Quality Performance Indicators Audit Report

Tumour Area:	Ovarian Cancer
Patients Diagnosed:	1st October 2018 – 30th September 2019
Published Date:	14th April 2021
Clinical Commentary:	Dr. Mary Cairns, NCA Ovarian Cancer Lead

1. Ovarian Cancer in Scotland

Ovarian cancer is the sixth most common cancer type in women in Scotland with 583 cases diagnosed during 2018. 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].

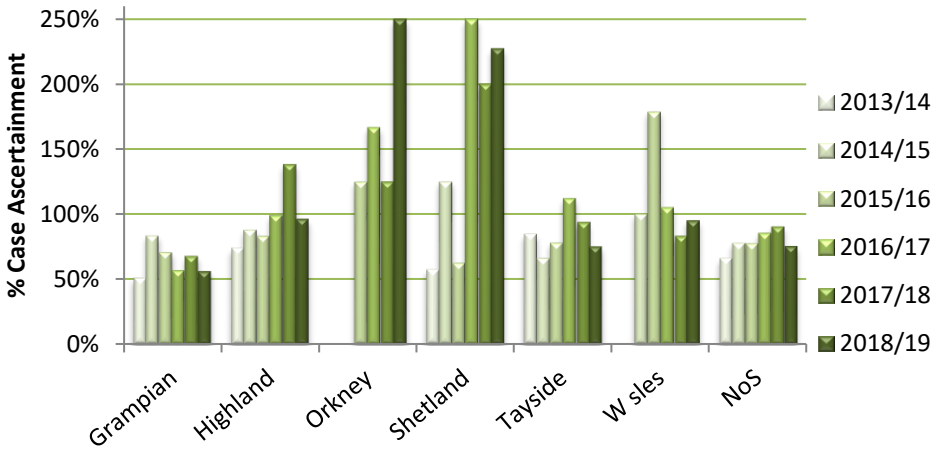
Relative survival from ovarian cancer in Scotland is increasing[2]. The table below details the percentage change in 1 and 5 year relative survival for patients diagnosed 1987-1991 to 2007-2011.

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 2018 and 30th September 2019 a total of 116 cases of ovarian cancer were diagnosed in the North of Scotland and recorded through audit. Case ascertainment was 75.5%. 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 2018-19 case ascertainment figure for the North of Scotland is above the national level recorded in 2015-16 (73.5%) [3]. QPI calculations based on data captured are considered to be representative of patients diagnosed with ovarian cancer during the audit period.



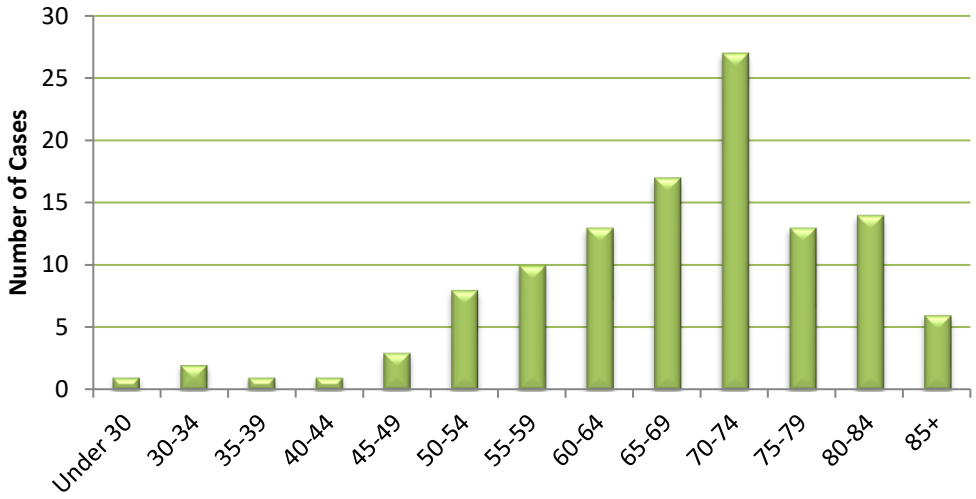
Case ascertainment by NHS Board for patients diagnosed with ovarian cancer in 2013-2019.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
No. of Patients 2018-19	38	26	5	5	38	4	**116**
% of NoS total	32.8%	22.4%	4.3%	4.3%	32.8%	3.4%	**100.0%**
Mean ISD Cases 2014-18	67.6	27.0	2.0	2.2	50.6	4.2	**153.6**
% Case ascertainment 2018-19	56.2%	96.3%	250.0%	227.3%	75.1%	95.2%	**75.5%**

