NOSCAN
North of Scotland Cancer Network

NHS SCOTLAND
NORTH OF SCOTLAND PLANNING GROUP

Haematology
Managed Clinical Network

Audit Report

Lymphoma
Quality Performance Indicators

Patients diagnosed October 2014 – September 2015

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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.

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EXECUTIVE SUMMARY

This publication reports the performance of lymphoma services in the six NHS Boards in the North of Scotland (NoS) against the Lymphoma Quality Performance Indicators (QPIs) for patients diagnosed between October 2014 and September 2015. This is the second year in which QPIs results for lymphoma have been collected and results are compared with those from 2013-2014.

In the North of Scotland during the 2014-2015 period audited:

- There were 304 patients diagnosed with lymphoma, a increase of approximately 8% from 2013-2014.
- Overall case ascertainment was high at 101.3% an increase from 2013-2014.
- Results were considered to be representative of lymphoma services in the region.

Summary of QPI Results

QPI	QPI Target	Performance[b]			
		NOSCAN	Grampian	Highland	Tayside
QPI 1: Radiological Staging					
Specification (i): Proportion of patients with lymphoma undergoing treatment with curative intent who undergo Computed Tomography (CT) scanning of the chest, abdomen and pelvis or PET CT scanning prior to treatment.	90%	**91%** n=222	99% n=99	100% n=49	73% n=73
Specification (ii): Proportion of patients with lymphoma undergoing treatment with curative intent who undergo Computed Tomography (CT) scanning of the chest, abdomen and pelvis or PET CT scanning prior to treatment and within 2 weeks of radiology request.	90%	**70%** n=223	77% n=99	80% n=50	52.1% n=73
QPI 2: Treatment Response - Proportion of patients with DLBCL who are undergoing chemotherapy treatment with curative intent, who have their response to treatment evaluated with Computed Tomography (CT) scan of the chest, abdomen and pelvis or PET CT scan.	90%	**84%** n=88	94% n=35	93% n=27	62% n=26
QPI 3: Positron Emission Tomography (PET CT) Staging					
Specification (i): Proportion of patients with Classical Hodgkin Lymphoma (CHL) undergoing treatment with curative intent who undergo PET CT scan prior to first treatment.	95%	**95%** n=38	100% n=10	100% n=10	89% n=18

Specification (ii): Proportion of patients with Classical Hodgkin Lymphoma (CHL) undergoing treatment with curative intent who undergo PET CT scan prior to first treatment and within 2 weeks of radiology request.	95%	**82%** n=38	100% n=10	60% n=10	83% n=18
QPI 4: Cytogenetic Testing - Proportion of patients with Burkitt lymphoma and DLBCL who have MYC testing as part of diagnostic process and prior to treatment.	60%	**49%** n=101	53% n=38	66% n=29	29% n=34
QPI 5: Lymphoma MDT - Proportion of patients with lymphoma who are discussed at MDT meeting within 6 weeks of diagnosis.	85%	**85%** n=292	72% n=124	89% n=63	100% n=102
QPI 6: Treatment for Follicular Lymphoma and Diffuse Large B-Cell Lymphoma - Proportion of patients with follicular lymphoma and DLBCL undergoing treatment with chemotherapy who receive Rituximab.	95%	**94%** n=133	100% n=57	96% n=28	85% n=48
QPI 7: Treatment of Grade 3b Follicular Lymphoma - Proportion of patients with grade 3b follicular lymphoma who receive treatment with R-CHOP.	95%	-	-	-	-
QPI 8: Treatment for Stage 1a Diffuse Large B Cell Lymphoma - Proportion of patients with nodal, non-bulky stage 1a DLBCL who receive local radiotherapy, in combination with chemotherapy.	90%	-	-	-	-
QPI 9: Treatment for Classical Hodgkin Lymphoma - Proportion of patients with early stage (stage 1a or 2a) CHL who receive combined modality treatment (chemotherapy and radiotherapy).	80%	-	-	-	-
QPI 10: Primary Cutaneous Lymphoma - Proportion of patients with primary cutaneous lymphoma who are discussed at a specialist MDT meeting which includes representation from pathology, dermatology, oncology ± haemato-oncology.	95%	-	-	-	-
QPI 11: Hepatitis and HIV Status - Proportion of patients with lymphoma undergoing Rituximab based treatment who have hepatitis B, hepatitis C and HIV status checked prior to treatment.	100%	**88%** n=169	91% n=79	97% n=34	77% n=56
Clinical Trials Access - Proportion of patients with lymphoma who are enrolled in an interventional clinical trial or translational research.					
Interventional clinical trials	7.5%	**3%** n=300			
Translational research	15%	**1%** n=300			

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

During this second year of QPI reporting for patients with lymphoma, only two out of the 12 quality performance targets set for lymphoma was achieved at a regional level in the North

of Scotland. For the ten QPIs where the target was not met four main issues are apparent:

1) Targets for radiology are not being met. All patients were scanned appropriately but these investigations did not occur within the required timescales. It is recognised that all radiology centres in NOSCAN are under immense pressure from increasing demand from all users, and this has been compounded by workforce issues. This requires further input at a higher level as individual cancer clinicians are unable to solve these difficulties.

2) In the context of rapidly evolving clinical evidence, some QPIs are no longer appropriate. For example, QPI's 8 and 9 mandate the need for radiotherapy, while more recent evidence and guidelines mean this is no longer appropriate. There will be an opportunity to update the QPIs in light of this evidence following the reporting of the third year of QPI data in 2017.

3) The small numbers of patients included within some QPIs (e.g. QPIs 7-10) means that QPI results for an individual year do not accurately reflect the broader clinical service being delivered.

4) Issues with documentation of results or MDT discussions (QPI 4, 5 and 6).

Results from the second year of QPI reporting have helped to identify the following actions to improve on the quality of clinical services for patients with lymphoma in the North of Scotland:

- **NHS Boards to improve timeliness of radiological investigations and reporting for patients with lymphoma.**
- **MCN to escalate the concerns with the timeliness of radiological scans to RCAF.**
- **MCN to facilitate discussion on how PET CT scanning services can be appropriately provided for patients throughout the North of Scotland.**
- **NHS Tayside Pathology report to stipulate 3 options on Pathology report or addendum for MYC test results; 1 Positive, 2 Negative, 3 Not Done.**
- **NHS Highland to discuss electronic recording of the MDT process.**

In addition, the report identifies a number of suggested amendments to the QPIs themselves. These will be raised by the MCN at the Formal Review of the Lymphoma QPIs following the third year of QPI reporting (2017).

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 Lymphoma 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) lymphoma services using clinical audit data relating to patients diagnosed with lymphoma in the twelve months from 1st October 2014 to 30th September 2015. Results are measured against the Lymphoma Quality Performance Indicators (QPIs)[6] which were implemented for patients diagnosed on or after 1st October 2013. Regular reporting of activity and performance is a fundamental requirement of a Managed Clinical Network (MCN) to assure the quality of care delivered across the region.

This report presents performance against 11 Lymphoma QPIs using clinical audit data. The generic Clinical Trials QPI is also reported for lymphoma patients.

2. Background

Six NHS Boards across the North of Scotland serve the 1.38 million population[7]. There were 304 patients diagnosed with lymphoma in the North of Scotland between 1st October 2014 and 30th September 2015.

It is recognised that patients diagnosed with lymphoma should be discussed at a Multidisciplinary Team Meeting (MDT), which is usually convened on a weekly basis. The configuration of the MDTs 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.

1.1 National Context

Non-Hodgkin's lymphoma is the seventh most common cancer type in Scotland, while incidence of Hodgkin's disease is much lower. Incidences of Non-Hodgkin's lymphoma have increased in recent years, and although immunosuppression has been associated with the development of this disease the reasons for this trend are still unclear[8]. Incidences of lymphoma are predicted to continue to increase over the coming years[9].

