Quality Performance Indicators Audit Report

Tumour Area:	Cervical Cancer
Patients Diagnosed:	1st October 2017 – 30th September 2018
Published Date:	28th October 2019
Clinical Commentary:	Dr Ann-Maree Kennedy Gynaecology Clinical Director, North Cancer Alliance

1. Cervical Cancer in Scotland

With 276 patients diagnosed in Scotland during 2017, cervical cancer was the 11th most common types of cancer in women in Scotland and is the most common cancer in women under the age of 35. The main risk factor for cervical cancer is infection with the human papilloma virus (HPV), which can cause the most common forms of cervical cancer[1]. The numbers of patients diagnosed with cervical cancer has not changed significantly over the last 10 years. However, rates of cervical cancer were much lower in 2017 in 25-29 year old women compared to previous years while rates of histologically-verified CIN3 (the most serious pre-cancerous form of cervical intraepithelial neoplasia) have been falling for several years. Together, these suggest that the HPV vaccination programme introduced in Scotland in 2008 has been effective in reducing cervical cancer.

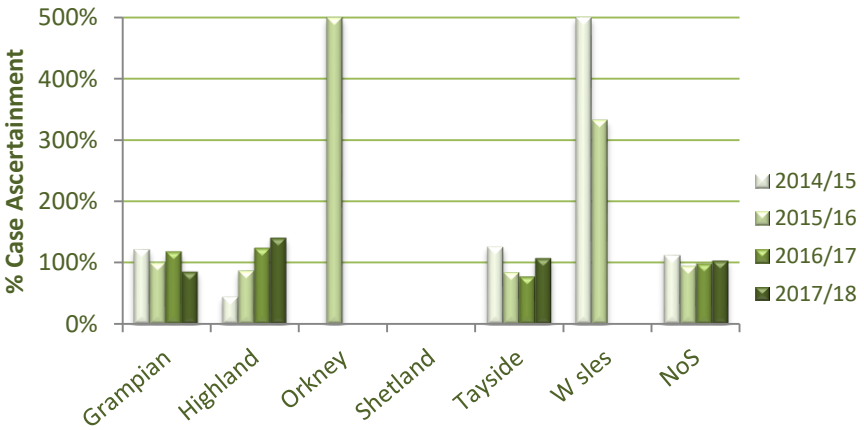
Relative survival from cervical cancer in Scotland is similar to the average for all cancers types and has increased slightly since 1987-1991[2]. The table below details the percentage change in 1 and 5 year relative survival for patients diagnosed 1987-1991 to 2007-2011.

Relative age-standardised survival for cervical 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
79.7%	+ 2.4%	60.2%	+ 4.7%

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

Between 1st October 2017 and 30th September 2018 a total of 87 cases of cervical cancer were diagnosed in the North of Scotland and recorded through audit. Overall case ascertainment was high at 102.6%. Further, for patients included within the audit, data collection was near complete. As such, QPI calculations based on data captured are considered to be representative of patients diagnosed with cervical cancer during the audit period. Fluctuations in case ascertainment are expected in the island boards as a result of chance variation due to the small numbers of patients diagnosed.

