

	NBOCAP Import File Specification			
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NBOCAP Import File Specification

Amendment History:

Version	Date	Amendment History
0.1	08.11.2006	First draft for comment
0.2	23.11.2006	Added leading zeros to drop-down-list valid values (accidentally lost in version 0.1)
0.3	28.02.2007	Amended following changes to the dataset: <ul style="list-style-type: none"> • Tumour: Patient Procedure Result (CT Scan) • Tumour: Patient Procedure Result (Abdominal Ultrasound) • Treatment: ASA Grade
2.0	19.03.2007	First official release
3.0	27.06.2007	Amended following removal of Cancer Waiting Times dataset (CR2676)
3.1	02.10.2007	Added note about Open Exeter organisation codes
3.2	22.08.2008	Updated for CR2856 (allow CSV-import updates to existing records)
3.3	25.03.2009	Updated for CR2922 (populate date of birth and date of death)
3.4	22.07.2009	Updated for CR3120 (new validation rules) Added validation rules as appendix A
3.5	13.10.2009	Updated for CR3384 (remove a validation rule)
3.6	05.01.2010	Added additional notes to section 3.2
3.7	13.12.2010	Added list of valid postcode formats to section A.1 Added type classification for "ICD10 Major Site Code"
3.8	22.02.2011	Updated for CR4276 (validation rules for organisation codes)
3.9	03.05.2011	Updated for CR4385 (add a validation rule)

Forecast Changes:

Anticipated Change	When

Reviewers:

This document must be reviewed by the following:

Name	Signature	Title / Responsibility	Date	Version
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Kimberley Greenaway		Project Manager, H&SC IC		

Distribution:

NBOCAP project team, NBOCAP end users.

Document Status:

This is a controlled document.

Whilst this document may be printed, the electronic version maintained in FileCM is the controlled copy. Any printed copies of the document are not controlled.

Related Documents:

These documents will provide additional information.

Ref no	Doc Reference Number	Title	Version
1	NPFIT-SHR-QMS-PRP-0015	Glossary of Terms Consolidated.doc	

Glossary of Terms:

List any new terms created in this document. Mail the NPO Quality Manager to have these included in the master glossary above [1].

Term	Acronym	Definition
Batch Identifier	Batch ID	A unique numeric identifier for a data file.
Batch Record Identifier	Batch Record ID	A unique numeric identifier for a record in a data file (unique across all files).
Information Centre	H&SC IC	Health & Social Care Information Centre
NBOCAP	NBOCAP	National Bowel Cancer Audit Project

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1 About this document

1.1 Purpose

The purpose of this document is to describe the structure of NBOCAP import files.

1.2 Audience

This document has been written for the NBOCAP development team, the H&SC IC (the commissioners of this development), and for NBOCAP users.

2 Overview

NBOCAP is an application in which audit information regarding bowel cancer patients and their treatment is stored.

The NBOCAP system allows the user to add data to the system by importing data files as an alternative to using the data-entry screens. All record types supported by the data-entry screens (Patient, Tumour, Treatment, Follow Up) are supported by the file-import facility. Records added via a file-import may be viewed and updated via the data-entry screens.

Data files are uploaded to the system by the user via the web front-end, after which they enter a queue of files to be processed. A background application processes the batches on a first-in-first-out basis. The results of the processing of each batch are accessible to the organisation which uploaded the file via the web front-end.

Records which do not conform to the import specification, or violate any of the import or validation rules are rejected. It is the responsibility of the user to correct the data at source and resubmit the data to NBOCAP.

This document defines the structure of the import files; the validation rules are outside of the scope of this document.

NBOCAP now supports updates to existing records via CSV imports. In earlier versions of the system, records loaded via CSV file for which the record identifiers already existed in the system were rejected as duplicates: now, they will be processed and the existing record amended with the new data. Please note the following:

1. The mandatory fields still apply, even for updates to existing records.
2. It is not possible to update the record identifiers via CSV import: if any record identifiers do not match the original record, the submitted record will be treated as a new record rather than as an update to an existing record.
3. It is not possible to overwrite an existing data item with an empty value via CSV import: the existing value in NBOCAP will not be updated.
4. White space is not ignored: for example, a value of " " (a single space) is treated as a new value and the system will attempt to overwrite the existing value with " ".
5. If data originally loaded via CSV import is subsequently updated (either via the data-entry screens or by CSV import), and the original data is then reloaded via CSV import, the changes made to the data in the meantime will be overwritten by the original CSV file data.

3 File structure

NBOCAP import files are comma-separated value (CSV) files. Each line of the file represents a single data record: "record" in this context refers to a single data entity, not all data associated with an individual.