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

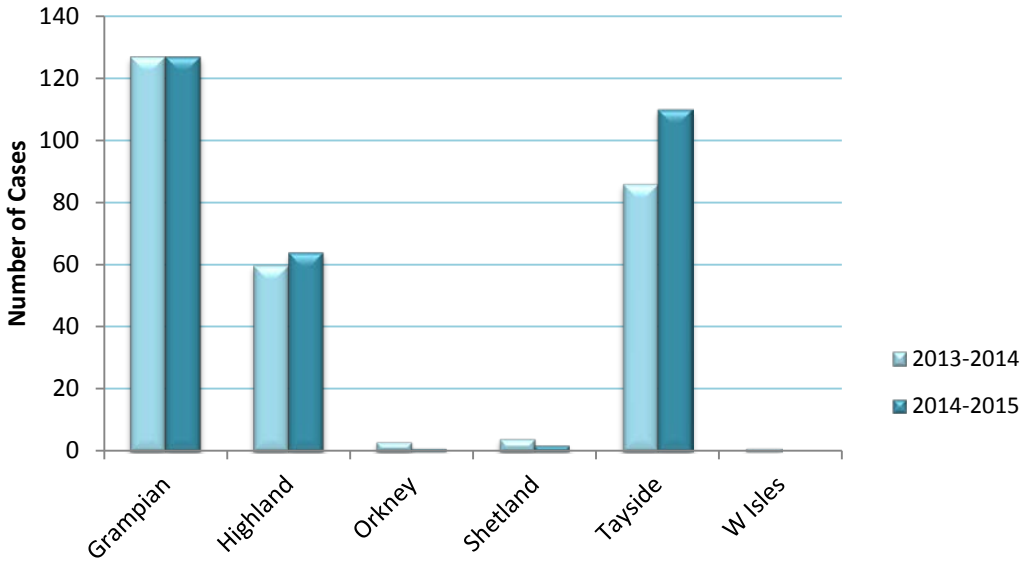
Relative age-standardised survival for lymphoma in Scotland at 1 year and 5 years showing percentage change from 1987-1991 to 2007-2011[10].

	Sex	Relative survival at 1 year (%)		Relative survival at 5 years (%)	
		2007-2011	% change	2007-2011	% change
Non-Hodgkin's Lymphoma	Male	76.2%	+ 20.3%	63.7%	+ 27.4%
	Female	78.6%	+ 16.5%	66.9%	+ 24.4%
Hodgkin's Disease	Male	88.0%	+ 10.5%	78.8%	+ 13.9%
	Female	88.0%	+ 7.3%	78.7%	+ 13.2%

2.2 North of Scotland Context

A total of 304 cases of lymphoma were recorded through audit as diagnosed in the North of Scotland between 1st October 2014 and 30th September 2015, which is an increase of around 8% compared with 2013-2014 (281 patients). The number of patients diagnosed within each Board is presented below.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	**NoS**
Number of Patients	127	64	1	2	110	0	**304**
% of NoS total	41.8%	21.1%	0.3%	0.7%	36.2%	0%	**100%**



Number of patients diagnosed with lymphoma by Board of diagnosis, 2013-2014 and 2014-2015.

3. Methodology

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

Data for patients diagnosed between 1st October 2014 and 30th September 2015 were collated by cancer audit staff within individual NHS Boards. These data 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

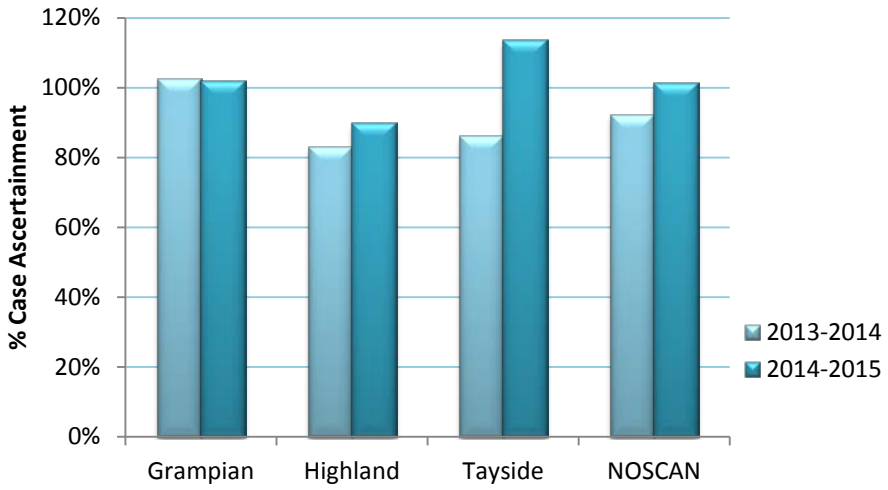
4.1 Case Ascertainment

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 a five year average of 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

2014-2015. 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 high at 101.3% which indicates good data capture through audit. This is an increase from the 2013-2014 figure of 92.3%. 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. Case ascertainment for each Board across the North of Scotland is illustrated below.

	Grampian	Highland	Orkney*	Shetland*	Tayside	W Isles*	NoS
Cases from audit	127	64	1	2	110	0	**304**
ISD Cases (2010-2014)	124.6	71.2	1.8	3.2	96.8	2.6	**300.2**
% Case ascertainment 2014-2015	101.9%	89.9%	-	-	113.6%	-	**101.3%**
% Case ascertainment 2013-2014	102.6%	82.9%	-	-	86.0%	-	**92.3%**



Case ascertainment by NHS Board for patients diagnosed with lymphoma 2013-2014 and 2014-2015 (ISD Cases for ISD-10 codes C81-C85).

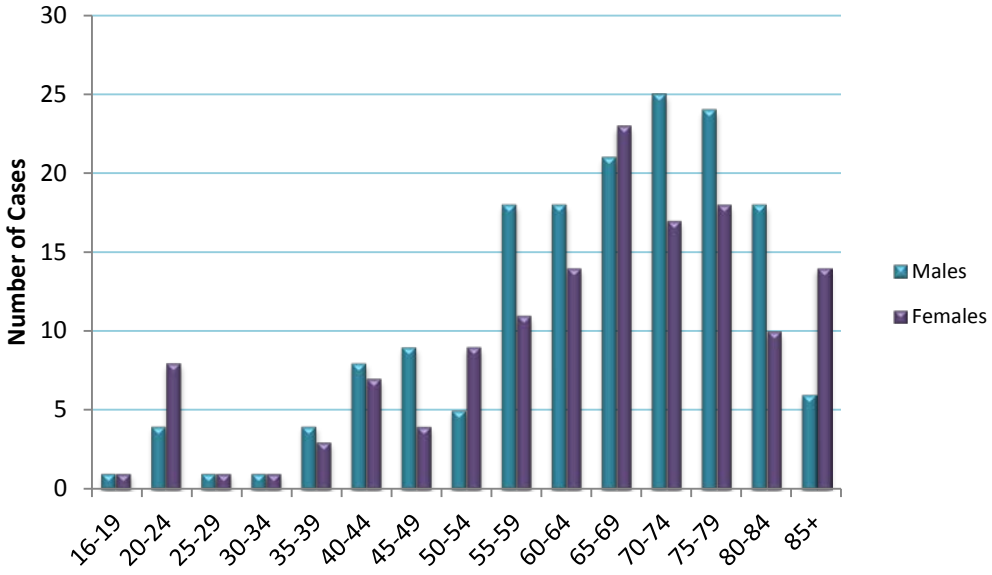
Audit data were considered to be sufficiently complete to allow QPI calculations. The number of instances of data not being recorded was very low, with the notable gaps as follows;

- NHS Tayside - lack of information on Cotswold stage, bulk disease, treatment intent and dates of virological testing in NHS Tayside has affected results for QPIs 1, 8, 9 and 11.
- NHS Grampian – lack of information on the date MYC testing was reported has affected results for QPI 4.

4.2 Age and Gender Distribution

The figure below shows the age distribution of patients diagnosed with lymphoma in the North of Scotland during 2014-2015 for both men and women. The number of diagnoses peaked in the 70-74 age group for men and the 65-69 age group for women.

