

NOSCAN

**North of Scotland
Cancer Network**

Gynaecology Managed Clinical Network

Audit Report

Cervical Cancer Quality Performance Indicators

Patients diagnosed October 2015 – September 2016

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The North of Scotland Cancer Network (or NOSCAN), is one of the 3 regional Scottish Cancer Networks, which report to their respective regional NHS Board Planning Groups and for specific workstreams, to the Scottish Cancer Taskforce Group.

The principle role of NOSCAN is to support the organization, planning and delivery of regional and national cancer services, and thereby to ensure consistent and high quality cancer care is being provided equitably across the North of Scotland.

www.noscan.scot.nhs.uk

EXECUTIVE SUMMARY

This publication reports the performance of cancer services in the six NHS Boards in the North of Scotland (NoS) for patients diagnosed with cervical cancer between October 2015 and September 2016. The quality of Board and regional performance are measured and reported against a set of nationally agreed standards (the Cervical Cancer Quality Performance Indicators, or 'QPIs') that were clinically identified and thereafter service implemented across Scotland.

2015-2016 is the second year in which cervical cancer QPI data have been collected in Scotland, during which time in the North of Scotland:

- 76 patients diagnosed with cervical cancer were audited, a decrease from 89 in 2014-15.
- Overall case ascertainment was high at 94.8%: this indicates good capture of patients by cancer audit.
- The results reported were considered to be representative of cervical cancer services in the region.

Summary of QPI Results

QPI	QPI Target	Performance ^b			
		NOSCAN	NHS Grampian	NHS Highland	NHS Tayside
QPI 1: Radiological Staging - Proportion of patients with cervical cancer who have an MRI of the pelvis performed prior to definitive treatment.	95%	89% n=46	93% n=15	100% n=5	83% n=24
QPI 2: Positron Emission Tomography / Computed Tomography - Proportion of patients with cervical cancer, for whom primary definitive treatment is radical radiotherapy, who have PET/CT imaging.	95%	71% n=24	90% n=10	-	40% n=10
QPI 3: Multidisciplinary Team Meeting - Proportion of patients with cervical cancer who are discussed at a MDT meeting before definitive treatment.	95%	98% n=49	100% n=14	86% n=7	100% n=26
QPI 4: Radical Hysterectomy - Proportion of patients with stage IB1 cervical cancer (as defined by radiology and/or histopathology) who undergo radical hysterectomy.	85%	69% n=13	-	-	86% n=7
QPI 5: Surgical Margins - Proportion of patients with cervical cancer who have surgical margins clear of tumour following hysterectomy.	95%	95% n=21	94% n=17	-	-
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.	90%	96% n=25	100% n=11	-	100% n=10
QPI 7: Chemoradiation - Proportion of patients with cervical cancer undergoing radical radiotherapy who receive concurrent chemotherapy.	70%	84% n=25	82% n=11	-	80% n=10

Clinical Trials Access - Proportion of patients with cervical cancer who are enrolled in an interventional clinical trial or translational research.	Target	NOSCAN
Interventional clinical trials	7.5%	0% n=80
Translational research	15%	0% n=80

Performance shaded pink where QPI target has not been met by NOSCAN.

^b Excluding Boards with less than 5 patients.

Within NOSCAN 4 out of 8 QPIs were achieved during this audit cycle. This would suggest that NOSCAN continue to deliver high quality clinical care to women with cervical cancer in the North of Scotland. Where any QPI target has not been met there has been regional analysis of cases, multidisciplinary discussion and action plans are currently being developed to address any areas for improvement. There does, however, need to be some clarification regarding data collection in light of some discrepancies between QPI and local numbers.

To date, areas identified requiring further work to improve on the quality of clinical services particular to the care and management of patients with a cervical cancer diagnosis in the North of Scotland are as follows:

- MCN to facilitate discussion with Tayside to clarify the role of PET imaging in patients treated with radical intent, noting that para-aortic lymphadenopathy does not preclude radical treatment.
- NHS Tayside, as the NHS Board with larger patient numbers, to undertake an audit of patients receiving radical radiotherapy and brachytherapy to identify all relevant patients and to assess overall treatment time.
- All NHS Boards to ensure that radiotherapy start date and radiotherapy end date are recorded in line with data definitions, so that the time period between the two encompasses the treatment period for both external beam radiotherapy and brachytherapy.
- Audit facilitators in NHS Boards to explore any apparent discrepancies between QPI results and data from independent sources for QPI 7.

It is acknowledged that the first years of reporting against the Cervical Cancer QPIs have been a learning process during which both the QPIs themselves and the way in which data is collected to report them have been refined and developed. There will be a formal review of the Cervical Cancer QPIs following the third year of QPI reporting. In addition to the actions above, this report also identifies some issues with the QPI definitions themselves, which NOSCAN will highlight for consideration at this review.

Contents

Executive Summary	3
Contents	5
1. Introduction	6
2. Background	6
2.1 <i>National Context</i>	6
2.2 <i>North of Scotland Context</i>	7
3. Methodology	7
4. Results	8
4.1 <i>Case ascertainment</i>	8
4.2 <i>Age Distribution</i>	9
4.3 <i>Performance against Quality Performance Indicators (QPIs)</i>	10
5. Conclusions	26
6. References	28
Appendix	29

1. Introduction

In 2010, the [Scottish Cancer Taskforce](#) established the [National Cancer Quality Steering Group](#) (NCQSG) to take forward the development of national [Quality Improvement Indicators](#) (QPIs) for 18 cancer types to enable national comparative reporting and drive continuous improvement for patients. In collaboration with the three Regional Cancer Networks ([NoSCAN](#), [SCAN](#) & [WoSCAN](#)) and [Information Services Division](#) (ISD), the first QPIs were published by [Healthcare Improvement Scotland](#) (HIS) in January 2012. [CEL 06 \(2012\)](#) mandates all NHS Boards in Scotland to report on specified QPIs on an annual basis. Data definitions and measurability criteria to accompany the Cervical Cancer QPIs are available from the ISD website¹.