The following record types (data entities) are supported by the system:

- Patient;
- Tumour;
- Treatment;
- Follow up.

Data files may contain any combination of record types, in any order. Records are processed individually and validated against the existing data in the database; it is therefore not required that associated records are uploaded in the same file. For example, it is permissible to upload a file containing a single tumour record, as long as the associated patient record is already present in the database.

3.1 File delimiters

Each record in the file must be provided in the specified format: it must have the correct number of elements; each element must be delimited by an element delimiter (a comma) and enclosed in text delimiters (double-quotes). All data fields must be provided, even when the value is unknown: when a data item is not known, an empty value must be provided and enclosed in text delimiters.

For example, the following is a valid patient record (note the empty elements at the end of the record):

```
"1", "1112223334", "NBC1", "LOCAL_1", "FORENAME", "SURNAME", "EX1  
1AA", "01/01/1980", "1", "1.8", "80", "CON1", "", "", ""
```

3.2 Record structures

This section defines the individual record structures.

Notes:

- The type of each data item is specified;
- Where the data item is associated with a pre-defined list of codes, the list of permissible values is given in the VALID VALUE column (and the corresponding descriptions in the DESCRIPTION column); the VALID VALUE must be provided in the file rather than the DESCRIPTION;
- Values for fields of type DATE must be in the format DD/MM/YYYY;
- Values for fields of type TIME must be in the format HH24MM, for example "2130" is 9:30pm;
- The maximum number of characters is specified for TEXT data items, e.g., TEXT(10) means maximum of 10 characters;
- NUMBER fields may be either integer (e.g., NUMBER(5) means integer, up to 5 digits) or decimal (e.g., NUMBER(5,2) means a 5-digit number, 2 digits of which should be after the decimal point, i.e. maximum value 999.99);
- It is not permissible to include text delimiter characters (double quotes) within data items;
- Care Spell numbers are generated as follows:
NHS number – ICD Major Site Code – Date of Diagnosis (YYYYMMDD)
For example: 1112223334-10-19900101.
- The various organisation-code data items are restricted to a list of recognised codes, maintained by the Information Centre. Any organisation codes that are incorrectly rejected as invalid should be reported to the Information Centre: Kimberley.Greenaway@ic.nhs.uk and Rose.Napper@ic.nhs.uk
- The patient dates of birth and death are now automatically populated by the system as part of the CSV import process; any values provided for these fields within patient records will now be ignored, but the structure of the CSV records remains unchanged: patient records must still include the elements and the text delimiters for date of birth and death. For example, the following is valid:

```
"1", "1112223334", "NBC1", "LOCAL_1", "FORENAME", "SURNAME", "EX1  
1AA", "", "1", "1.8", "80", "CON1", "", "", ""
```
- All fields which are marked as "mandatory" must be provided by the user.

(Notes continue on the next page)

- Notes on Treatment and Follow up IDs:
 - These are numeric (whole-number) fields and must be provided by the end user: the system does not automatically assign these values for records added via CSV import.
 - The system uses the treatment / follow up ID to determine whether to add a new record or whether to update an existing record: new records must be assigned an ID which is unique within the set of existing records of the type in question (treatment or follow up) for the tumour in question.
 - End users must be able to supply the IDs in subsequent import files if they wish to update an existing treatment / follow up record: for example, if a treatment is uploaded twice with different treatment IDs then the system will treat the second submitted record as a new treatment record rather than as an update to the first treatment record.
 - The data-entry screens assign treatment ID 1 to the first treatment added for a tumour, then assigns ID 2 to the next, then 3, and so on: it is valid to follow the same principle for records uploaded via CSV files, but this is not required. For example, it is valid for a tumour to have a single associated treatment record with treatment ID 99999.

For example, if the following records were submitted against a new tumour:

- Treatment, with ID 1: this would be added as a new record.
- Follow up, with ID 1: this would be added as a new record (note that this would not be considered an update of treatment ID 1, because it is not the same type of record as the first record).
- Treatment, with ID 1: this would be treated as an update of the first treatment record.
- Follow up, with ID 10: this would be added as a new record (note that the second follow record does not have to be assigned ID 2).

These four submissions would result in three records within the system: two treatments (IDs 1 and 10) and a follow up (ID 1).

