West of Scotland Cancer Network
Head and Neck Cancer
Managed Clinical Network

Audit Report

Head and Neck Cancer Quality Performance Indicators

Clinical Audit Data: 01 April 2020 to 31 March 2021

Professor Jim McCaul
Oral Maxillofacial Head & Neck Surgeon
MCN Clinical Lead

Heather Wotherspoon
MCN & Improvement Manager

Kallely Soumine George
Information Officer

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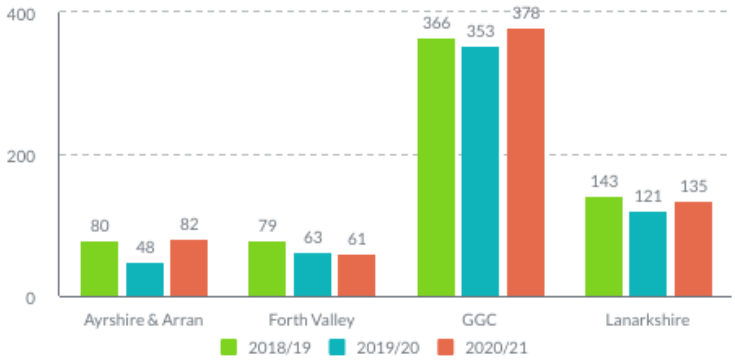
Head & Neck Cancer QPI Final Data Analysis

Patients diagnosed between 1st April 2020 - 31st March

Number of cases diagnosed
656

Gender split
Males: 69.1%
Females: 30.9%

Case ascertainment
93.8%



Quality Performance Indicators

QPI 1: Pathological Diagnosis of Head and Neck Cancer
95%
95%

QPI 2 i): Imaging
96%
95%

QPI 2 ii): Imaging
98%
95%

QPI 3: Multi-Disciplinary Team Meeting (MDT)
98%
95%

QPI 4: Smoking Cessation
63%
95%

QPI 5 i): Oral and Dental Rehabilitation Plan
100%
95%

QPI 5 ii): Oral and Dental Rehabilitation Plan
95%
95%

QPI 6: Nutritional Screening
90%
95%

QPI 7: Specialist Speech and Language Therapist Access
79%
90%

QPI 8: Surgical Margins
9%
<10%

QPI 9: Intensity Modulated Radiotherapy (IMRT)
100%
95%

QPI 10: Post Operative Chemo -radiotherapy
37%
55%

QPI 11: 30 Day Mortality (Surgery)
1%
<5%

QPI 11: 90 Day Mortality (Surgery)
3%
<5%

QPI 11: 30 Day Mortality (Radical Radiotherapy)
2%
<5%

QPI 11: 90 Day Mortality (Radical Radiotherapy)
3%
<5%

QPI 11: 30 Day Mortality (Chemo -radiotherapy)
1%
<5%

QPI 11: 90 Day Mortality (Chemo -radiotherapy)
1%
<5%

QPI 12: Clinical Trials
2%
15%

Conclusions & Actions

- Targets relating to Pathological Diagnosis, Imaging, Multi-Disciplinary Team meeting, Oral and Dental assessment, Surgical Margins, Intensity Modulated Radiotherapy (IMRT), and 30 and 90 Days Mortality after surgery, Radical Radiotherapy and Chemoradiotherapy were met regionally.
- All centres to ensure that recording of smoking cessation referral is improved (QPI 4).
- NHSGGC to monitor the progress of recording a MUST score on all MDT referrals (QPI 6).
- QPIs updated from 2022.

Executive Summary

Introduction

This report contains an assessment of the performance of West of Scotland (WoS) head and neck cancer services using clinical audit data relating to patients diagnosed with head and neck cancer in the twelve months between 1st April 2020 and 31st March 2021. Twelve months of data were measured against v3.3 of the Head and Neck Cancer Quality Performance Indicators (QPIs) which were implemented for patients diagnosed on or after 01 April 2017.

In order to ensure the success of the National Cancer QPIs in driving quality improvement in cancer care, QPIs continue to be assessed for clinical effectiveness and relevance. The initial formal review of head and neck cancer QPIs took place in 2017. With six years of reporting complete, a second cycle of review has been undertaken, involving key clinicians from each of the Regional Cancer Networks. Updated QPI definitions (v4.0) were published in November 2021 and will apply to cases diagnosed from 1 April 2021 onwards.

Methodology

Further detail on the audit and analysis methodology and data quality is available in the meta data within Appendix 1.

Results

A summary of the Head and Neck Cancer QPIs (QPI 1 to 12) 2020 - 21 clinical audit data is presented below. Results for each QPI are shown in detail in the main report and illustrate regional/treatment centre performance against each target and overall regional results for each performance indicator. Results are presented graphically and the accompanying tabular format also highlights any missing data and its possible effect on any of the measured outcomes.

Where the number of cases meeting the denominator criteria for any indicator is between one and four, the percentage calculation has not been shown on 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 restricted data are denoted with a dash (-). An asterisk (*) is applied to indicate a denominator of zero and to distinguish between this and a 0% performance.

Any commentary provided by NHS Health Boards relating to the impacted indicators will, however, be included as a record of continuous improvement.

Please note actions have been categorised into the following groupings for internal management purposes to allow regional trends to be identified, and co-ordinated regional action across multiple tumour groups where appropriate; MDT, Pathology, Radiology, Other Diagnostic, Treatment Decision, Time to Treatment, Surgery, Oncology, Resource, Workforce, Practice, Capacity, Clinical Documentation and Data Capture.

Summary of Head & Neck QPI Results

Colour Key		Symbol Key	
	Above QPI target	†	Analysed by Board/hospital of surgery
	Below QPI target	^	Small numbers in some Boards - percentage comparisons over a single year should be viewed with caution

Quality Performance Indicator (QPI)	Performance by NHS Board of diagnosis						
	QPI target	Year	AA	FV	GGC	LAN	WoSCAN
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%**	2020-21	93.8%	96.7%	93.5%	98.5%	94.9%
		2019-20	97.9%	98.4%	92.0%	97.5%	94.4%
		2018-19	98.6%	96.1%	93.7%	98.6%	95.6%
QPI 2(i) – Imaging Proportion of patients with head and neck cancer who undergo CT/ MRI of the primary site, draining lymph nodes with CT of the chest before the initiation of treatment.	**95%**	2020-21	97.5%	91.7%	96.4%	96.2%	96.1%
		2019-20	89.4%	96.8%	92.9%	97.5%	94.0%
		2018-19	94.3%	94.7%	96.0%	95.1%	95.4%
QPI 2(ii) – Imaging Proportion of patients with head and neck cancer who undergo CT/ MRI of the primary site, draining lymph nodes with CT of the chest before the initiation of treatment where the report is available within 2 weeks of the final imaging procedure.	**95%**	2020-21	94.9%	100.0%	99.1%	97.6%	98.4%
		2019-20	88.1%	100.0%	93.3%	100.0%	95.2%
		2018-19	97.0%	98.6%	88.9%	100.0%	93.4%

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%**	2020-21	100.0%	96.7%	97.3%	99.2%	98.0%
		2019-20	87.5%	96.8%	93.7%	99.2%	94.6%
		2018-19	95.8%	97.4%	96.4%	97.9%	96.8%
QPI 4 – Smoking Cessation Proportion of patients with head and neck cancer who smoke who are offered referral to smoking cessation before first treatment.	**95%**	2020-21	65.2%	68.2%	74.7%	26.7%	63.3%
		2019-20	23.8%	50.0%	58.7%	31.0%	48.8%
		2018-19	100.0%	56.8%	54.3%	22.4%	53.5%
QPI 5(i) – Oral and Dental Rehabilitation Plan Proportion of patients with head and neck cancer undergoing active treatment in whom the decision for requiring pre-treatment assessment has been made jointly by Consultants in Restorative Dentistry and the MDT.	**95%**	2020-21	100.0%	100.0%	100.0%	100.0%	100.0%
		2019-20	94.3%	100.0%	100.0%	100.0%	99.5%
		2018-19	100.0%	98.1%	99.2%	100.0%	99.3%
QPI 5(ii) – Oral and Dental Rehabilitation Plan Proportion of patients with head and neck cancer deemed in need of an oral and dental rehabilitation plan who have an assessment before initiation of treatment.	**95%**	2020-21	100.0%	80.0%	94.6%	95.2%	94.6%
		2019-20	83.3%	96.3%	87.8%	90.0%	88.7%
		2018-19	94.7%	94.3%	90.1%	95.0%	92.0%
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%**	2020-21	98.7%	93.4%	84.4%	98.5%	89.9%
		2019-20	27.1%	95.2%	76.3%	96.7%	78.5%
		2018-19	85.5%	96.2%	74.3%	99.3%	83.6%

QPI 7 – Specialist Speech and Language Therapist Access Proportion of patients with oral, pharyngeal or laryngeal cancer undergoing treatment with curative intent who are seen by a Specialist SLT before treatment.	**90%**	2020-21	84.6%	30.6%	81.5%	90.5%	78.7%
		2019-20	25.0%	67.5%	42.0%	90.9%	54.2%
		2018-19	54.5%	55.8%	44.0%	82.8%	55.1%
QPI 8 – Surgical Margins Proportion of patients with patients with squamous cell carcinoma of the oral cavity, larynx or pharynx with final excision margins of less than 1mm after open surgical resection with curative intent.	**<10%**	2020-21	5.6%	0.0%	9.2%	10.3%	8.9%
		2019-20	0.0%	0.0%	5.7%	6.5%	5.3%
		2018-19	0.0%	0.0%	5.5%	0.0%	4.3%
QPI 9 - Intensity Modulated Radiotherapy (IMRT) Proportion of patients with head and neck cancer undergoing radiotherapy who receive IMRT.	**95%**	2020-21	100.0%	100.0%	100.0%	100.0%	100.0%
		2019-20	76.2%	100.0%	100.0%	100.0%	97.8%
		2018-19	100.0%	100.0%	100.0%	100.0%	100.0%
QPI 10 - Post Operative Chemoradiotherapy Proportion of patients with squamous cell carcinoma of the oral cavity, larynx or pharynx with nodal extracapsular spread and/or involved margins (<1mm) following surgical resection who receive chemoradiation.	**55%**	2020-21	0.0%	60.0%	41.7%	42.9%	36.7%
		2019-20	50.0%	25.0%	25.0%	66.7%	40.0%
		2018-19	57.1%	0.0%	62.5%	0.0%	46.7%
QPI 11 – 30 Day Mortality - Surgery Proportion of patients with head and neck cancer who die within 30days of curative surgical treatment	**< 5%**	2020-21	4.8%	0.0%	1.2%	0.0%	1.3%
		2019-20	0.0%	0.0%	0.0%	2.6%	0.4%
		2018-19	0.0%	0.0%	0.5%	0.0%	0.4%