The need for regular reporting of activity and performance, to assure the quality of care delivered, was first set out nationally as a fundamental requirement of a Managed Clinical Network (MCN) in [NHS MEL\(1999\)10](#)². This has since been further restated and reinforced in [HDL\(2002\)69](#)³, [HDL \(2007\) 21](#)⁴, and most recently in [CEL 29 \(2012\)](#)⁵.

This report assesses the performance of the North of Scotland (NoS) cervical cancer services using clinical audit data relating to patients diagnosed with cervical cancer in the twelve months from 1st October 2015 to 30th September 2016. Results are measured against the Cervical Cancer Quality Performance Indicators (QPIs)⁶ which were implemented for patients diagnosed on or after 1st October 2014. In addition, the generic Clinical Trials Access QPI is also reported for patients with cervical cancer.

2. Background

Six NHS Boards across the North of Scotland serve the 1.40 million population⁷. There were 76 patients diagnosed with cervical cancer in the North of Scotland between 1st October 2015 and 30th September 2016, lower than the 2014-15 figure of 89 patients. The configuration of the Multidisciplinary Teams (MDTs) in the North of Scotland for the management of gynaecological cancers, which includes cervical cancer, is set out below.

MDT	Constituent Hospitals
Grampian	Aberdeen Royal Infirmary, Balfour Hospital, Kirkwall, Gilbert Bain Hospital, Lerwick
Highland	Raigmore Hospital, Inverness
Tayside	Ninewells Hospital, Dundee

2.1 National Context

Latest available cancer registration figures indicate that with 379 cases recorded in Scotland during 2015, cervical cancer was the tenth most common type of cancer in women in 2015, with incidence increasing by over 20% in the last 10 years⁸. 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.

Relative survival from cervical cancer in Scotland is similar to the average for all cancers types and has increased slightly since 1987-1991⁹. The table below details the percentage change in 1 and 5 year relative survival for patients diagnosed 1987-1991 to 2007-2011.

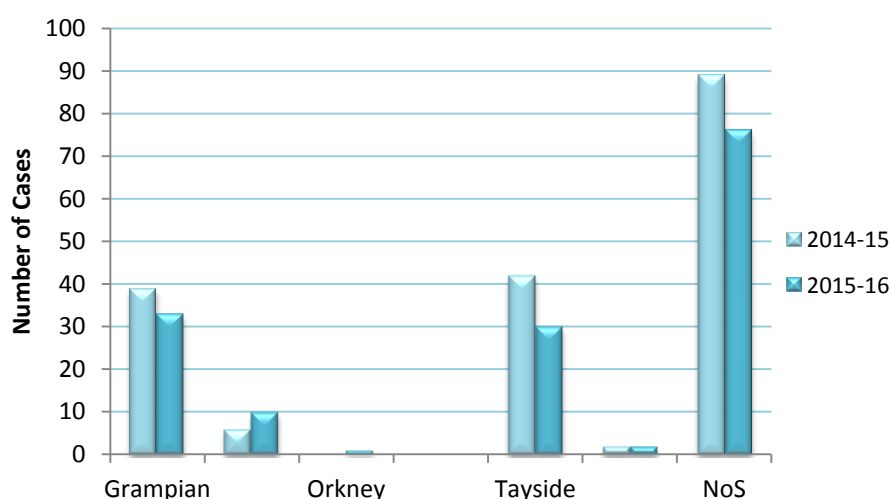
Relative age-standardised survival for cervical cancer in Scotland at 1 year and 5 years showing percentage change from 1987-1991 to 2007-2011⁹.

Relative survival at 1 year (%)		Relative survival at 5 years (%)	
2007-2011	% change	2007-2011	% change
79.7%	+ 2.4%	60.2%	+ 4.7%

2.2 North of Scotland Context

Between 1st October 2015 and 30th September 2016, a total of 76 cases of cervical cancer were diagnosed in the North of Scotland and recorded through audit. The number of patients diagnosed within each Board is presented below.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
Number of Patients	33	10	1	0	30	2	76
% of NoS total	43.4%	13.2%	1.3%	0.0%	39.5%	2.6%	100.0%



Number of patients diagnosed with cervical cancer by Board of diagnosis, October 2014 – September 2016.

3. Methodology

The clinical audit data presented in this report was collected by audit staff in each NHS Board in accordance with an agreed dataset and definitions¹. The data was entered locally into the electronic Cancer Audit Support Environment (eCASE): a secure centralised web-based database.

Data for patients diagnosed between 1st October 2015 and 30th September and any comments on QPI results were then signed-off at NHS Board level to ensure that the data was an accurate representation of service in each area prior to submission to NOSCAN for collation at a regional level. The reporting timetable was developed to take into account the patient pathway (i.e. time taken from first cancer diagnosis until the point at which all

information required to measure the QPIs is available) and thereby ensure that a complete treatment record was available for the vast majority of cases.

Where the number of cases meeting the denominator criteria for any indicator is between one and four, the results have not been shown in any associated charts or tables. This is to avoid any unwarranted variation associated with small numbers and to minimise the risk of disclosure. Any tables impacted by this are denoted with an asterisk (*). However, any commentary provided by NHS Boards relating to the impacted indicators will be included as a record of continuous improvement.