Age	Sex	Grampian	Highland	Orkney	Shetland	Tayside	W. Isles	NOSCAN
16-19	*M*	1	0	0	0	0	0	1
	F	1	0	0	0	0	0	1
20-24	*M*	2	1	0	0	1	0	4
	F	2	1	0	0	5	0	8
25-29	*M*	0	1	0	0	0	0	1
	F	0	0	0	0	1	0	1
30-34	*M*	0	0	0	0	1	0	1
	F	0	0	0	0	1	0	1
35-39	*M*	1	0	0	0	3	0	4
	F	2	0	0	0	1	0	3
40-44	*M*	2	1	0	0	5	0	8
	F	4	1	0	0	2	0	7
45-49	*M*	5	2	0	0	2	0	9
	F	2	0	0	0	2	0	4
50-54	*M*	3	1	0	0	1	0	5
	F	3	2	0	0	4	0	9
55-59	*M*	6	5	0	0	7	0	18
	F	3	2	0	0	6	0	11
60-64	*M*	10	2	0	0	6	0	18
	F	7	4	0	1	2	0	14
65-69	*M*	9	4	0	1	7	0	21
	F	12	3	0	0	8	0	23
70-74	*M*	8	6	0	0	11	0	25
	F	4	5	0	0	8	0	17
75-79	*M*	13	4	0	0	7	0	24
	F	7	4	0	0	7	0	18
80-84	*M*	7	7	0	0	4	0	18
	F	4	3	0	0	3	0	10
85+	*M*	3	1	1	0	1	0	6
	F	6	4	0	0	4	0	14
Total	***M***	***70***	***35***	***1***	***1***	***56***	***0***	***163***
	F	***57***	***29***	***0***	***1***	***54***	***0***	***141***



4.3 Performance against Quality Performance Indicators (QPIs)

Results of the analysis of Lymphoma 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 are presented by Board of diagnosis and for the whole of the North of Scotland. 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: Radiological Staging

QPI 1: Radiological Staging: Patients with lymphoma should be evaluated with appropriate imaging to detect the extent of disease and guide treatment decision making.

Accurate staging is important to ensure appropriate treatment is delivered and futile interventions avoided.

CT is recommended as the initial imaging investigation for all patients with lymphoma to detect extent of disease and guide treatment decision making. This should include CT of the chest, abdomen and pelvis. CT neck should also be undertaken where clinically appropriate.

Specification (i)

Numerator: Number of patients with lymphoma undergoing treatment with curative intent who undergo CT of chest, abdomen and pelvis or PET CT scanning prior to treatment.

Denominator: All patients with lymphoma undergoing treatment with curative intent.

Exclusions:

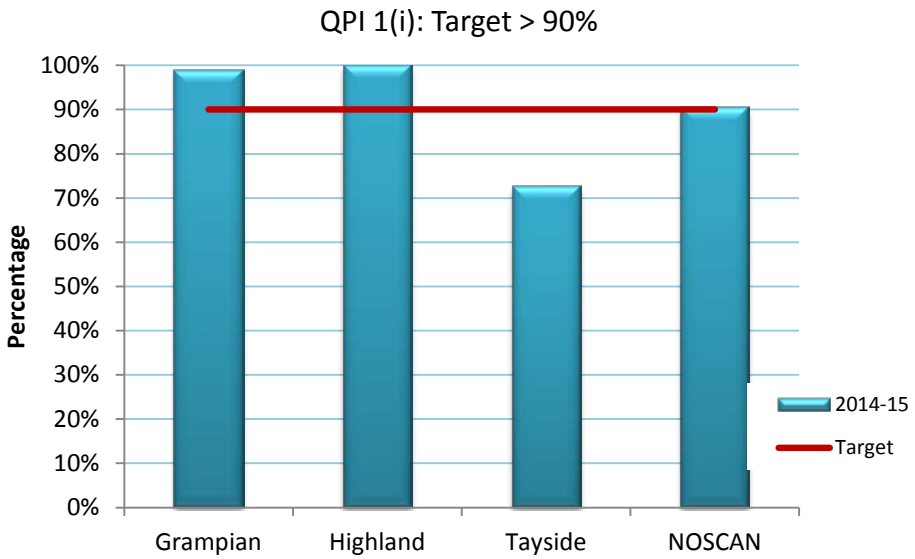
- Patients who refuse investigation.
- Patients with primary cutaneous lymphoma.

Target: 90%

QPI 1(i) Performance against target

Of the 222 patients diagnosed with lymphoma in the North of Scotland and undergoing treatment with curative intent, 201 had Computed Tomography (CT) scanning of the chest, abdomen and pelvis prior to treatment. This equates to a rate of 90.5% and meets the target rate of 90%. Results are not comparable with those from 2013-14 due to changes in the way the QPI has been measured.

At NHS Board level this QPI was met by all Boards with patients included within the QPI calculation in the North of Scotland except NHS Tayside.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	**99.0%**	98	99	**0**	**0%**	**0**	**0%**	**0**
Highland	**100%**	49	49	**0**	**0%**	**0**	**0%**	**0**
Orkney	**-**	0	0	**0**	**-**	**0**	**-**	**0**
Shetland*	**-**	-	-	-	-	-	-	-
Tayside	**72.6%**	53	73	**0**	**0%**	**0**	**0%**	**12**
NoS	**90.5%**	**201**	**222**	**0**	**0%**	**0**	**0%**	**12**

QPI 1: Radiological Staging: Patients with lymphoma should be evaluated with appropriate imaging to detect the extent of disease and guide treatment decision making.

Specification (ii)

Numerator: Number of patients with lymphoma undergoing treatment with curative intent who undergo CT of chest, abdomen and pelvis or PET CT scanning prior to treatment and within 2 weeks of radiology request.

Denominator: All patients with lymphoma undergoing treatment with curative intent.

Exclusions:

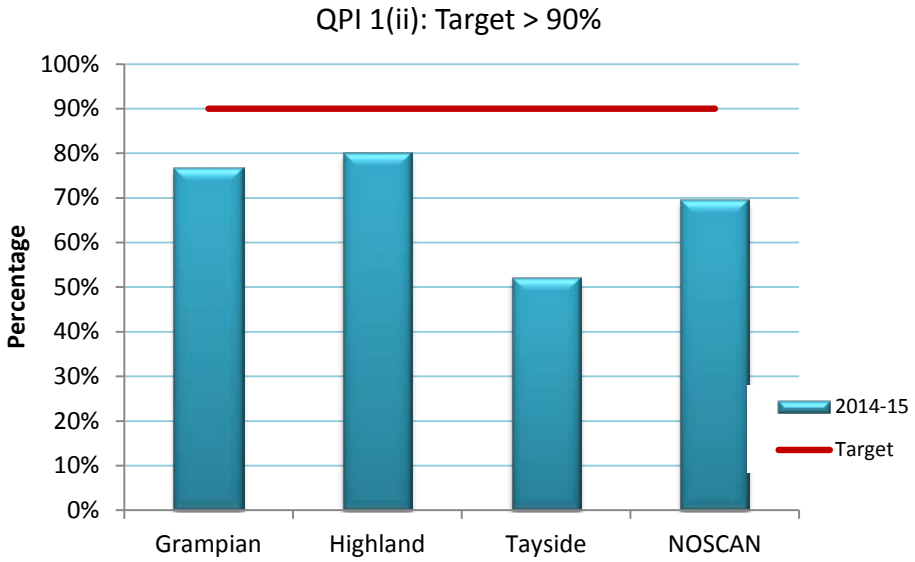
- Patients who refuse investigation.
- Patients with primary cutaneous lymphoma.

Target: 90%

QPI 1(ii) Performance against target

Of the 223 patients diagnosed with lymphoma in the North of Scotland and undergoing treatment with curative intent, 115 had Computed Tomography (CT) scanning of the chest, abdomen and pelvis prior to treatment and within 2 weeks of the radiology request. This equates to a rate of 69.5% and is well below the target rate of 90%. Results are not comparable with those from 2013-14 due to changes in the way the QPI has been measured.

