Scottish Cancer Taskforce
National Cancer Quality Steering Group

Ovarian Cancer
Clinical Quality Performance Indicators

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This document was updated following formal review (2nd cycle) of the Ovarian Cancer Quality Performance Indicators (QPIs) which took place following analysis of year 6 of the ovarian cancer QPI data.

The following QPIs have been updated:

- QPI 3 – Treatment planned and reviewed at multi-disciplinary team meeting
- QPI 4 - Patients with early stage disease have an adequate staging operation
- *QPI 6 – Histopathology reports are complete and support clinical decision-making
- *QPI 7 – Histological diagnosis prior to starting chemotherapy
- QPI 9 – First line chemotherapy
- *QPI 10 – Surgery for advanced disease
- QPI 11 – Genetic testing in non-mucinous epithelial ovarian cancer
- QPI 12 – 30 day mortality after first line treatment for ovarian cancer

The following new QPIs have been added:

- QPI 14 – 30 Day Mortality following Systemic Anti-Cancer Therapy (SACT)

*QPI target change only.

As a result of the changes above, the contents page and page numbering differ from earlier versions of this document. Sections 1 – 10 and the appendices have also been updated.

Please note that this version of the Ovarian Cancer QPI Document applies to cases diagnosed from 1st October 2019 onwards. Where amended or new QPIs require new data items for measurement, this will apply for patients diagnosed from 1st October 2020.

Previous Updates:

May 2018 (v3.0)
This document was updated following formal review of the Ovarian Cancer Quality Performance Indicators (QPIs) which took place following analysis of year 3 of the ovarian cancer QPI data.

The following QPIs have been updated:

- QPI 2 – Extent of disease assessed by Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) prior to treatment
- QPI 4 – Patients with early stage disease have an adequate staging operation
- QPI 7 – Histo/cytological diagnosis prior to starting neo-adjuvant chemotherapy
- QPI 9 – First line chemotherapy

The following QPIs have been archived:

- QPI 1 – Risk of Malignancy Index recorded in the patient notes
- QPI 5 – No macroscopic residual disease following surgery for advanced disease
- QPI 8 – Delayed primary surgery

The following new QPIs have been added:

- QPI 10 – Surgery for advanced disease
- QPI 11 – BRCA1 and BRCA2 sequencing in epithelial ovarian cancer
- QPI 12 – 30 day mortality after first line treatment for ovarian cancer

Please note the revised Clinical Trials Access QPI has now been added into each tumour specific QPI document (see QPI 13: Clinical Trial and Research Study Access).

As a result of the changes above, the contents page and page numbering differ from earlier version of this document. Sections 1 - 10 and the appendices have also been updated.

Please note that this version of the Ovarian Cancer QPI Document applies to cases diagnosed from 1st October 2016 onwards. Where amended or new QPIs require new data items for measurement, this will apply for patients diagnosed from 1st October 2017.

Previous Updates:

January 2016 (v2.0)

This document was updated following baseline review of the Ovarian Cancer QPIs which took place following analysis of year 1 of the Ovarian Cancer data. As a result, the following QPI has been updated:

- QPI 1 – Risk of Malignancy Index recorded in the patient notes

Please note that this version of the Ovarian Cancer QPI document applies to cases diagnosed from 1st October 2014

Contents Page

1. National Cancer Quality Programme

Better Cancer: Ambition and Action (2016)[1] details a commitment to delivering the national cancer quality programme across NHSScotland, with a recognised need for national cancer QPIs to support a culture of continuous quality improvement. Addressing variation in the quality of cancer services is pivotal to delivering improvements in quality of care. This is best achieved if there is consensus and clear indicators for what good cancer care looks like.

Small sets of cancer specific outcome focussed, evidence based indictors are in place for 19 different tumour types. These are underpinned by patient experience QPIs that are applicable to all, irrespective of tumour type. These QPIs ensure that activity is focused on those areas that are most important in terms of improving survival and individual care experience whilst reducing variation and supporting the most effective and efficient delivery of care for people with cancer. QPIs are kept under regular review and are responsive to changes in clinical practice and emerging evidence.

A programme to review and update the QPIs in line with evolving evidence is in place as well as a robust mechanism by which additional QPIs will be developed over the coming years.

1.1 Quality Assurance and Continuous Quality Improvement

The ultimate aim of the programme is to develop a framework, and foster a culture of, continuous quality improvement, whereby real time data is reviewed regularly at an individual Multidisciplinary Team (MDT)/Unit level and findings actioned to deliver continual improvements in the quality of cancer care. This is underpinned and supported by a programme of regional and national comparative reporting and review.

NHS Boards are required to report against QPIs as part of a mandatory, publicly reported, programme at a national level. A rolling programme of reporting is in place, with approximately three national tumour specific summary reports published annually. These reports highlight the publication of the QPIs in the Cancer QPI Dashboard which includes comparative reporting of performance against QPIs at MDT/Unit level across NHSScotland, trend analysis and survival. This approach helps to overcome existing issues relating to the reporting of small volumes in any one year.

In the intervening years tumour specific QPIs are monitored on an annual basis through established Regional Cancer Network and local governance processes, with analysed data submitted to Public Health Scotland (PHS) (previously ISD Scotland) for inclusion in Cancer QPI Dashboard andsubsequent national summary reports. This approach ensures that timely action is taken in response to any issues that may be identified through comparative reporting and systematic review.

2. Quality Performance Indicator Development Process

The QPI development process was designed to ensure that indicators are developed in an open, transparent and timely way. The development process can be found in appendix 1.

The Ovarian Cancer QPI Development Group was convened in March 2012, chaired by Professor John Dewar (Consultant Clinical Oncologist, NHS Tayside). Membership of this group included clinical representatives drawn from the three regional cancer networks, Healthcare Improvement Scotland, ISD and patient/carer representatives. Membership of the development group can be found in appendix 2.

3. QPI Formal Review Process

As part of the National Cancer Quality Programme a systematic national review process has been developed, whereby all tumour specific QPIs published are subject to formal review following 3 years analysis of comparative QPI data.

Formal review of the Ovarian Cancer QPIs was undertaken for the first time in September 2017. A Formal Review Group was convened, chaired by Ms Iona Reid (Consultant Breast Surgeon, NHS Greater Glasgow and Clyde). Membership of this group included Clinical Leads from the three Regional Cancer Networks and can be found in appendix 3.

The 2nd Cycle of Formal Review commenced in November 2020 following reporting of 6 years of QPI data. This cycle of review is more selective and focussed on ensuring the ongoing clinical relevance of the QPIs. A Formal Review Group was convened with Mr Param Mariappan, Consultant Urological Surgeon, SCAN appointed as Clinical Advisor/Chair to the group. Membership of this group can be found in appendix 4.

The formal review process is clinically driven with proposals for change sought from specialty specific representatives in each of the Regional Cancer Networks. Formal review meetings to further discuss proposals will be arranged where deemed necessary. The review builds on existing evidence using expert clinical opinion to identify where new evidence is available, and a full public engagement exercise will take place where significant revisions have been made or new QPIs developed.