QPI 11 – 90 Day Mortality - Surgery Proportion of patients with head and neck cancer who die within 90days of curative surgical treatment	**< 5%**	2020-21	4.8%	0.0%	2.4%	2.3%	2.6%
		2019-20	0.0%	0.0%	0.6%	10.5%	2.2%
		2018-19	0.0%	0.0%	1.6%	0.0%	1.1%
QPI 11 – 30 Day Mortality – Radical Radiotherapy Proportion of patients with head and neck cancer who die within 30days of radical radiotherapy.	**< 5%**	2020-21	0.0%	11.1%	1.6%	0.0%	1.8%
		2019-20	0.0%	7.1%	0.0%	5.6%	1.9%
		2018-19	7.7%	0.0%	8.1%	0.0%	5.6%
QPI 11 – 90 Day Mortality – Radical Radiotherapy Proportion of patients with head and neck cancer who die within 90days of radical radiotherapy.	**< 5%**	2020-21	4.3%	12.5%	1.6%	0.0%	2.7%
		2019-20	0.0%	7.1%	0.0%	5.6%	1.9%
		2018-19	7.7%	0.0%	8.5%	4.3%	6.6%
QPI 11 – 30 Day Mortality - Chemoradiotherapy Proportion of patients with head and neck cancer who die within 30days of chemoradiotherapy.	**<5%**	2020-21	0.0%	0.0%	1.9%	0.0%	1.1%
		2019-20	-	0.0%	0.0%	7.7%	2.2%
		2018-19	0.0%	0.0%	0.0%	3.6%	0.8%
QPI 11 – 90 Day Mortality - Chemoradiotherapy Proportion of patients with head and neck cancer who die within 90days of chemoradiotherapy.	**<5%**	2020/21	0.0%	0.0%	2.0%	0.0%	1.1%
		2019-20	0.0%	0.0%	2.0%	7.7%	3.1%
		2018-19	0.0%	0.0%	0.0%	3.8%	0.9%
QPI 12: Clinical Trial Access Proportion of patients diagnosed with head and neck cancer who are consented* for a clinical trial / research study.	**15%**	2020-21	1.0%	5.7%	2.6%	0.7%	2.3%
		2019-20	9.4%	14.5%	8.6%	13.9%	10.3%
		2018-19	7.1%	12.7%	10.5%	12.0%	10.5%

Conclusions and Action Required

Cancer audit has underpinned much of the regional development and service improvement work of the MCN and the regular reporting of activity and performance have been fundamental in assuring the quality of care delivered across the region. Following the development of QPIs, this has now become an established national programme to drive continuous improvement and ensure equity of care for patients across Scotland.

The results presented within this report illustrate that some of the QPI targets set have been challenging for NHS Boards to achieve and there remains room for further service improvement, however it is encouraging that targets relating to Multi-Disciplinary Team meeting, oral assessment, IMRT, and 30 and 90 Day Mortality after Surgery and Chemoradiotherapy were met by all Boards. Low mortality at 30 and 90 days following curative Radical Radiotherapy was also observed.

In line with the agreed regional governance process, each NHS Board was asked to complete a Performance Summary Report (PSR), providing detailed comments where QPI targets were not met. In the main, feedback from the Boards indicates valid clinical reasons or that, in some cases, patient choice or co-morbidities have influenced patient management. Additionally, Boards have indicated where positive action has already been taken at a local level to address any issues highlighted through the QPI data analysis. It is anticipated that these positive changes will result in improved performance going forward.

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.

Please note actions have been categorised in the Action Plan templates into the following groupings for internal management purposes to allow regional trends to be identified, and co-ordinated regional action across multiple tumour groups where appropriate; MDT, Pathology, Radiology, Other Diagnostic, Treatment Decision, Time to Treatment, Surgery, Oncology, Resource, Workforce, Practice, Capacity, Clinical Documentation and Data Capture.

Actions required:

QPI 4: Smoking Cessation

- All Boards to ensure that recording of smoking cessation referral is improved.

QPI 6: Nutritional Screening

- NHSGGC to monitor the progress of recording a MUST score on all MDT referrals.

QPI 7: Specialist Speech and Language Therapist Access

- NHS Forth Valley ENT patients treated at NHS Lanarkshire to be seen at NHS Forth Valley head and neck clinic to ensure they are assessed by SALT and dietetics.

Completed Action Plans should be returned to WoSCAN within two months 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 Territorial Lead Cancer Clinician and Regional Lead Cancer Clinician.

Additionally, progress will be reported annually to the Regional Cancer Advisory Group (RCAG) by NHS Board Territorial Lead Cancer Clinicians and MCN Clinical Leads, and nationally on a three-yearly basis to Healthcare Improvement Scotland as part of the governance processes set out in CEL 06 (2012).

1. Introduction

This report contains an assessment of the performance of West of Scotland (WoS) head and neck cancer services using clinical audit data relating to patients diagnosed with head and neck cancer in the twelve months between 1st April 2020 and 31st March 2021. These audit data underpin much of the regional development/service improvement work of the Managed Clinical Network (MCN) and regular reporting of activity and performance is a fundamental requirement of a MCN to assure the quality of care delivered across the region.

In order to ensure the success of the National Cancer QPIs in driving quality improvement in cancer care, QPIs continue to be assessed for clinical effectiveness and relevance. The initial formal review of head and neck cancer QPIs took place in 2017. With six years of reporting complete, a second cycle of review has been undertaken, involving key clinicians from each of the Regional Cancer Networks. Updated QPI definitions (v4.0) were published in November 2021 and will apply to cases diagnosed from 1 April 2021 onwards.

QPI data has been presented alongside data for previous years where results have remained comparable after processes of review. Future reports will continue to compare clinical audit data in successive years to further illustrate trends.

2. Background

2.1 National Context

Head and neck cancer is the sixth most common cancer in Scotland with almost 1294 new diagnoses nationally each year[1]. There is a gender difference with head and neck cancer occurring more often in males where it is the fourth most common cancer with approximately 894 cases per year. In females, it is the tenth most common cancer with approximately 400 cases per year[4]. The incidence rate over the last 10 year period (2009-2019) has decreased both in men and women by around 2.6% and 5.9%[3] respectively.

The mortality rate for head and neck cancer over the last 10 year period has seen significant increase in both males and females, showing a 17.0% increase in males and 15.0% increase in females[1]. This is in keeping with trends in Western Europe and North America, reasons for which are unclear[5].

Data shows that for head and neck cancer patients diagnosed between 2013 – 2017, 1 year net survival was 76.8% in males and 76.0% in females. 5 year net survival is marginally higher in females than males at 57.3% and 56.8% respectively[4].

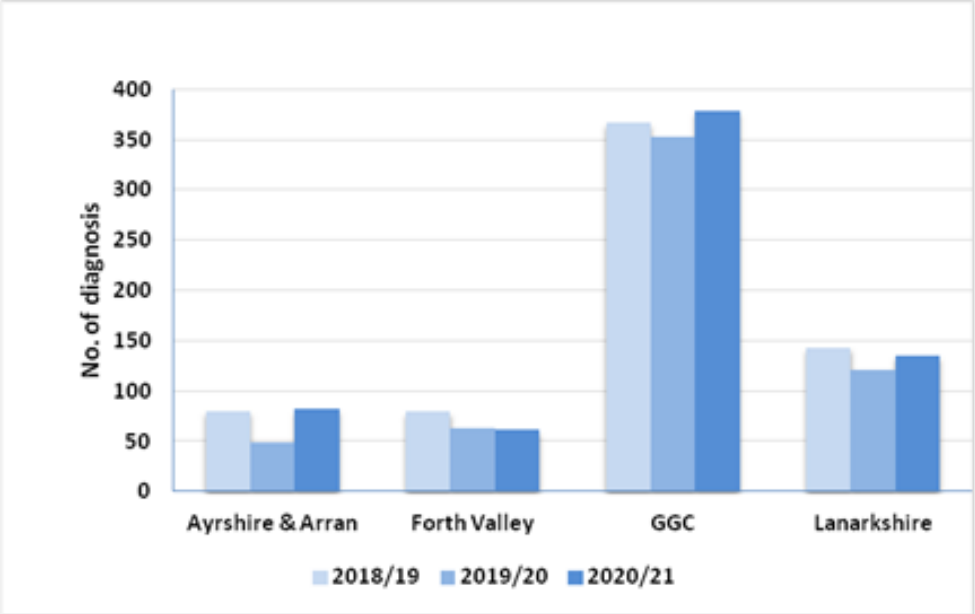
2.2 West of Scotland Context

A total of 656 cases of head and neck cancer were recorded through audit as diagnosed in the WoS between 1 April 2020 and 31 March 2021.

The Head and Neck Cancer MCN continues to support and develop the clinical service for these patients and at present head and neck cancer services are currently organised around two Multi-Disciplinary Teams (MDTs) serving 2.5 million people in four NHS Boards – NHS Ayrshire & Arran, NHS Forth Valley, NHS Greater Glasgow and Clyde (NHSGGC) and NHS Lanarkshire. The Network continues to benefit from enthusiastic engagement of a range of healthcare professionals and managers across the WoS. The WoS contains some of the worst areas of socio-economic deprivation in Scotland[6], and the overall life expectancy for specific postcode areas is lower than that of any other area in the United Kingdom[7]. This high index of deprivation is coupled with above average levels of smoking and alcohol use[7].

The number of patients diagnosed within each NHS Board is presented in Figure 1. As the largest WoS Board, 57.6% of all new cases of head and neck cancer, submitted for audit, were diagnosed in NHSGGC.

Fig 1: Number of patients diagnosed with head and neck cancer by NHS Board of diagnosis.



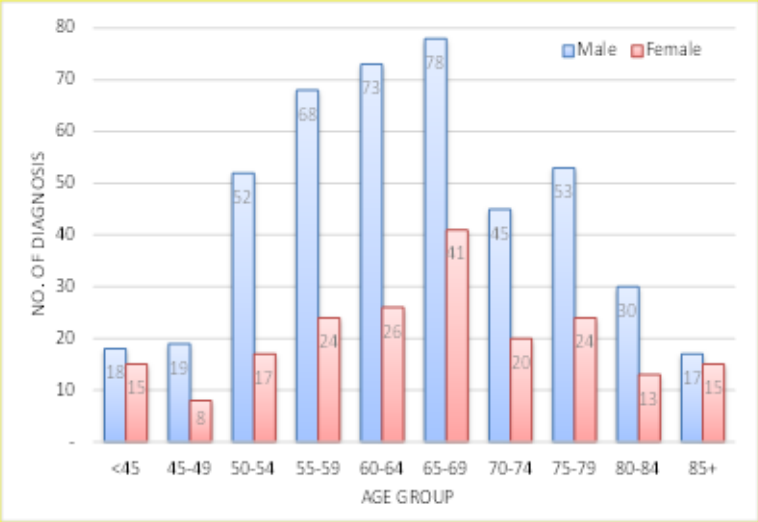
Health Board of diagnosis	2018/19		2019/20		2020/21	
	n	%	n	%	n	%
Ayrshire & Arran	80	12.0%	48	8.9%	82	12.5%
Forth Valley	79	11.8%	63	11.7%	61	9.3%
GGC	366	54.8%	353	65.7%	378	57.6%
Lanarkshire	143	21.4%	121	22.5%	135	20.6%
WoS	**668**		**537**		**656**	

2.3 Age and Gender Distribution

Figure 2 illustrates the distribution of head and neck cancer cases by age group and gender. As with previous year's data, the occurrence of head and neck cancer is higher in males (69.1% of cases) than in females (30.9% of cases). Head and neck cancer is more prevalent

in 65-69 age group for both sexes with 17.2% and 20.2% for males and females respectively, diagnosed in 2020-21.

