Quality Performance Indicators Audit Report

Tumour Area:	Ovarian Cancer
Patients Diagnosed:	1st October 2016 – 30th September 2017
Published Date:	26th March 2019
Clinical Commentary:	Dr. Mary Cairns Consultant Gynaecologist, NHS Grampian

1. Ovarian Cancer in Scotland

Latest available cancer registration figures indicate that ovarian cancer ranks as the sixth most common cancer type in women in Scotland with 582 cases diagnosed during 2016. Incidence has decreased by around by 13.4% since 2006, which is thought to be partly due to increased use of the oral contraceptive pill from the 1960s onwards, which is understood to protect against the development of ovarian cancer[1].

Relative survival from ovarian cancer in Scotland is increasing[2]. The table below details the percentage change in 1 and 5 year relative survival for patients diagnosed 1987-1991 to 2007-2011.

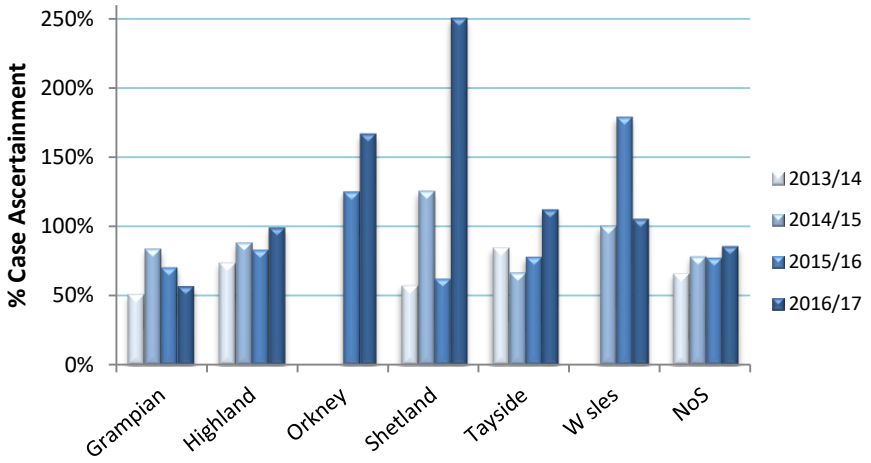
Relative age-standardised survival for ovarian cancer in Scotland at 1 year and 5 years showing percentage change from 1987-1991 to 2007-2011[2].

Relative survival at 1 year (%)		Relative survival at 5 years (%)	
2007-2011	% change	2007-2011	% change
65.8%	+ 15.2%	38.7%	+ 11.6%

2. Patient Numbers and Case Ascertainment in the North of Scotland

Between 1st October 2016 and 30th September 2017 a total of 124 cases of ovarian cancer were diagnosed in the North of Scotland and recorded through audit.

Case ascertainment for the North of Scotland was 85.6% in 2016-17. Although this may appear low, cancer audit and Cancer Registry are not entirely comparable for ovarian cancers as cancer audit includes only patients diagnosed with epithelial ovarian cancer, while Cancer Registry records all patients with an ovarian cancer diagnosis. As such, case ascertainment is expected to be low. The 2016-17 case ascertainment figures for the North of Scotland are higher than previous years and also above the national level in 2015-16[3], suggesting that in reality capture of patients by cancer audit was high in the North of Scotland in 2016-17. As such, QPI calculations based on data captured are considered to be representative of all patients diagnosed with ovarian cancer during the audit period.



