Quality Performance Indicators Audit Report

Tumour Area:	Ovarian Cancer
Patients Diagnosed:	1st October 2017 – 30th September 2018
Published Date:	28th October 2019
Clinical Commentary:	Dr. Mary Cairns NCA Ovarian Cancer clinical lead

1. Ovarian Cancer in Scotland

Ovarian cancer is the sixth most common cancer type in women in Scotland with 603 cases diagnosed during 2017. Incidence has decreased by around 15% in the last decade, 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].

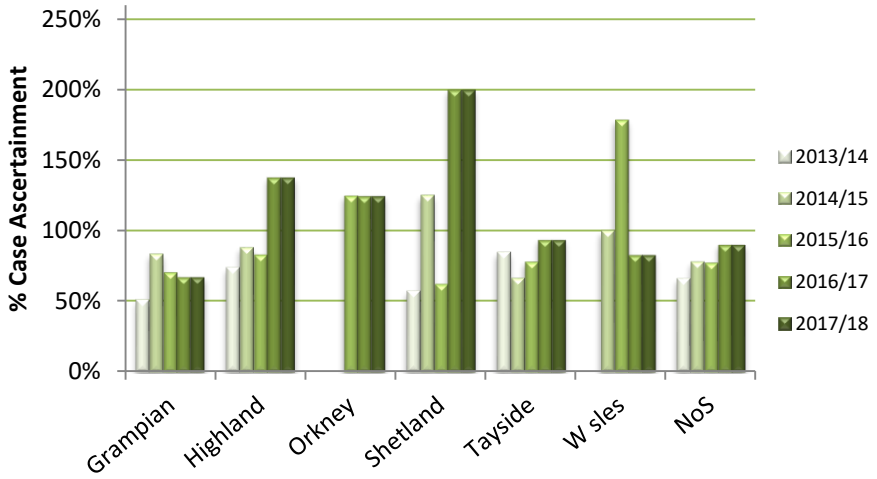
Relative survival from ovarian cancer in Scotland is increasing[2]. The table below details the percentage change in 1 and 5 year relative survival for patients diagnosed 1987-1991 to 2007-2011.

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 2017 and 30th September 2018 a total of 132 cases of ovarian cancer were diagnosed in the North of Scotland and recorded through audit. Case ascertainment was 90.5%. Although this may appear relatively 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 2017-18 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 2017-18. As such, QPI calculations based on data captured are considered to be representative of patients diagnosed with ovarian cancer during the audit period.



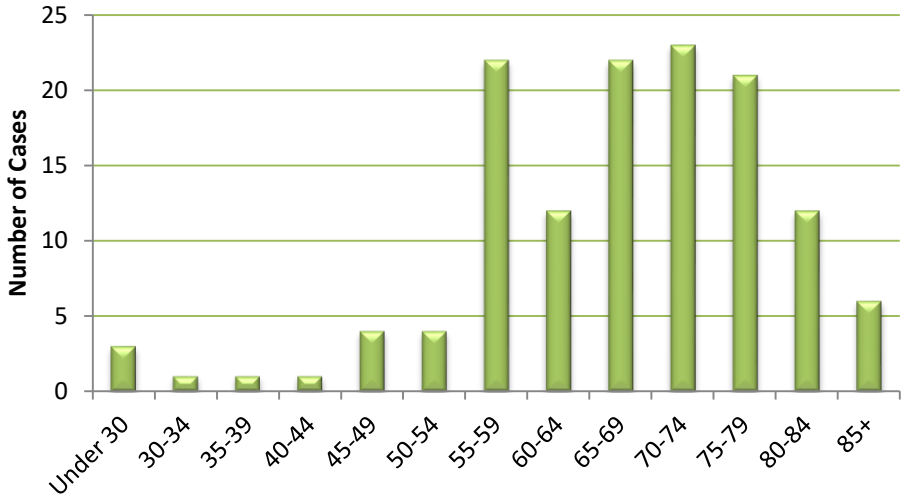
Case ascertainment by NHS Board for patients diagnosed with ovarian cancer in 2013-2018.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
No. of Patients 2017-18	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 2013-17	66.6	24.2	1.2	0.8	48.2	3.8	**144.8**
% Case ascertainment 2017-18	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 2017-18, with numbers of patients diagnosed highest in the 70-74 year age bracket.



Age distribution of patients diagnosed with ovarian cancer in 2017-18.