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

3. Age Distribution

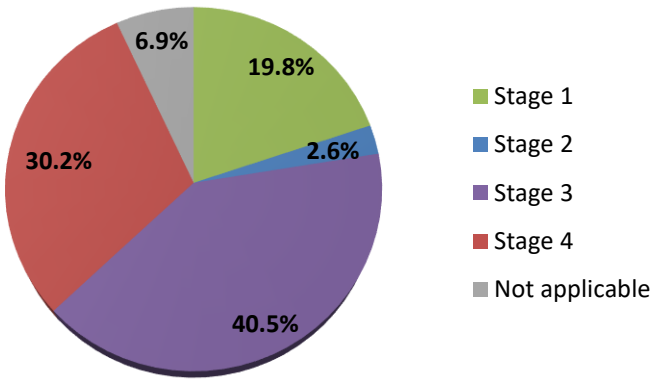
The figure below shows the age distribution of women diagnosed with ovarian cancer in the North of Scotland in 2018-19, with numbers of patients diagnosed highest in the 70-74 year age bracket.



Age distribution of patients diagnosed with ovarian cancer in 2018-19.

4. FIGO Stage in the North of Scotland

The final FIGO stage of patients diagnosed with ovarian cancer in 2018-2019 is shown in the following figure. The highest percentage of patients diagnosed in the North of Scotland health boards were recorded as FIGO Stage 3 (40.5%) and only eight patients were recorded as *Not Applicable.*



Final FIGO stage of patients diagnosed with ovarian cancer in the North of Scotland, 2018-2019.

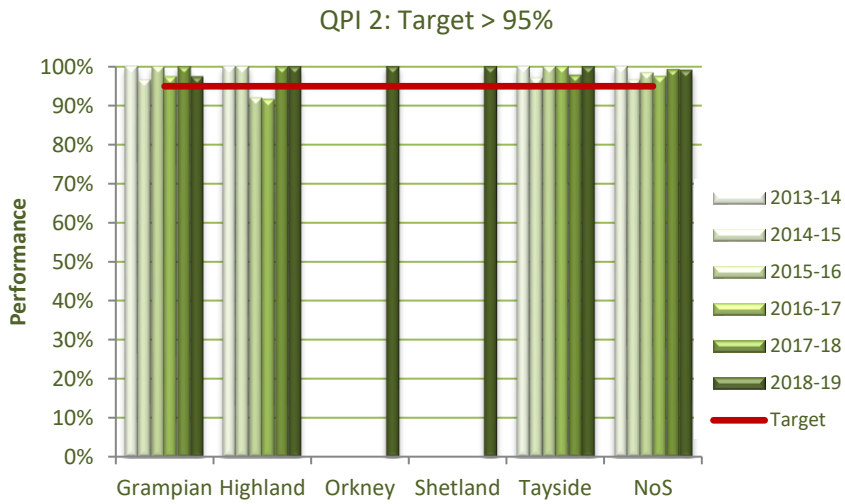
5. Performance against Quality Performance Indicators (QPIs)

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 NHS Board of residence.

With regards to mortality following SACT, a decision has been taken nationally to move to a new generic QPI (30-day mortality for SACT) applicable across all tumour types.

This new QPI will use CEPAS (Chemotherapy ePrescribing and Administration System) data to measure SACT mortality to ensure that the QPI focuses on the prevalent population rather than the incident population. The measurability for this QPI is still under development to ensure consistency across the country and it is anticipated that performance against this measure will be reported in the next audit cycle. In the meantime all deaths within 30 days of SACT will continue to be reviewed at a NHS Board level.