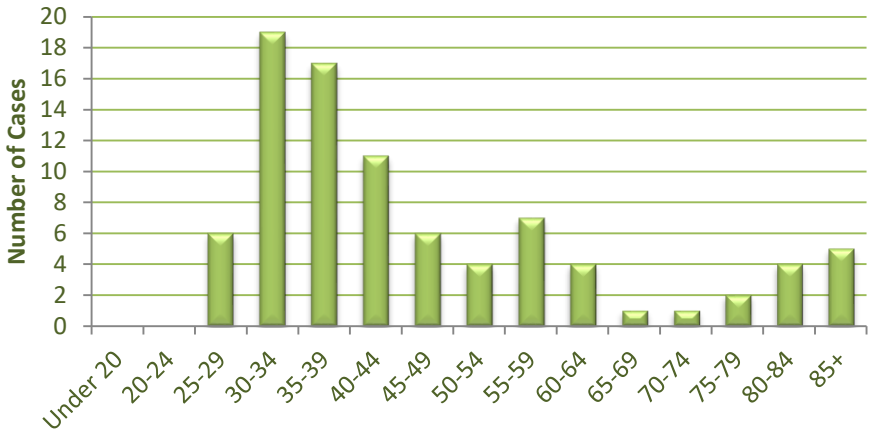


Case ascertainment by NHS Board for patients diagnosed with cervical cancer in 2014-2018.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
No. of Patients 2017-18	30	14	0	2	41	0	**87**
% of NoS total	34.5%	16.1%	0.0%	2.3%	47.1%	0.0%	**100%**
Mean ISD Cases 2013-17	35.2	10.0	0.4	0.0	38.4	0.8	**84.8**
% Case ascertainment 2017-18	85.2%	140.0%	0%	-	106.8%	0%	**102.6%**

3. Age Distribution

The figure below shows the age distribution of patients diagnosed with cervical cancer in the North of Scotland in 2017-18, with numbers of patients diagnosed highest in the 30-34 years age bracket.



Age distribution of patients diagnosed with cervical cancer in the North of Scotland, 2017-2018.

4. Performance against Quality Performance Indicators (QPIs)

Definitions for the QPIs reported in this section are published by Health Improvement Scotland[3], while further information on datasets and measurability used are available from Information Services Division[4]. Data for most QPIs are presented by Board of diagnosis; however QPI 5, relating to surgical margins, is presented by Hospital of Surgery. In addition, QPI 8, 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:

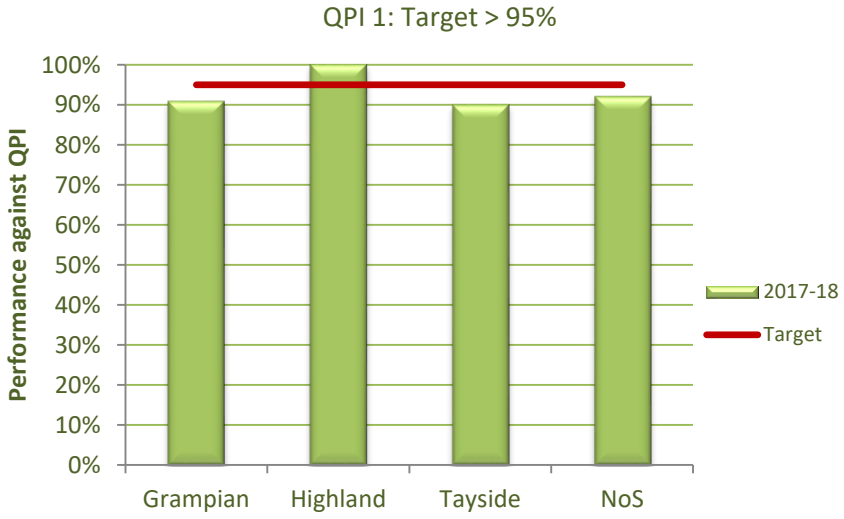
- Ensuring accountability for quality and required standards
- Investigating and taking action on sub-standard performance
- Identifying, sharing and ensuring delivery of best-practice
- Identifying and managing risks to ensure quality of care
- Driving continuous improvement

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 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[5].

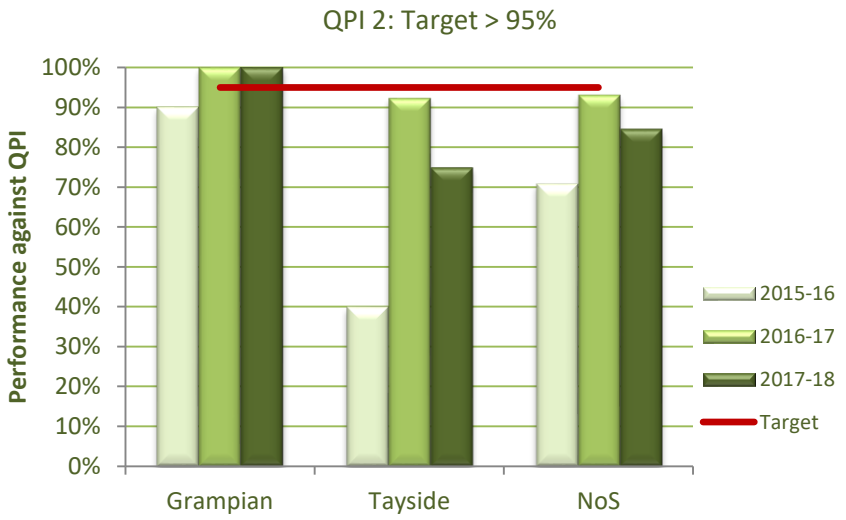
QPI 1	Radiological Staging
Proportion of patients with cervical cancer who have an MRI of the pelvis performed prior to definitive treatment.	



