NOSCAN
North of Scotland
Cancer Network

Head and Neck QPI Group

Audit Report

Head and Neck
Quality Performance Indicators

Patients diagnosed April 2016 –March 2017

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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.

EXECUTIVE SUMMARY

This publication reports the performance of head and neck cancer services in the six NHS Boards in the North of Scotland (NoS) against the Head and Neck Cancer Quality Performance Indicators (QPIs) for patients diagnosed between April 2016 and March 2017. This is the third year in which QPIs results for head and neck cancer have been collected and results are compared with those from previous years.

In the North of Scotland during the 2016-17 period audited:

- There were 276 patients diagnosed with head and neck cancer, an increase of 19 (7.4%) from the 2015-16 figure of 257.
- Overall case ascertainment was quite low at 89.0%, although an increase from the 2015-2016 figure of 86.0%.
- Results were considered to be representative of head and neck cancer services in the region.

Summary of QPI Results

QPI	QPI Target	Performance[b]				
		NOSCAN	Grampian	Highland	Tayside	W Isles
QPI 1: Pathological Diagnosis of Head and Neck Cancer - Proportion of patients with head and neck cancer who have a cytological or histological diagnosis before treatment.	95%	**98%** n=276	**98%** n=99	**98%** n=60	**98%** n=103	**100%** n=7
QPI 2: Imaging - Proportion of patients with head and neck cancer who undergo CT and/or MRI of the primary site and draining lymph nodes with CT of the chest before the initiation of treatment.	95%	**93%** n=239	**94%** n=98	**88%** n=57	**94%** n=70	**100%** n=7
QPI 3: Multi-Disciplinary Team Meeting (MDT) - Proportion of patients with head and neck cancer who are discussed at MDT meeting before definitive treatment.	95%	**97%** n=236	**96%** n=98	**94%** n=54	**99%** n=70	**100%** n=7
QPI 4: Smoking Cessation - Proportion of patients with head and neck cancer who smoke who are referred to smoking cessation before first treatment.	95%	**19%** n=108	**10%** n=42	**8%** n=26	**35%** n=31	**60%** n=5
QPI 5: Oral Assessment - Proportion of patients with head and neck cancer who have oral assessment before initiation of treatment.	90%	**48%** n=223	**46%** n=83	**71%** n=45	**39%** n=83	**50%** n=6
QPI 6: Nutritional Screening - Proportion of patients with head and neck cancer who undergo nutritional screening with the Malnutrition Universal Screening Tool (MUST) before first treatment.	95%	**56%** n=276	**85%** n=99	**83%** n=60	**16%** n=103	**43%** n=7

QPI	QPI Target	Performance[b]				
		NOSCAN	Grampian	Highland	Tayside	W Isles
QPI 7: Specialist Speech and Language Therapist Access - Proportion of patients with oral, pharyngeal or laryngeal cancer who are seen by a Specialist SLT before treatment.	90%	**33%** n=246	**75%** n=85	**7%** n=55	**11%** n=94	**17%** n=6
QPI 8: Surgical Margins - Proportion of patients with head and neck cancer with final excision margins of less than 1mm after open surgical resection with curative intent.	<5%	**15%** n=75	**19%** n=26	**20%** n=5	**11%** n=44	-
QPI 9: Intensity Modulated Radiotherapy (IMRT) - Proportion of patients with head and neck cancer undergoing radiotherapy who receive IMRT.	80%	**99%** n=128	**100%** n=54	**100%** n=23	**100%** n=42	-
QPI 10: Post Operative Chemoradiotherapy - Proportion of patients with head and neck cancer who have extracapsular spread and/or final excision margins of <1mm following surgical resection who receive chemoradiation.	85%	**22%** n=18	**0%** n=8	**17%** n=6	-	-
QPI 11: 30 and 90 Day Mortality - Proportion of patients with head and neck cancer who die within 30 or 90 days of curative treatment.						
Surgery – 30 Day Mortality	<5%	**3%** n=80	**0%** n=28	**0%** n=6	**4%** n=46	-
Surgery – 90 Day Mortality	<5%	**3%** n=80	**0%** n=28	**0%** n=6	**4%** n=46	-
Radical Radiotherapy – 30 Day Mortality	<5%	**0%** n=52	**0%** n=21	**0%** n=17	**0%** n=13	-
Radical Radiotherapy – 90 Day Mortality	<5%	**2%** n=51	**5%** n=20	**0%** n=17	**0%** n=13	-
Chemoradiotherapy – 30 Day Mortality	<5%	**4%** n=77	**3%** n=31	**0%** n=13	**7%** n=29	-
Chemoradiotherapy – 90 Day Mortality	<5%	**5%** n=74	**3%** n=29	**0%** n=13	**7%** n=28	-
Clinical Trials Access - Proportion of patients with head and neck cancer who are enrolled in an interventional clinical trial or translational research.						
Interventional clinical trials	7.5%	**4%** n=310				
Translational research	15%	**2%** n=310				

Performance shaded pink where QPI target has not been met.
[b] Excluding results based on less than 5 patients.

This audit report indicates that QPI targets were met over the North of Scotland for three of the 12 QPIs. Due to the complexity of the pathway for patient with head and neck cancer, there have been issues with both data collection and QPI definitions in the early years of QPI reporting which have affected NOSCANs performance against these measures. Both of these issues need to be resolved to enable the Head and Neck QPIs provide a true indication of the quality of head and neck cancer services in the North of Scotland.

Nonetheless, results have helped identify the following actions in the North of Scotland:

- **All NHS Boards to ensure that there is adequate radiology resource to ensure that all head and neck cancer patients can get computerised tomography (CT) and/or magnetic resonance imaging (MRI) of the primary site and draining lymph nodes with CT of the chest before the initiation of treatment.**

- **All NHS Boards require to improve recording of information on**
    - **smoking cessation**
    - **oral assessment**
    - **nutritional assessment**
    - **Specialist SLT access**

  through the implementation of a standardised proforma.

- **All MDTs to facilitate the physical presence of restorative dentistry at MDT meetings.**

- **All NHS Boards to encourage communication among research teams to facilitate patient access to clinical trials in other NOSCAN Boards.**

In addition, the Regional Group should support the amendment of definitions for QPIs 4, 5, 7, 8 and 10 through the Formal Review of Head and Neck Cancer QPIs, which is currently underway. By doing so, this should help improve the relevance of the Head and Neck Cancer QPI performance in future years, ensuring that QPIs provide the most clinically meaningful indicator of the quality of head and neck cancer services in the North of Scotland.

Contents

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 all 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 Head and Neck Cancer QPIs are available from the ISD website[1].

The need for regular reporting of activity and performance (to assure the quality of care delivered) was first nationally set out 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) head and neck cancer services using clinical audit data relating to patients diagnosed with head and neck cancer in the twelve months from 1st April 2016 to 31st March 2017. Results are measured against the Head and Neck Quality Performance Indicators (QPIs)[6] which were implemented for patients diagnosed on or after 1st April 2014. Regular reporting of activity and performance is a fundamental requirement of a Managed Clinical Network (MCN) or Regional Tumour/Cancer Specific group to assure the quality of care delivered across the region.

This report presents performance against 11 Head and Neck Cancer QPIs using clinical audit data. The generic Clinical Trials QPI is also reported for head and neck cancer patients.

2. Background

Six NHS Boards across the North of Scotland serve the 1.40 million population[7]. There were 276 patients diagnosed with head and neck cancer in the North of Scotland between 1st April 2016 and 31st March 2017.

It is recognised that patients diagnosed with head and neck cancer should be discussed at a Multidisciplinary Team Meeting (MDT), which is usually convened on a weekly basis. The configuration of the MDT in the region is set out below.

MDT	Constituent Hospitals
Grampian	Aberdeen Royal Infirmary
Highland	Raigmore Hospital, Inverness
Tayside	Ninewells Hospital, Dundee

It should be noted that patients diagnosed in Orkney and Shetland will be discussed at the NHS Grampian MDT and those diagnosed in NHS Eileanan Siar (W.Isles) will be discussed at the NHS Highland MDT.

2.1 National Context

Head and neck cancer is the sixth most common cancer type in Scotland with 1,284 patients diagnosed with the disease in Scotland in 2015 and incidences increasing by 10.7% since 2005[8]. Incidences of head and neck cancer are predicted to continue to increase over the coming years[9].