During formal review QPIs may be removed and replaced with new QPIs. Triggers for doing so include significant change to clinical practice, targets being consistently met by all Boards, and publication of new evidence. Where QPIs have been archived, for those indicators which remain clinically relevant, data will continue to be collected to allow local / regional analysis of performance as required.

Any new QPIs have been developed in line with the following criteria:

- **Overall importance** – does the indicator address an area of clinical importance that would significantly impact on the quality and outcome of care delivered?
- **Evidence based** – is the indicator based on high quality clinical evidence?
- **Measurability** - is the indicator measurable i.e. are there explicit requirements for data measurement and are the required data items accessible and available for collection?

4. Format of the Quality Performance Indicators

QPIs are designed to be clear and measurable, based on sound clinical evidence whilst also taking into account other recognised standards and guidelines.

- Each QPI has a **short title** which will be utilised in reports as well as a fuller **description** which explains exactly what the indicator is measuring.
- This is followed by a brief overview of the **evidence base and rationale** which explains why the development of this indicator was important.
- The measurability **specifications** are then detailed; these highlight how the indicator will actually be measured in practice to allow for comparison across NHSScotland.

- Finally a **target** is indicated, this dictates the level which each unit should be aiming to achieve against each indicator.

In order to ensure that the chosen target levels are the most appropriate and drive continuous quality improvement as intended they will be kept under review and revised as necessary, if further evidence or data becomes available.

Rather than utilising multiple exclusions, a tolerance level has been built into the QPIs. It is very difficult to accurately measure patient choice, co-morbidities and patient fitness therefore target levels have been set to account for these factors. Further detail is noted within QPIs where there are other factors which influenced the target level.

Where 'less than; (<) target levels have been set the rationale has been detailed within the relevant QPI. All other target levels should be interpreted as 'greater than' (>) levels.

5. Supporting Documentation

A national minimum core dataset and a measurability specification document have been developed in parallel with the indicators to support the monitoring and reporting of Ovarian Cancer QPIs. The updated document will be implemented for patients diagnosed with Ovarian Cancer on, or after, 1st October 2020.

6. Quality Performance Indicators for Ovarian Cancer

QPI 2 - Extent of disease assessed by Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) prior to treatment

QPI Title:	Patients with epithelial ovarian cancer should have their stage of disease assessed by CT or MRI prior to treatment.	
Description:	Proportion of patients with epithelial ovarian cancer having a CT scan or MRI of the abdomen and pelvis performed to exclude the presence of metastatic disease prior to starting treatment.	
Rationale and Evidence:	It is necessary to fully image the pelvis and abdomen prior to starting any treatment in order to establish the extent of disease and minimise unnecessary treatment.[2]	
Specifications:	**Numerator:**	Number of patients with epithelial ovarian cancer having a CT scan or MRI of the abdomen and pelvis carried out prior to starting treatment.
	Denominator:	All patients with epithelial ovarian cancer.
	Exclusions:	• Patients who decline to undergo investigation. • Patients presenting for surgery as an emergency.
Target:	95% The tolerance allowed by the target reflects the fact that CA125 assessment and ultrasound scan does not always raise suspicion of cancer.	

QPI 3 - Treatment planned and reviewed at a regional multi-disciplinary team meeting

QPI Title:	Patients with epithelial ovarian cancer should be discussed by a regional multidisciplinary team (MDT) prior to definitive treatment.
Description:	Proportion of patients with epithelial ovarian cancer who are discussed at a regional MDT meeting before definitive treatment.
Rationale and Evidence:	Evidence suggests that patients with cancer managed by a multi-disciplinary team have a better outcome. There is also evidence that the multidisciplinary management of patients increases their overall satisfaction with their care.[3] Discussion prior to definitive treatment decisions being made provides reassurance that patients are being managed appropriately.
Specifications:	**Numerator:** Number of patients with epithelial ovarian cancer discussed at a regional MDT before definitive treatment. **Denominator:** All patients with epithelial ovarian cancer. **Exclusions:** • Patients who died before first treatment. • Patients with Risk of Malignancy Index <200
Target:	95% The tolerance within this target accounts for situations where patients require treatment urgently.

QPI 4 - Patients with early stage disease have an adequate staging operation

QPI Title:	Patients undergoing surgery for early stage epithelial ovarian cancer (FIGO Stage 1) have an adequate staging operation which includes Total Abdominal Hysterectomy (TAH), Bilateral Salpingo-Oophorectomy (BSO), omentectomy and washings.	
Description:	Proportion of patients with early stage epithelial ovarian cancer (FIGO Stage 1) undergoing primary surgery for ovarian cancer, having their stage of disease adequately assessed (TAH, BSO, Omentectomy and washings), to determine suitability for adjuvant therapies.	
Rationale and Evidence:	Stage of disease is an important prognostic factor influencing choice of therapy and quality of surgical staging is a key determinant of adjuvant chemotherapy.[4] Surgery is considered the initial treatment of choice for women with early stage epithelial ovarian cancer and will typically include TAH, BSO and omentectomy and may also involve assessment by palpation, visualisation and/or biopsy as indicated, of peritoneal surfaces, appendix and bowel mesentery and sampling of pelvic and para-aortic lymph nodes.[2]	
Specifications:	**Numerator:**	Number of early stage (FIGO Stage 1) epithelial ovarian cancer patients having primary surgery involving TAH, BSO, omentectomy and washings.
	Denominator:	All early stage (FIGO Stage 1) epithelial ovarian cancer patients undergoing primary surgery.
	Exclusions:	• Patients having fertility conserving surgery. • Patients presenting for emergency surgery.
Target:	90% The tolerance accounts for those patients with incidental findings of malignancy when undergoing surgery for presumed benign disease.	

QPI 6 - Histopathology reports are complete and support clinical decision-making

QPI Title:	Histopathology reports relating to pelvic clearance surgery for patients with epithelial ovarian cancer contain all necessary information to inform treatment decision making.	
Description:	Proportion of patients with epithelial ovarian cancer undergoing pelvic clearance surgery having a complete pathology report as defined by the Royal College of Pathologists.[5]	
Rationale and Evidence:	Histopathological reporting provides prognostic indicators which inform treatment planning for women diagnosed with epithelial ovarian cancer. Using a standardised data set to report pathology specimens promotes completeness and the Royal College of Pathologists has agreed a minimum data set for reporting ovarian cancer.[5]	
Specifications:	**Numerator:**	Number of patients with epithelial ovarian cancer undergoing definitive cytoreductive surgery who have a complete pathology report that contains all data items as defined by the Royal College of Pathologists.[5]
	Denominator:	All patients with epithelial ovarian cancer undergoing definitive cytoreductive surgery.
	Exclusions:	• No exclusions.
Target:	95% The tolerance within this target reflects situations where it is not possible to report all components of the data set due to poor quality of specimen.	