	Performance (%)	Numerator	Denominator
Grampian	**90.9%**	20	22
Highland	**100%**	9	9
Shetland*	-	-	-
Tayside	**90.0%**	27	30
NoS	**92.1%**	**58**	**63**

Clinical Commentary	The North of Scotland narrowly missed this target. All five patients who did not have an MRI have been reviewed. One of these patients, diagnosed as Stage IA2, had a CT scan prior to definitive treatment. One patient with advanced disease had palliative radiotherapy without a prior MRI scan while another patient had adnexal metastatic disease and it was decided an MRI would not alter treatment offered. Two patients were diagnosed post-operatively with cervical cancer following treatment for other conditions. As this is the first year of reporting this QPI, results will be compared for 2018/19 patients to assess whether a 5% tolerance for this QPI is sufficient.
Actions	No action required
Risk Status	Tolerate
Barriers	None

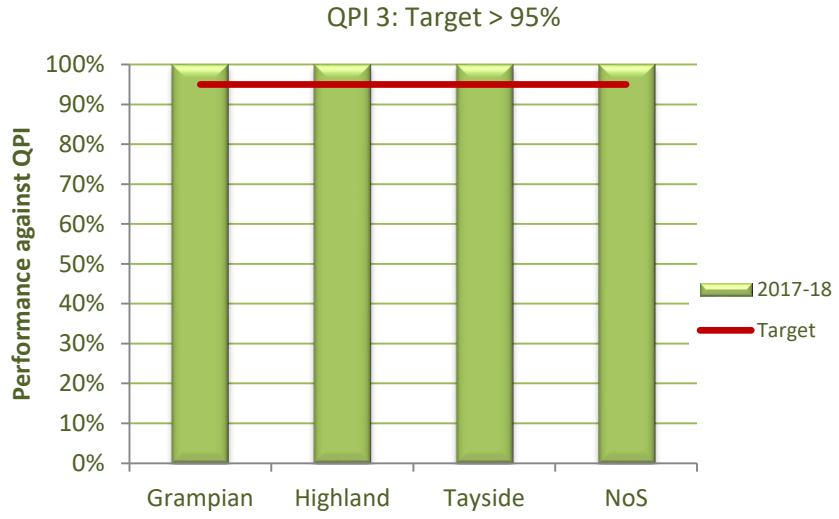
QPI 2	Positron Emission Tomography/Computed Tomography (PET/CT)
Proportion of patients with cervical cancer, for whom primary definitive treatment is radical radiotherapy, who have PET/CT imaging.	



	Performance (%)	Numerator	Denominator
Grampian	**100%**	6	6
Highland*	-	-	-
Shetland*	-	-	-
Tayside	**75.0%**	12	16
NoS	**84.6%**	**22**	**26**

Clinical Commentary	While the North of Scotland missed the 95% target, the patients who had radical radiotherapy as primary treatment who did not have PET/CT imaging have been reviewed. For two patients, PET/CT was felt inappropriate as it would not have altered management (one patient with hydronephrosis at presentation and another was 87-years-old). One patient declined to have PET/CT while another patient was scheduled for standard CT rather than PET/CT, for no apparent reason.
Actions	1. NCGPB to ensure the requirement for PET/CT prior to radical radiotherapy is embedded within the North of Scotland cervical cancer clinical management guideline, to be reviewed in Autumn 2019.
Risk Status	Mitigate
Barriers	None