Relative survival from head and neck cancer is also increasing[10]. The table below details the percentage change in 1 and 5 year relative survival for patients diagnosed 1987-1991 to 2007-2011.

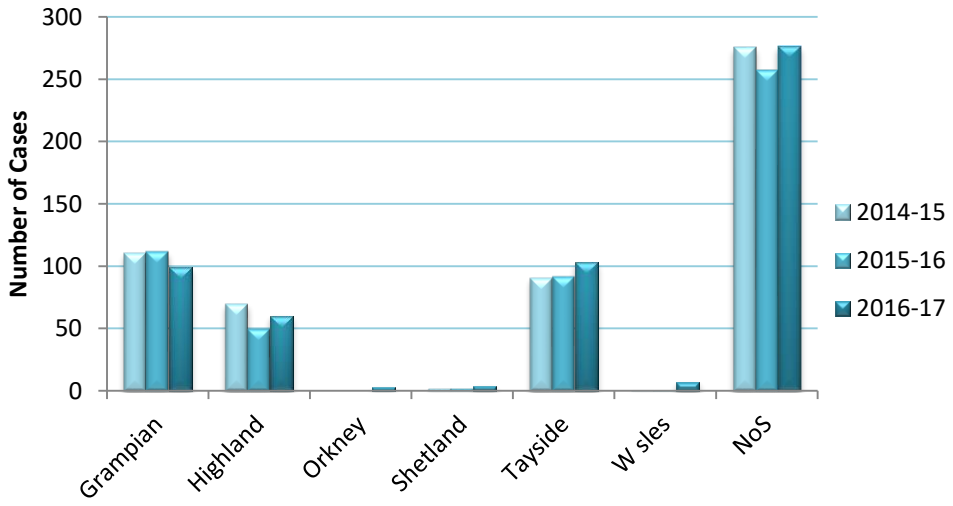
Relative age-standardised survival for head and neck cancer in Scotland at 1 year and 5 years showing percentage change from 1987-1991 to 2007-2011[10].

Sex	Relative survival at 1 year (%)		Relative survival at 5 years (%)	
	2007-2011	% change	2007-2011	% change
Male	77.0%	+ 3.2%	53.5%	+ 5.4%
Female	74.3%	+ 1.9%	55.0%	+ 2.3%

2.2 North of Scotland Context

A total of 276 cases of head and neck cancer were recorded through audit as diagnosed in the North of Scotland between 1st April 2016 and 31st March 2017, which is an increase of 19 (or 7.4%) compared with 2015-2016 (257 patients). The numbers of patients diagnosed within each Board are presented below.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
Number of Patients	99	60	3	4	103	7	**276**
% of NoS total	35.9%	21.7%	1.1%	1.4%	37.3%	2.5%	**100%**



Number of patients diagnosed with head and neck cancer by Board of diagnosis, 2014-15 - 2016-17.

3. Methodology

The data presented in this report was collected by clinical audit staff in each NHS Board in accordance with an agreed dataset and definitions[1]. The data was entered into the electronic Cancer Audit Support Environment (eCASE): a secure centralised web-based database.

Data for patients diagnosed between 1st April 2016 and 31st March 2017 and any comments on QPI results were then signed-off at NHS Board level to ensure that the data were 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 and 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 charts or 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.

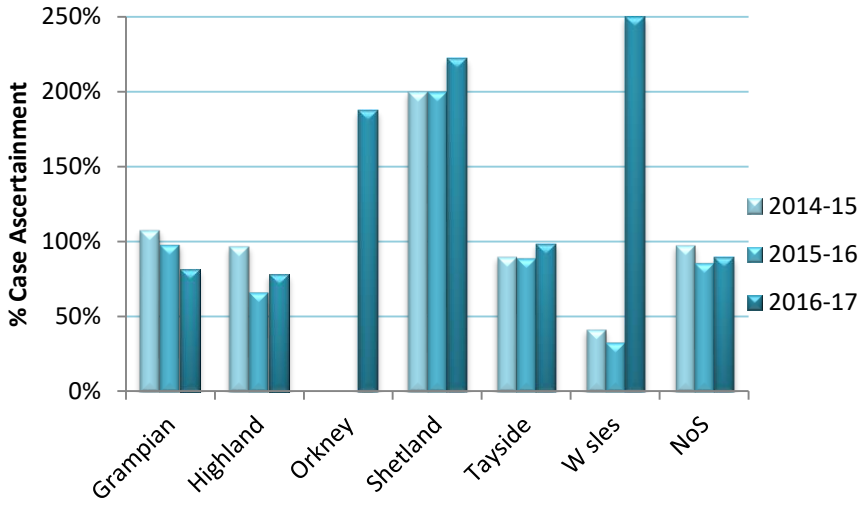
4. Results

4.1 Case Ascertainment

Audit data completeness can be assessed from case ascertainment, the proportion of expected patients that have been identified through audit. Case ascertainment is calculated by comparing the number of new cases identified by cancer audit with the numbers recorded by the National Cancer Registry, by NHS Board of diagnosis. Cancer Registry figures were extracted from ACaDMe (Acute Cancer Deaths and Mental Health), a system provided by NHS Information Services Division (ISD). Due to timescale of data collection and verification processes, National Cancer Registry data are not available for 2016-2017. Consequently an average of the previous five years' figures is used to take account of annual fluctuations in incidence within NHS Boards.

Overall case ascertainment for the North of Scotland is relatively low at 89.0% which indicates reasonable data capture through audit, however this is an increase from the 2015-2016 figure of 86.0%. Case ascertainment figures are provided for guidance and are not an exact measurement of audit completeness, as it is not possible to compare the same cohort of patients.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
Cases from audit 2016-17	99	60	3	4	103	7	**276**
ISD Cases (2011-2015)	122	77	2	2	105	3	**310**
% Case ascertainment 2016-17	81.4%	77.9%	187.5%	222.2%	98.3%	**50.0%**	**89.1%**

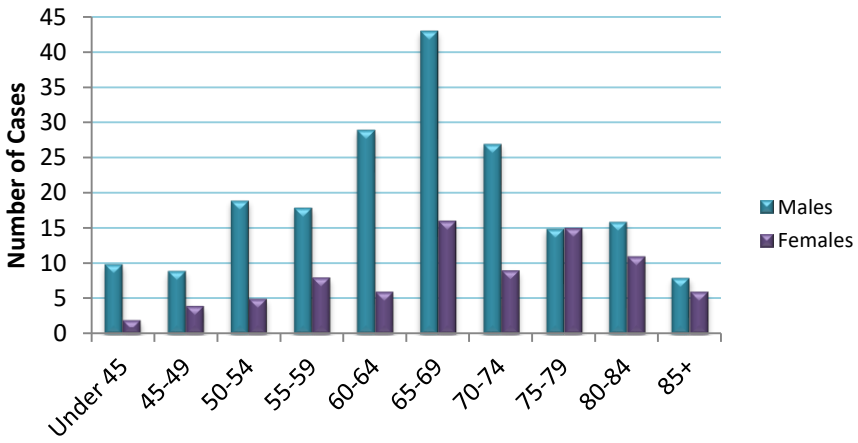


Case ascertainment by NHS Board for patients diagnosed with head and neck cancer 2014-15 to 2016-17.

Audit data were considered to be sufficiently complete to allow QPI calculations. The head and neck cancer patient pathway is more complex than for many tumour groups, requiring input from many different services. This has resulted in data being required from a wide variety of sources and has presented a particular challenge. This is most notable around QPI 4, smoking cessation, where information on whether or when patients were referred to smoking cessation services is reported not being recorded for over 34% of patients. Similar, but less pronounced recording issues can be seen for nutritional screening, oral screening and speech and language therapy information, while the absence of information on operation intent has also affected the results of some QPIs.

4.2 Age and Gender Distribution

The figure below shows the age distribution of patients diagnosed with head and neck cancer in the North of Scotland during 2016-2017 for both men and women. Incidence rates were much higher in men than in women, with the number of patients diagnosed peaking in the 65-69 age group for both men and women.