QPI 7 - Histological diagnosis prior to starting chemotherapy

QPI Title:	Patients with epithelial ovarian cancer should have a histological diagnosis of their cancer prior to starting chemotherapy.	
Description:	Proportion of patients with epithelial ovarian cancer having a histological diagnosis obtained by percutaneous image-guided biopsy or laparoscopy prior to starting chemotherapy.	
Rationale and Evidence:	Before commencing cytotoxic chemotherapy, women with suspected advanced ovarian cancer should have their diagnosis confirmed by histology or by cytology if histology is not appropriate.[6] Where patients are being treated with chemotherapy prior to surgery, histology rather than cytology should be used to confirm the diagnosis where possible.[7]	
Specifications:	**Numerator**	Number of patients who have a diagnosis of epithelial ovarian cancer confirmed by histology prior to starting chemotherapy.
	Denominator	All patients with epithelial ovarian cancer undergoing chemotherapy.
	Exclusions:	• No exclusions.
Target:	90% The tolerance allowed by the target reflects that not all patients are suitable for histological confirmation of disease, e.g. where no targetable lesion identified on imaging and patient unsuitable for general anaesthetic/laparoscopy.	

QPI 9 - First-line chemotherapy

QPI Title:	Chemotherapy treatment of epithelial ovarian cancer should include a platinum based compound.
Description:	Proportion of patients with epithelial ovarian cancer who receive chemotherapy treatment with a platinum-based compound.
Rationale and Evidence:	First line chemotherapy treatment of epithelial ovarian cancer should include a platinum agent, either in combination or as a single agent. Carboplatin is the platinum drug of choice in both single and combination therapy and paclitaxel is recommended in combination where the potential benefits justify the toxicity of the therapy.[8,9] Patients who choose less toxic therapy or who are unfit for taxanes should be offered single agent carboplatin.[2]
Specifications:	**Numerator:** Number of patients with epithelial ovarian cancer who receive chemotherapy treatment with a platinum-based compound. **Denominator:** All patients with epithelial ovarian cancer. **Exclusions:** • Stage 1-IV Low grade serous ovarian carcinomas • Stage 1A-1C3 G1/G2 Endometrioid ovarian carcinomas • Stage 1A-1C1 clear cell ovarian carcinomas • Mucinous Stage 1A Grade 1/2 • Mucinous Stage 1B-1C3 Grade 1/2 • Patients who decline chemotherapy treatment.
Target:	90% The tolerance allowed by the target recognises that there are a small number of patients who are not fit enough to undergo chemotherapy.

Please note:
Additional information on the time from diagnosis to neoadjuvant chemotherapy to surgery, and diagnosis to surgery to adjuvant chemotherapy will be reported across NHS Boards alongside this QPI. This information will be reviewed to ensure there is no impact on the quality of care due to delays in patient pathways.

QPI 10 - Surgery for advanced disease

QPI Title:	Patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher) should undergo primary or delayed surgery and should achieve no macroscopic residual disease.
Description:	Proportion of patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher*) undergoing surgery who have no macroscopic residual disease following surgical resection. **Please note:** The specifications of this QPI have been separated to allow clear measurement of the following: (i) Patients who undergo surgery (primary or delayed). (ii) Patients who undergo primary surgery where no residual disease is achieved. (iii) Patients who undergo delayed primary surgery after chemotherapy where no residual disease is achieved.
Rationale and Evidence:	Evidence shows that most women with ovarian cancer present with advanced disease. Surgery along with chemotherapy remains the optimal treatment for women with advanced ovarian cancer.[7] The objective of performing surgery on women with epithelial ovarian cancer, whether before chemotherapy or after chemotherapy, is complete resection of all macroscopic disease[6]. This is not always possible in patients with advanced disease because of widespread involvement of peritoneal surfaces, bowel mesentery and serosa of the bowel. The tolerances allowed by the target reflect this. Improved patient outcomes are observed in patients with no visible residual disease following surgical resection.
Specification (i):	**Numerator:** Number of patients with advanced epithelial ovarian cancer (FIGO 2 or higher) undergoing surgery (primary or delayed). **Denominator:** All patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher). **Exclusions:** • No exclusions.
Target:	65% The tolerance within this target accounts for the fact that not all patients are suitable for surgery due to fitness levels and co-morbidities.

*Final stage of disease as agreed at MDT

(Continued….)

QPI 10 - Surgery for advanced disease (continued)

Specification (ii):	**Numerator:**	Number of patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher) undergoing primary surgery with no residual disease.
	Denominator:	All patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher) undergoing primary surgery.
	Exclusions:	• Patients with FIGO Stage 4b disease.
Target:	60% The tolerance within this target accounts for the fact that due to widespread involvement of peritoneal surfaces, bowel mesentry and serosa of bowel in the majority of patients with advanced epithelial ovarian cancer it is frequently not possible to resect all visible disease.	
Specification (iii):	**Numerator:**	Number of patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher) undergoing delayed primary surgery after chemotherapy with no residual disease.
	Denominator:	All patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher) undergoing delayed primary surgery after chemotherapy.
	Exclusions:	• Patients with FIGO Stage 4b disease.
Target:	60% The tolerances allowed by the target set reflect variance in individual patient response to chemotherapy. After chemotherapy for advanced ovarian cancer it may still not be feasible to resect all disease due to continued involvement of widespread peritoneal surfaces, bowel mesentry and serosa of bowel. **Please note:** varying evidence exists regarding the most appropriate target levels therefore this may need redefined in the future, to take account of new evidence or as further data becomes available.	

QPI 11 - Genetic testing in non-mucinous epithelial ovarian cancer

QPI Title:	Patients with non-mucinous epithelial ovarian cancer should have access to genetic testing.
Description:	Proportion of patients with non-mucinous epithelial ovarian cancer who undergo genetic testing.
Rationale and Evidence:	Genetic testing should be performed in patients with ovarian cancer. where the combined risk of BRCA1 and BRCA2 mutation is ≥10%.[9] All women with non-mucinous ovarian cancer should be offered BRCA1 and BRCA2 mutation testing. [7] Various prediction models exist to assess the likelihood of a BRCA1 or BRCA2 mutation in a family. All patients with non mucinous ovarian cancer (any age) would be predicted to have mutation detection rate of between 6.2% and 17.5%.[7] Access to genetic testing is very difficult to measure accurately therefore uptake is utilised within this QPI as a proxy for access. Although it will not provide an absolute measure of patient access to genetic testing it will give an indication across NHS Boards and highlight any areas of variance which can then be further examined.
Specifications:	**Numerator:** Number of patients with non-mucinous epithelial ovarian cancer who undergo genetic testing. **Denominator:** All patients with non-mucinous epithelial ovarian cancer. **Exclusions:** • Patients with low grade serous disease.
Target:	90% The target tolerance level accounts for factors of patient choice. **Please note:** varying evidence exists regarding the most appropriate target level therefore this may need redefined in the future, to take account of new evidence or as further data becomes available.

