Quality Performance Indicators Audit Report

Tumour Area:	Lymphoma
Patients Diagnosed:	October 2018 to September 2019
Published Date:	22nd December 2020
Clinical Commentary:	Dr David Meiklejohn (NHS Tayside) Dr Dominic Culligan (NHS Grampian) Dr Katherine Leighton (NHS Highland)

1. Lymphoma in Scotland

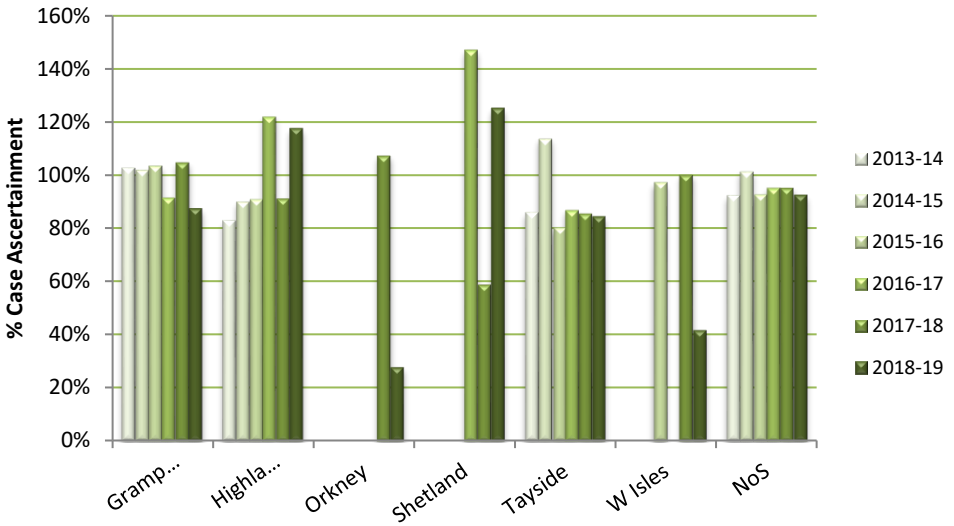
Non-Hodgkin's lymphoma is the eighth most common cancer type in Scotland, while incidence of Hodgkin's disease are much lower. Incidence of Non-Hodgkin's lymphoma have decreased by 12% in females over the last 10 years, while little change has been found in males, and although immunosuppression has been associated with the development of this disease, much has still to be understood about the causes of Non-Hodgkin's lymphoma[1]. Incidences of lymphoma are predicted to continue to increase over the coming years[2].
Relative survival from lymphoma is also increasing[3]. 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[3].

	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. Patient Numbers and Case Ascertainment in the North of Scotland

A total of 282 cases of lymphoma were recorded through audit as diagnosed in the North of Scotland between 1st October 2018 and 30th September 2019, similar to numbers in 2016-2017 and 2017-2018 (284 & 288 patients, respectively).
Overall case ascertainment for the North of Scotland was high at 92.5% which indicates good data capture through audit. 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.



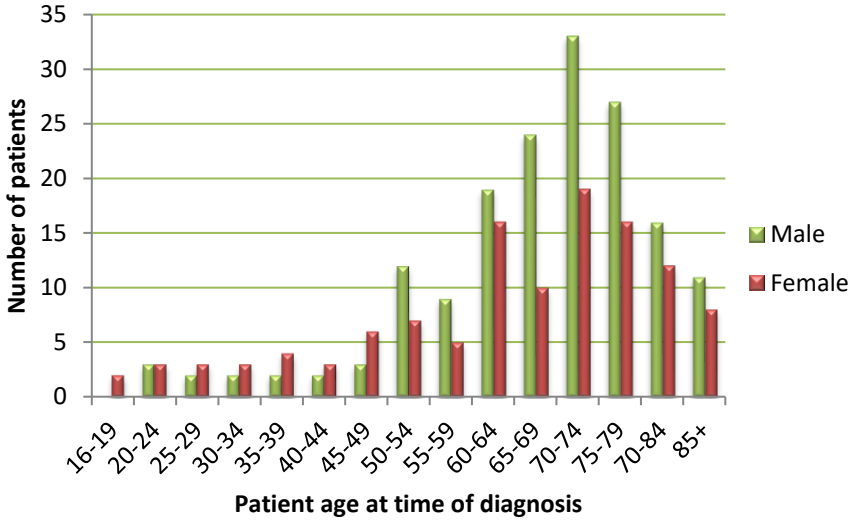
Case ascertainment by NHS Board for patients diagnosed with lymphoma 2013-2014 – 2018-2019 (ISD Cases for ISD-10 codes C81-C85).

