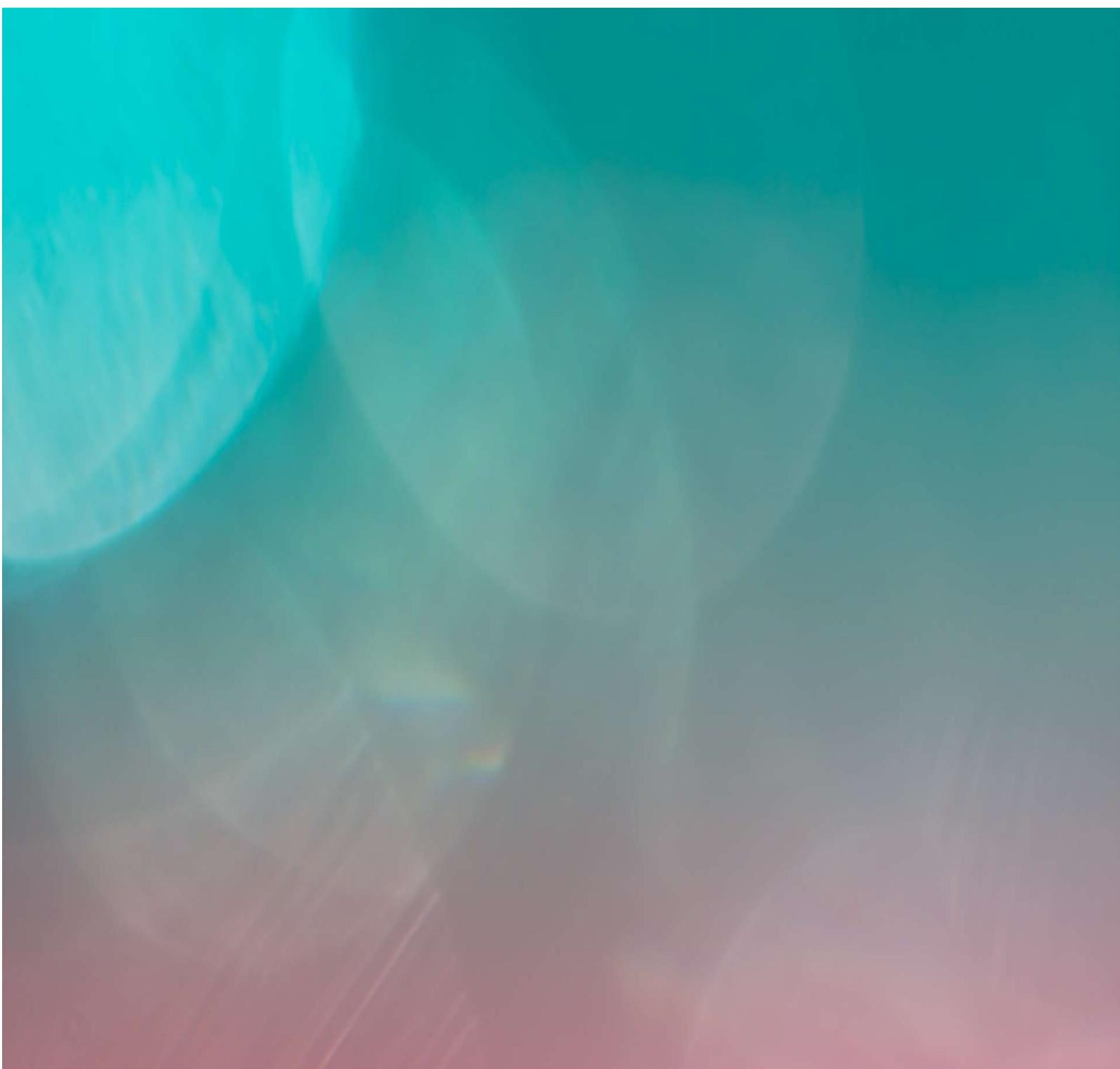




National Ovarian Cancer Audit

State of the Nation Report 2024

Methodological supplement



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This document was prepared by members of the NOCA project team:

- Sudha Sundar, NOCA Clinical Lead (surgery)
- Agnieszka Michael, NOCA Clinical Lead (oncology)
- Jan Van Der Meulen, NOCA Lead Methodologist
- Ipek Guro-Urganci, NOCA Senior Methodologist
- Andrew Hutchings, NOCA Methodologist
- Georgia Zachou, NOCA Clinical Fellow
- Joanne Boudour, NOCA Senior Project Manager

With review and input from:

[NOCA Clinical Reference Group](#)

[NATCAN Executive Team](#)



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The National Cancer Audit Collaborating Centre (NATCAN) is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). NATCAN delivers national cancer audits in non-Hodgkin lymphoma, bowel, breast (primary and metastatic), oesophago-gastric, ovarian, kidney, lung, pancreatic and prostate cancers. HQIP is led by a consortium of the Academy of Medical Royal Colleges and the Royal College of Nursing. Its aim is to promote quality improvement in patient outcomes, and in particular, to increase the impact that clinical audit, outcome review programmes and registries have on healthcare quality in England and Wales. HQIP holds the contract to commission, manage and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP), comprising around 40 projects covering care provided to people with a wide range of medical, surgical, and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual projects, other devolved administrations and crown dependencies. <https://www.hqip.org.uk/national-programmes>



The British Gynaecological Cancer Society (BGCS) is the professional home of health providers working and researching the area of gynaecological cancers. The BGCS members consist of medical practitioners, clinical nurse specialists and other allied professionals, including scientists who have an interest in gynaecological cancers. Registered Charity no: 290959.



This work uses data that has been provided by patients and collected by the NHS as part of their care and support. For patients diagnosed in England, the data is collated, maintained and quality assured by the National Disease Registration Service (NDRS), which is part of NHS England. Access to the data was facilitated by the NHS England Data Access Request Service.



NHS Wales is implementing a new cancer informatics system. As a result, the quality and completeness of data from Wales is likely to have been impacted due to implementation of this new system across multiple NHS organisations (Health Boards), which has resulted in data being supplied by both old and new systems. Additionally, and reflecting the uncertainty of data quality, the data submitted to the audit may not have undergone routine clinical validation prior to submission to the Wales Cancer Network (WCN), Public Health Wales.

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Abbreviations

CaNISC	Cancer Network Information System Cymru
COSD	Cancer Outcomes and Services Dataset
HES	Hospital Episode Statistics
HES APC	Hospital Episode Statistics Admitted Patient Care
HES OP	Hospital Episode Statistics Outpatients
ICD10	International Statistical Classification of Diseases and Related Health Problems 10th revision
ICD10-O-2	International Classification of Diseases for Oncology, 2nd Edition
ICD10-O-3.2	International Classification of Diseases for Oncology, 3rd Edition 2nd update
IMD	Index of Multiple Deprivation
NATCAN	National Cancer Audit Collaborating Centre
NCRD	National Cancer Registration Dataset
NDRS	National Disease Registration Service
NOCA	National Ovarian Cancer Audit
OCAFP	Ovarian Cancer Audit Feasibility Project
ONS	Office for National Statistics
OPCS4	OPCS (formerly Office of Population Censuses and Surveys) Classification of Interventions and Procedures version 4
PEDW	Patient Episode Database for Wales
SACT	Systemic Anti-Cancer Therapy

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Introduction and overview

This document provides supporting information to the first State of the Nation (SoN) report for the National Ovarian Cancer Audit (NOCA) and its data tables and data viewer. The document describes the data used in the report with details on sources of data, criteria for inclusion and how data completeness, patient characteristics and performance indicators are derived and reported.