4.3 Performance against Quality Performance Indicators (QPIs)

Results of the analysis of the Head and Neck 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 surgical QPIs (QPIs 8 and 11a) are presented by both NHS Board and Hospital of Surgery. Where performance is shown to fall below the target, commentary from the relevant NHS Board 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.

QPI 1: Pathological Diagnosis of Head and Neck Cancer

QPI 1: Pathological Diagnosis of Head and Neck Cancer: Patients with head and neck cancer should have a cytological or histological diagnosis before treatment.

A definitive diagnosis is valuable in helping inform patients and carers about the nature of the disease, the likely prognosis and treatment choice.

Cytopathology and histopathology specimens should be reported in accordance with Royal College of Pathologist guidelines.

Numerator: Number of patients with head and neck cancer who have a cytological or histological diagnosis before treatment.

Denominator: All patients with head and neck cancer.

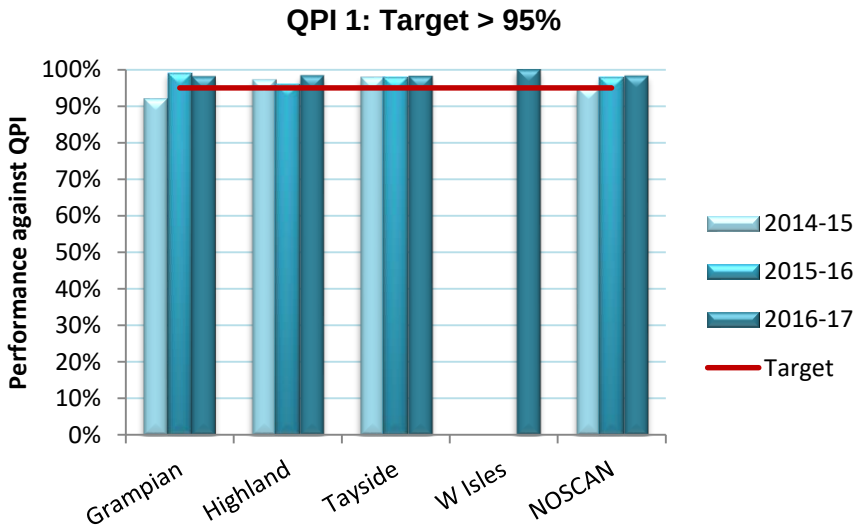
Exclusions: No exclusions

Target: 95%

QPI 1 Performance against target

Of the 276 patients diagnosed with head and neck cancer in the North of Scotland in 2016-17, 271 had a cytological or histological diagnosis prior to treatment. This equates to a rate of 98.2% which meets the target rate of 95% and is very similar to the 2015-16 figure of 98.0%.

In 2016-17 this QPI was met by all NHS Boards in the North of Scotland.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**98.0%**	97	99	0	0%	0	0%	0	-1.1%
Highland	**98.3%**	59	60	0	0%	0	0%	0	+2.3%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**98.1%**	101	103	0	0%	0	0%	0	+0.3%
W Isles	**100%**	7	7	0	0%	0	0%	0	-
NoS	**98.2%**	**271**	**276**	**0**	**0%**	**0**	**0%**	**0**	**+0.2%**

Actions Required:

No actions identified.

QPI 2: Imaging

QPI 2: Imaging: Patients with head and neck cancer should undergo computerised tomography (CT) and/or magnetic resonance imaging (MRI) of the primary site and draining lymph nodes with CT of the chest before the initiation of treatment.

Radiological staging should be carried out before treatment. This will allow for the multi-disciplinary team to determine an accurate stage.

Accurate staging is important to ensure appropriate treatment is delivered to patients with head and neck cancer.

Numerator: Number of patients with head and neck cancer who undergo CT and/or MRI of the primary site and draining lymph nodes with CT of the chest before the initiation of treatment.

Denominator: All patients with head and neck cancer.

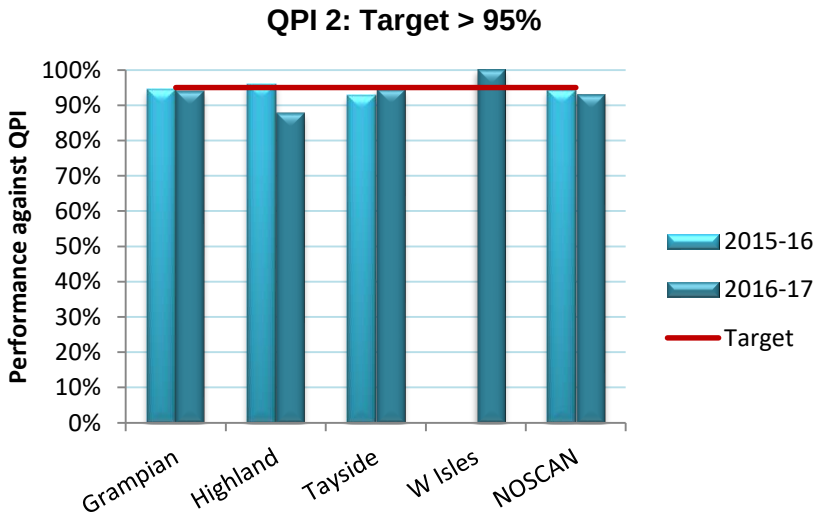
Exclusions: Patients who undergo diagnostic excision biopsy as the definitive surgery.

Target: 95%

QPI 2 Performance against target

Overall results for the North of Scotland indicate that 92.9% of patients diagnosed with head and neck cancer in 2016-17 had a CT or MRI of the primary site and draining lymph nodes, with CT of the chest before the initiation of treatment. This is below the target rate of 95% and very similar to the 2015-16 figure of 94.3%.

At an NHS Board level, this QPI was not met in any of the three mainland NHS Boards but was met by NHS Shetland, NHS Orkney and NHS W Isles.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**93.9%**	92	98	0	0%	0	0%	0	-0.5%
Highland	**87.7%**	50	57	0	0%	0	0%	0	-8.1%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**94.3%**	66	70	0	0%	0	0%	0	+1.5%
W Isles	**100%**	7	7	0	0%	0	0%	0	-
NoS	**92.9%**	**222**	**239**	**0**	**0%**	**0**	**0%**	**0**	**-1.4%**

This QPI has not been met in NHS Grampian, NHS Highland and NHS Tayside, however NHS Grampian and NHS Tayside achieve above 90%. Patients discussed at MDT with a new cancer diagnosis and deemed for best supportive care do not always need to proceed to detailed staging and should also be excluded.

Insufficient radiology capacity is an ongoing issue in NHS Tayside. An increase in the radiology capacity through all NOSCAN boards is needed to assure the achievement of this QPI.

Actions Required:

- **All NHS Boards to ensure that there is adequate radiology resource to ensure that all head and neck cancer patients can get computerised tomography (CT) and/or magnetic resonance imaging (MRI) of the primary site and draining lymph nodes with CT of the chest before the initiation of treatment.**

QPI 3: Multi-Disciplinary Team Meeting (MDT)

QPI 3: Multi-Disciplinary Team Meeting (MDT): Patients with head and neck cancer should be discussed by a multidisciplinary team before definitive treatment.

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

Discussion before definitive treatment decisions being made provides reassurance that patients are being managed appropriately.

Numerator: Number of patients with head and neck cancer discussed at the MDT before definitive treatment.

Denominator: All patients with head and neck cancer.

Exclusions:

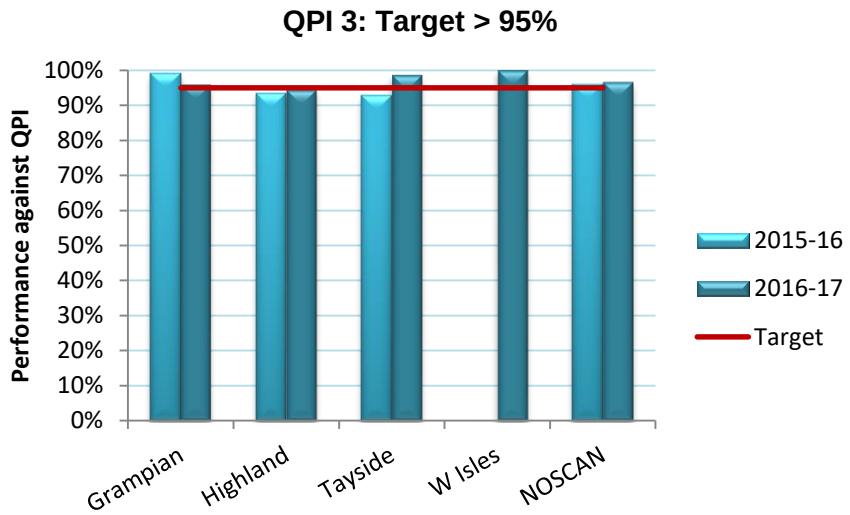
- Patients who died before first treatment.
- Patients who undergo diagnostic excision biopsy as the definitive surgery.