4. Performance against Quality Performance Indicators (QPIs)

Definitions for the QPIs reported in this section are published by Health Improvement Scotland[4], while further information on datasets and measurability used are available from Information Services Division[5]. Data for most QPIs are presented by Board of diagnosis; however surgical QPIs (QPIs 4,6, 10(ii) & (iii) and 12 (surgery)) are presented by Board of Surgery. In addition, QPI 13, clinical trials and research study 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

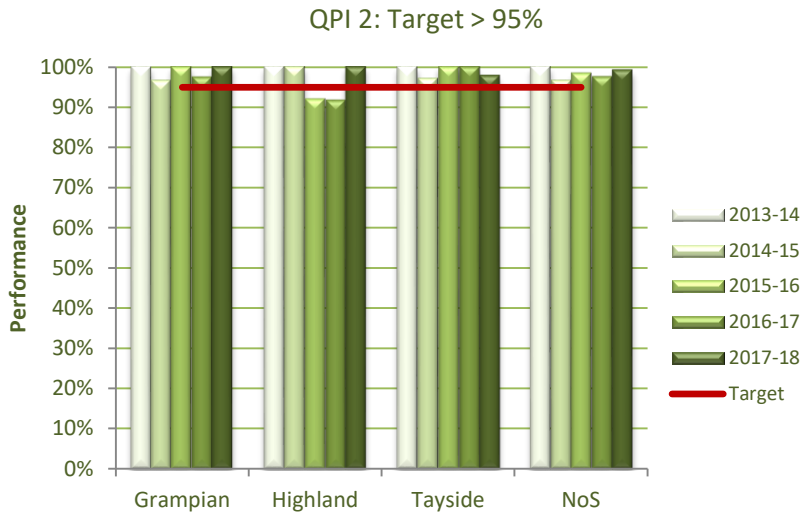
Our current governance structure provides assurance to the boards that risks associated QPIs are being addressed as an alliance. Clinical risks are discussed at the North Cancer Gynaecology Pathway Board (NCGPB) and Regional Cancer Clinical Leadership Group (RCCLG). Risk levels are jointly agreed. The RCCLG

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].

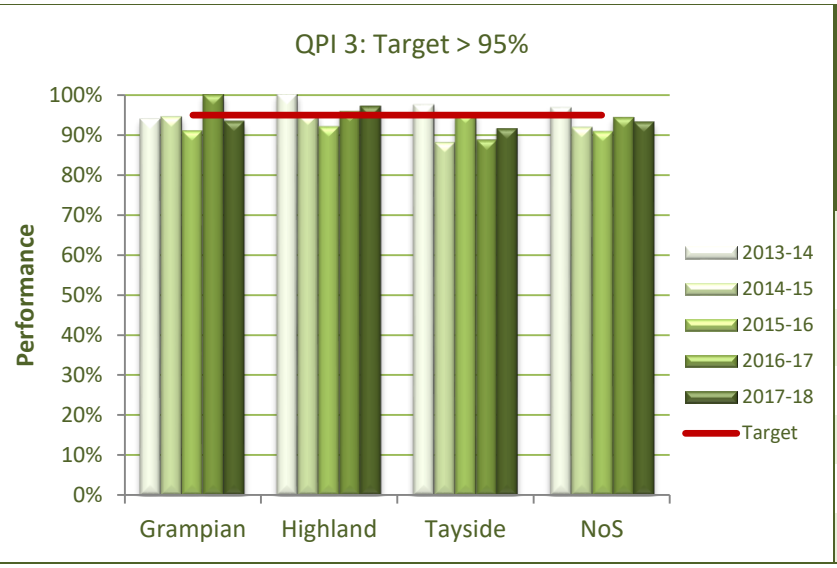
QPI 2	Extent of disease assessed by Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) prior to treatment
Proportion of patients with epithelial ovarian cancer having a CT scan or MRI of the abdomen and pelvis performed to exclude the presence of metastatic disease prior to starting treatment.	



	Performance (%)	Numerator	Denominator
Grampian	**100%**	44	44
Highland	**100%**	34	34
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**97.8%**	45	46
W Isles*	-	-	-
NoS	**99.2%**	**130**	**131**

Clinical Commentary	This target was met for all but one patient in the North of Scotland, with the one patient who did not meet the standard having her cancer diagnosed at time of surgery and thereafter having a staging CT prior to further pelvic clearance.
Actions	No action required.
Risk Status	Tolerate
Barriers	None

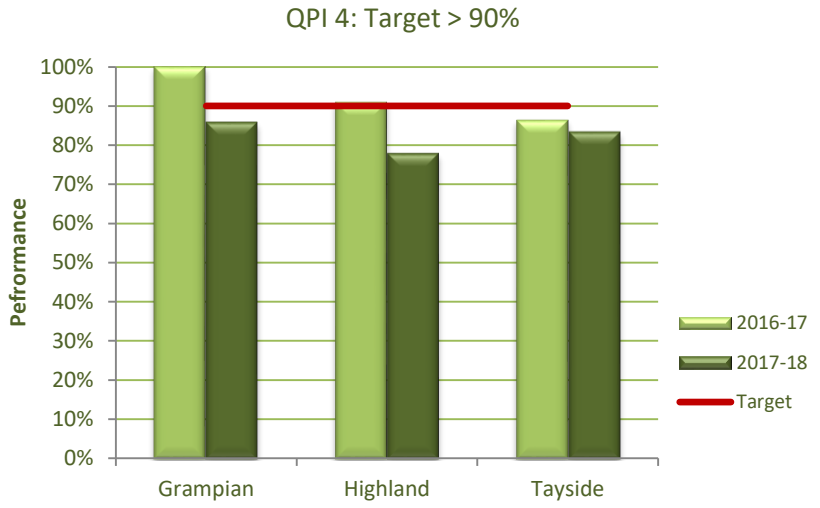
QPI 3	Treatment planned and reviewed at a multi-disciplinary team meeting
Proportion of patients with epithelial ovarian cancer who are discussed at a MDT meeting before definitive treatment.	