3.2.1 Patient

FIELD	TYPE	MANDATORY	VALID VALUE	DESCRIPTION
Record Type	NUMBER(1)	Yes	1	Patient
NHS Number	NUMBER(10)	Yes		
Originating Organisation Code	TEXT(10)	Yes		See note in section 3.2
Patient Local Identifier Code	TEXT(20)			
Patient Forename	TEXT(22)	Yes		
Patient Surname	TEXT(30)	Yes		
Postcode	TEXT(8)			
Date of Birth	DATE			See note in section 3.2
Patient Sex	NUMBER(2)	Yes	1	Male
			2	Female
			9	Not Specified
			0	Not Known
Patient Height (m)	NUMBER(3,2)			
Patient Weight (kg)	NUMBER(4,1)			
Consultant Code	TEXT(8)			
Patient date of death	DATE			See note in section 3.2
Patient cause of death	NUMBER(2)		1	Death by first registered primary.
			2	Death by another primary.
			3	Death by other causes, cancer known to be present.
			4	Death by other causes, cancer not mentioned.
			5	Indeterminate cause of death (more than one primary)
			6	Death from metastatic disease where origin of primary is known.
			7	Death from metastatic disease where origin of primary is unknown.
Post Mortem	TEXT(1)		N	No
			Y	Yes

3.2.2 Tumour

FIELD	TYPE	MANDATORY	VALID VALUE	DESCRIPTION
Record Type	NUMBER(1)	Yes	2	Tumour
NHS Number	NUMBER(10)	Yes		
Care Spell Number	TEXT(22)	Yes		
Originating Organisation Code	TEXT(10)	Yes		See note in section 3.2
Place first seen Organisation code	TEXT(10)	Yes		See note in section 3.2
Date Of Clinical Diagnosis	DATE			
Date Of Diagnosis	DATE	Yes		
Referral Source	TEXT(2)		01	Following an emergency admission
			02	Following a domiciliary visit by the consultant
			03	Referral from General Medical Practitioner
			05	Referral from a consultant, other than in an A&E department.
			06	Self-referral
			08	Other source of referral
			10	Following an A&E attendance
			99	Not known
Diagnostic Route	TEXT(2)		1	Cancers detected by national screening programme
			2	Interval cancers occurring in patients screened by national screening programme
			3	Other cancers
			9	Not known
Date Of Referral Receipt	DATE			

Priority Of Referral to Outpatients	TEXT(2)		01	Urgent referral for suspected cancer from a General Medical Practitioner
			02	Other referral source or urgency
Date Of First Hosp Appointment	DATE			
ICD10 Major Site Code	NUMBER(2)	Yes	1	C18.0: Caecum
			2	C18.1: Appendix
			3	C18.2: Ascending colon
			4	C18.3: Hepatic flexure
			5	C18.4: Transverse colon
			6	C18.5: Splenic flexure
			7	C18.6: Descending colon
			8	C18.7: Sigmoid colon
			9	C19: Colon with rectum Rectosigmoid (colon)
			10	C20: Malignant neoplasm of rectum - rectal ampulla
Synchronous Sites Caecum	TEXT(1)		N	No
			Y	Yes
Synchronous Sites Appendix	TEXT(1)		N	No
			Y	Yes
Synchronous Sites Ascending Colon	TEXT(1)		N	No
			Y	Yes
Synchronous Sites Hepatic Flexure	TEXT(1)		N	No
			Y	Yes
Synchronous Sites Transverse Colon	TEXT(1)		N	No
			Y	Yes
Synchronous Sites Splenic Flexure	TEXT(1)		N	No
			Y	Yes
Synchronous Sites Descending Colon	TEXT(1)		N	No
			Y	Yes

Synchronous Sites Sigmoid Colon	TEXT(1)		N	No
			Y	Yes
Synchronous Sites Recto/Sigmoid	TEXT(1)		N	No
			Y	Yes
Synchronous Sites Rectum	TEXT(1)		N	No
			Y	Yes
Height of Tumour above Anal Verge (cm)	NUMBER(2)			
Modified Dukes' Staging	TEXT(2)		A	A
			B	B
			C1	C1
			C2	C2
			D	D
			99	Not Known
Clinical Intervention Date - Colonoscopy	DATE			
Patient Procedure Result - Colonoscopy	TEXT(2)		1	Normal (no evidence of cancer)
			2	Abnormal (cancer detected whether complete or not)
			3	Inadequate (no cancer but incomplete examination)
			4	Not done
			9	Not known
Colonoscopy Incomplete Reason	NUMBER(2)		1	Obstructing cancer
			2	Poor bowel preparation
			4	Other
			5	Patient Intolerance
			6	Technical Reasons
Colonoscopy Complications	NUMBER(2)		1	Bleeding
			2	Perforation
			3	Other
			4	No Complication