None of the NHS Boards in the North of Scotland met this QPI with the exception of NHS Shetland, where results were based on very small numbers of patients. Results for NHS Tayside were lower than for other Boards, reflecting the broad pattern of results in 2013-2014.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	**76.8%**	76	99	0	0%	0	0%	0
Highland	**80.0%**	40	50	3	6.0%	0	0%	0
Orkney	**-**	0	0	0	-	0	-	0
Shetland*	**-**	-	-	-	-	-	-	-
Tayside	**52.1%**	38	73	0	0%	0	0%	12
NoS	**69.5%**	**155**	**223**	**3**	**1.3%**	**0**	**0%**	**12**

All patients in NOSCAN have appropriate imaging, but this QPI has not been achieved as CT or PET scans were delivered out-with the mandated timeframes. This requires action at

NOSCAN/Board level. It is important to note that no patients have experienced an adverse clinical outcome (relapse or disease progression) as a result of these delays.

Actions Required:

- **NHS Boards to improve timeliness of radiological investigations and reporting for patients with lymphoma.**

- **MCN to escalate the concerns with the timeliness of radiological scans to RCAF.**

QPI 2: Treatment Response

QPI2: Treatment Response: Patients with Diffuse Large B Cell Lymphoma (DLBCL) who are treated with curative intent should have their response to treatment evaluated with appropriate imaging.

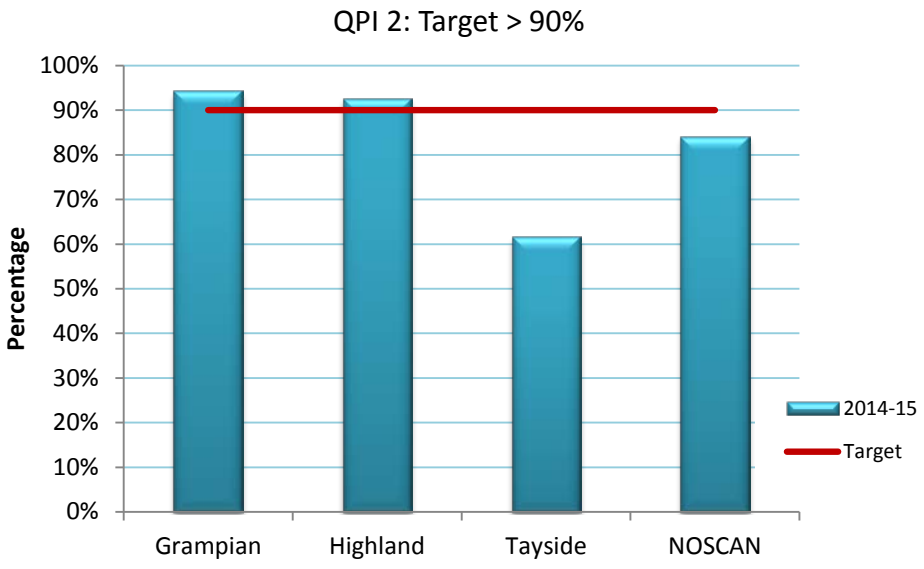
CT scanning is recommended as the most appropriate method of response assessment following chemotherapy for DLBCL as treatment response may not be clinically obvious.

Numerator:	Number of patients with DLBCL who are undergoing chemotherapy treatment with curative intent who undergo CT of chest, abdomen and pelvis or PET CT at the end of chemotherapy treatment.
Denominator:	All patients with DLBCL who are undergoing chemotherapy treatment with curative intent.
Exclusions:	Patients who die during treatment.
Target:	90%

QPI 2 Performance against target

Overall results for the North of Scotland indicate that 84.1% of patients with Diffuse Large B Cell Lymphoma had their response to treatment evaluated with CT scan of the chest, abdomen and pelvis or PET CT at the end of chemotherapy treatment. This is below the target rate of 90%. Results are not comparable to those from 2013-2014 due to changes in the way the QPI is calculated.

At an NHS Board level this QPI was met in NHS Grampian and NHS Highland but not in NHS Tayside.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	**94.3%**	33	35	0	0%	0	0%	0
Highland	**92.6%**	25	27	0	0%	2	7.4%	0
Orkney	**-**	0	0	0	-	0	-	0
Shetland	**-**	0	0	0	-	0	-	0
Tayside	**61.5%**	16	26	0	0%	0	0%	1
NoS	**84.1%**	**74**	**88**	**0**	**0%**	**2**	**2.3%**	**1**

Please see comments and actions for QPI 1.

NHS Tayside are currently auditing the utility of a routine 'midpoint scan', with the hope of rationalising the use of scanning and reducing pressure on the radiology department. Data are being collected prospectively until the end of 2016.

Actions required:

No further actions were identified.

QPI 3: Positron Emission Tomography (PET CT) Staging

QPI 3: Positron Emission Tomography (PET CT) Staging: Patients with Classical Hodgkin Lymphoma should be evaluated with PET CT scanning to detect the extent of disease and guide treatment decision making.

Accurate staging is important to ensure appropriate treatment is delivered and futile interventions avoided.

All newly diagnosed patients with CHL being considered for curative therapy should have a baseline PET CT scan.

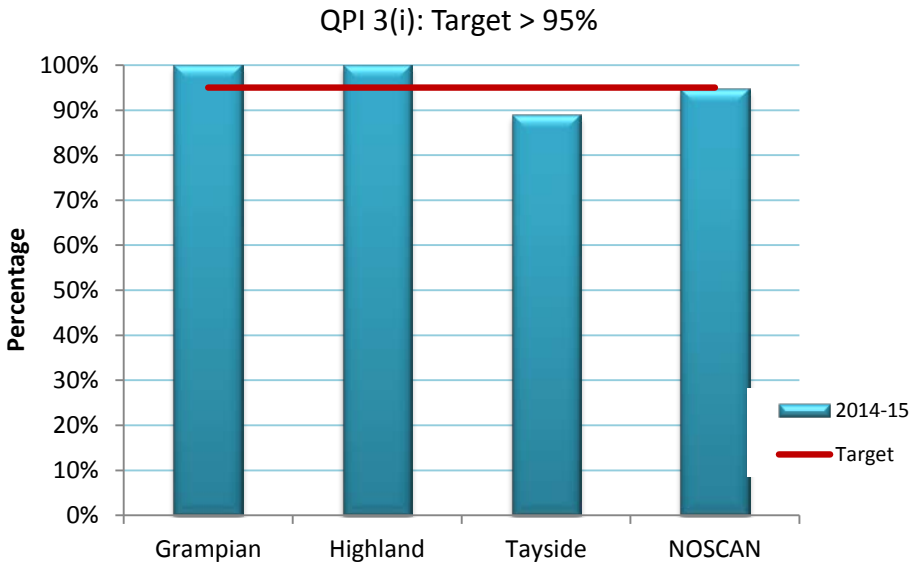
Specification (i)

Numerator:	Number of patients with CHL undergoing treatment with curative intent who undergo PET CT prior to treatment.
Denominator:	All patients with CHL undergoing treatment with curative intent.
Exclusions:	Patients who refuse investigation.
Target:	95%

QPI 3 (i) Performance against target

36 out of 38 patients diagnosed with Classical Hodgkin Lymphoma in the North of Scotland during the period audited and undergoing treatment with curative intent (94.7%) were evaluated with PET CT scanning prior to first treatment; this means that at a regional level, the target of 95% was narrowly missed. There are no comparable data for 2013-2014.

At an NHS Board level this QPI was met by NHS Grampian and NHS Highland, but not by NHS Tayside.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	**100%**	10	10	0	0%	0	0%	0
Highland	**100%**	10	10	0	0%	0	0%	0
Orkney	**-**	0	0	0	-	0	-	0
Shetland	**-**	0	0	0	-	0	-	0
Tayside	**88.9%**	16	18	0	0%	0	0%	1
NoS	**94.7%**	**36**	**38**	**0**	**0%**	**0**	**0%**	**1**

QPI 3: Positron Emission Tomography (PET CT) Staging: Patients with Classical Hodgkin Lymphoma should be evaluated with PET CT scanning to detect the extent of disease and guide treatment decision making.

Specification (ii)

Numerator: Number of patients with CHL undergoing treatment with curative intent who undergo PET CT prior to treatment and within 2 weeks of radiology request.