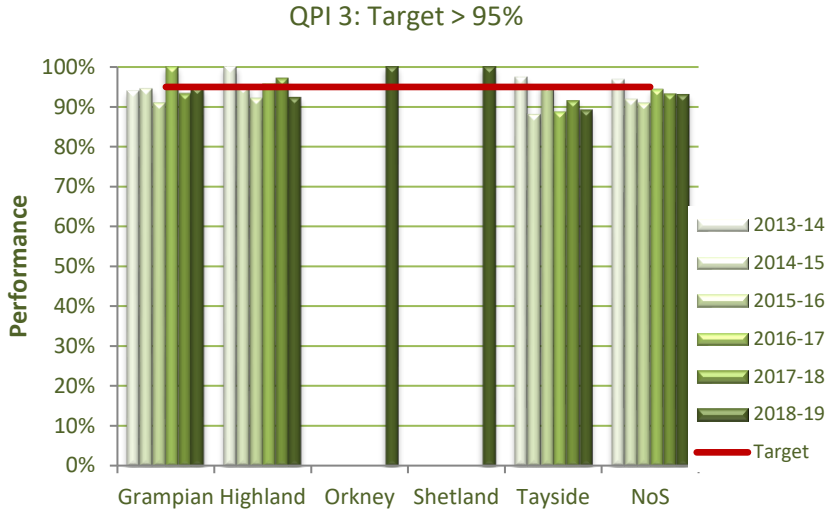
QPI 2	Extent of disease assessed by Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) prior to treatment
Proportion of patients with epithelial ovarian cancer having a CT scan or MRI of the abdomen and pelvis performed to exclude the presence of metastatic disease prior to starting treatment.	



	Performance (%)	Numerator	Denominator
Grampian	**97.4%**	37	38
Highland	**100%**	25	25
Orkney	**100%**	5	5
Shetland	**100%**	5	5
Tayside	**100%**	35	35
W Isles*	-	-	-
NoS	**99.1%**	**111**	**112**

Clinical Commentary	Almost every patient diagnosed with ovarian cancer in the North of Scotland during the audit period met this QPI target.
Actions	1. As part of the Formal Review, suggest that this QPI is archived due to its achievement in the North of Scotland over a number of years.
Risk Status	Tolerate

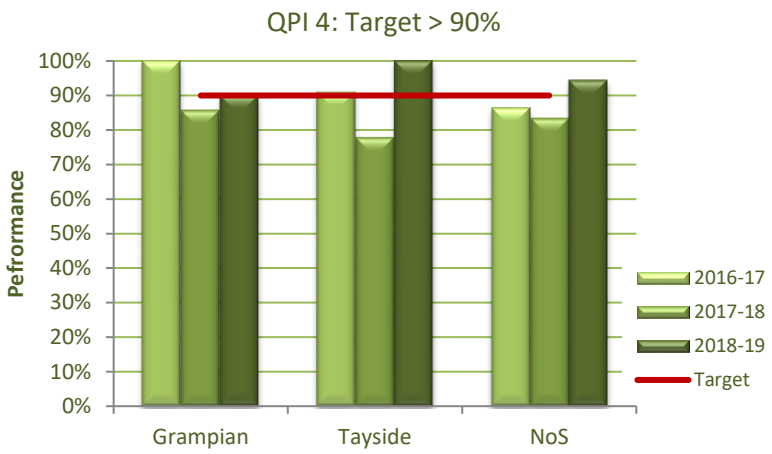
QPI 3	Treatment planned and reviewed at a multi-disciplinary team meeting
Proportion of patients with epithelial ovarian cancer who are discussed at a MDT meeting before definitive treatment.	