QPI 12 – 30 day mortality following surgery for ovarian cancer

QPI Title:	30 day mortality following surgery for ovarian cancer.
Description:	Proportion of patients who die within 30 days of surgery for ovarian cancer.
Rationale and Evidence:	Treatment related mortality is a marker of the quality and safety of the whole service provided by the Multi Disciplinary Team (MDT).[10] Outcomes of treatment, including treatment related morbidity and mortality should be regularly assessed. Treatment should only be undertaken in individuals that may benefit from that treatment, that is, treatments should not be undertaken in futile situations. This QPI is intended to ensure treatment is given appropriately, and the outcome reported on and reviewed.
Specifications:	**Numerator:** Number of patients with epithelial ovarian cancer who undergo surgery that die within 30 days of treatment. **Denominator:** All patients with epithelial ovarian cancer who undergo surgery. **Exclusions:** • No exclusions.
Target:	<5%

QPI 13 - Clinical trials and research study access

QPI Title:	All patients should be considered for participation in available clinical trials/research studies, wherever eligible.	
Description:	Proportion of patients diagnosed with ovarian cancer who are consented† for a clinical trial/research study.	
Rationale and Evidence:	Clinical trials are necessary to demonstrate the efficacy of new therapies and other interventions[3]. Evidence suggests improved patient outcomes when hospitals are actively recruiting patients into clinical trials[11]. Clinicians are therefore encouraged to enter patients into well-designed trials and to collect longer-term follow-up data. High accrual activity into clinical trials is used as a goal of an exemplary clinical research site. The measurement of this QPI focuses on those patients who have consented in order to reflect the intent to join a clinical trial and demonstrate the commitment to recruit patients. Often patients can be prevented from enrolling within a trial due to stratification of studies and precise inclusion criteria identified during the screening process.	
Specifications:	**Numerator:**	Number of patients diagnosed with ovarian cancer consented for a clinical trial/research study.
	Denominator:	All patients diagnosed with ovarian cancer.
	Exclusions:	• No exclusions.
Target:	15%	

Please note:

The Clinical Trials and Research Study Access QPI is measured utilising SCRN data and PHS incidence data, as is the methodology currently utilised by the Chief Scientist Office (CSO) and NCRI. The principal benefit of this approach is that this data is already collected utilising a robust mechanism.

Utilising SCRN data allows for comparison with CSO published data and ensures capture of all eligible clinical trials and research studies, not solely first line treatment trials, as contained in the clinical audit data. Given that a significant proportion of clinical trials and research studies are for relapsed disease this is felt to be particularly important in driving quality improvement. This methodology utilises incidence as a proxy for all patients with cancer. This may slightly over, or underestimate, performance levels, however this is an established approach currently utilised by NHSScotland.

For further details of definitions, inclusion criteria and methodology used, please see the full Clinical Trials and Research Study Access QPI. This can be found at:

Healthcare Improvement Scotland - Cancer Quality Performance Indicators

† Consented is defined as patients who have given consent to participate in a clinical trial / research study subject to study specific screening for eligibility.

QPI 14 - 30 day mortality following Systemic Anti-Cancer Therapy (SACT)

QPI Title:	30 day mortality following Systemic Anti-Cancer Therapy (SACT) treatment for ovarian cancer.	
Description:	Proportion of patients with ovarian cancer who die within 30 days of SACT treatment.	
Rationale and Evidence:	Treatment related mortality is a marker of the quality and safety of the whole service provided by the Multi Disciplinary Team (MDT)[10]. Outcomes of treatment, including treatment related morbidity and mortality should be regularly assessed. Treatment should only be undertaken in individuals that may benefit from that treatment. This QPI is intended to ensure treatment is given appropriately, and the outcome reported on and reviewed.	
Specifications:	**Numerator:**	Number of patients with ovarian cancer who undergo SACT that die within 30 days of treatment.
	Denominator:	All patients with ovarian cancer who undergo SACT.
	Exclusions:	• No exclusions
Target:	<5%	

Please note:
Data from Chemocare (electronic chemotherapy prescribing system) will be utilised to support reporting and monitoring of this QPI rather than clinical audit. This will maximise the use of data which are already collected and provide a more accurate report of all patients with ovarian cancer undergoing chemotherapy. Standard reports will be specified to ensure nationally consistent analysis and reporting.

7. Survival

Improving survival forms an integral part of the national cancer quality improvement programme. Ovarian cancer survival analysis will be reported and analysed on a 3 yearly basis by Public Health Scotland (PHS). The specific issues which will be addressed will be identified by an expert group ahead of any analysis being undertaken, as per the agreed national cancer quality governance and improvement framework.

The Ovarian Cancer QPI Group has identified, during the QPI development process, the following issues for survival analysis:

- 1 year or 5 year survival rates

To ensure consistent application of survival analysis, it has been agreed that a single analyst on behalf of all three regional cancer networks undertakes this work. Survival analysis will be scheduled as per the national survival analysis and reporting timetable, agreed with the National Cancer Quality Steering Group and Scottish Cancer Taskforce. This reflects the requirement for record linkage and the more technical requirements of survival analyses which would make it difficult for individual Boards to undertake routinely and in a nationally consistent manner.

8. Areas for Future Consideration

The Ovarian Cancer QPI Groups have not been able to identify sufficient evidence, or determine appropriate measurability specifications, to address all areas felt to be of key importance in the treatment of ovarian cancer, and therefore in improving the quality of care for patients affected by ovarian cancer.

The following areas for future consideration have been raised across the lifetime of the Ovarian Cancer QPIs.

- Surgery for recurrent ovarian cancer.
- Timeliness of adjuvant chemotherapy.
- Recording of Chemotherapy Response Score (CRS)

9. Governance and Scrutiny

A national and regional governance framework to assure the quality of cancer services in NHSScotland has been developed; key roles and responsibilities within this are set out below. Appendices 4 and 5 provide an overview of these governance arrangements diagrammatically. The importance of ensuring robust local governance processes are in place is recognised and it is essential that NHS Boards ensure that cancer clinical audit is fully embedded within established processes.

9.1 National

- Scottish Cancer Taskforce
    - Accountable for overall national cancer quality programme and overseeing the quality of cancer care across NHSScotland.

- Healthcare Improvement Scotland
    - Proportionate scrutiny of performance.
    - Support performance improvement.
    - Quality assurance: ensure robust action plans are in place and being progressed via regions/Boards to address any issues identified.

- Public Health Scotland (previously Information Services Division (ISD))
    - Publish national comparative report on tumour-specific QPIs and survival for three tumour types per annum and specified generic QPIs as part of the rolling programme of reporting.

