenchGradingSystem](#39037)   |  |  | | --- | --- | | **g1** | G1-Well differentiated (Low grade) | | **g2** | G2-Moderately differentiated (Intermediate grade) | | **g3** | G3-Poorly differentiated (High grade) | |  |
| **Or in the case of,** | | | | |
| **Leibovich score (39039@3.2.0)** | The Leibovich score is a scoring algorithm to predict survival for patients with metastatic renal cell carcinoma. Please provide, if applicable. 0-11, not more than 12 | 1..1 | [leibovichScore](#42192) |  |
| **Or in the case of,** | | | | |
| **Tumour Grade (Ovarian Serous) (41993@3.2.0)** | Specify the grade of the tumour. For serous tumours specify whether High or Low grade, as per RCPath dataset. Note that this data item relates to COSD GY7150, however 'I' =Intermediate is not applicable for serous tumours. | 1..1 | [tumourGradeOvarianSerous](#41994)   |  |  | | --- | --- | | **l** | Low | | **h** | High | |  |
| **Or in the case of,** | | | | |
| **Tumour grade (Urology) (38918@3.2.0)** | BLADDER ONLY. Specify whether LOW, HIGH Grade or PUNLMP (Papillary Urothelial Neoplasm of Low Maligant Potential). Note that while punlmp is enumerated for COSD, punlmp is not eligible for collection for The Project. | 1..1 | [tumourGradeUrology](#1184)   |  |  | | --- | --- | | **L** | Low | | **H** | High | | **P** | Punlmp | | **X** | Not applicable | | TUMOUR GRADE (UROLOGY) (UR15290 from Cancer Outcomes and Services Dataset) |

**Or in the case of,**

##### Gleason Grade [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Gleason Grade (Primary) (33071@3.2.0)** | What is the most extensive Gleason grade? Specific Grading for Prostate Cancer. Please see:  Epstein JI et al Am J Surg Path 2005: 29: 1228-42 Pierorazio PM et al. BJU Int 2013: 111: 753-60 for further guidance. | 1..1 | [gleasonGrade](#32799)   |  |  | | --- | --- | | **1** | 1 | | **2** | 2 | | **3** | 3 | | **4** | 4 | | **5** | 5 | | GLEASON GRADE (PRIMARY) (UR15210 from Cancer Outcomes and Services Dataset) |
| **Gleason Grade (Secondary) (33512@3.2.0)** | If additional grades are present, what is the highest grade (biopsy) or the second most extensive grade (TURP and radicals). Specific Grading for Prostate Cancer. Please see: Epstein JI et al Am J Surg Path 2005: 29: 1228-42  Pierorazio PM et al. BJU Int 2013: 111: 753-60  for further guidance. | 0..1 | [gleasonGrade](#32799)   |  |  | | --- | --- | | **1** | 1 | | **2** | 2 | | **3** | 3 | | **4** | 4 | | **5** | 5 | | GLEASON GRADE (SECONDARY) (UR15220 from Cancer Outcomes and Services Dataset) |

#### Cancer Specific Pathology [0..1]

*A maximum of one report containing Cancer Specific Pathology can be submitted together with each Sample Pathology report. The Sample Pathology report can be submitted without this information.*  
  
Priority COSD data items for cancer specific pathology reports.

*One of the following must be submitted together with each Cancer Specific Pathology report*

#### Pathology (Bladder) [1..1]

Priority COSD data items from UROLOGY - PATHOLOGY - BLADDER. To carry the cancer pathology details for Bladder.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Detrusor muscle presence indicator (38917@3.2.0)** | BLADDER ONLY Presence or absence of detrusor muscle in the specimen | 1..1 | [detrusorMusclePresenceIndicator](#1182)   |  |  | | --- | --- | | **1** | Present | | **2** | Absent | | **9** | Not known | | DETRUSOR MUSCLE PRESENCE INDICATOR (UR15120 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Pathology (Breast) [1..1]

Priority COSD data items from BREAST - PATHOLOGY. To carry pathology details for breast cancer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Core biopsy (Breast) (38887@3.2.0)** | Needle core biopsy opinion. | 0..1 | [coreBiopsyBreast](#195)   |  |  | | --- | --- | | **B1** | Normal | | **B2** | Benign | | **B3** | Uncertain malignant potential | | **B4** | Suspicious | | **B5a** | Malignant (In situ) | | **B5b** | Malignant (Invasive) | | **B5c** | Malignant (Not assessable) | | CORE BIOPSY (BREAST) (BR4260 from Cancer Outcomes and Services Dataset) |
| **Core biopsy (node) (38888@3.2.0)** | Needle biopsy opinion on axillary lymph node. | 0..1 | [coreBiopsyNode](#197)   |  |  | | --- | --- | | **B1** | Normal | | **B2** | Benign | | **B3** | Uncertain malignant potential | | **B4** | Suspicious | | **B5** | Malignant | | CORE BIOPSY (NODE) (BR4270 from Cancer Outcomes and Services Dataset) |
| **Cytology (node) (38886@3.2.0)** | Cytology opinion on axillary lymph node. | 0..1 | [cytologyNode](#193)   |  |  | | --- | --- | | **C1** | Inadequate/unsatisfactory specimen | | **C2** | Benign | | **C3** | Uncertain | | **C4** | Suspicious of malignancy | | **C5** | Malignant | | CYTOLOGY (NODE) (BR4250 from Cancer Outcomes and Services Dataset) |
| **ER ALLRED Score (14925@3.2.0)** | ER ALLRED score (range 0-8) | 0..1 | [allredScore](#42267) |  |
| **PR ALLRED Score (14926@3.2.0)** | Record the PR ALLRED score if ER status is negative. (Range 0-8) | 0..1 | [allredScore](#42267) |  |
| **HER2 Status (14927@3.2.0)** | Human epidermal growth factor receptor 2 | 0..1 | [her2Status](#40401)   |  |  | | --- | --- | | **P** | Positive | | **N** | Negative | | **B** | Borderline | | **X** | Not performed | | HER2 STATUS (BR4280 from Cancer Outcomes and Services Dataset) |
| **HER2 ISH Status (33079@3.2.0)** | Record the result of the ISH (in-situ hybridization) test. This is only required if the initial HER2 status is "Borderline". | 0..1 | [her2IshStatus](#189)   |  |  | | --- | --- | | **P** | Positive | | **N** | Negative | | HER2 ISH STATUS (BR4310 from Cancer Outcomes and Services Dataset) |
| **Distance to Margin (35533@3.2.0)** | Distance to closest relevant margin (mm). Distance to nearest margin whether invasive or non invasive. | 0..1 | [distanceToMargin](#32763) | DISTANCE TO MARGIN (BR4210 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Pathology (CNS) [1..1]

Pathology (Central Nervous System). Priority COSD data items from CNS - PATHOLOGY. To carry pathology details for CNS cancer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Molecular diagnostics code (38940@3.2.0)** | Chromosomal or genetic markers associated with the brain tumour. This may involve selection of more than one values for each tumour. Updated to reflect COSD v7. Enumerations deprecated in COSD v7 may still be supplied until full compliance with v7 is achieved. | 1..1 | [molecularDiagnosticsCode >10 enumerations, please click link above to view full list.](#42055) | MOLECULAR DIAGNOSTICS CODE (BA3070 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Pathology (Endometrial) [1..1]

Priority COSD data items from GYNAECOLOGY - PATHOLOGY - ENDOMETRIAL. To carry pathology details for Gynae - Endometrial.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Involvement of cervical stroma (38948@3.2.0)** | Is there microscopic involvement of cervical stroma? | 0..1 | [yesNoNotAssessable](#821)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **X** | Not Assessable | | **9** | Not Known | | INVOLVEMENT OF CERVICAL STROMA (GY7240 from Cancer Outcomes and Services Dataset) |
| **Distance to serosa (38947@3.2.0)** | Specify the tumour free distance to the serosa | 0..1 | [distanceToSerosa](#817) | DISTANCE TO SEROSA (GY7220 from Cancer Outcomes and Services Dataset) |
| **Parametrium involvement (38952@3.2.0)** | Is there microscopic involvement of parametrium? | 0..1 | [yesNoNotAssessable](#821)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **X** | Not Assessable | | **9** | Not Known | | PARAMETRIUM INVOLVEMENT (GY7270 from Cancer Outcomes and Services Dataset) |
| **Peritoneal washings (38953@3.2.0)** | Were peritoneal washings submitted and if so were malignant cells seen? | 0..1 | [peritonealWashings](#825)   |  |  | | --- | --- | | **1** | Positive | | **2** | Negative | | **X** | Not sent/Not assessable | | PERITONEAL WASHINGS (GY7280 from Cancer Outcomes and Services Dataset) |
| **Myometrial invasion (38951@3.2.0)** | Is there microscopic evidence of myometrial invasion? | 0..1 | [myometrialInvasion](#823)   |  |  | | --- | --- | | **1** | None | | **2** | Less than 50% | | **3** | Greater than or equal to 50% | | MYOMETRIAL INVASION (GY7260 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Pathology (Gynaecology) [1..1]

Priority COSD data items from GYNAECOLOGY - PATHOLOGY. To carry pathology details for gynaecology.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Fallopian tube involvement (38942@3.2.0)** | For endometrial and epithelial/ovarian cancers, is there microscopic involvement of fallopian tubes | 0..1 | [tubeInvolvement](#794)   |  |  | | --- | --- | | **1** | Not involved | | **2** | Right involved | | **3** | Left involved | | **4** | Both involved | | **X** | Not assessable | | FALLOPIAN TUBE INVOLVEMENT (GY7050 from Cancer Outcomes and Services Dataset) |
| **Ovarian involvement (38943@3.2.0)** | For endometrial and fallopian cancers, is there microscopic involvement of ovaries | 0..1 | [tubeInvolvement](#794)   |  |  | | --- | --- | | **1** | Not involved | | **2** | Right involved | | **3** | Left involved | | **4** | Both involved | | **X** | Not assessable | | OVARIAN INVOLVEMENT (GY7120 from Cancer Outcomes and Services Dataset) |
| **Serosal involvement (38944@3.2.0)** | For endometrial, epithelial/ovarian and fallopian cancers, is there microscopic involvement of uterine serosa | 0..1 | [yesNoNotAssessable](#821)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **X** | Not Assessable | | **9** | Not Known | | SEROSAL INVOLVEMENT (GY7130 from Cancer Outcomes and Services Dataset) |
| **Omental involvement (38945@3.2.0)** | For endometrium, ovary, fallopian tube and primary peritoneum cancers, is there involvement of the omentum? | 0..1 | [omentalInvolvement](#798)   |  |  | | --- | --- | | **1** | Involved - deposit size not specified | | **2** | Involved - deposit(s) 20mm or less | | **3** | Involved - deposit(s) greater than 20mm | | **4** | Not involved | | **X** | Not assessable/Not sent | | OMENTAL INVOLVEMENT (GY7100 from Cancer Outcomes and Services Dataset) |
| **Nodes examined number (para-aortic) (38954@3.2.0)** | The number of para-aortic nodes examined. Use 0 if nodes not sent. | 0..1 | [nodesExaminedNumberParaAortic](#848) | NODES EXAMINED NUMBER (PARA-AORTIC) (GY7060 from Cancer Outcomes and Services Dataset) |
| **Nodes positive number (para-aortic) (38955@3.2.0)** | The number of para-aortic nodes reported as being positive for the presence of tumour metastases. | 0..1 | [nodesPositiveNumberParaAortic](#850) | NODES POSITIVE NUMBER (PARA-AORTIC) (GY7080 from Cancer Outcomes and Services Dataset) |
| **Extranodal spread (38958@3.2.0)** | Is there evidence of extranodal spread/extension? | 0..1 | [yesNoNotAssessable](#821)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **X** | Not Assessable | | **9** | Not Known | | EXTRANODAL SPREAD (GY7230 from Cancer Outcomes and Services Dataset) |
| **Nodes examined number (pelvic) (38956@3.2.0)** | The number of pelvic nodes examined (Not applicable for vulval cancers). Use 0 if nodes not sent | 0..1 | [nodesExaminedNumberPelvic](#852) | NODES EXAMINED NUMBER (PELVIC) (GY7070 from Cancer Outcomes and Services Dataset) |
| **Nodes positive number (pelvic) (38957@3.2.0)** | The number of pelvic nodes reported as being positive for the presence of tumour metastases. (Not applicable for vulval cancers) | 0..1 | [nodesPositiveNumberPelvic](#854) | NODES POSITIVE NUMBER (PELVIC) (GY7090 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Pathology (Kidney) [1..1]

Priority COSD data items from UROLOGY - PATHOLOGY - KIDNEY. To carry the cancer pathology details for Kidney.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Renal vein tumour (38922@3.2.0)** | Is there evidence of tumour thrombus in the renal vein? | 0..1 | [yesNoUnc](#772)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **U** | Uncertain | | RENAL VEIN TUMOUR (CT6650 from Cancer Outcomes and Services Dataset) |
| **Perinephric fat invasion (38920@3.2.0)** | Is there evidence of perinephric fat invasion? | 0..1 | [yesNoUnc](#772)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **U** | Uncertain | | PERIRENAL FAT INVASION (CT6630 from Cancer Outcomes and Services Dataset) |
| **Adrenal invasion (38921@3.2.0)** | Is there evidence of direct adrenal invasion? | 0..1 | [yesNo](#1193)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | ADRENAL INVASION (UR15150 from Cancer Outcomes and Services Dataset) |
| **Gerotas fascia invasion (38923@3.2.0)** | Is there evidence of invasion into Gerota's fascia? | 0..1 | [yesNo](#1193)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | GEROTA'S FASCIA INVASION (UR15170 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Pathology (Lung) [1..1]

Priority COSD data items from LUNG - PATHOLOGY. To carry Pathology details for Lung Carcinoma (Most items are only applicable where patients have surgical resection).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Extent of pleural invasion (38901@3.2.0)** | What is the extent of pleural invasion | 0..1 | [extentOfPleuralInvasion](#1041)   |  |  | | --- | --- | | **1** | No pleural invasion | | **2** | Visceral pleura only | | **3** | Parietal pleura/chest wall | | **4** | Mediastinal pleura | | EXTENT OF PLEURAL INVASION (LU10120 from Cancer Outcomes and Services Dataset) |
| **Malignant pleural effusion (38902@3.2.0)** | Is there evidence of malignant pleural effusion? | 0..1 | [yesNoNk](#1026)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **9** | Not known | | MALIGNANT PLEURAL EFFUSION  (LU10170 from Cancer Outcomes and Services Dataset) |
| **Satellite tumour nodules location (38903@3.2.0)** | Record the most distant location of separate tumour nodules. | 0..1 | [satelliteTumourNodulesLocation](#1053)   |  |  | | --- | --- | | **1** | Separate tumour nodules in same lobe | | **2** | Separate tumour nodules in a different ipsilateral lobe | | **3** | Separate tumour nodules in a contralateral lobe | | **4** | No separate tumour nodules | | **9** | Not known | | SATELLITE TUMOUR NODULES LOCATION (LU10180 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Pathology (Prostate) [1..1]

Priority COSD data items from UROLOGY - PATHOLOGY - PROSTATE. To carry the cancer pathology details for Prostate.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Gleason grade (tertiary) (38924@3.2.0)** | Is there a different third grade in addition the primary and secondary grades and what is its value? | 0..1 | [gleasonGradeTertiary](#1207) | GLEASON GRADE (TERTIARY) (UR15230 from Cancer Outcomes and Services Dataset) |
| **Perineural invasion (38925@3.2.0)** | Is there perineural invasion (invasion into perineurium of nerve bundles - PNI) | 0..1 | [yesNoNotAssessable](#821)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **X** | Not Assessable | | **9** | Not Known | | PERINEURAL INVASION (SK12530 from Cancer Outcomes and Services Dataset) |
| **Organ confined (38926@3.2.0)** | If prostatectomy was performed, is the tumour confined to the prostate? | 0..1 | [yesNoNa](#1211)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **X** | Not applicable | | ORGAN CONFINED (UR15250 from Cancer Outcomes and Services Dataset) |
| **Seminal vesicles invasion (38927@3.2.0)** | If prostatectomy was performed, is there invasion into Seminal Vesicles? | 0..1 | [yesNoNa](#1211)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **X** | Not applicable | | SEMINAL VESICLES INVASION (UR15260 from Cancer Outcomes and Services Dataset) |
| **TURP tumour percentage (38928@3.2.0)** | For Transurethral resection of prostate (TURP) only, what percentage of tumour is clinically unsuspected tumour. | 0..1 | [turpTumourPercentage](#1213) | TURP TUMOUR PERCENTAGE (UR15270 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Pathology (Testes) [1..1]

Priority COSD data items from UROLOGY - PATHOLOGY - TESTICULAR. To carry the cancer pathology details for Testicular.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Rete testes invasion (38929@3.2.0)** | For Seminoma only, does the tumour invade the rete testis. | 1..1 | [yesNoNa](#1211)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **X** | Not applicable | | RETE TESTES INVASION (UR15310 from Cancer Outcomes and Services Dataset) |

### Genetic Results [0..\*]

*Multiple reports containing genetic results can be submitted together with each Investigations report.*  
  
Enter all abnormal genetic results and all pertinent negative results from this sample. Use one entry per gene.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Genetic Results report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Genetic Results report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

#### Sample Details [0..1]

*A maximum of one report containing Sample Details can be submitted together with each Genetic Results report. The Genetic Results report can be submitted without this information.*  
  
All sample investigations relating to germline or tumour molecular genetics should have the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Local Sample ID (12762@1.0.1)** | The local identifier for the source sample | 0..1 | [xs:string](#38) |  |
| **Sample Taken Date (12760@1.0.1)** | The date upon which the sample was taken | 0..1 | [xs:date](#58) | SAMPLE COLLECTION DATE (CR1010 from Cancer Outcomes and Services Dataset) |
| **Sample Receipt Date (12761@1.0.1)** | The date upon which the sample was received at the laboratory | 0..1 | [xs:date](#58) | SAMPLE RECEIPT DATE (CR0770 from Cancer Outcomes and Services Dataset) |

#### Genetic Result [1..200]

*A minimum of one report containing Genetic Result must be submitted together with each Genetic Results report. Multiple reports may be submitted.*  
  
If the investigation produced genetic results, then the genetic investigation should be extended with the following items, for each genetic result  
  
GUIDANCE: Enter all abnormal genetic results and all pertinent negative results from this sample. Use one entry per gene.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Genetic Test Laboratory (4563@1.0.1)** | Was this test performed in a diagnostic or research laboratory? | 0..1 | [geneticTestLaboratory](#34445)   |  |  | | --- | --- | | **research\_laboratory** | Research laboratory | | **diagnostic\_laboratory** | Diagnostic laboratory | |  |
| **Test Scope (6101@1.0.1)** | The gene coded according to HGNC. Enter ‘genomewide’ if genomewide, e.g. karyotype or aCGH. | 1..1 | [geneScope](#34441) |  |
| **Scope Qualifiers (12764@1.0.1)** | If whole locus or coding sequence of gene not covered, give details of regions covered, e.g. ‘exons 3 and 8’ | 0..1 | [xs:string](#38) |  |
| **Method of Test (12765@1.0.1)** | The method used to investigate the gene(s). If copy number analysis has been performed for a subset of genes, please enter separately from sequencing results | 1..1 | [geneticTestMethod >10 enumerations, please click link above to view full list.](#34446) |  |
| **Test Result (12744@1.0.1)** | (for molecular results) If no defect was observed please report 'normal'; if a mutation is detected that is considered pathogenically or clinically important record 'mutation detected'; if no reliable result could be determined please report 'fail'. | 1..1 | [molecularTestResult](#34478)   |  |  | | --- | --- | | **normal** | Normal (negative) | | **fail** | Fail | | **abnormalitydetected** | Pathogenic abnormality detected | | **vus** | Variant of unknown significance detected | |  |
| **Abnormal Molecular Result (14900@1.0.1)** | Record the details of the abnormal genotype using Genomic Coordinates | 0..1 | [xs:string](#38) |  |
| **Genome Build (34224@1.0.1)** | Record the relevant human genome build if an abnormal genotype is specified if applicable | 0..1 | [xs:string](#38) |  |
| **Abnormal Cytogenetic Result (34225@1.0.1)** | Record the details of the cytogenetic abnormality using IGCN standards | 0..1 | [xs:string](#38) |  |

### Next Generation Sequencing [0..\*]

*Multiple reports containing next generation sequencing can be submitted together with each Investigations report.*  
  
Next Generation Sequencing performed outside of Genomics England.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Sequence Report (12766@3.2.0)** | Reference to uploaded copy of test report | 0..1 | [xs:string](#38) |  |
| **Sequence File (12767@1.0.1)** | Local sequence file reference or uploaded copy of VCF | 0..1 | [xs:string](#38) |  |
| **Comments (5182@1.0.1)** | Follow-up comments | 0..1 | [xs:string](#38) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Next Generation Sequencing report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Next Generation Sequencing report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

### Circulating Tumour Markers [0..\*]

*Multiple reports containing cancer tumour markers can be submitted together with each investigations report.*

*If submitted, one of the following must be submitted together with each Circulating Tumour Markers report*

#### Circulating Tumour Markers (Prostate) [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **psa (14929@3.2.0)** | PROSTATE ONLY. Prostate Specific Antigen blood level in ng/ml, measured at time of diagnosis. | 0..1 | [psaDiagnosis](#1163) | PSA (DIAGNOSIS)  (UR15070 from Cancer Outcomes and Services Dataset) |
| **psa (pre treatment) (38916@3.2.0)** | PROSTATE ONLY. Prostate Specific Antigen blood level in ng/ml, measured before treatment (including second and subsequent treatments).  This is the PSA taken prior to EACH treatment (because some curative treatments may be delivered years after diagnosis. | 0..1 | [psaPreTreatment](#1178) | PSA (PRE TREATMENT) (UR15080 from Cancer Outcomes and Services Dataset) |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Circulating Tumour Markers (Prostate) report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Circulating Tumour Markers (Prostate) report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

**or in the case of,**

#### Circulating Tumour Markers (Ovarian) [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **CA125 (14930@3.2.0)** | Protein level | 1..1 | [xs:double](#43) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Circulating Tumour Markers (Ovarian) report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Circulating Tumour Markers (Ovarian) report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

### Investigation Report Other [0..\*]

*Multiple reports containing other investigations can be submitted together with each investigations report*   
  
This class is a generic mechanism to include additional investigation reports that are clinically relevant but have not been specified within the current set of investigations.  
  