	Performance (%)	Numerator	Denominator
Grampian	**94.6%**	35	37
Highland	**92.3%**	24	26
Orkney	**100%**	5	5
Shetland	**100%**	5	5
Tayside	**89.2%**	33	37
W Isles*	-	-	-
NoS	**93.0%**	**106**	**114**

Clinical Commentary	There were a small number of patients operating on in the emergency setting and therefore not discussed at the MDT prior to surgery. This target has been narrowly missed in recent years however all patients are discussed at MDT however it is not possible to ascertain to discuss which patients are discussed within a local context without discussion at the Regional Ovarian MDT.
Actions	1. Revise the NCA Ovarian regional MDT meeting to ensure all patients with Ovarian cancer are discussed in the regional forum in line with October 15th, 2020 letter from the North of Scotland Medical Directors Group. 2. MDT leads sub-group to take forward improvements required for North of Scotland Ovarian MDT. Discuss and agree health intelligence required in line with appointment to regional Pathway Coordinator role and dedicated system for data collection required.
Risk Status	Escalate

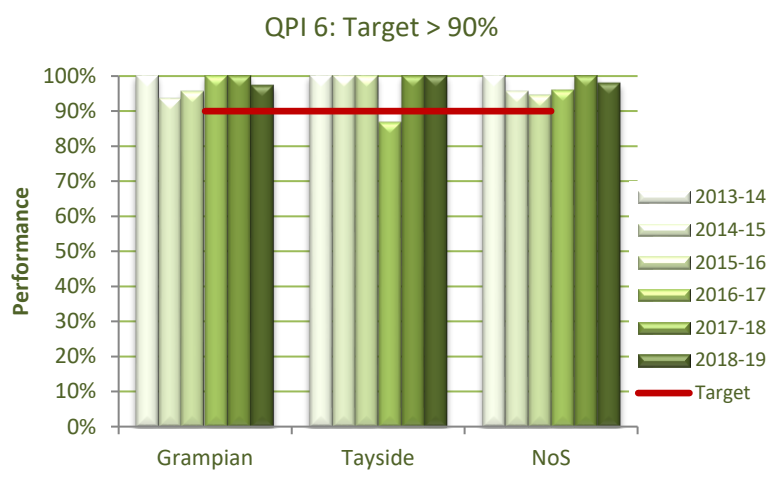
QPI 4	Patients with early stage disease have an adequate staging operation
Proportion of patients with early stage epithelial ovarian cancer (FIGO Stage 1) undergoing primary surgery for ovarian cancer, having their stage of disease adequately assessed (TAH, BSO, Omentectomy and washings), to determine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



	Performance (%)	Numerator	Denominator
Grampian	**90.0%**	9	10
Highland*	-	-	-
Orkney	-	0	0
Shetland	-	0	0
Tayside	**100%**	6	6
W Isles	-	0	0
NoS	**94.4%**	**17**	**18**

Clinical Commentary	The North of Scotland met this target for the first time. The one patient who did not have an adequate staging operation prior to primary surgery had an incidental finding of epithelial ovarian cancer.
Actions	No action required
Risk Status	Tolerate

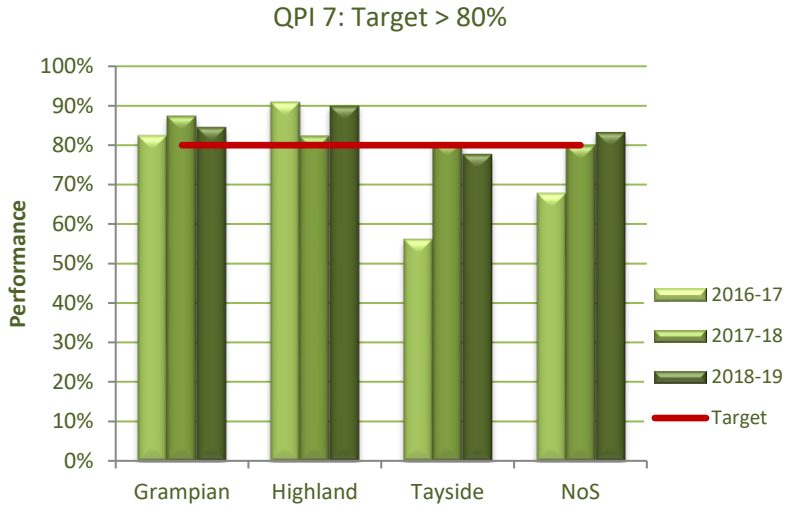
QPI 6	Histopathology reports are complete and support clinical decision-making
Proportion of patients with epithelial ovarian cancer undergoing pelvic clearance surgery having a complete pathology report as defined by the Royal College of Pathologists	