9.2 Regional – Regional Cancer Networks

- Annual regional comparative analysis and reporting against tumour-specific QPIs.
- Support national comparative reporting of specified generic QPIs.
- Identification of regional and local actions required and development of an action plan to address regional issues identified.
- Performance review and monitoring of progress against agreed actions.
- Provide assurance to NHS Board Chief Executive Officers and Scottish Cancer Taskforce that any issues identified have been adequately and timeously progressed.

9.3 Local – NHS Boards

- Collect and submit data for regional comparative analysis and reporting in line with agreed measurability and reporting schedule (generic and tumour-specific QPIs).
- Utilise local governance structures to review performance, develop local action plans and monitor delivery.
- Demonstrate continual improvements in quality of care through on-going review, analysis and feedback of clinical audit data at an individual multidisciplinary team (MDT) or unit level.

10. References

1. Scottish Government (2016). Beating Cancer: Ambition and Action Available from: http://www.scotland.gov.uk/Resource/Doc/242498/0067458.pdf. (accessed December 2016).
2. Australian Cancer Network (2004) Clinical practice guidelines for the management of women with epithelial ovarian cancer. Available from: https://canceraustralia.gov.au/publications-and-resources/cancer-australia-publications/clinical-practice-guidelines-management-women-epithelial-ovarian-cancer (accessed 5th August 2013)
3. NHS Quality Improvement Scotland (2008) Management of Core Cancer Services Standards. (accessed 5th August 2013).
4. Elit L, Fyles A, Chambers M, Fung-Kee-Fung M, Covens A, Carey M (2004). Adjuvant Care for Stage I Ovarian Cancer (accessed on 5th August 2013); Update available from:https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/646 (accessed 17th November 2017)
5. Royal College of Pathologists (2010) Datasets for the histopathological reporting of neoplasms of the ovaries and fallopian tubes and primary carcinomas of the peritoneum (3rd edition). Available from: https://www.rcpath.org/resourceLibrary/g079ovariandatasetnov10-pdf.html (accessed 5th August 2013)
6. National Institute for Health and Clinical Excellence (2011) CG122 Ovarian Cancer Update available from: https://www.nice.org.uk/guidance/cg122 (accessed 2nd August 2017)
7. SIGN 135: Management of Patients with Epithelial Ovarian Cancer. Available from http://www.sign.ac.uk/sign-135-management-of-epithelial-ovarian-cancer.html (accessed 17th November 2017)
8. Covens A, Carey M, Bryson P, Verma S, Fung Kee Fung M, 2004 [Cited 2011 Oct 3]; Cancer Care Ontario.. First-line Chemotherapy for Postoperative Patients with Stage II, III or IV Epithelial Ovarian Cancer, Fallopian Tube Cancer, or Primary Peritoneal Cancer. Update available from: https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/2311 (accessed 17th November 2017)
9. SIGN. 2003 [Cited 2011 Oct 3] Epithelial ovarian cancer [online]. (accessed on 5th August 2013); Management of epithelial ovarian cancer. Update available from https://www.sign.ac.uk/sign-135-management-of-epithelial-ovarian-cancer (accessed 17th April 2020)
10. NHS Quality Improvement Scotland (2008). Management of Bowel Cancer Services Standards [online]. (accessed October 2012).
11. Downing A, et al (2016). High Hospital Research Participation and Improved Colorectal Cancer Survival Outcomes: A Population Based Study. Gut 0:1–8. doi:10.1136/gutjnl-2015-311308. Available from: http://gut.bmj.com/content/66/1/89 (accessed 25th October 2017).
12. Brouwers M, Kho ME, Browman GP, Burgers JS, Cluzeau F, Feder G, Fervers B, Graham ID, Grimshaw J, Hanna S, Littlejohns P, Makarski J, Zitzelsberger L for the AGREE Next Steps Consortium (2010). AGREE II: Advancing guideline development, reporting and evaluation in healthcare. Can Med Assoc J. 182(18), E839-E842 (online). Available from: http://www.cmaj.ca/content/182/18/E839.full.pdf+html?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=brouwers&searchid=1&FIRSTINDEX=0&volume=182&issue=18&resourcetype=HWCIT%2520%2520%2520 (accessed August 2013)

11. Appendices

Appendix 1: QPI Development Process

Preparatory Work and Scoping

The preparatory work involved the development of a structured briefing paper by Healthcare Improvement Scotland. This paper took account of existing, high quality, clinical guidance and provided a basis for the development of QPIs.

The scope for development of ovarian cancer QPIs and a search narrative were defined and agreed by the Ovarian Cancer QPI Development Group. The table below shows the final search criteria used in the literature search.

Inclusion	Exclusion
Topics (**population/patient**): epithelial ovarian, fallopian tube, and primary peritoneal carcinomas Topics **(intervention)**: Diagnosis, staging, surgery, non-surgical management, treatment, chemotherapy, radiotherapy, intraperitoneal therapy, and hormone therapy. Adults only Date: 2005 to present day Language: English only	Topics: Related cancers, including: • Borderline ovarian carcinoma • Pseudomyxoma peritonei • Germ cell tumours of the ovary • Sex cord stromal tumours • Neuroendocrine tumours • Secondary ovarian cancers Communication/information, end of life care, pain management, prevention, and screening. Guidelines for the conduct of clinical trials (topic for generic QPI development).

Table 1 – Ovarian Cancer Search Criteria

A systematic search was carried out by Healthcare Improvement Scotland using selected websites and two primary medical databases to identify national and international guidelines.

Seventeen guidelines were appraised for quality using the AGREE II[12] instrument. This instrument assesses the methodological rigour and precision used when developing a guideline. Twelve were recommended for use, three were not recommended, and two were consensus guidelines on management of ovarian cancer in pregnancy.

Indicator Development

The Group developed QPIs using the clinical recommendations set out in the briefing papar as a base, ensuring all indicators met the following criteria:

- **Overall importance** – does the indicator address an area of clinical importance that would significantly impact on the quality and outcome of care delivered?
- **Evidence based** – is the indicator based on high quality clinical evidence?
- **Measurability** - is the indicator measurable i.e. are there explicit requirements for data measurement and are the required data items accessible and available for collection?

A wide clinical and public engagement exercise was undertaken as part of development in February 2013 where the Ovarian Cancer QPIs, along with accompanying draft minimum core dataset and measurability specifications, were made available on the Scottish Government website. During the engagement period clinical and management colleagues from across NHSScotland, patients affected by ovarian cancer and the wider public were given the opportunity to influence the development of Ovarian Cancer QPIs.

Draft documentation was circulated widely to professional groups, health service staff, voluntary organisations and individuals for comment and feedback.

Following the engagement period all comments and responses received were reviewed by the Ovarian Cancer QPI Development Group and used to produce and refine the final indicators.