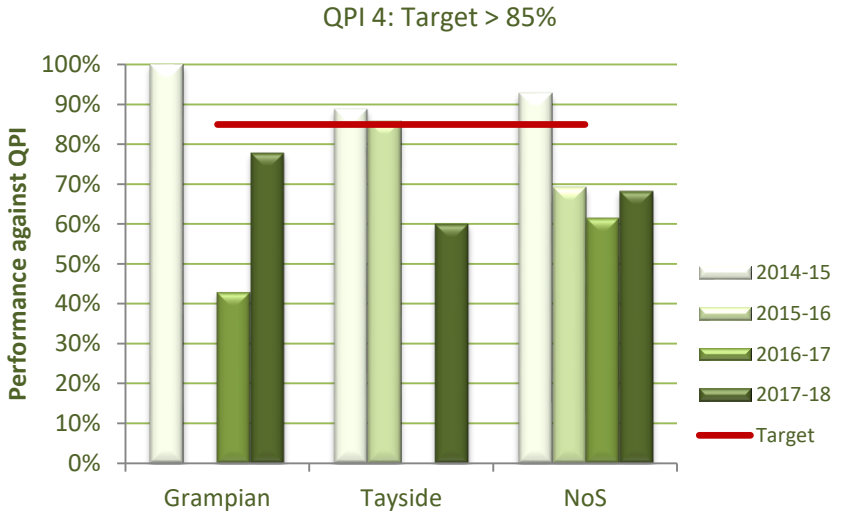
QPI 3	Multidisciplinary Team Meeting (MDT)
Proportion of patients with cervical cancer who are discussed at a MDT meeting before definitive treatment.	



	Performance (%)	Numerator	Denominator
Grampian	**100%**	24	24
Highland	**100%**	9	9
Shetland*	-	-	-
Tayside	**100%**	35	35
NoS	**100%**	**70**	**70**

Clinical Commentary	The North of Scotland met this target for all patients diagnosed with cervical cancer in 2017/18.
Actions	No action required
Risk Status	Tolerate
Barriers	None

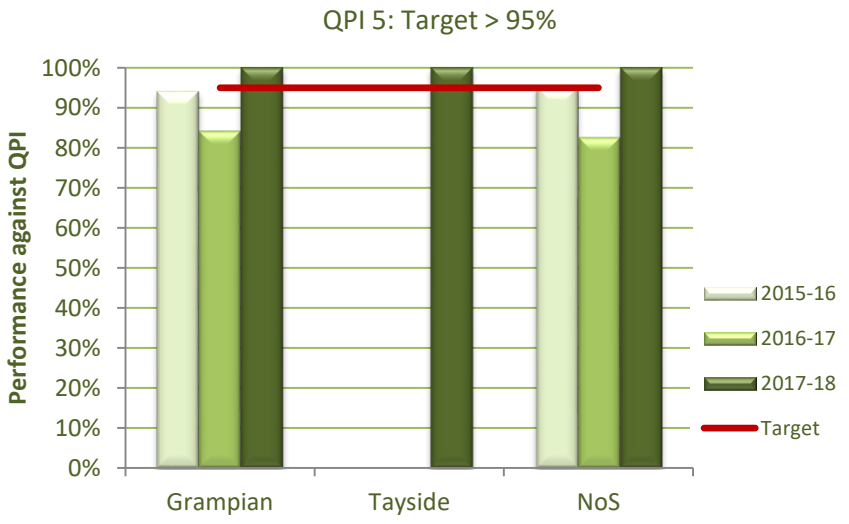
QPI 4	Radical Hysterectomy
Proportion of patients with stage IB1 cervical cancer (as defined by radiology and/or histopathology) who undergo radical hysterectomy.	