	Performance (%)	Numerator	Denominator
Grampian	**93.3%**	42	45
Highland	**97.1%**	33	34
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**91.5%**	43	47
W Isles*	-	-	-
NoS	**93.2%**	**124**	**133**

Clinical Commentary	The North of Scotland narrowly missed this target, in total 9 patients were not discussed at a MDT meeting prior to definitive treatment. Reasons submitted by boards included emergency presentation by patients, incidental or unexpected finding of cancer and patients moving to other health boards before treatment. All patients not discussed at MDT have been reviewed by boards.
Actions	No action required
Risk Status	Tolerate
Barriers	None

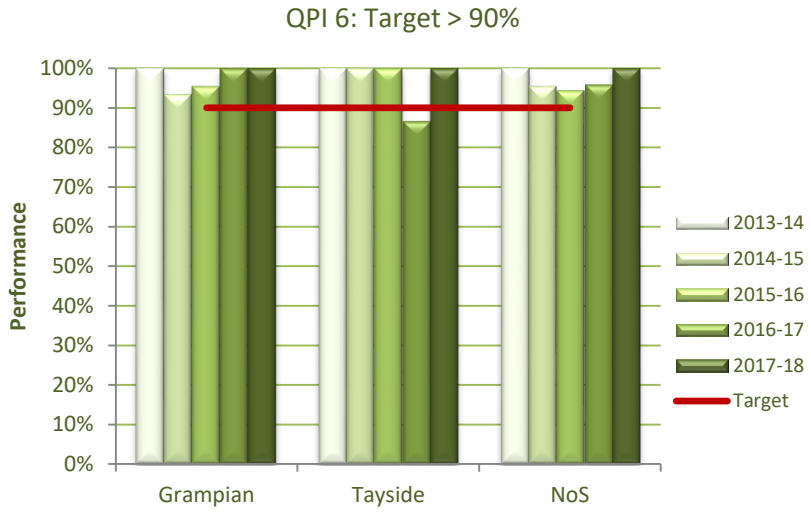
QPI 4	Patients with early stage disease have an adequate staging operation
Proportion of patients with early stage epithelial ovarian cancer (FIGO Stage 1) undergoing primary surgery for ovarian cancer, having their stage of disease adequately assessed (TAH, BSO, Omentectomy and washings), to determine suitability for adjuvant therapies.	



	Performance (%)	Numerator	Denominator
Grampian	**85.7%**	6	7
Highland*	-	-	-
Orkney	-	0	0
Shetland	-	0	0
Tayside	**77.8%**	7	9
W Isles	-	0	0
NoS	**83.3%**	**15**	**18**

Clinical Commentary	The North of Scotland missed this target, three patients did not have a staging operation prior to primary surgery. One patient had fertility sparing treatment, one was an incidental finding and returned for definitive surgery. Another had significant co-morbidities and had a BSO and omentectomy only.
Actions	No action required
Risk Status	Tolerate
Barriers	None

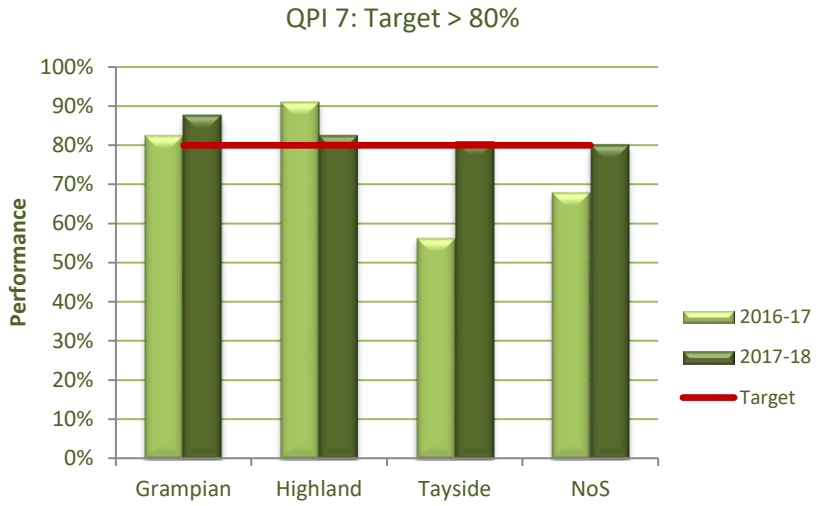
QPI 6	Histopathology reports are complete and support clinical decision-making
Proportion of patients with epithelial ovarian cancer undergoing pelvic clearance surgery having a complete pathology report as defined by the Royal College of Pathologists	