Clinical Intervention Date - Barium Enema	DATE			
Patient Procedure Result - Barium Enema	NUMBER(2)		1	Normal (no evidence of cancer)
			2	Abnormal (cancer)
			3	Inadequate (bowel not fully visualized)
			4	Not done
			99	Not known
CT Colonography	NUMBER(2)		1	Normal (no evidence of cancer)
			2	Abnormal (cancer or polyp detected)
			3	Inadequate (incomplete or technically unsatisfactory examination)
			4	Not done
			99	Not known
Clinical Intervention Date - CT Scan	DATE			
Patient Procedure Result - CT Scan	TEXT(2)		M0	Normal liver
			M1	Liver Metastases
			03	Liver uncertain
Clinical Intervention Date - 1st MRI Scan	DATE			
Patient Procedure Result - 1st MRI Scan T Stage	TEXT(2)		Tx	Tx
			T1	T1
			T2	T2
			T3	T3
			T4	T4
Patient Procedure Result - 1st MRI Scan N Stage	TEXT(2)		N0	N0
			N1	N1
			N2	N2
1st MRI Scan Margin Threatened - Result	TEXT(1)		N	No
			Y	Yes
			U	Uncertain

Clinical Intervention Date - 2nd MRI Scan	DATE			
Patient Procedure Result - 2nd MRI Scan T Stage	TEXT(2)		01	No change in bulk
			02	Increase in bulk
			03	Reduction in bulk
Clinical Intervention Date - Endoanal Ultrasound	DATE			
Patient Procedure Result - Endoanal Ultrasound	TEXT(2)		Tx	Tx
			T1	T1
			T2	T2
			T3	T3
			T4	T4
Clinical Intervention Date - Abdominal Ultrasound	DATE			
Patient Procedure Result - Abdominal Ultrasound	TEXT(2)		M0	Normal liver
			M1	Liver Metastases
			03	Liver uncertain
Final Pre-treatment T category	TEXT(2)		Tx	Tx
			T1	T1
			T2	T2
			T3	T3
			T4	T4
Final Pre-treatment N category	TEXT(2)		N0	N0
			N1	N1
			N2	N2
Final Pre-treatment M category	TEXT(2)		M0	M0
			M1	M1
Distant metastases: Liver	NUMBER(2)		1	None
			2	Certain
			3	Uncertain
Distant metastases: Lung	NUMBER(2)		1	None
			2	Certain
			3	Uncertain
Distant	NUMBER(2)		1	None

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metastases: Bone			2	Certain
			3	Uncertain
Distant metastases: Other	NUMBER(2)		1	None
			2	Certain
			3	Uncertain
MDT Discussion Indicator	TEXT(1)		N	No
			Y	Yes

3.2.3 Treatment

FIELD	TYPE	MANDATORY	VALID VALUE	DESCRIPTION
Record Type	NUMBER(1)	Yes	3	Treatment
NHS Number	NUMBER(10)	Yes		
Care Spell Number	TEXT(22)	Yes		
Treatment ID	NUMBER(38)	Yes		See note in section 3.2
Originating Organisation Code	TEXT(10)	Yes		See note in section 3.2
Surgery Provider Organisation Code	TEXT(5)			See note in section 3.2
Start Date of 1st Definitive Procedure Treatment	DATE			
Reason No Surgery Performed	TEXT(2)		01	Patient refuses treatment for whatever reason
			02	Patient unfit
			03	Advanced disease
			08	Other
ASA Grade	TEXT(3)		I	Fit
			II	Relevant disease
			III	Restrictive disease
			IV	Life threatening disease
			V	Moribund
			99	Not Known
Thromboembolism Prevention	TEXT(1)		N	No
			Y	Yes
Antibiotic Infect Prevention	TEXT(1)		N	No
			Y	Yes
Colorectal nurse or stoma therapist seen	TEXT(2)		N	No
			Y	Yes
			9	Not Known
Date seen by colorectal nurse or stoma therapist	DATE			
Cancer Treatment Intent (Curability)	TEXT(2)		C	Curative
			P	Palliative
			U	Uncertain
			9	Not known

Procedure Date (Date of Surgery)	DATE			
Theatre Case Start Time (24hr)	TIME			
Surgical Urgency (Mode of Operation)	TEXT(2)		01	Elective
			02	Scheduled
			03	Urgent
			04	Emergency
			99	Urgency Unknown
Primary Procedure Name (OPCS)	TEXT(5)		H07.9	Right Hemicolectomy
			H06.9	Extended right hemicolectomy
			H08.9	Transverse Colectomy
			H09.9	Left Hemicolectomy
			H10.9	Sigmoid colectomy
			H33.4	Anterior Resection
			H33.1	APER
			H33.5	Hartmann's procedure
			H051	Total Colectomy and ileorectal anastomosis
			H41.9	TART
			H04.1	Total excision of colon and rectum
			H04.2	Tot. exc. colon & rectum + anast. ileum to anus + create pouch
			H41.2	TEMS
			H24.3	Stent
			H20.1	Polypectomy: End. extirpation lesion colon (exc. sigmoid)
			H23.9	Polypectomy: End. extirpation lesion lower bowel (fiberoptic sigmoidoscope)
			H44.4	EUA only With/without biopsy
T30.9	Laparotomy only			
T43.9	Laparoscopy only			
G74.9	Stoma only ileostomy			
H15.9	Stoma only colostomy			
98	OTHER			
Complications Of Cancer	NUMBER(2)		0	None