Fig 2: Age/gender distribution of head and neck cancer patients within WoS, 1st April 2020 to 31st March 2021.



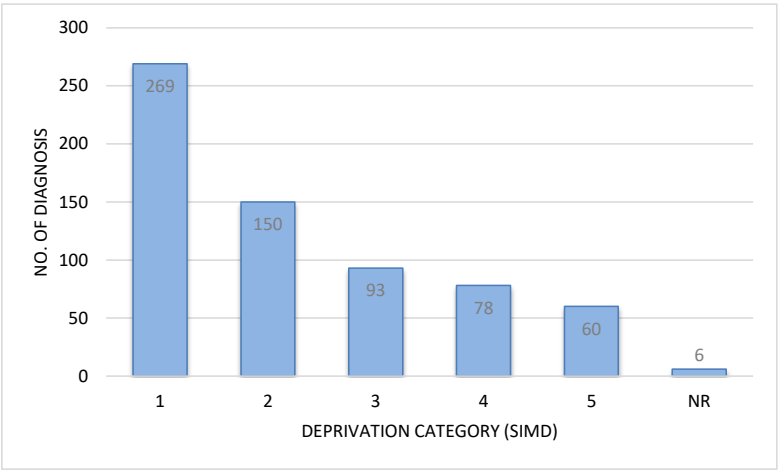
	Male		Female	
	n	%	n	%
<45	18	4.0%	15	7.4%
45-49	19	4.2%	8	3.9%
50-54	52	11.5%	17	8.4%
55-59	68	15.0%	24	11.8%
60-64	73	16.1%	26	12.8%
65-69	78	17.2%	41	20.2%
70-74	45	9.9%	20	9.9%
75-79	53	11.7%	24	11.8%
80-84	30	6.6%	13	6.4%
85+	17	3.8%	15	7.4%
Total	453		203	

(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

2.4 Deprivation Category

Deprivation category is calculated using the Scottish Index of Multiple Deprivation (SIMD). As displayed in Figure 3, head and neck cancer incidence is inversely proportional to the deprivation areas, with deprivation category 1 representing the most deprived and category 5 the least deprived areas.

Fig 3: Deprivation category of patients diagnosed with head and neck cancer, 1st April 2020 to 31st March 2021.

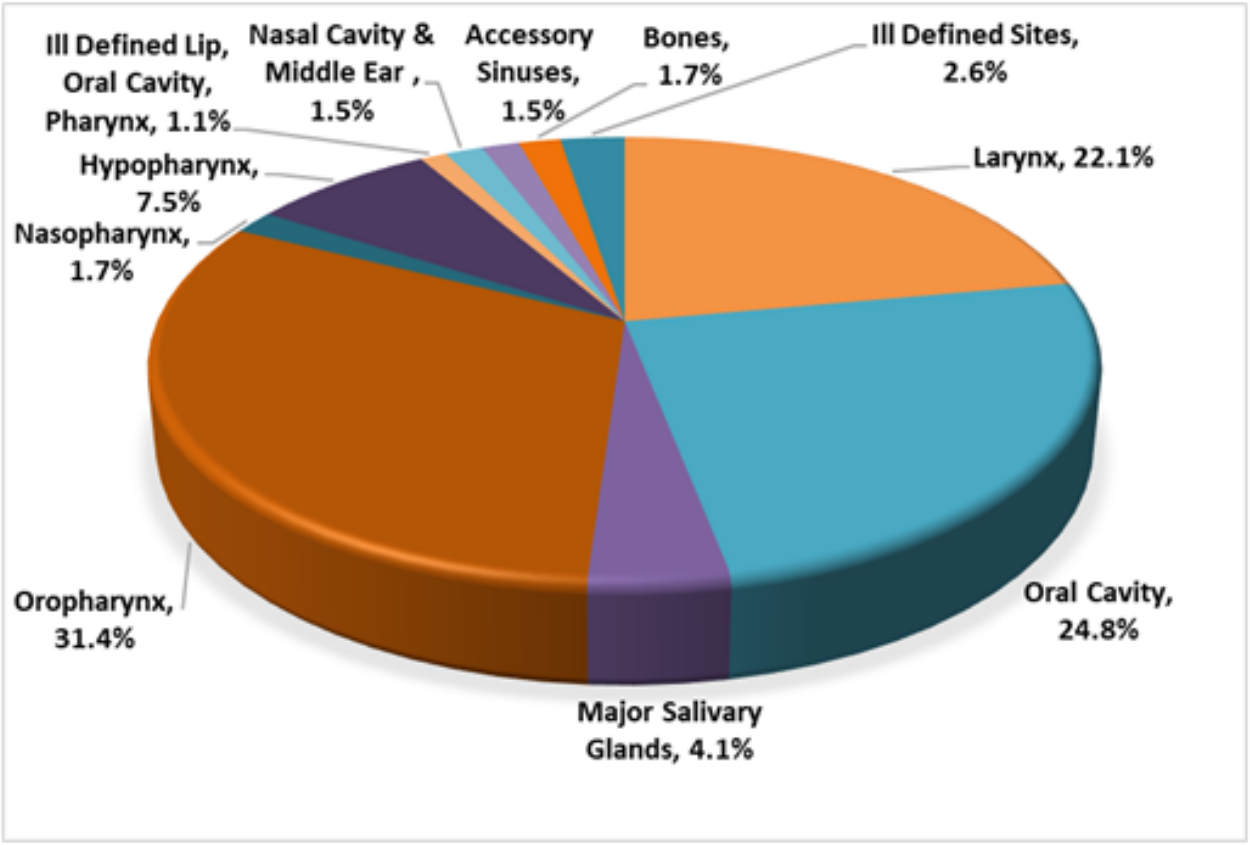


	Ayrshire & Arran		Forth Valley		GGC		Lanarkshire		WoS	
	n	%	n	%	n	%	n	%	n	%
1	32	39.0%	9	14.8%	186	49.2%	42	31.1%	269	41.0%
2	22	26.8%	15	24.6%	75	19.8%	38	28.1%	150	22.9%
3	13	15.9%	13	21.3%	46	12.2%	21	15.6%	93	14.2%
4	8	9.8%	16	26.2%	33	8.7%	21	15.6%	78	11.9%
5	6	7.3%	8	13.1%	35	9.3%	11	8.1%	60	9.1%
NR	1	1.2%	0	0.0%	3	0.8%	2	1.5%	6	0.9%
Total	**82**	**100.0%**	**61**	**100.0%**	**378**	**100.0%**	**135**	**100.0%**	**656**	**100.0%**

2.5 Site of Origin of Primary Tumour

Figure 4 displays the breakdown by cancer subsite and illustrates that oral cavity, oropharynx and larynx continue to be the most common type of head and neck cancers, accounting for majority (78.3%) of the total cases registered, with oropharynx being the highest (31.4%).

Fig 4: Distribution of head and neck cancer subsite of patients diagnosed within WoS, 1st April 2020 to 31st March 21



	WoSCAN	
	N	%
Larynx	145	22.1%
Oral Cavity	163	24.8%
Major Salivary Glands	27	4.1%
Oropharynx	206	31.4%
Nasopharynx	11	1.7%
Hypopharynx	49	7.5%
Ill Defined Lip, Oral Cavity, Pharynx	7	1.1%
Nasal Cavity & Middle Ear	10	1.5%
Accessory Sinuses	10	1.5%
Bones	11	1.7%
Ill Defined Sites	17	2.6%
Total	656	100.0%

3. Methodology

Further detail on the audit and analysis methodology and data quality is available in the meta data within Appendix 1.

4. Results and Action Required

Results of the analysis of Head and Neck Cancer QPIs are set out in the following sections. Data are presented by location of diagnosis or treatment, and illustrate NHS Board performance against each target and overall regional performance for each performance indicator.

Results are presented graphically and the accompanying tables also highlight any missing data and its possible effect on any of the measured outcomes for the current year of analysis. Where the number of cases meeting the denominator criteria for any indicator is between one and four, the percentage calculation has not been shown on 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 restricted data are denoted with a dash (-). An asterisk (*) is used to specify a denominator of zero and to distinguish between this and a 0% performance. Any commentary provided by NHS Boards relating to the impacted indicators will however be included as a record of continuous improvement.

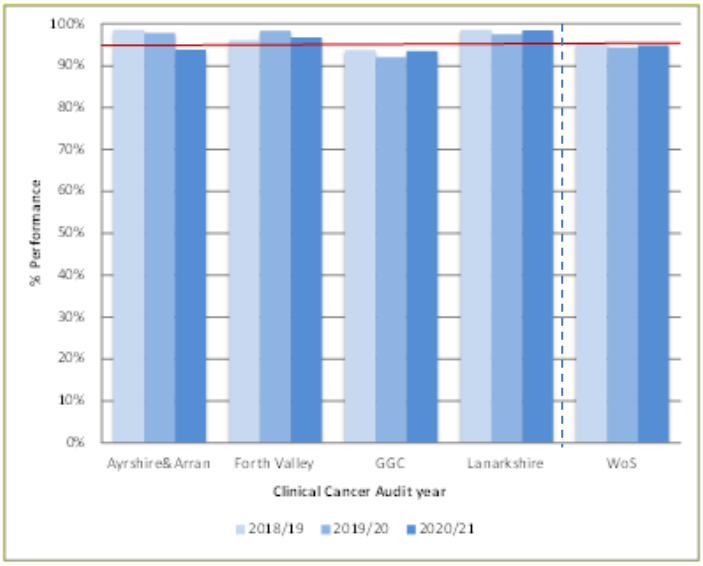
Specific regional and NHS Board actions have been identified to address issues highlighted through the data analysis.

QPI 1: Pathological Diagnosis

A definitive diagnosis is valuable in helping inform patients and carers about the nature of the disease, the likely prognosis and treatment choice[1]. QPI 1 states that 95% of patients with head and neck cancer should have a cytological or histological diagnosis before treatment. The tolerance within this target is designed to account for situations where it is not appropriate, safe or possible to obtain a cytological or histological diagnosis due to the performance status of the patient or the advanced nature of the disease.

QPI 1:	Patients with head and neck cancer should have a cytological or histological diagnosis before treatment.
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:	Patients who died before treatment and patients who refuse treatment
Target:	**95%**

Fig 5: Proportion of patients who have a cytological or histological diagnosis before treatment.