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
Audit cases 2018-2019	118	78	1	5	79	1	**282**
Avg. ISD Cases (2014-2018)	135	66	4	4	94	2	**305**
% Case ascertainment 2018-2019	87.4%	117.5%	27.8%	125%	84.4%	41.7%	**92.5%**

Audit data were considered to be sufficiently complete to allow QPI calculations. The number of instances of data not being recorded was low, with the only notable gap being in the recording of the date of MYC testing. This date was unknown for some patients in NHS Grampian and NHS Tayside, which affected results for QPI 4 (i) & (ii).

3. Age and Gender Distribution

The figure below shows the age distribution of patients diagnosed with lymphoma in the North of Scotland during 2018-2019 for males and females. The number of diagnoses peaked in the 70-74 age group for both genders.



4. Performance against Quality Performance Indicators (QPIs)

Definitions for the QPIs reported in this section are published by Health Improvement Scotland[4], while further information on datasets and measurability used are available from Information Services Division[5]. Data are presented by Board of diagnosis and for the whole of the North of Scotland except QPI 14, clinical trials and research study access, which is reported by patients NHS Board of residence.

5. Governance and Risk

Governance is defined as the combination of structures and processes at all levels to ensure quality performance and improvement including:

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

The North Cancer Alliance governance structure provides assurance to the six North of Scotland NHS boards that QPI risks are being addressed as an alliance.

An assessment of clinical risk for each QPI is made by the tumour-specific Clinical Director and Pathway Board manager upon the availability of data. This is discussed collaboratively within the tumour-specific Pathway Board, achieving consensus on clinical risk status assigned.

This assessment of clinical risk is then discussed and agreed with the NCA Clinical Director and Regional Cancer Manager who take independent oversight of current QPI performance, mitigation and actions proposed. The NCA Clinical Director or Manager may propose that the risk status requires oversight from the North Cancer Clinical Leadership Group (NCCLG).

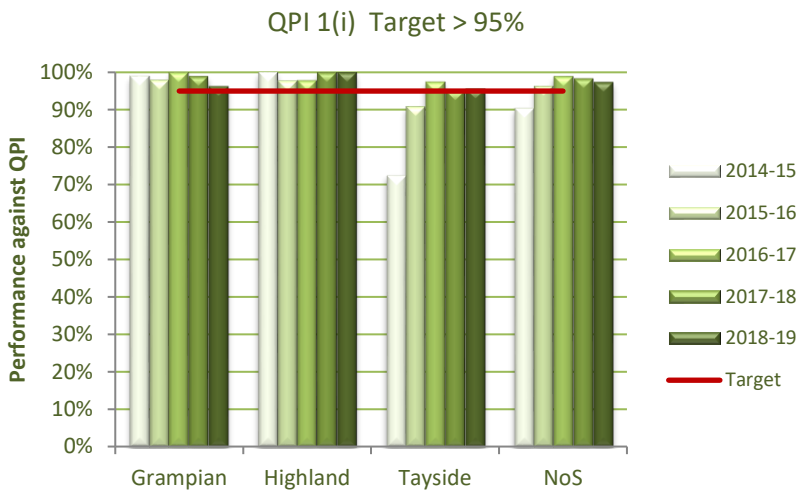
NCCLG are presented with all available evidence and actions so they have all the information to define the risk in a collaborative way. NCCLG confirm the risk status of each QPI and ensure QPIs requiring escalation can be directed through the NCA governance structure.