Sources of data

The NOCA uses information from routine national health care datasets in England and Wales. These datasets capture details on the diagnosis, management and treatment of every patient newly diagnosed with lung cancer in the NHS in England and Wales.

For England, the NOCA received information from the National Cancer Registration Dataset ([NCRD](#)) at a tumour level for this State of the Nation report. The information held in the NCRD is compiled from a variety of sources including the Cancer Outcomes and Services Dataset (COSD), Hospital Episode Statistics admitted patient care (HES APC) records, the Systemic Anti-Cancer Therapy dataset (SACT) and data submitted by pathology laboratories. The NOCA also received linked information from COSD (linked at tumour level), HES APC, HES Outpatients data (HES OP), and SACT (all linked at patient level). The data were received by the National Cancer Audit Collaborating Centre (NATCAN) in February and March 2024 and included data on patients registered with ovarian cancer up to 31/12/2021.

As with cancer registries in other countries, cancer registrations in England can take up to 5 years after the end of a given calendar year to reach 100% completeness and stability. NDRS uses an active system of gathering information on cancer diagnoses from multiple sources across the patient pathway. Completeness varies by tumour type because different patient pathways provide different opportunities for data flows into NDRS. The 'Gold standard' cancer registration dataset that is used in cancer statistics bulletins and available for analysis outside of NDRS contains over 98% of all the people that will eventually be found by the registration process, and the completeness for a calendar year of data increases over time. More information about the cancer registration process can be found [here](#).

The NOCA's data collection partner in Wales is the Wales Cancer Network (WCN), Public Health Wales. The NOCA dataset is captured through a national system, Cancer Information System Cymru (CaNISC), after identification by hospital cancer services and uploaded via electronic MDT data collection systems. The NOCA also received linked datasets of records from the Patient Episode Database for Wales (PEDW) containing information on inpatient and day case activity, and mortality data from the Office for National Statistics (ONS).

Patient inclusion

Data provided to the audit

For England, registration were provided by the NDRS for all ovarian tumours diagnosed in females aged 18 or older between 1/1/2015 and 31/12/2021 with any of the following ICD10 codes: C48 (Malignant neoplasm of retroperitoneum and peritoneum), C56 (Malignant neoplasm of ovary), C57 (Malignant neoplasm of other and unspecified female genital organs) or D39.1 (Neoplasm of uncertain or unknown behaviour of female genital organs - ovary). Data provided included borderline and non-borderline tumours but excluded sarcomas with a C48 ICD10 code (morphologies: 8693, 8800, 8801, 8802, 8803, 8804, 8805, 8806, 8963, 8990, 8991, 9040, 9041, 9042, 9043, 9044, 8810, 8811-8921, 9120-9373, 9490, 9500, 9530-9582).

For Wales, an extract of patients diagnosed with ovarian cancer in 2022 was provided from the standard cancer registration dataset collected through the Cancer Network Information System Cymru (CaNISC). Included ICD10 codes were C48.1 (Malignant neoplasm of retroperitoneum and peritoneum - Specified parts of peritoneum), C56, C57 and D39.1.

Exclusions from the audit cohort

The audit cohort consisted of patients with a new ovarian cancer diagnosis in 2021 (England) or 2022 (Wales) after excluding:

- (i) Patients with borderline tumours
- (ii) Patients who were diagnosed on the basis of death certificate information only

Borderline tumours were identified by applying the process described at [Get Data Out: Ovary, fallopian tube, and primary peritoneal carcinomas \(cancerdata.nhs.uk\)](https://cancerdata.nhs.uk).^[1]

For England, borderline tumours were identified using the *site_icd10*, *morph_icd10_o2*, and *morph_coded* variables with histology classified using the Get Data Out lookup table. C57.7, C57.8, C57.9 are all classified as 'Non-specific site' as described in Get Data Out; a very small number of these tumours were reclassified as 'borderline' where morphology indicated a borderline tumour (agreed with Brian Rous, NDRS pathologist). A very small number of tumours without a mapping between *morph_icd10_o2* and the lookup tables were also classified based on mapping morphology between ICD10-O-2 and ICD10-O-3.2 following discussion with Brian Rous.

For Wales, the same process was applied using *PrimarySite* and *Histology* variables. In addition, patients with benign (ICD10-O-2 behaviour = 0) or metastatic tumours (behaviour = 6) in *Histology* were also excluded.

In England, patients were excluded if the variable *dco* (death certificate only) was coded "Y" (yes) or if the variable *basisofdiagnosis* was coded 0 ("Death certificate"). In Wales, the *DiagnosisBasis* variable indicated all patients were diagnosed by histology, by cytology or clinically.

Multiple tumours

In England, registrations of ovarian cancer are recorded at the tumour level. A small proportion of patients (using *patient_pseudo_id*), around 0.3%, had more than one non-borderline ovarian tumour (*tumour_pseudo_id*) recorded in the provided data. The following approach was used to ensure the audit included only one tumour for these patients:

- (i) First, the earliest tumour (*diagnosisdatebest*) was included in the cohort if dates of diagnosis differed.

- (ii) Second, if the dates of diagnosis were the same then tumour inclusion was based on selecting, in order
 - a. The tumour with the more advanced stage (*stage_best*)
 - b. The tumour with the higher grade (*grade*)
 - c. A malignant epithelial tumour (derived using the Get Data Out lookup table) in preference to a non-epithelial morphology.
 - d. Randomly if none of the above apply.

For Wales, data were provided by patient (*personid*) and not tumour so no tumour-level exclusion was applied. No patients had more than one tumour.

Year of diagnosis

For England, the cohort was defined for patients diagnosed in 2021, the latest year of available NCRD registration data (1/1/2021 to 31/12/2021 in *diagnosisdatebest*). For Wales, data were provided for patients diagnosed in 2022 only, the latest data available.

Final cohorts

Application of the criteria described above provided the following cohorts included in the audit:

- (i) England (patients diagnosed in 2021); n = 5,735
- (ii) Wales (patients diagnosed in 2022): n = 293

Completeness of key data items

Information on data completeness is described in the State of the Nation report section 4.2 and its online data table for age, ethnicity, stage at diagnosis, grade (not Wales) and performance status. Table 1 below provides details on the datasets and variables used to compile this information.

Table 1: Variables used for reporting data completeness

	England	Wales
Dates of diagnosis:	1/1/2021 to 31/12/2021	1/1/2022 to 31/12/2022
Denominator: Number of patients diagnosed with non-borderline ovarian cancer	Final cohort as described in Patient inclusion.	Final cohort as described in Patient inclusion.
Data completeness: Age at diagnosis	Variable <i>age</i> in NCRD is missing	Variable <i>age</i> in cancer registration extract is missing
Data completeness: Ethnicity	Variable <i>ethnicity</i> in NCRD is missing, not stated (coded "Z") or not known (coded "X")	Variable <i>ethnicgroup</i> is all "Not stated" in linkage by <i>personid</i> to PEDW or there is no linked PEDW record.
Data completeness: Stage at diagnosis	Variable <i>stage_best</i> in NCRD is coded "?" or "U"	Neither variable <i>StageOther</i> nor <i>TNMStageT</i> is complete in cancer registration extract

Data completeness: Grade	Variable <i>grade</i> in NCRD is coded “GX”	No specific grade variable provided.
Data completeness: Performance status	Variable <i>performancestatus</i> in linked COSD (tumour plus) is coded missing (coded 9)	Variable <i>PerformanceStatus</i> in cancer registration extract is missing

Patient characteristics

Information on patient characteristics is described in the State of the Nation report section 4.3 and its online data table for age, index of multiple deprivation, performance status, stage at diagnosis, grade (not Wales) and morphology. Table 2 below provides details on the datasets and variables used to compile this information.