		2018/19	2019/20	2020/21
AA	N	73	46	75
	D	74	47	80
	%	98.6%	97.9%	93.8%
FV	N	73	62	59
	D	76	63	61
	%	96.1%	98.4%	96.7%
GGC	N	326	297	344
	D	348	323	368
	%	93.7%	92.0%	93.5%
Lan	N	141	118	130
	D	143	121	132
	%	98.6%	97.5%	98.5
WoS	N	613	477	608
	D	641	507	641
	%	95.6%	94.1%	94.9%

(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

Overall in the WoS 94.9% of patients had a histological or cytological diagnosis prior to treatment, narrowly missing the 95% target. NHS Forth Valley and NHS Lanarkshire, continue to exceed the 95% target with NHS Ayrshire & Arran and NHSGGC marginally under, achieving 93.8% and 93.5% respectively.

NHS Ayrshire & Arran commented that 2 of the 5 patients not meeting the target were receiving supportive care, 1 case was confirmed after surgery, 2 patients were noted to have data recording errors and once updated NHS Ayrshire & Arran performance would be 96.2%.

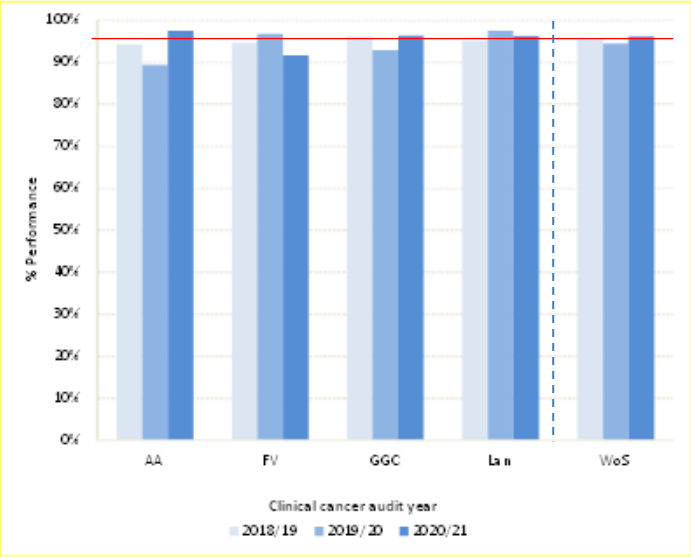
NHSGGC commented that 11 patients were not fit for biopsy, 3 cases were suspicious of invasion only, 3 cases were in situ on biopsy, while 4 patients had no evidence of malignancy on biopsy.

QPI 2: Imaging

Accurate and timely staging is important to ensure appropriate treatment is delivered to patients with head and neck cancer. The target for this QPI is set at 95%. The tolerance allowed by the target reflects the fact that some patients may have significant co-morbidities or may not be fit for investigation and/or treatment[1].

QPI 2 i), ii):	Patients with head and neck cancer should undergo CT and/or MRI of the primary site and draining lymph nodes with CT of the chest to determine the extent of disease and guide treatment decision making.
Numerator:	i) 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 initiation of treatment. ii) 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 initiation of treatment where the report is available within 2 weeks of the final imaging procedure.
Denominator:	i) All patients with head and neck cancer. ii) All 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
Exclusions:	Patients who undergo diagnostic excision biopsy as the definitive surgery, patients who die before treatment and patients who refused treatment.
Target:	**95%**

Fig 6: Proportion of patients who undergo CT and/or MRI of the primary site and draining lymph nodes with CT of the chest before initiation of treatment, 2018/19 – 2020/21.



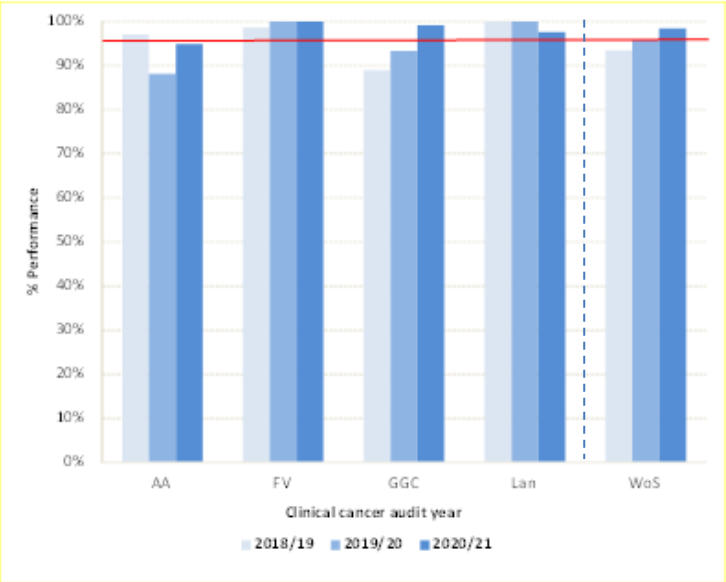
		2018/19	2019/20	2020/21
AA	N	66	42	78
	D	70	47	80
	%	94.3%	89.4%	97.5%
FV	N	71	61	55
	D	75	63	60
	%	94.7%	96.8%	91.7%
GGC	N	334	300	350
	D	348	323	363
	%	96.0%	92.9%	96.4%
Lan	N	136	117	126
	D	143	120	131
	%	95.1%	97.5%	96.2%
WoS	N	363	478	609
	D	607	506	634
	%	95.4%	94.5%	96.1%

(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

In the WoS, 96.1% of patients with head and neck cancer underwent CT and/or MRI of the primary site and draining lymph nodes with CT of the chest before initiation of treatment, meeting the target of 95%. All Boards except NHS Forth Valley met the target.

NHS Forth Valley commented that 3 of the 5 patients not meeting the target were receiving supportive care while 2 cases were incidental findings (parotid tumours).

Fig 7: Proportion of patients who undergo CT and/or MRI of the primary site and draining lymph nodes with CT of the chest before initiation of treatment where the report is available within 2 weeks of the final imaging procedure, 2018/19 – 2020/21.



		2018/19	2019/20	2020/21
AA	N	64	37	74
	D	66	42	78
	%	97.0%	88.1%	94.9%
FV	N	70	61	55
	D	71	61	55
	%	98.6%	100%	100.0%
GGC	N	297	280	347
	D	334	300	350
	%	88.9%	93.3%	99.1%
Lan	N	136	117	123
	D	136	117	126
	%	100%	100%	97.6%
WoS	N	567	458	599
	D	607	520	609
	%	93.4%	95.8%	98.4%

(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

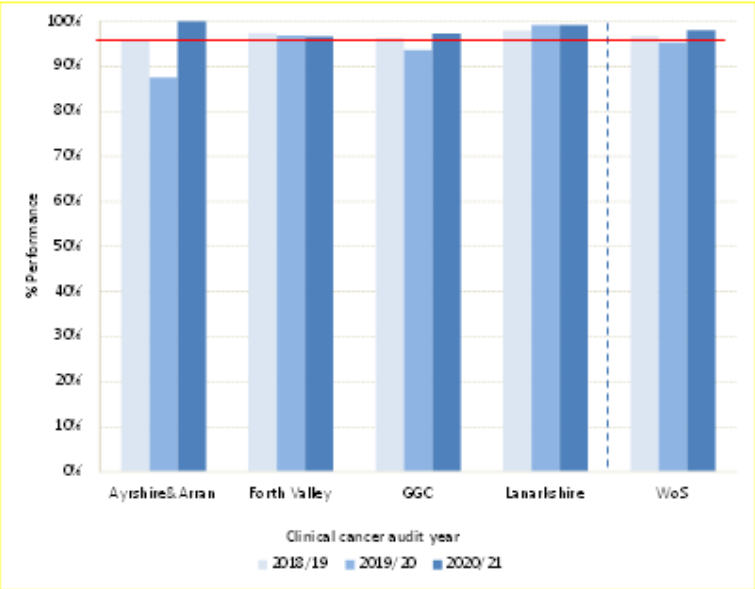
All Boards met the target for the report being available within 2 weeks of the final imaging procedure, with NHS Forth Valley achieving 100.0%.

QPI 3: Multi-Disciplinary Team Meeting

Effective MDT working is considered integral to provision of high quality head and neck cancer care, facilitating a cohesive treatment-planning function and ensuring treatment and care provision is individualised to patient needs. QPI 3 states that 95% of patients should be discussed at the MDT prior to definitive treatment. The tolerance allows for patients who need treatment urgently.

QPI 3:	Patients with head and neck cancer should be discussed by a multidisciplinary team before definitive treatment.
Numerator:	Number of patients with head and neck cancer discussed by a multidisciplinary team 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%**

Fig 8: Proportion of patients discussed by a multidisciplinary team before definitive treatment, 2018/19 – 2020/21.



		2018/19	2019/20	2020/21
AA	N	68	42	80
	D	71	48	80
	%	95.8%	87.5%	100.0%
FV	N	74	61	58
	D	76	63	60
	%	97.4%	96.8%	96.7%
GGC	N	351	325	361
	D	364	347	371
	%	96.4%	93.7%	97.3%
Lan	N	140	119	131
	D	143	120	132
	%	97.9%	99.2%	99.2%
WoS	N	633	505	630
	D	654	530	643
	%	95.8%	95.3%	98.0%

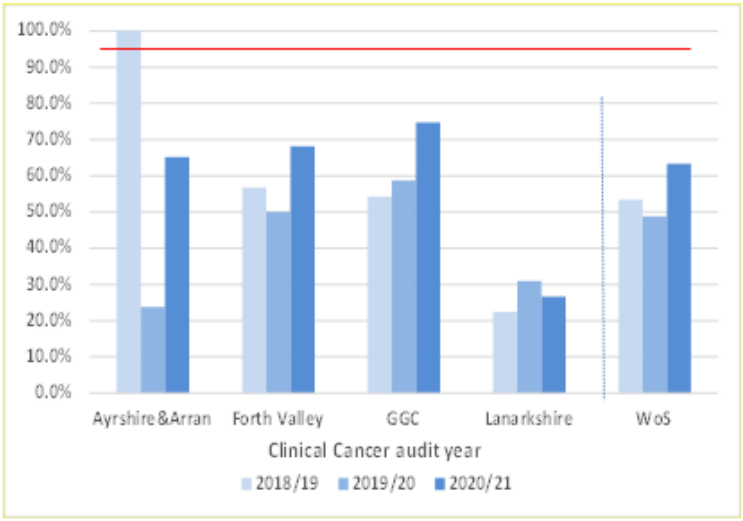
(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

Of the 643 patients across the region with head and neck cancer, 630 were discussed at the MDT prior to definitive treatment. This equates to 98% and successfully meets the 95% QPI target for the seventh consecutive year.

QPI 4: Smoking Cessation

QPI 4:	Patients with head and neck cancer who smoke should be offered referral to smoking cessation before first treatment.
Numerator:	Number of patients with head and neck cancer who smoke who are offered referral to smoking cessation before first treatment.
Denominator:	All patients with head and neck cancer who smoke.
Exclusions:	No exclusions.
Target:	**95%**

Fig 9: Proportion of patients who smoke who are offered referral to smoking cessation before first treatment, 2018/19 – 2020/21.