	Performance (%)	Numerator	Denominator
Grampian	**100%**	42	42
Highland*	-	-	-
Orkney	-	**0**	0
Shetland	-	0	0
Tayside	**100%**	12	12
W Isles	-	0	0
NoS	**100%**	**56**	**56**

Clinical Commentary	All patients in the North of Scotland undergoing pelvic clearance had a complete pathology report as defined by the Royal College of Pathologists.
Actions	No action required
Risk Status	Tolerate
Barriers	None

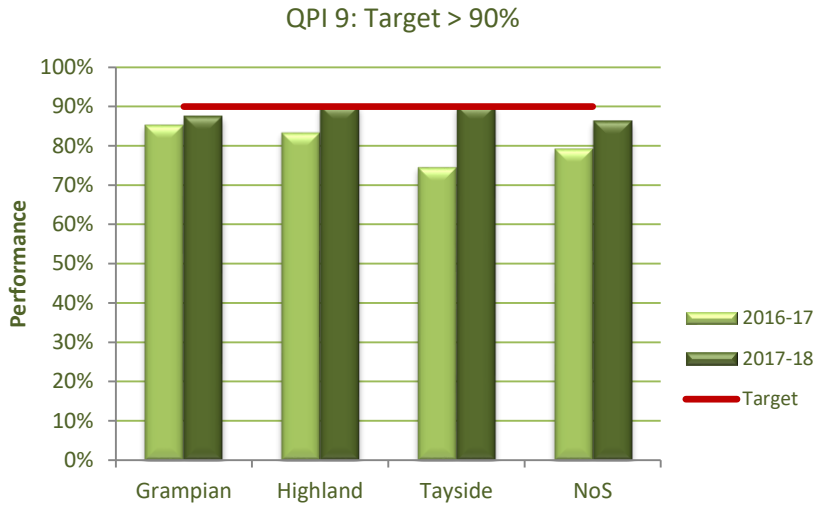
QPI 7	Histological diagnosis prior to starting chemotherapy
Proportion of patients with epithelial ovarian cancer having a histological diagnosis obtained by percutaneous image-guided biopsy or laparoscopy prior to starting chemotherapy.	



	Performance (%)	Numerator	Denominator
Grampian	**87.5%**	21	24
Highland	**82.4%**	14	17
Orkney*	-	-	-
Shetland	-	0	0
Tayside	**80.8%**	21	26
W Isles*	-	-	-
NoS	**80.0%**	**56**	**70**

Clinical Commentary	The North of Scotland achieved this target. Those patients who did not have an image-guided biopsy or laparoscopy prior to starting chemotherapy instead had disease diagnosed by cytology and allowed for clinical decision-making to proceed with chemotherapy.
Actions	No action required
Risk Status	Tolerate
Barriers	None

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

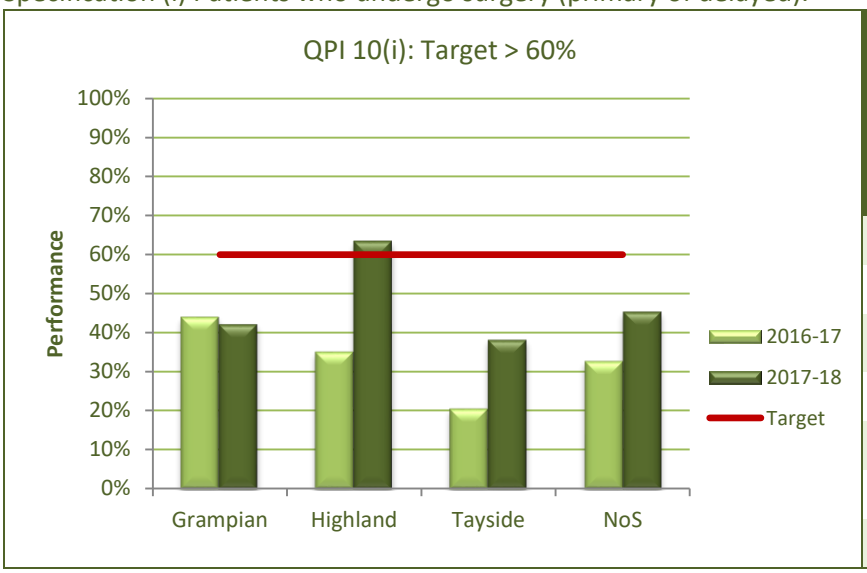


	Performance (%)	Numerator	Denominator
Grampian	**87.5%**	35	40
Highland	**90.0%**	27	30
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**90.0%**	36	40
W Isles*	-	-	-
NoS	**86.3%**	**101**	**117**