Information is not reported on ethnicity due to the high level of suppression required.

Table 2: Variables used for reporting patient characteristics

	England	Wales
Dates of diagnosis:	1/1/2021 to 31/12/2021	1/1/2022 to 31/12/2022
Denominator: Number of patients diagnosed with non-borderline ovarian cancer	Final cohort as described in Patient inclusion.	Final cohort as described in Patient inclusion.
Patient characteristics: Age at diagnosis	Variable <i>age</i> in NCRD categorised in 10-year bands	Variable <i>age</i> in cancer registration extract categorised in 10-year bands
Patient characteristics: Index of multiple deprivation	Variable <i>imd19_quintile_Isoas</i> in NCRD	Variable <i>deprivationquintile</i> in linkage by <i>personid</i> to PEDW
Patient characteristics: Performance status	Variable <i>performancestatus</i> in linked COSD (tumour plus)	Variable <i>PerformanceStatus</i> in cancer registration extract
Patient characteristics: Stage at diagnosis	Variable <i>stage_best</i> in NCRD coded I-IV or “U”	Variable <i>StageOther</i> or <i>TNMStageT</i> in cancer registration extract
Patient characteristics: Grade	Variable <i>grade</i> in NCRD	No specific grade variable provided.
Patient characteristics: Morphology	Variables <i>site_icd10_3char</i> , <i>site_icd10</i> and <i>morph_icd10_o2</i> in NCRD, see Exclusions from the audit cohort section above. Grouped by Get Data Out categories with Malignant Epithelial further categorised into clear cell carcinoma, endometrioid carcinoma, mucinous carcinoma, other malignant epithelial, and serous carcinoma.	Variables <i>PrimarySite</i> and <i>Histology</i> in cancer registration extract, see Exclusions from the audit cohort section above. Grouped by Get Data Out categories with Malignant Epithelial further categorised into clear cell carcinoma, endometrioid carcinoma, mucinous carcinoma, other malignant epithelial, and serous carcinoma.

Indicator definitions

Definitions of how the four performance indicators included in the State of the Nation report were derived from data for England and for Wales are described in this section.

Emergency admission prior to diagnosis

Emergency admissions prior to diagnosis were derived by linking the date of diagnosis recorded in registration data with hospital admission records for England (HES) and Wales (PEDW).

Table 3: Indicator definition for emergency admission prior to diagnosis

Indicator: Patients who have an emergency admission in the 4 weeks prior to diagnosis		
	England	Wales
Dates of diagnosis:	1/1/2021 to 31/12/2021	1/1/2022 to 31/12/2022
Numerator: Number of patients with an emergency admission in the 28 days prior to diagnosis.	Number of patients with an admission date (<i>admidate</i>) and an emergency admission (<i>admimeth</i> field with first character 2) recorded in a linked HES APC episode up to 28 days prior to the date of diagnosis (<i>diagnosisdatebest</i>) recorded in NCRD.	Number of patients with an admission category (<i>admissionmethodcategory</i>) coded "Emergency" and admission date (<i>admissiondate</i>) recorded in a linked PEDW record up to 28 days prior to the date of diagnosis (<i>DiagnosisDate</i>) recorded in the registration extract.
Denominator: Number of patients diagnosed with non-borderline ovarian cancer	Final cohort as described in Patient inclusion.	Final cohort as described in Patient inclusion.
Risk adjusted: No	Not applicable	Not applicable
Reporting level: Cancer system	Reported for 40 cancer systems as defined in Cancer system section.	Reported for three cancer system as defined in Cancer system section.

Receipt of any treatment within nine months of diagnosis

The indicator for receipt of any treatment, either surgery and/or chemotherapy within nine months of diagnosis, is based on methods used in the Ovarian Cancer Audit Feasibility Pilot. Lists of OPCS-4 codes used for defining surgery are from OCAFP and are listed in [Appendix 1](#). OPCS-4 codes and ICD-10 codes used for deriving chemotherapy treatment are listed in [Appendix 2](#).

No risk-adjustment is made to the indicator in the first year of audit reporting. Differences between cancer systems in the proportion of patients with ovarian cancer receiving any treatment are therefore not adjusted for factors such as age, deprivation, stage, performance status or BRCA status.

Furthermore, the audit does not receive data for any non-NHS funded treatment in the private sector. Patients registered in England in the NCRD but receiving all treatment privately in non-NHS

institutions will have been incorrectly classified as receiving ‘no treatment’ and the true proportion of patients that received treatment will be higher than reported. Differences in private treatment access is expected to vary between cancer systems.

Table 4: Indicator definition for receipt of any type of treatment within 9 months of diagnosis

Indicator: Patients who receive any type of treatment (surgery and/or chemotherapy) within 1 month prior to 9 months following diagnosis		
	England	Wales
Dates of diagnosis:	1/1/2021 to 31/12/2021	1/1/2022 to 31/12/2022
Numerator: Number of patients with a record of treatment (surgery and/or chemotherapy) in the period one month prior to nine months after diagnosis.	<p>Number of patients with a record of an eligible OPCS code for surgery in the NCRD treatment table or HES APC and/or an eligible chemotherapy record in the NCRD treatment table, SACT or HES APC.</p> <p>Surgery (HES): any eligible OPCS code appearing in <i>opertn_nn</i> with <i>opdate_nn</i> within -30 to +274 days of <i>diagnosisdatebest</i> in NCRD. <i>admidate</i> was substituted for a missing or invalid <i>opdate_nn</i></p> <p>Surgery (NCRD treatment table): any eligible OPCS code appearing in <i>opcs4_code</i> and <i>eventdate</i> within -30 to +273 days of <i>diagnosisdatebest</i> in NCRD.</p> <p>Chemotherapy (HES APC and OP): any eligible OPCS code appearing in <i>opertn_nn</i> or eligible ICD10 code appearing in <i>diag_nn</i> with <i>epistart</i> within -30 to +273 days of <i>diagnosisdatebest</i> in NCRD.</p> <p>Chemotherapy (NCRD treatment table): any record including ‘cytotoxic’ in <i>eventdesc</i> with an <i>eventcode</i> 02, 02_15 or 02_21 and <i>eventdate</i> within -30 to +273 days of <i>diagnosisdatebest</i> in NCRD.</p> <p>Chemotherapy (SACT): any event with <i>start_date_of_regimen</i> within -30 to +273 days of <i>diagnosisdatebest</i> in NCRD.</p> <p>NCRD treatment tables are linked by tumour ID and the above was applied to additional tumours for patients with >1 tumour.</p>	<p>Number of patients with a record of an eligible OPCS code for surgery in the registration extract or PEDW and/or an eligible chemotherapy record in the registration extract or PEDW.</p> <p>Surgery (PEDW): any eligible OPCS code appearing in <i>operationnnn</i> with <i>operationnnndatestyle</i> within -30 to +273 days of <i>DiagnosisDate</i> in the registration extract.</p> <p>Surgery (registration extract): any eligible OPCS code appearing in <i>SurgicalProcedures</i> with <i>SurgeryDate</i> within -30 to +273 days of <i>DiagnosisDate</i>.</p> <p>Chemotherapy (PEDW): any eligible OPCS code appearing in <i>operationnnn</i> with <i>operationnnndatestyle</i> within -30 to +273 days of <i>DiagnosisDate</i> in the registration extract OR any eligible ICD10 code appearing in <i>diagnosisnn</i> with <i>episodestartdate</i> within -30 to +273 days of <i>DiagnosisDate</i> in the registration extract.</p> <p>Chemotherapy (registration extract): <i>ChemoStarted</i> within -30 to +273 days of <i>DiagnosisDate</i>.</p>

Denominator: Number of patients diagnosed with stage II-IV or unstaged non-borderline ovarian cancer	Patients with a stage at diagnosis (<i>stage_best</i>) including 2, 3, 4 or any missing or unknown from the final cohort as described in Patient inclusion	Patients with (from <i>StageTiming</i>) stage of II, III,IV or missing in <i>StageOther</i> or 2,3,or 4 in <i>TNMStageT</i> from the final cohort as described in Patient inclusion
Risk adjusted: No	Not applicable	Not applicable
Reporting level: Cancer system	Reported for 40 cancer systems as defined in Cancer system section.	Reported for three cancer system as defined in Cancer system section.