Denominator: All patients with CHL undergoing treatment with curative intent.

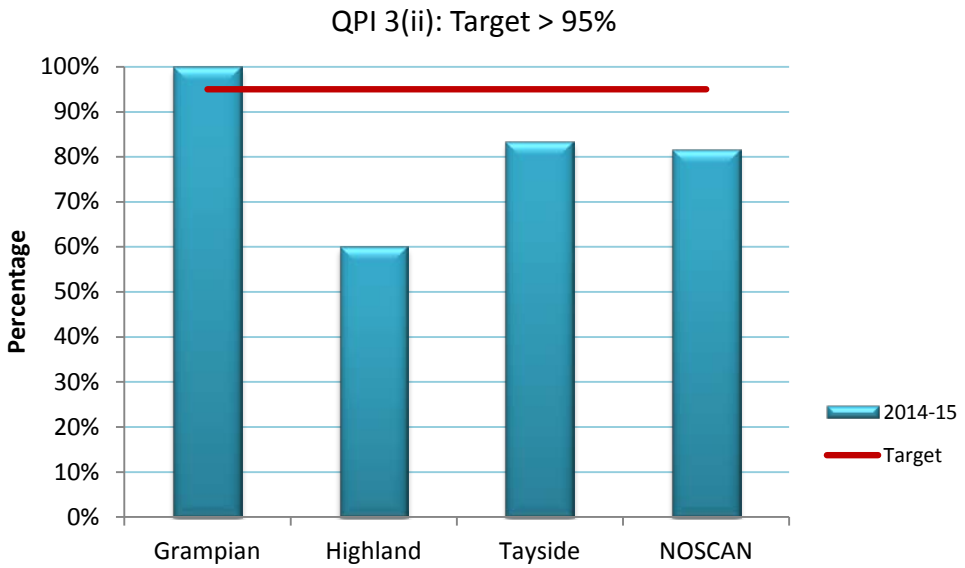
Exclusions: Patients who refuse investigation.

Target: 95%

QPI 3 (ii) Performance against target

31 out of 38 patients measured within this QPI (81.6%) were evaluated with PET CT scanning prior to first treatment and within 2 weeks of the radiology request; this means that at a regional level, the target of 95% was not met. Comparison with data from 2013-2014 is not possible due to changes in the way this QPI is calculated.

This QPI was met by NHS Grampian but not by NHS Highland and NHS Tayside.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	**100%**	10	10	0	0%	0	0%	0
Highland	**60.0%**	6	10	2	20%	0	0%	0
Orkney	**-**	0	0	0	-	0	-	0
Shetland	**-**	0	0	0	-	0	-	0
Tayside	**83.3%**	15	18	0	0%	0	0%	1
NoS	**81.6%**	**31**	**38**	**2**	**5.3%**	**0**	**0%**	**1**

See comments and actions for QPI 1. NHS Highland have particular difficulty in meeting this QPI since there are no facilities within the board for this investigation, and patients need to travel to Aberdeen for their PET CT scan. NHS Highland is currently exploring the possibility of establishing a PET scanner at Raigmore Hospital.

Actions Required:

- **MCN to facilitate discussion on how PET CT scanning services can be appropriately provided for patients throughout the North of Scotland.**

QPI 4: Cytogenetic Testing

QPI 4: Cytogenetic Testing: Patients with Burkitt lymphoma and Diffuse Large B-Cell Lymphoma (DLBCL) should have MYC testing as part of diagnostic process, to identify those who may require central nervous system (CNS) prophylaxis and alternative treatment.

Classical cytogenetic or Fluorescence in Situ Hybridization (FISH) analysis is essential for the diagnosis of Burkitt lymphoma.

Rearrangements of MYC in DLBCL are a strong prognostic factor and will guide treatment options and provide important information to help inform patients and carers about the nature of the disease and prognosis.

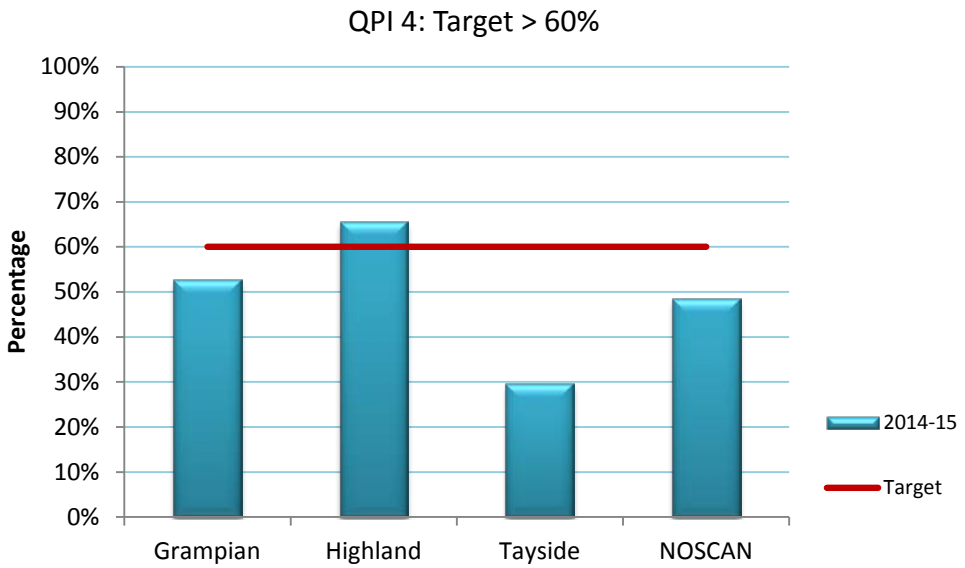
Deregulation of MYC in DLBCL, as occurs in translocations involving the long arm of chromosome 8, is highly associated with aggressive disease and a poor prognosis. Detection of such a translocation by FISH is an important prognostic factor and will often lead to a change in management.

Numerator:	Number of patients with Burkitt lymphoma and DLBCL undergoing treatment with curative intent who have MYC testing prior to treatment.
Denominator:	All patients with Burkitt lymphoma and DLBCL undergoing treatment with curative intent.
Exclusions:	No exclusions.
Target:	60%

QPI 4 Performance against target

Of the 101 patients diagnosed with Burkitt Lymphoma and Diffuse Large B-Cell Lymphoma in the North of Scotland in 2014 – 2015 and undergoing treatment with curative intent, overall results indicated that 49 (48.5%) had MYC testing prior to treatment. This was below the target rate of 60%. As the way in which this QPI is calculated has changes it is not possible to compare results with those from 2013-2014 data.

At individual Board level this QPI was only met by NHS Highland.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	**52.6%**	20	38	4	10.5%	0	0%	0
Highland	**65.5%**	19	29	0	0%	0	0%	0
Orkney	**-**	0	0	0	-	0	-	0
Shetland	**-**	0	0	0	-	0	-	0
Tayside	**29.4%**	10	34	0	0%	0	0%	2
NoS	**48.5%**	**49**	**101**	**4**	**4.0%**	**0**	**0%**	**2**

The clinical relevance of this QPI for all patients is questionable. There is varying practice regarding how a positive MYC test result affects treatment in Scotland, since data from clinical trials are not consistent. It is unrealistic to have the MYC test results before treatment for all patients, as DLBC NHL is aggressive and there is often a need to proceed with treatment quickly. There have also been some issues with under reporting of results, for example no documented evidence on pathology reports of a negative result or if a decision was taken not to test on clinical grounds.

Actions Required:

- **NHS Tayside Pathology report to stipulate 3 options on Pathology report or addendum for MYC test results; 1 Positive, 2 Negative, 3 Not Done.**
- **MCN to suggest that the Formal Review of Lymphoma QPIs (2017) considers amending QPI 4 to include only those patients for which MYC testing is agreed to be appropriate, to address conflicting evidence on the impact of MYC results on treatment.**

- **MCN to recommend to the Formal Review of Lymphoma QPIs (2017) that QPI 4 be amended so that the QPI is met if MYC results are available within 4 weeks of diagnosis. It is not feasible or necessary to have result before starting appropriate therapy.**

QPI 5: Lymphoma MDT

QPI 5: Lymphoma MDT: Patients with lymphoma should be discussed by a multidisciplinary team following diagnosis.

