



Public Health
England

Protecting and improving the nation's health

Cancer Outcome and Services Data set

Technical guidance v9.0.1

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000
www.gov.uk/phe
Twitter: [@PHE_uk](https://twitter.com/PHE_uk)
Facebook: www.facebook.com/PublicHealthEngland



© Crown copyright 2019

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](https://www.ogilive.com/). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published August 2019
PHE publications
gateway number: GW-621

PHE supports the UN
Sustainable Development Goals



Contents

About Public Health England	2
Executive summary	4
Introduction	5
Help and support	6
General submission principles	7
General file formatting principles	8
Data set and XML record structure	10
The COSD element	10
The {*}Record element	10
Core and site-specific elements	11
Generating COSD XML	13
Reserved characters	15
File naming convention.....	15
Data submissions	17
Who will submit the data?.....	17
What data items should be submitted?.....	18
Validation.....	18
Reporting	19
Appendix 1: sample gynaecological XML	20
Appendix 2: file submission template	27

Amendment history

Version(s)	Date	Amendment History
COSD v9.0	25 June 2019	Draft to support v9.0 sent to DCB
COSD v9.0	4 July 2019	Final v9.0 sent to DCB
COSD v9.0	2 August 2019	Final amended document for publication
COSD v9.0.1	5 November 2019	Primary Diagnosis ICD reporting update pg7

Executive summary

The purpose of this document is to provide instruction to informatics personnel within provider organisations and IT software suppliers (inhouse and commercial), regarding file creation and submission of the Cancer Outcomes and Services Data set (COSD) data. It should be read in conjunction with the documents listed within.

This document describes the standards for file submission, including the XML construction and file naming to facilitate uploading onto the National Cancer Registration and Analysis Service (NCRAS) database (ENCORE). In addition, it provides assurances that the proposed approach supports the implementation of DCB1521 Amd 13/2019.

This is an update to an existing information standard DCB1521, and is required to ensure that the data still meets the business objectives, scope and content of the standard and continues to be clinically accurate and relevant.

In order to maintain the clinical accuracy, it is important to regularly review COSD with clinical experts from across the NHS, including analysts at Public Health England (PHE) and NHS England.

Occasionally other information standards have specific data items which interact with COSD. Where this happens, liaison with the developers of those standards was concluded to ensure all data items remain accurate and are updated where necessary.

Introduction

This document provides technical guidance to support providers of cancer services and IT software developers (inhouse and commercial), in the submission of the cancer outcomes and services data set (COSD) v9.0. It should be read in conjunction with:

- information standards notice: reference DCB1521 Amd 13/2019
- COSD Specification
- xml schema documentation v9.0
- COSD user guide v9.0

Users may also wish to read the COSD Implementation Guide, which provides further support on implementation of the changes to the standard. See NCIN website¹ for access to these documents and other information.

Providers of cancer services are required to provide a monthly return on all cancer patients diagnosed from 1 January 2013 using this data set. The data are stored in the National Cancer Registration and Analysis Service (NCRAS) database (ENCORE). Submissions are made by each provider to the relevant NCRAS branch office for uploading to ENCORE.

Data may be extracted from a number of different electronic sources and submitted as separate files. The required format for submissions for COSD is XML. These and other details of the submission should be included in the COSD data transfer agreement, agreed between the provider organisation and their local NCRAS office.

Data is collated and mechanisms for transmission of data from providers to NCRAS offices have been extended to carry the COSD data items. On receipt, patient level data is validated and linked with existing records as appropriate.

Reporting mechanisms exist to provide consistent feedback on submissions and additional reports to local providers². Both patient identifiable and anonymised data (where appropriate) will be made available for analysis and reporting purposes³.