	Performance (%)	Numerator	Denominator
Grampian	**97.2%**	35	36
Highland*	-	-	-
Orkney	-	**0**	0
Shetland*	-	-	-
Tayside	**100%**	8	8
W Isles	-	0	0
NoS	**97.9%**	**47**	**48**

Clinical Commentary	The North of Scotland met this QPI target for the sixth year in a row. Only one patient did not have a complete pathology report following pelvic clearance surgery for epithelial ovarian cancer.
Actions	No action required
Risk Status	Tolerate

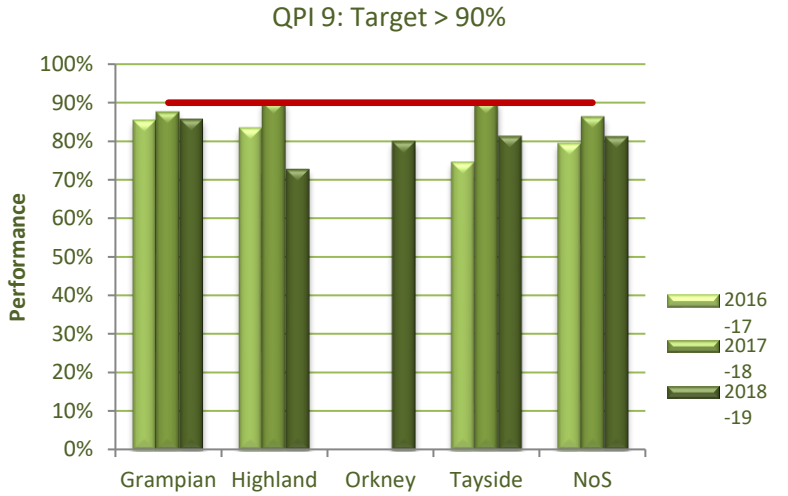
QPI 7	Histological diagnosis prior to starting chemotherapy
Proportion of patients with epithelial ovarian cancer having a histological diagnosis obtained by percutaneous image-guided biopsy or laparoscopy prior to starting chemotherapy.	



	Performance (%)	Numerator	Denominator
Grampian	**84.6%**	11	13
Highland	**90.0%**	9	10
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**77.8%**	14	18
W Isles*	-	-	-
NoS	**83.3%**	**40**	**48**

Clinical Commentary	Results in the North of Scotland improved once more with the 80% target met for the first time. This is due to the increase in use of percutaneous image-guided biopsy or laparoscopy prior to starting chemotherapy. Where patients did not have a histological diagnosis, MDT decision-making for chemotherapy was based on other investigations such as cytology, with decisions to proceed to treatment required due to the deteriorating health of patients.
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.	