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.

Numerator: Number of patients with lymphoma discussed at the MDT within 6 weeks of diagnosis.

Denominator: All patients with lymphoma.

Exclusions:

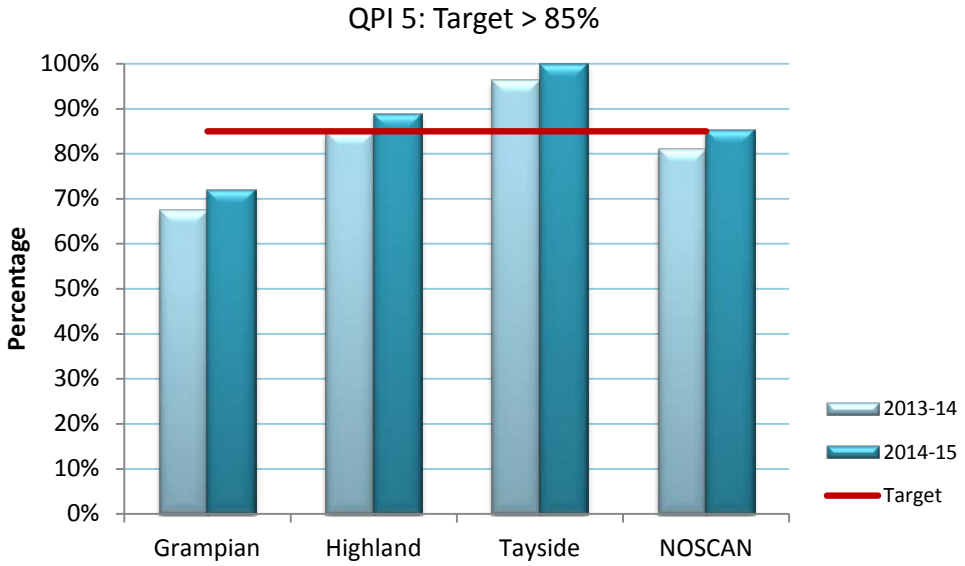
- Patients who died before first treatment.
- Patients with primary cutaneous lymphoma.

Target: 85%

QPI 5 Performance against target

Overall in 2014 - 2015, 249 out of 292 patients diagnosed with lymphoma in the NoS were discussed at the MDT within 6 weeks of diagnosis. At a rate of 85.3%, this meets the required target of 85% of patients and is an increase from the 2013-2014 result of 80.9%.

At an NHS Board level this QPI was met by NHS Tayside and NHS Highland but not NHS Grampian. Variations in performance across NHS Boards in 2014-2015 were similar to that in 2013-2014, with performance improving for all Boards.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2013-2014
Grampian	**71.8%**	89	124	0	0%	0	0%	0	+4.3%
Highland	**88.9%**	56	63	0	0%	0	0%	0	+4.1%
Orkney*	**-**	-	-	-	-	-	-	-	-
Shetland*	**-**	-	-	-	-	-	-	-	-
Tayside	**100%**	102	102	0	0%	0	0%	0	+3.6%
NoS	**85.3%**	**249**	**292**	**0**	**0%**	**0**	**0%**	**0**	**+4.4%**

NHS Grampian failed to meet this QPI as a consequence of the issues with timely radiological staging highlighted in QPI 1 above. NHS Grampian have altered practice and now discuss cases in advance of staging scans, so that this QPI will now be met. The addressing of radiology issues across NOSCAN would also be helpful.

In NHS Highland all patients were discussed at MDT, but there was some difficulty with electronic documentation, which is currently being addressed.

Actions Required:

- **NHS Highland to discuss electronic recording of the MDT process.**

QPI 6: Treatment for Follicular Lymphoma and Diffuse Large B-Cell Lymphoma

QPI 6: Treatment for Follicular Lymphoma and Diffuse Large B-Cell Lymphoma: Patients with symptomatic advanced follicular lymphoma and diffuse Large B Cell Lymphoma (DLBCL) should undergo treatment with Rituximab in combination with chemotherapy.

Patients with symptomatic advanced stage follicular lymphoma and DLBCL should receive rituximab in combination with chemotherapy as this increases response to chemotherapy and provides a progression free, and overall, survival benefit.

Numerator: Number of patients with follicular lymphoma and DLBCL who receive chemotherapy in combination with Rituximab.

Denominator: All patients with follicular lymphoma and DLBCL who receive chemotherapy.

Exclusions:

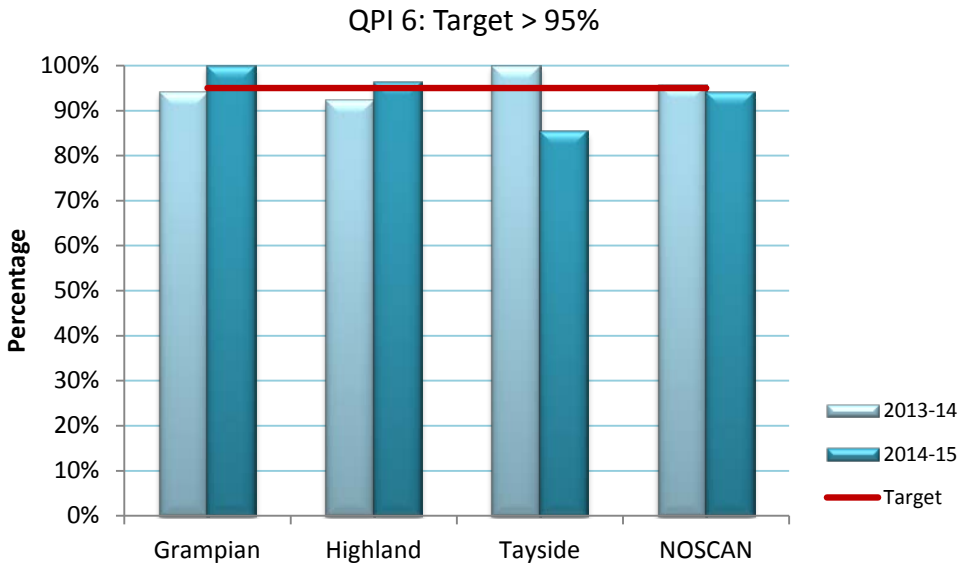
- Patients who refuse chemotherapy.
- Patients enrolled in clinical trials.

Target: 95%

QPI 6 Performance against target

In 2014 - 2015, 94.0% of patients diagnosed with Follicular Lymphoma and Diffuse Large B-Cell Lymphoma and receiving chemotherapy in the North of Scotland also received Rituximab. This falls just short of the target of 95% and is slightly lower than the 2013-2014 result of 95.8%.

At Board level this QPI was met in NHS Grampian and NHS Highland but not in NHS Tayside, with results improving in some Boards but falling in NHS Tayside.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2013-2014
Grampian	**100%**	57	57	0	0%	0	0%	0	+5.8%
Highland	**96.4%**	27	28	0	0%	1	3.6%	0	+4.1%
Orkney	**-**	0	0	0	-	0	-	0	-
Shetland	**-**	0	0	0	-	0	-	0	-
Tayside	**85.4%**	41	48	0	0%	0	0%	0	-14.6%
NoS	**94.0%**	**125**	**133**	**0**	**0%**	**1**	**0.8%**	**0**	**-1.8%**

This QPI was met in NHS Highland and NHS Grampian. In NHS Tayside it is difficult to understand why this QPI was not met as most patients do receive Rituximab based treatment first line. It is suspected results have been affected by recording difficulties and NHS Tayside have addressed deficiencies in data collection by increasing input to audit team from responsible consultants.

Actions Required:

No further actions were identified.

QPI 7: Treatment of Grade 3b Follicular Lymphoma

QPI 7: Treatment of Grade 3b Follicular Lymphoma: Patients with grade 3b follicular lymphoma should be treated as per Diffuse Large B-cell Lymphoma (DLBCL).