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			1	Pericolic abscess
			2	Free perforation
			3	Intestinal obstruction
			98	Other
Code of Responsible HCP (Surgeon GMC Code)	TEXT(8)			
Grade of Responsible HCP (Grade of operating surgeon)	NUMBER(2)		1	Consultant
			2	Assoc specialist
			3	Staff grade / clinical assistant
			4	SPR
			5	SHO
Anaesthetist Grade	NUMBER(2)		1	Consultant
			2	NCCG
			3	SPR
			4	SHO
			98	Other
Patient Procedure (Anastomosis)	TEXT(1)		N	No
			Y	Yes
Patient Procedure (Stoma)	NUMBER(2)		0	Not Done
			1	Ileostomy temporary
			2	Ileostomy permanent
			3	Colostomy temporary
			4	Colostomy permanent
Date Stoma Closed	DATE			
Surgical Access	NUMBER(2)		1	Open operation
			2	Laparoscopic then open surgery
			3	Laparoscopy converted to open
			4	Laparoscopic completed
Type of Bowel Division at Laparoscopy	NUMBER(2)		1	Intracorporeal
			2	Extracorporeal
			3	None
Type of Anastomosis at Laparoscopy	NUMBER(2)		1	Intracorporeal
			2	Extracorporeal
			3	None

Discharge Date (Hospital Provider Spell) (Date of discharge or Death)	DATE			
Morbidity Code Cancer Surgery (Major Postoperative Complication)	TEXT(5)		N	None
			T85.6	leak
			T81.4	abscess
			T81.0	bleed
			T91.3	obstruction
			K91.4	stoma
			Y	readmission within 14 days
Morbidity Code (Major Laparoscopic specific complication)	NUMBER(2)		1	None
			2	Surgical emphysema
			3	Pulmonary insufficiency
			4	Significant intraoperative haemorrhage
			5	Duodenal injury
			6	Small bowel injury
			7	Ureteric injury
			8	Major vessel injury
			9	Gross faecal contamination
			10	Bladder injury
			11	Injury by trocar
			12	Other Injury by instrument
Early Port Site Complication	TEXT(2)		01	No complication
			02	Port site sepsis
			03	Port site bleeding/ haematoma
			98	Other
Organisation Code (Pathology Provider)	TEXT(5)			See note in section 3.2
Date Specimen Sample Received	DATE			
Investigation Result Date (Date of Report)	DATE			
Authorising Pathologist GMC Code	TEXT(8)			
Service report status	NUMBER(2)		1	Final (complete)

			2	Preliminary (interim)
			3	Test not available
			4	Unspecified
			5	Second opinion/supplementary report
Service report identifier	TEXT(20)			
Synchronous Cancer Indicator	TEXT(2)		N	No
			Y	Yes
			9	Not Known
Invasive Lesion Size (Cancer size, mm)	NUMBER(3)			
Excision Margin (Positivity of cut colon or rectum margin)	NUMBER(2)		0	Margin not involved
			1	Margin involved
			99	Not known
Distance of tumour to nearest cut bowel margin (mm)	NUMBER(3)			
Excision Margin (Circumferential Margins)	NUMBER(2)		0	Margin not involved
			1	Margin involved
			99	Not known
Distance between cancer and circumferential margins (mm)	NUMBER(3)			
Grade Of Differentiation	TEXT(2)		GX	Grade of differentiation is not appropriate or cannot be assessed
			G1	Well Differentiated
			G2	Moderately Differentiated
			G3	Poorly Differentiated
			G4	Undifferentiated Anaplastic
Histology (SNOMED)	TEXT(7)		M8140/3	Adenocarcinoma
			M8000/3	Other
Nodes Examined Number (Number of lymph nodes found)	NUMBER(6)			
Nodes Positive Number (Number of positive lymph nodes found)	NUMBER(6)			