For every report please include the name of the type of report and the ID of the report type i.e.   
Name: Electrolytes panel - Blood  
ID: 55231-5  
Reporting Standard: LOINC  
  
In addition to the report name please provide one or more attributes that correspond to the report attribute model below. These can either be test results or metadata associated with the report.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Report Name (33106@3.2.0)** | If the investigation is part of a standardised report / panel of tests, please populate the name that identifies the type of report i.e. Renal Biopsy | 1..1 | [xs:string](#38) |  |
| **Report Code (33096@3.2.0)** | If the investigation is part of a standardised report / panel of tests, please populate the code that identifies the type of report - if available | 0..1 | [xs:string](#38) |  |
| **Reporting Standard (33454@3.2.0)** | The standard (name and version) for the report - if available | 0..1 | [xs:string](#38) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Investigation Report Other report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Investigation Report Other report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

#### Report Attribute [1..\*]

*One or more reports containing Report Attribute must be submitted for each Investigation Report Other report.*  
  
For every report please include one or more attributes corresponding to the model below. These can either be test results and/or metadata associated with the report i.e. a report of a urine dip could be submitted with the following attributes:  
  
Data Standard: LOINC  
ID: 2947-0   
Name: Sodium [Moles/​volume] in Blood  
Value: 130  
DateTime: 2015-09-11T21:32:52  
Unit of Measure: 01   
  
Data Standard: LOINC  
ID: 6298-4  
Name: Potassium [Moles/​volume] in Blood  
Value: 4.6  
DateTime: 2015-09-11T21:32:52  
Unit of Measure: 01  
  
etc.  
  
NOTE: Upper Range and Lower Range could be included in each attribute but they are not mandatory

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Standard (33104@3.2.0)** | The name and version of the data standard of the attribute type i.e. SNOMED CT, OPCS-4, COSD | 0..1 | [xs:string](#38) |  |
| **Code (33097@3.2.0)** | Code of the report attribute type - if available i.e. if the attribute name is "POSITIVE PROXIMAL OR DISTAL RESECTION MARGIN" and the standard is COSD then the attribute code would be CO5190 | 1..1 | [xs:string](#38) |  |
| **Name (33098@3.2.0)** | Name of the test included in the investigation and/or the name of the metadata associated with the investigation i.e. POSITIVE PROXIMAL OR DISTAL RESECTION MARGIN | 1..1 | [xs:string](#38) |  |
| **Value (33100@3.2.0)** | The result of the investigation i.e. Margin involved | 1..1 | [xs:string](#38) |  |
| **DateTime (33455@3.2.0)** | Date the attribute value was recorded | 1..1 | [xs:dateTime](#59) |  |
| **Upper Range (33101@3.2.0)** | For quantitative tests, the upper range associated with the investigation within the lab - if applicable | 0..1 | [xs:string](#38) |  |
| **Lower Range (33102@3.2.0)** | For quantitative tests, the lower range associated with the investigation within the lab - if applicable | 0..1 | [xs:string](#38) |  |
| **Report (33456@3.2.0)** | File / Report associated with the investigation - if applicable | 0..1 | [xs:string](#38) |  |
| **Unit of Measure (33099@3.2.0)** | Unit of measure used to record the investigation result - if applicable | 0..1 | [unitOfMeasurement >10 enumerations, please click link above to view full list.](#42018) |  |

## Diagnosis

We expect to receive at least one Diagnosis record per tumour for each participant.  
  
A diagnosis event will usually correspond to when a diagnosis of cancer is agreed or confirmed. If multiple instances of cancer are diagnosed at the same time, then each should be reported as a separate diagnosis event, and each of these reports should have a different locally-allocated event reference.  
  
The Diagnosis Event Date will be the date when cancer was confirmed or diagnosis agreed, typically the date the specimen was taken, recorded on the pathology report, which confirms the cancer.  
  
The report of the diagnosis, in addition to Event Details, should include Morphology, Topography, and, where applicable, Integrated TNM Staging information and/or Cancer Specific Staging and Cancer Specific Diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Diagnosis (ICD) (33183@3.2.0)** | The icd code for the agreed diagnosis | 1..1 | [primaryDiagnosisIcd](#311) | PRIMARY DIAGNOSIS (ICD) (CR0370 from Cancer Outcomes and Services Dataset) |
| **Diagnosis (SNOMED CT) (35538@3.2.0)** | Optionally provide the SNOMED CT code for the diagnosis in addition to the ICD code. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |
| **Recurrence Indicator (14938@3.2.0)** | An indication of whether a diagnosis of recurrence has been recorded for which a new Cancer Care Plan is required. | 0..1 | [cancerRecurrenceCarePlanIndicator](#422)   |  |  | | --- | --- | | **YL** | Yes, including local recurrence | | **YD** | Yes, not including local recurrence | | **NN** | No, not recurrence | | CANCER RECURRENCE CARE PLAN INDICATOR (CR0450 from Cancer Outcomes and Services Dataset) |
| **Metastatic Site (14937@3.2.0)** | The site of the metastatic disease, if any, at diagnosis | 0..\* | [metastaticSite](#418)   |  |  | | --- | --- | | **02** | Brain | | **03** | Liver | | **04** | Lung | | **06** | Multiple metastatic sites | | **07** | Unknown metastatic site | | **08** | Skin | | **09** | Distant lymph nodes | | **10** | Bone (excluding Bone Marrow) | | **11** | Bone marrow | | **99** | Other metastatic site | | METASTATIC SITE (CR1590 from Cancer Outcomes and Services Dataset) |
| **Basis Of Diagnosis (14939@3.2.0)** | The basis of diagnosis of cancer records show how a cancer was identified. Please use the NHS data dictionary definition of this attribute. | 1..1 | [basisOfDiagnosis(cancer)](#3547)   |  |  | | --- | --- | | **2** | Clinical Investigation: Includes all diagnostic techniques (e.g. X-rays, endoscopy, imaging, ultrasound, | | **1** | Clinical: Diagnosis made before death but without the benefit of any of the following (2-7) | | **0** | Death Certificate: The only information available is from a death certificate | | **7** | Histology of a primary tumour: Histological examination of tissue from the primary tumour, however obtained, including all cutting and bone marrow biopsies. Also includes autopsy specimens of a primary tumour | | **6** | Histology of a metastasis: Histological examination of tissues from a metastasis, including autopsy specimens | | **5** | Cytology: Examination of cells whether from a primary or secondary site, including fluids aspirated using endoscopes or needles. Also including microscopic examination of peripheral blood films and trephine bone marrow aspirates | | **4** | Specific tumour markers: Includes biochemical and/or immunological markers which are specific for a tumour site | | **9** | Unknown: No information on how the diagnosis has been made (e.g. PAS or HISS record only) | | BASIS OF DIAGNOSIS (CANCER) (CR0390 from Cancer Outcomes and Services Dataset) |
| **Tumour Laterality (14902@3.2.0)** | Tumour laterality identifies the side of the body for a tumour relating to paired organs within a PATIENT based on the evidence from a pathological examination. | 0..1 | [tumourLaterality(pathological)](#3557)   |  |  | | --- | --- | | **B** | Bilateral | | **R** | Right | | **L** | Left | | **M** | Midline | | **9** | Not Known | | **8** | Not applicable | |  |
| **Grade of Differentiation (At Diagnosis) (40402@3.2.0)** | GRADE OF DIFFERENTIATION (AT DIAGNOSIS) is the definitive grade of the Tumour at the time of PATIENT DIAGNOSIS. COSD Guidance: Required for all Urological cancers except prostate and testis cancer. This data item is not applicable to CNS, Sarcoma or Haematology diagnosis. | 0..1 | [gradeOfDifferentiationAtDiagnosis](#416)   |  |  | | --- | --- | | **GX** | Grade of differentiation is not appropriate or cannot be assessed | | **G1** | Well differentiated | | **G2** | Moderately differentiated | | **G3** | Poorly differentiated | | **G4** | Undifferentiated / anaplastic | | GRADE OF DIFFERENTIATION (AT DIAGNOSIS) (CR0410 from Cancer Outcomes and Services Dataset) |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..1 | [tumourID](#42261) |  |

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Diagnosis report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Event Details [1..1]

*One report containing Event Details must be submitted together with each Diagnosis report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

### Morphology [1..\*]

*One or more reports containing Morphology must be submitted for each Diagnosis report.*  
  
Choice of ICD03 or SNOMED morphology codes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Morphology (ICD) (14871@3.2.0)** | The morphology code for the diagnosed cancer as defined by ICDO3. This can be recorded as well as or instead of MORPHOLOGY (SNOMED). | 1..1 | [morphology(icd)](#40406) | MORPHOLOGY (ICDO3) (CR0180 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Morphology (SNOMEDCT) (31244@3.2.0)** | The morphology code for the diagnosed cancer as defined by SNOMED CT. This can be recorded as well as or instead of MORPHOLOGY (ICD). | 1..1 | [morphology(snomedCt)](#407) | MORPHOLOGY (SNOMED CT) (CR3070 from Cancer Outcomes and Services Dataset) MORPHOLOGY (SNOMED) (CR0850 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Morphology (SNOMEDRT) (31243@3.2.0)** | The morphology code for the diagnosed cancer as defined by SNOMED RT. This can be recorded as well as or instead of MORPHOLOGY (ICD). | 1..1 | [morphology(snomed)](#32845) | MORPHOLOGY (SNOMED) (CR0850 from Cancer Outcomes and Services Dataset) |

**Or in the case of,**

#### Morphology (SNOMED) [1..1]

This is the morphology of the tumour as categorised by SNOMED and the version of SNOMED.  
  
Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017 other than for historical content.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Morphology (SNOMED) (42048@3.2.0)** | This is the morphology of the tumour as categorised by SNOMED International / SNOMED CT  Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017 other than for historical content | 1..1 | [snomed](#42181) |  |
| **SNOMED version (42049@3.2.0)** | The version of SNOMED used to encode MORPHOLOGY (SNOMED) and TOPOGRAPHY (SNOMED)  Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017 other than for historical content | 1..1 | [snomedVersion](#42050)   |  |  | | --- | --- | | **01** | SNOMED II | | **02** | SNOMED 3 | | **03** | SNOMED 3.5 | | **04** | SNOMED RT | | **05** | SNOMED CT | | **99** | Not Known | |  |

### Topography [0..1]

*A maximum of one report containing Topography can be submitted together with each Diagnosis report. The Diagnosis report can be submitted without this information.*  
  
Choice of ICD03 or SNOMED topography codes.

*If submitted, one of the following must be submitted together with each Topography report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Topography (ICD) (31228@3.2.0)** | This is the topographical site of the tumour as categorised by ICD03 | 1..1 | [topographyIcdo3](#414) | Morphology (ICD) (Cancer Model) MORPHOLOGY (ICDO3) (CR0180 from Cancer Outcomes and Services Dataset) TOPOGRAPHY (ICDO3) (CR0480 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Topography (SNOMEDCT) (14876@3.2.0)** | This is the topographical site of the tumour as categorised by SNOMED CT. | 1..1 | [topographySnomedCt](#573) | TOPOGRAPHY (SNOMED CT) (CR3060 from Cancer Outcomes and Services Dataset) |
| **Or in the case of,** | | | | |
| **Topography (SNOMEDRT) (31227@3.2.0)** | This is the topographical site of the tumour as categorised by SNOMED RT | 1..1 | [topographySnomed](#571) | TOPOGRAPHY (SNOMED) (CR0530 from Cancer Outcomes and Services Dataset) |

**Or in the case of,**

#### Topography (SNOMED) [1..1]

This is the topographical site of the tumour as categorised by SNOMED International / SNOMED CT.  
  
Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Topography (SNOMED) (42052@3.2.0)** | This is the topographical site of the tumour as categorised by SNOMED International / SNOMED CT   Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017. | 1..1 | [snomed](#42181) |  |
| **SNOMED version (42049@3.2.0)** | The version of SNOMED used to encode MORPHOLOGY (SNOMED) and TOPOGRAPHY (SNOMED)  Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017 other than for historical content | 1..1 | [snomedVersion](#42050)   |  |  | | --- | --- | | **01** | SNOMED II | | **02** | SNOMED 3 | | **03** | SNOMED 3.5 | | **04** | SNOMED RT | | **05** | SNOMED CT | | **99** | Not Known | |  |

### Integrated TNM [0..1]

*A maximum of one report containing Integrated TNM can be submitted together with each Diagnosis report. The Diagnosis report can be submitted without this information.*  
  
Record Integrated TNM stage of the tumour with TNM version where applicable.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Integrated TNM Version (14943@3.2.0)** | The UICC edition number used for Tumour, Node and Metastasis (TNM) staging for cancer diagnosis. | 1..1 | [tnmEditionNumber](#483) | TNM EDITION NUMBER (CR2070 from Cancer Outcomes and Services Dataset) |

#### TNM Details [1..2]

*A minimum of one report containing TNM Details must be submitted together with each Integrated TNM report. Multiple reports may be submitted.*  
  
Record overall TNM stage grouping of the tumour OR component T, N and M stage.

*If submitted, one of the following must be submitted together with each TNM Details report*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **TNM Stage Grouping (Integrated) (14942@3.2.0)** | Record the overall TNM stage grouping of the tumour, derived from each T, N and M component after treatment. This classification is based on all the evidence available to the clinician(s) with responsibility for assessing the patient. Such evidence arises from physical examination, imaging, endoscopy, biopsy, surgical exploration and other relevant examinations.  The overall integrated TNM stage grouping indicates the tumour stage after treatment and/or after all available evidence has been collected. Note: Use UICC coding. | 1..1 | [tnmStageGroupingIntegrated](#479) | TNM STAGE GROUPING (INTEGRATED) (CR0610 from Cancer Outcomes and Services Dataset) |

**Or in the case of,**

#### Component TNM [1..1]

Component T, N, M scores reported individually.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Integrated T (14944@3.2.0)** | Tumour stage, if integrated TNM not supplied. This is the UICC code which classifies the size and extent of the primary tumour after treatment and/or after all available evidence has been collected. | 1..1 | [tCategoryIntegratedStage](#473) | T CATEGORY (INTEGRATED STAGE) (CR0620 from Cancer Outcomes and Services Dataset) |
| **Integrated N (14945@3.2.0)** | Nodes stage, if integrated TNM not supplied. This is the UICC code which classifies the absence or presence and extent of regional lymph node metastases after treatment and/or after all available evidence has been collected | 1..1 | [nCategoryIntegratedStage](#475) | N CATEGORY (INTEGRATED STAGE) (CR0630 from Cancer Outcomes and Services Dataset) |
| **Integrated M (14946@3.2.0)** | Metastasis stage, if integrated TNM not supplied. This is the UICC code which classifies the absence or presence of distant metastases after treatment and/or after all available evidence has been collected. | 0..1 | [mCategoryIntegratedStage](#477) | M CATEGORY (INTEGRATED STAGE) (CR0640 from Cancer Outcomes and Services Dataset) |

### Cancer Specific Staging [0..1]

*A maximum of one report containing Cancer Specific Staging can be submitted together with each Diagnosis report. The Diagnosis report can be submitted without this information.*  
  
Cancer specific staging data.   
  
Where applicable, and if available, the most appropriate cancer specific staging details should be submitted as part of the diagnosis submission.   
  
See COSD guidance for the recording of cancer site specific staging.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **International Neuroblastoma Risk Group (INRG) Staging System (38874@3.2.0)** | Related to COSD v7 CT7050. The International Neuroblastoma Risk Group Staging System (INRGSS) was designed for the International Neuroblastoma Risk Group (INRG) pre-treatment classification system. Unlike the INSS (above), the INRGSS uses only the results of imaging tests taken before surgery. It does not include surgical results or spread to lymph nodes to determine the stage. Knowledge regarding the presence or absence of image defined risk factors (IDRF) is required for this staging system. (See COSD v7 User Guide for more information) | 0..1 | [inrgNeuroblastoma](#38873)   |  |  | | --- | --- | | **L1** | Stage L1: The Tumour is located only in the area where it started; no IDRFs are found on imaging scans, such as CT or MR | | **L2** | Stage L2: The tumour has not spread beyond the area where it started and the nearby tissue; IDRFs are found on imaging scans, such as CT or MR | | **M** | Stage M: The tumour has spread to other parts of the body (except stage MS, see below) | | **MS** | Stage MS: The tumour has spread to only the skin, liver, and/or bone marrow (less than 10% marrow involvement) in patients less than 18 months | |  |
| **Modified Dukes Stage (33023@3.2.0)** | Dukes' stage of disease at diagnosis (based on pathological evidence but upgraded to Dukes D if clinical evidence of metastasis) Dukes D should be recorded if metastatic spread is identified either in the preoperative staging process, e.g. on CT scanning, MRI, USS, chest x-ray or at the time of operation. It is accepted that a small number of D cases are cured by further treatment such as liver resection, but for COSD metastatic spread distant from the primary should always be recorded as D. | 0..1 | [modifiedDukes](#236)   |  |  | | --- | --- | | **A** | Dukes A Tumour confined to wall of bowel, nodes negative | | **B** | Dukes B Tumour penetrates through the muscularis propria to involve extramural tissues, nodes negative | | **C1** | Dukes C1 Metastases confined to regional lymph nodes (node/s positive but apical node negative) | | **C2** | Dukes C2 Metastases present in nodes at mesenteric artery ligature (apical node positive) | | **D** | Dukes D Metastatic spread outside the operative field | | **99** | Not Known | | MODIFIED DUKES (CO5170 from Cancer Outcomes and Services Dataset) |

#### AJCC Stage [0..1]

*A maximum of one report containing AJCC Stage can be submitted together with each Cancer Specific Staging report. The Cancer Specific Staging report can be submitted without this information.*  
  
AJCC STAGE GROUP and version.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **AJCC Stage Group (38871@3.2.0)** | AJCC STAGE GROUP, not the UICC TNM Stage Grouping, should be collected for stageable skin cancers. American Joint Committee on Cancer staging of tumour at diagnosis. This is the final integrated stage as agreed by MDT. See COSD User Guide for site specific options. | 1..1 | [ajccStageGroup >10 enumerations, please click link above to view full list.](#38870) | AJCC STAGE GROUP (SK12510 from Cancer Outcomes and Services Dataset) |
| **AJCC Stage Group Version (38872@3.2.0)** | AJCC Stage Group Version | 1..1 | [xs:string](#38) |  |

#### Final Figo Stage [0..1]

*A maximum of one report containing Final Figo Stage can be submitted together with each Cancer Specific Staging report. The Cancer Specific Staging report can be submitted without this information.*  
  