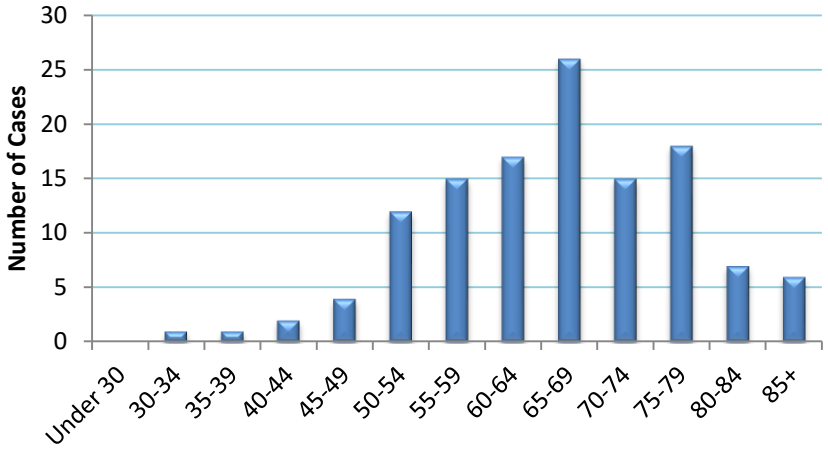
Case ascertainment by NHS Board for patients diagnosed with ovarian cancer in 2013-2017.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
No. of Patients 2016-17	38	24	2	2	54	4	**124**
% of NoS total	30.6%	19.4%	1.6%	1.6%	43.5%	3.2%	**100.0%**
Mean ISD Cases 2011-15	66.6	24.2	1.2	0.8	48.2	3.8	**144.8**
% Case ascertainment 2016-17	57.1%	99.2%	166.7%	250.0%	112.0%	105.3%	**85.6%**

For patients included within the audit, data collection was near complete.

3. Age Distribution

The figure below shows the age distribution of women diagnosed with ovarian cancer in the North of Scotland in 2016-17, with numbers of patients diagnosed highest in the 65-69 age bracket.



Age distribution of patients diagnosed with ovarian cancer in NOSCAN 2016-2017.

4. Performance against Quality Performance Indicators (QPIs)

Definitions for the QPIs reported in this section are published by Health Improvement Scotland4, while further information on datasets and measurability used are available from Information Services Division5. Data for most QPIs are presented by Board of diagnosis; however QPI 4, 6, 10(ii), 10(iii) and 12 (post-surgical mortality) relate to surgery and are presented by NHS Board of Surgery. Further, QPI 13, clinical trials and research access, is reported by patients NHS Board of residence. Please note that where QPI definitions have been amended, results are not compared with those from previous years.

5. Governance and Risk

Governance is defined as the combination of structures and processes at all levels to lead on North quality performance including:

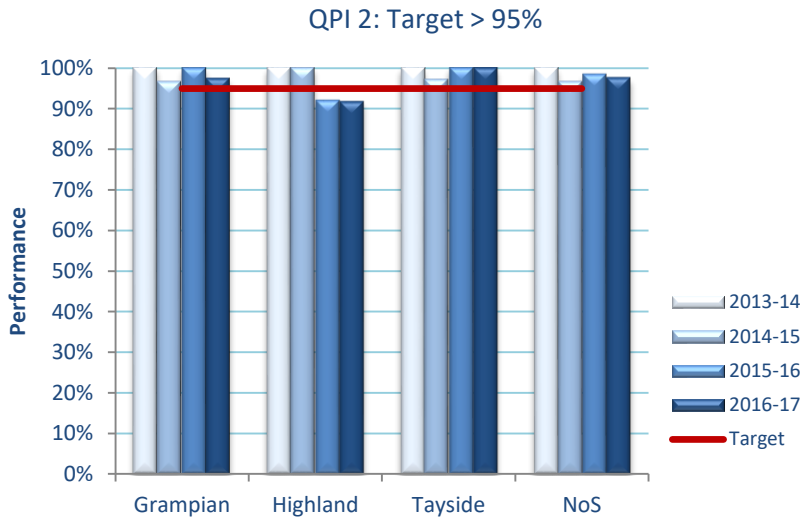
- Ensuring accountability for quality and required standards
- Investigating and taking action on sub-standard performance
- Identifying, sharing and ensuring delivery of best-practice
- Identifying and managing risks to ensure quality of care
- Driving continuous improvement

Our current governance structure provides assurance to the boards that risks associated with QPIs are being addressed as an alliance. Clinical risks are discussed at the North Cancer Gynaecology Pathway Board (NCGPB) and North Cancer Clinical Leadership Group (NCCLG). Risk levels are jointly agreed. The NCCLG are presented with all available evidence and actions so they have all the information to define the risk in a collaborative way.

- **Tolerate -** Accept the risk at its current level
- **Mitigate -** Reduce or mitigate the risk, in terms of reducing the likelihood of its occurrence or reducing the severity of impact if it does occur. This can be assessed through the action plans provided or the information provided is appropriate to prevent reoccurrence.
- **Escalate -** Escalate the risk to the appropriate committee and/or take further action as the mitigations were not suitable or there are no actions identified to mitigate the risk. This will be revisited by the RCCLG for further risk discussion.
- **Immediate -** Immediate action is required to prevent the risk reoccurring. This risk will have major impact on patient care delivery and the consequences thereafter. Very few risks should occur in this level.