¹ http://www.ncin.org.uk/collecting_and_using_data/data_collection/cosd

² <https://cancerstats.ndrs.nhs.uk/>

³ <https://www.cancerdata.nhs.uk/dashboard/>

Help and support

For technical queries relating to the creation of these files please contact your local NCRAS office in the first instance. (See data transfer agreement for local details):

For general queries regarding the data set contact:

COSEnquiries@phe.gov.uk

For queries regarding the Data Model and Dictionary Service contact:

datastandards@nhs.net

For queries regarding the schema contact:

COSE@phe.gov.uk

Further help and tutorials on XML can be found at:

www.w3schools.com/xml/default.asp

General submission principles

To help support data submissions:

- providers **MUST** only submit data relating to patients for whom they have provided cancer services
- submitted files **MUST** be sent by secure file transfer methods as agreed with your regional NCRAS office
- files **MUST** reach the regional NCRAS office by the 25th working day following the end of month of the 'trigger event' for each diagnosed cancer (see user guide and Implementation guide for details of trigger events)
- each file may include records for more than one tumour group
- the data set is divided into sections each of which represents an activity or related group of activities along the care pathway
- individual records **MUST** contain the section 'core linkage items' including both patient identity and diagnostic details
- providers should aim to complete all the relevant data items as soon as possible, however as long as the mandatory fields (core linkage items) are completed the record can be submitted
- records in each submission **MUST** include all applicable sections where possible
- demographic section **MUST** be submitted by each provider on the first submission of a record
- for updated records, only the updated/amended sections and core linkage items need to be submitted
- the data submission files **MUST** comply with the COSD XML schema specifications pack*

* Note: all data **MUST** be submitted to the NCRAS in XML format only.

Note: Where the ICD10 code only has 3 characters, for example C01, please add "X" as a 'packing digit' to meet the validation rules (such as C01.X, C07.X, C73.X). In addition, the reporting format excludes the decimal CXX.X or DXX.X, all xml reports must be recorded as CXXX or DXXX

General file formatting principles

The required format for submission of data for the COSD will be extensible markup language (XML) as specified in the COSD XML schema specification pack. This contains all of the schema documents listed below and all embedded schema referenced in the above documents. This schema pack also contains the data type schema, containing the formats for submitted data. The XML schema pack is available on request from the NHS Data Model and Dictionary Service or by downloading it direct from the TRUD website⁴.

XML schemas (XSD) have been designed for a generic core COSD data set and for 13 tumour site-specific data sets, which each include the core data items. In addition:

- these schemas define the expected structure of the XML submissions
- schema design is segmented into separate schema, defining the different sections of COSD data specification
- these schemas are embedded in a hierarchical manner into a single schema
- these schemas contain information on the expected values for a data element

Data submitted in XML format will be required to conform to the schemas for the appropriate cancer site, or 'Other' only where tumour ICD10 code does not fall into a specific site.

Within the data set 'core' is a 4-letter word which describes:

- the subset of COSD data items (and their corresponding sections) that are common to all site groups
- if you are submitting a lung record, then you need to provide the core and lung specific data items, this is perhaps the more obvious definition
- 'CORE' is no longer the non-specific site group that is used when a record does not belong to any of the other well-defined groups

In v9 the word CORE is not used within the schema, rather the site specific group sections and records are now known as a BreastRecord, CNSRecord, UpperGIRecord, UrologyRecord, for example. This is a change from v8.

For all other disease types (which do not have their own specific subsection in v9), will be recorded under 'OtherRecord'. This simplifies data recording when compared to v8.

⁴ <https://isd.digital.nhs.uk/trud3/user/guest/group/0/home>

The top-level schema in the hierarchical structure is COSD-v9-0.xsd.

For a Record which does not fall into any of the tumour groups, such as a Record with only core elements, then the default schema path for a Record is used which is defined in the master file - COSD-v9-0.xsd. This will only allow a record to build using what is deemed as Core sections as per the dataset specification.

The following list outlines the tumour specific site and associated schema, embedded within the above schema:

Tumour site	Schema
Breast	COSD-v9-0 BREAST.xsd
Central Nervous System (CNS)	COSD-v9-0 CNS.xsd
Colorectal	COSD-v9-0 COLORECTAL.xsd
Children, Teenagers and Young Adults	COSD-v9-0 CTYA.xsd
Gynaecology	COSD-v9-0 GYNAECOLOGICAL.xsd
Haematology	COSD-v9-0 HAEMATOLOGICAL.xsd
Head and neck	COSD-v9-0 HEADNECK.xsd
Liver	COSD-v9-0 LIVER.xsd
Lung	COSD-v9-0 LUNG.xsd
Sarcoma	COSD-v9-0 SARCOMA.xsd
Skin	COSD-v9-0 SKIN.xsd
Upper GI	COSD-v9-0 UPPERGI.xsd
Urology	COSD-v9-0 UROLOGICAL.xsd