Final Figo Stage and Version

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Final Figo Stage (33029@3.2.0)** | The FIGO stage is generally confirmed at pathology review in MDT meetings following surgery for uterine and vulval malignancies and for ovarian malignancies undergoing primary surgery. For ovarian malignancies planned to undergo neoadjuvant chemotherapy and for cases of cervical cancer (which is staged clinically), the final FIGO stage is determined at the time of review of clinical findings, imaging, cytology and biopsy histology at the MDT meeting. | 1..1 | [finalFigoStage >10 enumerations, please click link above to view full list.](#32784) |  |
| **Final Figo Stage Version (33088@3.2.0)** | Version of final figo used for staging | 1..1 | [xs:string](#38) |  |

#### Staging (Upper GI) [0..1]

*A maximum of one report containing Staging (Upper GI) can be submitted together with each Cancer Specific Staging report. The Cancer Specific Staging report can be submitted without this information.*  
  
Priority COSD data items from UPPER GI - STAGING - LIVER HCC and PANCREAS.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Barcelona clinic liver cancer (bclc) stage (38904@3.2.0)** | The Barcelona Clinic Liver Cancer (BCLC) stage includes both anatomic and non-anatomic factors and is widely used within the UK to predict prognosis and determine treatment. | 0..1 | [barcelonaClinicLiverCancerBclcStage](#1224)   |  |  | | --- | --- | | **0** | Very early | | **A** | Early | | **B** | Intermediate | | **C** | Advanced | | **D** | Terminal | | BARCELONA CLINIC LIVER CANCER (BCLC) STAGE (UG14520 from Cancer Outcomes and Services Dataset) |
| **Child-pugh score (38905@3.2.0)** | Record the overall Child-Pugh score. This is the level of disease of the liver. | 0..1 | [childPughScore](#1228)   |  |  | | --- | --- | | **A** | Child-Pugh A | | **B** | Child-Pugh B | | **C** | Child-Pugh C | | CHILD-PUGH SCORE (UG14530 from Cancer Outcomes and Services Dataset) |
| **Portal invasion (38907@3.2.0)** | Record whether there is involvement of the portal vein. (From UPPER GI - STAGING - LIVER HCC) | 0..1 | [portalInvasion](#1231)   |  |  | | --- | --- | | **Y** | Present | | **N** | Not present | | **9** | Not known | | PORTAL INVASION (UG14550 from Cancer Outcomes and Services Dataset) |
| **Number of lesions (radiological) (38931@3.2.0)** | Radiologically determined number of lesions. (From UPPER GI - STAGING - LIVER HCC) | 0..1 | [numberOfLesionsRadiological](#268) | NUMBER OF LESIONS (RADIOLOGICAL) (UG14540 from Cancer Outcomes and Services Dataset) |
| **Clinical stage (pancreatic cancer) (38908@3.2.0)** | COSD UG14560, UPPER GI - STAGING - PANCREAS. Description: 'Clinically agreed stage based on radiological findings of tumour extent in order to offer treatment recommendations. The category selected depends on tumour location within the pancreas and the arterial or venous involvement. | 0..1 | [clinicalStagePancreaticCancer](#1234)   |  |  | | --- | --- | | **10** | Localised and resectable | | **20** | Borderline resectable | | **30** | Unresectable (locally advanced or metastatic) | | **31** | Unresectable (locally advanced) | | **32** | Unresectable (metastatic) | | CLINICAL STAGE (PANCREATIC CANCER) (UG14560 from Cancer Outcomes and Services Dataset) |
| **Trans arterial chemoembolisation (38910@3.2.0)** | Was Trans Arterial Chemoembolisation (TACE) carried out? | 0..1 | [yesNoNk](#1026)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **9** | Not known | | TRANS ARTERIAL CHEMOEMBOLISATION (UG13580 from Cancer Outcomes and Services Dataset) |

#### Staging (Urology - Testicular) [0..1]

*A maximum of one report containing Staging (Urology - Testicular) can be submitted together with each Cancer Specific Staging report. The Cancer Specific Staging report can be submitted without this information.*  
  
Priority COSD data items from UROLOGY - STAGING - TESTICULAR. To carry staging details for Urology (Testicular).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Stage grouping (testicular) (38912@3.2.0)** | TESTICULAR ONLY. Nationally agreed anatomical stage groupings as defined by The Royal Marsden Hospital (RMH). | 0..1 | [stageGroupingTesticular >10 enumerations, please click link above to view full list.](#1166) | STAGE GROUPING (TESTICULAR) (UR15300 from Cancer Outcomes and Services Dataset) |
| **Extranodal metastases (38913@3.2.0)** | For testicular Stage 4 patients only Indicate the extent of metastatic spread (multiple items can be selected) | 0..1 | [extranodalMetastases](#1168)   |  |  | | --- | --- | | **H** | Liver involvement | | **B** | Brain involvement | | **M** | Mediastinal involvement | | **N** | Neck nodes | | **L** | Lung involvement | | EXTRANODAL METASTASES (UR15320 from Cancer Outcomes and Services Dataset) |
| **Lung metastases sub-stage grouping (38914@3.2.0)** | For testicular cancer only Where lung metastases are identified, specify the RMH grouping. | 0..1 | [lungMetastasesSubStageGrouping](#1170)   |  |  | | --- | --- | | **L1** | less than or equal to 3 metastases | | **L2** | Greater than 3 metastases | | **L3** | Greater than 3 metastases, one or more greater than or equal to 2cm diameter | | LUNG METASTASES SUB-STAGE GROUPING (UR15330 from Cancer Outcomes and Services Dataset) |

### Cancer Specific Diagnosis [0..1]

*A maximum of one report containing Cancer Specific Diagnosis can be submitted together with each Diagnosis report. The Diagnosis report can be submitted without this information.*  
  
New section. COSD Cancer specific diagnosis data can be submitted as a separate Event or with Diagnosis Event. Submission is optional however, if submitted, one of the following sections must be provided

#### Diagnosis (Colorectal) [1..1]

*One report containing Diagnosis (Colorectal) must be submitted together with each Cancer Specific Diagnosis report.*  
  
Priority COSD data items from COLORECTAL - DIAGNOSIS. To carry diagnosis details for colorectal cancer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Synchronous Tumour Indicator (42056@3.2.0)** | Related to COSD v7, CO5400. Record any synchronous tumours in the Colon as identified by the clinician at presentation. Synchronous tumours are defined as discrete tumours apparently not in continuity with other primary cancers originating in the same site or tissue. | 1..\* | [synchronousTumourIndicator](#42057)   |  |  | | --- | --- | | **1** | CAECUM | | **2** | APPENDIX | | **3** | ASCENDING COLON | | **4** | HEPATIC FLEXURE | | **5** | TRANSVERSE COLON | | **6** | SPLENIC FLEXURE | | **7** | DESCENDING COLON | | **8** | SIGMOID COLON | | **9** | RECTOSIGMOID | | **10** | RECTUM | |  |

## Cancer Care Plan

This section includes details applicable to care planning, which are normally discussed at the MDT meeting. Multiple cancer care plans can be submitted.  
  
The Cancer Care Plan Event Date will be the date that the patient agrees to a Care Plan following the recommendation by the MDT.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Start Date (14961@1.0.1)** | Start date for the proposed treatment.  This may or may not be known at the time of care planning, and therefore is optional. | 0..1 | [xs:date](#58) |  |
| **Treatment Intent (14962@3.2.0)** | Intent of the proposed treatment. The intention of a Cancer Care Plan developed within a Cancer Care Spell. | 1..1 | [cancerCarePlanIntent](#447)   |  |  | | --- | --- | | **C** | Curative | | **Z** | Non Curative | | **X** | No active treatment | | **9** | Not Known | | CANCER CARE PLAN INTENT (CR0460 from Cancer Outcomes and Services Dataset) |
| **No Cancer Treatment Reason (14965@3.2.0)** | Code for decision not to treat. The main reason why no active cancer treatment is specified within a Cancer Care Plan. | 0..1 | [noCancerTreatmentReason](#451)   |  |  | | --- | --- | | **01** | Patient declined treatment | | **02** | Unfit: poor performance status | | **03** | Unfit: significant co-morbidity | | **04** | Unfit: advanced stage cancer | | **05** | Unknown primary site | | **06** | Died before treatment | | **07** | No active treatment available | | **08** | Other | | **10** | Monitoring only | | **99** | Not Known | | NO CANCER TREATMENT REASON (CR0490 from Cancer Outcomes and Services Dataset) |
| **Performance Status (14963@3.2.0)** | Performance status of the participant. A World Health Organisation classification indicating a PERSON's status relating to activity / disability. | 1..1 | [performanceStatusAdult](#455)   |  |  | | --- | --- | | **0** | Able to carry out all normal activity without restriction | | **1** | Restricted in physically strenuous activity, but able to walk and do light work | | **2** | Able to walk and capable of all self care, but unable to carry out any work. Up and about more than 50% of waking hours | | **3** | Capable of only limited self care, confined to bed or chair more than 50% of waking hours | | **4** | Completely disabled. Cannot carry on any self care. Totally confined to bed or chair | | **9** | Not recorded | | PERFORMANCE STATUS (ADULT) (CR0510 from Cancer Outcomes and Services Dataset) |
| **Outcome of MDT (33513@3.2.0)** | Freetext report on the outcome of MDT discussions | 0..1 | [xs:string](#38) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Cancer Care Plan report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Event Details [1..1]

*One report containing Event Details must be submitted together with each Cancer Care Plan report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Cancer Care Plan report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

### Cancer Specific Care Plan [0..1]

*A maximum of one report containing Cancer Specific Care Plan can be submitted together with each Cancer Care Plan report. The Cancer Care Plan report can be submitted without this information.*  
  
Priority COSD data items from cancer specific care plans. Submission is optional however, if submitted, one of the following sections must be provided.

*If submitted, one of the following must be submitted together with each Cancer Specific Care Plan report.*

#### Cancer Care Plan (Urology) [1..1]

Priority COSD data items from UROLOGY - CANCER CARE PLAN. To carry the cancer care plan details for Urology cancer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Normal LDH (38911@3.2.0)** | TESTICULAR ONLY. This is the upper limit of normal for the LDH (Lactate Dehydrogenase Level) assay which is used to calculate S Category. | 1..1 | [normalLdh](#1152) | NORMAL LDH (UR15020 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Cancer Care Plan (CNS) [1..1]

Priority COSD data items from CNS - CANCER CARE PLAN. To carry cancer care plan details for CNS cancer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **MDT provisional diagnosis (ICD) (38936@3.2.0)** | Working diagnosis as defined at MDT where the first definitive treatment is agreed. This is the clinical opinion which may also be informed by biopsy, radiological and/or other investigations. | 0..1 | [mdtProvisionalDiagnosisIcd](#279) | MDT PROVISIONAL DIAGNOSIS (ICD) (BA3080 from Cancer Outcomes and Services Dataset) |
| **Primary diagnosis (ICD radiological) (38935@3.2.0)** | The preliminary primary diagnosis based on radiological examination recorded pre treatment. In many cases this will be the definitive clinical diagnosis, but needs to be distinguished from the subsequent pathological diagnosis - if it becomes available. | 0..1 | [primaryDiagnosisIcdRadiological](#277) | PRIMARY DIAGNOSIS (ICD RADIOLOGICAL) (BA3060 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

#### Cancer Care Plan (Lung) [1..1]

Priority COSD data items from LUNG - CANCER CARE PLAN. To carry care plan details for Lung Carcinoma.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Mediastinal sampling indicator (38899@3.2.0)** | Record if the patient had a mediastinoscopy, mediastinotomy, open mediastinal sampling or other type of mediastinal biopsy (e.g. Endobronchial ultrasound or transbronchial needle aspiration biopsy)' | 1..1 | [yesNoNk](#1026)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **9** | Not known | | MEDIASTINAL SAMPLING INDICATOR (LU10060 from Cancer Outcomes and Services Dataset) |

## Intervention

Interventions are treatment events. For each intervention there is a set of core essential data items.   
  
In addition to core essential data items for each intervention, there are specific data items for Surgery, Systemic Anti-Cancer Therapy, Radiotherapy, and Other Treatment, as applicable. Multiple interventions can be submitted.

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Intervention report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Surgery And Other Procedures [0..\*]

*Multiple reports containing surgery and other procedures can be submitted together with each interventions report.*

For surgical and other procedures, in addition to the core intervention data items, the following are required:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Main Specialty Code (29100@3.2.0)** | The main specialty code of the consultant performing the intervention | 0..1 | [specialty](#32919) |  |
| **Primary Procedure (12806@3.2.0)** | OPCS code for the primary procedure. Primary procedure is the main procedure carried out. | 1..1 | [opcsProcedureCodes](#42150) | PRIMARY PROCEDURE (OPCS) (CR0720 from Cancer Outcomes and Services Dataset) |
| **Other Procedures (14968@3.2.0)** | OPCS codes for other procedures. This is a procedure other than the PRIMARY PROCEDURE (OPCS), carried out and recorded for CDS or Hospital Episode Statistics purposes. (This may occur more than once). | 0..\* | [opcsProcedureCodes](#42150) | PROCEDURE (OPCS) (CR0730 from Cancer Outcomes and Services Dataset) |
| **ASA score (38937@3.2.0)** | Related to COSD v7, CR6010. The ASA physical status classification system is a system for assessing the fitness of patients before surgery. | 0..1 | [asaScore](#157)   |  |  | | --- | --- | | **1** | A normal healthy patient. | | **2** | A patient with mild systemic disease. | | **3** | A patient with severe systemic disease | | **4** | A patient with severe systemic disease that is a constant threat to life. | | **5** | A moribund patient who is not expected to survive without the operation. | | **6** | A declared brain-dead patient whose organs are being removed for donor purposes | |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Surgery And Other Procedures report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Surgery And Other Procedures report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

#### Cancer Specific Surgery [0..1]

*A maximum of one report containing Cancer Specific Surgery can be submitted together with each Surgery And Other Procedures report. The Surgery And Other Procedures report can be submitted without this information.*  
  
Priority COSD data items from dance specific surgery. Submission is optional however, if submitted, one of the following sections must be provided

##### Surgery (CNS) [1..1]

*One report containing Surgery (CNS) must be submitted together with each Cancer Specific Surgery report.*  
  
Priority COSD data items from CNS - SURGERY & OTHER PROCEDURES. To carry surgery and other procedure details for CNS cancer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Tumour location (surgical) (38938@3.2.0)** | Surgically determined anatomical location of lesion(s) or where centered. | 0..1 | [locationSurgical >10 enumerations, please click link above to view full list.](#282) | TUMOUR LOCATION (SURGICAL) (BA3100 from Cancer Outcomes and Services Dataset) |
| **Excision or Procedure Type (38939@3.2.0)** | Identify type of excision or procedure (where performed) | 0..1 | [excisionOrProcedureType](#42054)   |  |  | | --- | --- | | **1** | Limited (<50%) | | **2** | Partial (50-69%) | | **3** | Subtotal (70-95%) | | **4** | Total Macroscopic | | **5** | Extent Uncertain | | **6** | CSF Division Procedure | | **9** | Not Known | |  |

### Systemic Anti-Cancer Therapy [0..\*]

*Multiple reports containing systemic anti-cancer therapy can be submitted together with each Interventions report.*   
  
For each course of therapy, in addition to the core intervention data items, the following are required:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Drug Treatment Intent (14970@3.2.0)** | Treatment intent. | 1..1 | [drugTreatmentIntent](#1060)   |  |  | | --- | --- | | **D** | Disease Modification | | **P** | Palliative | | **A** | Adjuvant | | **C** | Curative | | **N** | Neoadjuvant | | DRUG TREATMENT INTENT (CR1070 from Cancer Outcomes and Services Dataset) |
| **Drug Regimen (14971@3.2.0)** | The drug regimen prescribed. To be consistent with the National Regimen List. | 1..1 | [[xs:string](#38)](#1062) | DRUG REGIMEN ACRONYM (CR1080 from Cancer Outcomes and Services Dataset) |
| **Main Specialty Code (29100@3.2.0)** | The main specialty code of the consultant performing the intervention | 0..1 | [specialty](#32919) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Systemic Anti-Cancer Therapy report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Systemic Anti-Cancer Therapy report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

### Radiotherapy [0..\*]

*Multiple reports containing radiotherapy can be submitted together with each interventions report.*

For each course of radiotherapy, in addition to the core intervention data items, the following are required:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Radiotherapy Site (14973@3.2.0)** | OPCS code for site. A classification of part of the body to which the RADIOTHERAPY ACTUAL DOSE is administered. | 1..1 | [anatomicalTreatmentSiteRadiotherapy](#1057) | ANATOMICAL TREATMENT SITE (RADIOTHERAPY) (CR1140 from Cancer Outcomes and Services Dataset) |
| **Dose (14974@3.2.0)** | The total prescribed absorbed radiation dose, measured in Grays, given to the ICRU Reference Point for the whole prescription. http://www.icru.org/home/reports/prescribing-recording-and-reporting-photon-beam-therapy-report-62 | 1..1 | [radiotherapyTotalDose](#547) | RADIOTHERAPY TOTAL DOSE (CR2080 from Cancer Outcomes and Services Dataset) |
| **Prescription (14976@3.2.0)** | Reference to uploaded copy of prescription document | 0..1 | [xs:string](#38) |  |
| **Plan (14975@3.2.0)** | Reference to uploaded copy of radiotherapy plan | 0..1 | [xs:string](#38) |  |
| **Radiotherapy Intent (29103@3.2.0)** | Intent of radiotherapy | 0..1 | [radiotherapyIntent](#545)   |  |  | | --- | --- | | **01** | Palliative | | **02** | Anti-cancer | | **03** | Other | | RADIOTHERAPY INTENT (CR1570 from Cancer Outcomes and Services Dataset) |
| **Main Specialty Code (29100@3.2.0)** | The main specialty code of the consultant performing the intervention | 0..1 | [specialty](#32919) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Radiotherapy report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Radiotherapy report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

#### Radiotherapy Details [1..1]

*One report containing Radiotherapy Details must be submitted together with each Radiotherapy report.*  
  
*One of the following must be submitted together with each Radiotherapy Details report*

##### Brachytherapy [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Brachytherapy Type (14977@3.2.0)** | The type of Brachytherapy Treatment Course being used, if applicable. | 1..1 | [brachytherapyType](#541)   |  |  | | --- | --- | | **BI** | Interstitial | | **BC** | Intra-cavity | | **BT** | Not otherwise specified | | **US** | Unsealed Source | | BRACHYTHERAPY TYPE (CR1200 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

##### External Beam [1..1]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **External Beam Type (14978@3.2.0)** | Type of external beam, if applicable. The prescribed type of beam for a Teletherapy Treatment/ Exposure | 1..1 | [externalBeamType](#32777)   |  |  | | --- | --- | | **imrt** | IMRT | | **stereotactic** | Stereotactic | | **2dxrt** | 2DXRT | | **3dxrt** | 3DXRT | | **4dxrt** | 4DXRT | | **electrons** | Electrons | | **protons** | Protons | |  |
| **Fractions (14981@3.2.0)** | Dose fractions, if external beam therapy. The total number of Fractions or hyperfraction delivered as part of a RADIOTHERAPY PRESCRIPTION. | 1..1 | [radiotherapyTotalFractions](#549) | RADIOTHERAPY TOTAL FRACTIONS  (CR2090 from Cancer Outcomes and Services Dataset) |

### Cancer Specific Treatments [0..\*]

*Multiple reports containing cancer specific treatments can be submitted together with each Interventions report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Main Specialty Code (29100@3.2.0)** | The main specialty code of the consultant performing the intervention | 0..1 | [specialty](#32919) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

#### Event Details [1..1]

*One report containing Event Details must be submitted together with each Cancer Specific Treatments report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

#### Related Cancer Diagnoses [1..1]

*One report containing Related Cancer Diagnoses must be submitted together with each Cancer Specific Treatments report.*  
  
Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Related Cancer Diagnosis (ICD) (14892@1.0.1)** | Cancer diagnoses that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 1..\* | [primaryDiagnosisIcd](#311) |  |
| **Related Cancer Diagnosis (SNOMEDCT) (35539@3.2.0)** | Optionally, provide the related cancer diagnosis as SNOMED CT code as well as the ICD code. Related Cancer Diagnosis is the diagnosis that led to the reported clinical event. More than one diagnosis can be provided for the same event, e.g. where an event pertains to more than one diagnosis. | 0..\* | [diagnosisCode(snomedCt)](#32755) |  |

#### Cancer Specific Treatment [1..1]

*One report containing Cancer Specific Treatment must be submitted together with each Cancer Specific Treatments report.*  
  
One *of the following must be submitted together with each Cancer Specific Treatment report*

##### Other Treatment (Bladder) [1..1]

Priority COSD Data items from UROLOGY - TREATMENT - BLADDER. To carry the cancer treatment details for Bladder.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Intravesical chemotherapy received indicator (38915@3.2.0)** | Related to UR15100, updated description in COSD v7.0: BLADDER ONLY (Only required for patients having chemotherapy) Record as YES for patients having intravesical chemotherapy to distinguish from intravenous | 0..1 | [yesNoNk](#1026)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **9** | Not known | | INTRAVESICAL CHEMOTHERAPY RECEIVED INDICATOR (UR15100 from Cancer Outcomes and Services Dataset) |
| **Intravesical Immunotherapy Received Indicator (39085@3.2.0)** | Related to UR15110, updated description in COSD v7.0: BLADDER ONLY (Only required for patients having Immunotherapy) Record as YES for patients having intravesical Immunotherapy to distinguish from intravenous | 0..1 | [yesNoNk](#1026)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **9** | Not known | | INTRAVESICAL IMMUNOTHERAPY RECEIVED INDICATOR (UR15110 from Cancer Outcomes and Services Dataset) |

**or in the case of,**

##### Other Treatment (Upper GI) [1..1]

Priority COSD data items from UPPER GI - LIVER METS and LIVER HCC. To carry other procedure details for LIVER METS and Liver HCC.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Ablative therapy type (38909@3.2.0)** | Describe type of ablative (i.e. locally destructive treatment) therapy used if any | 0..1 | [ablativeTherapyType](#1281)   |  |  | | --- | --- | | **N** | None | | **R** | Radiofrequency ablation | | **O** | Other ablative treatment | | **9** | Not known | | ABLATIVE THERAPY TYPE (UG13560 from Cancer Outcomes and Services Dataset) |
| **Trans arterial chemoembolisation (38910@3.2.0)** | Was Trans Arterial Chemoembolisation (TACE) carried out? | 0..1 | [yesNoNk](#1026)   |  |  | | --- | --- | | **Y** | Yes | | **N** | No | | **9** | Not known | | TRANS ARTERIAL CHEMOEMBOLISATION (UG13580 from Cancer Outcomes and Services Dataset) |

## 

## Death

This section is used to submit details of the date and cause of death. Participants remain in the programme after their death but this information is crucial both for project implementation (to ensure appropriate future contact with the family) and for research.  
  