The full governance document on risk should be referred to in conjunction with this summary, which is available on the NCA website[6].

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

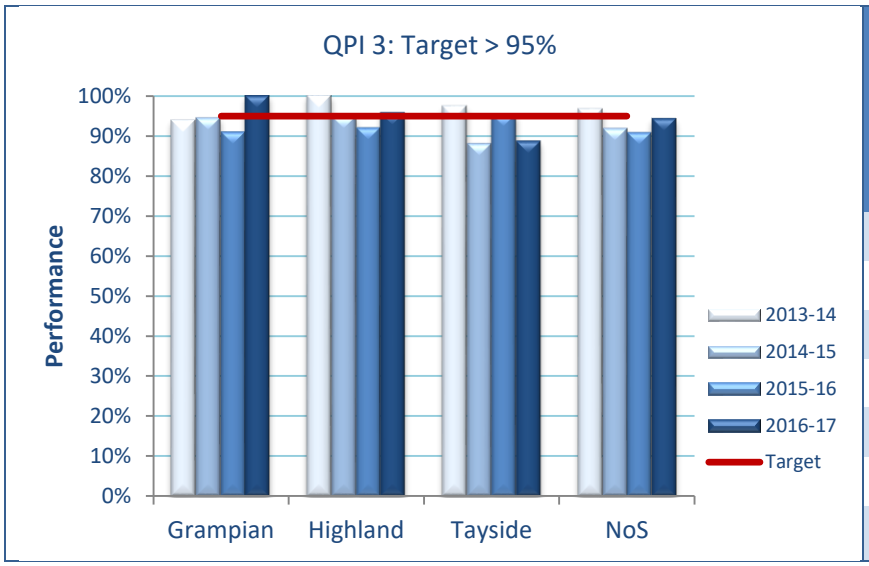


	Performance (%)	Numerator	Denominator
Grampian	**97.4%**	37	38
Highland	**91.7%**	**22**	24
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**100%**	51	51
W Isles*	-	-	-
NoS	**97.5%**	**118**	**121**

*Where the number of cases per Board is between one and four, this is excluded from charts and tables to minimise the risk of disclosure. However, these excluded Board numbers are included within the total for the North of Scotland.

Clinical Commentary	This target was met in the North of Scotland. Two patients from NHS Highland did not have imaging of the abdomen and pelvis prior to treatment. One had pelvic MRI only and one patient was pregnant who had a cyst removed which pathology showed as a mucinous adenocarcinoma. MRI abdomen and pelvis was carried out after first treatment. This was clinically appropriate.
Actions	No action required
Risk Status	Tolerate

QPI 3	Treatment planned and reviewed at a multi-disciplinary team (MDT) meeting
Proportion of patients with epithelial ovarian cancer who are discussed at a MDT meeting before definitive treatment.	



	Performance (%)	Numerator	Denominator
Grampian	**100%**	38	38
Highland	**95.7%**	22	23
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**88.7%**	47	53
W Isles*	-	-	-
NoS	**94.3%**	**115**	**122**

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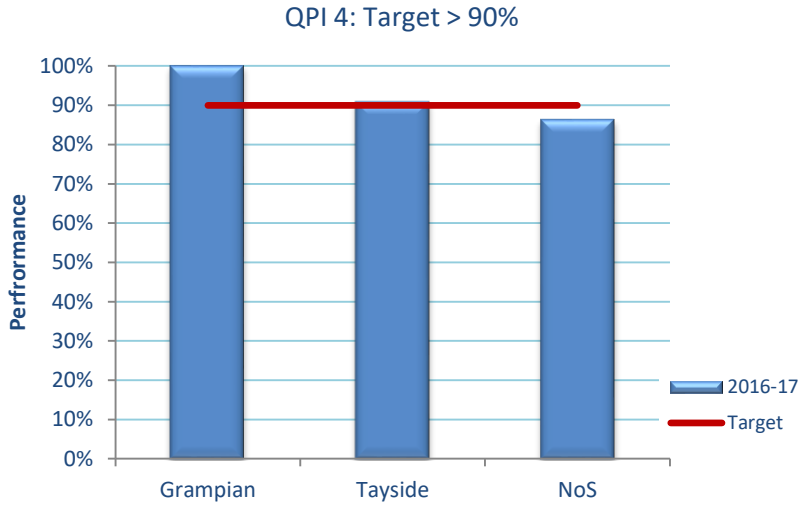
Clinical Commentary	This target was not met by 0.7% in the North of Scotland. Six of 53 women in Tayside were not discussed at the MDT prior to surgery; four required emergency surgery for acute abdomen and two had surgery with normal CA125 and low RMI (both early disease completely resected) and this was clinically appropriate.
Actions	No action required
Risk Status	Tolerate