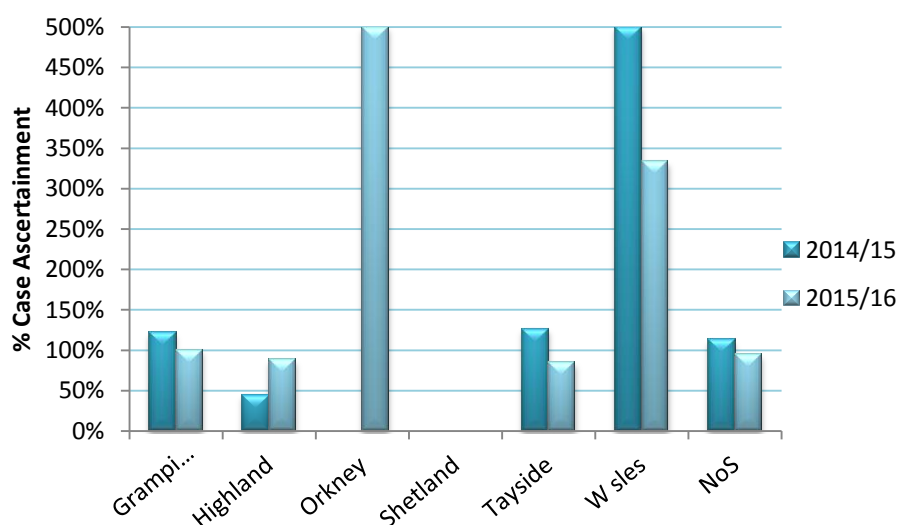
4. Results

4.1 Case Ascertainment

Audit data completeness can be assessed from case ascertainment, which is the proportion of expected patients that have been identified through audit within the time period measured. Case ascertainment is calculated by comparing the number of new cases identified by the cancer audit with the number of patients having a similar diagnosis, as recorded by the National Cancer Registry (provided by Information Services Division (ISD)), for a particular NHS Board of diagnosis.

Cancer Registry figures were extracted from ACaDMe (Acute Cancer Deaths and Mental Health), a system provided by ISD. Due to timescale of data collection and verification processes, National Cancer Registry data are not available for 2016. Consequently an average of the previous five years' figures (i.e. 2011 to 2015) is used to take account of annual fluctuations in incidence within NHS Boards. It should be noted that case ascertainment figures are provided for guidance only, as it is not possible to compare the same cohort of patients and they are not an exact measurement of audit completeness.

Overall case ascertainment for the period reported in the North of Scotland was high at 94.8%. Although lower than the 112.7% in 2014-15, this indicates very good capture of patients through cancer audit. Case ascertainment for each Board across the North of Scotland is shown below.



Case ascertainment by NHS Board for patients diagnosed with cervical cancer in 2014-2015 and 2015-16.

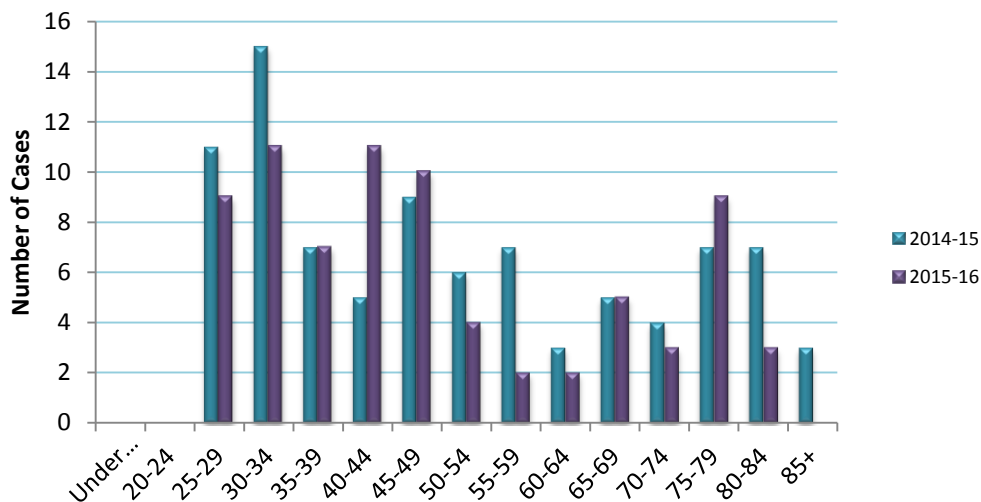
	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
Cases from audit	39	6	0	0	42	2	89
ISD Cases (2011-2015)	32.8	11.4	0.2	0.0	35.2	0.6	80.2
% Case ascertainment 2015-16	100.6%	87.7%	500.0%	-	85.2%	333.3%	94.8%
% Case ascertainment 2014-15	121.9%	44.8%	-	-	126.5%	500.0%	112.7%

Variation in case ascertainment is to be anticipated when annual numbers of patients diagnosed are low, such as for NHS Highland, NHS Orkney and NHS W Isles, and are likely to reflect variation in the numbers of patients being diagnosed rather than audit completeness. QPI calculations based on data captured are considered to be representative of all patients diagnosed with cervical cancer during the audit period.

For patients included within the audit, nearly all data required to report the QPIs were recorded.

4.2 Age Distribution

The graph below shows the age distribution of patients diagnosed with cervical cancer in the North of Scotland in 2014-2015 and 2015-2016, with incidence peaking in patients between 30 and 34 years of age.



Age distribution of patients diagnosed with cervical cancer in NOSCAN 2014-2015 and 2015-16.

Age	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NOSCAN
Under 20	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0
25-29	6	0	0	0	2	1	9
30-34	7	1	0	0	3	0	11
35-39	3	2	0	0	2	0	7
40-44	3	1	0	0	7	0	11
45-49	4	1	0	0	4	1	10
50-54	1	1	0	0	2	0	4
55-59	1	0	1	0	0	0	2
60-64	1	0	0	0	1	0	2
65-69	2	0	0	0	3	0	5
70-74	1	1	0	0	1	0	3
75-79	3	2	0	0	4	0	9
80-84	1	1	0	0	1	0	3
85+	0	0	0	0	0	0	0
Total	33	10	1	0	30	2	76

4.3 Performance against Quality Performance Indicators (QPIs)

Results of the analysis of the Cervical Cancer Quality Performance Indicators are set out in the following sections. Graphs and charts have been provided where this aids interpretation and, where appropriate, numbers have also been included to provide context.