Receipt of platinum-based chemotherapy

The indicator for receipt of platinum-based chemotherapy within three months is reported for England using SACT and HES data. OPCS-4 code combinations used for deriving platinum-based chemotherapy treatment in HES are listed in [Appendix 3](#).

Table 5: Indicator definition for receipt of platinum-based chemotherapy within three months of diagnosis

Indicator: Patients who receive platinum-based chemotherapy within 1 month prior to 3 months following diagnosis		
	England	Wales
Dates of diagnosis:	1/1/2021 to 31/12/2021	Not applicable
Numerator: Number of patients with a record of treatment (surgery and/or chemotherapy) in the period one month prior to nine months after diagnosis.	<p>The presence of any platinum-based chemotherapy record in SACT or Hospital Episode Statistics APC or OP within -1 month (up to 30 days before) and +3 months (up to 91 days after) of of <i>diagnosisdatebest</i> in NCRD.</p> <p>Chemotherapy (SACT): presence of an event reporting platinum-based chemotherapy regimen / drug (carboplatin, oxaliplatin, cisplatin) identified in variables <i>analysis_group</i> or <i>drug_group</i> linked by <i>patient_pseudo_id</i>.</p> <p>Chemotherapy (HES APC, HES OP): presence of any of the OPCS code combinations for platinum-based chemotherapy drug procurement and delivery (Appendix 3) as defined from National Tariff for Chemotherapy Regimens[2], in the <i>opcs4_code</i> linked by <i>patient_pseudo_id</i>.</p>	Not applicable
Denominator: Number of patients diagnosed with a stage II-IV or unstaged, non-borderline,	Patients with a stage at diagnosis (<i>stage_best</i>) including 2, 3, 4 or any missing or unknown AND a malignant	Not applicable

malignant epithelial ovarian cancer	epithelial morphology derived using the Get Data Out lookup table to <i>site_icd10</i> , <i>morph_icd10_o2</i> , and <i>morph_coded</i> variables in the final cohort as described in Patient inclusion	
Risk adjusted: No	Not applicable	Not applicable
Reporting level: Cancer system	Reported for 40 cancer systems as defined in Cancer system section.	Not applicable

Survival for one year following an ovarian cancer diagnosis

Survival for one year was derived for all patients with an ovarian cancer diagnosis as described in Table 6.

Unadjusted and adjusted survival are reported by integrated gynaecological cancer system in the data tables and data viewer. Unadjusted survival is reported as crude numbers or proportions.

Risk adjustment has been applied to the indicator for England and Wales combined. Survival is adjusted for age, index of multiple deprivation, ethnicity, morphology, stage, grade, comorbidity and frailty. Comorbidity and frailty were measured using the Royal College of Surgeons Charlson Score[3] and the Secondary Care Administrative Records Frailty (SCARF) index[4] records of hospital admissions in HES or PEDW up to two years before and one month after the date of diagnosis. Missing data for index of deprivation (Wales only), ethnicity, stage, grade, comorbidity and frailty were imputed for England and Wales combined using multiple imputation by chained equations.[5]

Several important caveats should be noted:

- (i) No adjustment has been possible for BRCA status
- (ii) Deprivation quintile groups are derived separately for England and Wales so imputation of missing deprivation scores will not account for national differences in deprivation between Wales and England
- (iii) Imputation of missing ethnicity data for Wales will be largely determined by the distribution of ethnicity in England
- (iv) All information for grade for Wales will be imputed because it was 100% missing in Wales data

For the first State of the Nation (SotN) report in 2024, the NOCA will not implement HQIP's formal "outlier process", see FAQ 17 in our [FAQs](#).

Table 6: Indicator definition for survival for one year following diagnosis

Indicator: Patients who survive for one year following an ovarian cancer diagnosis		
	England	Wales
Dates of diagnosis:	1/1/2021 to 31/12/2021	1/1/2022 to 31/12/2022

Numerator: Number of patients with a record of treatment (surgery and/or chemotherapy) in the period one month prior to nine months after diagnosis.	Number of patients without death recorded in the first year following diagnosis and with vital status recorded at one year or later following diagnosis. Survival (NCRD): patients with <i>vitalstatusdate</i> >365 days after <i>diagnosisdatebest</i> .	Number of patients without death recorded in the first year following diagnosis in both the registration extract and linked ONS mortality data. Survival (registration extract): No record of <i>DeathDate</i> within 365 days of <i>DiagnosisDate</i> Survival (ONS): No record of <i>dateofdeath</i> within 365 days of <i>DiagnosisDate</i> from the registration extract linked by <i>personid</i> .
Denominator: Number of patients diagnosed with non-borderline ovarian cancer	Final cohort as described in Patient inclusion. No patients had a recorded <i>embarkation</i> in NCRD so no censoring was applied.	Final cohort as described in Patient inclusion. Censoring was not applied due to the lack of a vital status date or embarkation date.
Risk adjusted: Yes	Adjusted for age, index of multiple deprivation, ethnicity, morphology, stage, grade, comorbidity and frailty following imputation of missing values.	
Reporting level: Cancer system	Reported for 40 cancer systems as defined in Cancer system section.	Reported for three cancer system as defined in Cancer system section.

Comparison with the Ovarian Cancer Audit Feasibility Pilot (OCAFP) findings for 2019

The fifth report from the OCAFP reported on the number and percentage of patients who received surgery, chemotherapy or any treatment (surgery and/or chemotherapy) for patients diagnosed with ovarian cancer in England in 2019. Table 7 below shows a comparison between numbers reported by the OCAFP and numbers included in the NOCA for England.