All fetal participants should also have a death details form completed at the time of recruitment; this is because samples from ongoing pregnancies are not eligible for the programme, as genome sequencing is not yet fast enough to be used in the context of ongoing pregnancy. The date of death should refer to the date the intra-uterine death was discovered, or feticide was carried out.  
A report of death should include (see NHS data dictionary):  
http://www.datadictionary.nhs.uk/data\_dictionary/classes/p/person\_death\_details\_at.asp?shownav=1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Death Location (12777@1.0.1)** | Location of death | 0..1 | [deathLocation](#34429)   |  |  | | --- | --- | | **3** | Voluntary hospice / Specialist Palliative Care unit | | **2** | NHS hospice / Specialist Palliative Care unit | | **1** | Hospital | | **6** | Other | | **5** | Care Home | | **4** | PATIENT's own home | |  |
| **Significant (12781@1.0.1)** | Significant condition not leading to death. Coded according to the International Classification of Diseases (ICD) code of the condition leading to death as recorded on part 2 of the death certificate. | 0..\* | [deathCauseCode](#34428) |  |
| **Immediate Cause (12778@1.0.1)** | Immediate cause of death. Coded according to the International Classification of Diseases (ICD) code of the condition leading to death as recorded on part 1a of the death certificate. | 1..\* | [deathCauseCode](#34428) |  |
| **Condition (12780@1.0.1)** | Condition leading to death. Coded according to the International Classification of Diseases (ICD) code of the condition leading to death as recorded on part 1b of the death certificate. | 0..\* | [deathCauseCode](#34428) |  |
| **Underlying Cause (12779@1.0.1)** | Underlying cause of death. Coded according to the International Classification of Diseases (ICD) code of the condition leading to death as recorded on part 1c of the death certificate. | 0..\* | [deathCauseCode](#34428) |  |

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Death report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Event Details [1..1]

*One report containing Event Details must be submitted together with each Death report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

## Consent Update

This section reports changes in a cancer participant’s consent status after they have joined the project, including changes in preference relating to the participant’s options regarding additional findings (Consent Details (29742.1)).  
If a patient withdraws from the project, please complete a Withdrawal form, not a Consent update form.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Name and Version of Consent Form Update (34558@3.2.0)** | Name and Version of cancer update form used. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 1..1 | [xs:string](#38) |  |
| **Consent Given (12545@1.0.1)** | Yes no answer to consent given | 1..1 | [yesNo](#34541)   |  |  | | --- | --- | | **yes** | Yes | | **no** | No | |  |
| **Consent Form (12546@1.0.1)** | File name of uploaded PDF copy of consent form - requested format [ParticipantId]\_consent\_[TimeStamp].pdf | 0..1 | [xs:string](#38) |  |
| **Person Taking Consent (12547@1.0.1)** | The full name of the person taking consent | 1..1 | [xs:string](#38) |  |
| **Name and Version of Participant Information Sheet Update (34564@3.2.0)** | Name and Version of information sheet presented. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 1..1 | [xs:string](#38) |  |
| **Name and Version of Assent Form (34552@3.2.0)** | Name and Version of Cancer Assent form used. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 0..1 | [xs:string](#38) |  |
| **Assent Form (34543@1.0.1)** | File name of the uploaded PDF copy of the assent form. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 0..1 | [xs:string](#38) |  |
| **Additional optional consent materials (34556@1.0.1)** | Names and versions of additional cancer consent materials used. Please see appendix F for latest list of consent forms, participant information sheets, additional optional consent materials and enumerations. | 0..\* | [xs:string](#38) |  |

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Consent Update report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Event Details [1..1]

*One report containing Event Details must be submitted together with each Consent Update report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

### Consent Details [1..1]

*One report containing Consent Details must be submitted together with each Consent Update report.*  
  
Details corresponding to the questions and responses on the consent form.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Health Related Additional Findings (34544@1.0.1)** | Health-related additional findings: Does the participant want these looked for and fed back to their clinical team? | 0..1 | [yesNo](#34541)   |  |  | | --- | --- | | **yes** | Yes | | **no** | No | |  |
| **Reproductive Additional Findings (34546@1.0.1)** | Reproductive additional findings: Does the participant want these looked for and fed back to their clinical team? | 0..1 | [yesNoNotRelevant](#34545)   |  |  | | --- | --- | | **yes** | yes | | **no** | no | | **not\_relevant** | not relevant | |  |

## Reasons Samples Not Sent

This section reports if sample has been taken from a participant but not sent.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Reason Sample Not Sent (33116@3.2.0)** | Reason sample not sent from GMC to Biorepository, if applicable. Note the only instances a blood sample shouldn't be sent, is if the tumour sample was not sent, or if there has been a successfully sequenced germline previously. As they have to send the both samples together. | 1..1 | [tumourSampleNotSentReason](#32948)   |  |  | | --- | --- | | **tumour\_sample\_not\_taken** | Tumour sample not taken | | **tumour\_type\_not\_eligible** | Tumour type not eligible | | **poorly\_cellular\_tumour** | Poorly cellular tumour (Less than 40 percent neoplastic cells) | | **insufficient\_tumour\_post\_neoadjuvant\_chemotherapy** | Insufficient tumour post neoadjuvant chemotherapy | | **insufficient\_dna** | Insufficient DNA | | **no\_cancer\_diagnosed** | No Cancer Diagnosed | | **ffpe\_not\_optimally\_fixed** | FFPE not optimally fixed | | **ffpe\_not\_optimally\_processed** | FFPE not optimally processed | | **high\_necrosis** | High necrosis (over 20 percent) | | **other** | Other | |  |

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Reason Sample Not Sent report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Event Details [1..1]

*One report containing Event Details must be submitted together with each Reason Sample Not Sent report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

## Presentation

Presentation details associated with the Genomics England tumour sample.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Presentation (12838@3.2.0)** | Symptoms presented, recorded against supplied enumerations (for example, breast cancer presentation may be: breast mass, altered breast appearance, axillary mass, other mass, nipple discharge, or screening). The list of disease types will be validated against the types contained in Appendix G. These may be subject to change and GMCs are requested to ensure that data capture systems are flexible enough to accommodate changes to the list of disease contained in Appendix G | 1..\* | [xs:string](#38) |  |
| **Tumour ID (42230@3.2.0)** | A locally allocated identifier for the participant's tumour. This should be unique for each tumour submitted from a patient. Two tumours resected at the same time would have unique Tumour IDs.  All sample reports and event reports that relate to a Genomics England tumour sample must have a locally allocated Tumour ID. Tumour IDs must be unique within the context of a GMC Clinic and should conform to the following convention: Clinic ID proceeded by "\_" proceeded by the local tumour identifier used to refer to a tumour, which must be between 1 and 16 alphanumeric characters i.e. RN3\_A098BC | 1..\* | [tumourID](#42261) |  |

### Participant Identifiers [1..1]

*One report containing Participant Identifiers must be submitted together with each Presentation report.*  
  
The following information is used to identify the participant and must be included with all data submissions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Participant ID (12502@1.0.1)** | Participant Identifier (supplied by Genomics England) | 1..1 | [participantId](#34495) |  |
| **Date of Birth (12505@1.0.1)** | The date on which a PERSON was born or is officially deemed to have been born. | 1..1 | [xs:date](#58) | PERSON BIRTH DATE (NHS Data Dictionary GEL Subset) |
| **Surname (12507@1.0.1)** | The participant's surname | 1..1 | [personFamilyName](#321) | PERSON FAMILY NAME (CR0050 from Cancer Outcomes and Services Dataset) |
| **Forenames (12508@1.0.1)** | The participant's forenames | 1..1 | [personGivenName](#323) | PERSON GIVEN NAME (CR0060 from Cancer Outcomes and Services Dataset) |

#### Person Identifier [1..1]

*One report containing Person Identifier must be submitted together with each Participant Identifiers report.*  
  
Choice of one of either NHS Number (Wales & England) OR CHI Number (Scotland) OR Health and Care Number (Northern Ireland).

*One of the following must be submitted together with each Person Identifier report.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **NHS Number (12506@1.0.1)** | Validated NHS number for participant | 1..1 | [nhsNumber](#42014) |  |
| **Or in the case of,** | | | | |
| **CHI Number (14821@1.0.1)** | The COMMUNITY HEALTH INDEX NUMBER (CHI NUMBER) uniquely identifies a PATIENT on the Community Health Index (Scotland) within the NHS in Scotland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [chiNumber](#42011) |  |
| **Or in the case of,** | | | | |
| **Health and Care Number (42126@1.0.1)** | Validated HEALTH AND CARE NUMBER (H&C NUMBER). Uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales. | 1..1 | [healthAndCareNumber](#42127) |  |

### Event Details [1..1]

*One report containing Event Details must be submitted together with each Presentation report.*  
  
The local ‘Event Reference’ combined with the Event Date, is used to identify the actual participant event involved. GMCs must ensure that local event references are not re-used to refer to different events, therefore two different events on the same date can be easily identified. GMCs must also ensure no two participants are given the same event reference.  
  
If a second submission is received with the same local event reference, then Genomics England will assume that this is an update pertaining to the same participant event, and will be used in place of the original submission; any data values previously supplied that are still applicable must therefore be included.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Multiplicity** | **Data Type** | **Related To** |
| **Event Date (12727@1.0.1)** | Date of the clinical event or observation being reported e.g. date biopsy was taken | 1..1 | [xs:dateTime](#59) |  |
| **Event Reference (14858@1.0.1)** | Unique identifier for local record of clinical event or observation | 1..1 | [xs:string](#38) |  |

# Data Types

**Age**

**(Cancer Model)**

Age in years

|  |  |
| --- | --- |
| Unit of Measure | Year |
| Regular Expression | \d{1,3} |
| Rule based on  xs:nonNegativeInteger (XMLSchema) | minInclusive(0) |
| Rule based on  xs:integer (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseInteger(string(x)) in BigInteger |

**Usages**

[Risk Factors for Breast Cancer](#32906)

[Risk Factors for Endometrial Cancer](#39003)

[Risk Factors for Malignant Melanoma](#39017)

[Risk Factors for Ovarian Cancer](#32908)

[Risk Factors for Testicular Cancer](#39020)

**Postcode**

**(PDS)**

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.  
N.B. Must be capitalized

|  |  |
| --- | --- |
| Regular Expression | ^(GIR ?0AA|[A-PR-UWYZ]([0-9]{1,2}|([A-HK-Y][0-9]([0-9ABEHMNPRV-Y])?)|[0-9][A-HJKPS-UW]) ?[0-9][ABD-HJLNP-UW-Z]{2})$ |

**Usages**

[Participant Contact Details](#34420)

**SCATEGORY**

**(Cancer Outcomes and Services Dataset)**

TESTICULAR ONLY. Based on serum tumour markers AFP, HCG and LDH. For Testicular Cancer S category is an additional prognostic factor.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| SX | | Marker studies not available or not performed |
| S0 | | Normal |
| S1 | | LDH (UNITS/LITRE) - Less than 1.5 x normal, HCG (MILLIUNITS/MILLILITRE) - Less than 5,000, AFP (NANOGRAMS/MILLILITRE) - Less than 1,000 |
| S2 | | LDH (UNITS/LITRE) - 1.5-10 x normal, HCG (MILLIUNITS/MILLILITRE) - 5,000-50,000, AFP (NANOGRAMS/MILLILITRE) - 1,000-10,000 |
| S3 | | LDH (UNITS/LITRE) - Greater than 10 x normal, HCG (MILLIUNITS/MILLILITRE) - Greater than 50,000, AFP (NANOGRAMS/MILLILITRE) - Greater than 10,000 |

**Usages**

[Cancer Specific Grading](#32734)

**Skintype**

**(Cancer Model)**

Skin type

|  |  |
| --- | --- |
| **Code** | **Description** |
| i | I Always burns, never tans |
| ii | II Usually burns, tans minimally |
| iii | III Sometimes mild burn, tans uniformly |
| iv | IV Burns minimally, always tans well |
| v | V Very rarely burns, tans very easily |
| vi | VI Never burns, never tans |
| unknown | unknown |

**Usages**

[Risk Factors for Malignant Melanoma](#39017)

**ablativeTherapyType**

**(Cancer Outcomes and Services Dataset)**

Describe type of ablative (i.e. locally destructive treatment) therapy used if any

|  |  |
| --- | --- |
| **Code** | **Description** |
| N | None |
| R | Radiofrequency ablation |
| O | Other ablative treatment |
| 9 | Not known |

**Usages**

[Other Treatment (Upper GI)](#39086)

**addressLine**

**(PDS)**

Includes main, temporary and correspondence addresses  
5 lines excludes postcode, may be vernacular or PAF derived. The following address  
lines should normally be present although there may be some exceptions:  
-1 or 2,   
-and 4

|  |  |
| --- | --- |
| Regular Expression | .{2,175} |

**Usages**

[Participant Contact Details](#34420)

**ajccStageGroup**

**(Cancer Model)**

AJCC STAGE GROUP, not the UICC TNM Stage Grouping, should be collected for stageable skin cancers. American Joint Committee on Cancer staging of tumour at diagnosis. This is the final integrated stage as agreed by MDT. See COSD User Guide for site specific options.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule based on  ajccStageGroup (Cancer Outcomes and Services Dataset) | x ==~/[a-zA-Z0-9]{1,2}/ | | |
| **Code** | | **Description** |
| 1 | | Stage l |
| 1a | | Stage IA |
| 1b | | Stage IB |
| 2 | | Stage ll |
| 2a | | Stage IIA |
| 2b | | Stage IIB |
| 2c | | Stage IIC |
| 3 | | Stage III |
| 3a | | Stage IIIA |
| 3b | | Stage IIIB |
| 3c | | Stage IIIC |
| 4 | | Stage 4 |

**Usages**

[AJCC Stage](#40398)

**alkBlastomaMarker**

**(Cancer Model)**

Blastoma marker test result

|  |  |
| --- | --- |
| **Code** | **Description** |
| not\_tested | not tested |
| wild\_type | wild-type |
| mutant | mutant |

**Usages**

[Childhood Tumour Markers](#38996)

**allredScore**

**(Cancer Model)**

ALLRED Score

|  |  |
| --- | --- |
| Regular Expression | [0-8] |
| Rule based on  xs:integer (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseInteger(string(x)) in BigInteger |

**Usages**

[Pathology (Breast)](#38960)

**anatomicalSideImaging**

**(Cancer Outcomes and Services Dataset)**

\*IMAGING CODE (NICIP)  
and/or  
\*IMAGING CODE (SNOMED CT)  
and/or  
\*CANCER IMAGING MODALITY and IMAGING ANATOMICAL SITE and ANATOMICAL SIDE (IMAGING)  
is required.  
  
The side of the body that is the subject of an Imaging or Radiodiagnostic Event.

|  |  |
| --- | --- |
| **Code** | **Description** |
| L | Left |
| R | Right |
| M | Midline |
| B | Bilateral |
| 8 | Not applicable |
| 9 | Not Known |

**Usages**

[Imaging](#32814)

**anatomicalTreatmentSiteRadiotherapy**

**(Cancer Outcomes and Services Dataset)**

The OPCS4 anatomical site code of the site subjected to radiotherapy

|  |  |
| --- | --- |
| Rule | x==~/[a-zA-Z0-9.]{3,5}/ |
| Based On | OPCS-4 (Cancer Outcomes and Services Dataset) |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Radiotherapy](#32893)

**asaScore**

**(Cancer Outcomes and Services Dataset)**

The ASA physical status classification system is a system for assessing the fitness of patients before surgery.

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | A normal healthy patient. |
| 2 | A patient with mild systemic disease. |
| 3 | A patient with severe systemic disease |
| 4 | A patient with severe systemic disease that is a constant threat to life. |
| 5 | A moribund patient who is not expected to survive without the operation. |
| 6 | A declared brain-dead patient whose organs are being removed for donor purposes |

**Usages**

[Surgery And Other Procedures](#32923)

**barcelonaClinicLiverCancerBclcStage**

**(Cancer Outcomes and Services Dataset)**

The Barcelona Clinic Liver Cancer (BCLC) stage includes both anatomic and non-anatomic factors and is widely used within the UK to predict prognosis and determine treatment.

|  |  |
| --- | --- |
| **Code** | **Description** |
| 0 | Very early |
| A | Early |
| B | Intermediate |
| C | Advanced |
| D | Terminal |

**Usages**

[Staging (Upper GI)](#38966)

**basisOfDiagnosis(cancer)**

**(Cancer Outcomes and Services Dataset)**

This is the method used to confirm the cancer.

|  |  |
| --- | --- |
| **Code** | **Description** |
| 2 | Clinical Investigation: Includes all diagnostic techniques (e.g. X-rays, endoscopy, imaging, ultrasound, |
| 1 | Clinical: Diagnosis made before death but without the benefit of any of the following (2-7) |
| 0 | Death Certificate: The only information available is from a death certificate |
| 7 | Histology of a primary tumour: Histological examination of tissue from the primary tumour, however obtained, including all cutting and bone marrow biopsies. Also includes autopsy specimens of a primary tumour |
| 6 | Histology of a metastasis: Histological examination of tissues from a metastasis, including autopsy specimens |
| 5 | Cytology: Examination of cells whether from a primary or secondary site, including fluids aspirated using endoscopes or needles. Also including microscopic examination of peripheral blood films and trephine bone marrow aspirates |
| 4 | Specific tumour markers: Includes biochemical and/or immunological markers which are specific for a tumour site |
| 9 | Unknown: No information on how the diagnosis has been made (e.g. PAS or HISS record only) |

**Usages**

[Diagnosis](#32752)

**biomarkerPresent**

**(Cancer Model)**

Indication of biomarkers presence

|  |  |  |  |
| --- | --- | --- | --- |
| Based On | MarkerPresent (Cancer Model) | | |
| **Code** | | **Description** |
| present | | present |
| not\_tested | | no tested |
| equivocal | | equivocal |
| absent | | absent |

**Usages**

[Colorectal Tumour Markers](#32744)

[Ovarian Tumour Markers](#32866)

**blastomaMarker**

**(Cancer Model)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| not\_tested | not tested |
| amplified | amplified |
| non\_amplified | non amplified |

**Usages**

[Childhood Tumour Markers](#38996)

**brachytherapyType**

**(Cancer Outcomes and Services Dataset)**

The type of Brachytherapy Treatment Course being used.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| BI | | Interstitial |
| BC | | Intra-cavity |
| BT | | Not otherwise specified |
| US | | Unsealed Source |

**Usages**

[Brachytherapy](#41987)

**breastDensity**

**(Cancer Model)**

Breast density at most recent available pre-surgical mammogram: based on percentage of fibroglandular tissue relative to total area on the two view mammogram.

|  |  |
| --- | --- |
| **Code** | **Description** |
| birads\_0 | additional imaging evaluation and/or comparison to prior mammogram is needed |
| birads\_1 | glandular tissue is less than 25% |
| birads\_2 | scattered fibroglandular densities (25-50%) |
| birads\_3 | heterogeneously dense (50-75%) |
| birads\_4 | extremely dense breast (75-100%) |

**Usages**

[Risk Factors for Breast Cancer](#32906)

**breastInvasiveTumourGrade**

**(Cancer Model)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| x | Not assessable |

**Usages**

[Cancer Specific Grading](#32734)

**cancerCarePlanIntent**

**(Cancer Outcomes and Services Dataset)**

The intention of a Cancer Care Plan developed within a Cancer Care Spell.

|  |  |
| --- | --- |
| **Code** | **Description** |
| C | Curative |
| Z | Non Curative |
| X | No active treatment |
| 9 | Not Known |

**Usages**

[Cancer Care Plan](#32732)

**cancerImagingModality**

**(Cancer Outcomes and Services Dataset)**

\*IMAGING CODE (NICIP)  
and/or  
\*IMAGING CODE (SNOMED CT)  
and/or  
\*CANCER IMAGING MODALITY and IMAGING ANATOMICAL SITE and ANATOMICAL SIDE (IMAGING)  
is required.  
  