Character set: UTF-8

Information on permitted formats are contained in the data type schema

Data set and XML record structure

The COSD element

The root element of a COSD XML file is `<COSD>` and only one is permitted and required per submission i.e. in each individual xml file. There are 6 child elements that need to be provided within the root element, these are:

- `<Id root="uuid" />`
 - the root attribute will be a universal unique identifier (UUID) for the submission, this takes the form of an 8-4-4-4-12 hexadecimal characters, for example DEAECC2-76AA-411E-B994-8FDD98C3FFFA
 - a UUID Library should be used to create it
- `<OrganisationIdentifierCodeOfSubmittingOrganisation extension="orgcode"/>`
 - the extension attribute should contain the NACS code of the submitting Provider
- `<RecordCount value="count" />`
 - the value attribute should identify the number of `<COSDRecord>` elements being supplied with this submission
- `<ReportingPeriodStartDate>` and `<ReportingPeriodEndDate>`
 - these elements give the time period for the data submission, this is normally the “trigger event” date range and takes the (ISO) format YYYY-MM-DD
- `<FileCreationDateTime>`
 - this is the timestamp of when the submission was generated and takes the format YYYY-MM-DDTHH:MM:SS, for example 1900-01-01T10:11:12

The {*}Record element

The `<{*}Record>` element is a child element of the `<COSD>` element. This element is a choice of single tumour record within the submission, for example BreastRecord, CNSRecord etc. As with the `<COSD>` element it has an `<Id root>` element with a UUID value attribute. This is a unique identifier for the tumour record and does not need to be preserved across submissions – such as {*}Records pertaining to the same tumour in future submissions do not need to have the same UUID.

The choice of {*}Record determines what elements can be submitted for that type of record, for example PrognosticIndex for BreastRecords, Pretreatment Assessments for HeadNeck.

Core and site-specific elements

The choice of record element determines what can be submitted for that particular record. It will allow all core elements and any site specific elements where specified by the dataset.

In addition, each record will denote if the data relates to a primary or non primary cancer diagnosis. For example, a BreastRecord (primary cancer record) is represented in COSD XML, like:

```
<BreastRecord>
  <Id root>
  <LinkagePatientID>
    <!-- LinkagePatientID Elements -->
  </LinkagePatientID>
  <PrimaryPathway>
    <!-- LinkageDiagnosticDetails -->
    <!-- LinkageDiagnosticDetails Elements -->
  </LinkageDiagnosticDetails>
    <!-- Additional PrimaryPathway Elements -->
  </PrimaryPathway>
  <AdditionalPathwayDetails>
    <!-- AdditionalPathway Elements -->
  </AdditionalPathwayDetails>
</BreastRecord>
```

Whereas a non primary pathway record is represented in COSD XML like:

```
<BreastRecord>
  <Id root>
  <LinkagePatientID>
    <!-- LinkagePatientID Elements -->
  </LinkagePatientID>
  <NonPrimaryPathway>
    <!-- DateOfNonPrimaryCancerDiagnosisClinicallyAgreed -->
    <!-- Additional NonPrimaryPathway Elements -->
  </NonPrimaryPathway>
  <AdditionalPathwayDetails>
    <!-- AdditionalPathway Elements -->
  </AdditionalPathwayDetails>
</BreastRecord>
```

Note: site-specific data sets don't just add additional data items to their content group (and sub sections), they also augment core group sections where necessary.

For example, a CancerCarePlan section may contain:

```
<CancerCarePlan>  
  <PlannedCancerTreatmentType code="..."/>  
  ...  
  <NoCancerTreatmentReason code="..."/>  
  <AdultComorbidityEvaluation code="..."/>  
</CancerCarePlan>
```

Whereas a Haematological CancerCarePlan section may also contain 'Acute Lymphoblastic Leukaemia' data:

```
<CancerCarePlan>  
  <PlannedCancerTreatmentType code="..."/>  
  ...  
  <NoCancerTreatmentReason code="..."/>  
  <AdultComorbidityEvaluation code="..."/>  
  <CancerCareALL>  
    <AcuteLymphoblasticLeukaemia code="..."/>  
  </CancerCareALL>  
</CancerCarePlan>
```

Note: for clarity a sample of a single gynaecological record is included in Appendix 1.