Clinical Commentary	The North of Scotland did not meet this target with 16 patients not receiving platinum-based chemotherapy. All cases have been reviewed by Boards and a large number of those who did not receive platinum-based chemotherapy were due to clinical decisions on their fitness for this treatment. One patient died before treatment while another moved to another health board, had these patients received platinum-based treatment, the target would have been met.
Actions	1. NCGPB to benchmark NCA results to SCAN and WOSCAN and make an assessment of comparative performance in this QPI. 2. NCCLG to be updated on this risk and assess whether this risk can be de-escalated.
Risk Status	Escalate
Barriers	None

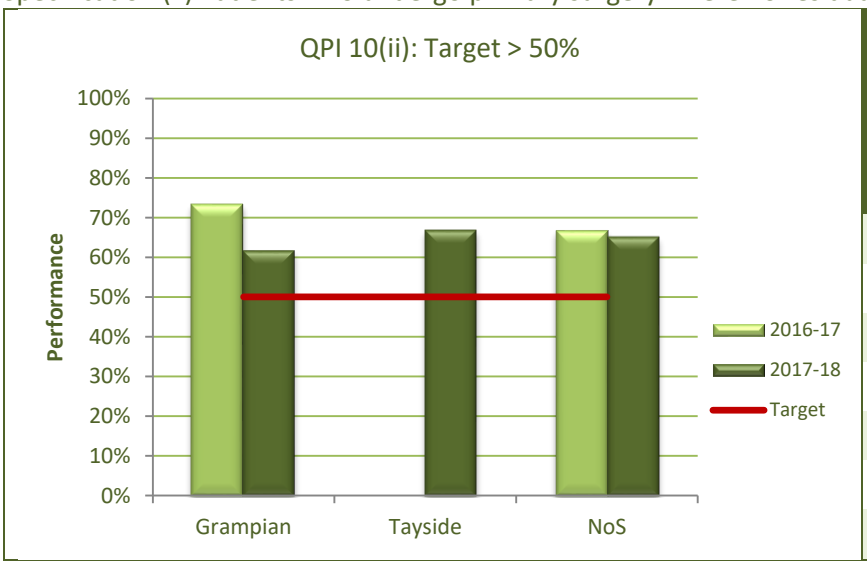
QPI 10	Surgery for advanced disease
Proportion of patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher) undergoing surgery who have no macroscopic residual disease following surgical resection.	

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



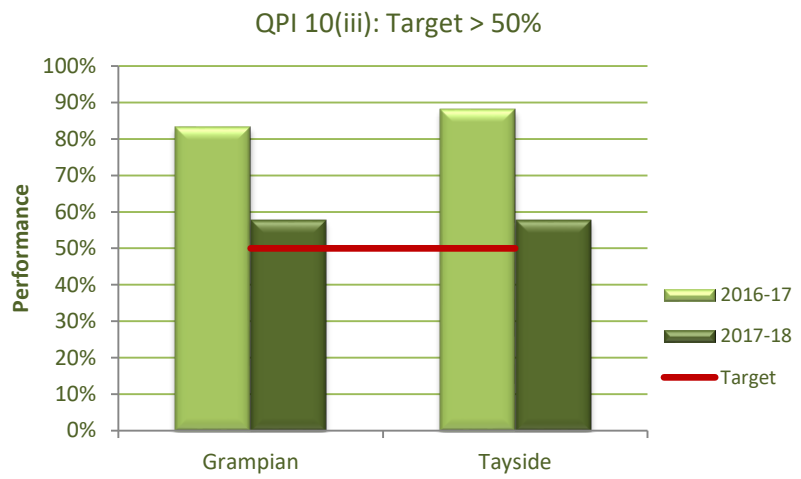
	Performance (%)	Numerator	Denominator
Grampian	**42.1%**	16	38
Highland	**63.3%**	19	30
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**38.2%**	13	34
W Isles	-	0	0
NoS	**45.3%**	**48**	**106**

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



	Performance (%)	Numerator	Denominator
Grampian	**61.5%**	8	13
Highland*	-	-	-
Orkney	-	0	0
Shetland	-	0	0
Tayside	**66.7%**	4	6
W Isles	-	0	0
NoS	**65.0%**	**13**	**20**