Data for most QPIs are presented by Board of diagnosis; however QPI 5, relating to surgical margins, is presented by Hospital of Surgery. Where performance is shown to fall below the target, commentary is often included to provide context to the variation. Specific regional and NHS Board actions have been identified to address issues highlighted through the data analysis where appropriate.

QPI 1: Radiological Staging

QPI 1: Radiological Staging: Patients with cervical cancer should have their stage of disease assessed by magnetic resonance imaging (MRI) prior to definitive treatment.

It is necessary to fully image the pelvis prior to definitive treatment in order to establish the extent of disease and minimise unnecessary or inappropriate treatment.

Numerator: Number of patients with cervical cancer having MRI of the pelvis carried out prior to definitive treatment.

Denominator: All patients with cervical cancer.

Exclusions:

- Patients with histopathological FIGO* stage IA1 disease.
- Patients treated by LLETZ[†] only.
- Patients unable to undergo MRI due to contraindications.
- Patients with histopathological FIGO stage IVB disease.
- Patients who refuse MRI investigation.

Target: 95%

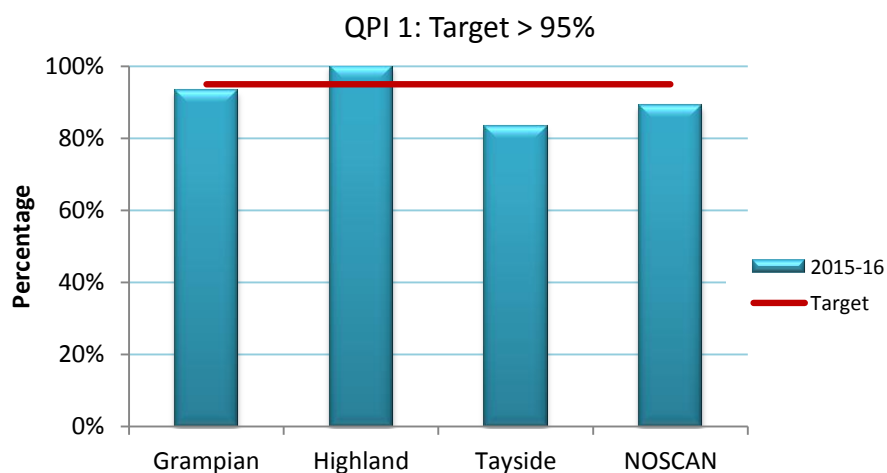
* FIGO – International Federation of Gynaecology and Obstetrics

† LLETZ – Large Loop Excision of the Transformation Zone

QPI 1 Performance against target

Of the 46 patients diagnosed with cervical cancer in the North of Scotland in 2015-2016, 41 had an MRI of the pelvis carried out prior to definitive treatment. This equates to a rate of 89.1%, which is below the target rate of 95%. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

This QPI was not met in NHS Tayside and NHS Grampian, however numbers of patients were small and the performance in NHS Grampian due to the outcome of a single patient. It is therefore difficult to draw conclusions about differences between NHS Boards at this time.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	93.3%	14	15	0	0%	0	0%	0
Highland	100%	5	5	0	0%	0	0%	0
Orkney*	-	-	-	-	-	-	-	-
Tayside	83.3%	20	24	0	0%	0	0%	0
W Isles*	-	-	-	-	-	-	-	-
NoS	89.1%	41	46	0	0%	0	0%	0

The 5 patients who did not have MRI (one in NHS Grampian and 4 in NHS Tayside) had CT or PET already done and MRI was felt to be of no additional benefit in these patients. It should be accepted that a small number of patients will not have MRI for varying reasons which may result in marginal failure of the QPI given the small numbers of patients included within the calculations.

Actions Required:

No actions identified.

QPI 2: Positron Emission Tomography / Computed Tomography (PET/CT)

QPI2: Positron Emission Tomography / Computed Tomography (PET/CT): Patients with cervical cancer, for whom primary definitive surgery is not appropriate, should undergo positron emission tomography - computed tomography imaging (PET/CT).

Patients not suitable for surgery and being considered for radical radiotherapy (+/- concurrent chemotherapy) are recommended to undergo PET/CT because of the significant risk of extra pelvic disease which if detected will change patient management.

The greatest benefit from PET-CT is in women with inoperable disease, considered potentially curable with chemoradiotherapy. This group of women is statistically more likely to have nodal or metastatic disease than those women suitable for surgery.

Numerator: Number of cervical cancer patients undergoing primary radical radiotherapy who have PET/CT imaging prior to starting treatment.

Denominator: All patients with cervical cancer undergoing primary radical radiotherapy.

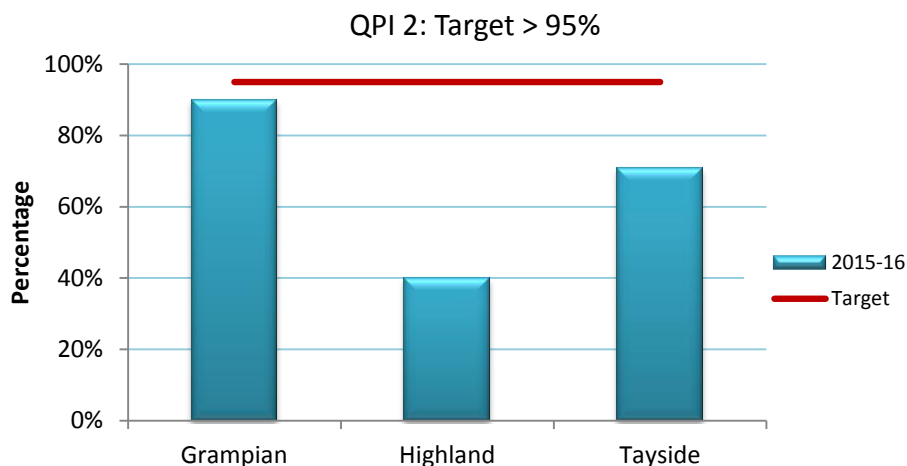
Exclusions: No exclusions

Target: 95%

QPI 2 Performance against target

Out of the 24 patients with cervical cancer undergoing primary radical radiotherapy across the North of Scotland, 17 had PET/CT imaging prior to starting treatment. At 70.8% this does not meet the target rate of 95%. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