- **Tolerate -** Accept the risk at its current level
- **Mitigate -** Reduce or mitigate the risk, in terms of reducing the likelihood of its occurrence or reducing the severity of impact if it does occur. This can be assessed through the action plans provided or the information provided is appropriate to prevent reoccurrence.
- **Escalate -** Escalate the risk to the appropriate committee and/or take further action as the mitigations were not suitable or there are no actions identified to mitigate the risk. This will be revisited by the NCCLG for further risk discussion.
- **Immediate -** Immediate action is required to prevent the risk reoccurring. This risk will have major impact on patient care delivery and the consequences thereafter. Very few risks should occur in this level.
- **Manage –** The risk is currently being managed through an action plan developed in liaison with the tumour-specific Clinical Director / Pathway Board members. It is likely risks that have previously been escalated will be assigned this risk status until there is evidence of an improvement in QPI compliance.

The full governance document on risk should be referred to in conjunction with this summary, which is available on the NCA website[6].

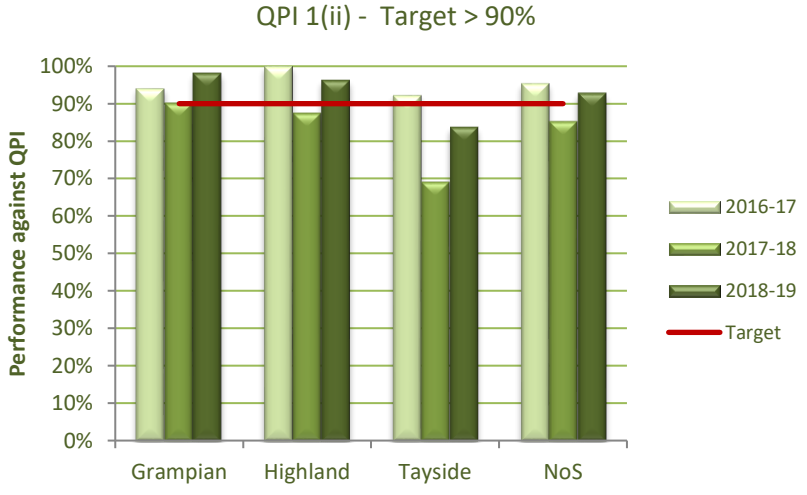
QPI 1	Radiological Staging
Proportion of patients with lymphoma undergoing treatment with curative intent who undergo Computed Tomography (CT) scanning of the chest, abdomen and pelvis or PET CT scanning prior to treatment, within 2 weeks of radiology request, and where the report is available within 3 weeks of radiology request.	

Specification (i) Patients with lymphoma undergoing treatment with curative intent who are evaluated with appropriate imaging.



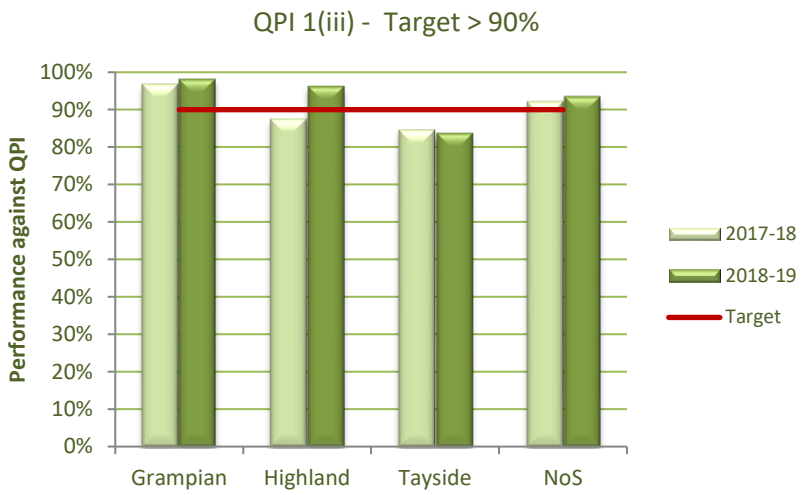
	Performance (%)	Numerator	Denominator
Grampian	**96.3%**	52	54
Highland	**100%**	51	51
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**95.6%**	43	45
W Isles*	-	-	-
NoS	**97.4%**	**152**	**156**

Specification (ii) Patients with lymphoma undergoing treatment with curative intent who are evaluated with appropriate imaging and within 2 weeks of radiology request.