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



	Performance (%)	Numerator	Denominator
Grampian	**100%**	8	8
Highland*	-	-	-
Orkney	-	**0**	0
Shetland	-	0	0
Tayside	**90.9%**	10	11
W Isles	-	0	0
NoS	**86.4%**	**19**	**22**

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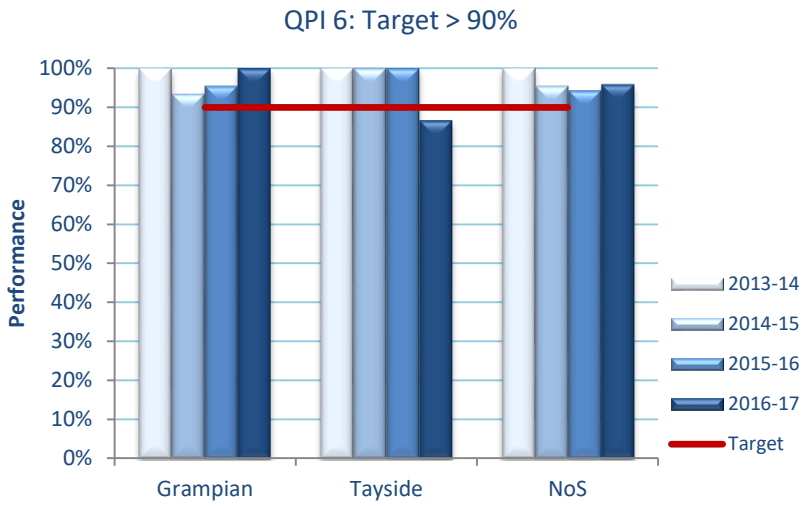
Clinical Commentary	Two patients had incomplete staging surgery, both were thought to have benign cysts. One patient declined completion surgery. One patient who was pregnant at the time of the incomplete staging surgery (oophorectomy and partial salpingectomy) went on to have further staging surgery. The 10% tolerance within the target for this QPI allows for the small number of patients who have undergone previous surgery (hysterectomy or oophorectomy). Small numbers affect our result for this QPI.
Actions	No action required
Risk Status	Tolerate

QPI 6	Histopathology reports are complete and support clinical decision-making
Proportion of patients with epithelial ovarian cancer undergoing pelvic clearance surgery having a complete pathology report as defined by the Royal College of Pathologists.	



	Performance (%)	Numerator	Denominator
Grampian	**100%**	33	33
Highland*	-	-	-
Orkney	-	**0**	0
Shetland	-	0	0
Tayside	**86.7%**	13	15
W Isles	-	0	0
NoS	**95.9%**	**47**	**49**

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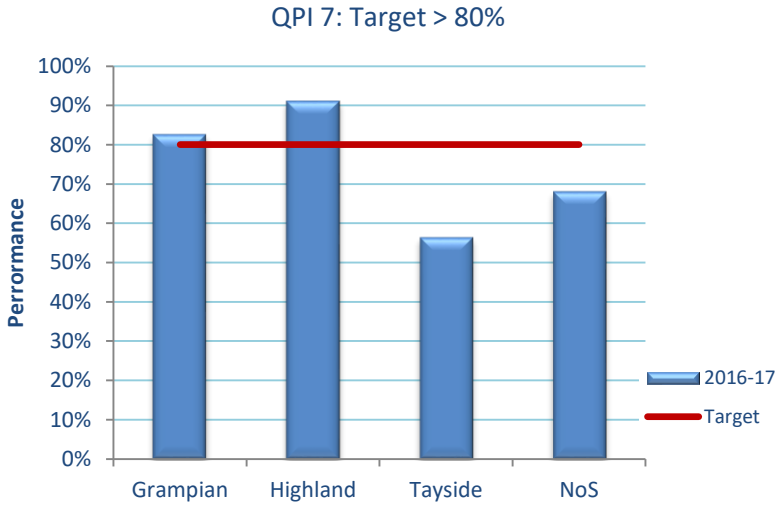
Clinical Commentary	This target was met in the North of Scotland. In Tayside two patients had no omental sampling; one had palliative surgery with widespread serosal disease so not required and the other patient had surgery by the benign team for a low risk pelvic mass; omental biopsy was not completed.
Actions	1. NHS Tayside through NCGPB to remind colleagues of the importance of sampling. On NCGPB agenda for first meeting of 2019.
Risk Status	Mitigate