At an NHS Board level the QPI was not met by NHS Tayside or NHS Grampian, with NHS Tayside achieving only 40%, although numbers of patients included within the calculations were small.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	90.0%	9	10	0	0%	0	0%	0
Highland*								
Orkney	-	0	0	0	-	0	-	0
Tayside	40.0%	4	10	0	0%	0	0%	0
W Isles*	-	-	-	-	-	-	-	-
NoS	70.8%	17	24	0	0%	0	0%	0

In NHS Grampian one of 10 patients refused PET and in Tayside the 6 patients who did not have PET imaging had CT imaging of the chest, abdomen and pelvis, some of whom were noted to have para-aortic lymphadenopathy.

Actions Required:

- **MCN to suggest that QPI 2 is updated to exclude patients who refuse PET imaging at the Formal Review of Cervical Cancer QPIs.**
- **MCN to facilitate discussion with Tayside to clarify the role of PET imaging in patients treated with radical intent, noting that para-aortic lymphadenopathy does not preclude radical treatment.**

QPI 3: Multidisciplinary Team Meeting (MDT)

QPI3: Multidisciplinary Team Meeting (MDT): Patients with cervical cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.

Evidence suggests that patients with cancer managed by a multidisciplinary team have a better outcome. There is also evidence that the multidisciplinary management of patients increases their overall satisfaction with their care.

Patient selection [for surgery] should be carried out by a multidisciplinary gynaecological oncology team.

Numerator: Number of patients with cervical cancer discussed at the MDT before definitive treatment.

Denominator: All patients with cervical cancer.

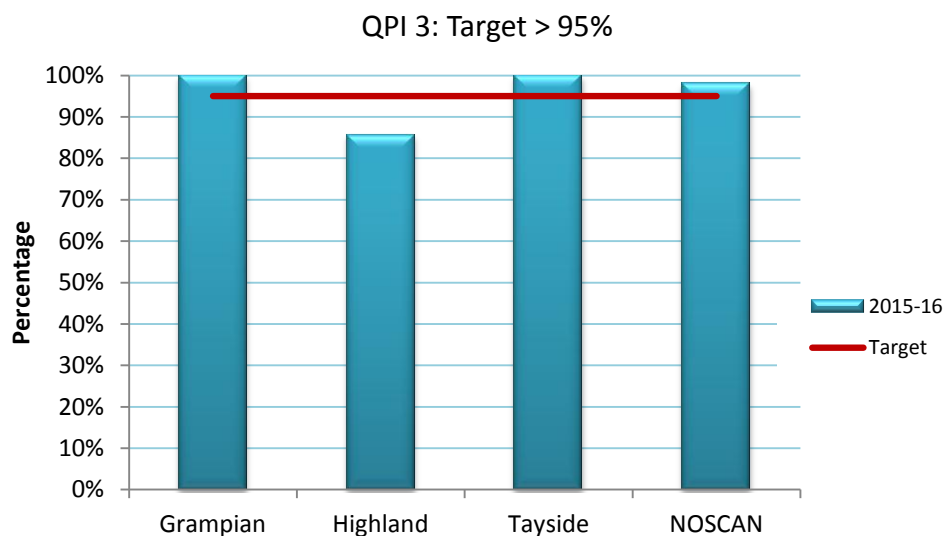
Exclusions:

- Patients with histopathological FIGO stage IA1 disease.
- Patients treated by LLETZ only.
- Patients who died before first treatment.

Target: 95%

QPI 3 Performance against target

In the North of Scotland, 98.0% of patients diagnosed with cervical cancer in 2015-2016 were discussed at the MDT before definitive treatment; this means that at a regional level, the target of 95% was met. The target was also met by all NHS Boards within the North of Scotland in 2015-16 with the exception of NHS Highland, where the target was not met due to the outcome of a single patient. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	100%	14	14	0	0%	0	0%	0
Highland	86.7%	6	7	0	0%	0	0%	0
Orkney*	-	-	-	-	-	-	-	-
Tayside	100%	26	26	0	0%	0	0%	0
W Isles*	-	-	-	-	-	-	-	-
NoS	98.0%	48	49	0	0%	0	0%	0

Essentially all patients were discussed at MDT prior to management. The one patient from Highland not discussed before treatment required emergency radiotherapy, MDT discussion took place on the earliest date possible after this treatment. While there is a 5% tolerance within this target to account for patients requiring emergency treatment, due to the low numbers of patients included within the indicator, a single patient accounts for 14.3% of NHS Highland performance for this QPI. Consequently, in most NHS Boards the QPI target would not be met if one patient falls within the tolerance, for example by requiring urgent treatment or where cervical cancer is an incidental finding of surgery.

Actions Required:

No actions identified.

QPI 4: Radical Hysterectomy

QPI 4: Radical Hysterectomy: Patients with stage IB1 cervical cancer should undergo radical hysterectomy.

Radical surgery is recommended for FIGO stage IB1 disease if there are no contraindications to surgery. Patients with tumours <4 cm in diameter are less likely to have metastatic spread and benefit most from radical hysterectomy. In young women quality of life is less impaired after radical hysterectomy than following chemo-radiation therapy.

Numerator: Number of patients with FIGO stage IB1 cervical cancer who undergo radical hysterectomy.

Denominator: All patients with FIGO stage IB1 cervical cancer.