Target: 95%

QPI 3 Performance against target

228 out of 236 patients diagnosed with head and neck cancer in the North of Scotland during the period audited (96.6%) were discussed at the MDT before definitive treatment; this means that at a regional level, the target of 95% was met. Results were very similar to those from 2015-16 when performance against this indicator was 96.0%.

This QPI target was narrowly missed by NHS Highland in 2016-17, but achieved for all other NHS Boards in the North of Scotland.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**95.9%**	94	98	0	0%	8	8.2%	0	-3.1%
Highland	**94.4%**	51	54	0	0%	0	0%	0	+0.9%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**98.6%**	69	70	0	0%	0	0%	0	+5.8%
W Isles	**100%**	7	7	0	0%	0	0%	0	
NoS	**96.6%**	**228**	**236**	**0**	**0%**	**8**	**3.4%**	**0**	**+0.6%**

This QPI is almost met in all NHS Boards in the North of Scotland, with NHS Highland just missing the target at 94.4%.

Actions Required:

No actions identified.

QPI 4: Smoking Cessation

QPI 4: Smoking Cessation: Patients with head and neck cancer who smoke should be referred to smoking cessation.

A smoker is a person who is actively smoking at the time of referral to the head and neck services leading to a diagnosis of head and neck cancer.

Evidence shows that patients who are active smokers should be referred to smoking cessation without delay. Smoking while undergoing treatment for head and neck cancer can increase risks for disease recurrence and treatment failure. It can also increase the risk of side effects.

Evidence shows that smoking can decrease the effectiveness of treatment.

Numerator: Number of patients with head and neck cancer who smoke who are referred to smoking cessation before first treatment.

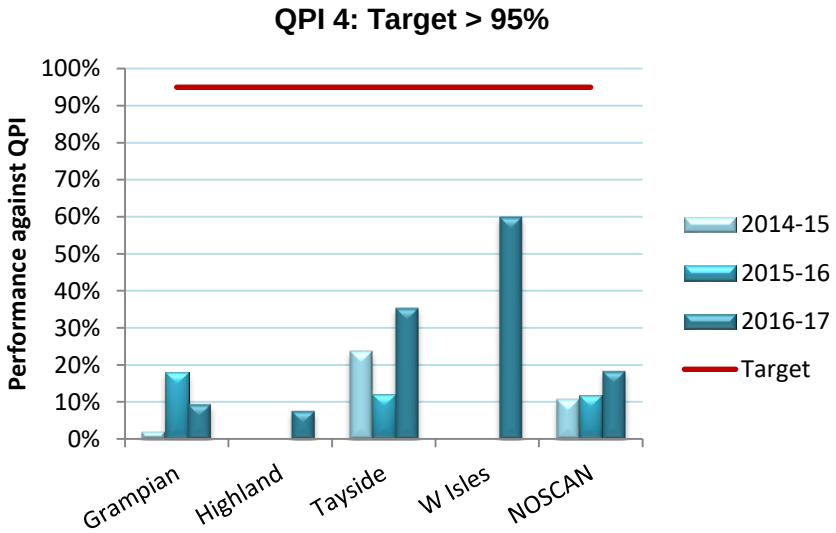
Denominator: All patients with head and neck cancer who smoke.

Exclusions: No exclusions.

Target: 95%

QPI 4 Performance against target

Of the 108 patients diagnosed with head and neck cancer in the North of Scotland in 2016-17 and who smoke, data collected indicate that 20 (18.5%) were referred to smoking cessation before first treatment. This was well below the target rate of 95% but an increase on the 2015-16 results of 11.9%. Whilst it appears that no NHS Boards within the North of Scotland met this QPI target, it should be noted that for 37 patients (34.3%), information on whether patients had been referred to smoking cessation before first treatment was not recorded. Consequently these patients will be reported as not meeting the target resulting in the performance measures being a significant under-representation of the true numbers of patients being referred.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**9.5%**	4	42	29	69.1%	0	0%	0	-8.5%
Highland	**7.7%**	2	26	0	0%	0	0%	0	+7.7%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**35.5%**	11	31	1	9.7%	0	0%	0	+23.4%
W Isles	**60.0%**	3	5	1	20.0%	0	0%	0	-
NoS	**18.5%**	**20**	**108**	**37**	**34.3%**	**0**	**0%**	**0**	**+6.6%**

Across all the NHS Boards in NOSCAN smoking cessation referrals appear well below the QPI target of 95%. However, further investigation has indicated that there is a data collection issue, especially for patients who move between NHS Boards for treatment or where referrals are made in primary care, when the required information has not been recorded or clinically shared in a format that is readily accessible to audit staff.

In its present format, and regardless of how well the information is collected, this QPI will be unable to properly reflect the smoking cessation counselling and advice that is delivered as a matter of routine in Head and Neck clinics across the North of Scotland since it doesn't adequately capture all incidences when advice is given to patients on smoking cessation (such as when if a patient chooses to stop without using smoking cessation services or alternatively declines the offer of referral following discussion with a clinician).

Discussion about smoking cessation is considered to be as clinically important as referral itself, and to reflect this, a new definition for this QPI has been proposed at the Formal Review of Head and Neck QPIs, and is currently out for consultation.

Actions Required:

- **All NHS Boards to improve recording of information on smoking cessation through the implementation of a standardised proforma.**
- **Regional Group to support amendment of definition of QPI 4 to focus on discussion of smoking cessation with patients.**

QPI 5: Oral Assessment

QPI 5: Oral Assessment: Patients with head and neck cancer should have pre-treatment oral assessment.

Patients with head and neck cancer should have oral assessment before treatment begins to ensure that any dental work needed can be given before first treatment.

This will then ultimately decrease the chances of complications such as osteoradionecrosis (ORN) and, overall, improve the potential for a successful outcome of dental/prosthodontic rehabilitation.

Numerator: Number of patients with head and neck cancer who have oral assessment before initiation of treatment.

Denominator: All patients with head and neck cancer.

Exclusions:

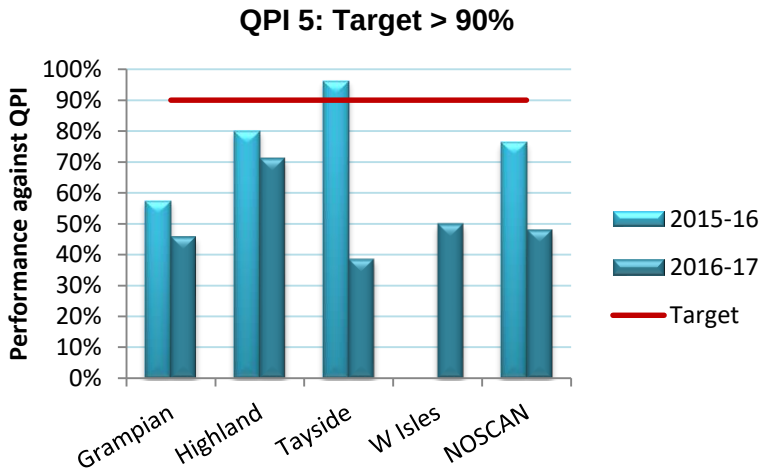
- Patients who have T1/T2/N0 Larynx Cancer.
- Patients undergoing no active treatment as part of their primary therapy.

Target: 90%

QPI 5 Performance against target

Overall in 2016-17, 107 out of 223 patients diagnosed with head and neck cancer in the North of Scotland had an oral assessment before initiation of treatment. At a rate of 48.0%, this does not meet the required target of 90% of patients and is considerably lower than the 2015-16 figure of 76.4%. Information on whether patients had an oral assessment before initiation of treatment was not recorded for 3.1% of patients in NOSCAN during 2016 - 17, resulting in underestimation performance against this QPI. However this lack of recording on its own does not fully explain the inability of the region to meet this target.