QPI 7	Histological diagnosis prior to starting chemotherapy
Proportion of patients with epithelial ovarian cancer having a histological diagnosis obtained by percutaneous image-guided biopsy or laparoscopy prior to starting chemotherapy.	



	Performance (%)	Numerator	Denominator
Grampian	**82.4%**	14	17
Highland	**90.9%**	**10**	11
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**56.3%**	18	32
W Isles*	-	-	-
NoS	**67.7%**	**44**	**65**

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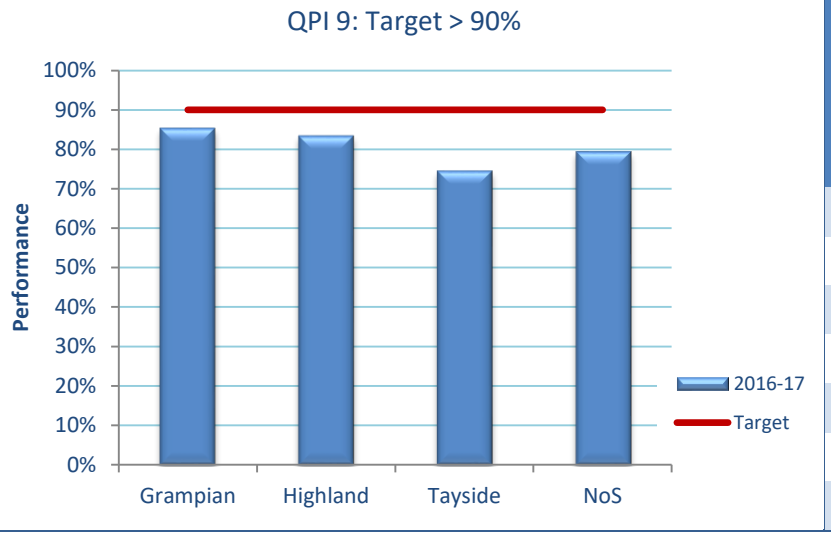
Clinical Commentary	This target was not met as a whole in the North of Scotland. Histological diagnosis is the gold standard prior to starting chemotherapy though cytological diagnosis may be accepted if there is a clinical risk of obtaining a tissue diagnosis either radiologically or laparoscopically. Fourteen of 32 in NHS Tayside had chemotherapy commenced based on cytology (3 pleural taps, 10 ascitic samples, one patient had pleural and ascitic cytology). In all cases the cytological diagnosis was of high grade gynaecological cancer and the MDT felt a confirmatory histological diagnosis would not alter the patient's' management or alter eligibility for clinical trials.
Actions	No action required
Risk Status	Tolerate

QPI 9	First-line Chemotherapy
Proportion of epithelial ovarian cancer patients who receive platinum-based chemotherapy, either in combination or as a single agent.	



	Performance (%)	Numerator	Denominator
Grampian	**85.3%**	29	34
Highland	**83.3%**	**15**	18
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**74.5%**	38	51
W Isles*	-	-	-
NoS	**79.3%**	**88**	**111**