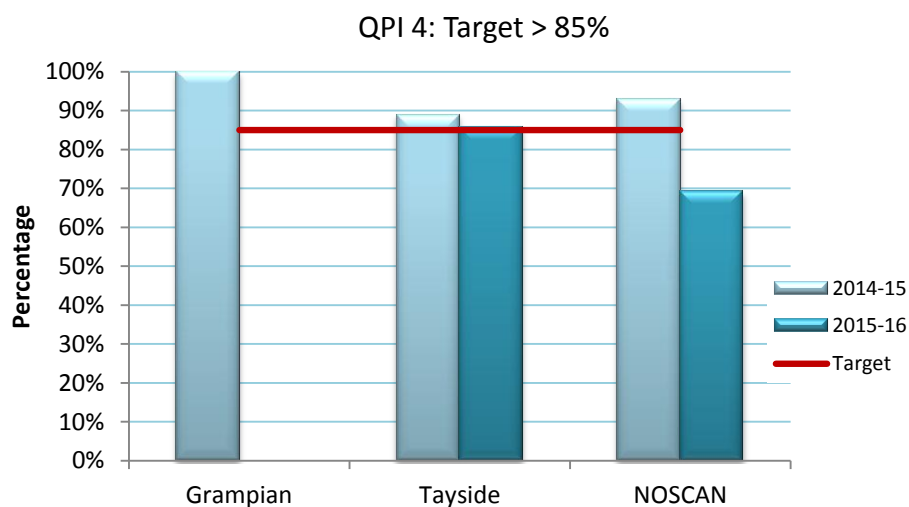
Exclusions:

- Patients who decline surgery.
- Patients who undergo fertility conserving treatment.
- Patients having neo adjuvant chemotherapy.
- Patient enrolled into surgical trials.

Target: 85%

QPI 4 Performance against target

Of the 13 patients diagnosed with FIGO stage IB1 cervical cancer in the North of Scotland in 2015-2016, 9 (69.2%) had a radical hysterectomy, below both the target rate of 85% and the 2014-15 figure of 92.9%. At an NHS Board level the QPI was met in NHS Tayside and NHS Orkney, however care should be taken in interpreting any trends either across the region or over time as these results are based on very small numbers of patients.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian*	-	-	-	-	-	-	-	-	-
Highland*	-	-	-	-	-	-	-	-	-
Orkney*	-	-	-	-	-	-	-	-	-
Tayside	85.7%	6	7	0	0%	0	0%	0	-3.2%
W Isles	-	0	0	0	-	0	-	0	-
NoS	69.2%	9	13	0	0%	0	0%	0	-23.7%

In NHS Grampian two patients had fertility sparing procedures and in NHS Highland the one patient who did not have radical hysterectomy had total laparoscopic hysterectomy, bilateral salpingo-oophorectomy and bilateral pelvic lymph node dissection. In NHS Tayside the single patient who did not have radical hysterectomy had a BMI of 52 which precluded surgery.

Actions Required:

- **MCN to suggest at the Formal Review of Cervical Cancer QPIs that QPI 4 is updated to include fertility sparing surgery and laparoscopic surgery, for example by including patients undergoing radical surgery rather than radical hysterectomy only.**
- **MCN to suggest at the Formal Review of Cervical Cancer QPIs that QPI 4 is updated to exclude patients in whom surgery is not possible.**

QPI 5: Surgical Margins

QPI 5: Surgical Margins: Patients with surgically treated cervical cancer should have clear resection margins.

The quality of radical surgery for cervical cancer has an important influence on local control of the tumour and ultimately survival. Therefore, it is important to optimise and ensure the quality of surgical care for cervical cancer patients. Positive surgical margins increase the risk of reoccurrence, necessitating adjuvant treatment.

Numerator: Number of patients with cervical cancer who undergo surgery where surgical margins are clear of tumour.

Denominator: All patients with cervical cancer who undergo surgery.

Exclusions: No exclusions.

Target: 95%

QPI 5 Performance against target

Of the 21 patients diagnosed with cervical cancer in the North of Scotland in 2015-2016 that had surgery, 95.2% (20) has surgical margins that were clear of tumour. These figures show that the target of 95% was met in the North of Scotland with results very similar to the 2014-15 figure of 95.5%.

At a local level the QPI was met by Ninewells Hospital, NHS Tayside and Western Isles Hospital. Although the target was narrowly missed in Aberdeen Royal Infirmary, NHS Grampian, this was due to the outcome of a single patient. Due to the small numbers of patients included within hospital level analysis for this QPI, results are not displayed graphically.

	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
ARI	94.1%	16	17	1	5.9%	0	0%	0
Ninewells*	-	-	-	-	-	-	-	-
W Isles Hospital*	-	-	-	-	-	-	-	-
NoS	95.2%	20	21	2	4.8%	0	0%	0

The only patient who did not meet this QPI did not have the surgical margin recorded in their pathology report.

Actions Required:

- **MCN to suggest at the Formal Review of Cervical Cancer QPIs that QPI 5 is updated to exclude patients in cases where the surgical margins are not recorded in the pathology report.**

QPI 6: 56 Day Treatment Time for Radical Radiotherapy

QPI 6: 56 Day Treatment Time for Radical Radiotherapy: Treatment time for patients with cervical cancer undergoing radical radiotherapy should be no more than 56 days.

Prolongation of overall treatment has been shown to result in a decrease on local control rate.

Overall treatment time for locally advanced cervical cancer should be as short as possible. Radiotherapy for squamous carcinoma should be completed within 56 days.

Measures to encourage compliance, to avoid gaps in treatment and also departmental arrangements to adjust where planned treatment schedule coincides with bank holidays or planned machine down time, need to be in place.

Numerator: Number of patients with cervical cancer undergoing radical radiotherapy (external beam or brachytherapy) whose overall treatment time, from start to the end of treatment, is not more than 56 days.

Denominator: All patients with cervical cancer undergoing radical radiotherapy (external beam or brachytherapy).