This QPI was only met by one NHS Board in the North of Scotland in 2016-17, NHS Orkney.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**45.8%**	38	83	0	0%	0	0%	0	-11.6%
Highland	**71.1%**	32	45	0	0%	0	0%	0	-8.9%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**38.6%**	32	83	2	2.4%	0	0%	0	-57.6%
W Isles	**50.0%**	3	6	1	16.7%	0	0%	0	-
NoS	**48.0%**	**107**	**223**	**7**	**3.1%**	**0**	**0%**	**0**	**-28.3%**

Multiple issues are responsible for the low performance reported against this QPI, which includes nearly all patients with head and neck cancer. Further investigation has indicated that data on the date of oral assessment was often not recorded in a format that was readily accessible to audit staff. Audit data suggest that this information was not recorded for 3.1% of patients but this figure is likely to underestimate of the frequency of under-recording.

In its present format, and regardless of how well the information presently required is collected, this QPI will be unable to properly reflect the quality of oral assessment across the North of Scotland. Patients that do not receive treatment involving their oral cavity do not always require dental assessment; however they are included in this QPI. Similarly, edentulous patients do not usually require dental assessment. In light of these issues changes to the definition for this QPI have been proposed at the Formal Review of Head and Neck Cancer QPIs.

In addition the lack of physical presence of restorative dentistry in NHS Grampian MDT has impacted on performance against this QPI.

Actions Required:

- **All NHS Boards to improve recording of information on oral assessment through the implementation of a standardised proforma.**
- **Regional Group to support amendment of definition of QPI 5 to focus on patients where oral assessment is required.**
- **All MDTs to facilitate the physical presence of restorative dentistry at MDT meetings.**

QPI 6: Nutritional Screening

QPI 6: Nutritional Screening: Patients with head and neck cancer should undergo nutritional screening before first treatment.

Malnutrition is prevalent in patients with head and neck cancer and it is recognised that it negatively effects treatment outcomes as those with significant weight loss are more likely to suffer major postoperative complications, less tolerance to radiotherapy with more interruptions to treatment, decreased response to chemotherapy with increased toxicity and shortened survival times.

Patients with head and neck cancer should be screened at diagnosis for nutritional status using a validated screening tool appropriate to the patient population. Any patients at risk of malnutrition should be managed by an experienced dietitian.

Numerator: Number of patients with head and neck cancer who undergo nutritional screening with the Malnutrition Universal Screening Tool (MUST) before first treatment.

Denominator: All patients with head and neck cancer.

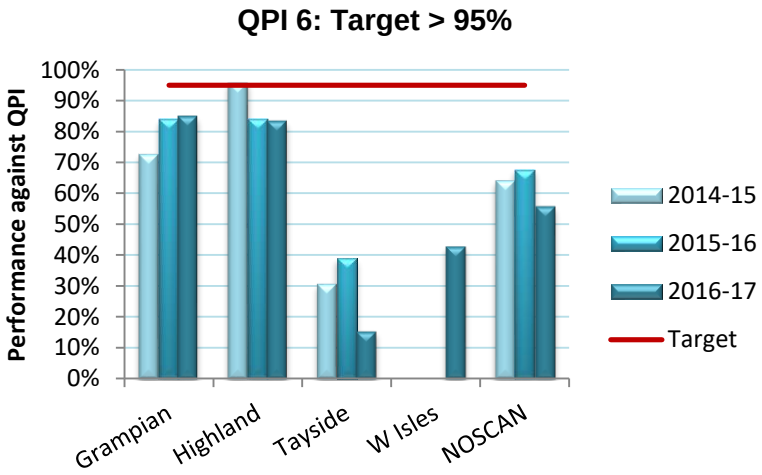
Exclusions: No exclusions.

Target: 95%

QPI 6 Performance against target

In 2016-17, 55.8% of patients diagnosed with head and neck cancer in the North of Scotland had nutritional screening with MUST before first treatment. This falls short of the target of 95% and is lower than the 2015-16 result of 67.5%.

This QPI was not met by any NHS Boards in the North of Scotland. It should be noted that results in NHS Grampian and NHS Highland were considerably higher than those in NHS Tayside, as in previous years.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**84.8%**	84	99	14	14.1%	0	0%	0	+0.9%
Highland	**83.3%**	50	60	8	13.3%	0	0%	0	-0.7%
Shetland*	**-**	-	-	-	-	-	-	-	-
Orkney*	**-**	-	-	-	-	-	-	-	-
Tayside	**15.5%**	16	103	3	2.9%	0	0%	0	-23.4%
W Isles	**42.9%**	3	7	3	42.9%	0	0%	0	-
NoS	**55.8%**	**154**	**276**	**34**	**12.3%**	**0**	**0%**	**0**	**-11.7%**

Nutritional assessment is normally carried out during joint consultations in Joint Head and Neck clinics. It has been identified that there is inconsistency across NOSCAN in the way these assessments are recorded and how this information is transferred to the audit teams. Further investigation has indicated that it is difficult for audit staff to access the date of nutritional assessment, which is the information required for this QPI to be met. Records suggest that this data was not recorded for 12.3% of patients. However, this figure is thought to underestimates the lack of recording as audit staffs are not always able to identify that the patient has had nutritional screening.

Actions Required:

- **All NHS Boards to improve recording of information on nutritional assessment through the implementation of a standardised proforma.**

QPI 7: Specialist Speech and Language Therapist Access

QPI 7: Specialist Speech and Language Therapist Access: Patients with oral, pharyngeal or laryngeal cancer should be seen by a Specialist Speech and Language Therapist (SLT) before treatment to assess voice, speech and swallowing.

An SLT who specialises in head and neck cancer should be available to work with every patient whose primary treatment disrupts the ability to speak, eat or swallow. These patients should receive appropriate speech and language therapy to optimise residual swallow function and reduce aspiration.

Baseline assessments should be undertaken by a Specialist SLT and appropriate interventions to maintain functions before treatment should commence. Continued SLT input is important in maintaining voice and safe and effective swallow function following head and neck cancer treatment.

Assessment of voice, speech and swallowing of patients is very difficult to measure accurately therefore uptake is utilised within this QPI as a proxy for assessment. Although it will not provide an absolute measure of patient access to this procedure it will give an indication of access across NHS Boards and highlight any areas of variance which can then be further examined.

Numerator: Number of patients with oral, pharyngeal or laryngeal cancer who are seen by a Specialist SLT before treatment.

Denominator: All patients with oral, pharyngeal or laryngeal cancer.

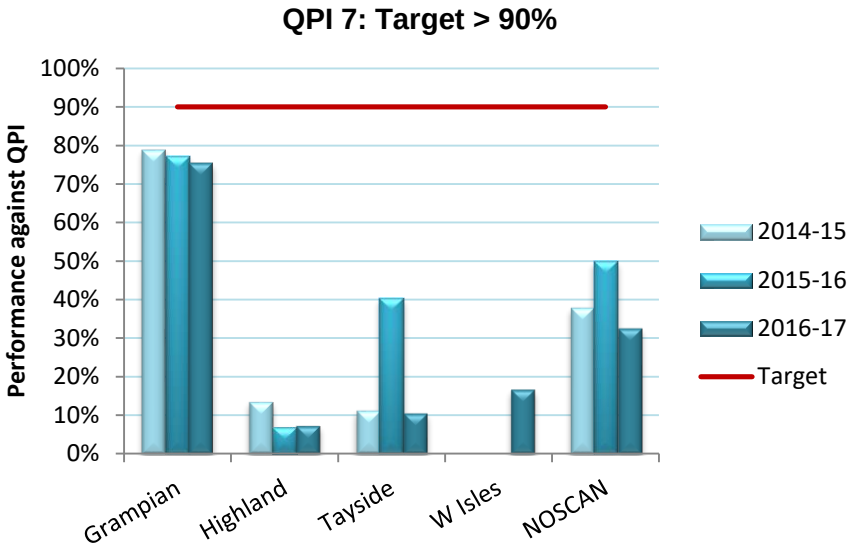
Exclusions: Patients who refuse assessment.