Table 7: Comparison of numbers receiving surgery, chemotherapy or any treatment within nine months for patients diagnosed with ovarian cancer in England in 2019 from the Ovarian Cancer Audit Feasibility Pilot and the National Ovarian Cancer Audit

Stage	Patients		Any surgery		Any chemotherapy		Any treatment	
	OCAFP n	NOCA n	OCAFP n (%)	NOCA n (%)	OCAFP n (%)	NOCA n (%)	OCAFP n (%)	NOCA n (%)
Stage I	1051	1043	1006 (95.7)	1006 (96.5)	418 (39.8)	447 (42.9)	1017 (96.8)	1016 (97.4)
Stage II-III	2096	2100	1488 (71.0)	1490 (71.0)	1685 (80.4)	1707 (81.3)	1864 (88.9)	1872 (89.1)
Stage IV	1275	1285	493	499	889	906	923	938

			(38.7)	(38.8)	(69.7)	(70.5)	(72.4)	(73.0)
<i>Unstaged</i>	1391	1394	485 (34.9)	471 (33.8)	478 (34.4)	482 (34.6)	721 (51.8)	711 (51.0)
<i>Total</i>	5813	5822	3472 (59.7)	3466 (59.5)	3470 (59.7)	3542 (60.8)	4525 (77.8)	4537 (77.9)
<i>Stage II-IV & unstaged</i>	4762	4779	2466 (51.8)	2460 (51.5)	3052 (64.1)	3095 (64.8)	3508 (73.7)	3521 (73.7)

Source: OCAFP data from sheet 7 in [Data download - NDRS \(digital.nhs.uk\)](#) [6]
Excluding borderline tumours and tumours diagnosed by death certificate only

Integrated gynaecological cancer systems

The main organisational unit for audit reporting is the integrated (gynaecological) cancer system. This was recommended as a level for reporting performance indicators in the British Gynaecological Cancer Society's recommendations for evidence-based, population data derived quality performance indicators for ovarian cancer.[7] This choice of unit acknowledges that decisions about ovarian cancer care are not always attributable to an individual NHS Trust such as the trust or hospital where a woman is diagnosed. It also avoids the problem of reporting indicators for individual trusts or hospitals that may diagnose a small number of patients each year.

Cancer systems were defined following a service mapping exercise that examined where patients were diagnosed with ovarian cancer and where they received surgery or chemotherapy. Cancer systems work on a 'hub and spoke' model with each system made up of a gynaecological cancer centre ('hub') and cancer units ('spokes') that typically refer some patients to the cancer centre for surgery.

In England, cancer systems were based around 40 specialist gynaecological cancer centres in 2021, see appendix 12 at [Ovarian Cancer Audit Feasibility Pilot \(digital.nhs.uk\)](#) [8] Patients with ovarian cancer diagnosed in 2021 were assigned to a cancer system using, in order, the following process:

- (i) If patients were diagnosed in 38 of the 40 cancer centres then they were assigned to that cancer centre's cancer system. The two exceptions were Mid and South Essex NHS Foundation Trust and University Hospitals Sussex NHS Foundation Trust (see below).
- (ii) If patients were diagnosed in a NHS Trust that was not a cancer centre but received surgery (as defined in the 'any treatment' indicator) at one of the 38 cancer centres above then they were assigned to that cancer centre's cancer system.
- (iii) If patients were diagnosed at a NHS Trust (*diag_trust*) forming part of a cancer system they were included in that cancer system. The mapping of these NHS Trusts was based on where the majority of referrals to a cancer centre for surgery were made for patients diagnosed in 2021 and are shown in Appendix 4.
- (iv) Seven NHS Trusts routinely refer patients for surgery to more than once cancer centre that largely reflects historical referral patterns prior to a NHS Trust merger. These patients are assigned to a cancer system based on the typical surgery referral pattern for the hospital where they were diagnosed (*diag_hosp*). The seven NHS Trusts comprise five cancer units (Bedfordshire Hospitals NHS Foundation Trust, Chelsea and Westminster Hospital NHS Foundation Trust, County Durham and Darlington NHS Foundation Trust, Frimley Health NHS Foundation Trust, and York

and Scarborough Teaching Hospitals NHS Foundation Trust) and two cancer centres (Mid and South Essex NHS Foundation Trust and University Hospitals Sussex NHS Foundation Trust). The mapping of these hospitals is shown in Appendix 4 marked with an asterisk).

- (v) For a small proportion of patients, around 0.8%, information on the NHS trust is missing or the NHS organisation is atypical, e.g., a community or non-relevant tertiary NHS trust. Patients are assigned to a cancer system using (ii) above, if applicable, and are unassigned if not applicable.

There are three cancer systems in Wales. Patients diagnosed with ovarian cancer in Wales in 2022 are assigned to a cancer system using the mapping between the hospital where they were diagnosed (*TrustSiteCode*) and the three cancer systems.

Many patients diagnosed in the three NHS Trusts in the Oxford University Hospitals NHS Foundation Trust cancer system, including at the cancer centre, were referred to Imperial College Healthcare NHS Trust for surgery in 2021. Process (ii) above was not applied to patients diagnosed in these Trusts who received surgery at Imperial. Instead, patients were assigned under (i) and (iii) to the Oxford cancer system with an acknowledgement that the system includes referrals for surgery to both Oxford and Imperial.

Appendix 4 shows the mapping for 2021 (2022 for Wales) between the trusts or hospitals of diagnosis and cancer systems and the number of patients included in the audit. All major mapping of trusts or hospitals under processes (i), (iii) and (iv) are shown. Patients assigned to a cancer system under (ii) from a trust or hospital mapped to another cancer system are included under 'Other' in the appendix.

References

1. Get Data Out: Ovary, fallopian tube, and primary peritoneal carcinomas. Available at https://www.cancerdata.nhs.uk/getdataout/Ovarian_Grouping (accessed 25th June 2024)
2. National Tariff Chemotherapy Regimens List 2017-18 Version 1.0. Available at https://classbrowser.nhs.uk/ref_books/NatTarChemoRegList1718.xlsx (accessed 25th June 2024)
3. Armitage JN, van der Meulen JH. Identifying co-morbidity in surgical patients using administrative data with the Royal College of Surgeons Charlson Score. *Br J Surg* 2010;97:772-81. doi <https://doi.org/10.1002/bjs.6930>
4. Jauhari Y, Gannon MR, Dodwell D et al. Construction of the secondary care administrative records frailty (SCARF) index and validation on older women with operable invasive breast cancer in England and Wales: a cohort study. *BMJ Open* 2020;10:e035395. doi: <https://doi.org/10.1136/bmjopen-2019-035395>
5. StataCorp. Stata 18 Multiple-Imputation Reference Manual. College Station, TX: Stata Press, 2023.
6. Ovarian Cancer Audit Feasibility Pilot (OCAFP) - Profile and treatment report. Available at <https://digital.nhs.uk/ndrs/data/data-outputs/ovarian-cancer-audit-feasibility-pilot-ocafp---profile-and-treatment-report---diagnosis-2015-2019> (accessed 25 June 2024)
7. Sundar S, Nordin A, Morrison J et al. British Gynaecological Cancer Society Recommendations for Evidence Based, Population Data Derived Quality Performance

Indicators for Ovarian Cancer. *Cancers* 2023;15:337.

<https://doi.org/10.3390/cancers15020337>

8. Ovarian Cancer Audit Feasibility Pilot - Short-term mortality in ovarian, fallopian tube and primary peritoneal carcinomas across England. Available at <https://files.digital.nhs.uk/B3/C347B9/OCAFP%20Short-term%20mortality%20in%20patients%20with%20ovarian%20cancer.pdf> (accessed 25 June 2024)
9. Boyle JM, Kuryba A, Braun MS et al. Validity of chemotherapy information derived from routinely collected healthcare data: a national cohort study of colon cancer patients. *Cancer Epidemiol* 2021;73:101971. doi: <https://doi.org/10.1016/j.canep.2021.101971>