		2018/19	2019/20	2020/21
AA	N	33	5	15
	D	33	21	23
	%	100.0%	23.8%	65.2%
FV	N	21	11	15
	D	27	22	22
	%	56.8%	50.0%	68.2%
GGC	N	94	91	133
	D	173	155	178
	%	54.3%	58.7%	74.7%
Lan	N	13	18	16
	D	58	58	60
	%	22.4%	31.0%	26.7%
WoS	N	161	125	179
	D	301	256	283
	%	53.5%	48.8%	63.3%

(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

Overall in the WoS, 63.3% of head and neck cancer patients who smoke were offered referral to smoking cessation before their first treatment. Although there has been an overall improvement in the last year, no Board has been able to meet the target with performance ranging from 26.7% in NHS Lanarkshire to 74.7% in NHSGGC.

NHS Ayrshire & Arran commented that 2 patients not meeting the target were receiving palliative care, 1 patient died before treatment, 1 patient did not engage after diagnosis and data capture issues were highlighted for 4 cases. Going forward, NHS Ayrshire & Arran will try to ensure that documentation is better recorded.

NHS Forth Valley commented that the 7 patients not meeting the target had no record that they were offered smoking cessation and going forward the CNS will record all offers of smoking cessation regardless of outcome.

NHSGGC reviewed the 45 cases not meeting the QPI and noted that 37 patients were palliative from the outset, 2 patients stopped smoking of their own accord, 1 patient was referred after first treatment and in 5 patients who were not referred, no reasons were documented.

NHS Lanarkshire believes that there have been more patients referred and seen by smoking cessation than the data reflects and has cited lack of documentation as the key issue. The Board continues work to improve this QPI. All Consultants have been prompted to conform to the clinic outcome template provided to ensure referrals to smoking cessation are recorded. In addition to this the CNS/SLT clinic will also ensure this advice has been offered and documented. This action was put in place last year but due to staffing issues and Covid this was not fully implemented. The CNS and SLT combined clinic now has a clinical template which they are using and hope to see an improvement in compliance in the next reporting period. This is being monitored by the team and clinical audit through local reports.

Following formal review, QPI 4 has been updated to exclude patients undergoing supportive care and an improvement in performance is anticipated in the next round of reporting.

Action:

- All Boards to ensure that recording of smoking cessation referral is improved.

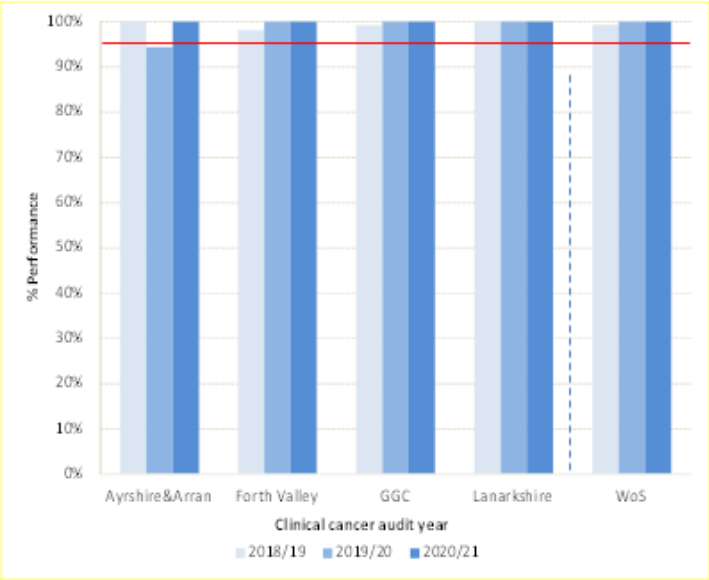
QPI 5: Oral Assessment

QPI 5 focuses on patients in whom the decision for pre-treatment assessment has been made jointly by Consultants in Restorative Dentistry and the MDT and also the number that have an assessment carried out prior to initiation of treatment.

QPI 5:	Patients whose head and neck cancer treatment may affect oral and dental appearance and function should have an assessment co-ordinated by a Consultant in Restorative Dentistry.
Numerator:	I) Number of patients with head and neck cancer undergoing active treatment in whom the decision for requiring pre-treatment assessment has been made jointly by Consultants in Restorative Dentistry and the MDT. II) Number of patients with head and neck cancer who are identified as requiring pre-treatment assessment that have assessment carried out before initiation of treatment.
Denominator:	I) All patients with head and neck cancer undergoing active treatment. II) All patients with head and neck cancer who are identified by all relevant members of the MDT as requiring pre-treatment assessment.
Exclusions:	Patients with T1/T2/N0 larynx cancer.
Target:	**95%**

100.0% of patients in all four Boards undergoing active treatment had the decision for requiring pre-treatment assessment made jointly by Consultants in Restorative Dentistry and the MDT, which exceeds the 95% QPI target.

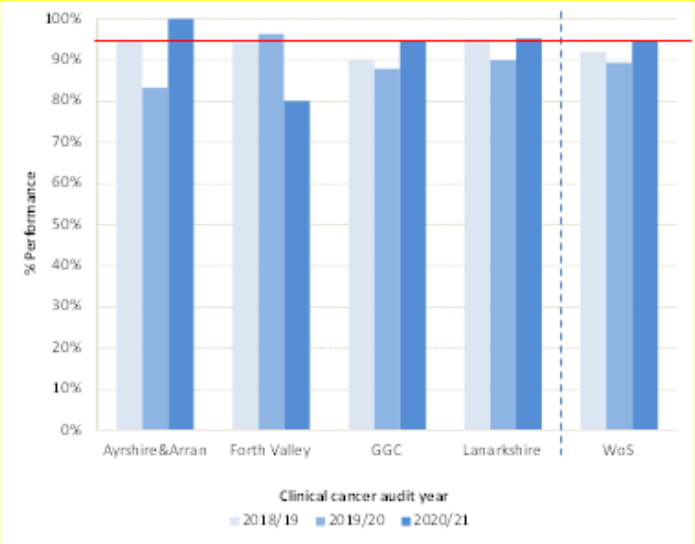
Fig 10: Proportion of patients undergoing active treatment in whom the decision for requiring pre-treatment assessment has been made jointly by Consultants in Restorative Dentistry and the MDT, 2018/19 – 2020/21.



		2018/19	2019/20	2020/21
AA	N	43	33	53
	D	43	35	53
	%	100.0%	94.3%	100.0%
FV	N	52	49	34
	D	53	49	34
	%	98.1%	100.0%	100.0%
GGC	N	246	229	238
	D	248	229	238
	%	99.2%	100.0%	100.0%
Lan	N	92	81	86
	D	92	81	86
	%	100.0%	100.0%	100.0%
WoS	N	433	359	411
	D	436	359	411
	%	99.3%	100.0%	100.0%

(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

Fig 11: Proportion of patients who require pre-treatment assessment that have this carried out before initiation of treatment, 2018/19 – 2020/21



		2018/19	2019/20	2020/21
AA	N	36	20	46
	D	38	24	46
	%	94.7%	83.3	100%
FV	N	33	26	16
	D	35	27	20
	%	94.3%	96.3%	80.0%
GGC	N	163	130	141
	D	181	148	149
	%	90.1%	87.8%	94.6%
Lan	N	57	36	40
	D	60	40	42
	%	95.0%	90.0%	95.2%
WoS	N	289	192	243
	D	314	215	257
	%	92.0%	89.3%	94.6%

(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

Of the 257 patients identified as requiring pre-treatment assessment, 94.6% (243) had the assessment carried out before initiation of treatment, which is marginally below the QPI target of 95%. NHS Ayrshire & Arran and NHS Lanarkshire achieved the target with 100% and 95.2% respectively.

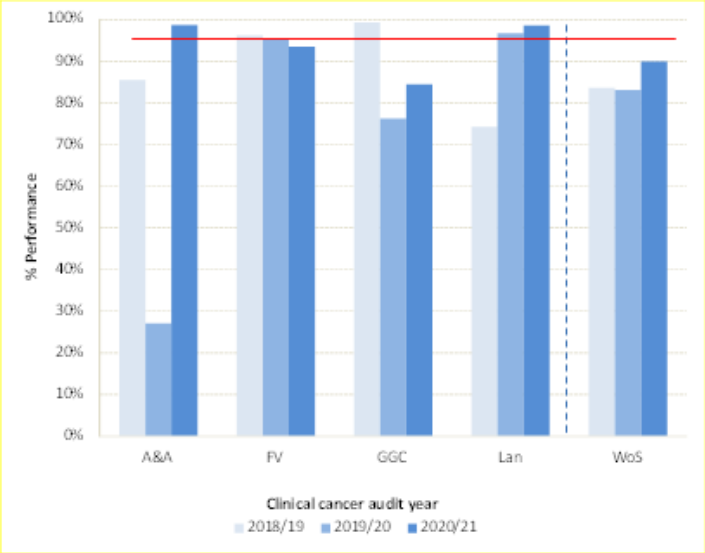
NHS Forth Valley reviewed the 4 cases which did not meet the QPI criteria and provided detailed clinical comment on 3 cases. Factors such as COVID limiting face to face dental consultations, and patient seen by dentistry before surgery but after neo adjuvant SACT impacted on this result. For the remaining two cases, one case had no reason for the lack of dental assessment documented in clinical notes, and in the second case although no formal record of dental assessment was documented, a full dental clearance was planned as part of the surgical resection.

QPI 6: Nutritional Screening

Patients with head and neck cancer should be screened at diagnosis for nutritional status using a validated screening tool appropriate to the patient population. The target for this QPI is set at 95% with the tolerance designed to account for those patients with very advanced disease who may not be fit for treatment, those patients who decline to be screened and factors of patient choice[1].

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

Fig 12: Proportion of patients who undergo nutritional screening using MUST before first treatment, 2018/19 – 2020/21.



		2018/19	2019/20	2020/21
AA	N	65	13	78
	D	76	48	79
	%	85.5%	27.1%	98.7%
FV	N	76	60	57
	D	79	63	61
	%	96.2%	95.2%	93.4%
GGC	N	142	267	319
	D	143	350	378
	%	99.3%	76.3%	84.4%
Lan	N	272	117	132
	D	366	121	134
	%	74.3%	96.7%	98.5%
WoS	N	555	444	586
	D	664	534	652
	%	83.6%	83.1%	89.9%

(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

Overall in the WoS, 89.9% of patients with head and neck cancer underwent nutritional screening with the Malnutrition Universal Screening Tool (MUST) before first treatment, which is below the 95% QPI target but an improvement from previous years. NHS Ayrshire & Arran and NHS Lanarkshire met the QPI achieving 98.7% and 98.5% respectively.
NHS Forth Valley commented that for 1 patient the MUST score was not recorded, in the remaining 3 patients incidental findings of parotid malignancy and death prior to MDT prevented MUST screening before treatment.

NHSGGC have shown improvement from the previous year and commented that of the 59 cases not meeting the QPI, 32 patients had no record of MUST and 27 were screened after the first treatment. An action from the previous year to monitor the progress of recording a MUST score on all MDT referrals is ongoing.

Going forward, two specifications have been added to the QPI. Specification (ii) been added to capture assessment of those patients at risk of malnutrition (MUST Score of 2 or more) and Specification (iii) been added to capture assessment of further patients that are likely to be at risk of malnutrition following curative treatment.