Patients with histological grade 3b follicular lymphoma should be treated as if they have DLBCL, with rituximab in combination with a regimen of cyclophosphamide, doxorubicin, vincristine and prednisolone (R-CHOP).

Numerator: Number of patients with grade 3b follicular lymphoma who receive R-CHOP chemotherapy.

Denominator: All patients with grade 3b follicular lymphoma.

Exclusions:

- Patients who refuse chemotherapy.
- Patients enrolled in clinical trials.
- Patients who died before chemotherapy treatment.

Target: 95%

QPI 7 Performance against target

Both of the two patients diagnosed with grade 3b follicular lymphoma during 2014-2015 in the NoS received R-CHOP chemotherapy (100%), which exceeds the target rate of 95%. This was the same as in 2013-2014.

Due to small numbers data are not presented at NHS Board level and it is not possible to compare results between NHS Boards in the North of Scotland.

Actions Required:

- **MCN to consideration of appropriateness of QPI 7 at a regional level and feed back to Formal Review of Lymphoma QPIs (2017) as appropriate.**

QPI 8: Treatment for Stage 1a Diffuse Large B Cell Lymphoma

QPI 8: Treatment for Stage 1a Diffuse Large B Cell Lymphoma – Patients with stage 1a Diffuse Large B-Cell Lymphoma (DLBCL) should receive combination modality treatment.

Local radiotherapy, in conjunction with chemotherapy, reduces the chance of local relapse and improves overall survival for patients with stage 1a DLBCL.

Numerator: Number of patients with nodal, non-bulky stage 1a DLBCL who receive local radiotherapy, in combination with limited chemotherapy (3 cycles).

Denominator: All patients with nodal, non-bulky stage 1a DLBCL.

Exclusions:

- Patients who refuse chemotherapy or radiotherapy treatment.
- Patients with contraindication to local radiotherapy (e.g. prior radiotherapy or severe connective tissue disease).
- Patients enrolled in clinical trials.
- Patients who died before chemotherapy or radiotherapy treatment.

Target: 90%

QPI 8 Performance against target

In 2014-2015 in the NoS, there was only one patient recorded as having nodal, non-bulky stage 1a Diffuse Large B-Cell Lymphoma. This patient did not receive local radiotherapy in combination with limited chemotherapy, which means that the required target of 90% was not met. It is not possible to compare results with previous years' data due to significant changes in the way that this QPI has been measured.

Due to small numbers of patients included within this QPI, data are not presented in graphical or tabular form and it is not possible to compare results between NHS Boards in the North of Scotland.

The required NHS Tayside data were not available for reporting this cycle, as Cotswold stage and bulk disease information was not collected prospectively during the period audited.

There were few relevant patients in NOSCAN over the recording period. More recent national guidance also raises the question of whether this remains clinically relevant. Use of radiotherapy is now not mandated in BCSH guidelines and it is considered reasonable to withhold radiotherapy, especially if there are concerned about late effects.

Actions Required:

- **MCN to consideration of appropriateness of QPI 8 at a regional level and feed back to Formal Review of Lymphoma QPIs (2017) as appropriate.**

QPI 9: Treatment for Classical Hodgkin Lymphoma

QPI 9: Treatment for Classical Hodgkin Lymphoma – Patients with early stage Classical Hodgkin Lymphoma (CHL) should receive combined modality treatment.

For patients with early stage CHL chemotherapy, followed by radiotherapy was the recommended treatment option. However, recent evidence from clinical trials (e.g. RAPID trial) suggests that radiotherapy does not always provide added benefit for patients. As such, the need for radiotherapy should be discussed with patients on a case by case basis.

Numerator: Number of patients with stage 1a or 2a CHL who receive combined modality treatment (chemotherapy and radiotherapy).

Denominator: All patients with stage 1a or 2a CHL.

Exclusions:

- Patients who refuse chemotherapy or radiotherapy treatment.
- Patients with contraindication to local radiotherapy (e.g. prior radiotherapy or severe connective tissue disease).
- Patients enrolled in clinical trials.

Target: 80%

QPI 9 Performance against target

Though numbers were small in 2014-2015, two of the three patients identified with stage 1a or 2a Classical Hodgkin Lymphoma in the North of Scotland received combined modality treatment (66.7%). This is below the required target of 80% but higher that the 2013-2014 figures.

Due to small numbers of patients included within this QPI, data are not presented in graphical or tabular form and it is not possible to compare results between NHS Boards in the North of Scotland.

In NHS Tayside, as for QPI 8, as Cotswold stage was not collected prospectively during 2014-2015 it was not possible to include all relevant patients within the NHS Tayside figures.

The target for this QPI is now considered to be too high in light of evolving clinical evidence, as it is now considered reasonable to omit radiotherapy if the PET scan is negative after chemotherapy. This should be discussed with the patient.

Actions Required:

- **MCN to suggest that the Formal Review of Lymphoma QPIs (2017) considers amending QPI 9.**

QPI 10: Primary Cutaneous Lymphoma

QPI 10: Primary Cutaneous Lymphoma – Patients with primary cutaneous lymphoma should be discussed at a specialist MDT meeting.

A specialist MDT for patients with primary cutaneous lymphoma facilitates clinico-pathological correlation, which is very important in this group of conditions where treatment is multi-faceted. Furthermore it allows for consolidation of expertise in this rare condition which will help develop robust diagnosis and management.

Numerator:	Number of patients with primary cutaneous lymphoma who are discussed at a specialist MDT meeting.
Denominator:	All patients with primary cutaneous lymphoma.
Exclusions:	No exclusions.
Target:	95%

QPI 10 Performance against target

In 2014-2015 there were two patients diagnosed with primary cutaneous lymphoma in the NoS. None of these (0%) were discussed at specialist MDT meetings, which is below the required target of 95% and a decrease compared with the 2013-2014 figure of 66.7%

Due to small numbers data are not presented at NHS Board level and it is not possible to compare results between NHS Boards in the North of Scotland.

In NOSCAN, very small patient numbers make it impractical for a Dermatologist to attend the Haematology MDT or vice versa. However, all cases are seen at the Dermatology MDT and referred on to Haematology for clinical input (and MDT review) if clinically appropriate.

Actions Required:

- **MCN to suggest that the Formal Review of Lymphoma QPIs (2017) considers amending QPI 10 so that patients discussed at a Dermatology MDT meet this indicator.**

QPI 11: Hepatitis and HIV Status

QPI 11: Virological testing for Human Immunodeficiency Virus (HIV), hepatitis B and C should be undertaken for patients undergoing Rituximab treatment.

Clinical assessment and virological testing for HIV, hepatitis B and C should be undertaken for all patients as part of the diagnostic process and in all patients considered at risk of virus reactivation.

All patients who are found to be hepatitis B should receive the appropriate anti-viral prophylaxis and those found to be HIV positive should receive appropriate anti-retroviral treatment before commencing treatment.

Numerator: Number of patients with lymphoma undergoing Rituximab based treatment who have hepatitis B, C and HIV status checked prior to treatment.

Denominator: All patients with lymphoma undergoing Rituximab based treatment.

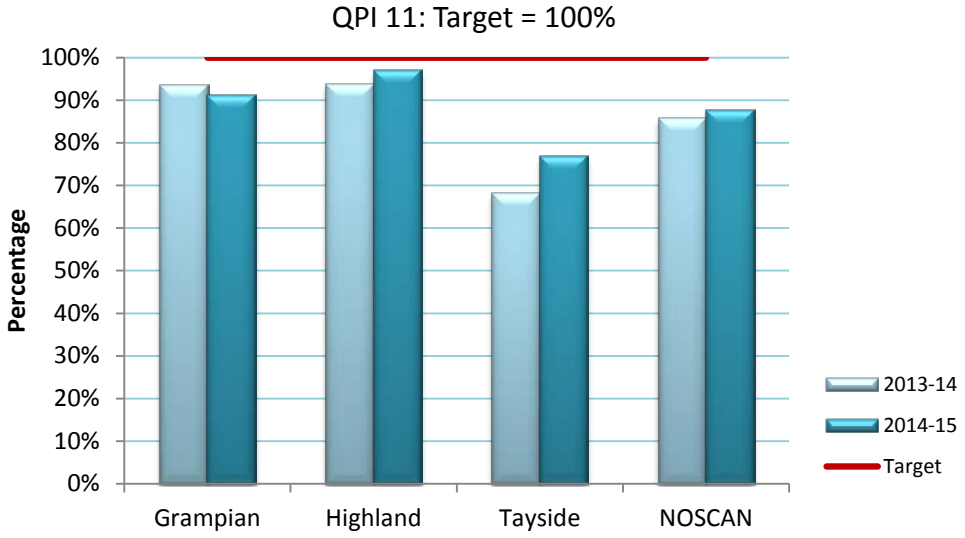
Exclusions: No exclusions.