Cancer Vascular or Lymphatic Invasion (Extramural vascular invasion)	TEXT(1)		N	No
			Y	Yes
Perforation or serosal involvement	TEXT(1)		N	No
			Y	Yes
Distance between lower end of tumour and resection margin in rectal and rectosigmoid tumours (mm)	NUMBER(3)			
Distance between lower end of cancer and dentate line in APER specimens (mm)	NUMBER(3)			
T Category (Pathological)	TEXT(3)		Tx	Tx
			pT0	pT0
			pT1	pT1
			pT2	pT2
			pT3	pT3
			pT4	pT4
N Category (Pathological)	TEXT(3)		Nx	Nx
			pN0	pN0
			pN1	pN1
			pN2	pN2
M Category (Pathological)	TEXT(2)		Mx	Mx
			M0	M0
			M1	M1
Site Specific Staging Classification (Pathological Dukes' Staging)	TEXT(2)		A	A
			B	B
			C1	C1
			C2	C2
			99	Not Known
Site Code of Teletherapy Treatment	TEXT(5)			See note in section 3.2
Consultant Code	TEXT(8)			

Teletherapy Type Given	NUMBER(2)		1	None
			2	Short course preoperative
			3	Long course preoperative
			4	Postoperative
			5	Definitive
			6	Palliative
Start Date Teletherapy Treatment Course (Radiotherapy Start Date)	DATE			
Teletherapy Trial	TEXT(1)		N	No
			Y	Yes
Site Code (Of Cancer Drug Treatment) (Hospital)	TEXT(5)			See note in section 3.2
Consultant Code	TEXT(8)			
Drug Treatment Intent	TEXT(2)		P	Palliative
			A	Adjuvant
			N	Neoadjuvant
			98	Other
Start Date (Anti-cancer drug regimen)	DATE			
Chemotherapy Trial	TEXT(1)		N	No
			Y	Yes

3.2.4 Follow up

FIELD	TYPE	MANDATORY	VALID VALUE	DESCRIPTION
Record Type	NUMBER(1)	Yes	4	Follow up
NHS Number	NUMBER(10)	Yes		
Care Spell Number	TEXT(22)	Yes		
Follow Up ID	NUMBER(38)	Yes		See note in section 3.2
Originating Organisation Code	TEXT(10)	Yes		See note in section 3.2
Organisation Code (Follow Up Provider)	TEXT(10)			See note in section 3.2
Clinical Status Assessment Date (Cancer) (Date of Follow Up)	DATE			
Mode Of Follow Up	NUMBER(2)		1	Outpatient (doctor)
			2	Endoscopy
			3	Nurse lead clinic
			4	GP
			5	Postal
			98	Other
Primary Tumour Status (Local Recurrence)	TEXT(1)		N	No evidence of Primary Tumour
			Y	Recurrent Primary Tumour
Local Recurrence Diagnosed By	NUMBER(2)		1	Histology
			2	Imaging
			3	Clinical
			98	Other
Wound Recurrence	TEXT(1)		N	No
			Y	Yes
Port Site Recurrence	TEXT(1)		N	No
			Y	Yes
Metastatic Status Dist Spread	TEXT(1)		N	No evidence of Metastases
			Y	New distant Metastases
Site Of Distance Spread	NUMBER(2)		1	Liver
			2	Lung
			3	Bone
			4	Other

Treatment Related Morbidity	NUMBER(2)		2	Mild toxicity
			3	Moderate toxicity
			4	Severe toxicity
			5	Death due to toxicity

A Appendix: Validation rules

The system enforces the following validation rules. Some of the rules concerns data from two different types of record (for example the combination of a tumour and a treatment record): in these cases, the rule is only listed against the primary record type.

A.1 Patient

Originating Organisation Code must be a valid organisation code (see note in section 3.2).

Postcode - Postcode format must be valid. The valid formats are ("A" means any character in the range a-Z and "9" means any number in the range 0-9):

- "A99AA"
- "A9 9AA"
- "A999AA"
- "A99 9AA"
- "AA99AA"
- "AA9 9AA"
- "A9A9AA"
- "A9A 9AA"
- "AA999AA"
- "AA99 9AA"
- "AA9A9AA"
- "AA9A 9AA"

Patient Height (m) - Cannot be greater than 2.70.

Patient Weight (kg) - Cannot be greater than 650.0.

A.2 Tumour

Originating Organisation Code must be a valid organisation code (see note in section 3.2).

Place first seen Organisation code must be a valid organisation code (see note in section 3.2).

Height of Tumour above Anal Verge (cm) - Cannot be greater than 15.

Height of Tumour above Anal Verge (cm) - Cannot be populated when "Synchronous Sites Caecum" is set to "Y".

Height of Tumour above Anal Verge (cm) - Cannot be populated when "Synchronous Sites Appendix" is set to "Y".

Height of Tumour above Anal Verge (cm) - Cannot be populated when "Synchronous Sites Ascending Colon" is set to "Y".

Height of Tumour above Anal Verge (cm) - Cannot be populated when "Synchronous Sites Hepatic Flexure" is set to "Y".