Target: 90%

QPI 7 Performance against target

80 of the 246 patients diagnosed with oral, pharyngeal or laryngeal cancer during 2016-17 in the North of Scotland were seen by a specialist SLT before treatment (32.5%), which is below the target rate of 90%. This was a decrease compared with the 2015-16 results of 50.0%. It should be noted that for 3.3% of patient's information on whether they were seen by a Specialist SLT before treatment was not recorded, underestimating performance. However this does not fully explain that failure of the region to meet the target for this QPI.

There was considerable variation in performance across the North of Scotland for this QPI. As in previous years, performance by NHS Grampian is considerably higher than that for other NHS Boards.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**75.3%**	64	85	0	0%	0	0%	0	-1.9%
Highland	**7.3%**	4	55	0	0%	0	0%	0	+0.3%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**10.6%**	10	94	2	2.1%	1	1.1%	0	-29.7%
W Isles	**16.7%**	1	6	3	50.0%	3	50.0%	0	-
NoS	**32.5%**	**80**	**246**	**8**	**3.3%**	**7**	**2.8%**	**0**	**-17.5%**

Further investigation has indicated that the lack of recording of information on when patients are seen by a Specialist SLT and / or inaccessibility of those records for audit staff is partially responsible for the low level of achievement in this QPI. Records suggest that this data was not recorded for 3.3% of patients but this figure underestimates the lack of recording as audit staffs are not always aware that the patient has seen a speech and language therapist.

In addition, the way that the QPI is measured means that patients planned for best supportive care do not meet this QPI as there is no opportunity for SLT input for these patients before MDT where the decision for best supportive care is made. Consequently changes to the definition for this QPI have been proposed at the Formal Review of Head and Neck Cancer QPIs to focus on patients where Specialist SLT assessment is appropriate before treatment.

In other cases, patient referral is reactive due to the lack of presence of SLT in combined clinics (NHS Highland), so SLT input may be after treatment is started.

Actions Required:

- **Regional Group to support amendment of definition of QPI 7 to focus on patients where Specialist SLT access is required before treatment.**

- **All NHS Boards to improve recording of information on Specialist SLT access through the implementation of a standardised proforma.**

QPI 8: Surgical Margins

QPI 8: Surgical Margins: Patients with head and neck cancer undergoing open surgical resection with curative intent should not have their tumour inadequately excised.

Achieving clear margins is associated with improved local and regional control and disease specific and overall survival.

Where distance from invasive carcinoma to surgical margins is less than 1mm this would be considered involved.

Numerator: Number of patients with head and neck cancer who undergo open surgical resection with curative intent with final excision margins of less than 1mm (on pathology report).

Denominator: All patients with head and neck cancer who undergo open surgical resection with curative intent.

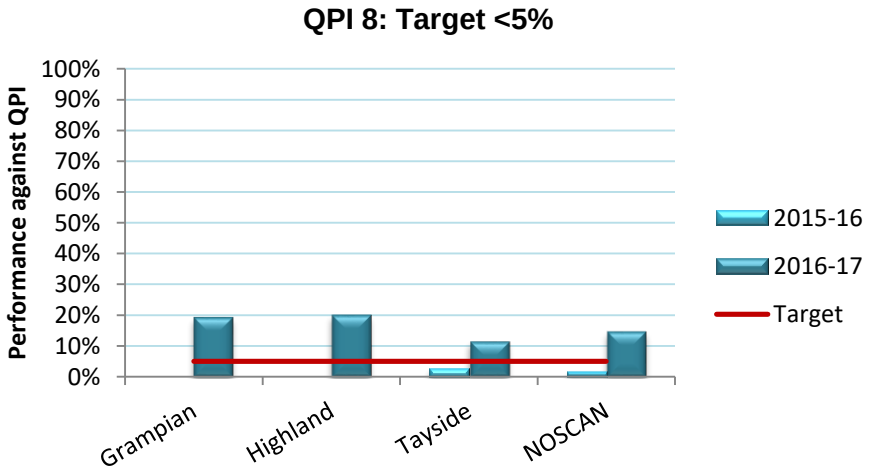
Exclusions: No exclusions.

Target: <5%

QPI 8 Performance against target

In 2016-17 there were 75 patients diagnosed with head and neck cancer who had open surgical resection with curative intent in the North of Scotland. Of these, 11 had final excision margins of less than 1mm on the pathology report (14.7%), which means that the required target of less that 5% was not met. Results are higher than those for 2015-16 when performance against this indicator was 1.6%.

Surgical resection for head and neck cancer was undertaken in five hospitals in the North of Scotland. Of the three centres where surgery on more than one patient was undertaken, Aberdeen Royal Infirmary (NHS Grampian), Raigmore Hospital (NHS Highland) and Ninewells Hospital (NHS Tayside), none of these met this QPI in 2016-17.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**19.2%**	5	26	0	0%	0	0%	10	+19.2%
Highland	**20.0%**	1	5	0	0%	0	0%	0	+20.0%
Orkney	**-**	0	0	0	-	0	-	0	-
Shetland	**-**	0	0	0	-	0	-	0	-
Tayside	**11.4%**	5	44	0	0%	0	0%	0	+8.7%
W Isles	**-**	0	0	0	-	0	-	0	-
NoS	**14.7%**	**11**	**75**	**0**	**0%**	**0**	**0%**	**10**	**+13.1%**

The clinical community across Scotland have had difficulty in meeting the target for this QPI. For example, in the West of Scotland performance was 9% in 2015-16 and 8% in 2016-17[12,13]. The majority of patients in the North of Scotland not meeting this QPI had salivary gland tumours and non-squamous cell carcinomas (SCC). There is a separate staging system for salivary gland tumours. Furthermore, evidence-based resection margins for SCC are not directly applicable to those of all salivary gland tumours due to many factors, including widespread difference in biological behaviour and rationale for elective preservation of facial nerve. It is noteworthy that the QPI reference group originally set the standards for resection margins with evidence–based reference to SCC only. This QPI should also take account of skull base and parotid tumours, for which positive margins are more likely. Consequently it has been agreed at a national level that changes to the definition for this QPI should be implemented at the Formal Review of Head and Neck Cancer QPIs to restrict this measure to patients with SCC.

Actions Required:

- **Regional Group to support amendment of the definition of QPI 8 to focus on patients with SCC.**

QPI 9: Intensity Modulated Radiotherapy (IMRT)

QPI 9: Intensity Modulated Radiotherapy (IMRT): Patients with head and neck cancer undergoing radiotherapy should receive intensity modulated radiotherapy (IMRT).

IMRT allows for the radiation dose to conform more precisely to the three-dimensional (3-D) shape of the tumour. This allows higher radiation doses to be focused to regions within the tumour while minimising the dose to surrounding normal critical structures.

IMRT is the recommended treatment for all nasopharyngeal, oropharyngeal, hypopharyngeal, laryngeal, oral cavity, and unknown primary cancers where lymph node regions requiring inclusion in the treatment volume would result in irreparable damage to salivary function if two-dimensional (2-D) external beam radiotherapy (EBRT) or 3-D EBRT were used.

Numerator: Number of patients with head and neck cancer undergoing radiotherapy who receive IMRT.

Denominator: All patients with head and neck cancer undergoing radiotherapy.

Exclusions:

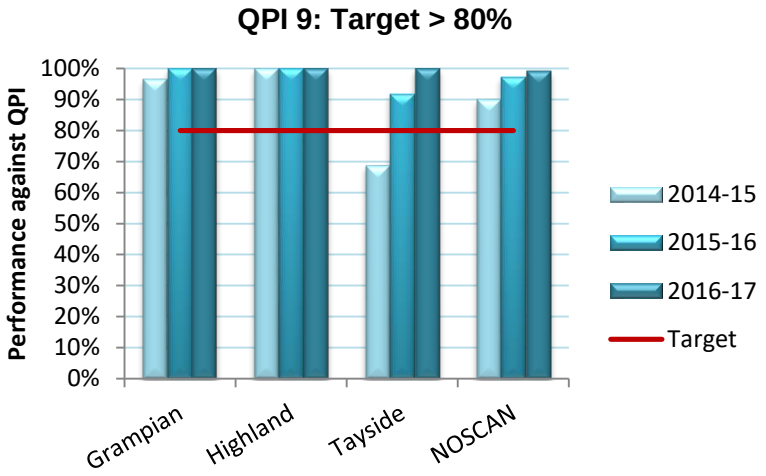
- Patients undergoing palliative radiotherapy care.
- Patients with T1/T2/N0 larynx cancer.