The type of imaging procedure used during an Imaging or Radiodiagnostic Event for a Cancer Care Spell.  
NB: PET Scan also includes PET-CT Scan.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | x==~/[a-zA-Z0-9]{4}/ | | |
| **Code** | | **Description** |
| C01X | | Standard Radiography |
| C01M | | Mammogram |
| C02X | | CT Scan |
| C02C | | Virtual colonoscopy |
| C03X | | MRI Scan |
| C04X | | PET Scan |
| C05X | | Ultrasound Scan |
| C06X | | Nuclear Medicine imaging |
| C08A | | Angiography |
| C08B | | Barium |
| C08U | | Urography (IV and retrograde) |
| C09X | | Intervention radiography. |
| CXXX | | Other |

**Usages**

[Imaging](#32814)

**cancerRecurrenceCarePlanIndicator**

**(Cancer Outcomes and Services Dataset)**

An indication of whether a diagnosis of recurrence has been recorded for which a new Cancer Care Plan is required. A new record should be completed for a recurrence.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| YL | | Yes, including local recurrence |
| YD | | Yes, not including local recurrence |
| NN | | No, not recurrence |

**Usages**

[Diagnosis](#32752)

**cancerVascularOrLymphaticInvasion**

**(Cancer Outcomes and Services Dataset)**

An indication of the presence or absence of unequivocal tumour in lymphatic and/or vascular spaces.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| NU | | No - vascular/lymphatic invasion not present |
| YU | | Yes - vascular/lymphatic invasion present |
| YV | | Vascular invasion only present |
| YL | | Lymphatic invasion only present |
| YB | | Both lymphatic and vascular invasion present" |
| UU | | Uncertain whether vascular/lymphatic invasion is present or not |
| XX | | Cannot be assessed |
| 99 | | Not Known |

**Usages**

[Sample Pathology](#32868)

**chiNumber**

**(NHS Data Dictionary GEL Subset)**

The Community Health Index (CHI) is a population register, which is used in Scotland for health care purposes. The CHI number uniquely identifies a person on the index.

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9]{10} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Person Identifier](#42125)

**childPughScore**

**(Cancer Outcomes and Services Dataset)**

Record the overall Child-Pugh score. This is the level of disease of the liver.

|  |  |
| --- | --- |
| **Code** | **Description** |
| A | Child-Pugh A |
| B | Child-Pugh B |
| C | Child-Pugh C |

**Usages**

[Staging (Upper GI)](#38966)

**childhoodChronicExposure**

**(Cancer Model)**

Number of years spent living in a country with high UV light between 0 and15 years.

|  |  |
| --- | --- |
| Regular Expression | \d|1[0-5] |

**Usages**

[Risk Factors for Malignant Melanoma](#39017)

**chromosomalabnormalityNeuroblastoma**

**(Cancer Model)**

chromosomal abnormality (neuroblastoma)

|  |  |
| --- | --- |
| **Code** | **Description** |
| not\_tested | not tested |
| segmental | segmental |
| non\_segmental | non-segmental |

**Usages**

[Childhood Tumour Markers](#38996)

**clinicalStagePancreaticCancer**

**(Cancer Outcomes and Services Dataset)**

Clinically agreed stage based on radiological findings of tumour extent in order to offer treatment recommendations. The category selected depends on tumour location within the pancreas and the arterial or venous involvement

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| 10 | | Localised and resectable |
| 20 | | Borderline resectable |
| 30 | | Unresectable (locally advanced or metastatic) |
| 31 | | Unresectable (locally advanced) |
| 32 | | Unresectable (metastatic) |

**Usages**

[Staging (Upper GI)](#38966)

**consentWithdrawalOptions**

**(Genomics England Shared)**

Genomics England Consent Withdrawal Options

|  |  |
| --- | --- |
| **Code** | **Description** |
| full\_withdrawal | OPTION 2: FULL WITHDRAWAL: No further use |
| partial\_withdrawal | OPTION 1: PARTIAL WITHDRAWAL: No further contact |

**Usages**

[Withdrawal](#34537)

**consultantCode**

**(Cancer Outcomes and Services Dataset)**

The GMC code of the consultant

|  |  |
| --- | --- |
| Rule | x==~/[a-zA-Z0-9]{1,8}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Consultant Details](#34418)

**coreBiopsyBreast**

**(Cancer Outcomes and Services Dataset)**

Needle core biopsy opinion.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | x==~/[a-zA-Z0-9]{1,3}/ | | |
| **Code** | | **Description** |
| B1 | | Normal |
| B2 | | Benign |
| B3 | | Uncertain malignant potential |
| B4 | | Suspicious |
| B5a | | Malignant (In situ) |
| B5b | | Malignant (Invasive) |
| B5c | | Malignant (Not assessable) |

**Usages**

[Pathology (Breast)](#38960)

**coreBiopsyNode**

**(Cancer Outcomes and Services Dataset)**

Needle biopsy opinion on axillary lymph node.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| B1 | | Normal |
| B2 | | Benign |
| B3 | | Uncertain malignant potential |
| B4 | | Suspicious |
| B5 | | Malignant |

**Usages**

[Pathology (Breast)](#38960)

**cytologyNode**

**(Cancer Outcomes and Services Dataset)**

Cytology opinion on axillary lymph node.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| C1 | | Inadequate/unsatisfactory specimen |
| C2 | | Benign |
| C3 | | Uncertain |
| C4 | | Suspicious of malignancy |
| C5 | | Malignant |

**Usages**

[Pathology (Breast)](#38960)

**dcisTumourGrade**

**(Cancer Model)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| l | Low |
| i | Intermediate |
| h | High |
| x | Not assessable |

**Usages**

[Cancer Specific Grading](#32734)

**deathCauseCode**

**(Genomics England Shared)**

DEATH CAUSE ICD CODE is the International Classification of Diseases (ICD) code of the condition leading to death as recorded on the death certificate.

|  |  |
| --- | --- |
| Regular Expression based on  deathCauseIcdCode (Cancer Outcomes and Services Dataset) | [a-zA-Z0-9.]{3,6} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Death](#34426)

**deathLocation**

**(Genomics England Shared)**

The type of LOCATION at which a PERSON died.  
  
For the purposes of the Community Information Data Set this is either the LOCATION where the PATIENT expressed a preference to die, or where they actually died.

|  |  |  |  |
| --- | --- | --- | --- |
| Based On | deathLocationType (NHS Data Dictionary GEL Subset) | | |
| **Code** | | **Description** |
| 3 | | Voluntary hospice / Specialist Palliative Care unit |
| 2 | | NHS hospice / Specialist Palliative Care unit |
| 1 | | Hospital |
| 6 | | Other |
| 5 | | Care Home |
| 4 | | PATIENT's own home |

**Usages**

[Death](#34426)

**detrusorMusclePresenceIndicator**

**(Cancer Outcomes and Services Dataset)**

BLADDER ONLY  
Presence or absence of detrusor muscle in the specimen

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | Present |
| 2 | Absent |
| 9 | Not known |

**Usages**

[Pathology (Bladder)](#38971)

**diagnosisCode(snomedCt)**

**(Cancer Model)**

SNOMED CT CODE

|  |  |
| --- | --- |
| Regular Expression based on  snomedCt (Genomics England Shared) | \d{6,18} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Diagnosis](#32752)

[Related Cancer Diagnoses](#40377)

**diameterInMm**

**(Genomics England Shared)**

diameter in mm

|  |  |
| --- | --- |
| Unit of Measure | millimeter (meter\*10^-3 |
| Rule | x==~/\d\*\.?\d\*/ |
| Rule based on  xs:decimal (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseDecimal(string(x)) in BigDecimal |

**Usages**

[Sample Pathology](#32868)

**distanceToMargin**

**(Cancer Model)**

Distance to closest relevant margin (mm). Distance to nearest margin whether invasive or non invasive. (For COSD measurement to the nearest mm is sufficient but may be recorded to nearest tenth of mm)

|  |  |
| --- | --- |
| Unit of Measure | millimeter (meter\*10^-3 |
| Regular Expression based on  distanceToMargin (Cancer Outcomes and Services Dataset) | \d{1,2}.\d{1} |
| Rule based on  xs:decimal (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseDecimal(string(x)) in BigDecimal |

**Usages**

[Pathology (Breast)](#38960)

**distanceToSerosa**

**(Cancer Outcomes and Services Dataset)**

Specify the tumour free distance to the serosa in mm

|  |  |
| --- | --- |
| Rule | x==~/[0-9]{1,2}/ |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[Pathology (Endometrial)](#38980)

**drugTreatmentIntent**

**(Cancer Outcomes and Services Dataset)**

DRUG TREATMENT INTENT

|  |  |
| --- | --- |
| **Code** | **Description** |
| D | Disease Modification |
| P | Palliative |
| A | Adjuvant |
| C | Curative |
| N | Neoadjuvant |

**Usages**

[Systemic Anti-Cancer Therapy](#32924)

**durationInYears**

**(Cancer Model)**

Number of years

|  |  |
| --- | --- |
| Unit of Measure | Year (A year is the orbital period of the Earth moving in its orbit around the Sun |
| Regular Expression | \d{1,3} |
| Rule based on  xs:nonNegativeInteger (XMLSchema) | minInclusive(0) |
| Rule based on  xs:integer (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseInteger(string(x)) in BigInteger |

**Usages**

[Risk Factors for Breast Cancer](#32906)

[Risk Factors for Endometrial Cancer](#39003)

[Risk Factors for HPB Cancer](#39024)

[Risk Factors for Ovarian Cancer](#32908)

**emailAddress**

**(Genomics England Shared)**

A Valid Email Address i.e. someone@somedomain.com

|  |  |
| --- | --- |
| Rule | x ==~/(?:[a-z0-9!#$%&'\*+\/=?^\_`{|}~-]+(?:\.[a-z0-9!#$%&'\*+\/=?^\_`{|}~-]+)\*|"(?:[\x01-\x08\x0b\x0c\x0e-\x1f\x21\x23-\x5b\x5d-\x7f]|\\[\x01-\x09\x0b\x0c\x0e-\x7f])\*")@(?:(?:[a-z0-9](?:[a-z0-9-]\*[a-z0-9])?\.)+[a-z0-9](?:[a-z0-9-]\*[a-z0-9])?|\[(?:(?:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.){3}(?:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?|[a-z0-9-]\*[a-z0-9]:(?:[\x01-\x08\x0b\x0c\x0e-\x1f\x21-\x5a\x53-\x7f]|\\[\x01-\x09\x0b\x0c\x0e-\x7f])+)\])/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Participant Contact Details](#34420)

**epidermalGrowthFactorReceptorMutationalStatus**

**(Cancer Model)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| *1* | *Wild type* |
| *2* | *Mutation* |
| 3 | Failed analysis |
| 4 | Not assessed |
| 5 | Wild type/non-sensitising mutation |
| 6 | Sensitising/activating mutation |

**Usages**

[Lung Tumour Markers](#38964)

**ethnicCategory**

**(Cancer Outcomes and Services Dataset)**

The ethnicity of a PERSON, as specified by the PERSON.. The 16+1 ethnic data categories defined in the 2001 census is the national mandatory standard for the collection and analysis of ethnicity.  
(The Office for National Statistics has developed a further breakdown of the group from that given, which may be used locally.)

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | x==~/[a-zA-Z0-9]{1,2}/ | | |
| **Code** | | **Description** |
| D | | Mixed: White and Black Caribbean |
| E | | Mixed: White and Black African |
| F | | Mixed: White and Asian |
| G | | Mixed: Any other mixed background |
| A | | White: British |
| B | | White: Irish |
| C | | White: Any other White background |
| L | | Asian or Asian British: Any other Asian background |
| M | | Black or Black British: Caribbean |
| N | | Black or Black British: African |
| H | | Asian or Asian British: Indian |
| J | | Asian or Asian British: Pakistani |
| K | | Asian or Asian British: Bangladeshi |
| P | | Black or Black British: Any other Black background |
| S | | Other Ethnic Groups: Any other ethnic group |
| R | | Other Ethnic Groups: Chinese |
| Z | | Not stated |
| 99 | | Not known |

**Usages**

[Registration](#32874)

**excisionMargin**

**(Cancer Outcomes and Services Dataset)**

An indication of whether the excision margin was clear of the tumour and if so, by how much.  
  
 Where there is more than one measurement, record the closest or closest relevant margin.  
 Where actual measurements are not taken use options 01, 05 or 06.  
 Note that not some values are applicable to specific tumour types

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| 01 | | Excision margins are clear (distance from margin not stated) |
| 02 | | Excision margins are clear (tumour >5mm from the margin) |
| 03 | | Excision margins are clear (tumour >1mm but less than or equal to 5mm from the margin |
| 04 | | Tumour is less than or equal to 1mm from excision margin, but does not reach margin |
| 05 | | Tumour reaches excision margin |
| 06 | | Uncertain |
| 07 | | Margin not involved =>1mm |
| 08 | | Margin not involved <1mm |
| 09 | | Margin not involved 1-5mm |
| 98 | | Not applicable |
| 99 | | Not Known |

**Usages**

[Sample Pathology](#32868)

**excisionOrProcedureType**

**(Cancer Model)**

Identify type of excision or procedure (where performed)

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | Limited (<50%) |
| 2 | Partial (50-69%) |
| 3 | Subtotal (70-95%) |
| 4 | Total Macroscopic |
| 5 | Extent Uncertain |
| 6 | CSF Division Procedure |
| 9 | Not Known |

**Usages**

[Surgery (CNS)](#38984)

**extentOfPleuralInvasion**

**(Cancer Outcomes and Services Dataset)**

What is the extent of pleural invasion

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | No pleural invasion |
| 2 | Visceral pleura only |
| 3 | Parietal pleura/chest wall |
| 4 | Mediastinal pleura |

**Usages**

[Pathology (Lung)](#38965)

**externalBeamType**

**(Cancer Model)**

External Beam Type

|  |  |
| --- | --- |
| **Code** | **Description** |
| imrt | IMRT |
| stereotactic | Stereotactic |
| 2dxrt | 2DXRT |
| 3dxrt | 3DXRT |
| 4dxrt | 4DXRT |
| electrons | Electrons |
| protons | Protons |

**Usages**

[External Beam](#41988)

**extranodalMetastases**

**(Cancer Outcomes and Services Dataset)**

For testicular Stage 4 patients only)  
Indicate the extent of metastatic spread (multiple items can be selected)

|  |  |
| --- | --- |
| **Code** | **Description** |
| H | Liver involvement |
| B | Brain involvement |
| M | Mediastinal involvement |
| N | Neck nodes |
| L | Lung involvement |

**Usages**

[Staging (Urology - Testicular)](#38968)

**featuresOfLargestLesionRadiological**

**(Cancer Outcomes and Services Dataset)**

Radiologically identified features of the largest lesion such as density, necrosis recorded pre treatment. This may involve selection of more than one value.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| 01 | | Contrast-enhancement |
| 02 | | Calcification |
| 03 | | Mass effect |
| 04 | | Hydrocephalus |
| 05 | | Haemorrhage |
| 06 | | Cystic/multi-cystic |
| 07 | | Dural tail |
| 08 | | Brain oedema |
| 09 | | Cord signal change |
| 10 | | Cord compression |

**Usages**

[Imaging (CNS)](#38986)

**figoGrade**

**(Cancer Model)**

As per RCPath minimum dataset

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |

**Usages**

[Cancer Specific Grading](#32734)

**finalFigoStage**

**(Cancer Model)**

The FIGO stage is generally confirmed at pathology review in MDT meetings following surgery for uterine and vulval malignancies and for ovarian malignancies undergoing primary surgery. For ovarian malignancies planned to undergo neoadjuvant chemotherapy and for cases of cervical cancer (which is staged clinically), the final FIGO stage is determined at the time of review of clinical findings, imaging, cytology and biopsy histology at the MDT meeting.

|  |  |
| --- | --- |
| **Code** | **Description** |
| ia | IA |
| ib | IB |
| ic1 | IC1 |
| ic2 | IC2 |
| ic3 | IC3 |
| iia | IIA |
| iib | IIB |
| iiia1\_i | IIIA1(i) |
| iiia1\_ii | IIIA1(ii) |
| iiia2 | IIIA2 |
| iiib | IIIB |
| iiic | IIIC |
| iva | IVA |
| ivb | IVB |
| i | I |
| ii | II |
| iii | III |
| iv | IV |
| iiia | IIIA |
| iiic1 | IIIC1 |
| iiic2 | IIIC2 |

**Usages**

[Final Figo Stage](#40390)

**frenchGradingSystem**

**(Cancer Model)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| g1 | G1-Well differentiated (Low grade) |
| g2 | G2-Moderately differentiated (Intermediate grade) |
| g3 | G3-Poorly differentiated (High grade) |

**Usages**

[Cancer Specific Grading](#32734)

**fuhrmanGradingSystem**

**(Cancer Model)**

Fuhrman grade according to RCP guidance.  
Please see: Fuhrman SA, Lasky LC, Limas C. Prognostic significance of morphologic parameters in renal cell carcinoma. Am J Surg Pathol. 1982 Oct. 6(7):655-63.