Action:

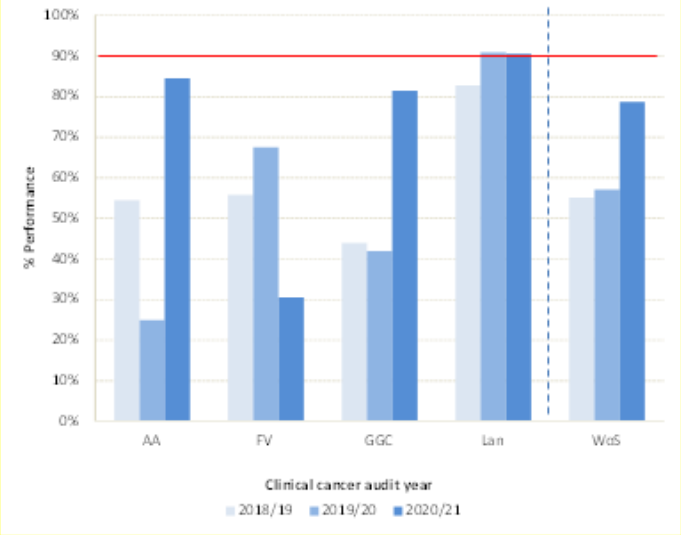
- NHSGGC to monitor the progress of recording a MUST score on all MDT referrals.

QPI 7: Specialist Speech and Language Therapist Access

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, it will give an indication of access across NHS Boards and highlight any areas of variance which can then be further examined[1]. The tolerance within this target is designed to account for situations where patients require treatment urgently. It also accounts for those patients where speech and language assessment may not be clinically required prior to treatment[1]

QPI 7:	Patients with oral, pharyngeal or laryngeal cancer should be seen by a specialist SLT before treatment to assess voice, speech and swallowing
Numerator:	Number of patients with oral, pharyngeal or laryngeal cancer undergoing treatment with curative intent who are seen by a specialist SLT before treatment.
Denominator:	All patients with oral, pharyngeal, or laryngeal cancer undergoing treatment with curative intent.
Exclusions:	Patients who refuse assessment.
Target:	**90%**

Fig 13: Proportion of patients with oral, pharyngeal or laryngeal cancer undergoing treatment with curative intent who are seen by a specialist SLT before first treatment, 2018/19 – 2020/21.



		2018/19	2019/20	2020/21
AA	N	24	8	44
	D	44	32	52
	%	54.5%	25.0%	84.6%
FV	N	29	27	11
	D	52	40	36
	%	55.8%	67.5%	30.6%
GGC	N	103	84	167
	D	234	200	205
	%	44.0%	42.0%	81.5%
Lan	N	77	70	67
	D	93	77	74
	%	82.8%	90.9%	90.5%
WoS	N	233	181	289
	D	423	317	367
	%	55.1%	57.1%	78.7%

(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

Overall in the WoS, 78.7% of patients with oral, pharyngeal or laryngeal cancer undergoing treatment with curative intent were reviewed by a Speech and Language Therapist (SLT) before treatment – significantly lower than the target of 90% although a marked improvement from the previous two years. Only NHS Lanarkshire met this QPI target for the second consecutive year. NHS Forth Valley was the only Board unable to show an improvement from the previous year.

NHS Ayrshire & Arran achieved 84.6% against the 90% target. However, this is an improvement from the 25% last year. NHS Ayrshire & Arran commented that of the 8 patients not meeting this QPI target, 4 were seen by SLT after the treatment, one patient had telephone appointment and the remaining 3 were sent an appointment letter.

NHS Forth Valley commented that of the 25 cases not meeting the target, 21 were not referred to SALT and 4 patients were seen by SALT after curative surgery. The patients failing the QPI were under the care of ENT with the consultant based at NHS Lanarkshire and many of these patients were seen on a weekend where staff and access to SALT may not have been available. All NHS Forth Valley ENT patients that are being treated at NHS Lanarkshire will in future be seen at the NHS Forth Valley head and neck clinic prior to the start of treatment to ensure they are assessed by SALT and dietetics.

NHSGGC has improved from the previous years and commented that of the 38 cases which did not meet the QPI, 23 were not seen by the SLT, whereas 15 were seen after the first treatment.

Actions

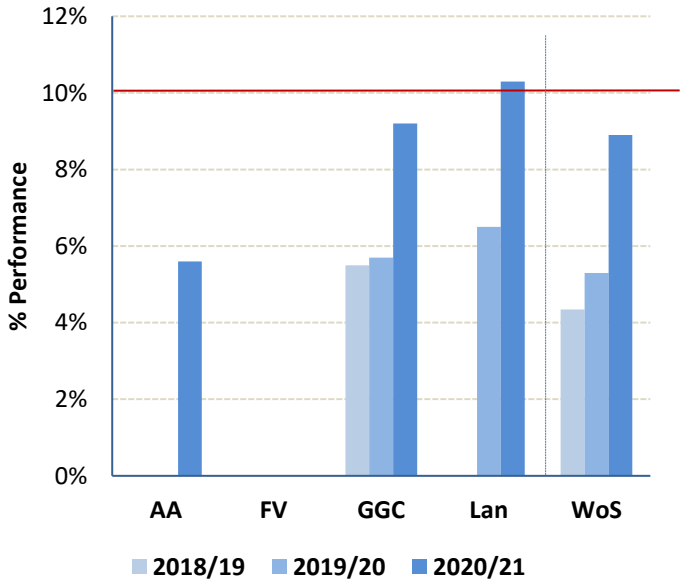
- NHS Forth Valley ENT patients treated at NHS Lanarkshire to be seen at NHS Forth Valley head and neck clinic to ensure they are assessed by SALT and dietetics.

QPI 8: Surgical Margins

Margin status is an important predictor of patient outcome. Where distance from invasive carcinoma to surgical margins is less than 1mm this would be considered involved[1]. This QPI is measuring the proportion of patients who undergo surgery where the tumour has not been completely excised, therefore a 'less than' target level has been set.

QPI 8:	Patients with head and neck cancer undergoing open surgical resection with curative intent should have their tumour adequately excised.
Numerator:	Number of patients with squamous cell carcinoma of the oral cavity, larynx or pharynx who undergo open surgical resection with curative intent with final excision margins of less than 1mm (on pathology report).
Denominator:	All patients with squamous cell carcinoma of the oral cavity, larynx or pharynx who undergo open surgical resection with curative intent.
Exclusions:	Patients with nasopharyngeal cancer and patients with posterior pharyngeal wall cancer.
Target:	**<10%**

Fig 14: Proportion of patients with final excision margins of less than 1mm after open surgical resection with curative intent, 2018/19 – 2020/21.



		2018/19	2019/20	2020/21
AA	N	0	0	1
	D	11	12	18
	%	0.0%	0.0%	5.6%
FV	N	-	-	-
	D	-	-	-
	%	-	-	-
GGC	N	8	6	12
	D	145	105	130
	%	5.5%	5.7%	9.2%
Lan	N	0	2	3
	D	25	31	29
	%	0.0%	6.5%	10.3%
WoS	N	8	8	16
	D	184	139	179
	%	4.3%	5.3%	8.9%

(-) Data not shown; denominator less five.
(*) denotes a zero.

Overall in the WoS the <10% target for QPI 8 was achieved in Year 7, with 8.9% of cases having final excision margins of less than 1mm (on pathology report). All Boards except NHS Lanarkshire (10.3%) met the QPI target.

NHS Lanarkshire cited valid reasons for 2 of the 3 cases failing to meet this QPI; in 1 case there was a data recording error (posterior pharyngeal wall cancer should have been excluded from the QPI) and taking this into account, NHS Lanarkshire would have met this QPI.

QPI 9: 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. The tolerance is designed to account for the fact that due to co-morbidities not all patients will be suitable for IMRT and patients with unilateral disease where IMRT may not be clinically appropriate[1].

QPI 9:	Patients with head and neck cancer undergoing radiotherapy should receive IMRT.
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, patients with T1/T2/N0 larynx cancer.
Target:	**95%**

Table 1: Proportion of patients undergoing radiotherapy who receive IMRT, 2018/19 – 2020/21. (-) Data is not shown; denominator less than 5. (*) denotes a zero

	Ayrshire & Arran			Forth Valley			GGC			Lanarkshire			WoS		
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%
2018/19	27	27	100.0%	27	27	100.0%	149	149	100.0%	52	52	100.0%	255	255	100.0%
2019/20	16	21	76.2%	28	28	100.0%	127	127	100.0%	52	52	100.0%	223	228	97.8%
2020/21	35	35	100.0%	24	24	100.0%	138	138	100.0%	47	47	100.0%	244	244	100.0%

Table 1 demonstrates excellent results in WoS over the last three years of QPI reporting, achieving 100% in 2020/21

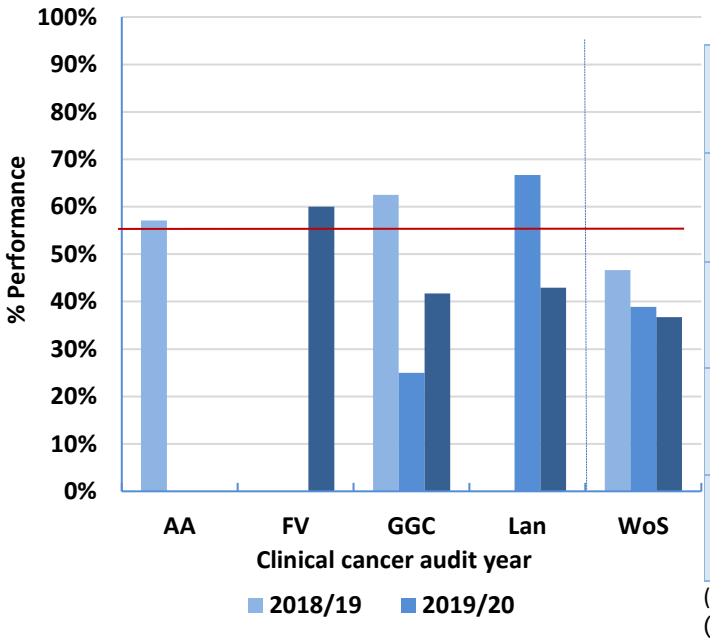
All regions have met or exceeded the 95% target and the QPI will now be archived.

QPI 10: Post Operative Chemoradiotherapy

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[1]

QPI 10:	Patients with squamous cell carcinoma of the oral cavity, larynx or pharynx with nodal extracapsular spread and/or final excision margins of <1mm following surgical resection should receive chemoradiation.
Numerator:	Number of patients with squamous cell carcinoma of the oral cavity, larynx or pharynx with nodal extracapsular spread and/or final excision margins of <1mm following surgical resection who receive chemoradiation.
Denominator:	All patients with squamous cell carcinoma of the oral cavity, larynx or pharynx with nodal extracapsular spread and/or final excision margins of <1mm following surgical resection.
Exclusions:	Patients with performance status 2, 3 or 4, patients with nasopharyngeal cancer and patients with lip cancer.
Target:	**55%**

Fig 15: Proportion of patients with squamous cell carcinoma of the oral cavity, larynx or pharynx with nodal extracapsular spread and/or final excision margins of <1mm following surgical resection who receive chemoradiation, 2018/19 – 2020/21.