Target: 100%

QPI 11 Performance against target

In 2014-2015 there were 169 patients diagnosed with lymphoma and undergoing Rituximab based treatment in the North of Scotland. Of these 148 (87.6%) had their hepatitis B, C and HIV status checked prior to treatment. This is below the required target of 100% and similar to the 2013-2014 result of 85.8%.

At an NHS Board level no NHS Boards in the North of Scotland met this QPI, although it should be noted that a 100% target is likely to always present a challenge. Results for NHS Tayside were lower than those for NHS Highland and NHS Grampian for the second year.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2013-2014
Grampian	**91.1%**	72	79	0	0%	0	0%	0	-2.4%
Highland	**97.1%**	33	34	0	0%	0	0%	0	+3.3%
Orkney	**-**	0	0	0	-	0	-	0	-
Shetland	**-**	0	0	0	-	0	-	0	-
Tayside	**76.8%**	43	56	3	5.4%	0	0%	0	+8.6%
NoS	**87.6%**	**148**	**169**	**3**	**1.8%**	**0**	**0%**	**0**	**+1.8%**

These figures are disappointing and in NHS Tayside further education has taken place following audit of these results. Preliminary analysis of recent performance suggests a significant improvement in results for NHS Tayside for 2015-2016.

Actions Required:

No further action 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 lymphoma enrolled in an interventional clinical trial of translational research.

Denominator: All patients with lymphoma.

Exclusions: No Exclusions

Target: Interventional clinical trials – 7.5%

Translational research - 15%

Key points during the period audited:

- 1.0% of patients with lymphoma in the North of Scotland were recruited into interventional clinical trials in one of the three cancer centres in the region in 2015; this is below the required target of 7.5%.
- Recruitment into translational research was higher at 3.0%, and fell well below the more challenging target which is set at 15%.

	Number of patients recruited	ISD Cases annual average (2010-2014)	Percentage of patients recruited
Interventional Clinical Trials	3	300	**1.0%**
Translational Research	15	300	**5.0%**

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 who 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 lymphoma trials that are currently open to recruitment in the NoS 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 lymphoma cancer.

During 2015 in NOSCAN, there were 4 interventional trials and 1 translational trial open and recruiting patients, thereby offering patients with a lymphoma cancer diagnosis the opportunity to participate in a range of different lymphoma tumour types and levels of treatment investigation. Furthermore, all the lymphoma 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 lymphoma cancer in the NoS during 2015, 5 (1.67%) patients were screened for interventional trials and 15 (5%) were screened for translational trials during the reporting period

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 NoS. 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.

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 second time the results of the Lymphoma QPIs have been reported in the North of Scotland, providing a clearer measure of performance across the region and a more formal structure around which improvements will be made.

Following the first year of QPI reporting of the Lymphoma QPIs[12] NOSCAN highlighted some areas where the QPI definitions should be reconsidered. Following a national review of the lymphoma QPIs in 2015, refinements have been made to the way in which some of the QPIs are calculated to make results more clinically relevant. Consequently, while some QPI results are compared with those from 2013-2014, such comparisons have not been possible where QPI definitions have changed significantly.

Overall, results of Lymphoma QPI reporting for patients diagnosed in 2014-2015 are mixed. Case ascertainment and data capture was of an overall high standard, although some recording issues were identified, for example recording of staging in NHS Tayside.

The second North of Scotland comparative performance report indicates that QPI targets were met over the North of Scotland for two of the 12 QPIs. For the ten QPIs where the target was not met four main issues are apparent:

1) Targets for radiology are not being met. All patients were scanned appropriately but these investigations did not occur within the required timescales. It is recognised that all radiology centres in NOSCAN are under immense pressure from increasing demand from all users, and this has been compounded by workforce issues. This requires further input at a higher level as individual cancer clinicians are unable to solve these difficulties.

2) In the context of rapidly evolving clinical evidence, some QPIs are no longer appropriate. For example, QPI's 8 and 9 mandate the need for radiotherapy, while more recent evidence and guidelines mean this is no longer appropriate. There will be an opportunity to update the QPIs in light of this evidence following the reporting of the third year of QPI data in 2017.

3) The small numbers of patients included within some QPIs (e.g. QPIs 7-10) results in QPI results for an individual year being less representative of the broader clinical service being delivered.

4) Issues with documentation of results or MDT discussions (QPI 4, 5 and 6).

Results from the second year of QPI reporting have helped to identify the following actions to improve on the quality of clinical services for patients with lymphoma in the North of Scotland:

- **NHS Boards to improve timeliness of radiological investigations and reporting for patients with lymphoma.**
- **MCN to escalate the concerns with the timeliness of radiological scans to RCAF.**
- **MCN to facilitate discussion on how PET CT scanning services can be appropriately provided for patients throughout the North of Scotland.**
- **NHS Tayside Pathology report to stipulate 3 options on Pathology report or addendum for MYC test results; 1 Positive, 2 Negative, 3 Not Done.**
- **NHS Highland to discuss electronic recording of the MDT process.**

In 2017, following the third year of Lymphoma QPI reporting, there will be a Formal review of the Lymphoma QPIs. The review will providing an opportunity to amend the QPIs to ensure they continue to be indicators of a quality service for patients diagnosed with Lymphoma. A number of amendments to QPIs are proposed in this report that will be raised at this review. These are listed below:

- **MCN to suggest that the Formal Review of Lymphoma QPIs (2017) considers amending QPI 4 to include only those patients for which MYC testing is agreed to be appropriate, to address conflicting evidence on the impact of MYC results on treatment.**
- **MCN to recommend to the Formal Review of Lymphoma QPIs (2017) that QPI 4 be amended so that the QPI is met if MYC results are available within 4 weeks of diagnosis. It is not feasible or necessary to have result before starting appropriate therapy.**
- **MCN to consideration of appropriateness of QPI 7 at a regional level and feed back to Formal Review of Lymphoma QPIs (2017) as appropriate.**
- **MCN to consideration of appropriateness of QPI 8 at a regional level and feed back to Formal Review of Lymphoma QPIs (2017) as appropriate.**
- **MCN to suggest that the Formal Review of Lymphoma QPIs (2017) considers amending QPI 9.**
- **MCN to suggest that the Formal Review of Lymphoma QPIs (2017) considers amending QPI 10 so that patients discussed at a Dermatology MDT meet this indicator.**

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 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 Lead Cancer Clinician and Regional Lead Cancer Clinician.

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

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12. NOSCAN, 2015. Audit Report: Lymphoma Quality Performance Indicators. Patients diagnosed October 2014 – September 2015. http://www.noscan.scot.nhs.uk/guidelinesandprotocols/CancerQPIs/QPIreporting/Pages/default.aspx

Appendix 1: Open clinical trials for lymphoma that recruited patients in NOSCAN in 2015.

Trial	Principle Investigator	Trial Type
A+AVD vs ABVD in first line advanced Hodgkin Lymphoma	Dominic Culligan (Grampian) Peter Forsyth (Highland)	Interventional
PACIFICO	Dominic Culligan (Grampian) Peter Forsyth (Highland)	Interventional
REMoDLB	Peter Forsyth (Highland)	Interventional
MaPLE	Peter Forsyth (Highland)	Translational

Appendix 2: Blank NHS Board Action Plan Template

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

NOSCAN
North of Scotland Cancer Network

Action Plan: Lymphoma

Based on QPI results for patients diagnosed 2014-2015

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*