Generating COSD XML

The hierarchical nature of the data set may lead providers to adopt an object orientated programming (OOP) approach to developing the COSD XML submission, but it is also possible to use a more procedural approach to generate the XML and to use condition logic to include or exclude specific data items.

This may be simpler to produce, but might be harder to maintain in the longer term and whilst OOP may be the more elegant solution, providers may need a pragmatic approach with constrained resources, existing skills/technologies, etc.

A working example of the OOP paradigm is given below. The code is far from complete but demonstrates the key principle of inheritance. The use of CoffeeScript is merely for convenience – to all intents and purposes consider it pseudo code:

```
class CoreGenerator
  constructor: () ->

  buildOtherRecord: (tumour) ->
    @buildCore(tumour)

  # Core section
  buildCore: (tumour) ->
    @buildLinkagePatientId(tumour.patient)
    @buildLinkageDiagnosis(tumour)
    # ...
    @buildCancerCarePlan(tumour.cancercareplan)

  buildLinkagePatientId: (patient) ->
    alert "build LinkagePatientId"

  buildLinkageDiagnosis: (tumour) ->
    alert "build LinkageDiagnosis"

  # ...

  buildCancerCarePlan: (cancercareplan) ->
    alert "build CancerCarePlan"

class ColorectalGenerator extends CoreGenerator
  # Core section
  buildCoreDiagnosis: (diagnosis) ->
```

```
super diagnosis  
alert "build ColorectalCoreDiagnosis/ColorectalDiagnosis"  
# TODO: add SynchronousTumourIndicator Code(ColorectalCancerAtDiagnosis)  
here
```

```
generator = new ColorectalGenerator  
generator.buildColorectalRecord(...)
```

Reserved characters

XML has reserved characters which should not be used in data submissions, these are:

Reserved Character	Meaning	Entity reference
>	Greater than	>
<	Less than	<
&	Ampersand	&
%	Percent	%

Note: if it is unavoidable that these reserved characters are used in data submission, they should either be replaced by the corresponding entity reference or encapsulated with the <![CDATA[{data text}]]> tag. Particular care should be taken with the imaging report text fields within COSD v9.0.

File naming convention

The submission file must be named using the following convention:

XML file:

- COSD_<FILE SOURCE>_<Submitting Org>_<Reporting Period Start Date>_<Reporting Period End Date>_<Date of file creation>.xml

Where:

- <COSD> is a fixed value
- <FILE SOURCE> is MDT or PAS or PATH or RIS (or other source description as agreed with NCRAS)
- <Submitting Org> is the Organisation Code (for example, AB3) for the submitting organisation
- <Reporting Period Start Date> must always be in the format CCYY-MM-DD
- <Reporting Period End Date> must always be in the format CCYY-MM-DD
- <Date and time of file creation> Timestamp when the file was created in the format CCYY-MM-DDThh:mm:ss

Example:

- the file name for organisation (X09) submitting its own MDT data for activity month July 2020 on the 5th September 2020 at 10:30:22 AM will be:
 - COSD_MDT_X09_2020-07-01_2020-07-31 2020-09-05T10_30 22.xml

Files MAY be zipped prior to transmission, in this case the file extension .zip will be acceptable.

Note: each file submitted MUST have a unique filename as generated by the above method.

Data submissions

XML data should be validated against the schema prior to submission.

XML data submissions should be given a new UUID in the <COSD> element, where submissions are altered and re-submitted a new UUID should be applied. Each tumour record in the submission should have a unique UUID as the root attribute for the <COSDRecord> element. New UUID must be created for resubmissions of data.

All data submissions must be transmitted between nhs.net email accounts (or alternative email accounts that are accepted as part of the nhs.net framework). The regional NCRAS offices will provide providers with the relevant recipient account in the data transfer agreement.

Monthly data submissions are required from each provider within 25 working days of the relevant month end. A schedule of submission deadlines is available on the NCIN website.