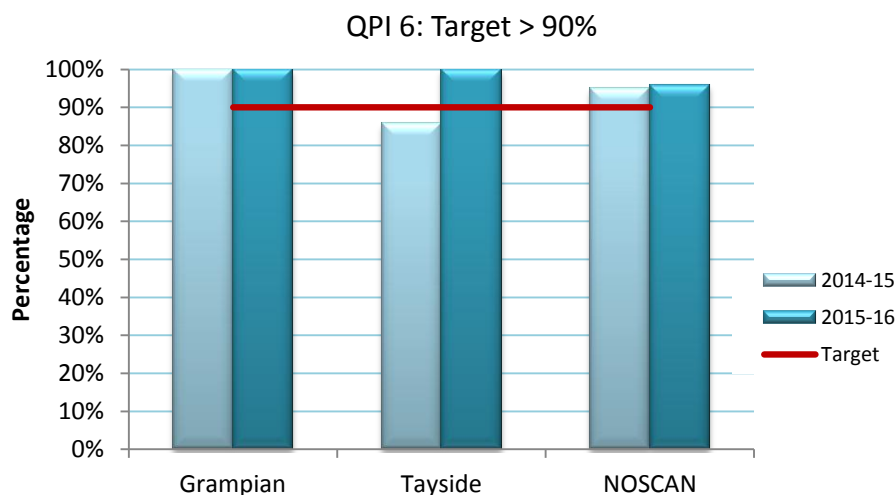
Exclusions: No exclusions.

Target: 90%

QPI 6 Performance against target

In 2015 - 2016, 25 patients were diagnosed with cervical cancer and had radical radiotherapy in the North of Scotland. The treatment time for 24 of these patients (96.0%) was no more than 56 days, meeting the target rate of 90% and similar to the 2014-15 figure of 95.0%.

This QPI was met by all NHS Boards in the North of Scotland in 2015-16 with the exception of NHS Highland, where failure to meet the target was due to the outcome of a single patient.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	100%	11	11	0%	0	0%	0	0%	0%
Highland*	-	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0	-
Tayside	100%	10	10	0	0%	0	0%	0	+14.3%
W Isles*	-	-	-	-	-	-	-	-	-
NoS	96.0%	24	25	0	0%	0	0%	0	+1.0%

There are some concerns about the data collection with this QPI. In NHS Grampian an audit of patients during the time period identified from another source indicated that 16 patients receiving radical (chemo)radiotherapy and brachytherapy and of these patients less than 80% met the 56 day target, suggesting that further interrogation of these data are required.

Actions Required:

- **NHS Tayside, as the NHS Board with larger patient numbers, to undertake an audit of patients receiving radical radiotherapy and brachytherapy to identify all relevant patients and to assess overall treatment time.**
- **All NHS Boards to ensure that radiotherapy start date and radiotherapy end date are recorded in line with data definitions, so that the time period between the two encompasses the treatment period for both external beam radiotherapy and brachytherapy.**

QPI 7: Chemoradiation

QPI 7: Chemoradiation: Patients with cervical cancer undergoing radical radiotherapy should receive concurrent platinum-based chemotherapy.

Addition of chemotherapy to radiotherapy has been shown in several randomised trials and in a meta-analysis to improve overall survival.

Any patient with cervical cancer considered suitable for radical radiotherapy treatment should have concurrent chemoradiotherapy with a platinum based chemotherapy, if fit enough.

Concurrent chemoradiation is the primary treatment of choice for stages IB2 to IVA disease based on the results of 5 randomised clinical trials.

Numerator: Number of patients with cervical cancer undergoing radical radiotherapy who receive concurrent chemotherapy.

Denominator: All patients with cervical cancer who undergo radical radiotherapy.

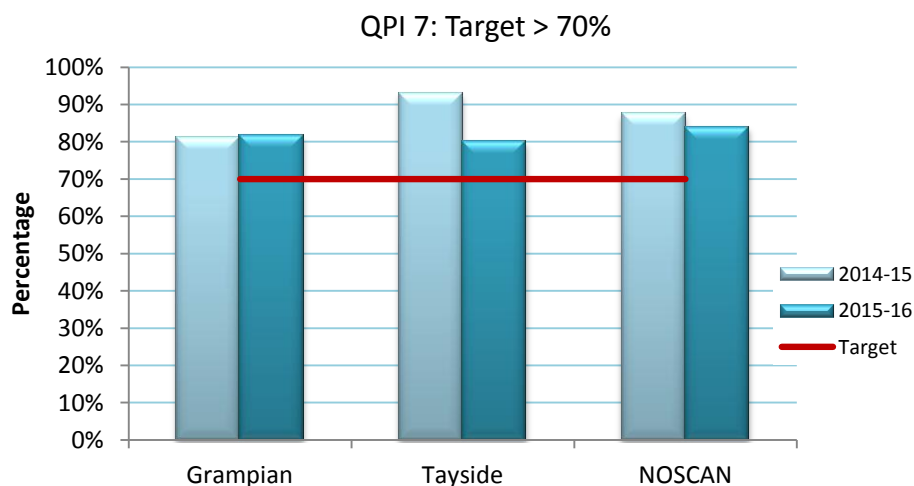
Exclusions: No Exclusions

Target: 70%

QPI 7 Performance against target

In 2015 - 2016, 25 patients were diagnosed with cervical cancer and had radical radiotherapy in the North of Scotland. 84.0% of these patients received concurrent chemotherapy, meeting the target rate of 70% and similar to the 2014-15 figure of 87.5%.

This QPI was met by all NHS Boards in the North of Scotland in 2015-16



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	81.8%	9	11	0	0%	0	0%	0	+0.8%
Highland*	-	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0	-
Tayside	80.0%	8	10	0	0%	0	0%	0	-12.9%
W Isles*	-	-	-	-	-	-	-	-	-
NoS	84.0%	21	25	0	0%	0	0%	0	-3.5%

The target for this QPI was met across NOSCAN. The 25% tolerance allows exclusion of chemotherapy in patients who are unfit or unsuitable for treatment. As with QPI 6, there appears to be a discrepancy in the number of patients who should be included within the QPI between audit data and local data collection.