Target: 80%

QPI 9 Performance against target

127 of the 128 patients diagnosed with head and neck cancer in 2016-17 and undergoing radiotherapy in the North of Scotland received IMRT (99.2%). This is well above the required target of 80% and higher than the 2015-16 figure of 97.3%.

This QPI was met by all NHS Boards in the North of Scotland except NHS W Isles, where the QPI was not met due to the outcome of a single patient who was treated by NHS Greater Glasgow & Clyde.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**100%**	54	54	0	0%	1	1.9%	0	0%
Highland	**100%**	23	23	0	0%	0	0%	0	0%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**100%**	42	42	0	0%	0	0%	0	+8.2%
W Isles*	**-**	-	-	-	-	-	-	-	-
NoS	**99.2%**	**127**	**128**	**0**	**0%**	**1**	**0.8%**	**0**	**+1.9%**

Performance has been progressively increasing to reach 100% in NHS Grampian, NHS Highland and NHS Tayside. The current level of achievement in NOSCAN needs consolidation with continuous support to services through appropriate staffing.

Actions Required:

No actions identified.

QPI 10: Post Operative Chemotherapy

QPI 10: Post Operative Chemotherapy: Patients with head and neck cancer with extracapsular spread and/or final excision margins of <1mm following surgical resection should receive chemoradiation.

Patients with extracapsular spread should be considered for postoperative concurrent chemoradiotherapy.

Postoperative chemoradiotherapy is used to intensify the treatment that a patient with resectable high-risk head and neck cancer receives. Evidence shows chemoradiotherapy improves outcomes in patients with head and neck cancer. This includes improved survival.

Numerator: Number of patients with head and neck cancer with extracapsular spread and/or final excision margins of <1mm following surgical resection who receive chemoradiation.

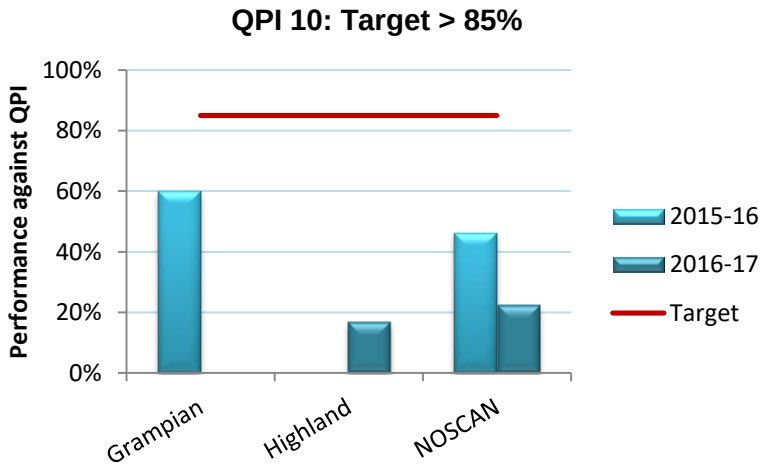
Denominator: All patients with head and neck cancer with extracapsular spread and/or final excision margins of <1mm following surgical resection.

Exclusions: No exclusions.

Target: 85%

QPI 10 Performance against target

In 2016-17 there were 18 patients diagnosed with head and neck cancer with extracapsular spread and/or final excision margins of <1mm following surgical resection in the North of Scotland. Four of these patients (22.2%) received chemoradiation, below the required target of 85% and less than the 2015-16 figure of 46.2%. The QPI target was not met by any individual NHS Boards in the North of Scotland except NHS Tayside, where numbers of patients included were very small.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**0%**	0	8	0	0%	0	0%	0	-60.0%
Highland	**16.7%**	1	6	0	0%	0	0%	0	-
Orkney	**-**	0	0	0	-	0	-	0	-
Shetland	**-**	0	0	0	-	0	-	0	-
Tayside*	**-**	-	-	-	-	-	-	-	-
W Isles*	**-**	-	-	-	-	-	-	-	-
NoS	**22.2%**	**4**	**18**	**0**	**0%**	**0**	**0%**	**0**	**-24.0%**

The clinical community across Scotland have had difficulty in meeting the target for this QPI. For example, in the West of Scotland performance was 25% in 2015-16 and 2016-17[12, 13], very similar to that in NOSCAN. The main cause of the consistent low percentage reported in NHS Boards in the North of Scotland and other regions is the inclusion of tumour categories out with the standard indication of postoperative chemoradiotherapy. There is no standard indication for concomitant chemotherapy in salivary gland tumours. Consequently, this QPI definition should be restricted (with some exclusions) to patients with squamous cell carcinomas of the oral cavity, pharynx and larynx only. In addition, the use of concomitant chemotherapy has a detrimental effect in patients older than 70. Consequently these patients should be excluded from the indicator or the target should be lowered to accommodate this age group. In light of this, it has been agreed at a national level that changes should be made to the definition for this QPI at the Formal Review of Head and Neck Cancer QPIs to restrict this measure to patients where chemoradiotherapy is indicated.

Actions Required:

- **Regional Group to support amendment of the definition of QPI 10 to focus on patients where chemoradiotherapy is indicated at the Formal Review of Head and Neck Cancer QPIs.**

QPI 11: 30 and 90 Day Mortality

QPI 11: 30 and 90 Day Mortality: Proportion of patients with head and neck cancer who die within 30 days of curative treatment.

Treatment related mortality is a marker of the quality and safety of the whole service provided by the MDT. Treatment should only be undertaken in individuals that may benefit from that treatment, that is, treatments should not be undertaken in futile situations. This QPI is intended to ensure treatment is given appropriately, and the outcome reported on and reviewed.

Numerator: Number of patients with head and neck cancer who undergo curative treatment who die within 30 or 90 days of treatment.

Denominator: All patients with head and neck cancer who undergo curative treatment.

Exclusions: No exclusions.

Target: <5 %

QPI 11 Performance against target

Patients having surgery

In 2016-17 there were 80 patients diagnosed with head and neck cancer who had surgery with curative intent. Of these, two (2.5%) died within 30 and 90 days of treatment. This is slightly higher than the 2015-16 result of 0% for 30 day mortality and 1.6% for 90 day mortality but remains within the required target of less than 5%. Surgical mortality at both 30 and 90 days figures fell within the 5% target for all NHS Boards in the region.

30 & 90 Day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16*
Grampian	**0%**	0	28	0	0%	0	0%	11	0%
Highland	**0%**	0	6	0	0%	0	0%	0	0%
Orkney	**-**	0	0	0	-	0	-	0	-
Shetland	**-**	0	0	0	-	0	-	0	-
Tayside	**4.3%**	2	46	0	0%	0	0%	0	+4.3%
W Isles	**-**	0	0	0	-	0	-	0	-
NoS	**2.5%**	**2**	**80**	**0**	**0%**	**0**	**0%**	**11**	**+2.5%**

*for 30 Day Mortality

Patients undergoing radical radiotherapy

In 2016-17, there were 52 patients diagnosed with head and neck cancer who had radical radiotherapy. Of these none (0%) died within 30 days of treatment and one out of 51 (2.0%) died within 90 days of treatment. This meets the required target of less than 5% and similar to the 2015-16 result of 0% for both 30 and 90 day mortality.

All NHS Boards within the North of Scotland met the target for 30 and 90 day mortality following radical radiotherapy.