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

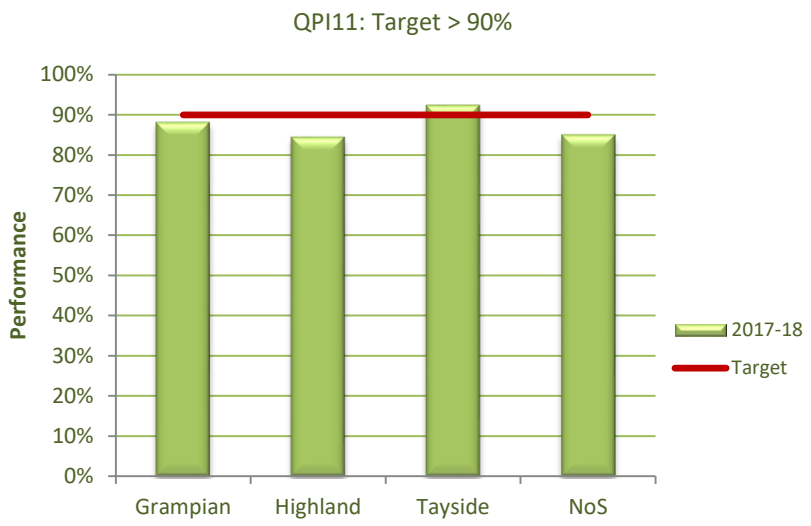


	Performance (%)	Numerator	Denominator
Grampian	57.9%	11	19
Highland	-	0	0
Orkney	-	0	0
Shetland	-	0	0
Tayside	-	0	0
W Isles	-	0	0
NoS	**57.9%**	**11**	**19**

Clinical Commentary	The North of Scotland did not achieve the Specification (i) 60% target for FIGO stage 2 or higher patients undergoing surgery, whether primary or delayed. Given the recent survival analysis undertaken nationally, much work has been done (September 2018 onwards) in the North Cancer Alliance to look at surgical management and decision making. A business case for Ovarian cancer has been produced but has not been endorsed at board level. The North Cancer Gynaecology Pathway Board (NCGPB) have worked hard to develop stratified guidelines for surgical decision making but it is impossible to implement these without additional resource (as per detailed in business plan). Clinical decision-making of those patients who did not receive surgery have been undertaken and include significant co-morbidities, fitness for surgery, progression of disease during chemotherapy treatment and more. The achievement of Specifications (ii) and (iii) show that the surgical service provided in Grampian and Tayside meets the quality criteria, and while the results for delayed primary surgery has reduced, this will continue to be monitored as the surgery guidelines indicate that more primary surgery will be undertaken in the future.
Actions	1. NCGPB to approve the revised Ovarian clinical management guidelines (CMG) and related surgery decision-making guidelines, and publish on NCA website in September 2019. 2. NCGPB to review and improve the North Gynaecological MDT to ensure discussion of Ovarian cancer patients with input from all three centres. 3. NCCLG to champion business case for additional resources. 4. 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.
Barriers	Once approved, the Ovarian CMG and surgery decision-making guidelines will be implemented through the revised North region Gynaecology MDT. There needs to be a commitment from all boards to ensure job plans can be amended, particularly for Radiology and Pathology support, to input to the work of the MDT. A current barrier is that all members of the three cancer centres can't currently meet at the same time to discuss all suspected ovarian cancer patients, and this is a key aspiration to enable collective decision-making on suitability for surgery.

	Additional resources are required to facilitate an increase in the surgical provision, particularly at NHS Grampian where surgery for advanced ovarian cancer patients is centralised. NCCLG is required to champion this business case and provide NCGPB with the support required to enable the implementation of decision-making and ensure surgery can be provided to more women in the North of Scotland. Particularly, the recruitment of an additional Gynaecological Oncologist coupled with additional theatre time will allow the service to meet the requirement for more women receiving upfront surgery as definitive treatment for ovarian cancer.

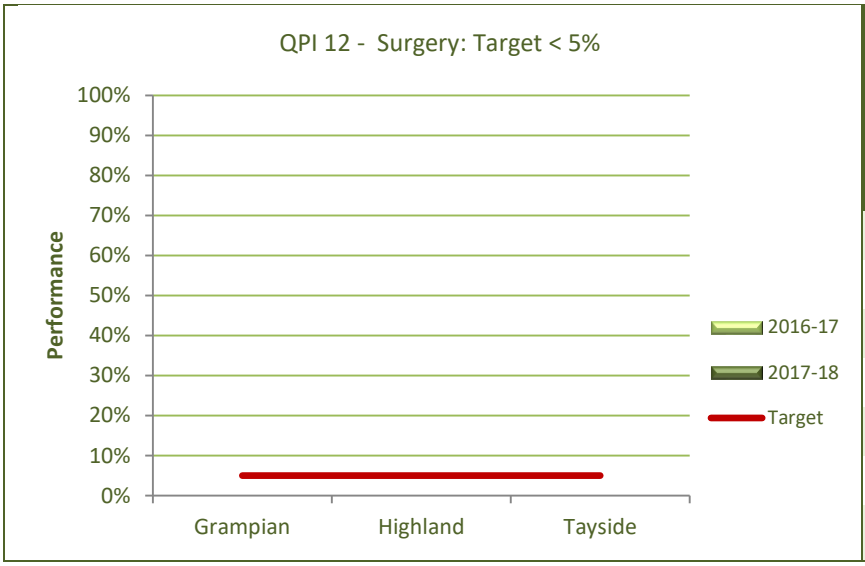
QPI 11	BRCA1 and BRCA2 sequencing in epithelial ovarian cancer
Proportion of patients with epithelial ovarian cancer who undergo genetic testing.	