	Performance (%)	Numerator	Denominator
Grampian	**98.1%**	51	52
Highland	**96.2%**	50	52
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**83.7%**	36	43
W Isles*	-	-	-
NoS	**92.8%**	**142**	**153**

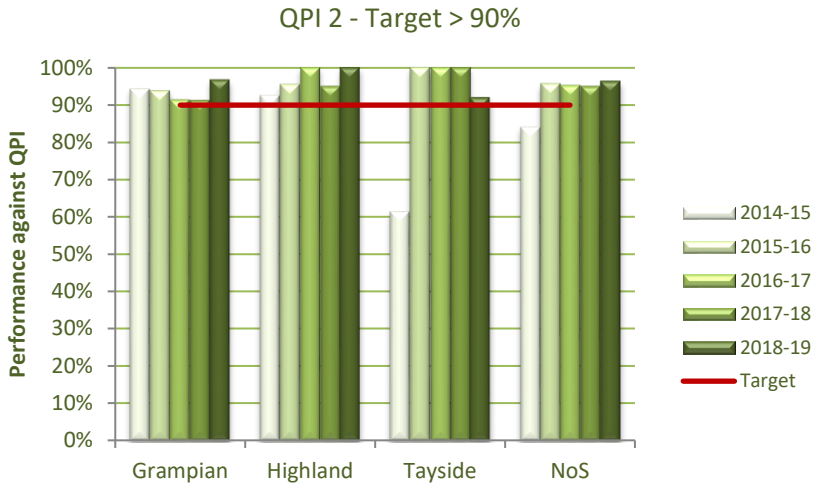
Specification (iii) Patients with lymphoma undergoing treatment with curative intent who are evaluated with appropriate imaging where the report is available within 3 weeks of radiology request.



	Performance (%)	Numerator	Denominator
Grampian	**98.1%**	51	52
Highland	**96.2%**	50	52
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**83.7%**	36	43
W Isles*	-	-	-
NoS	**93.5%**	**143**	**153**

Clinical Commentary	Improvements have been made in NHS Grampian and NHS Highland in this reporting year, now reaching the target, despite the continuing pressures on radiology services. NHS Grampian are still working towards lifting barriers that allow registrars to request PET CT scans and NHS Highland are now emailing requests for PET CTs which is reducing some delays. NHS Highland do still face logistical challenges with the absence of a PET CT scanner locally, resulting in patients having to travel to Aberdeen for scans. NHS Tayside did not meet the target this year due to delays in radiological reporting. There is significant and increasing pressure on radiology services requiring extra resource in the NoS health boards.
Actions	1. NCA to discuss issues of access to PET-CT with NHS Highland to ensure equity and sustainable access is available.
Risk Status	Manage

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 CT scan of the chest, abdomen and pelvis or PET CT scan.	

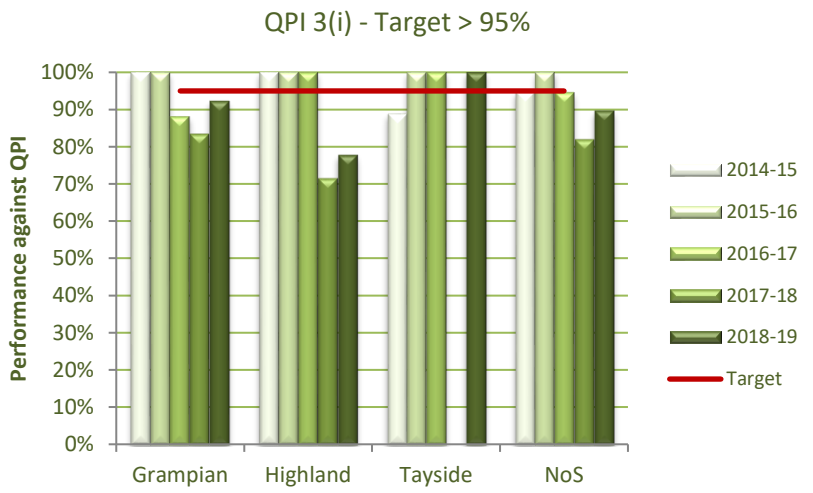


	Performance (%)	Numerator	Denominator
Grampian	**96.7%**	29	30
Highland	**100%**	26	26
Orkney	-	0	0
Shetland*	-	-	-
Tayside	**92%**	23	25
W Isles	-	**0**	**0**
NoS	**96.4%**	**80**	**83**