Trusts should complete the COSD submission template which should be attached to each email submission, along with the data submission files themselves. This provides a summary overview of their submission and alerts the NCRAS to any special or extenuating circumstances which may have affected the submission that month. See Appendix 2.

Who will submit the data?

COSD data started in January 2013, and submissions to the NCRAS commenced from March 2013. Trusts were mandated to collect and submit Pathology data in XML from January 2016, with an agreed delayed start until July 2016, September 2016 submissions, ensuring that:

- files should be submitted by NHS providers of any adult or children cancer services
- the submission files should relate to a single provider and only for data that they own
- providers must clarify arrangements or changes for submitting the data with their local NCRAS office

Note: a separate user guide, technical guide and schema pack has been created for the pathology data set.

What data items should be submitted?

All applicable data items specified as either mandatory or required in the data set and XML schema documentation should be submitted as soon as available.

The mandatory, required or optional (M/R/O) column indicates the recommendation for the inclusion of data. This applies specifically to the XML files but should also be used to decide on data to be included through other message formats.

M = Mandatory: this data item is mandatory – the record or part of the record cannot be submitted if the mandatory data items are not completed. The file will be rejected if the mandatory linkage items are absent and/or sections will be omitted where mandatory items are missing, even if other data items are completed.

R = Required: this data item is required as part of NHS business rules and must be included where available or applicable, however, the section can be submitted without completing all the required items.

O = Optional: this data item can be included at the discretion of the submitting organisation and their commissioners as required for local purposes.

Validation

The data will be validated in ENCORE according to a set of rules. If the data validation rules are not met, the whole or relevant parts (data set sections or records) of the extract may be rejected and returned to the provider.

The provider will normally be expected to resolve any errors/issues or add missing data and re-extract the file for sending to the NCRAS within 5 working days, for re-validation. The turnaround time for validation, any re-submission and subsequent re-validation is necessarily short as delays will adversely affect the timeliness and quality of the data and the validity of conformance reporting.

A record of rejected files will be kept by the NCRAS as an audit trail and to support conformance monitoring – original files may be retained in order to make a comparison with subsequent files received.

It is good practice to identify the areas which require attention prior to submission in the form of check reports, outlining if there are key (mandatory) fields missing. This can be in the form of an error report or other explanation, allowing correction to prevent the records from being rejected. Equally a warning message could be created and displayed on the screen, where there is an attempt to save a record on a system without the mandatory data items.

Reporting

The NCRAS has developed standardised reports which are available to all providers submitting data through the NCRAS conformance portal (CancerStats)⁵, these are only available through the NHS Health and Social Care Network (HSCN) Network.

The HSCN is a new data network for health and care organisations which replaced N3. It provides the underlying network arrangements to help integrate and transform health and social care services by enabling them to access and share information more reliably, flexibly and efficiently.

Analytical reports are being developed separately⁶.

Providers should continue to contact their regional NCRAS office to request any data they require which is not made available via standardised reporting.