Appendix 1: OPCS4 codes used to define surgery

Code	Description
H331	Abdominoperineal excision of rectum and end colostomy
H332	Proctectomy and anastomosis of colon to anus
H333	Anterior resection of rectum and anastomosis of colon to rectum using staples
H334	Anterior resection of rectum and anastomosis NEC
H335	Rectosigmoidectomy and closure of rectal stump and exteriorisation of bowel
H336	Anterior resection of rectum and exteriorisation of bowel
H337	Perineal resection of rectum HFQ
H338	Other specified excision of rectum
H339	Unspecified excision of rectum
Q071	Abdominal hysterocolpectomy and excision of periuterine tissue
Q072	Abdominal hysterectomy and excision of periuterine tissue NEC
Q073	Abdominal hysterocolpectomy NEC
Q074	Total abdominal hysterectomy NEC
Q075	Subtotal abdominal hysterectomy
Q078	Other specified abdominal excision of uterus
Q079	Unspecified abdominal excision of uterus
Q081	Vaginal hysterocolpectomy and excision of periuterine tissue
Q082	Vaginal hysterectomy and excision of periuterine tissue NEC
Q083	Vaginal hysterocolpectomy NEC
Q088	Other specified vaginal excision of uterus
Q089	Unspecified vaginal excision of uterus
Q221	Bilateral salpingoophorectomy
Q223	Bilateral oophorectomy NEC
Q231	Unilateral salpingoophorectomy NEC
Q232	Salpingoophorectomy of remaining solitary fallopian tube and ovary
Q235	Unilateral oophorectomy NEC
Q236	Oophorectomy of remaining solitary ovary NEC
Q241	Salpingoophorectomy NEC
Q243	Oophorectomy NEC
Q438	Other specified partial excision of ovary
Q439	Unspecified partial excision of ovary
Q473	Open biopsy of lesion of ovary
Q478	Other specified other open operations on ovary
Q491	Endoscopic extirpation of lesion of ovary NEC
T331	Open excision of lesion of peritoneum
T332	Open destruction of lesion of peritoneum
T338	Other specified open extirpation of lesion of peritoneum
T339	Unspecified open extirpation of lesion of peritoneum
T361	Omentectomy
T362	Excision of lesion of omentum
X141	Total exenteration of pelvis
X142	Anterior exenteration of pelvis
X143	Posterior exenteration of pelvis
X148	Other specified clearance of pelvis
X149	Unspecified clearance of pelvis

Source: [Ovarian Cancer Audit Feasibility Pilot](#)

Appendix 2: OPCS4 and ICD10 codes used to define any chemotherapy

OPCS

code	Description
X701	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 1
X702	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 2
X703	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 3
X704	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 4
X705	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 5
X708	Other specified procurement of drugs for chemotherapy for neoplasm in Bands 1-5
X709	Unspecified procurement of drugs for chemotherapy for neoplasm in Bands 1-5
X711	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 6
X712	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 7
X713	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 8
X714	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 9
X715	Procurement of drugs for chemotherapy for neoplasm for regimens in Band 10
X718	Other specified procurement of drugs for chemotherapy for neoplasm in Bands 6-10
X719	Unspecified procurement of drugs for chemotherapy for neoplasm in Bands 6-10
X721	Delivery of complex chemotherapy for neoplasm including prolonged infusional treatment at first attendance
X722	Delivery of complex parenteral chemotherapy for neoplasm at first attendance
X723	Delivery of simple parenteral chemotherapy for neoplasm at first attendance
X724	Delivery of subsequent element of cycle of chemotherapy for neoplasm
X728	Other specified delivery of chemotherapy for neoplasm
X729	Unspecified delivery of chemotherapy for neoplasm
X731	Delivery of exclusively oral chemotherapy for neoplasm
X738	Other specified delivery of oral chemotherapy for neoplasm
X739	Unspecified delivery of oral chemotherapy for neoplasm
X748	Other specified other chemotherapy drugs
X749	Unspecified other chemotherapy drugs
X352	Intravenous chemotherapy
X373	Intramuscular chemotherapy
X384	Subcutaneous chemotherapy

ICD10

code	Description
Z082	Follow-up exam after chemotherapy for malignant neoplasm
Z292	Other prophylactic chemotherapy
Z511	Chemotherapy session for neoplasm
Z512	Other chemotherapy
Z542	Convalescence following chemotherapy

Source: [Boyle et al 2021](#)[9]

Appendix 3: OPCS4 code combinations used to define platinum-based chemotherapy

Component Drug name	Procurement OPCS	Delivery OPCS
Carboplatin	X70.2	X72.3
Carboplatin	X70.2	X72.2
Carboplatin	X70.2	X72.1
Carboplatin	X70.3	X72.3
Carboplatin	X70.3	X72.1
Carboplatin	X70.3	X72.2
Carboplatin	X70.4	X72.3
Carboplatin	X70.4	X72.1
Carboplatin	X70.4	X72.2
Carboplatin	X70.5	X72.3
Carboplatin	X71.1	X72.2
Carboplatin	X71.1	X72.1
Carboplatin	X71.2	X72.1
Carboplatin	X71.3	X72.2
Carboplatin	X71.4	X72.2
Carboplatin	X71.4	X72.1
Carboplatin	X71.5	X72.1
Carboplatin	X71.5	X72.2
Carboplatin	X70.5	X72.2
Cisplatin	X70.1	X72.1
Cisplatin	X70.2	X72.1
Cisplatin	X70.2	X72.3
Cisplatin	X70.3	X72.1
Cisplatin	X70.4	X72.1
Cisplatin	X70.5	X72.1
Cisplatin	X71.1	X72.1
Cisplatin	X71.2	X72.1
Cisplatin	X71.3	X72.1
Cisplatin	X71.4	X72.1
Cisplatin	X71.5	X72.1
Oxaliplatin	X70.4	X72.2
Oxaliplatin	X70.4	X72.1
Oxaliplatin	X70.5	X72.1
Oxaliplatin	X70.5	X72.2
Oxaliplatin	X71.1	X72.2
Oxaliplatin	X71.1	X72.1
Oxaliplatin	X71.2	X72.1
Oxaliplatin	X71.4	X72.1
Oxaliplatin	X71.5	X72.1
Oxaliplatin	X71.5	X72.1

Appendix 4: Mapping of cancer systems with their constituent trusts or hospitals (location of diagnosis) and number of patients diagnosed and included in the audit

Cancer system and trusts/hospitals	n
MANCHESTER UNIVERSITY NHS FOUNDATION TRUST	
ROA MANCHESTER UNIVERSITY NHS FOUNDATION TRUST	125
RBT MID CHESHIRE HOSPITALS NHS FOUNDATION TRUST	33
RBV THE CHRISTIE NHS FOUNDATION TRUST	24
RJN EAST CHESHIRE NHS TRUST	25
RM3 NORTHERN CARE ALLIANCE NHS FOUNDATION TRUST	39
RMC BOLTON NHS FOUNDATION TRUST	28
RMP TAMESIDE AND GLOSSOP INTEGRATED CARE NHS FOUNDATION TRUST	13
RRF WRIGHTINGTON, WIGAN AND LEIGH NHS FOUNDATION TRUST	24
RWJ STOCKPORT NHS FOUNDATION TRUST	25
OTHER	6
<i>Total</i>	<i>342</i>
UNIVERSITY HOSPITALS DORSET NHS FOUNDATION TRUST	
ROD UNIVERSITY HOSPITALS DORSET NHS FOUNDATION TRUST	77
RBD DORSET COUNTY HOSPITAL NHS FOUNDATION TRUST	18
RNZ SALISBURY NHS FOUNDATION TRUST	32
<i>Total</i>	<i>127</i>
BARTS HEALTH NHS TRUST	
R1H BARTS HEALTH NHS TRUST	84
RF4 BARKING, HAVERING AND REDBRIDGE UNIVERSITY HOSPITALS NHS TRUST	42
RQX HOMERTON HEALTHCARE NHS FOUNDATION TRUST	12
OTHER	1
<i>Total</i>	<i>139</i>
ROYAL SURREY COUNTY HOSPITAL NHS FOUNDATION TRUST	
RA2 ROYAL SURREY COUNTY HOSPITAL NHS FOUNDATION TRUST	65
RTK ASHFORD AND ST PETER'S HOSPITALS NHS FOUNDATION TRUST	22
RTP SURREY AND SUSSEX HEALTHCARE NHS TRUST	36
*RDU FRIMLEY HEALTH NHS FOUNDATION TRUST (FRIMLEY PARK)	44
<i>Total</i>	<i>167</i>
UNIVERSITY HOSPITALS BRISTOL AND WESTON NHS FOUNDATION TRUST	
RA7 UNIVERSITY HOSPITALS BRISTOL AND WESTON NHS FOUNDATION TRUST	73
RVJ NORTH BRISTOL NHS TRUST	28
<i>Total</i>	<i>101</i>
MID AND SOUTH ESSEX NHS FOUNDATION TRUST	
*RAJ MID AND SOUTH ESSEX NHS FOUNDATION TRUST (SOUTH ESSEX)	63
OTHER	2
<i>Total</i>	<i>65</i>
ROYAL UNITED HOSPITALS BATH NHS FOUNDATION TRUST	
RD1 ROYAL UNITED HOSPITALS BATH NHS FOUNDATION TRUST	47