30 Day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**0%**	0	21	0	0%	0	0%	0	0%
Highland	**0%**	0	17	0	0%	0	0%	0	0%
Orkney	**-**	0	0	0	-	0	-	0	-
Shetland	**-**	0	0	0	-	0	-	0	-
Tayside	**0%**	0	13	0	0%	0	0%	0	0%
W Isles*	**-**	-	-	-	-	-	-	-	-
NoS	**0%**	**0**	**52**	**0**	**0%**	**0**	**0%**	**0**	**0%**

90 Day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**5.0%**	1	20	0	0%	0	0%	0	+5.0%
Highland	**0%**	0	17	0	0%	0	0%	0	0%
Orkney	**-**	0	0	0	-	0	-	0	-
Shetland	**-**	0	0	0	-	0	-	0	-
Tayside	**0%**	0	13	0	0%	0	0%	0	0%
W Isles*	**-**	-	-	-	-	-	-	-	-
NoS	**2.0%**	**1**	**51**	**0**	**0%**	**0**	**0%**	**0**	**+2.0%**

Patients undergoing chemoradiotherapy

In 2016-17 there were 77 patients who had chemoradiotherapy with curative intent. Of these three (3.9%) died within 30 days of treatment and 4 out of 74 (5.4%) died within 90 days of treatment. This is within the required target of less than 5% for 30 day mortality but the target was not met by the North of Scotland for 90 day mortality. Results are slightly higher than 2015-16 figures of 1.1% for 30 day mortality and 2.2% for 90 day mortality.

At an NHS Board level this QPI was met across the North of Scotland with the exception of NHS Tayside and NHS W Isles. However it should be noted that failure to meet the QPI target was the result of the outcome of two or less patients in each Board and mortality in both of these Boards had been 0% in the previous year.

30 Day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**3.2%**	1	31	0	0%	0	0%	0	+0.8%
Highland	**0%**	0	13	0	0%	0	0%	0	0%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**6.9%**	2	29	0	0%	0	0%	0	+6.9%
W Isles*	**-**	-	-	-	-	-	-	-	-
NoS	**3.9%**	**3**	**77**	**0**	**0%**	**0**	**0%**	**0**	**+2.8%**

90 Day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	Change in Performance since 2015-16
Grampian	**3.4%**	1	29	0	0%	0	0%	0	+0.8%
Highland	**0%**	0	13	0	0%	0	0%	0	-5.6%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**7.1%**	2	28	0	0%	0	0%	0	+7.1%
W Isles*	**-**	-	-	-	-	-	-	-	-
NoS	**5.4%**	**4**	**74**	**0**	**0%**	**0**	**0%**	**0**	**+3.2%**

This QPI is met in all NHS Boards in the North of Scotland, with the exception of post chemoradiotherapy mortality in NHS Tayside. This QPI is influenced by the small number of patients so small deviations are expected and there are no evidence of differences in mortality between NHS Boards over time, with 30 and 90 day mortality in NHS Tayside at 0% in 2015-16. The deaths of these patients have been reviewed by NHS Tayside.

Actions Required:

No actions identified.

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 head and neck cancer enrolled in an interventional clinical trial of translational research.

Denominator: All patients with head and neck cancer.

Exclusions: No exclusions

Target: Interventional clinical trials – 7.5%

Translational research - 15%

Key points during the period audited:

- 3.5% of patients with head and neck cancer in the North of Scotland were recruited into interventional clinical trials in one of the three cancer centres in the region in 2016; this is below the required target of 7.5% but an increase from the 2015 figure of 1.7%.
- Recruitment into translational research was 2.3%, well below the more challenging target of 15%. This was similar to the 2015 figure of 1.7%.

	Number of patients recruited	ISD Cases annual average (2011-2015)	Percentage of patients recruited
Interventional Clinical Trials	11	310	**3.5%**
Translational Research	7	310	**2.3%**

The QPI targets for clinical trials are 7.5% for interventional trials and for translational trials are 15%. It should be noted that these targets are ambitious, particularly with the move towards more targeted trials.

All cancer patients that pass through each of the three cancer centres in NOSCAN are considered for potential participation in the open trials currently available. However, as with other cancer specific studies, consequent to the demise of larger general trials and the advent of genetically selective trials that only target small populations of patients, many of the Head and Neck cancer trials that are currently open to recruitment in the North of Scotland have very select eligibility criteria. Consequently they will only be available to a small percentage of the total number of people who were diagnosed with Head and Neck cancer.

During 2016 in NOSCAN, there was 3 interventional trial and 1 translational trial open and recruiting patients. All the Head and Neck cancer patients passing through the cancer centres in NOSCAN will have been assessed for eligibility for clinical trials: further enquiry indicates that of patients diagnosed with Head and Neck cancer in the North of Scotland during 2016, 11 (3.5%) patient was screened for interventional trials and 8 (2.6%) were screened for translational trials during the reporting period. The number of patients screened for clinical trials is often higher than the number recruited as not all patients will pass the screening stage, however the screening phase can be a involve a considerable amount of time and resource.

Due to the increasing complexity of trials and time burden needed to run them effectively, and a lack of clinical and research support to run such further trials, it is not currently possible to open a greater number (and thereby to have a greater scope) of available trials in the North of Scotland. Constraints imposed by the commercial trial sponsors also limit the number of trials it is possible to open in smaller cancer centres such as those in the NOSCAN region. However a large number of feasibility requests for trials are continually being reviewed by all consultants and if an expression of interest is submitted, the chances that the site will be selected for running the trial are high.

Actions Required:

- **All NHS Boards to encourage communication among research teams to facilitate patient access to clinical trials in other NOSCAN Boards.**

5. Conclusions

The Quality Performance Indicators programme was developed to drive continuous improvement and ensure equity of care for cancer patients across Scotland. As part of this the North of Scotland has initiated a programme of annual reporting of regional performance against QPIs. This is the third time the results of the Head and Neck Cancer QPIs have been reported, providing a clearer measure of performance across the region and a more formal structure around which improvements will be made.

This audit report indicates that QPI targets were met over the North of Scotland for three of the 12 QPIs. Due to the complexity of the pathway for patient with head and neck cancer there have been issues with both data collection and QPI definitions in the early years of QPI reporting which have affected NOSCANs performance against these measures. Both of these issues need to be resolved to enable the Head and Neck QPIs provide a true indication of the quality of head and neck cancer services in the North of Scotland. Results have helped to identify the following actions for patients with head and neck cancer in the North of Scotland:

- **All NHS Boards to ensure that there is adequate radiology resource to ensure that all head and neck cancer patients can get computerised tomography (CT) and/or magnetic resonance imaging (MRI) of the primary site and draining lymph nodes with CT of the chest before the initiation of treatment.**

- **All NHS Boards to improve recording of information on**
    - **smoking cessation**
    - **oral assessment**
    - **nutritional assessment**
    - **Specialist SLT access**

  through the implementation of a standardised proforma.

- **All MDTs to facilitate the physical presence of restorative dentistry at MDT meetings.**

- **All NHS Boards to encourage communication among research teams to facilitate patient access to clinical trials in other NOSCAN Boards.**

In addition the MCN should support the amendment of definitions for QPIs 4, 5, 7, 8 and 10 through the Formal Review of Head and Neck Cancer QPIs, which is currently underway, to ensure that QPIs provide the most clinically meaningful indicator of the quality of head and neck cancer services in the North of Scotland. This should help improve the relevance of the Head and Neck Cancer QPI performance in future years.

The 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 is provided in the Appendix.

Completed Action Plans should be returned to NOSCAN within one month of publication of this report.

Progress against these plans will be monitored by the MCN Advisory Board 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 Head and Neck Cancer QPI Group Clinical Lead, as part of the regional audit governance process to enable RCAF to review and monitor regional improvement.

6. References

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Appendix 1: Clinical trials for head and neck cancer into which patients were recruited in the North of Scotland in 2016.

Trial	Principle Investigator	Trial Type
CompARE	Rafael Moleron (Grampian)	Interventional
CONDOR	Rafael Moleron (Grampian)	Interventional
De-ESCALaTE HPV	Rafael Moleron (Grampian)	Interventional
SIP1	Mary Wells (Tayside)	Translational

Appendix 2: Blank NHS Board Action Plan Template

Completed Action Plans should be returned to NOSCAN within one month of publication of this report.

NOSCAN
North of Scotland Cancer Network

Action Plan: Head and Neck Cancer

Based on patients diagnosed 2016-17

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			
	Ensure actions mirror those detailed in Audit Report	*Detail specific actions that will be taken by the NHS Board*	*Insert date*	*Insert date*	*Insert name of responsible lead for each action.*	*Detail actions in progress, changes in practice, problems encountered of reasons why no action has been taken.*	*Insert no. from key*