⁵ <https://cancerstats.ndrs.nhs.uk/>

⁶ <https://www.cancerdata.nhs.uk/dashboard/>

Appendix 1: sample gynaecological XML

```

<GynaecologicalRecord>
  <Id root="81605a9F-8EFD-BD0e-1fA8-95652A691FeE"/>
  <LinkagePatientId>
    <NhsNumber extension="1884951159"/>
    <NhsNumberStatusIndicatorCode code="05"/>
    <PersonBirthDate>2019-05-31</PersonBirthDate>
    <OrganisationIdentifierCodeOfProvider extension="08KT"/>
  </LinkagePatientId>
  <PrimaryPathway>
    <LinkageDiagnosticDetails>
      <PrimaryDiagnosisIcd code="9Zf6Ns"/>
      <TumourLaterality code="9"/>
      <DateOfPrimaryDiagnosisClinicallyAgreed>2019-05-31</DateOfPrimaryDiagnosisClinicallyAgreed>
    </LinkageDiagnosticDetails>
    <ReferralAndFirstStageOfPatientPathway>
      <SourceOfReferralForOut-patients code="15"/>
      <DateFirstSeen>2019-05-31</DateFirstSeen>
      <ConsultantFirstSeen>
        <ProfessionalRegistrationIssuerCode-ConsultantFirstSeen code="04"/>
        <ProfessionalRegistrationEntryIdentifier-ConsultantFirstSeen>cagqva3EwlycGD6POVrRTMAzZdXU
          rzPv</ProfessionalRegistrationEntryIdentifier-ConsultantFirstSeen>
      </ConsultantFirstSeen>
      <OrganisationSiteIdentifierProviderFirstSeen extension="8GHNRRR"/>
      <DateFirstSeenCancerSpecialist>2019-05-31</DateFirstSeenCancerSpecialist>
      <OrganisationSiteIdentifierProviderFirstCancerSpecialist extension="JWRLC2IB"/>
      <CancerOrSymptomaticBreastReferralPatientStatusnonPrimary code="03"/>
      <CancerSymptomsFirstNotedDate>2019-05-31</CancerSymptomsFirstNotedDate>
    </ReferralAndFirstStageOfPatientPathway>
    <Diagnosis>
      <OrganisationSiteIdentifierOfDiagnosis extension="1DR7P"/>

```

```

<BasisOfDiagnosisCancer code="5"/>
<MorphologyIcd-o-3 code="zWfK310"/>
<MorphologySNOMED>
  <MorphologySnomedDiagnosis code="64JYP4ZUL"/>
  <SnomedVersionDiagnosis code="02"/>
</MorphologySNOMED>
<TopographyIcd-o-3 code="03CUy"/>
<GradeOfDifferentiationAtDiagnosis code="GX"/>
<PerformanceStatusAdult code="0"/>
<DiagnosisCodesnomedCt code="736628006809479722"/>
<MetastaticTypeAndSiteDiagnosis>
  <MetastaticType code="02"/>
  <MetastaticSite code="98"/>
</MetastaticTypeAndSiteDiagnosis>
</Diagnosis>
<StagingSiteSpecific>
  <SiteSpecificOrganisationSiteIdentifierSiteSpecificStage extension="QCIJN2"/>
  <SiteSpecificStageDateSiteSpecificStage>2019-05-31</SiteSpecificStageDateSiteSpecificStage>
  <StagingGynaecological>
    <SiteSpecificFinalFigoStage>dQMkpbO</SiteSpecificFinalFigoStage>
  </StagingGynaecological>
</PrimaryPathway>
<Demographics>
  <PersonFamilyName>IEnJHnxcpl1VTUIUS8XdyTHQNCHJpKmyUfF</PersonFamilyName>
  <PersonGivenName>vhAbWde50py7vs5DplZcYjq1T51dOtnrucL</PersonGivenName>
  <Address>
    <UnstructuredAddress>
      <Streetaddressline>FDHRrp8pxWTSSPvB5Zne6TB9YmTEGfzxvHnxxcyr3sT0cV5TW8</Streetaddressline>
    </UnstructuredAddress>
  </Address>
  <PostcodeOfUsualAddressAtDiagnosis>Oh9zxBYm</PostcodeOfUsualAddressAtDiagnosis>
  <PersonStatedGenderCode code="X"/>
  <PersonSexualOrientationCodeAtDiagnosis code="U"/>

```

```

<GeneralMedicalPractitionerSpecified extension="T4LWr9P8"/>
<GeneralMedicalPracticeCodePatientRegistration extension="H7KPEF"/>
<PersonFamilyNameAtBirth>uWBwaj5RHJxWOEsJVb857jmrFtvDfVKhzWi</PersonFamilyNameAtBirth>
<EthnicCategory code="F"/>
</Demographics>
<Imaging>
<OrganisationSiteIdentifierOfImaging extension="93LM8"/>
<ProcedureDateCancerImaging>2019-05-31</ProcedureDateCancerImaging>
<ImagingOutcome code="03"/>
<ImagingCodeSnomedCt code="859165728468280363"/>
<ImagingReportText>qrUwrhd0T42j9G2S6HHqy9SyWMrFcWiU6fJTpRrs0WC32n6ZzewHKM</ImagingReportText>
<LesionSizeRadiological value="489.12"/>
</Imaging>
<DiagnosticProcedures>
<OrganisationSiteIdentifierDiagnosticProcedure extension="T9JFC"/>
<DiagnosticProcedureDate>2019-05-31</DiagnosticProcedureDate>
<DiagnosticProcedureOpcs code="E392"/>
<SentinelNodeBiopsy>
<SentinelNodeBiopsyOutcome code="P"/>
</SentinelNodeBiopsy>
</DiagnosticProcedures>
<PersonObservation>
<PersonObservationHeightInMetres value="2.12"/>
<PersonObservationWeight value="414.901"/>
<BodyMassIndex value="62.3"/>
<DateObservationMeasured>2019-05-31</DateObservationMeasured>
</PersonObservation>
<ClinicalNurseSpecialistAndRiskFactorAssessments>
<ClinicalNurseSpecialistIndicationCode code="99"/>