Actions Required:

- **Audit facilitators in NHS Boards to explore any apparent discrepancies between QPI results and data from independent sources for QPI 7.**

Clinical Trials Access QPI

The ability of patients to readily access a Clinical Trial is a common issue for all cancer types, and in order to further support recruitment through more active comparison and measurement of Board and network performance across the country, a generic QPI was developed as part of the National Programme of cancer quality improvement. Further details on the development and definition of this QPI can be found [here](#). The QPI is defined as follows.

Clinical Trials Access QPI	
All patients should be considered for participation in available clinical trials, wherever eligible.	
Numerator:	Number of patients with cervical cancer enrolled in an interventional clinical trial of translational research.
Denominator:	All patients with cervical cancer.
Exclusions:	No exclusions
Target:	Interventional clinical trials – 7.5% Translational research - 15%

Key points during the period audited:

- No patients diagnosed with cervical cancer were recruited into interventional clinical trials in the three cancer centres in the region in 2016; this is the same as in 2015 and well below the required target of 7.5%.
- Recruitment into translational research was also 0%, clearly missing the target of 15% as in 2014-15.

	Number of patients recruited	ISD Cases annual average (2011-2015)	Percentage of patients recruited
Interventional Clinical Trials	0	80	0%
Translational Research	0	80	0%

The QPI targets for clinical trials are 7.5% for interventional trials and 15% for translational trials. It should be noted that these targets are particularly ambitious, particularly with the move towards more targeted trials. No clinical trials were open and recruiting for cervical cancer patients during this period in NOSCAN, however patients may have been referred to other centres where trials are open such as the Royal Marsden, London and The Beatson Institute, Glasgow.

5. Conclusions

The Quality Performance Indicators programme was introduced in order to drive forward a programme of continuous service improvement and to ensure the quality and equity of access to care for cancer patients across Scotland.

As part of this programme, the North of Scotland has launched a programme of annual reporting of regional performance against QPIs. This is the second time that the results of individual Board performance against the Cervical Cancer QPIs have been reported in the North of Scotland, providing a clearer measure of overall performance across the region, and a more formal structure around which any improvements will be made.

Case ascertainment was high at 94.80% overall, and results of both Board and regional performance against the Cervical Cancer QPI's for patients diagnosed between 1st October 2015 and 30th September 2016 were considered to be representative of cancer services specific to the management of cervical cancer in the North of Scotland.

For four of the eight QPIs measured, the audit report indicated that the required QPI targets were met. This would suggest that we continue to deliver high quality clinical care to women with cervical cancer in the North of Scotland. Where any QPI target has not been met there has been regional analysis of cases, multidisciplinary discussion and action plans are currently being developed to address any areas for improvement. There does, however, need to be some clarification regarding data collection in light of some discrepancies between QPI and local numbers.

The actions so far identified to improve services in the North of Scotland include;

- **MCN to facilitate discussion with Tayside to clarify the role of PET imaging in patients treated with radical intent, noting that para-aortic lymphadenopathy does not preclude radical treatment.**
- **NHS Tayside, as the NHS Board with larger patient numbers, to undertake an audit of patients receiving radical radiotherapy and brachytherapy to identify all relevant patients and to assess overall treatment time.**
- **All NHS Boards to ensure that radiotherapy start date and radiotherapy end date are recorded in line with data definitions, so that the time period between the two encompasses the treatment period for both external beam radiotherapy and brachytherapy.**
- **Audit facilitators in NHS Boards to explore any apparent discrepancies between QPI results and data from independent sources for QPI 7.**

The first years of reporting against the Cervical Cancer QPIs have been a learning process during which both the QPIs themselves and the way in which data is collected to report them have been refined and developed. There will be a formal review of these QPIs following the third year of QPI reporting. NOSCAN will highlight the following points for consideration at this review.

- **MCN to suggest that QPI 2 is updated to exclude patients who refuse PET imaging.**

- **MCN to suggest that QPI 4 is updated to include fertility sparing surgery and laparoscopic surgery, for example by including patients undergoing radical surgery rather than radical hysterectomy only.**
- **MCN to suggest that QPI 4 is updated to exclude patients in whom surgery is not possible.**
- **MCN to suggest that QPI 5 is updated to exclude patients in cases where the surgical margins are not recorded in the pathology report.**

The North of Scotland Gynaecology MCN will actively take forward regional actions identified and NHS Boards are asked to develop local Action / Improvement Plans in response to the findings presented in the report. A blank Action Plan template can be found in the Appendix to this report.

Completed Action Plans should be returned to NOSCAN within two months of publication of this report.

Progress against these plans will be monitored by the North of Scotland Gynaecology MCN and any service or clinical issue which the Advisory Board considers not to have been adequately addressed will be escalated to the NHS Board Lead Cancer Clinician and Regional Lead Cancer Clinician.

Additionally, progress will be reported to the Regional Cancer Advisory Forum (RCAF) annually by the NOSCAN Clinical Lead for Cervical Cancer as part of the regional audit governance process to enable RCAF to review and monitor regional improvement.

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Appendix: NHS Board Action Plans

A blank Action Plan template can be found attached. Completed Action Plans should be returned to NOSCAN within two months of publication of this report.

Action Plan: Cervical Cancer
Based on QPI results for patients diagnosed 2015-2016

Board:	
Action Plan Lead:	
Date:	

Status key	
1	Action Fully Implemented
2	Action agreed but not yet implemented
3	No action taken (please state reason)

QPI	Action Required	NHS Board Action Taken	Date		Lead	Progress	Status
			Start	End			
	<i>Ensure actions mirror those detailed in Audit Report</i>	<i>Detail specific actions that will be taken by the NHS Board</i>	<i>Insert date</i>	<i>Insert date</i>	<i>Insert name of responsible lead for each action.</i>	<i>Detail actions in progress, changes in practice, problems encountered of reasons why no action has been taken.</i>	<i>Insert no. from key</i>