Height of Tumour above Anal Verge (cm) - Cannot be populated when "Synchronous Sites Transverse Colon" is set to "Y".

Height of Tumour above Anal Verge (cm) - Cannot be populated when "Synchronous Sites Splenic Flexure" is set to "Y".

Height of Tumour above Anal Verge (cm) - Cannot be populated when "Synchronous Sites Descending Colon" is set to "Y".

Height of Tumour above Anal Verge (cm) - Cannot be populated when "Synchronous Sites Sigmoid Colon" is set to "Y".

Height of Tumour above Anal Verge (cm) - Cannot be populated when "ICD10 Major Site Code" is 1-8.

Modified Dukes Staging must be set to "D" when "Patient Procedure Result - CT Scan" is "M1".

Clinical Intervention Date - 1st MRI Scan - Cannot be populated when "ICD10 Major Site Code" is not 9 or 10.

Patient Procedure Result - 1st MRI Scan T Stage - Cannot be populated when "ICD10 Major Site Code" is not 9 or 10.

Patient Procedure Result - 1st MRI Scan N Stage - Cannot be populated when "ICD10 Major Site Code" is not 9 or 10.

1st MRI Scan Margin Threatened - Result - Cannot be populated when "ICD10 Major Site Code" is not 9 or 10.

Clinical Intervention Date - 2nd MRI Scan - Cannot be populated when "ICD10 Major Site Code" is not 9 or 10.

Patient Procedure Result - 2nd MRI Scan T Stage - Cannot be populated when "ICD10 Major Site Code" is not 9 or 10.

Clinical Intervention Date - Endoanal Ultrasound - Cannot be populated when "ICD10 Major Site Code" is not set to 10.

Patient Procedure Result - Endoanal Ultrasound - Cannot be populated when "ICD10 Major Site Code" is not set to 10.

A.3 Treatment

Originating Organisation Code must be a valid organisation code (see note in section 3.2).

Surgery Provider Organisation Code must be a valid organisation code (see note in section 3.2).

Organisation Code (Pathology Provider) must be a valid organisation code (see note in section 3.2).

Site Code of Teletherapy Treatment must be a valid organisation code (see note in section 3.2).

Site Code (Of Cancer Drug Treatment) (Hospital) must be a valid organisation code (see note in section 3.2).

Start Date of 1st Definitive Procedure Treatment - Cannot be before "Date Of Clinical Diagnosis".

Start Date of 1st Definitive Procedure Treatment - Cannot be after "Patient date of death".

Date seen by colorectal nurse or stoma therapist - Cannot be populated when "Colorectal nurse or stoma therapist seen" is set to "N".

Theatre Case Start Time (24hr) - Must be a valid 24 hour clock time - HHMM.

Theatre Case Start Time (24hr) - Must be between 0800 and 1700 when "Surgical Urgency (Mode of Operation) " is "01" or "02".

Date Stoma Closed - Cannot be before "Procedure Date (Date of Surgery) ".

Discharge Date (Hospital Provider Spell) (Date of discharge or Death) - Cannot be before "Procedure Date (Date of Surgery) ".

Type of Anastomosis at Laparoscopy - Cannot be populated unless "Patient Procedure (Anastomosis) " is set to "Y".

Complications Of Cancer - If 1 or 2, then "Modified Dukes Staging" on Tumour must be set to "D".

Date Specimen Sample Received - Cannot be before "Procedure Date (Date of Surgery) ".

Investigation Result Date (Date of Report) - Cannot be before "Date Specimen Sample Received"

Surgery Provider Organisation Code must be provided when "Antibiotic Infect Prevention" is provided.

Surgery Provider Organisation Code must be provided when "Procedure Date (Date of Surgery)" is provided.

Surgery Provider Organisation Code must be provided when "Theatre Case Start Time (24hr)" is provided.

Surgery Provider Organisation Code must be provided when "Surgical Urgency (Mode of Operation)" is provided.

Surgery Provider Organisation Code must be provided when "Primary Procedure Name (OPCS)" is provided.

Surgery Provider Organisation Code must be provided when "Complications Of Cancer" is provided.

Surgery Provider Organisation Code must be provided when "Code of Responsible HCP (Surgeon GMC Code)" is provided.

Surgery Provider Organisation Code must be provided when "Grade of Responsible HCP (Grade of operating surgeon)" is provided.

Surgery Provider Organisation Code must be provided when "Anaesthetist Grade" is provided.

Surgery Provider Organisation Code must be provided when "Patient Procedure (Anastomosis)" is provided.

Surgery Provider Organisation Code must be provided when "Patient Procedure (Stoma)" is provided.