<i>Total</i>	47
EAST SUFFOLK AND NORTH ESSEX NHS FOUNDATION TRUST	
RDE EAST SUFFOLK AND NORTH ESSEX NHS FOUNDATION TRUST	91
*RAJ MID AND SOUTH ESSEX NHS FOUNDATION TRUST (MID ESSEX)	28
<i>Total</i>	119
ROYAL CORNWALL HOSPITALS NHS TRUST	
REF ROYAL CORNWALL HOSPITALS NHS TRUST	55
RK9 UNIVERSITY HOSPITALS PLYMOUTH NHS TRUST	50
<i>Total</i>	105
LIVERPOOL WOMEN'S NHS FOUNDATION TRUST	
RBL WIRRAL UNIVERSITY TEACHING HOSPITAL NHS FOUNDATION TRUST	36
RBN MERSEY AND WEST LANCASHIRE TEACHING HOSPITALS NHS TRUST	48
REM LIVERPOOL UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	21
REN THE CLATTERBRIDGE CANCER CENTRE NHS FOUNDATION TRUST	2
REP LIVERPOOL WOMEN'S NHS FOUNDATION TRUST	82
RJR COUNTESS OF CHESTER HOSPITAL NHS FOUNDATION TRUST	19
RWW WARRINGTON AND HALTON TEACHING HOSPITALS NHS FOUNDATION TRUST	23
<i>Total</i>	231
CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	
RGN NORTH WEST ANGLIA NHS FOUNDATION TRUST	54
RGR WEST SUFFOLK NHS FOUNDATION TRUST	26
RGT CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	58
*RC9 BEDFORDSHIRE HOSPITALS NHS FOUNDATION TRUST (BEDFORD)	12
OTHER	8
<i>Total</i>	158
SOMERSET NHS FOUNDATION TRUST	
RH5 SOMERSET NHS FOUNDATION TRUST	66
<i>Total</i>	66
ROYAL DEVON UNIVERSITY HEALTHCARE NHS FOUNDATION TRUST	
RA9 TORBAY AND SOUTH DEVON NHS FOUNDATION TRUST	37
RH8 ROYAL DEVON UNIVERSITY HEALTHCARE NHS FOUNDATION TRUST	65
<i>Total</i>	102
UNIVERSITY HOSPITAL SOUTHAMPTON NHS FOUNDATION TRUST	
R1F ISLE OF WIGHT NHS TRUST	28
RHM UNIVERSITY HOSPITAL SOUTHAMPTON NHS FOUNDATION TRUST	59
RN5 HAMPSHIRE HOSPITALS NHS FOUNDATION TRUST	60
<i>Total</i>	147
SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST	
RFF BARNESLEY HOSPITAL NHS FOUNDATION TRUST	12
RFR THE ROTHERHAM NHS FOUNDATION TRUST	34
RFS CHESTERFIELD ROYAL HOSPITAL NHS FOUNDATION TRUST	28
RHQ SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST	91
RP5 DONCASTER AND BASSETLAW TEACHING HOSPITALS NHS FOUNDATION TRUST	40
<i>Total</i>	205
PORTSMOUTH HOSPITALS UNIVERSITY NATIONAL HEALTH SERVICE TRUST	

RHU PORTSMOUTH HOSPITALS UNIVERSITY NATIONAL HEALTH SERVICE TRUST	66
RHW ROYAL BERKSHIRE NHS FOUNDATION TRUST	29
*RYR UNIVERSITY HOSPITALS SUSSEX NHS FOUNDATION TRUST (CHICHESTER)	18
<i>Total</i>	<i>113</i>
GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	
RJ1 GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	54
RJ2 LEWISHAM AND GREENWICH NHS TRUST	36
RJZ KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	29
OTHER	1
<i>Total</i>	<i>120</i>
UNIVERSITY HOSPITALS OF NORTH MIDLANDS NHS TRUST	
RJE UNIVERSITY HOSPITALS OF NORTH MIDLANDS NHS TRUST	85
RXW THE SHREWSBURY AND TELFORD HOSPITAL NHS	32
<i>Total</i>	<i>117</i>
UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST	
RJC SOUTH WARWICKSHIRE UNIVERSITY NHS FOUNDATION TRUST	23
RKB UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST	63
RLT GEORGE ELIOT HOSPITAL NHS TRUST	16
OTHER	4
<i>Total</i>	<i>106</i>
THE ROYAL WOLVERHAMPTON NHS TRUST	
RL4 THE ROYAL WOLVERHAMPTON NHS TRUST	54
RNA THE DUDLEY GROUP NHS FOUNDATION TRUST	33
OTHER	11
<i>Total</i>	<i>98</i>
NORFOLK AND NORWICH UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	
RCX THE QUEEN ELIZABETH HOSPITAL, KING'S LYNN, NHS FOUNDATION TRUST	18
RGP JAMES PAGET UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	21
RM1 NORFOLK AND NORWICH UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	88
<i>Total</i>	<i>127</i>
NORTHAMPTON GENERAL HOSPITAL NHS TRUST	
RD8 MILTON KEYNES UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	23
RNQ KETTERING GENERAL HOSPITAL NHS FOUNDATION TRUST	28
RNS NORTHAMPTON GENERAL HOSPITAL NHS TRUST	55
<i>Total</i>	<i>106</i>
THE ROYAL MARSDEN NHS FOUNDATION TRUST	
RAX KINGSTON HOSPITAL NHS FOUNDATION TRUST	17
RJ6 CROYDON HEALTH SERVICES NHS TRUST	20
RJ7 ST GEORGE'S UNIVERSITY HOSPITALS NHS FO	32
RPY THE ROYAL MARSDEN NHS FOUNDATION TRUST	53
RVR EPSOM AND ST HELIER UNIVERSITY HOSPITALS NHS TRUST	24
*RQM CHELSEA AND WESTMINSTER HOSPITAL NHS FOUNDATION TRUST (CHELSEA AND WESTMINSTER)	14
OTHER	5
<i>Total</i>	<i>165</i>
GATESHEAD HEALTH NHS FOUNDATION TRUST	