Appendix 2: Ovarian Cancer QPI Development Group Membership (2013)

Name	Designation	Cancer Network/NHS Board
John Dewar	Consultant Clinical Oncologist	(CHAIR)
Elsa Armstrong	Data Manager	NOSCAN/NHS Grampian
Kevin Burton	Consultant Gynaecological Oncologist	WoSCAN/NHS Greater Glasgow and Clyde
Nancy Burns	Ward Manager	SCAN/NHS Lothian
John Burton	Consultant Radiologist	NOSCAN/NHS Tayside
Kevin Campbell	Project Manager	WoSCAN
Barbara Flont	Consultant Radiologist	NOSCAN/NHS Highland
Ros Glasspool	Consultant Medical Oncologist	WoSCAN/NHS Greater Glasgow and Clyde
Charley Gourley	Consultant Medical Oncologist	SCAN/NHS Lothian
Simon Herrington	Consultant Pathologist	NOSCAN/NHS Tayside
Michelle Hilton-Boon	Programme Manager	Health Improvement Scotland
Sue Lassman	Consultant Radiologist	WoSCAN/NHS Greater Glasgow and Clyde
Claire Mckenzie	Audit Facilitator	SCAN/NHS Lanarkshire
Ethel McLean	Audit Facilitator	WoSCAN/NHS Ayrshire and Arran
Wendy McMullan	Consultant Gynaecologist	NOSCAN/NHS Tayside
Cameron Martin	Consultant Gynaecologist	SCAN/NHS Lothian
Lorna Maule	Macmillan Gynaecology Clinical Nurse Specialist	WoSCAN/NHS Tayside
David Millan	Consultant Pathologist	WoSCAN/NHS Greater Glasgow and Clyde
Kathryn Morton	Consultant Pathologist	WoSCAN/NHS Greater Glasgow and Clyde
Brian Murray	Principal Information Development Manager	Information Services Division
David Parkin	Consultant Gynaecological Oncologist	NOSCAN/NHS Grampian
Nick Reed	Consultant Clinical Oncologist	WoSCAN/NHS Greater Glasgow and Clyde
Rae Roan	Gynaecological Clinical Nurse Specialist	WoSCAN/NHS Greater Glasgow and Clyde
Nadeem Siddiqui	Consultant Gynaecological Oncologist	WoSCAN/NHS Greater Glasgow and Clyde
Evelyn Thomson	Regional Manager (Cancer)	WoSCAN/NHS Greater Glasgow and Clyde
Radha Todd	Consultant Medical Oncologist	NOSCAN/NHS Grampian

Name	Designation	Cancer Network/NHS Board
Ewen Walker	Consultant Gynaecologist	WOSCAN/NHS Greater Glasgow and Clyde
Alistair Williams	Consultant Pathologist	SCAN/NHS Lothian

NOSCAN - North of Scotland Cancer Network
SCAN - South East Scotland Cancer Network
WoSCAN - West of Scotland Cancer Network

Appendix 3: Ovarian Cancer QPI Formal Review Group Membership (2017)

Name	Designation	Cancer Network
Iona Reid	Consultant Breast Surgeon (CHAIR)	WoSCAN
Kevin Burton	Consultant Gynaecological Oncologist	WoSCAN
Mary Cairns	Consultant Gynaecological Oncologist	NOSCAN
Kevin Campbell	MCN Manager	WoSCAN
Jen Doherty	Project Co-ordinator	National Cancer Quality Programme
Melanie Mackean	Consultant Medical Oncologist	SCAN
Cameron Martin	Consultant Gynaecologist	SCAN
Lorraine Stirling	Project Officer	National Cancer Quality Programme
Chris Urquhart	Audit Manager	NOSCAN

Formal review of the Ovarian Cancer QPIs has been undertaken in consultation with various other clinical specialties e.g oncology and pathology.

NOSCAN - North of Scotland Cancer Network
SCAN - South East Scotland Cancer Network
WoSCAN - West of Scotland Cancer Network

Appendix 4: Ovarian Cancer QPI Formal Review Group Membership (2020)

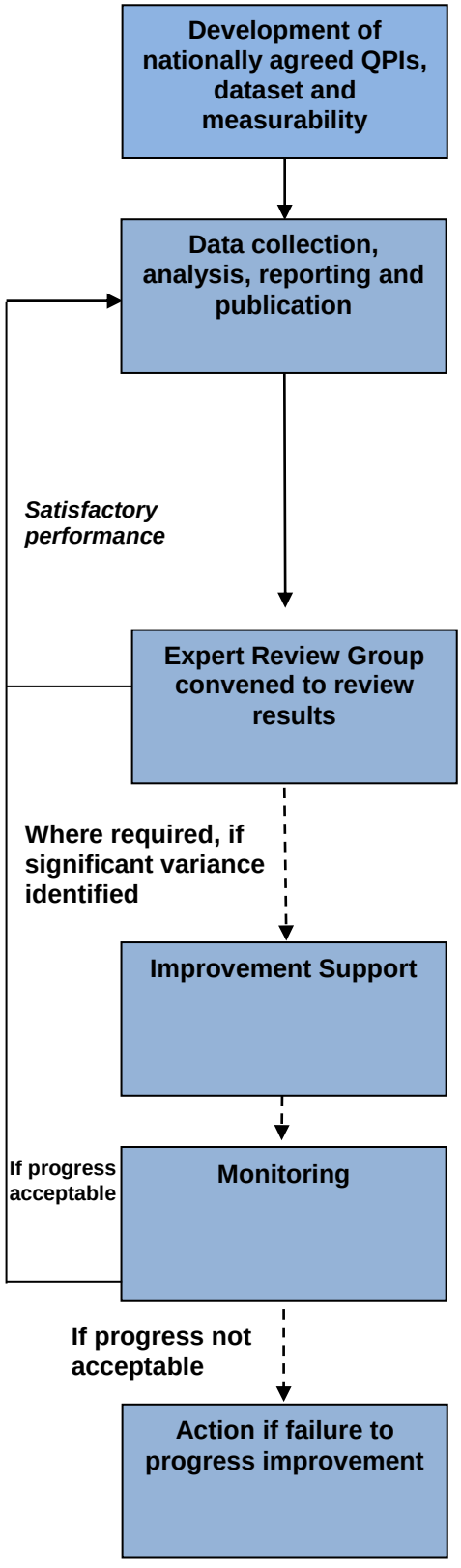
Name	Designation	Cancer Network
Param Mariappan	Consultant Urological Surgeon - (CHAIR)	SCAN
Jennifer Brown	Consultant Medical Oncologist	WoSCAN
Kevin Burton	Consultant Gynaecological Oncologist and Clinical Lead	WoSCAN
Mary Cairns	Consultant Gynaecological Oncologist	NCA
Jen Doherty	Project Co-ordinator	National Cancer Quality Programme
Michelle Ferguson	Consultant Medical Oncologist	NCA
Ros Glasspool	Consultant Medical Oncologist	WoSCAN
Anne-Marie Hobkirk	Health Intelligence Analyst	NCA
Carol Marshall	Audit Manager	WoSCAN
Cameron Martin	Consultant Gynaecological Oncologist and Clinical Lead	SCAN
Bryan McKellar	Programme Coordinator	NCA
Rachel Nirsimloo	Medical Oncologist	SCAN
Fiona Nussey	Consultant Medical Oncologist	SCAN
Barbara Stanley	Consultant Medical Oncologist	WoSCAN
Lorraine Stirling	Project Officer	National Cancer Quality Programme

Formal review of the Ovarian Cancer QPIs has been undertaken in consultation with various other clinical specialties e.g pathology.