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |

**Usages**

[Cancer Specific Grading](#32734)

**geneScope**

**(Genomics England Shared)**

The gene or genes considered

|  |  |
| --- | --- |
| Based On | hgncSymbol (Genomics England Shared) |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Genetic Result](#34442)

**geneticTestLaboratory**

**(Genomics England Shared)**

Was genetic testing performed in a diagnostic or research laboratory?

|  |  |  |  |
| --- | --- | --- | --- |
| Based On | genetic\_test\_laboratory (Genomics England Shared) | | |
| **Code** | | **Description** |
| research\_laboratory | | Research laboratory |
| diagnostic\_laboratory | | Diagnostic laboratory |

**Usages**

[Genetic Result](#34442)

**geneticTestMethod**

**(Genomics England Shared)**

Genetic Test Method

|  |  |
| --- | --- |
| **Code** | **Description** |
| sequencing | Sequencing |
| sequencing\_and\_targeted\_copy\_number\_analysis | Sequencing and targeted copy number analysis |
| copy\_number\_analysis | Copy number analysis |
| other\_snv\_analysis | Other SNV analysis e.g. OLA |
| targeted\_copy\_number\_analysis | Targeted copy number analysis e.g. MLPA/qPCR |
| acgh | aCGH |
| snp\_array | SNP array |
| karyotype | Karyotype |
| fish | FISH |
| methylation\_testing | Methylation testing |
| microsatellite\_analysis | Microsatellite analysis |
| fanconi\_breakage\_testing | Fanconi (MMC/DEB) breakage testing |
| radiation\_hypersensitivity | Radiation hypersensitivity (AT) |
| uv\_hypersensitivity | UV hypersensitivity |
| unscheduled\_dna\_synthesis | Unscheduled DNA synthesis |
| single\_gene\_sequencing | Single Gene Sequencing |
| gene\_panel | Gene Panel |
| ihc | IHC |
| translocation | Translocation eg qPCR/sequencing/FISH/IHC |
| other | Other |

**Usages**

[Genetic Result](#34442)

**genomicsEnglandConsentWithdrawalForms**

**(Genomics England Shared)**

List of consent withdrawal forms used by Genomics England

|  |  |
| --- | --- |
| **Code** | **Description** |
| 6a | Withdrawal information and form – for adult or child participants (6a) |
| 6b | Consultee declaration of advice regarding adult participant withdrawal information – for consultees (withdrawal) (6b) |

**Usages**

[Withdrawal](#34537)

**gleasonGrade**

**(Cancer Model)**

Please see:   
Epstein JI et al Am J Surg Path 2005: 29: 1228-42  
Pierorazio PM et al. BJU Int 2013: 111: 753-60  
For further detail

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |

**Usages**

[Gleason Grade](#41970)

**gleasonGradeTertiary**

**(Cancer Outcomes and Services Dataset)**

Is there a different third grade in addition the primary and secondary grades and what is its value?

|  |  |
| --- | --- |
| Rule | x==~/[1-5]|8/ |

**Usages**

[Pathology (Prostate)](#38977)

**gliomagrading**

**(Cancer Model)**

Glioma ( WHO 2007 )

|  |  |
| --- | --- |
| **Code** | **Description** |
| i | I |
| ii | II |
| iii | III |
| iv | IV |

**Usages**

[Cancer Specific Grading](#32734)

**gradeOfDifferentiation(pathological)**

**(Cancer Outcomes and Services Dataset)**

GRADE OF DIFFERENTIATION (PATHOLOGICAL) is the definitive  
grade of the Tumour based on the evidence from a pathological  
examination.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| G4 | | Undifferentiated / anaplastic |
| G3 | | Poorly differentiated |
| G2 | | Moderately differentiated |
| G1 | | Well differentiated |
| GX | | Grade of differentiation is not appropriate or cannot be assessed |

**Usages**

[Sample Pathology](#32868)

**gradeOfDifferentiationAtDiagnosis**

**(Cancer Outcomes and Services Dataset)**

GRADE OF DIFFERENTIATION (AT DIAGNOSIS) is the definitive grade of the Tumour at the time of PATIENT DIAGNOSIS.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| GX | | Grade of differentiation is not appropriate or cannot be assessed |
| G1 | | Well differentiated |
| G2 | | Moderately differentiated |
| G3 | | Poorly differentiated |
| G4 | | Undifferentiated / anaplastic |

**Usages**

[Diagnosis](#32752)

**healthAndCareNumber**

**(Genomics England Shared)**

The HEALTH AND CARE NUMBER (H&C NUMBER) uniquely identifies a PATIENT within the NHS in Northern Ireland. It is the equivalent of the NHS NUMBER in England and Wales.  
  
The HEALTH AND CARE NUMBER is ten numeric digits in length, and is in the same format as the NHS NUMBER in England (3 3 4 format with the tenth digit being a modulus 11 check digit). HEALTH AND CARE NUMBERS are however unique from NHS NUMBERS allocated in England as they are taken from a range of numbers reserved for Northern Ireland (320 000 001 to 399 999 999 plus check digit).

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9]{10} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Person Identifier](#42125)

**her2IshStatus**

**(Cancer Outcomes and Services Dataset)**

Record the result of the ISH (in-situ hybridization) test.

|  |  |
| --- | --- |
| **Code** | **Description** |
| P | Positive |
| N | Negative |

**Usages**

[Pathology (Breast)](#38960)

**her2Status**

**(Cancer Outcomes and Services Dataset)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| P | Positive |
| N | Negative |
| B | Borderline |
| X | Not performed |

**Usages**

[Pathology (Breast)](#38960)

**imagingAnatomicalSite**

**(Cancer Outcomes and Services Dataset)**

\*IMAGING CODE (NICIP)  
and/or  
\*IMAGING CODE (SNOMED CT)  
and/or  
\*CANCER IMAGING MODALITY and IMAGING ANATOMICAL SITE and ANATOMICAL SIDE (IMAGING)  
is required.  
  
A classification of the part of the body that is the subject of an Imaging Or Radiodiagnostic Event.

|  |  |
| --- | --- |
| Rule | x==~/[a-zA-Z0-9]{1,5}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Imaging](#32814)

**imagingCode(NICIP)**

**(Cancer Outcomes and Services Dataset)**

IMAGING CODE (NICIP) is the National Interim Clinical  
Imaging Procedure Code Set code which is used to identify both the  
test modality and body site of the test.

|  |  |
| --- | --- |
| Rule | x==~/[a-zA-Z0-9]{1,6}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Imaging Code](#40378)

**infectionHistory**

**(Cancer Model)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| none | none |
| previous | previous |
| current | current |
| unknown | unknown |

**Usages**

[Risk Factors for HPB Cancer](#39024)

**inrgNeuroblastoma**

**(Cancer Model)**

INSS (neuroblastoma)

|  |  |
| --- | --- |
| **Code** | **Description** |
| L1 | Stage L1: The Tumour is located only in the area where it started; no IDRFs are found on imaging scans, such as CT or MR |
| L2 | Stage L2: The tumour has not spread beyond the area where it started and the nearby tissue; IDRFs are found on imaging scans, such as CT or MR |
| M | Stage M: The tumour has spread to other parts of the body (except stage MS, see below) |
| MS | Stage MS: The tumour has spread to only the skin, liver, and/or bone marrow (less than 10% marrow involvement) in patients less than 18 months |

**Usages**

[Cancer Specific Staging](#38875)

**isrctNumber**

**(Cancer Model)**

A simple numeric system for the unique identification of randomised controlled trials worldwide

|  |  |
| --- | --- |
| Regular Expression | ISRCTN\d{8} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Registration](#32874)

**leibovichScore**

**(Cancer Model)**

The Leibovich score is a scoring algorithm to predict survival for patients with metastatic renal cell carcinoma. Please provide, if applicable. 0-11, not more than 12

|  |  |
| --- | --- |
| Regular Expression | [0-9]|[1][0-2] |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Cancer Specific Grading](#32734)

**lesionSizeRadiological**

**(Cancer Outcomes and Services Dataset)**

Radiological estimate in millimetres of the maximum diameter of the tumour measured prior to treatment (largest lesion if more than one). Record as "0" to indicate not assessable for diffuse tumours (e.g. gliomatosis cerebri).

|  |  |
| --- | --- |
| Unit of Measure | Millimetres |
| Regular Expression | ^\d{1,3}(?:\.\d{1,2})?$ |
| Rule based on  xs:decimal (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseDecimal(string(x)) in BigDecimal |

**Usages**

[Imaging (CNS)](#38986)

**locationSurgical**

**(Cancer Outcomes and Services Dataset)**

Surgically determined anatomical location

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| 01 | | Frontal lobe |
| 02 | | Temporal lobe |
| 03 | | Parietal lobe |
| 04 | | Occipital lobe |
| 05 | | Pineal region |
| 06 | | Hypothalamic |
| 07 | | Basal ganglia/thalamic |
| 08 | | Cerebellar |
| 09 | | Midbrain |
| 10 | | Pons |
| 11 | | Medulla |
| 12 | | Fourth ventricle |
| 13 | | Third ventricle |
| 14 | | Lateral ventricle |
| 15 | | Parasagittal/parafalcine dura |
| 16 | | Posterior fossa convexity dura |
| 17 | | Convexity dura |
| 18 | | Petrous temporal bone |
| 19 | | Orbital roof |
| 20 | | Skull vault |
| 21 | | Scalp |
| 22 | | Anterior cranial fossa |
| 23 | | Middle cranial fossa |
| 25 | | Infratemporal fossa |
| 26 | | Pterygopalatine fossa |
| 27 | | Anterior clinoid dura |
| 28 | | Sphenoid wing dura |
| 29 | | Subfrontal dura |
| 30 | | Suprasellar dura |
| 31 | | Clival dura |
| 32 | | Cavernous sinus |
| 33 | | Cerebellopontine angle |
| 34 | | Jugular bulb |
| 35 | | Venous angle dura |
| 36 | | Foramen magnum |
| 37 | | Cervical intramedullary |
| 38 | | Cervical intradural |
| 39 | | Cervical extradural |
| 40 | | Cervical bony |
| 41 | | Thoracic intramedullary |
| 42 | | Thoracic intradural |
| 43 | | Thoracic extradural |
| 44 | | Thoracic bony |
| 45 | | Lumbar intramedullary |
| 46 | | Lumbar intradural |
| 47 | | Lumbar extradural |
| 48 | | Lumbar bony |
| 98 | | Other |

**Usages**

[Imaging (CNS)](#38986)

[Surgery (CNS)](#38984)

**lungMetastasesSubStageGrouping**

**(Cancer Outcomes and Services Dataset)**

(For testicular cancer only)  
Where lung metastases are identified, specify the RMH grouping.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| L1 | | less than or equal to 3 metastases |
| L2 | | Greater than 3 metastases |
| L3 | | Greater than 3 metastases, one or more greater than or equal to 2cm diameter |

**Usages**

[Staging (Urology - Testicular)](#38968)

**mCategoryIntegratedStage**

**(Cancer Outcomes and Services Dataset)**

This is the UICC code which classifies the absence or presence of distant metastases after treatment and/or after all available evidence has been collected.

|  |  |
| --- | --- |
| Rule based on  mCategory (Cancer Outcomes and Services Dataset) | x==~/[a-zA-Z0-9]{1,5}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Component TNM](#40389)

**mCategoryPathological**

**(Cancer Outcomes and Services Dataset)**

M CATEGORY (PATHOLOGICAL) is the Union for International Cancer Control (UICC) code which classifies the absence or presence of distant metastases based on the evidence from a pathological examination.

|  |  |
| --- | --- |
| Rule based on  mCategory (Cancer Outcomes and Services Dataset) | x==~/[a-zA-Z0-9]{1,5}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[pTNM](#41974)

**mammogramResult**

**(Cancer Outcomes and Services Dataset)**

Result of the mammogram. This will normally be the result of the mammogram taken at the first outpatient appointment at the breast clinic. If the patient attends more than one breast clinic, the result of each mammogram should be recorded.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| R1 | | Normal |
| R2 | | Benign |
| R3 | | Uncertain |
| R4 | | Suspicious |
| R5 | | Malignant |

**Usages**

[Imaging (Breast)](#38959)

**mdtProvisionalDiagnosisIcd**

**(Cancer Outcomes and Services Dataset)**

Working diagnosis as defined at MDT where the first definitive treatment is agreed. This is the clinical opinion which may also be informed by biopsy, radiological and/or other investigations.

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9.]{4,6} |
| Regular Expression based on  ICD-10 (Cancer Outcomes and Services Dataset) | [a-zA-Z0-9.]{4,6} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Cancer Care Plan (CNS)](#38987)

**metastaticSite**

**(Cancer Outcomes and Services Dataset)**

The site of the metastatic disease, if any, at diagnosis.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| 02 | | Brain |
| 03 | | Liver |
| 04 | | Lung |
| 06 | | Multiple metastatic sites |
| 07 | | Unknown metastatic site |
| 08 | | Skin |
| 09 | | Distant lymph nodes |
| 10 | | Bone (excluding Bone Marrow) |
| 11 | | Bone marrow |
| 99 | | Other metastatic site |

**Usages**

[Diagnosis](#32752)

**modifiedDukes**

**(Cancer Outcomes and Services Dataset)**

Dukes' stage of disease at diagnosis (based on pathological evidence but upgraded to Dukes D if clinical evidence of metastasis  
Dukes D should be recorded if metastatic spread is identified either in the preoperative staging process, e.g. on CT scanning, MRI, USS, chest x-ray or at the time of operation.  
It is accepted that a small number of D cases are cured by further treatment such as liver resection, but for COSD metastic spread distant from the primary should always be recorded as D.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | x==~/[a-zA-Z0-9]{1,2}/ | | |
| **Code** | | **Description** |
| A | | Dukes A Tumour confined to wall of bowel, nodes negative |
| B | | Dukes B Tumour penetrates through the muscularis propria to involve extramural tissues, nodes negative |
| C1 | | Dukes C1 Metastases confined to regional lymph nodes (node/s positive but apical node negative) |
| C2 | | Dukes C2 Metastases present in nodes at mesenteric artery ligature (apical node positive) |
| D | | Dukes D Metastatic spread outside the operative field |
| 99 | | Not Known |

**Usages**

[Cancer Specific Staging](#38875)

**molecularDiagnosticsCode**

**(Cancer Model)**

Chromosomal or genetic markers associated with the brain tumour.   
  
This may involve selection of more than one values for each tumour.

|  |  |
| --- | --- |
| **Code** | **Description** |
| *01* | *Evidence of IDH1 or IDH2 mutation* |
| *02* | *Evidence of methylation of the MGMT gene CpG island* |
| *03* | *Evidence of total loss of 1p and 19q* |
| *04* | *Evidence of KIAA 1549-BRAF fusion gene* |
| *05* | *Other* |
| 06 | Evidence of ALK rearrangement |
| 07 | Evidence of native ALK |
| 08 | Evidence of ATRX mutation |
| 09 | Evidence of wt ATRX |
| 10 | Evidence of BRAF V600E mutation |
| 11 | Evidence of wt BRAF |
| 12 | Evidence of KIAA1549-BRAF fusion |
| 13 | Evidence of BRAF/RAF1 mutations, or fusions involving genes other than KIAA1549 |
| 14 | Evidence of C11orf95-RELA fusion |
| 15 | Evidence of native C11orf95 and RELA |
| 16 | Evidence of amplification or fusion of C19MC locus (chr.19q13.42) |
| 17 | Evidence of unaltered C19MC locus (chr.19q13.42) |
| 18 | Evidence of CDK4/6 amplification |
| 19 | Evidence of CDK4/6 normal copy number |
| 20 | Evidence of CDKN2A locus homozygous deletion |
| 21 | Evidence of CDKN2A locus normal copy number |
| 22 | Evidence of CCND1/2/3 amplification |
| 23 | Evidence of CCND1/2/3 normal copy number |
| 24 | Evidence of CTNNB1 mutation |
| 25 | Evidence of wt CTNNB1 |
| 26 | Evidence of amplification of EGFR |
| 27 | Evidence of mutation / rearrangement of EGFR |
| 28 | Evidence of unaltered EGFR |
| 29 | Evidence of EWSR1-FLI1 fusion |
| 30 | Evidence of native EWSR1 and FLI1 |
| 31 | Evidence of FGFR1 mutation / rearrangement / fusion |
| 32 | Evidence of unaltered FGFR1 |
| 33 | Evidence of H3F3A/H3F3B (H3.3) K27M mutation |
| 34 | Evidence of H3F3A/H3F3B (H3.3) wt K27 |
| 35 | Evidence of H3F3A/H3F3B (H3.3) G34R/V mutation |
| 36 | Evidence of H3F3A/H3F3B (H3.3) wt G34 |
| 37 | Evidence of HIST1H3B K27M mutation |
| 38 | Evidence of HIST1H3B wt K27 |
| 39 | Evidence of HIST1H3C K27M mutation |
| 40 | Evidence of HIST1H3C wt K27 |
| 41 | Evidence of ID2 amplification |
| 42 | Evidence of ID2 normal copy number |
| 43 | IDH1 (codon 132) or IDH2 (codon 172) mutation identified |
| 44 | IDH1 (codon 132) and IDH2 (codon 172) wt confirmed |
| 45 | Evidence of KLF4 K409Q and TRAF7 mutations |
| 46 | Evidence of wt KLF4 and TRAF7 |
| 47 | Evidence of MAP2K1 mutation |
| 48 | Evidence of wt MAP2K1 |
| 49 | Evidence of MET amplification |
| 50 | Evidence of MET normal copy number |
| 51 | Evidence of significant MGMT promoter methylation |
| 52 | Evidence of unmethylated MGMT promoter |
| 53 | Evidence of MYC/MYCN amplification |
| 54 | Evidence of MYC/MYCN normal copy number |
| 55 | Evidence of NF1 biallelic loss / mutation |
| 56 | Evidence of unaltered NF1 |
| 57 | Evidence of NF2 biallelic loss / mutation |
| 58 | Evidence of unaltered NF2 |
| 59 | Evidence of NKTR fusions |
| 60 | Evidence of native NKTR |
| 61 | Evidence of PTEN biallelic loss / mutation |
| 62 | Evidence of unaltered PTEN |
| 63 | Evidence of SDHB or SDHD mutation |
| 64 | Evidence of wt SDHB and SDHD |
| 65 | Evidence of SHH pathway activation |
| 66 | Evidence of normal SHH pathway |
| 67 | Evidence of inactivation of SMARCB1 (INI1) |
| 68 | Evidence of wt SMARCB1 (INI1) |
| 69 | Evidence of inactivation of SMARCA4 |
| 70 | Evidence of wt SMARCA4 |
| 71 | Evidence of TERT promotor mutation |
| 72 | Evidence of wt TERT promotor |
| 73 | Evidence of TP53 mutation |
| 74 | Evidence of wt TP53 |
| 75 | Evidence of TSC1 or TSC2 mutation |
| 76 | Evidence of wt TSC1 and TSC2 |
| 77 | Evidence of VHL mutation |
| 78 | Evidence of wt VHL gene |
| 79 | Evidence of WNT pathway activation |
| 80 | Evidence of normal WNT pathway |
| 81 | Evidence of WWTR1-CAMTA1 fusion |
| 82 | Evidence of native WWTR1 and CAMTA1 |
| 83 | Evidence of codeletion of chr.1p and chr.19q |
| 84 | Evidence of total chr.1p loss but normal copy number of chr.19q |
| 85 | Evidence of normal copy number of both chr.1p and chr.19q |
| 86 | Evidence of monosomy chr.6 |
| 87 | Evidence of chr.6 normal copy number |
| 88 | Evidence of polysomy chr.7 |
| 89 | Evidence of chr.7 normal copy number |
| 90 | Evidence of loss of chr.10 or chr.10q |
| 91 | Evidence of chr.10 normal copy number |
| 92 | Evidence of loss of chr.22 or chr.22q |
| 93 | Evidence of chr.22 or chr.22q normal copy number |
| 98 | Other |
| 99 | Not Known (Not Recorded) |

**Usages**

[Pathology (CNS)](#38983)

**molecularSubgroupMedulloblastoma**

**(Cancer Model)**

molecular subgroup (medulloblastoma)

|  |  |
| --- | --- |
| **Code** | **Description** |
| not\_tested | Not tested |
| shh | SHH |
| wnt | WNT |
| non\_shh | Non-SHH |
| non\_wnt | Non-WNT |

**Usages**

[Childhood Tumour Markers](#38996)

**molecularTestResult**

**(Genomics England Shared)**

If no defect was observed please report 'normal'; if a mutation is detected that is considered pathogenically or clinically important record 'mutation detected'; if no reliable result could be determined please report 'fail'.

|  |  |
| --- | --- |
| **Code** | **Description** |
| normal | Normal (negative) |
| fail | Fail |
| abnormalitydetected | Pathogenic abnormality detected |
| vus | Variant of unknown significance detected |

**Usages**

[Genetic Result](#34442)

**morphology(icd)**

**(Cancer Outcomes and Services Dataset)**

Morphology ICD03 code

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9.\-\/]{5,7} |
| Regular Expression based on  ICD-O-3 (Cancer Outcomes and Services Dataset) | [a-zA-Z0-9.\-\/]{5,7} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Morphology](#40382)

**morphology(snomed)**

**(Cancer Outcomes and Services Dataset)**

This is the morphology of the tumour as categorised by SNOMED RT

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9]{6,8} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Morphology](#40382)

**morphology(snomedCt)**

**(Cancer Outcomes and Services Dataset)**

|  |  |
| --- | --- |
| Regular Expression | \d{6,18} |
| Regular Expression based on  snomedCt (Cancer Outcomes and Services Dataset) | \d{6,18} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Morphology](#40382)

**myometrialInvasion**

**(Cancer Outcomes and Services Dataset)**

Is there microscopic evidence of myometrial invasion?