	Performance (%)	Numerator	Denominator
Grampian	**77.8%**	7	9
Highland*	-	-	-
Shetland	-	0	0
Tayside	**60.0%**	6	10
NoS	**68.2%**	**15**	**22**

Clinical Commentary	The North of Scotland missed this 85% target for the third year in a row. All patients with stage IB1 cervical cancer who underwent a radical hysterectomy have been reviewed by boards. These patients had significant risk factors and for three patients, clinical decisions were taken to offer chemotherapy and / or radiotherapy prior to hysterectomy. Some patients were not given a radical hysterectomy due to identification of bulky disease, patient fitness and in one case, surgery was aborted due to endometriosis.
Actions	1. NCGPB to ensure radical hysterectomy for stage IB1 patients is reflected as primary treatment option within the North of Scotland cervical cancer clinical management guideline, to be reviewed in Autumn 2019.
Risk Status	Mitigate
Barriers	None

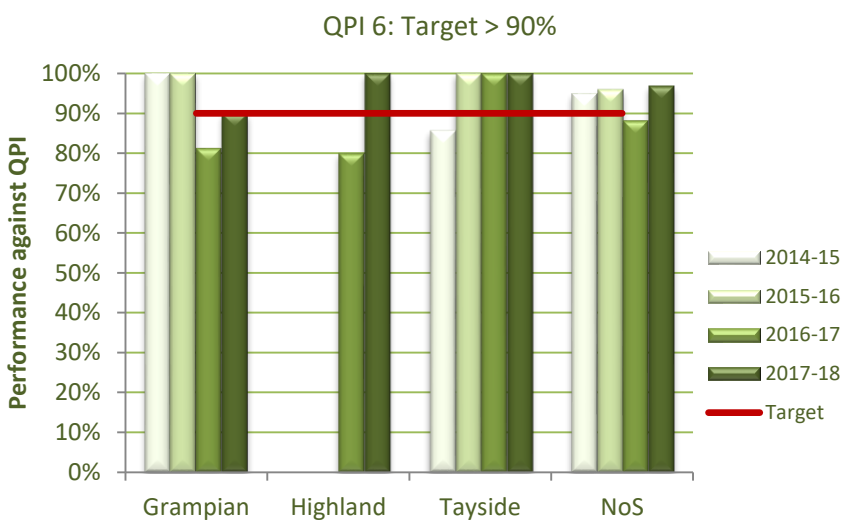
QPI 5	Surgical Margins
Proportion of patients with cervical cancer who have surgical margins clear of tumour following hysterectomy.	



	Performance (%)	Numerator	Denominator
Grampian	**100%**	21	21
Highland*	-	-	-
Shetland	-	0	0
Tayside	**100%**	7	7
NoS	**100%**	**31**	**31**

Clinical Commentary	The North of Scotland surpassed this 95% target for all patients diagnosed with cervical cancer in 2017/18, the first time in three years of clinical audit that this QPI has been achieved.
Actions	No action required
Risk Status	Tolerate
Barriers	None

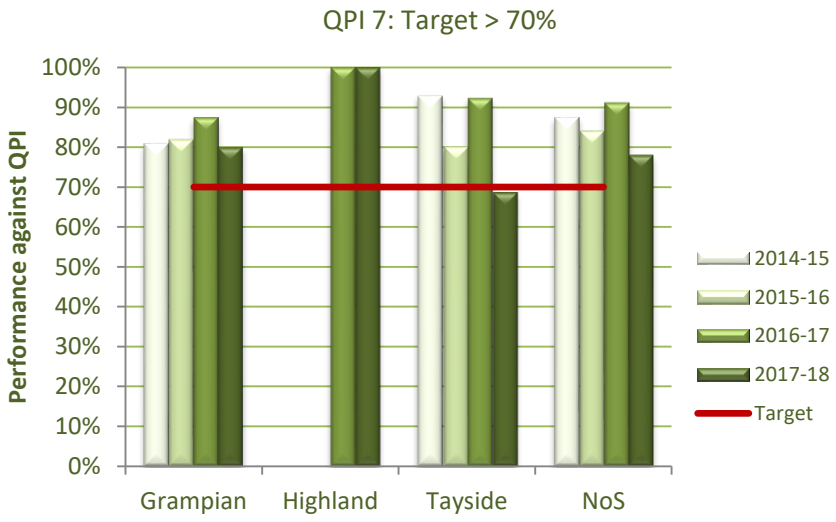
QPI 6	56 Day Treatment Time for Radical Radiotherapy
Proportion of patients with cervical cancer undergoing radical radiotherapy whose overall treatment time, from the start to the end of treatment, is not more than 56 days.	