Clinical Commentary	
Actions	No actions required
Risk Status	Tolerate

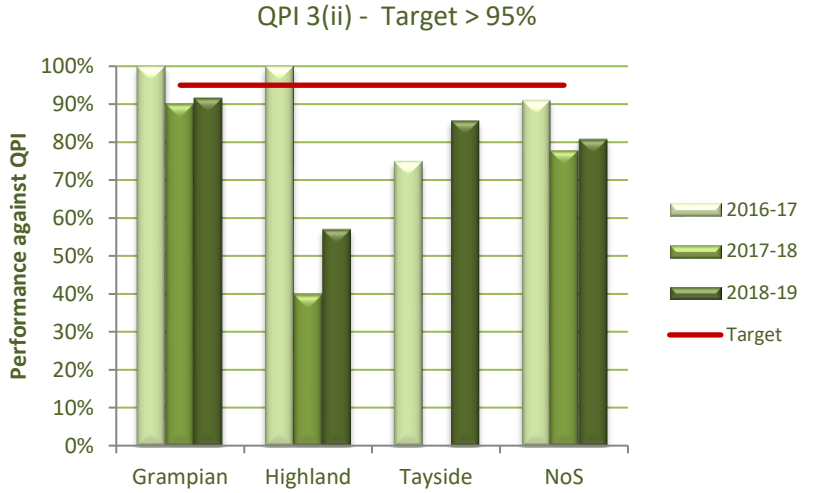
QPI 3	Positron Emission Tomography (PET CT) Staging
Proportion of patients with Classical Hodgkin Lymphoma (CHL) undergoing treatment with curative intent who undergo PET CT scan prior to first treatment, within 2 weeks of radiology request, and where the report is available within 3 weeks of radiology request.	

Specification (i) Patients with CHL undergoing treatment with curative intent who undergo PET CT scan prior to first treatment.



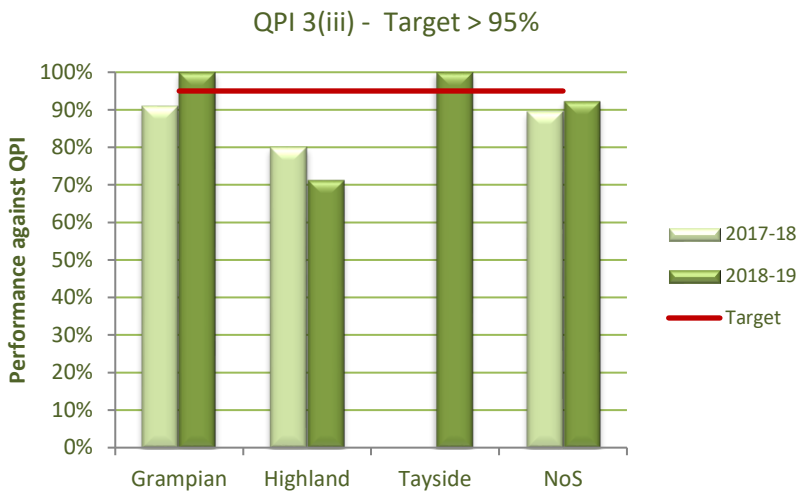
	Performance (%)	Numerator	Denominator
Grampian	**92.3%**	12	13
Highland	**77.8%**	7	9
Orkney	-	0	0
Shetland	-	0	0
Tayside	**100%**	7	7
W Isles	-	**0**	**0**
NoS	**89.7%**	**26**	**29**

Specification (ii) Patients with CHL undergoing treatment with curative intent who undergo PET CT scan prior to first treatment and within 2 weeks of radiology request



	Performance (%)	Numerator	Denominator
Grampian	**91.7%**	11	12
Highland	**57.1%**	4	7
Orkney	-	0	0
Shetland	-	0	0
Tayside	**85.7%**	6	7
W Isles	-	**0**	**0**
NoS	**80.8%**	**21**	**26**

Specification (iii) Patients with CHL undergoing treatment with curative intent who undergo PET CT scan prior to first treatment where the report is available within 3 weeks of radiology request.