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | None |
| 2 | Less than 50% |
| 3 | Greater than or equal to 50% |

**Usages**

[Pathology (Endometrial)](#38980)

**nCategoryIntegratedStage**

**(Cancer Outcomes and Services Dataset)**

This is the UICC code which classifies the absence or presence and extent of regional lymph node metastases after treatment and/or after all available evidence has been collected.

|  |  |
| --- | --- |
| Rule based on  nCategory (Cancer Outcomes and Services Dataset) | x==~/[a-zA-Z0-9]{1,5}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Component TNM](#40389)

**nCategoryPathological**

**(Cancer Outcomes and Services Dataset)**

N CATEGORY (PATHOLOGICAL) is the Union for International Cancer Control (UICC) code which classifies the absence or presence and extent of regional lymph node metastases based on the evidence from a pathological examination.

|  |  |
| --- | --- |
| Rule based on  nCategory (Cancer Outcomes and Services Dataset) | x==~/[a-zA-Z0-9]{1,5}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[pTNM](#41974)

**nhsNumber**

**(NHS Data Dictionary GEL Subset)**

Http://www.datadictionary.nhs.uk/data\_dictionary/attributes/n/nhs/nhs\_number\_de.asp?query=nhs%20number&rank=100&shownav=1  
The NHS NUMBER, the primary identifier of a PERSON, is a unique identifier for a  
PATIENT within the NHS in England and Wales. This will not vary by any ORGANISATION  
of which a PERSON is a PATIENT. It is mandatory to record the NHS NUMBER. There are  
exceptions, such as Accident and Emergency care, sexual health and major incidents,  
as defined in existing national policies. The NHS NUMBER is 10 numeric digits in  
length. The tenth digit is a check digit used to confirm its validity. The check  
digit is validated using the Modulus 11 algorithm and the use of this algorithm is  
mandatory. There are 5 steps in the validation of the check digit. Further guidance  
is available from the Health and Social Care Information Centre  
website.

|  |  |
| --- | --- |
| Rule | def isValid = false  if (x.size() == 10) {  Integer total = 0 Integer i = 0 for (i = 0; i <= 8; i++) {  def digit = x.substring(i, (i+1))  def factor = 10 - i  total = total + (digit.toInteger() \* factor) }  def checkDigit = (11 - (total.mod(11)))  if (checkDigit == 11) { checkDigit = 0 }  def check = x.substring(9,10)  if (check.toInteger() == checkDigit && checkDigit!=10) { isValid = true }  }  return isValid |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Person Identifier](#42125)

**noCancerTreatmentReason**

**(Cancer Outcomes and Services Dataset)**

The main reason why no active cancer treatment is specified within a Cancer Care Plan.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| 01 | | Patient declined treatment |
| 02 | | Unfit: poor performance status |
| 03 | | Unfit: significant co-morbidity |
| 04 | | Unfit: advanced stage cancer |
| 05 | | Unknown primary site |
| 06 | | Died before treatment |
| 07 | | No active treatment available |
| 08 | | Other |
| 10 | | Monitoring only |
| 99 | | Not Known |

**Usages**

[Cancer Care Plan](#32732)

**nodesExaminedNumberParaAortic**

**(Cancer Outcomes and Services Dataset)**

The number of para-aortic nodes examined.  
 (Not applicable for vulval cancers) Use 0 if nodes not sent.

|  |  |
| --- | --- |
| Regular Expression | \d{1,2} |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[Pathology (Gynaecology)](#38979)

**nodesExaminedNumberPelvic**

**(Cancer Outcomes and Services Dataset)**

The number of pelvic nodes examined (Not applicable for vulval cancers). Use 0 if nodes not sent

|  |  |
| --- | --- |
| Rule | x ==~/\d{0,3}/ |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[Pathology (Gynaecology)](#38979)

**nodesPositiveNumberParaAortic**

**(Cancer Outcomes and Services Dataset)**

The number of para-aortic nodes reported as being positive for the presence of tumour metastases.  
(Not applicable for vulval cancers)

|  |  |
| --- | --- |
| Regular Expression | \d{0,3} |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[Pathology (Gynaecology)](#38979)

**nodesPositiveNumberPelvic**

**(Cancer Outcomes and Services Dataset)**

The number of pelvic nodes reported as being positive for the presence of tumour metastases.  
(Not applicable for vulval cancers)

|  |  |
| --- | --- |
| Regular Expression | \d{1,2} |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[Pathology (Gynaecology)](#38979)

**normalLdh**

**(Cancer Outcomes and Services Dataset)**

TESTICULAR ONLY. This is the upper limit of normal for the LDH (Lactate Dehydrogenase Level) assay which is used to calculate S Category.

|  |  |
| --- | --- |
| Regular Expression | \d{0,6} |

**Usages**

[Cancer Care Plan (Urology)](#38967)

**numberOfLesionsRadiological**

**(Cancer Outcomes and Services Dataset)**

Radiologically determined number of lesions.

|  |  |
| --- | --- |
| Regular Expression | \d{1,2} |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[Imaging (CNS)](#38986)

[Staging (Upper GI)](#38966)

**numberOfNodesExamined**

**(Cancer Outcomes and Services Dataset)**

The number of local and regional nodes examined.

|  |  |
| --- | --- |
| Regular Expression | \d{1,3} |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[Sample Pathology](#32868)

**numberOfNodesPositive**

**(Cancer Outcomes and Services Dataset)**

The number of local and regional nodes reported as being positive for the presence of Tumour metastases.

|  |  |
| --- | --- |
| Regular Expression | \d{1,3} |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[Sample Pathology](#32868)

**omentalInvolvement**

**(Cancer Outcomes and Services Dataset)**

For endometrium, ovary, fallopian tube and primary peritoneum cancers, is there involvement of the omentum

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | Involved - deposit size not specified |
| 2 | Involved - deposit(s) 20mm or less |
| 3 | Involved - deposit(s) greater than 20mm |
| 4 | Not involved |
| X | Not assessable/Not sent |

**Usages**

[Pathology (Gynaecology)](#38979)

**opcsProcedureCodes**

**(Cancer Model)**

OPCS Procedure Code. Allows for multiple codes delimited by "+" where the procedure cannot be described using a single code or information such as laterality is recorded.

|  |  |
| --- | --- |
| Rule | x ==~/([a-zA-Z0-9.\-\/]{3,5}\+)\*([a-zA-Z0-9.\-\/]{3,5})/ |
| Based On | OPCS-4 (Cancer Outcomes and Services Dataset) |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Surgery And Other Procedures](#32923)

**organisationSiteCode**

**(NHS Data Dictionary GEL Subset)**

An Organisation site code or ODS code identifies an NHS Organisation uniquely

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9]{3,9} |
| Rule based on  organisationSiteCode (Cancer Outcomes and Services Dataset) | x ==~/[a-zA-Z0-9]{3,9}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Consultant Details](#34418)

[Registration](#32874)

**participantId**

**(Genomics England Shared)**

Genomics England participant identifier (supplied by Genomics England)

|  |  |
| --- | --- |
| Regular Expression | \d{9} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Participant Identifiers](#42260)

**pathologyInvestigationType**

**(Cancer Model)**

The type of pathology investigation carried out. Although this item is based on COSD CR0760, an additional value 'BM' for Bone Marrow Aspirate has been added for the purposes of this project in order to collect haematological bone marrow aspirate samples.

|  |  |
| --- | --- |
| **Code** | **Description** |
| CY | Cytology |
| BU | Biopsy NOS |
| EX | Excision |
| PE | Partial Excision |
| RE | Radical Excision |
| FE | Further Excision |
| CU | Curettage |
| SB | Shave Biopsy |
| PB | Punch Biopsy |
| IB | Incisional Biopsy |
| BM | Bone Marrow Aspirate |
| 99 | Uncertain/other |
| SS | Cells in fluid suspension aspirated from surgical sample |
| SH | Cells in fluid suspension from shaking a biopsy sample |

**Usages**

[Sample Pathology](#32868)

**pathologyReportText**

**(Cancer Outcomes and Services Dataset)**

The full text from the pathology report which may be required by Registries to calculate diagnosis and staging details

|  |  |
| --- | --- |
| Rule | maxLength(270000) |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Sample Pathology](#32868)

**performanceStatusAdult**

**(Cancer Outcomes and Services Dataset)**

A World Health Organisation classification indicating a PERSON's status relating to activity / disability.

|  |  |
| --- | --- |
| **Code** | **Description** |
| 0 | Able to carry out all normal activity without restriction |
| 1 | Restricted in physically strenuous activity, but able to walk and do light work |
| 2 | Able to walk and capable of all self care, but unable to carry out any work. Up and about more than 50% of waking hours |
| 3 | Capable of only limited self care, confined to bed or chair more than 50% of waking hours |
| 4 | Completely disabled. Cannot carry on any self care. Totally confined to bed or chair |
| 9 | Not recorded |

**Usages**

[Cancer Care Plan](#32732)

**peritonealWashings**

**(Cancer Outcomes and Services Dataset)**

Were peritoneal washings submitted and if so were malignant cells seen?

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | Positive |
| 2 | Negative |
| X | Not sent/Not assessable |

**Usages**

[Pathology (Endometrial)](#38980)

**personFamilyName**

**(Cancer Outcomes and Services Dataset)**

That part of a PERSON's name which is used to describe family, clan, tribal group, or marital association.

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9\s-‘]{1,50} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Participant Identifiers](#42260)

**personFamilyNameAtBirth**

**(Cancer Outcomes and Services Dataset)**

The PATIENT's surname at birth.

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9\s-‘]{1,50} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Registration](#32874)

**personGivenName**

**(Cancer Outcomes and Services Dataset)**

The forename(s) or given name(s) of a PERSON.

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9\s-‘]{1,50} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Participant Identifiers](#42260)

**personHeightInMetres**

**(Genomics England Shared)**

Height of the patient, in metres, to 2 decimal places (n.nn).

|  |  |
| --- | --- |
| Unit of Measure | meter (The 1889 definition of the metre, based on the international prototype of platinum-iridium, was replaced by the 11th CGPM (1960) using a definition based on the wavelength of krypton 86 radiation. This change was adopted in order to improve the accuracy with which the definition of the metre could be realized, the realization being achieved using an interferometer with a travelling microscope to measure the optical path difference as the fringes were counted. In turn, this was replaced in 1983 by the 17th CGPM (1983, Resolution 1) that specified the current definition, as follows:  The metre is the length of the path travelled by light in vacuum during a time interval of 1/299 792 458 of a second.  It follows that the speed of light in vacuum is exactly 299 792 458 metres per second, c0 = 299 792 458 m/s.  The original international prototype of the metre, which was sanctioned by the 1st CGPM in 1889, is still kept at the BIPM under conditions specified in 1889. |
| Regular Expression | \d{1}\.\d{1,2} |
| Rule based on  xs:double (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseDouble(string(x)) in Double |

**Usages**

[General Risk Factors](#32907)

**personObservationWeight**

**(Cancer Outcomes and Services Dataset)**

Weight of the patient, in kilograms with up to three decimal places (nnn.nnn).

|  |  |
| --- | --- |
| Unit of Measure | kilogram (The international prototype of the kilogram, an artefact made of platinum-iridium, is kept at the BIPM under the conditions specified by the 1st CGPM in 1889 when it sanctioned the prototype and declared:  This prototype shall henceforth be considered to be the unit of mass. The 3rd CGPM (1901), in a declaration intended to end the ambiguity in popular usage concerning the use of the word "weight", confirmed that:  The kilogram is the unit of mass; it is equal to the mass of the international prototype of the kilogram. The complete declaration appears here.  It follows that the mass of the international prototype of the kilogram is always 1 kilogram exactly, m(grand K) = 1 kg. However, due to the inevitable accumulation of contaminants on surfaces, the international prototype is subject to reversible surface contamination that approaches 1 µg per year in mass. For this reason, the CIPM declared that, pending further research, the reference mass of the international prototype is that immediately after cleaning and washing by a specified method (PV, 1989, 57, 104-105 and PV, 1990, 58, 95-97). The reference mass thus defined is used to calibrate national standards of platinum-iridium alloy (Metrologia, 1994, 31, 317-336). |
| Regular Expression | \d{1,3}\.\d{1,3} |
| Rule based on  xs:double (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseDouble(string(x)) in Double |

**Usages**

[General Risk Factors](#32907)

**personPhenotypicSexClassification**

**(NHS Data Dictionary GEL Subset)**

A classification of PERSON PHENOTYPIC SEX  
http://www.datadictionary.nhs.uk/data\_dictionary/attributes/p/person/person\_phenotypic\_sex\_classification\_de.asp?shownav=1

|  |  |  |  |
| --- | --- | --- | --- |
| Based On | personPhenotypicSex (Genomics England Shared) | | |
| **Code** | | **Description** |
| 2 | | Female |
| 1 | | Male |
| 9 | | Indeterminate |

**Usages**

[Registration](#32874)

**personStatedGenderCode**

**(Genomics England Shared)**

The participant's current gender. COSD v7 update

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | Male |
| 2 | Female |
| 9 | Indeterminate (Unable to be classified as either male or female) |
| X | Not Known (PERSON STATED GENDER CODE not recorded) |

**Usages**

[Registration](#32874)

**portalInvasion**

**(Cancer Outcomes and Services Dataset)**

Record whether there is involvement of the portal vein

|  |  |
| --- | --- |
| **Code** | **Description** |
| Y | Present |
| N | Not present |
| 9 | Not known |

**Usages**

[Staging (Upper GI)](#38966)

**positiveNegativeUnknown**

**(Genomics England Shared)**

Positive negative or unknown result

|  |  |  |  |
| --- | --- | --- | --- |
| Based On | posNegUnk (Genomics England Shared) | | |
| **Code** | | **Description** |
| unknown | | unknown |
| negative | | negative |
| positive | | positive |

**Usages**

[Risk Factors for Ovarian Cancer](#32908)

**primaryDiagnosisIcd**

**(Cancer Outcomes and Services Dataset)**

See DIAGNOSTIC CODING for details on coding and PRIMARY DIAGNOSES for the standardised definition of primary diagnosis

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9.]{3,6} |
| Regular Expression based on  ICD-10 (Cancer Outcomes and Services Dataset) | [a-zA-Z0-9.]{4,6} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Diagnosis](#32752)

[Related Cancer Diagnoses](#40377)

[Sample Pathology](#32868)

**primaryDiagnosisIcdRadiological**

**(Cancer Outcomes and Services Dataset)**

The preliminary primary diagnosis based on radiological examination recorded pre treatment. In many cases this will be the definitive clinical diagnosis, but needs to be distinguished from the subsequent pathological diagnosis - if it becomes available.

|  |  |
| --- | --- |
| Rule | x ==~/[a-zA-Z0-9.]{4,6}/ |
| Regular Expression based on  primaryDiagnosisIcd (Cancer Outcomes and Services Dataset) | [a-zA-Z0-9.]{3,6} |
| Regular Expression based on  ICD-10 (Cancer Outcomes and Services Dataset) | [a-zA-Z0-9.]{4,6} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Cancer Care Plan (CNS)](#38987)

**principalDiagnosticImagingType**

**(Cancer Outcomes and Services Dataset)**

Indicate the principal imaging procedure undertaken to diagnose the tumour.  
  
 NB: PET Scan also includes PET-CT Scan

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | CT Scan |
| 2 | MRI Scan |
| 3 | PET Scan |

**Usages**

[Imaging (CNS)](#38986)

**psaDiagnosis**

**(Cancer Outcomes and Services Dataset)**

PROSTATE ONLY. Prostate Specific Antigen blood level in ng/ml, measured at time of diagnosis.

|  |  |
| --- | --- |
| Unit of Measure | nanogrammes per microliter (Nanogrammes per microliter |
| Regular Expression | \d{1,5}\.\d{1} |
| Rule based on  xs:decimal (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseDecimal(string(x)) in BigDecimal |

**Usages**

[Circulating Tumour Markers (Prostate)](#32742)

**psaPreTreatment**

**(Cancer Outcomes and Services Dataset)**

PROSTATE ONLY. Prostate Specific Antigen blood level in ng/ml, measured before treatment (including second and subsequent treatments).  
  
This is the PSA taken prior to EACH treatment (because some curative treatments may be delivered years after diagnosis.

|  |  |
| --- | --- |
| Regular Expression | \d{1,5}\.\d{1} |
| Rule based on  xs:decimal (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseDecimal(string(x)) in BigDecimal |

**Usages**

[Circulating Tumour Markers (Prostate)](#32742)

**radiotherapyInChildhood**

**(Cancer Model)**

Data type for Radiotherapy in Childhood

|  |  |
| --- | --- |
| **Code** | **Description** |
| cns | CNS |
| non\_cns | non\_CNS |
| none | none |
| unknown | unknown |

**Usages**

[Risk Factors for Glioma Cancer](#39001)

**radiotherapyIntent**

**(Cancer Outcomes and Services Dataset)**

RADIOTHERAPY INTENT

|  |  |
| --- | --- |
| **Code** | **Description** |
| 01 | Palliative |
| 02 | Anti-cancer |
| 03 | Other |

**Usages**

[Radiotherapy](#32893)

**radiotherapyTotalDose**

**(Cancer Outcomes and Services Dataset)**

Max n3.n2

|  |  |
| --- | --- |
| Regular Expression | ^\d{1,3}(?:\.\d{1,2})?$ |

**Usages**

[Radiotherapy](#32893)

**radiotherapyTotalFractions**

**(Cancer Outcomes and Services Dataset)**

Max n2

|  |  |
| --- | --- |
| Regular Expression | \d{1,2} |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[External Beam](#41988)

**sarcomatoidGrading**

**(Cancer Model)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| present | present |
| absent | absent |

**Usages**

[Cancer Specific Grading](#32734)

**satelliteTumourNodulesLocation**

**(Cancer Outcomes and Services Dataset)**

Record the most distant location of separate tumour nodules

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | Separate tumour nodules in same lobe |
| 2 | Separate tumour nodules in a different ipsilateral lobe |
| 3 | Separate tumour nodules in a contralateral lobe |
| 4 | No separate tumour nodules |
| 9 | Not known |

**Usages**

[Pathology (Lung)](#38965)

**serviceReportIdentifier**

**(Cancer Outcomes and Services Dataset)**

A unique identifier of a SERVICE REPORT.

|  |  |
| --- | --- |
| Rule | x==~/[a-zA-Z0-9]{1,18}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Sample Pathology](#32868)

**smokingStatus**

**(Cancer Outcomes and Services Dataset)**

Specify the current smoking status of the patient.

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | Current smoker |
| 2 | Ex smoker |
| 3 | Non-smoker - history unknown |
| 4 | Never smoked |
| Z | Not Stated (PERSON asked but declined to provide a response) |
| 9 | Unknown |

**Usages**

[General Risk Factors](#32907)

**snomed**

**(Cancer Model)**

Snomed ct or rt codes

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9]{6,18} |

**Usages**

[Morphology (SNOMED)](#42047)

[Topography (SNOMED)](#42051)

**snomedCt**

**(Genomics England Shared)**

SNOMED CT CODE

|  |  |
| --- | --- |
| Regular Expression | \d{6,18} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Sample Pathology](#32868)

[Imaging Code](#40378)

**snomedVersion**

**(Cancer Model)**

The version of SNOMED used to encode MORPHOLOGY (SNOMED) PATHOLOGY and TOPOGRAPHY (SNOMED) PATHOLOGY  
  
Versions of SNOMED prior to SNOMED CT cease to be licenced by The International Health Terminology Standards Development Organisation (IHTSDO) after April 2017 other than for historical content

|  |  |
| --- | --- |
| **Code** | **Description** |
| 01 | SNOMED II |
| 02 | SNOMED 3 |
| 03 | SNOMED 3.5 |
| 04 | SNOMED RT |
| 05 | SNOMED CT |
| 99 | Not Known |

**Usages**

[Morphology (SNOMED)](#42047)

[Topography (SNOMED)](#42051)

**specialty**

**(Cancer Model)**

The specialty code of the person performing the event

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9]{3} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Cancer Specific Treatments](#39084)

[Radiotherapy](#32893)

[Surgery And Other Procedures](#32923)

[Systemic Anti-Cancer Therapy](#32924)

**stageGroupingTesticular**

**(Cancer Outcomes and Services Dataset)**

TESTICULAR ONLY. Nationally agreed anatomical stage groupings as defined by The Royal Marsden Hospital (RMH).

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | Stage 1 |
| 1S | Stage 1S |
| 1M | Stage 1M |
| 2A | Stage 2A |
| 2B | Stage 2B |
| 2C | Stage 2C |
| 3A | Stage 3A |
| 3B | Stage 3B |
| 3C | Stage 3C |
| 4A | Stage 4A |
| 4B | Stage 4B |
| 4C | Stage 4C |

**Usages**

[Staging (Urology - Testicular)](#38968)

**synchronousTumourIndicator**

**(Cancer Model)**

Record any synchronous tumours in the Colon as identified by the clinician at presentation. Synchronous tumours are defined as discrete tumours apparently not in continuity with other primary cancers originating in the same site or tissue.