NCA - North Cancer Alliance
SCAN - South East Scotland Cancer Network
WoSCAN - West of Scotland Cancer Network

Appendix 5: 3-Yearly National Governance Process & Improvement Framework for Cancer Care

This process is underpinned by the annual regional reporting and governance framework (see appendix 6).



1. National QPI Development Stage

- QPIs developed by QPI development groups, which include representation from Regional Cancer Networks, Healthcare Improvement Scotland, ISD, patient representatives and the Cancer Coalition.

2. Data Analysis Stage:

- NHS Boards and Regional Cancer Advisory Groups (RCAGs)* collect data and analyse on yearly basis using nationally agreed measurability criteria and produce action plans to address areas of variance, see appendix 6.
- Submit yearly reports to ISD for collation and publication every 3 years.
- National comparative report approved by NHS Boards and RCAGs.
- ISD produce comparative, publicly available, national report consisting of trend analysis of 3 years data and survival analysis.

3. Expert Review Group Stage (for 3 tumour types per year):

- Expert group, hosted by Healthcare Improvement Scotland, review comparative national results.
- Write to RCAGs highlighting areas of good practice and variances.
- Where required NHS Boards requested to submit improvement plans for any outstanding unresolved issues with timescales for improvement to expert group.
- Improvement plans ratified by expert group and Scottish Cancer Taskforce.

4. Improvement Support Stage:

- Where required Healthcare Improvement Scotland provide expertise on improvement methodologies and support.

5. Monitoring Stage:

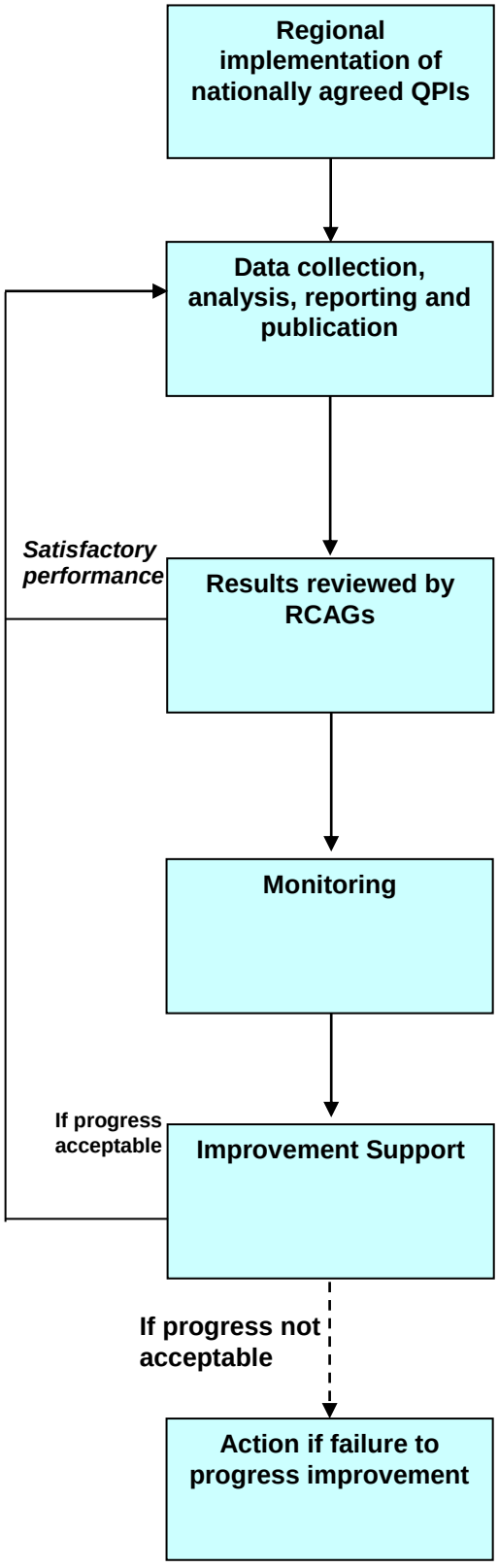
- RCAGs work with Boards to progress outstanding actions, monitor improvement plans and submit progress report to Healthcare Improvement Scotland.
- Healthcare Improvement Scotland report to Scottish Cancer Taskforce as to whether progress is acceptable**.**

6. Escalation Stage:

- If progress not acceptable, Healthcare Improvement Scotland will visit the service concerned and work with the RCAG and Board to address issues.
- Report submitted to Scottish Cancer Taskforce and escalation with a proposal to take forward to Scottish Government Health Department.

* The Regional Cancer Planning Group (South and East of Scotland) and the North Cancer Clinical Leadership Group (North Cancer Alliance) are equivalent to the Regional Cancer Advisory Group (RCAG) in the West of Scotland.

Appendix 6: Regional Annual Governance Process and Improvement Framework for Cancer Care



1. Regional QPI Implementation Stage:

- National cancer QPIs and associated national minimum core dataset and measurability specifications, developed by QPI development groups.
- Regional implementation of nationally agreed dataset to enable reporting of QPIs.

2. Data Analysis Stage:

- NHS Boards collect data and data is analysed on a yearly basis using nationally agreed measurability criteria at local/ regional level.
- Data/results validated by Boards and annual regional comparative report produced by Regional Networks.
- Areas of best practice and variance across the region highlighted.
- Yearly regional reports submitted to ISD for collation and presentation in national report every 3 years.

3. Regional Performance Review Stage:

- RCAGs* review regional comparative report.
- Regional or local NHS Board action plans to address areas of variance developed.
- Appropriate leads identified to progress each action.
- Action plans ratified by RCAGs.

4. Monitoring Stage:

- Where required, NHS Boards monitor progress with action plans and submit progress reports to RCAGs.
- RCAGs review and monitor regional improvement.

5. Improvement Support Stage:

- Where required Healthcare Improvement Scotland maybe requested to provide expertise to NHS Boards/RCAGs on improvement methodologies and support.

6. Escalation Stage:

- If progress not acceptable, RCAGs will escalate any issues to relevant Board Chief Executives. If progress remains unacceptable RCAGs will escalate any relevant issues to Healthcare Improvement Scotland.

* The Regional Cancer Planning Group (South and East of Scotland) and the North Cancer Clinical Leadership Group (North Cancer Alliance) are equivalent to the Regional Cancer Advisory Group (RCAG) in the West of Scotland.