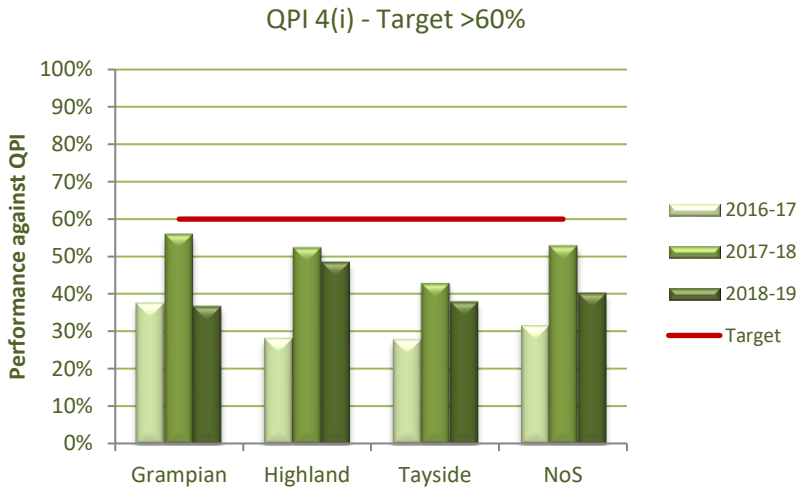


	Performance (%)	Numerator	Denominator
Grampian	**100%**	12	12
Highland	**71.4%**	5	7
Orkney	-	0	0
Shetland	-	0	0
Tayside	**100%**	7	7
W Isles	-	**0**	**0**
NoS	**92.3%**	**24**	**26**

Clinical Commentary	The challenges faced within this QPI replicate those detailed in QPI 1 relating to pressure on radiology services with a lack of resource and the lack of a PET scanner located within NHS Highland.
Actions	1. NCA to discuss issues of access to PET-CT with NHS Highland to ensure equity and sustainable access is available.
Risk Status	Manage

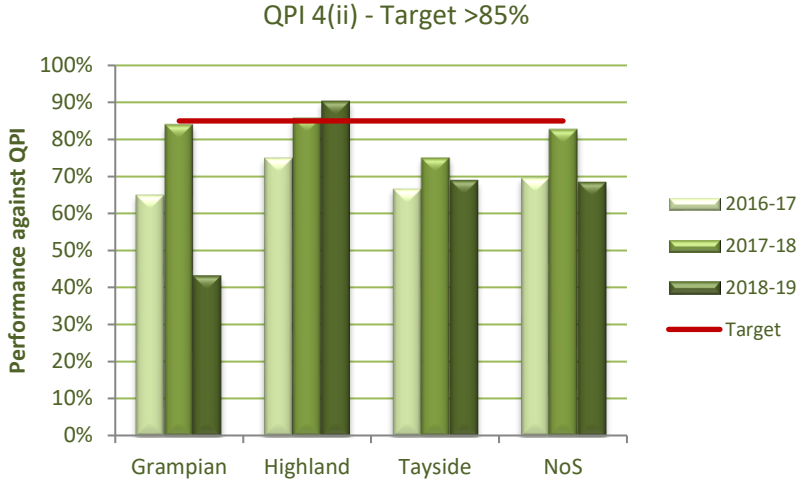
QPI 4	Cytogenetic Testing
Proportion of patients with Burkitt Lymphoma and DLBCL undergoing chemotherapy treatment with curative intent who have MYC testing as part of diagnostic process.	

Specification (i) Patients with Burkitt Lymphoma and DLBCL undergoing chemotherapy treatment with curative intent who have MYC results reported prior to first treatment.



	Performance (%)	Numerator	Denominator
Grampian	**36.7%**	11	30
Highland	**48.4%**	15	31
Orkney	-	0	0
Shetland*	-	-	-
Tayside	**37.9%**	11	29
W Isles	-	**0**	**0**
NoS	**40.2%**	**37**	**92**