```

```
<TobaccoSmokingStatus code="1"/>
<TobaccoSmokingCessation code="3"/>
<HistoryOfAlcoholCurrent code="Z"/>
<HistoryOfAlcoholPast code="1"/>
<DiabetesMellitusIndicator code="9"/>
<MenopausalStatus code="9"/>
<PhysicalActivityCurrent code="1"/>
</ClinicalNurseSpecialistAndRiskFactorAssessments>
<ClinicalNurseSpecialistHolisticNeedsAssessment>
  <AssessmentOffered code="05"/>
  <AssessmentCompletedDate>2019-05-31</AssessmentCompletedDate>
  <AssessmentPointOfPathway code="06"/>
  <StaffRoleCarryingOutTheAssessment code="08"/>
</ClinicalNurseSpecialistHolisticNeedsAssessment>
<ClinicalNurseSpecialistPersonalisedCareSupportPlanning>
  <CarePlanningOffered code="03"/>
  <CarePlanningCompletedDate>2019-05-31</CarePlanningCompletedDate>
  <PointOfPathway code="06"/>
  <StaffRoleCarryingOutThePlanning code="08"/>
</ClinicalNurseSpecialistPersonalisedCareSupportPlanning>
<MultidisciplinaryTeamMeetings>
  <MultidisciplinaryTeamMeetingDetail>
    <MultidisciplinaryTeamMeetingDiscussionType code="3"/>
    <MultidisciplinaryTeamMeetingDate>2019-05-31</MultidisciplinaryTeamMeetingDate>
    <OrganisationSiteIdentifierOfMultidisciplinaryTeamMeeting extension="1LO3TRI"/>
    <MultidisciplinaryTeamMeetingType>0600</MultidisciplinaryTeamMeetingType>
    <MultidisciplinaryMeetingTypeComment>9naTPLKn7vrPS6NSj3L9Cj9loP7NObXjLaFVRfq1UfjDU40AJJ
    pQ0RZwY</MultidisciplinaryMeetingTypeComment>
  </MultidisciplinaryTeamMeetingDetail>
```

```

</MultidisciplinaryTeamMeetings>
<CancerCarePlan>
  <MultidisciplinaryTeamDiscussionDateCancer>2019-05-31</MultidisciplinaryTeamDiscussionDateCancer>

  <MDTConsultant>
    <ProfessionalRegistrationIssuerCode-ConsultantMultidisciplinaryTeamLead code="04"/>
    <ProfessionalRegistrationEntryIdentifier-ConsultantMultidisciplinaryTeamLead>wmyjtXrLTs
      VMegh</ProfessionalRegistrationEntryIdentifier-ConsultantMultidisciplinaryTeamLead>
  </MDTConsultant>
  <CancerCarePlanIntent code="9"/>
  <PlannedCancerTreatmentType code="13"/>
  <NoCancerTreatmentReason code="03"/>
  <AdultComorbidityEvaluation-27Score code="1"/>
</CancerCarePlan>
<MolecularBiomarkersGermlineTesting>
  <GermlineGeneticTestingOffered code="02"/>
  <GermlineGeneticTestOffered code="03"/>
  <OtherGermlineGeneticTestOffered>NgPLORnaFW2yWIVfHe4vnNRqBNy7HI</OtherGermlineGeneticTestOffered>
  <GermlineAnalysisOfferedDate>2019-05-31</GermlineAnalysisOfferedDate>
  <OrganisationIdentifierOfReportingRegionalGeneticsLaboratory extension="GSX1"/>
  <ReferralToClinicalGeneticistOffered code="03"/>
</MolecularBiomarkersGermlineTesting>
<MolecularBiomarkersSomaticTesting>
  <GeneOrStratificationBiomarkerAnalysed code="07"/>
  <OtherGeneOrStratificationBiomarkerAnalysed>dHcxRn2VnEdq2O9acHjIwuxTLIAM4C
  </OtherGeneOrStratificationBiomarkerAnalysed>
  <DateGeneOrStratificationBiomarkerReported>2019-05-31</DateGeneOrStratificationBiomarkerReported>
  <OrganisationIdentifierOfReportingLaboratory extension="KURP"/>
</MolecularBiomarkersSomaticTesting>