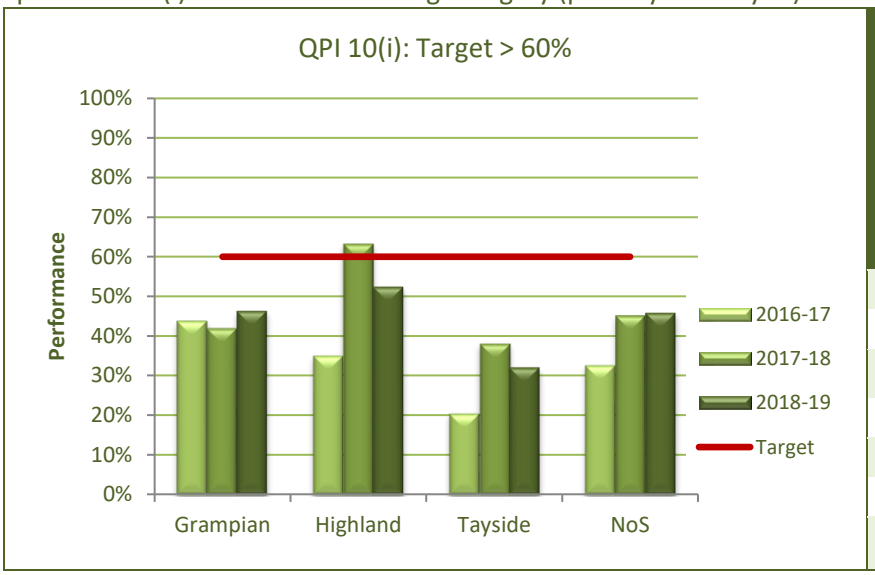


	Performance (%)	Numerator	Denominator
Grampian	**85.7%**	30	35
Highland	**72.7%**	16	22
Orkney	**80.0%**	4	5
Shetland*	-	-	-
Tayside	**81.3%**	26	32
W Isles*	-	-	-
NoS	**81.2%**	**82**	**101**

Clinical Commentary	The North of Scotland did not meet this target once more. Where patients did not receive platinum-based chemotherapy, comments have been submitted by boards outlining the reasons why. In summary, where patients have not been given platinum-based chemotherapy, this is due to being unsuitable to begin chemotherapy due to their performance status and co-morbidities. In many cases, chemotherapy was planned prior to patients becoming unwell and no longer suitable for chemotherapy, and instead only suitable for Best Supportive Care or unfortunately dying prior to starting chemotherapy. All three regions struggle to meet this target; a national audit is underway to look at survival outcomes for ovarian cancer patients undergoing chemotherapy and the results of this will be analysed at a national and regional levels, to inform patient selection for chemotherapy and other treatments such as primary surgery.
Actions	1. NCA Gynaecology Pathway Board to input into the analysis of the national audit of patients undergoing First Line Chemotherapy and take action to improve patient pathways and decision-making for chemotherapy.
Risk Status	Manage

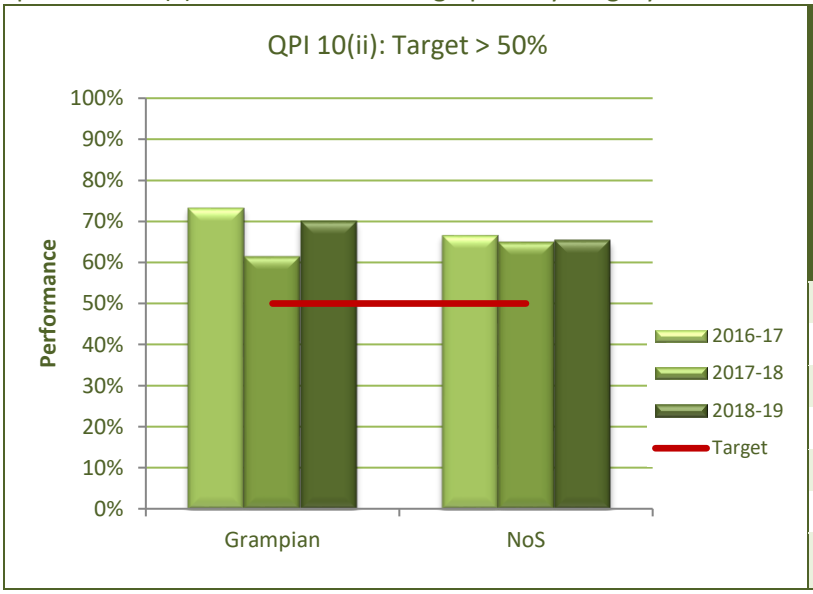
QPI 10	Surgery for advanced disease
Proportion of patients with advanced epithelial ovarian cancer (FIGO Stage 2 or higher) undergoing surgery who have no macroscopic residual disease following surgical resection.	