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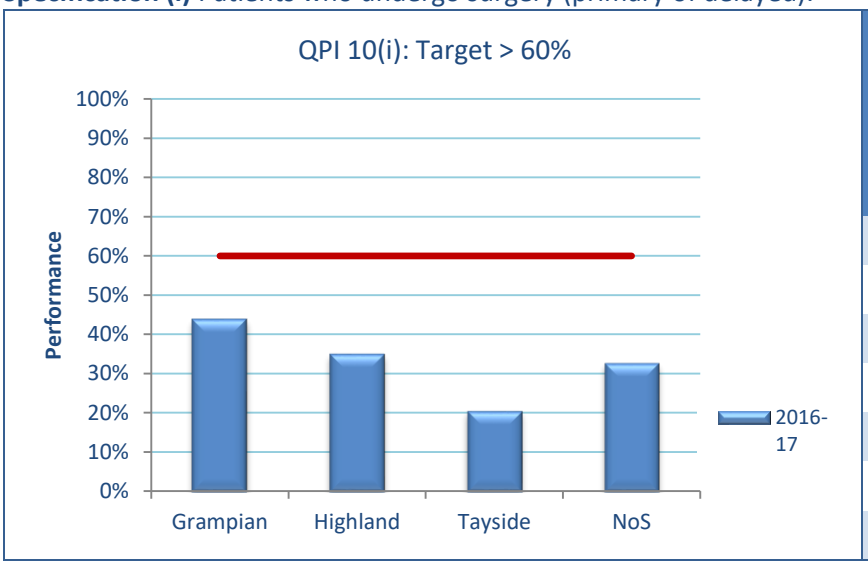
Clinical Commentary	Some patients that did not have carboplatin based chemotherapy as it was not clinically indicated for their grade and stage of cancer. Others had too poor performance status or co-morbidities that prevented to safe delivery of chemotherapy (alternative treatments such as endocrine treatments were offered).
Actions	1. Benchmark against WOSCAN and SCAN to determine if change needs to occur in North of Scotland. 2. Review Ovarian Cancer CMG and discuss at North Cancer Gynaecology Pathway Board (NCGPB) to gain consensus and implement. 3. Review workforce across the North and identify areas where improvement can be made in line with the Surgery Case for Change programme. 4. NCCLG to be updated with progress of actions until such time as risk can be de-escalated.
Risk Status	Escalate

QPI 10	Surgery for advanced disease
Proportion of patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher) undergoing surgery who have no macroscopic residual disease following surgical resection.	

Specification (i) Patients who undergo surgery (primary of delayed).



	Performance (%)	Numerator	Denominator
Grampian	**43.8%**	14	32
Highland	**35.0%**	**7**	20
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**20.5%**	8	39
W Isles*	-	-	-
NoS	**32.6%**	**31**	**95**

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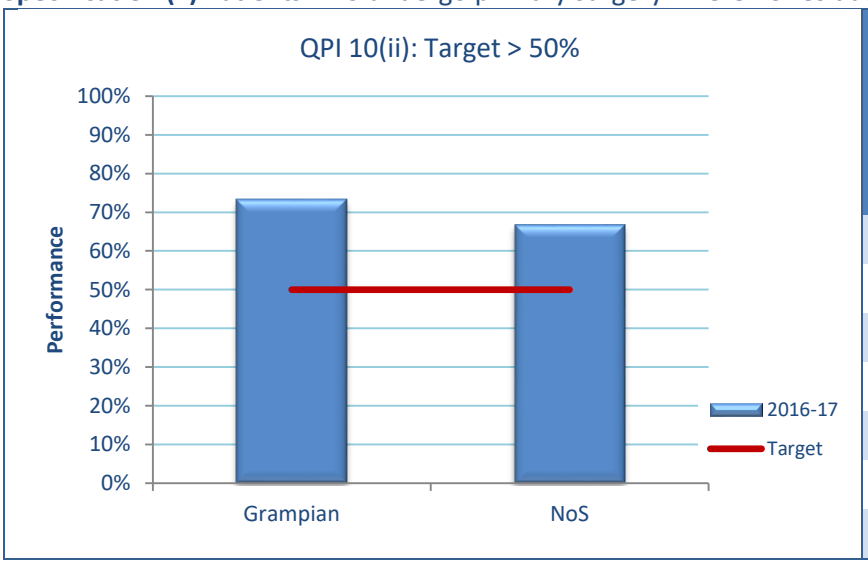
Specification (ii) Patients who undergo primary surgery where no residual disease is achieved.