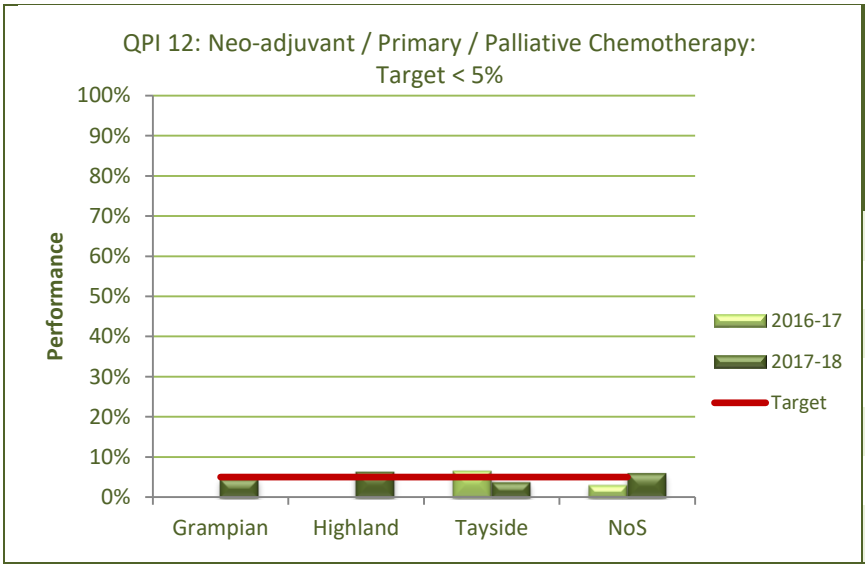
	Performance (%)	Numerator	Denominator
Grampian	**88.1%**	37	42
Highland	**84.4%**	27	32
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**92.3%**	36	39
W Isles*	-	-	-
NoS	**85.0%**	**102**	**120**

Clinical Commentary	The North of Scotland narrowly missed this target. There is a small number of patients who do not have treatment and therefore did not undergo genetic testing. As this is a new QPI, results will continue to be monitored in future years.
Actions	No action required
Risk Status	Tolerate
Barriers	None

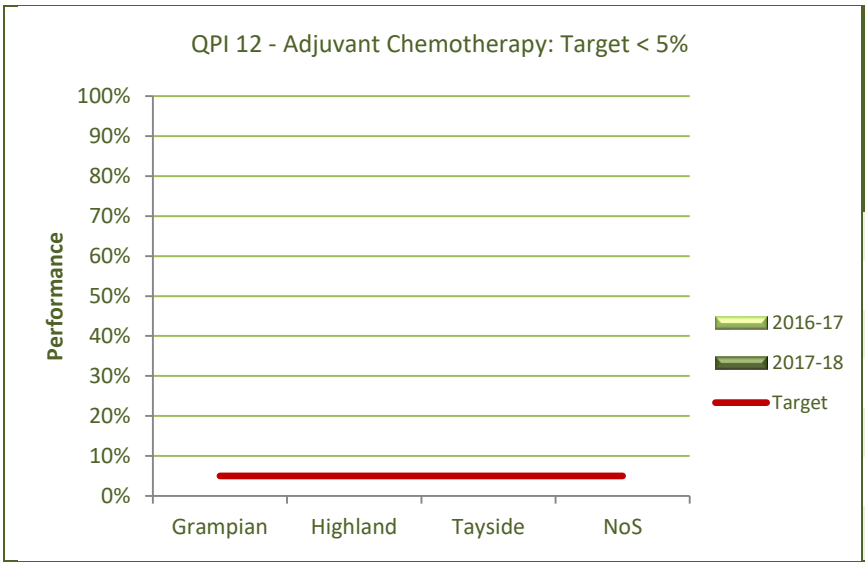
QPI 12	30 day mortality after first line treatment for ovarian cancer
Proportion of patients with ovarian cancer who die within 30 days of treatment (surgery, and Systemic Anti Cancer Therapy (SACT)) for ovarian cancer.	