		2018/19	2019/20	2020/21
AA	N	4	-	0
	D	7	-	6
	%	57.1%	-	0.0%
FV	N	0	-	3
	D	5	-	5
	%	0.0%	-	60.0%
GGC	N	10	2	5
	D	16	8	12
	%	62.5%	25.0%	41.7%
Lan	N	-	4	3
	D	-	6	7
	%	0.0%	66.7%	42.9%
WoS	N	14	7	11
	D	30	18	30
	%	46.7%	38.9%	36.7%

(-) Data not shown; denominator less five.
(*) denotes a zero.

Of the 30 patients with squamous cell carcinoma of the oral cavity, larynx or pharynx with nodal extracapsular spread and/or final excision margins of <1mm following surgical resection, 11 received chemoradiation. This resulted in a WoS performance of 36.7% against the 55% QPI target. NHS Forth Valley met the target with performance of 60%.

NHSGGC mentioned that many of the failures to progress to planned adjuvant treatment were due to lower respiratory tract infection and nutritional difficulties.

NHS Lanarkshire cited valid clinical reasons for the 4 patients not receiving post-operative chemoradiotherapy, including patient fitness, patient refusal and early disease recurrence.

The number of patients included within the denominator is low and can have a considerable effect on overall proportions; therefore percentages should be viewed with caution.

It was agreed at Formal Review that this QPI should be archived and a new oncological QPI measuring Time from Surgery to Adjuvant Radiotherapy / Chemoradiotherapy has been developed.

QPI 11: 30 and 90 Day Mortality

Treatment related mortality is a marker of the quality and safety of the whole service provided by the Multi Disciplinary Team (MDT).

QPI 11:	30 and 90 day mortality after curative treatment for head and neck cancer.
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. a) Surgery b) Radical Radiotherapy c) Chemoradiotherapy
Exclusions:	No exclusions.
Target:	**<5%**

Table 2: Proportion of patients who undergo surgery with curative intent who die within 30/90 days of treatment.

		30 Day mortality			90 Day mortality		
		2018/19	2019/20	2020/21	2018/19	2019/20	2020/21
AA	N	0	0	1	0	0	1
	D	25	14	21	25	14	21
	%	0.0%	0.0%	4.8%	0.0%	0.0%	4.8%
FV	N	0	0	-	0	0	-
	D	6	5	-	6	5	-
	%	0.0%	0.0%	-	0.0%	0.0%	-
GGC	N	1	0	2	1	1	4
	D	189	172	164	189	172	164
	%	0.5%	0.0%	1.2%	0.5%	0.6%	2.4%
Lan	N	0	1	0	0	4	1
	D	47	38	43	47	38	43
	%	0.0%	2.6%	0.0%	0.0%	10.5%	2.3%
WoS	N	1	1	3	1	5	6
	D	267	229	231	267	229	225
	%	0.4%	0.4%	1.3%	0.4%	2.2%	2.6%

(-) Data is not shown; denominator less than 5. (*) denotes a zero.

Across the WoS, there were 3 deaths within 30 days and 6 deaths within 90 days of curative surgery in patients diagnosed with head and neck cancer in Year 7. This represents 1.3% and 2.6% of patients receiving curative surgery across the WoS and is within the QPI target of less than 5%.

Table 3: Proportion of patients who undergo radical radiotherapy with curative intent who die within 30/90 days of treatment.

		30 Day mortality			90 Day mortality		
		2018/19	2019/20	2020/21	2018/19	2019/20	2020/21
AA	N	1	0	0	1	0	1
	D	13	14	24	13	14	23
	%	7.7%	0.0%	0.0%	7.7%	0.0%	4.3%
FV	N	0	1	1	0	1	1
	D	12	14	9	11	14	8
	%	0.0%	7.1%	11.1%	0.0%	7.1%	12.5%
GGC	N	5	0	1	5	0	1
	D	62	58	63	59	58	63
	%	8.1%	0.0%	1.6%	8.5%	0.0%	1.6%
Lan	N	0	1	0	1	1	0
	D	23	18	18	23	18	18
	%	0.0%	5.6%	0.0%	4.3%	5.6%	0.0%
WoS	N	6	2	2	7	2	3
	D	108	104	114	106	104	112
	%	5.6%	1.9%	1.8%	6.6%	1.9%	2.7%

(-) Data is not shown; denominator less than 5. (*) denotes a zero.

There were 2 deaths within 30 days and 3 deaths within 90 days of radical radiotherapy in patients diagnosed with head and neck cancer within Year 7. This represents a WoS mortality rate of 1.8% for 30 days and 2.7% for 90 days time period which meets the QPI target of less than 5%.

The single death recorded in NHS Forth Valley has been reviewed and the Board provided details of the cause of death which related to disease progression.

Table 4: Proportion of patients who undergo chemoradiotherapy with curative intent who die within 30/90 days of treatment.

		30 Day mortality			90 Day mortality		
		2018/19	2019/20	2020/21	2018/19	2019/20	2020/21
AA	N	0	0	-	0	0	-
	D	12	6	-	11	6	-
	%	0.0%	0.0%	-	0.0%	0.0%	-
FV	N	0	0	0	0	0	0
	D	15	13	13	12	13	13
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GGC	N	0	0	1	0	1	1
	D	70	51	52	65	51	51
	%	0.0%	0.0%	1.9%	0.0%	2.0%	2.0%
Lan	N	1	2	0	1	2	0
	D	28	26	24	26	26	24
	%	3.6%	7.7%	0.0%	3.8%	7.7%	0.0%
WoS	N	1	2	1	1	3	1
	D	125	96	93	114	96	92
	%	0.8%	2.1%	1.1%	0.9%	3.1%	1.1%

(-) Data is not shown; denominator less than 5. (*) denotes a zero

A cross the WoS, there was 1 death within 30 days and 1 death within 90 days of chemoradiotherapy in patients diagnosed with head and neck cancer in Year 7. This represents 1.1% of patients in each time period receiving chemoradiotherapy across the WoS and is within the QPI target of less than 5%.

As with previous QPIs, the number of patients included within the denominator is low and can have a considerable effect on overall proportions; therefore percentages should be viewed with caution.

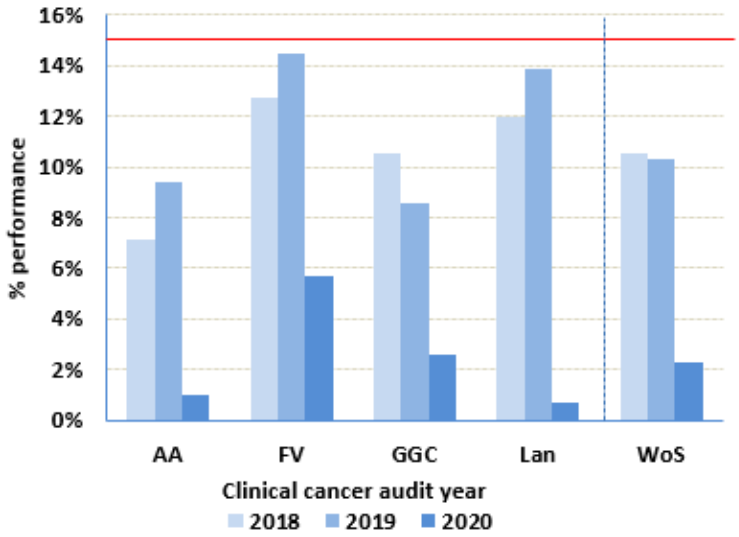
Clinical Trial Access QPI

Clinical trials are necessary to demonstrate the efficacy of new therapies and other interventions. Evidence suggests improved patient outcomes from participation in clinical trials[1].Clinicians are therefore encouraged to enter patients into well-designed trials and to collect longer-term follow-up data. High accrual activity into clinical trials is used as a goal of an exemplary clinical research site[1].

The clinical trials QPI is measured utilising Scottish Cancer Research Network (SCRN) data and ISD incidence data, as this is the methodology currently utilised by the Chief Scientist Office (CSO) and the National Cancer Research Institute (NCRI). The principal benefit of this approach is that this data is already collected utilising a robust mechanism1. The QPI looks at all patients with head and neck cancer entered into a trial in the calendar year 1st January to 31st December 2020, and not just those patients who had an initial diagnosis in that same period. Following formal review the Clinical Trials Access QPI was updated to measure the number of patients consented for participation in a clinical trial rather than only those who are enrolled. There are a number of patients who undergo screening but do not proceed to enrolment for various reasons, e.g. they do not have the mutation required for entry on to the trial.

QPI 12:	All patients should be considered for participation in available clinical trials/research studies, wherever eligible.
Numerator:	Number of patients with head and neck cancer who are consented for a clinical trial / research study.
Denominator:	All patients with head and neck cancer.
Exclusions:	No exclusions.
Target:	**15%**

Fig 16: Proportion of patients with head and neck cancer who consented for a clinical trial study, 2018 – 2020.



		2018	2019	2020
AA	N	7	9	1
	D	98	95	97
	%	7.1%	9.4%	1.0%
FV	N	8	10	4
	D	63	69	70
	%	12.7%	14.5%	5.7%
GGC	N	41	34	10
	D	392	397	392
	%	10.5%	8.6%	2.6%
Lan	N	16	19	1
	D	133	137	140
	%	12.0%	13.9%	0.7%
WoS	N	72	72	16
	D	686	698	699
	%	10.5%	10.3%	2.3%

The target is to consent a minimum of 15% of patients with head and neck cancer for a clinical trial/research study. Overall in the WoS this was not achieved with 2.3% of patients (16) in 2020 consented for a clinical trial/research study which was less than the previous two years.

Table 5: Head & Neck Patients for clinical trials 2020

NHS Board of Residence	Consented			Recruited		
	N	D	%	N	D	%
Ayrshire & Arran	1	97	1.0%	1	97	1.0%
Forth Valley	4	70	5.7%	3	70	4.3%
GGC	10	392	2.6%	3	392	0.8%
Lanarkshire	1	140	0.7%	1	140	0.7%
WoS	**16**	**699**	**2.3%**	**8**	**699**	**1.1%**

An additional 3 x WoSCAN 2020 trial recruits resided outwith WoS although received treatment & clinical trial access in WoSCAN these cases are included in SCAN and NCA figures.

The clinical trial access QPI for head and neck cancer was not met in 2020.This was anticipated as the COVID-19 pandemic forced most clinical trials in the UK to stop recruiting patients for several months in 2020. The pandemic caused this disruption because:

1. Researchers needed to minimise the number of patients visiting hospitals, as these visits risked infecting their patients with COVID-19.
2. Some clinical staff usually dedicated to cancer research needed to support frontline services as part of the NHS's response to COVID-19 or to support research into COVID-19 vaccination and treatments.