```

```

<ClinicalTrials>
  <PatientTrialStatusCancer code="09"/>
  <ClinicalTrialDecisionDatePatient>2019-05-31</ClinicalTrialDecisionDatePatient>
  <DateClinicalTrialStarted>2019-05-31</DateClinicalTrialStarted>
  <CancerClinicalTrialTreatmentType code="07"/>
</ClinicalTrials>
<Treatment>
  <CancerTreatmentEventType code="01"/>
  <AdjunctiveTherapy code="1"/>
  <CancerTreatmentIntent code="02"/>
  <TreatmentStartDateCancer>2019-05-31</TreatmentStartDateCancer>
  <CancerTreatmentModality code="04"/>
  <OrganisationSiteIdentifierOfProviderCancerTreatmentStartDate extension="73HBK5"/>
  <ConsultantTreatment>
    <ProfessionalRegistrationIssuerCode-ConsultantTreatment code="04"/>
    <ProfessionalRegistrationEntryIdentifier-ConsultantTreatment>8pV0kmYeutzhOJhubL7YezZdpJp
      DYjYe</ProfessionalRegistrationEntryIdentifier-ConsultantTreatment>
  </ConsultantTreatment>
  <EndOfTreatmentSummaryDate>2019-05-31</EndOfTreatmentSummaryDate>
  <DischargeDateHospitalProviderSpell>2019-05-31</DischargeDateHospitalProviderSpell>
  <DischargeDestinationHospitalProviderSpell code="48"/>
  <Surgery>
    <ProcedureDate>2019-05-31</ProcedureDate>
    <SurgicalAdmissionType code="1"/>
    <ConsultantSurgery>
      <ProfessionalRegistrationIssuerCode-ConsultantSurgeon code="08"/>
      <ProfessionalRegistrationEntryIdentifier-ConsultantSurgeon>ghWgsFbahvhFdGCIGrBrzHJw
        XsJt9r74</ProfessionalRegistrationEntryIdentifier-ConsultantSurgeon>
    </ConsultantSurgery>
  </Surgery>

```

```
<PrimaryProcedureOpcs code="S798"/>
<PrimaryProcedureSnomedCt code="106963042300269202"/>
<ProcedureOpcs code="J654"/>
<ProcedureSnomedCt code="421701516169073707"/>
<UnplannedReturnToTheatreIndicator code="N"/>
<AsaScore code="2"/>
<SurgicalAccessType code="5"/>
<SurgeryGynaecological>
  <SurgeonGrade code="Z"/>
  <ResidualDisease code="1"/>
</SurgeryGynaecological>
</Surgery>
</Treatment>
<AcuteOncology>
  <AcuteOncologyAssessmentDate>2019-05-31</AcuteOncologyAssessmentDate>
  <OrganisationSiteIdentifierAcuteOncology extension="U60L3KIVP"/>
  <AssessmentLocation code="04"/>
  <PatientType code="06"/>
  <Outcome code="2"/>
</AcuteOncology>
</GynaecologicalRecord>
```

Appendix 2: file submission template

Generic file source	File name	Number of records	Any reasons for variation from number expected YES/NO	Extenuating circumstances if previous column contains 'YES'	Other comments
MDT					
PATH					
PAS					
RIS					

Note: generic file names as listed should align with the sources identified in the data transfer agreement. Any other file sources should be referenced using consistent terminology as agreed with the NCRAS.