	Performance (%)	Numerator	Denominator
Grampian	**73.3%**	11	15
Highland	-	0	0
Orkney	-	0	0
Shetland	-	0	0
Tayside*	-	-	-
W Isles	-	0	0
NoS	**66.7%**	**12**	**18**

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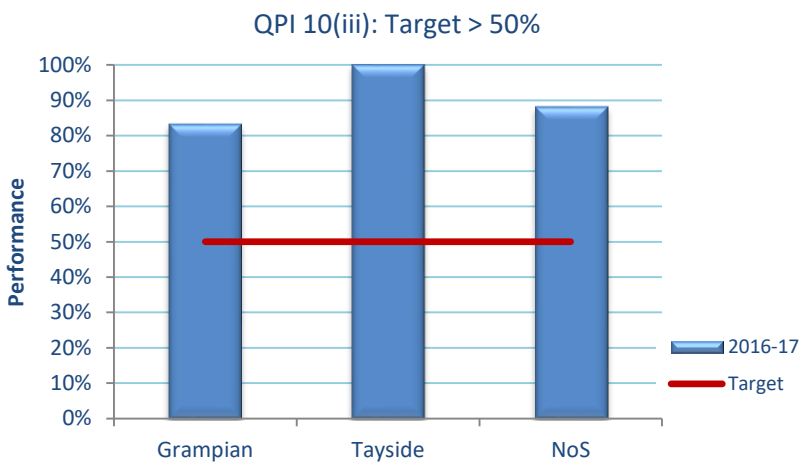
Specification (iii) Patients who undergo delayed primary surgery where no residual disease is achieved.



	Performance (%)	Numerator	Denominator
Grampian	**83.3%**	10	12
Highland	-	0	0
Orkney	-	0	0
Shetland	-	0	0
Tayside	**100%**	5	5
W Isles	-	0	0
NoS	**88.2%**	**15**	**17**

Clinical Commentary	For this QPI specification (i) a review of surgery offered is being undertaken. This will help the North be in line with the proportion of patients having surgery across Scotland (SCAN =70%) but will require the support from all North boards to implement and fund.
Actions	1. NCGPB to review the Ovarian clinical management guidelines (CMG) and patient pathways to ascertain if it is in line with current practice. 2. Regional Ovarian subgroup to review and improve the North Gynaecological MDT. 3. Regional Ovarian subgroup to produce a formal action plan to improve performance for advanced disease. 4. Regional Ovarian subgroup to produce a business case with regards to development of the service to improve outcomes. **5.** North Cancer Alliance team to review theatre capacity required for additional surgery service for advanced disease, in line with business case. **6.** NCGPB to have oversight of actions of Ovarian sub-group and ensure progress against actions is reported to NCCLG. **7.** NCCLG to be kept updated electronically with progress of these actions until such time as risk can be de-escalated.
Risk Status	Immediate. Escalated to Board Medical Director and Acute Clinical Director for oversight. Direct action is required to ensure compliance.

QPI 11	BRCA1 and BRCA2 sequencing in epithelial ovarian cancer
Proportion of patients with epithelial ovarian cancer who undergo genetic testing.	

This QPI was developed through the Formal Review of Ovarian Cancer QPIs in 2017. Data required to report this standard has not been collected for patients diagnosed in 2016-2017 and therefore it is not possible to report performance against this target here. Results will be reported for patients diagnosed in 2017-2018.

QPI 12	30 day mortality after first line treatment for ovarian cancer
Proportion of patients with ovarian cancer who die within 30 days of treatment (surgery, and Systemic Anti Cancer Therapy (SACT)) for ovarian cancer.	

Target < 5%	Surgical Mortality			Mortality following neo-adjuvant / primary / palliative chemotherapy			Mortality following adjuvant chemotherapy		
	Performance (%)	Numerator	Denominator	Performance (%)	Numerator	Denominator	Performance (%)	Numerator	Denominator
Grampian	**0%**	0	36	**0%**	0	17	**0%**	0	14
Highland*	**-**	**-**	-	**0%**	0	11	**0%**	0	5
Orkney*	-	0	0	-	-	-	-	0	0
Shetland*	-	0	0	-	-	-	-	-	-
Tayside	**0%**	0	17	**6.5%**	2	31	**0%**	0	7
W Isles*	-	0	0	-	-	-	-	-	-
NoS	**0%**	**0**	**56**	**3.1%**	**2**	**64**	**0%**	**0**	**28**