ROB SOUTH TYNESIDE AND SUNDERLAND NHS FOUNDATION TRUST	52
RNN NORTH CUMBRIA INTEGRATED CARE NHS FOUNDATION TRUST	28
RR7 GATESHEAD HEALTH NHS FOUNDATION TRUST	65
RTD THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST	50
RTF NORTHUMBRIA HEALTHCARE NHS FOUNDATION TRUST	36
*RXP COUNTY DURHAM AND DARLINGTON NHS FOUNDATION TRUST (NORTH DURHAM)	28
OTHER	8
<i>Total</i>	<i>267</i>
LEEDS TEACHING HOSPITALS NHS TRUST	
RAE BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST	24
RCD HARROGATE AND DISTRICT NHS FOUNDATION TRUST	33
RCF AIREDALE NHS FOUNDATION TRUST	25
RR8 LEEDS TEACHING HOSPITALS NHS TRUST	87
RWY CALDERDALE AND HUDDERSFIELD NHS FOUNDATION TRUST	37
RXF MID YORKSHIRE TEACHING NHS TRUST	54
*RCB YORK AND SCARBOROUGH TEACHING HOSPITALS NHS FOUNDATION TRUST (YORK)	41
<i>Total</i>	<i>301</i>
UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	
RAL ROYAL FREE LONDON NHS FOUNDATION TRUST	48
RAP NORTH MIDDLESEX UNIVERSITY HOSPITAL NHS TRUST	12
RKE WHITTINGTON HEALTH NHS TRUST	6
RQW THE PRINCESS ALEXANDRA HOSPITAL NHS TRUST	23
RRV UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	71
<i>Total</i>	<i>160</i>
GLOUCESTERSHIRE HOSPITALS NHS FOUNDATION TRUST	
RLQ WYE VALLEY NHS TRUST	20
RTE GLOUCESTERSHIRE HOSPITALS NHS FOUNDATION TRUST	73
RWP WORCESTERSHIRE ACUTE HOSPITALS NHS TRUST	44
<i>Total</i>	<i>137</i>
UNIVERSITY HOSPITALS OF DERBY AND BURTON NHS FOUNDATION TRUST	
RTG UNIVERSITY HOSPITALS OF DERBY AND BURTON NHS FOUNDATION TRUST	69
OTHER	1
<i>Total</i>	<i>70</i>
OXFORD UNIVERSITY HOSPITALS NHS FOUNDATION TRUST (INCLUDING SURGERY AT IMPERIAL)	
RN3 GREAT WESTERN HOSPITALS NHS FOUNDATION TRUST	29
RTH OXFORD UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	82
RXQ BUCKINGHAMSHIRE HEALTHCARE NHS TRUST	34
OTHER	3
<i>Total</i>	<i>148</i>
SOUTH TEES HOSPITALS NHS FOUNDATION TRUST	
RTR SOUTH TEES HOSPITALS NHS FOUNDATION TRUST	41
RVW NORTH TEES AND HARTLEPOOL NHS FOUNDATION TRUST	27
*RXP COUNTY DURHAM AND DARLINGTON NHS FOUNDATION TRUST (DARLINGTON)	25
OTHER	1
<i>Total</i>	<i>94</i>

EAST KENT HOSPITALS UNIVERSITY NHS FOUNDATION TRUST	
RVV EAST KENT HOSPITALS UNIVERSITY NHS FOUNDATION TRUST	64
<i>Total</i>	64
HULL UNIVERSITY TEACHING HOSPITALS NHS TRUST	
RJL NORTHERN LINCOLNSHIRE AND GOOLE NHS FOU	43
RWA HULL UNIVERSITY TEACHING HOSPITALS NHS TRUST	68
*RCB YORK AND SCARBOROUGH TEACHING HOSPITALS NHS FOUNDATION TRUST (SCARBOROUGH)	15
<i>Total</i>	126
UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST	
RWE UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST	101
<i>Total</i>	101
MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST	
RN7 DARTFORD AND GRAVESHAM NHS TRUST	24
RPA MEDWAY NHS FOUNDATION TRUST	45
RWF MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST	63
<i>Total</i>	132
WEST HERTFORDSHIRE TEACHING HOSPITALS NHS TRUST	
RWG WEST HERTFORDSHIRE TEACHING HOSPITALS NHS TRUST	47
RWH EAST AND NORTH HERTFORDSHIRE NHS TRUST	30
*RC9 BEDFORDSHIRE HOSPITALS NHS FOUNDATION TRUST (LUTON AND DUNSTABLE)	31
<i>Total</i>	108
NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST	
RK5 SHERWOOD FOREST HOSPITALS NHS FOUNDATION TRUST	25
RWD UNITED LINCOLNSHIRE HOSPITALS NHS TRUST	52
RX1 NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST	101
<i>Total</i>	178
SANDWELL AND WEST BIRMINGHAM HOSPITALS NHS TRUST	
RBK WALSALL HEALTHCARE NHS TRUST	28
RQ3 BIRMINGHAM WOMEN'S AND CHILDREN'S NHS FOUNDATION TRUST	18
RRK UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST	75
RXK SANDWELL AND WEST BIRMINGHAM HOSPITALS NHS TRUST	59
<i>Total</i>	180
LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST	
RTX UNIVERSITY HOSPITALS OF MORECAMBE BAY NHS FOUNDATION TRUST	25
RXL BLACKPOOL TEACHING HOSPITALS NHS FOUNDATION TRUST	35
RXN LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST	78
RXR EAST LANCASHIRE HOSPITALS NHS TRUST	34
<i>Total</i>	172
IMPERIAL COLLEGE HEALTHCARE NHS TRUST	
R1K LONDON NORTH WEST UNIVERSITY HEALTHCARE NHS TRUST	45
RAS THE HILLINGDON HOSPITALS NHS FOUNDATION TRUST	16
RYJ IMPERIAL COLLEGE HEALTHCARE NHS TRUST	132
*RDU FRIMLEY HEALTH NHS FOUNDATION TRUST (WEXHAM PARK)	25
*RQM CHELSEA AND WESTMINSTER HOSPITAL NHS FOUNDATION TRUST (WEST MIDDLESEX)	23
OTHER	11

<i>Total</i>	252
UNIVERSITY HOSPITALS SUSSEX NHS FOUNDATION TRUST	
RXC EAST SUSSEX HEALTHCARE NHS TRUST	29
*RYR UNIVERSITY HOSPITALS SUSSEX NHS FOUNDATION TRUST (BRIGHTON/WORTHING)	92
OTHER	6
<i>Total</i>	127
BANGOR	
7A1A1 GLAN CLWYD	18
7A1A4 YSBYTY MAELOR	20
7A1AU YSBYTY GWYNEDD	23
<i>Total</i>	61
SWANSEA	
7A2AG WEST WALES/GLANGWILI GENERAL HOSPITAL	17
7A2AJ BRONGLAIS GENERAL HOSPITAL	6
7A2AL PRINCE PHILIP HOSPITAL	9
7A2BL WITHYBUSH GENERAL HOSPITAL	14
7A3B7 PRINCESS OF WALES HOSPITAL	12
7A3C4 SINGLETON HOSPITAL	32
7A3C7 MORRISTON HOSPITAL	3
7A3CJ NEATH PORT TALBOT HOSPITAL	6
<i>Total</i>	99
CARDIFF	
7A4BV UHW (CARDIFF)	50
7A5B1 ROYAL GLAMORGAN HOSPITAL	1
7A5B3 PRINCE CHARLES HOSPITAL	25
7A6AM NEVILL HALL HOSPITAL	17
7A6AR ROYAL GWENT HOSPITAL	40
<i>Total</i>	133

* NHS Trusts where patients are assigned based on the hospital of diagnosis, that is, the NHS Trust as a whole maps to more than one cancer system