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | CAECUM |
| 2 | APPENDIX |
| 3 | ASCENDING COLON |
| 4 | HEPATIC FLEXURE |
| 5 | TRANSVERSE COLON |
| 6 | SPLENIC FLEXURE |
| 7 | DESCENDING COLON |
| 8 | SIGMOID COLON |
| 9 | RECTOSIGMOID |
| 10 | RECTUM |

**Usages**

[Diagnosis (Colorectal)](#38962)

**tCategoryIntegratedStage**

**(Cancer Outcomes and Services Dataset)**

This is the UICC code which classifies the size and extent of the primary tumour after treatment and/or after all available evidence has been collected.

|  |  |
| --- | --- |
| Rule based on  tCategory (Cancer Outcomes and Services Dataset) | x==~/[a-zA-Z0-9]{1,5}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Component TNM](#40389)

**tCategoryPathological**

**(Cancer Outcomes and Services Dataset)**

T CATEGORY (PATHOLOGICAL) is the Union for International Cancer Control (UICC) code which classifies the size and extent of the primary Tumour based on the evidence from a pathological examination.

|  |  |
| --- | --- |
| Rule based on  tCategory (Cancer Outcomes and Services Dataset) | x==~/[a-zA-Z0-9]{1,5}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[pTNM](#41974)

**tnmEditionNumber**

**(Cancer Outcomes and Services Dataset)**

The UICC edition number used for Tumour, Node and Metastasis (TNM) staging for cancer diagnosis.

|  |  |
| --- | --- |
| Rule | x==~/[a-zA-Z0-9]{1,2}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Integrated TNM](#40387)

[pTNM](#41974)

**tnmStageGroupingIntegrated**

**(Cancer Outcomes and Services Dataset)**

Record the overall TNM stage grouping of the tumour, derived from each T, N and M component after treatment. This classification is based on all the evidence available to the clinician(s) with responsibility for assessing the patient. Such evidence arises from physical examination, imaging, endoscopy, biopsy, surgical exploration and other relevant examinations.  
  
The overall integrated TNM stage grouping indicates the tumour stage after treatment and/or after all available evidence has been collected.  
  
Note: Use UICC coding.

|  |  |
| --- | --- |
| Rule | x==~/[a-zA-Z0-9]{1,5}/ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[TNM Details](#40388)

**topographyIcdo3**

**(Cancer Outcomes and Services Dataset)**

The topographical site code for the tumour as defined by ICDO3. This will normally be derived by Registries.

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9.\-\/]{3,7} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Topography](#40383)

**topographySnomed**

**(Cancer Outcomes and Services Dataset)**

This is the topographical site of the tumour as categorised by SNOMED RT

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9]{6,8} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Topography](#40383)

**topographySnomedCt**

**(Cancer Outcomes and Services Dataset)**

For use in pilot project only at present. Please contact cosd@ncin.org.uk for further details.  
  
  
This is the topographical site of the tumour as categorised by SNOMED CT.

|  |  |
| --- | --- |
| Regular Expression based on  snomedCt (Cancer Outcomes and Services Dataset) | \d{6,18} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Topography](#40383)

**tubeInvolvement**

**(Cancer Outcomes and Services Dataset)**

For endometrial and fallopian cancers, is there microscopic involvement

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | Not involved |
| 2 | Right involved |
| 3 | Left involved |
| 4 | Both involved |
| X | Not assessable |

**Usages**

[Pathology (Gynaecology)](#38979)

**tumourGradeOvarianSerous**

**(Cancer Model)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| l | Low |
| h | High |

**Usages**

[Cancer Specific Grading](#32734)

**tumourGradeUrology**

**(Cancer Outcomes and Services Dataset)**

BLADDER ONLY.  
 Specify whether LOW, HIGH Grade or PUNLMP (Papillary Urothelial Neoplasm of Low Maligant Potential).

|  |  |
| --- | --- |
| **Code** | **Description** |
| L | Low |
| H | High |
| P | Punlmp |
| X | Not applicable |

**Usages**

[Cancer Specific Grading](#32734)

**tumourID**

**(Cancer Model)**

Genomics England Tumour Identifier

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9]{3,9}\_[a-zA-Z0-9]{1,16} |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Cancer Care Plan](#32732)

[Cancer Specific Treatments](#39084)

[Circulating Tumour Markers (Ovarian)](#32741)

[Circulating Tumour Markers (Prostate)](#32742)

[Diagnosis](#32752)

[Disease Information Update (Tumour Sample)](#32757)

[Genetic Results](#40386)

[Imaging](#32814)

[Investigation Report Other](#32828)

[Next Generation Sequencing](#32850)

[Presentation](#32898)

[Radiotherapy](#32893)

[Sample Pathology](#32868)

[Surgery And Other Procedures](#32923)

[Systemic Anti-Cancer Therapy](#32924)

**tumourLaterality(pathological)**

**(Cancer Outcomes and Services Dataset)**

Tumour laterality identifies the side of the body for a  
tumour relating to paired organs within a PATIENT based on the  
evidence from a pathological examination.

|  |  |
| --- | --- |
| **Code** | **Description** |
| B | Bilateral |
| R | Right |
| L | Left |
| M | Midline |
| 9 | Not Known |
| 8 | Not applicable |

**Usages**

[Diagnosis](#32752)

**tumourSampleNotSentReason**

**(Cancer Model)**

Reason tumour sample not sent from GMC to Biorepository

|  |  |
| --- | --- |
| **Code** | **Description** |
| tumour\_sample\_not\_taken | Tumour sample not taken |
| tumour\_type\_not\_eligible | Tumour type not eligible |
| poorly\_cellular\_tumour | Poorly cellular tumour (Less than 40 percent neoplastic cells) |
| insufficient\_tumour\_post\_neoadjuvant\_chemotherapy | Insufficient tumour post neoadjuvant chemotherapy |
| insufficient\_dna | Insufficient DNA |
| no\_cancer\_diagnosed | No Cancer Diagnosed |
| ffpe\_not\_optimally\_fixed | FFPE not optimally fixed |
| ffpe\_not\_optimally\_processed | FFPE not optimally processed |
| high\_necrosis | High necrosis (over 20 percent) |
| other | Other |

**Usages**

[Reason Sample Not Sent](#42242)

**tumourType**

**(Cancer Model)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| primary | Primary; source of cancer tumour sample |
| recurrence\_of\_primary\_tumour | Recurrence; a tumour has returned at the site of the original cancer |
| metastatic\_recurrence | Metastatic (different cancer site) which developed and was sampled after presentation |
| metastases | Metastatic (different cancer site) which was present and sampled at diagnosis instead of the primary tumour |

**Usages**

[Sample Pathology](#32868)

**turpTumourPercentage**

**(Cancer Outcomes and Services Dataset)**

For TURP only, what percentage of tumour if clinically unsuspected tumour.

|  |  |
| --- | --- |
| Regular Expression | [0-9]{1,2}|100 |
| Rule based on  Integer (Cancer Outcomes and Services Dataset) | is Integer |

**Usages**

[Pathology (Prostate)](#38977)

**ukTelephoneNumber**

**(Cancer Model)**

uk phone number

|  |  |
| --- | --- |
| Regular Expression | ^(((\+44\s?\d{4}|\(?0\d{4}\)?)\s?\d{3}\s?\d{3})|((\+44\s?\d{3}|\(?0\d{3}\)?)\s?\d{3}\s?\d{4})|((\+44\s?\d{2}|\(?0\d{2}\)?)\s?\d{4}\s?\d{4}))(\s?\#(\d{3,5}))?$ |
| Rule based on  xs:string (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[Consultant Details](#34418)

[Participant Contact Details](#34420)

**ultrasoundExaminationResult**

**(Cancer Outcomes and Services Dataset)**

Result of the ultrasound examination.

|  |  |  |  |
| --- | --- | --- | --- |
| Rule | string(2) | | |
| **Code** | | **Description** |
| U1 | | Normal |
| U2 | | Benign |
| U3 | | Indeterminate/probably benign |
| U4 | | Suspicious of malignancy |
| U5 | | Highly suspicious of malignancy |

**Usages**

[Imaging](#32814)

**unitOfMeasurement**

**(NHS Data Dictionary GEL Subset)**

Unit of measurement  
http://www.datadictionary.nhs.uk/data\_dictionary/attributes/u/unit\_of\_measurement\_de.asp?shownav=1

|  |  |
| --- | --- |
| **Code** | **Description** |
| 35 | Kilocalories (kcal) |
| 36 | Millimoles (mmol) |
| 33 | International Units per kilogram (IU/kg) |
| 34 | Grams (g) |
| 39 | Milligrams per millimole (mg/mmol) |
| 37 | Millimoles per mole (mmol/mol) |
| 38 | Picomoles per litre (pmol/L) |
| 43 | Cubic Millimetres (mm3) |
| 42 | Millimetres of water (mmH2O) |
| 41 | Micrograms per millilitre (µg/ml) |
| 40 | Nanograms per litre (ng/l) |
| 22 | Celsius (ºC) |
| 23 | Millimetres (mm) |
| 24 | Grams per decilitre (g/dl) |
| 25 | Grams per litre (g/l) |
| 26 | Milligrams per litre (mg/l) |
| 27 | Nanograms per millilitre (ng/ml) |
| 28 | International Units per litre (IU/L) |
| 29 | Decilitres (d/l) |
| 30 | Square Millimetres (mm2) |
| 32 | Grays (Gy) |
| 31 | Millilitres (ml) (Retired September 2013) |
| 19 | Milligrams (mg) |
| 17 | Beats per minute (bpm) |
| 18 | Centimetres (cm) |
| 15 | Millimetres of mercury (mmHg) |
| 16 | Litres (l) |
| 13 | Square Metres (m2) |
| 14 | Millilitres per Minute (ml/min) |
| 11 | Metres (m) |
| 12 | Picograms (pg) |
| 21 | Minutes |
| 20 | Millilitres (ml) |
| 49 | Kilopascals (KPa) |
| 48 | Grams per kilogram per day (g/kg/day) |
| 08 | Number (Retired September 2013) |
| 45 | Millilitres per Minute divided by 1.73 Square Metres (ml/min/1.73m2) |
| 09 | Percentage (%) |
| 44 | Litres per week per 1.73 metres squared (l/week/1.73²) |
| 47 | 5 Millimetres Squared |
| 46 | number times ten raised to the power of nine per litre (x109/l) |
| 04 | Micrograms per millimole (µg/mmol) |
| 05 | Microgram albumin per hour (µg/ml/hr) |
| 06 | Microgram albumin per minute (µg/min) |
| 07 | Microgram albumin per 24 hours (µg/24hr) |
| 01 | Millimoles per litre (mmol/L) |
| 02 | Micromoles per litre (µmol/L) |
| 03 | Micrograms per litre (µg/L) |
| 10 | Kilograms (kg) |
| 51 | Megavolts |
| 52 | 5 Millimetres Squared |
| 50 | Femtolitres (fl) |

**Usages**

[Report Attribute](#32901)

**whoTumourGradeCns**

**(Cancer Outcomes and Services Dataset)**

The grade of the tumour using WHO classification for tumours of the central nervous system. FOR INTRA AXIAL AND EXTRA AXIAL ONLY.

|  |  |
| --- | --- |
| **Code** | **Description** |
| 1 | I |
| 2 | II |
| 3 | III |
| 4 | IV |

**Usages**

[Cancer Specific Grading](#32734)

**xs:base64Binary**

**(XMLSchema)**

Base64-encoded arbitrary binary data

|  |  |
| --- | --- |
| Regular Expression | [a-zA-Z0-9=]\* |

**Usages**

[Report Attribute](#32901)

**xs:date**

**(XMLSchema)**

Calendar date.Format YYYY-MM-DD. Example, May the 31st, 1999 is: 1999-05-31.

|  |  |
| --- | --- |
| Rule | import static javax.xml.bind.DatatypeConverter.\*  parseDateTime(string(x)) in Calendar |

**Usages**

[Cancer Care Plan](#32732)

[Participant Identifiers](#42260)

[Sample Details](#40380)

[Sample Pathology](#32868)

**xs:dateTime**

**(XMLSchema)**

Specific instant of time. ISO 8601 extended format YYYY-MM-DDThh:mm:ss. Example, to indicate 1:20 pm on May the 31st, 1999 for Eastern Standard Time which is 5 hours behind Coordinated Universal Time (UTC): 1999-05-31T13:20:00-05:00.

|  |  |
| --- | --- |
| Rule | import static javax.xml.bind.DatatypeConverter.\*  parseDateTime(string(x)) in Calendar |

**Usages**

[Event Details](#40374)

[Report Attribute](#32901)

**xs:double**

**(XMLSchema)**

Double-precision 64-bit floating point type legal literals {0, -0, INF, -INF and NaN} Example, -1E4, 12.78e-2, 12 and INF

|  |  |
| --- | --- |
| Rule | import static javax.xml.bind.DatatypeConverter.\*  parseDouble(string(x)) in Double |

**Usages**

[Circulating Tumour Markers (Ovarian)](#32741)

**xs:nonNegativeInteger**

**(XMLSchema)**

Infinite set {0, 1, 2,...}. Sign omitted, “+” assumed. Example: 1, 0, 12678967543233, +100000.

|  |  |
| --- | --- |
| Rule | minInclusive(0) |
| Rule based on  xs:integer (XMLSchema) | import static javax.xml.bind.DatatypeConverter.\*  parseInteger(string(x)) in BigInteger |

**Usages**

[General Risk Factors](#32907)

[Risk Factors for Breast Cancer](#32906)

[Risk Factors for Endometrial Cancer](#39003)

[Risk Factors for Ovarian Cancer](#32908)

[Risk Factors for Renal Cancer](#39009)

**xs:string**

**(XMLSchema)**

Character strings in XML.

|  |  |
| --- | --- |
| Rule | import static javax.xml.bind.DatatypeConverter.\*  true && (x = parseString(string(x))) |

**Usages**

[AJCC Stage](#40398)

[Cancer Care Plan](#32732)

[Consent](#34547)

[Consent Update](#34550)

[Consultant Details](#34418)

[Event Details](#40374)

[Final Figo Stage](#40390)

[Genetic Result](#34442)

[Imaging](#32814)

[Investigation Report Other](#32828)

[Next Generation Sequencing](#32850)

[Radiotherapy](#32893)

[Report Attribute](#32901)

[Sample Details](#40380)

[Sample Pathology](#32868)

[Withdrawal](#34537)

[Systemic Anti-Cancer Therapy](#32924)

**yesNo**

**(Genomics England Shared)**

Boolean, yes no response

|  |  |
| --- | --- |
| **Code** | **Description** |
| yes | Yes |
| no | No |

**Usages**

[Consent](#34547)

[Consent Details](#34412)

[Consent Update](#34550)

[Pathology (Kidney)](#38975)

**yesNoNa**

**(Cancer Outcomes and Services Dataset)**

yes, no, not applicable

|  |  |
| --- | --- |
| **Code** | **Description** |
| Y | Yes |
| N | No |
| X | Not applicable |

**Usages**

[Pathology (Prostate)](#38977)

[Pathology (Testes)](#38978)

**yesNoNk**

**(Cancer Outcomes and Services Dataset)**

yes, no, not known

|  |  |
| --- | --- |
| **Code** | **Description** |
| Y | Yes |
| N | No |
| 9 | Not known |

**Usages**

[Cancer Care Plan (Lung)](#38963)

[Other Treatment (Bladder)](#38969)

[Other Treatment (Upper GI)](#39086)

[Pathology (Lung)](#38965)

[Staging (Upper GI)](#38966)

**yesNoNotAssessable**

**(Cancer Outcomes and Services Dataset)**

yes, no, not assessable

|  |  |
| --- | --- |
| **Code** | **Description** |
| Y | Yes |
| N | No |
| X | Not Assessable |
| 9 | Not Known |

**Usages**

[Pathology (Endometrial)](#38980)

[Pathology (Gynaecology)](#38979)

[Pathology (Prostate)](#38977)

**yesNoNotRelevant**

**(Genomics England Shared)**

yes, no, not relevant

|  |  |
| --- | --- |
| **Code** | **Description** |
| yes | yes |
| no | no |
| not\_relevant | not relevant |

**Usages**

[Consent Details](#34412)

**yesNoUnc**

**(Cancer Outcomes and Services Dataset)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| Y | Yes |
| N | No |
| U | Uncertain |

**Usages**

[Pathology (Kidney)](#38975)

**yesNoUnk**

**(Genomics England Shared)**

|  |  |
| --- | --- |
| **Code** | **Description** |
| yes | Yes |
| no | No |
| unknown | Unknown |

**Usages**

[Risk Factors for Ovarian Cancer](#32908)

[Risk Factors for Testicular Cancer](#39020)

[Sample Pathology](#32868)

# Business Rules

### Additional Findings reporting during consent update (40309)

|  |  |
| --- | --- |
| Data Elements | Name and Version of Consent Form Update Health Related Additional Findings Reproductive Additional Findings |
| Component | **Consent update, open Clinica and Mercury** |
| Rule Focus | **Additional findings questions available based on consent form chosen** |
| Trigger | **Consent xml submitted through mercury or consent question selected in open clinica** |
| Description | **This rule prompts users to offer the right additional finding questions when updating a consent.** |
| Error Condition | **WARNING** |
| Issue Record | **Email, BuRST** |
| Notification | **Submission processed, warning logged** |
| Notification Target | **GMC submitter, GEL service management** |
| Last Updated | **2016-10-12** |
| Version Created | **2016-09-28** |
| Status | **FINAL** |

### Disease Type and Subtype Consistency (42262)

|  |  |
| --- | --- |
| Data Elements | Disease Type Disease Subtype Disease Type |
| Component | **Sample Tracking** |
| Rule Focus | **GMC to GEL Submissions** |
| Trigger | **GMC GEL Sample Metadata CSV Received, Registration, Disease Information Received** |
| Description | **Combination of disease type and subtype submitted must be consistent with the combinations marked within Appendix A.** |
| Error Condition | **WARNING** |
| Issue Record | **Email, BuRST** |
| Notification | **Submission processed, warning logged** |
| Notification Target | **GMC submitter, GEL service management** |
| Last Updated | **2016-10-12** |
| Version Created | **2016-09-28** |
| Status | **FINAL** |

### Consent for additional findings (40300)

|  |  |
| --- | --- |
| Data Elements | Name and Version of Consent Form Health Related Additional Findings Reproductive Additional Findings |
| Component | **Consent, Open Clinica and Mercury** |
| Rule Focus | **Additional findings questions available based on consent form chosen** |
| Trigger | **Consent xml submitted through mercury or consent question selected in open clinica** |
| Description | **This rule allows the right choice of additional findings question to be offered based on the consent form issued. See Appendix F.** |
| Error Condition | **NA for open clinica. Mercury should raise a warning log** |
| Issue Record | **Logs** |
| Notification | **Logs** |
| Notification Target | **System administrator** |
| Last Updated | **2016-08-01** |
| Version Created | **2016-07-01** |
| Status | **FINAL** |

### Consent form corresponding to patient information sheet (40301)

|  |  |
| --- | --- |
| Data Elements | Name and Version of Consent Form Name and Version of Participation Information Sheet Name and Version of Consent Form Update Name and Version of Participant Information Sheet Update |
| Component | **Consent, Open Clinica and Mercury** |
| Rule Focus | **Patient Information sheet available based on consent form chosen** |
| Trigger | **Consent xml submitted through mercury or consent question selected in open clinica** |
| Description | **This rule allows the right choice of patient information sheet to correspond with consent form chosen** |
| Error Condition | **WARNING** |
| Issue Record | **Email, BuRST** |
| Notification | **Submission processed, warning logged** |
| Notification Target | **GMC submitter, GEL service management** |
| Last Updated | **2016-10-12** |
| Version Created | **2016-09-28** |
| Status | **FINAL** |

### Consent options must be consistent with Appendix F (42277)

|  |  |
| --- | --- |
| Data Elements | Name and Version of Consent Form Name and Version of Participation Information Sheet Name and Version of Consent Form Update Name and Version of Participant Information Sheet Update  Name and Version of Assent Form  Additional optional consent Materials |
| Component | **Consent, Open Clinica and Mercury** |
| Rule Focus | **Patient Information sheet available based on consent form chosen** |
| Trigger | **Consent xml submitted through mercury or consent question selected in open clinica** |
| Description | **Consent Forms Must be consistent with the enumerations in Appendix F. NOTE: Appendix F will be periodically updated.** |
| Error Condition | **VALIDATION ERROR** |
| Issue Record | **Email, BuRST** |
| Notification | **Submission Failing Validation, CSV rejected** |
| Notification Target | **GMC submitter, GEL service management** |
| Last Updated | **2016-10-12** |
| Version Created | **2016-09-28** |
| Status | **FINAL** |