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



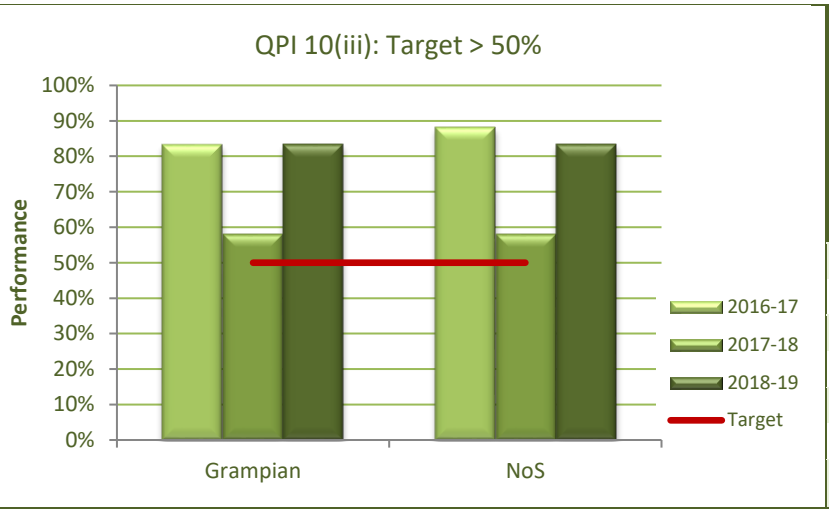
	Performance (%)	Numerator	Denominator
Grampian	**46.4%**	13	28
Highland	**52.4%**	11	21
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**32.1%**	9	28
W Isles*	-	-	-
NoS	**45.9%**	**39**	**85**

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



	Performance (%)	Numerator	Denominator
Grampian	**70.0%**	14	20
Highland*	-	-	-
Orkney	-	0	0
Shetland*	-	-	-
Tayside*	-	-	-
W Isles	-	0	0
NoS	**65.4%**	**17**	**26**

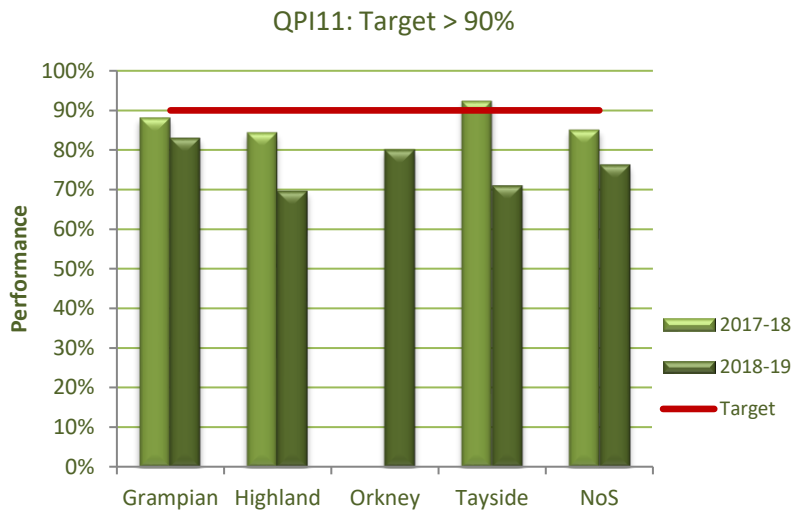
Specification (iii) Patients who undergo delayed primary surgery where no residual disease is achieved.



	Performance (%)	Numerator	Denominator
Grampian	83.3%	5	6
Highland	-	0	0
Orkney	-	0	0
Shetland	-	0	0
Tayside	-	0	0
W Isles	-	0	0
NoS	**83.3%**	**5**	**6**

Clinical Commentary	An action plan has been developed under the auspices of the North of Scotland Medical Director's group to collaboratively ensure pathways are in place to improve access to surgery for patients presenting with advanced ovarian cancer.
Actions	As above
Risk Status	Escalate

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	**82.9%**	29	35
Highland	**69.6%**	16	23
Orkney	**80.0%**	4	5
Shetland*	-	-	-
Tayside	**71.0%**	22	31
W Isles*	-	-	-
NoS	**76.2%**	**77**	**101**