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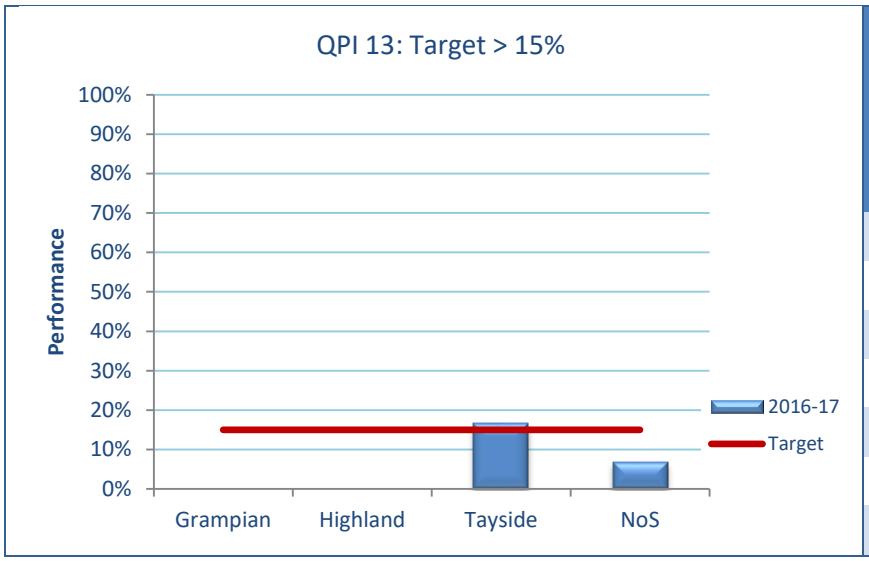
Clinical Commentary	With regards to this QPI, two women died within 30 days – one following emergency surgery for bowel obstruction and one from suspected pulmonary embolus. Both these women presented with stage 4 disease. The result was still within the tolerance for this QPI.
Actions	No action required
Risk Status	Tolerate

QPI 13	Clinical trials and research study access
Proportion of patients diagnosed with Ovarian Cancer who are consented§ for a clinical trial / research study.	



	Performance (%)	Numerator	Denominator
Grampian	**0%**	0	67
Highland	**0%**	**0**	24
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**16.6%**	8	48
W Isles*	-	-	-
NoS	**6.9%**	**10**	**145**

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Clinical Commentary	There was considerable variation in performance against this indicator across the North of Scotland with only patients from NHS Tayside and NHS W Isles being recruited into clinical trials or research studies, those from NHS W Isles being recruited into trials in the West of Scotland. It should be noted that in addition to the 16.6% of NHS Tayside patients recruited into clinical trials that are either commercially sponsored studies or non-commercial studies (as defined as eligible by the National Institute for Health Research (NIHR) or the Chief Scientist Office (CSO), a further 18 patients (37.5%) of patients were consented for the DOCS trial, which is not eligible for inclusion within the quality indicator.
Actions	1. All clinicians should consider opening relevant clinical trials in their tumour areas. When this is not possible patient referrals to other sites for access to clinical trials should be considered.
Risk Status	Tolerate

References

1. Information Services Division. Cancer in Scotland, April 2018. http://www.isdscotland.org/Health-Topics/Cancer/Publications/2018-04-24/Cancer_in_Scotland_summary_m.pdf

2. NHS National Services Scotland. Cancer Survival in Scotland, 1987-2011. 2015. https://isdscotland.scot.nhs.uk/Health-Topics/Cancer/Publications/2015-03-03/2015-03-03-CancerSurvival-Report.pdf

3. Information Services Division. Ovarian Cancer Quality Performance Indicators: Patients diagnosed between October 2013 and September 2016. 2018. http://www.isdscotland.org/Health-Topics/Quality-Indicators/Publications/2018-02-20/2018-02-20-Ovarian-QPI-Report.pdf

4. Scottish Cancer Taskforce, 2018. Ovarian Cancer Clinical Performance Indicators, Version 3.0. Health Improvement Scotland. http://www.healthcareimprovementscotland.org/his/idoc.ashx?docid=88080d35-cf48-4a2b-8665-9cf44e313210&version=-1

5. http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/

6. https://www.nrhcc.scot/uploads/tinymce/NCA/NCA%20Governance/NCA-GOV-QPI-Process-Explained.pdf

Appendix: List of clinical trials for patients with ovarian cancer into which patients were recruited in 2017.

Trial	Principle Investigator	Trial Type
OvPSYCH 2	Michelle Ferguson (Tayside)	Interventional
CANC - 3795 - Carboplatin/Paclitaxel +/- Veliparib in Gynaecological Cancers	Michelle Ferguson (Tayside)	Interventional