Surgery Provider Organisation Code must be provided when "Date Stoma Closed" is provided.

Surgery Provider Organisation Code must be provided when "Surgical Access" is provided.

Surgery Provider Organisation Code must be provided when "Type of Bowel Division at Laparoscopy" is provided.

Surgery Provider Organisation Code must be provided when "Type of Anastomosis at Laparoscopy" is provided.

Surgery Provider Organisation Code must be provided when "Morbidity Code Cancer Surgery (Major Postoperative Complication)" is provided.

Surgery Provider Organisation Code must be provided when "Morbidity Code (Major Laparoscopic specific complication)" is provided.

Surgery Provider Organisation Code must be provided when "Early Port Site Complication" is provided.

Surgery Provider Organisation Code must be provided when "Thromboembolism Prevention" is provided.

Organisation Code (Pathology Provider) must be provided when "Date Specimen Sample Received" is provided.

Organisation Code (Pathology Provider) must be provided when "Investigation Result Date (Date of Report)" is provided.

Organisation Code (Pathology Provider) must be provided when "Authorising Pathologist GMC Code" is provided.

Organisation Code (Pathology Provider) must be provided when "Service report status" is provided.

Organisation Code (Pathology Provider) must be provided when "Service report identifier" is provided.

Organisation Code (Pathology Provider) must be provided when "Synchronous Cancer Indicator" is provided.

Organisation Code (Pathology Provider) must be provided when "Invasive Lesion Size (Cancer size, mm)" is provided.

Organisation Code (Pathology Provider) must be provided when "Excision Margin (Positivity of cut colon or rectum margin)" is provided.

Organisation Code (Pathology Provider) must be provided when "Distance of tumour to nearest cut bowel margin (mm)" is provided.

Organisation Code (Pathology Provider) must be provided when "Excision Margin (Circumferential Margins)" is provided.

Organisation Code (Pathology Provider) must be provided when "Distance between cancer and circumferential margins (mm)" is provided.

Organisation Code (Pathology Provider) must be provided when "Grade Of Differentiation" is provided.

Organisation Code (Pathology Provider) must be provided when "Histology (SNOMED)" is provided.

Organisation Code (Pathology Provider) must be provided when "Nodes Examined Number (Number of lymph nodes found)" is provided.

Organisation Code (Pathology Provider) must be provided when "Nodes Positive Number (Number of positive lymph nodes found) " is provided.

Organisation Code (Pathology Provider) must be provided when "Cancer Vascular or Lymphatic Invasion (Extramural vascular invasion)" is provided.

Organisation Code (Pathology Provider) must be provided when "Perforation or serosal involvement" is provided.

Organisation Code (Pathology Provider) must be provided when "Distance between lower end of tumour and resection margin in rectal and rectosigmoid tumours (mm)" is provided.

Organisation Code (Pathology Provider) must be provided when "Distance between lower end of cancer and dentate line in APER specimens (mm)" is provided.

Organisation Code (Pathology Provider) must be provided when "T Category (Pathological)" is provided.

Organisation Code (Pathology Provider) must be provided when "N Category (Pathological)" is provided.

Organisation Code (Pathology Provider) must be provided when "M Category (Pathological)" is provided.

Organisation Code (Pathology Provider) must be provided when "Site Specific Staging Classification (Pathological Dukes' Staging)" is provided.

Site Code of Teletherapy Treatment must be provided when "Consultant Code" is provided.

Site Code of Teletherapy Treatment must be provided when "Teletherapy Type Given" is provided.

Site Code of Teletherapy Treatment must be provided when "Start Date Teletherapy Treatment Course (Radiotherapy Start Date)" is provided.

Site Code of Teletherapy Treatment must be provided when "Teletherapy Trial" is provided.

Site Code (Of Cancer Drug Treatment) (Hospital) must be provided when "Consultant Code" is provided.

Site Code (Of Cancer Drug Treatment) (Hospital) must be provided when "Drug Treatment Intent" is provided.

Site Code (Of Cancer Drug Treatment) (Hospital) must be provided when "Start Date (Anti-cancer drug regimen)" is provided.

Site Code (Of Cancer Drug Treatment) (Hospital) must be provided when "Chemotherapy Trial" is provided.

Procedure Date (Date of Surgery) must be provided when "Primary Procedure Name (OPCS)" is provided.

A.4 Follow up

Originating Organisation Code must be a valid organisation code (see note in section 3.2).

Organisation Code (Follow Up Provider) must be a valid organisation code (see note in section 3.2).

Clinical Status Assessment Date (Cancer) (Date of Follow Up) - Cannot be before both "Date Of Clinical Diagnosis" and "Date Of Diagnosis".