The reduction in clinical trial recruitment for head and neck cancer in the WoS mirrors that seen nationally across all tumour types. The National Institute for Health research (NIHR) report trial recruitment fell by 60% in England in 2020/21.

Table 6: List of clinical trials and the number of patients with head and neck cancer consented into each clinical trial in 2020

Short Title	Total
ECMC EXPLOR Biomarker	2
IMAGINE	1
NICO	7
Phase 1/2 Study of RP1 +/- other therapies in solid tumours	1
Phase II Study of Tipifarnib in non-haematological cancer and HRAS	4
TACTI-002 (P015); Keynote-PN798 (Two ACTive Immunotherapeutics)	3
UPSTREAM (EORTC 1559-HNCG)	1
Total	**19**

3 x WoSCAN 2020 trial recruits resided outwith WoS although received treatment & clinical trial access in WoSCAN. These cases are included in SCAN and NCA figures.

5. Next Steps

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 summary of actions for each NHS Board has been included within the Action Plan templates in Appendix 3.

Acknowledgement

This report has been prepared using clinical audit data provided by the following NHS Boards in the WoSCAN area:

NHS Ayrshire & Arran
NHS Forth Valley
NHS Greater Glasgow and Clyde
NHS Lanarkshire

We would like to thank all members and active participants in the cancer network for their continued support of the MCN, and the many hospitals that are committed to making the audit succeed. We also acknowledge the efforts of the clinical effectiveness staff, nurses, and other service users for their work in ensuring the data are available to enable analysis to take place each year. Without their considerable efforts this level of progress would not be possible.

Abbreviations

ACaDMe	Acute Cancer Deaths and Mental Health
CT	Computerised Tomography
eCASE	Electronic Cancer Audit Support Environment
HIS	Healthcare Improvement Scotland
HPV	Human Papilloma Virus
IMRT	Intensity Modulated Radiotherapy
ISD	Information Services Division
MCN	Managed Clinical Network
MDT	Multidisciplinary Team
M&M	Mortality and Morbidity
MRI	Magnetic Resonance Imaging
MUST	Malnutrition Universal Screening Tool
NCQSG	National Cancer Quality Steering Group
NCRI	National Cancer Research Institute
NHSGGC	NHS Greater Glasgow and Clyde
OPT	Orthopantomogram
QPIs	Quality Performance Indicators
RCAG	Regional Cancer Advisory Board
SCRN	Scottish Cancer Research Network
SIMD	Scottish Index of Multiple Deprivation
SLT	Speech and Language Therapy
WoS	West of Scotland
WoSCAN	West of Scotland Cancer Network

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7. Health inequalities in Scotland. Available at: www.audit-scotland.gov.uk/docs/health/2012/nr_121213_health_inequalities.pdf

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Appendix 1: Metadata

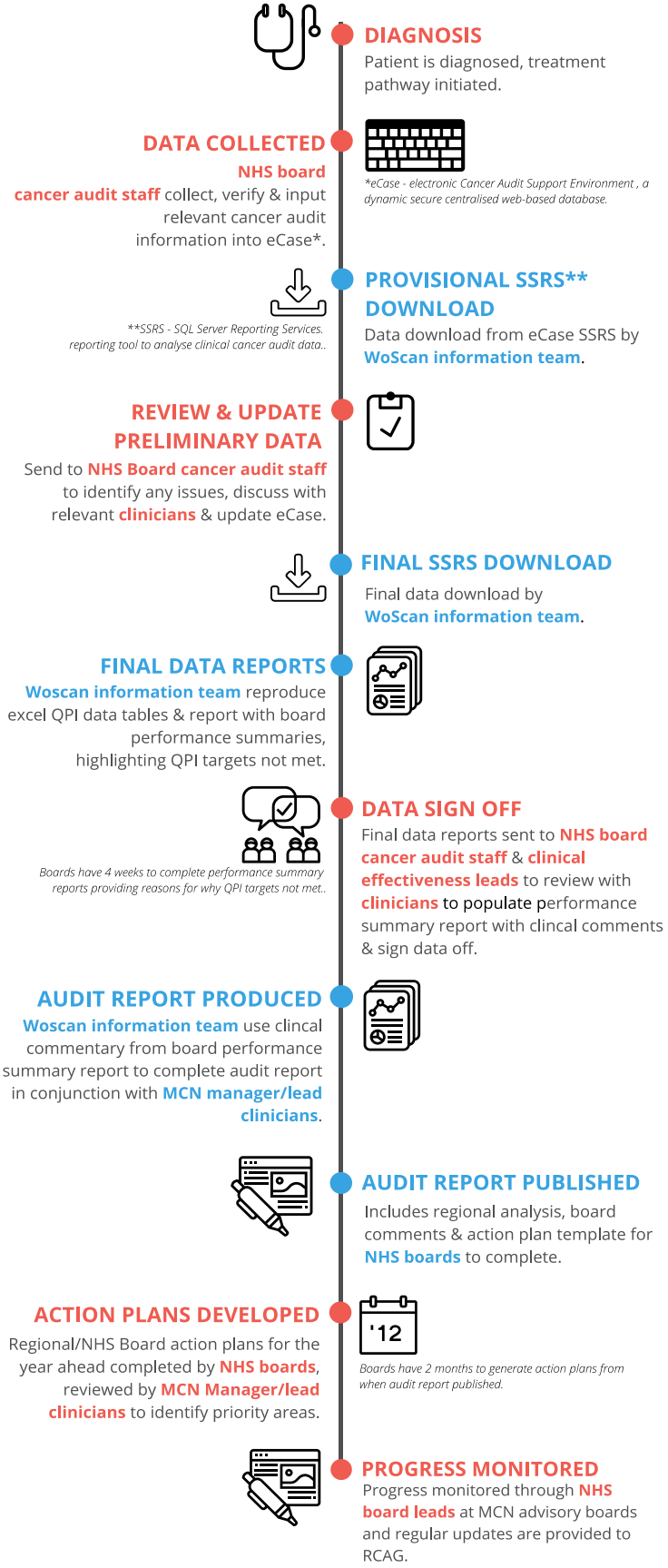
<table>
<tr><td>Report Title</td><td>Cancer Audit Report: Head and Neck Cancer Quality Performance Indicators</td></tr>
<tr><td>Time Period</td><td>Patients diagnosed between 1st April 2020 - 31st March 2021</td></tr>
<tr><td>Data Source</td><td>Cancer Audit Support Environment (eCASE). A secure centralised web-based database which holds cancer audit information in Scotland.</td></tr>
<tr><td>Data extraction date</td><td>20/10/2021</td></tr>
<tr><td>Methodology</td><td>Analysis was performed centrally for the region by the WoSCAN Information Team. The timescales agreed took into account the patient pathway to ensure that a complete treatment record was available for the majority of patients.

Initial results were provided to Boards to check for inaccuracies, inconsistencies or obvious gaps and a subsequent download taken upon which final analysis was carried out.

The final data analysis was disseminated for NHS Board verification in line with the regional audit governance process to ensure that the data was an accurate representation of service in each area. Please see info graphic in appendix 2 for a more detailed look at the reporting process.</td></tr>
<tr><td>Data Quality</td><td>Audit data completeness can be assessed by estimating the proportion of expected patients that have been identified through audit compared to the number reported by the National Cancer registry (provided by ISD, National Services Division), this is known as case ascertainment. Figures should only be used as a guide as it is not possible to compare the same exact cohort from each data source. Note that a 5 year average is taken for cancer registry cases to take account of annual fluctuations in incidence within NHS Boards.

<table>
<tr><th></th><th>Ayrshire & Arran</th><th>Forth Valley</th><th>GGC</th><th>Lanarkshire</th><th>WoS</th></tr>
<tr><td>2020/21 Audit</td><td>82</td><td>61</td><td>378</td><td>135</td><td>656</td></tr>
<tr><td>Cancer Reg 2015-19*</td><td>97</td><td>70</td><td>392</td><td>140</td><td>699</td></tr>
<tr><td>Case Ascertainment</td><td>84.5%</td><td>87.1%</td><td>96.4%</td><td>96.4%</td><td>93.8%</td></tr>
</table>
</td></tr>
</table>

Appendix 2: Cancer clinical audit reporting timeline



Appendix 3: NHS Board Action Plans Head & Neck QPIs

A summary of actions for each NHS Board has been included within the following Action Plan templates. Completed Action Plans should be returned to WoSCAN within two months of publication of this report.

Action / Improvement Plan

Area:	NHS Ayrshire & Arran
Action Plan Lead:	
Date:	

KEY (Status)	
1	**Action fully implemented**
2	**Action agreed but not yet implemented**
3	**No action taken (please state reason)**

QPI	**Action Required**	**Health Board Action Taken**	**Timescales**		**Lead**	**Progress/Action Status**	**Status (see Key)**
			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 specific action.*	*Provide detail of action in progress, change in practices, problems encountered or reasons why no action taken.*	*Insert No. from key above*.
QPI 4: Smoking Cessation	To ensure that recording of smoking cessation referral is improved.						

Action / Improvement Plan

Area:	NHS Forth Valley
Action Plan Lead:	
Date:	

KEY (Status)	
1	**Action fully implemented**
2	**Action agreed but not yet implemented**
3	**No action taken (please state reason)**

QPI	**Action Required**	**Health Board Action Taken**	**Timescales**		**Lead**	**Progress/Action Status**	**Status (see Key)**
			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 specific action.*	*Provide detail of action in progress, change in practices, problems encountered or reasons why no action taken.*	*Insert No. from key above*.
QPI 4: Smoking Cessation	To ensure that recording of smoking cessation referral is improved.						
QPI 7: Specialist Speech and Language Therapist Access	NHS Forth Valley ENT patients treated at NHS Lanarkshire to be seen at NHS Forth Valley head and neck clinic to ensure they are assessed by SALT and dietetics.						

Action / Improvement Plan

Area:	NHS Greater Glasgow and Clyde
Action Plan Lead:	
Date:	

KEY (Status)	
1	**Action fully implemented**
2	**Action agreed but not yet implemented**
3	**No action taken (please state reason)**

QPI	**Action Required**	**Health Board Action Taken**	**Timescales**		**Lead**	**Progress/Action Status**	**Status (see Key)**
			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 specific action.*	*Provide detail of action in progress, change in practices, problems encountered or reasons why no action taken.*	*Insert No. from key above*.
QPI 4: Smoking Cessation	To ensure that recording of smoking cessation referral is improved.						
QPI 6: Nutritional Screening	To monitor the progress of recording a MUST score on all MDT referrals						

Action / Improvement Plan

Area:	NHS Lanarkshire
Action Plan Lead:	
Date:	

KEY (Status)	
1	**Action fully implemented**
2	**Action agreed but not yet implemented**
3	**No action taken (please state reason)**

QPI	**Action Required**	**Health Board Action Taken**	**Timescales**		**Lead**	**Progress/Action Status**	**Status (see Key)**
			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 specific action.*	*Provide detail of action in progress, change in practices, problems encountered or reasons why no action taken.*	*Insert No. from key above*.
QPI 4: Smoking Cessation	To ensure that recording of smoking cessation referral is improved.						