	Performance (%)	Numerator	Denominator
Grampian	**90%**	9	10
Highland	**100%**	5	5
Shetland*	-	-	-
Tayside	**100%**	16	16
NoS	**96.9%**	**31**	**32**

Clinical Commentary	The North of Scotland surpassed this 90% QPI target, with only one patient not meeting the standard.
Actions	No action required
Risk Status	Tolerate
Barriers	None

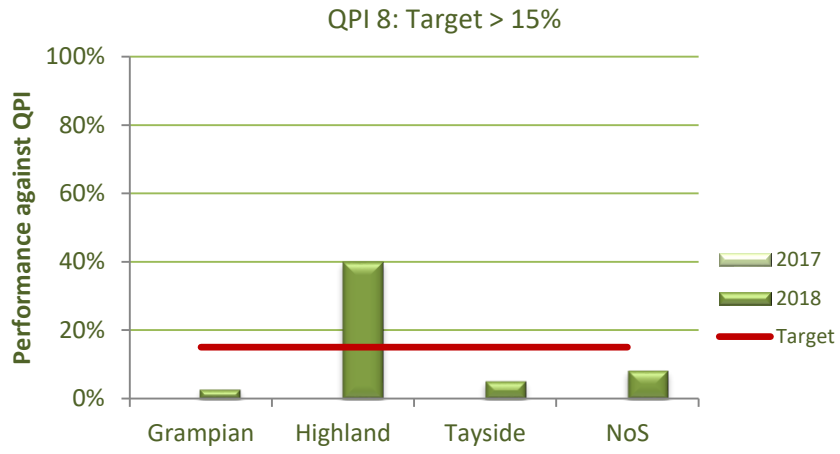
QPI 7	Chemoradiation
Proportion of patients with cervical cancer undergoing radical radiotherapy who receive concurrent chemotherapy.	



	Performance (%)	Numerator	Denominator
Grampian	**80.0%**	8	10
Highland	**100%**	5	5
Shetland*	-	-	-
Tayside	**68.8%**	11	16
NoS	**78.1%**	**25**	**32**

Clinical Commentary	The North of Scotland surpassed this 70% target for the fourth year in a row. Patients who did not receive concurrent chemotherapy with radical radiotherapy did so for a number of reasons including poor performance status, patient choice and co-morbidities.
Actions	No action required
Risk Status	Tolerate
Barriers	None

QPI 8	Clinical Trials and Research Study Access
Proportion of patients diagnosed with cervical cancer who are consented for a clinical trial / research study. Data reported are for patients consented in 2018.	



	Performance (%)	Numerator	Denominator
Grampian	**2.8%**	1	35
Highland	**40.0%**	4	10
Shetland*	-	-	-
Tayside	**5.2%**	2	38
NoS	**8.3%**	**7**	**85**

Clinical Commentary	This QPI remains a challenge across a number of tumour groups. In total, 7 patients consented to clinical trials / research study and this falls short of the 15% QPI target. There is a significant challenge to the availability of clinical trials in the North of Scotland, and work is ongoing through the North Cancer Gynaecology Pathway Board (NCGPB) to share information on open trials and the ability to refer patients to other centres recruiting for clinical trials and research studies.
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	Mitigate
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. Scottish Cancer Taskforce, 2018. Cervical Cancer Clinical Performance Indicators, Version 3.0. Health Improvement Scotland. http://www.healthcareimprovementscotland.org/his/idoc.ashx?docid=6d6ae7c8-b410-4b6f-8c77-54d68432d6fe&version=-1

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

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

Appendix 1: Clinical trials and research studies for patients with cervical cancer open within the North of Scotland in 2018.

Trial	Principle Investigator	Patients consented into trial in 2018
HORIZONS	Debbie Forbes (Tayside) Chrissie Lane (Highland)	y
SHAPE	Mahalakshmi Gurumurthy (Grampian)	y