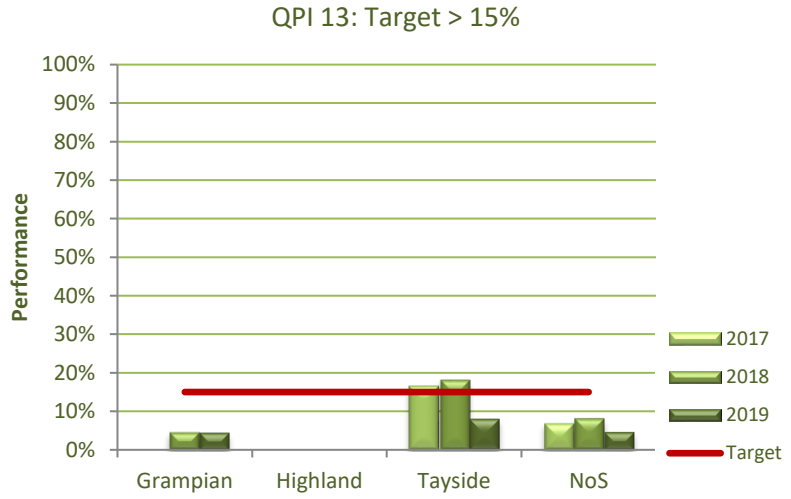
Clinical Commentary	Genetic testing is embedded within pathways for North of Scotland patients, however often patients are progressed for Best Supportive Care only or they die prior to treatment. Changes in pathways have been embedded at board level to ensure that genetic testing is undertaken after diagnosis for ovarian cancer to support decision-making for treatment. Nationally this QPI has yet to be met by any of three regions (WOSCAN 59%, SCAN n/a). Genetic testing is now embedded into routine clinical practice and every patient discussed at the regional MDT.
Actions	No action required
Risk Status	Tolerate

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.	

With regards to mortality following SACT, a decision has been taken nationally to move to a new generic QPI (30-day mortality for SACT) applicable across all tumour types.

This new QPI will use CEPAS (Chemotherapy ePrescribing and Administration System) data to measure SACT mortality to ensure that the QPI focuses on the prevalent population rather than the incident population. The measurability for this QPI is still under development to ensure consistency across the country and it is anticipated that performance against this measure will be reported in the next audit cycle. In the meantime all deaths within 30 days of SACT will continue to be reviewed at a NHS Board level.

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 2019.	



	Performance (%)	Numerator	Denominator
Grampian	**4.4%**	3	68
Highland	**0%**	0	27
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**7.9%**	4	51
W Isles*	-	-	-
NoS	**4.6%**	**7**	**154**

Clinical Commentary	Access to clinical trials remains a challenge across a number of tumour groups. The regional ovarian cancer MDT will support the referral of patients for inclusion to trials. It is noted that some ovarian cancer patients were recruited to trials not included within the scope of this QPI, most notably the Dundee Ovarian Cancer Drug Resistance Study (DOCS).
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. (Generic Action from SCRN-North)
Risk Status	Tolerate

References

1. Public Health Scotland. Cancer Incidence in Scotland (to December 2018), 2020. Available at: https://beta.isdscotland.org/media/4312/2020-04-28-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: Clinical trials and research studies for patients with ovarian cancer open within the North of Scotland in 2019.

Trial	Principle Investigator	Patients consented into trial in 2019
ATHENA	Michelle Ferguson (Tayside)	Y
ICON8 and ICON8B	Michelle Ferguson (Tayside)	N
MEDIOLA	Michelle Ferguson (Tayside)	Y
NiCCC Trial	Michelle Ferguson (Tayside)	N
OPINION, Olaparib Maintenance Monotherapy Ovarian Cancer	Trevor McGoldrick (Grampian)	N
OReO	Michelle Ferguson (Tayside)	N
PROTECTOR	Mahalakshmi Gurumurthy (Grampian)	Y
	Kalpana Ragupathy (Tayside)	Y