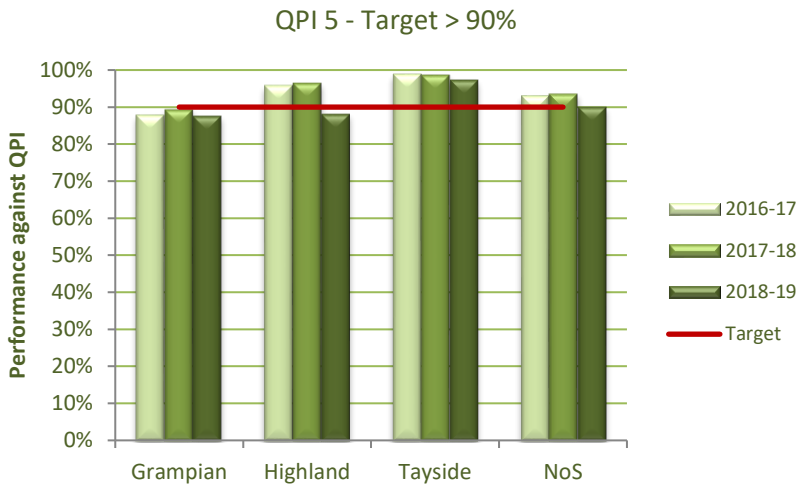
Specification (ii) Proportion of patients who have MYC results reported within 3 weeks of commencing treatment.



	Performance (%)	Numerator	Denominator
Grampian	**43.3%**	13	30
Highland	**90.3%**	28	31
Orkney	-	0	0
Shetland*	-	-	-
Tayside	**69%**	20	29
W Isles	-	**0**	**0**
NoS	**68.5%**	**63**	**92**

Clinical Commentary	This QPI remains a challenge to meet for the NoS boards due to laboratory resource issues.
Actions	1. NCA to investigate the reasons why some patients do not undergo cytogenetic testing and within a timely manner and discuss with the NCHPB prior to escalation through the NCA governance structure.
Risk Status	Escalate

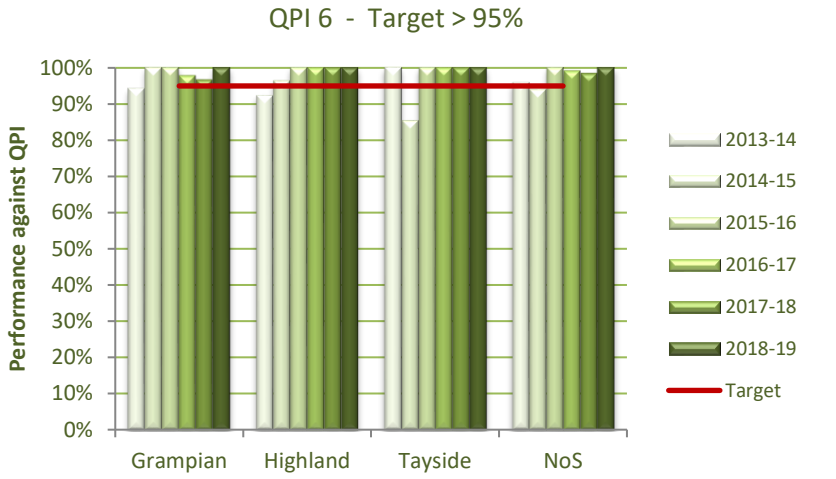
QPI 5	Lymphoma MDT
Proportion of patients with lymphoma who are discussed at MDT meeting within 8 weeks of diagnosis.	



	Performance (%)	Numerator	Denominator
Grampian	**87.7%**	100	114
Highland	**88.2%**	67	76
Orkney*	-	-	-
Shetland	**60%**	3	5
Tayside	**97.4%**	75	77
W Isles*	-	-	-
NoS	**90.1%**	**247**	**274**

Clinical Commentary	NHS Grampian, NHS Highland and NHS Shetland did not meet this QPI and reasons for this have been documented. These reasons include changes in staffing during the reporting year, delays prior to referral to the Haematology service and being under the care of more than one service. Discussions have been ongoing around reviewing the function of MDTs and how to re-design them to enable more educational and effective discussion and decision making.
Actions	1. NCA to monitor performance on this QPI in the next reporting year 2. NCA to review MDT practice amongst the NoS boards
Risk Status	Mitigate

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 anti-B cell monoclonal antibody therapy.	



	Performance (%)	Numerator	Denominator
Grampian	**100%**	48	48
Highland	**100%**	32	32
Orkney	-	0	0
Shetland*	-	-	-
Tayside	**100%**	40	40
W Isles*	-	-	-
NoS	**100%**	**123**	**123**

Clinical Commentary	
Actions	No actions required
Risk Status	Tolerate

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.	