Appendix 7: Glossary of Terms

Abdomen	The abdomen contains the stomach, liver, kidneys, bladder, in women it also contains the ovaries and uterus
Bilateral	Affecting both the right and left sides of the body.
Bilateral Salpingo–oophorectomy(BSO)	The term used to describe the removal of both ovaries and both fallopian tubes.
Biopsy	Removal of a sample of tissue from the body to assist in diagnosis of a disease.
BRCA1 (breast cancer susceptibility gene 1)**and BRCA2 mutation** (breast cancer susceptibility gene 2)	Specific genetic markers identifying an increased risk of breast and ovarian cancer.
CA125 (cancer antigen 125 or carbohydrate antigen 125)	The most frequently used biomarker for ovarian cancer detection The CA125 tumour marker or biomarker that may be elevated in the blood of some patients with ovarian cancer.
Carcinoma	Cancer that begins in the skin or in tissues that line or cover internal organs.
Chemotherapy	The use of drugs that kill cancer cells, or prevent or slow their growth.
Computed Tomography (CT)	An x-ray imaging technique, which allows detailed investigation of the internal organ of the body.
Contraindication/ Contraindicated	A symptom or medical condition that makes a particular treatment or procedure inadvisable because a person is likely to have a bad reaction.
Cytological/ Cytopathological	The study of the structure and function of cells under the microscope, and of their abnormalities.
Cytoreduction	A decrease in number of cells, as in a tumour.
Cytotoxic Treatment	Toxic to cells. This term is used to describe drugs which kill cancer cells or slow their growth.
Diagnosis/Diagnosed	The process of identifying a disease, such as cancer, from its signs and symptoms.
Elective/Elective Surgical Procedure	An elective procedure is one that is chosen by the patient or doctor that is advantageous to the patient but is not urgent.
Emergency Surgery	Unscheduled surgery performed promptly and often for lifesaving purposes.
Epithelial Ovarian Cancer	A disease in which malignant cancer cells form in the tissue covering the ovary.
Fallopian Tube	Also known as uterine tube or oviduct, either of a pair of long narrow ducts located in the female abdomen.
FIGO Stage	An international system of staging is used, and identifies the spread of the ovarian cancer at the point of diagnosis
First-line/Primary treatment	Initial treatment used to reduce or treat a cancer.
Histological/ Histopathogical/Histology	The study of the structure, composition and function of tissues under the microscope, and their abnormalities.
Invasive	Cancer that can or has spread from its histological original site.
Lesion	Tumour, mass, or other abnormality.
Locally advanced	Cancer that has spread from where it started to nearby tissue or lymph nodes.
Magnetic Resonance Imaging (MRI)	A procedure in which radio waves and a powerful magnet linked to a computer is used to create detailed pictures of areas inside the body. These pictures can show the difference between normal and diseased tissue.

Malignant	Cancerous. Malignant cells can invade and destroy nearby tissue and spread to other parts of the body.
Metastases / Metastatic disease	Spread of cancer away from the primary site to somewhere else via the bloodstream or the lymphatic system. Metastatic disease can be local (close to the area where the cancer is) or distant (in another area of the body).
Morbidity	How much ill health a particular condition causes.
Morphology	The science of the form and structure of organisms (plants, animals, and other forms of life).
Mortality	Either (1) the condition of being subject to death; or (2) the death rate, which reflects the number of deaths per unit of population in any specific region, age group, disease or other classification, usually expressed as deaths per 1000, 10,000 or 100,000.
Multi-disciplinary team meeting (MDT)	A meeting which is held on a regular basis, which is made up of participants from various disciplines appropriate to the disease area, where diagnosis, management, and appropriate treatment of patients is discussed and decided.
National Institute for Clinical Effectiveness (NICE)	An independent organisation responsible for providing NHS England with guidance on promoting good health and preventing and treating ill health.
Neoadjuvant therapy/ treatment	Drug treatment which is given before the treatment of a primary tumour with the aim of improving the results of surgery and preventing the development of metastases.
Omentum	A double layer of peritoneum attached to the stomach and linking it with other abdominal organs, such as the liver, spleen and intestine.
Omentectomy	The removal of all or part of the omentum.
Palliative	Anything which serves to alleviate symptoms due to the underlying cancer but is not expected to cure it.
Pathological	The study of disease processes with the aim of understanding their nature and causes. This is achieved by observing samples of fluid and tissues obtained from the living patient by various methods, or at post mortem.
Pathologist	A doctor who identifies diseases by studying cells and tissues under a microscope.
Pelvic/Pelvis	Having to do with the pelvis (the lower part of the abdomen located between the hip bones).
Percutaneous	Access to inner organs or tissue is carried out via 'needle puncture' to the skin rather than an open procedure.
Primary Tumour	The original tumour.
Prognosis	An assessment of the expected future course and outcome of a person's disease.
Prognostic indicators	Factors, such as staging, tumour type or deprivation that may influence treatment effectiveness and outcomes.
Progression	In medicine, the course of a disease, such as cancer, as it becomes worse or spreads in the body.
Prophylactic	To prevent the occurrence of disease.
Randomised Clinical Trials	A study to test a specific drug or other treatment in which people are randomly assigned to two (or more) groups: one (the experimental group) receiving the treatment that is being tested, and the other (the comparison or control group) receiving an alternative treatment, a placebo (dummy treatment) or no treatment. The two groups are followed up to compare differences in outcomes to see how effective the experimental treatment was. (Through randomisation, the

	groups should be similar in all aspects apart from the treatment they receive during the study.)
Resectable	Able to be removed (resected) by surgery.
Risk of Malignancy Index (RMI I)	RMI score derived from measure of serum CA125, ultrasound imaging and menopausal status RMI I = U x M x CA125
Risk Factor	Something that is known to increase your chances of getting a disease.
Staging	Process of describing to what degree cancer has spread from its original site to another part of the body. Staging involves clinical, surgical and pathology assessments.
Surgery/Surgical resection	Surgical removal of the tumour/lesion.
Surgical intervention	A surgical measure with the purpose of improving health or altering the course of disease.
Survival	The percentage of people in a study or treatment group who are alive for a certain period of time after they were diagnosed with or treated for a disease, such as cancer.
Symptomatic	Having to do with symptoms, which are signs of a condition or disease.
Systemic Anti Cancer Therapy (SACT)	Treatment of cancer using drugs which prevent the replication or growth of cancer cells. This encompasses biological therapies and cytotoxic chemotherapy.
Taxanes	A type of chemotherapy agent which includes paclitaxel and docetaxel.
Total Abdominal Hysterectomy (TAH)	A total abdominal hysterectomy is an operation to remove the womb (uterus) through an incision in the tummy known as a laparotomy.
Toxicity	The extent to which something is poisonous or harmful.
Treatment Intent	The reason for which treatment is given, that is, whether the treatment is intended to cure the disease or to alleviate symptoms.
Tumour size	The size of a cancer measured by the amount of space taken up by the tumour.
ug/l	Micrograms per litre.
Ultrasound	An imaging test that bounces sound waves off tissues and converts the echoes into pictures.