	Performance (%)	Numerator	Denominator
Grampian	0%	0	45
Highland*	-	-	-
Orkney	-	**0**	0
Shetland	-	0	0
Tayside	**0%**	0	17
W Isles	-	0	0
NoS	**0%**	**0**	**65**



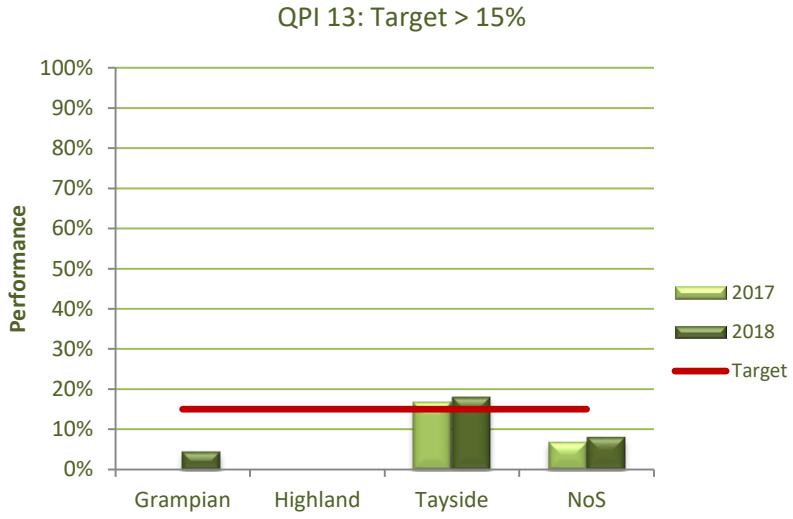
	Performance (%)	Numerator	Denominator
Grampian	**4.5%**	1	22
Highland	**6.3%**	1	16
Orkney*	-	-	-
Shetland	-	0	0
Tayside	**3.8%**	1	26
W Isles*	-	-	-
NoS	**6.0%**	**4**	**67**



	Performance (%)	Numerator	Denominator
Grampian	**0%**	0	12
Highland	**0%**	0	9
Orkney	-	0	0
Shetland	-	0	0
Tayside	**0%**	0	10
W Isles	-	0	0
NoS	**0%**	**0**	**31**

Clinical Commentary	There were four patient deaths within 30 days of treatment, all in different boards across the North of Scotland where patients were receiving chemotherapy. One patient had significant comorbidities and another died of an infection.
Actions	No action required
Risk Status	Tolerate
Barriers	None

QPI 13	Clinical Trials and Research Study Access
Proportion of patients diagnosed with Ovarian Cancer who are consented for a clinical trial / research study. Data reported are for patients consented in 2018.	



	Performance (%)	Numerator	Denominator
Grampian	**4.6%**	3	65
Highland	**0%**	0	25
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**18.0%**	9	50
W Isles*	-	-	-
NoS	**8.2%**	**12**	**146**

Clinical Commentary	The North of Scotland narrowly missed this QPI target, with 12 patients consenting for clinical trials and research studies in 2018. Availability of trials in the North continues to be a problem across all tumour groups. The availability of trials in the North of Scotland is being promoted by the North Cancer Gynaecology Pathway Board (NCGPB)
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. 2. NCGPB to circulate a list of available trials to members at their next meeting.
Risk Status	Tolerate
Barriers	In general, there is a lack of clinical trials / research studies in the North of Scotland to meet this 15% target and support is required for clinicians across all tumour groups who wish to open clinical trials within our three cancer centres.

References

1. Information Services Division. Cancer Incidence and Prevalence in Scotland (to December 2017), 2019. Available at: https://www.isdscotland.org/Health-Topics/Cancer/Publications/2019-04-30/2019-04-30-Cancer-Incidence-Report.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 2018.

Trial	Principle Investigator	Patients consented into trial in 2018
HORIZONS	Debbie Forbes (Tayside)	y
ICON8 and ICON8B - ICON8 Trial Programme	Michelle Ferguson (Tayside)	y
MEDIOLA/D081KC00001	Michelle Ferguson (Tayside)	y
OPINION, Olaparib Maintenance Monotherapy Ovarian Cancer.	Trevor McGoldrick (Grampian)	y
CANC - 3795 - Carboplatin/Paclitaxel +/- Veliparib in Gynaecological Cancers	Michelle Ferguson (Tayside)	
CANC - 4302 - Farletuzumab + Carboplatin + Paclitaxel or Carboplatin + PLD in Ovarian Cancer	Michelle Ferguson (Tayside)	
CANC 5651	Michelle Ferguson (Tayside)	
LOGS - A randomised phase II/III study to assess the efficacy of Trametinib (GSK 1120212) in patients with recurrent of progressive low grade serous ovarian cancer or peritoneal cancer	Michelle Ferguson (Tayside)	
NiCCC Trial (BIBF1120)	Michelle Ferguson (Tayside)	
OCTOPUS	Michelle Ferguson (Tayside)	
OCTOVA	Michelle Ferguson (Tayside)	
OReO	Michelle Ferguson (Tayside)	