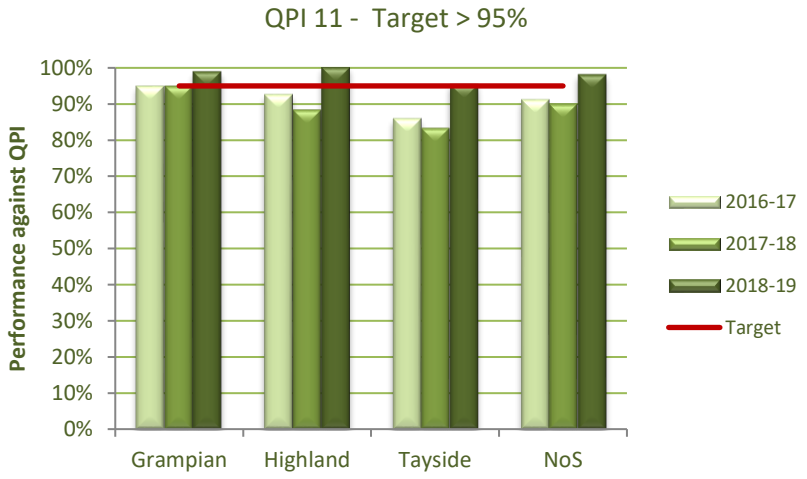
QPI 10: Target > 95%

Data not reported due to small numbers

	Performance (%)	Numerator	Denominator
Grampian	-	0	0
Highland	-	0	0
Orkney	-	0	0
Shetland	-	0	0
Tayside*	-	-	-
W Isles	-	**0**	**0**
NoS	-	**0**	**0**

Clinical Commentary	Due to small numbers, it has been challenging to facilitate discussion of primary cutaneous lymphoma patients at joint MDT including dermatology and haematology however, the North of Scotland clinicians involved in the management of patients with Primary Cutaneous Lymphoma have agreed to support a standard MDT process for this group of patients. All cases will be discussed by a skin MDT in the first instance and referred onto Haematology if appropriate. There are discussions ongoing regarding the removal of this QPI on the basis that a national MDT is created for this co-hort. NCA will support any development that may arise from this.
Actions	1. NCHPB to link in with the national lymphoma formal review regarding the possibility of removal of this QPI on the basis of establishing a national MDT
Risk Status	Escalate

QPI 11	Hepatitis and HIV Status
Proportion of patients with lymphoma undergoing SACT who have hepatitis B, hepatitis C and HIV status checked prior to treatment.	

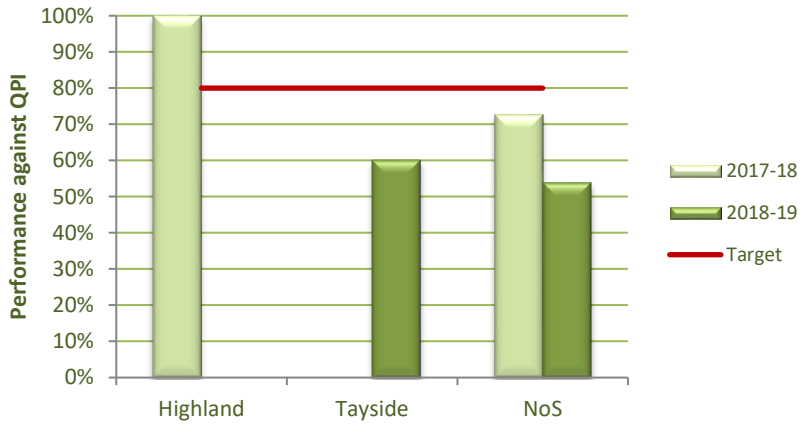


	Performance (%)	Numerator	Denominator
Grampian	**98.8%**	81	82
Highland	**100%**	50	50
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**95.3%**	61	64
W Isles*	-	-	-
NoS	**98%**	**197**	**201**

Clinical Commentary	Improvements have been made by all NoS boards in relation to raising awareness of the importance of checking hepatitis B, hepatitis C and HIV prior to treatment. This has resulted in the target being met across the NoS in this reporting year.
Actions	No actions required
Risk Status	Tolerate

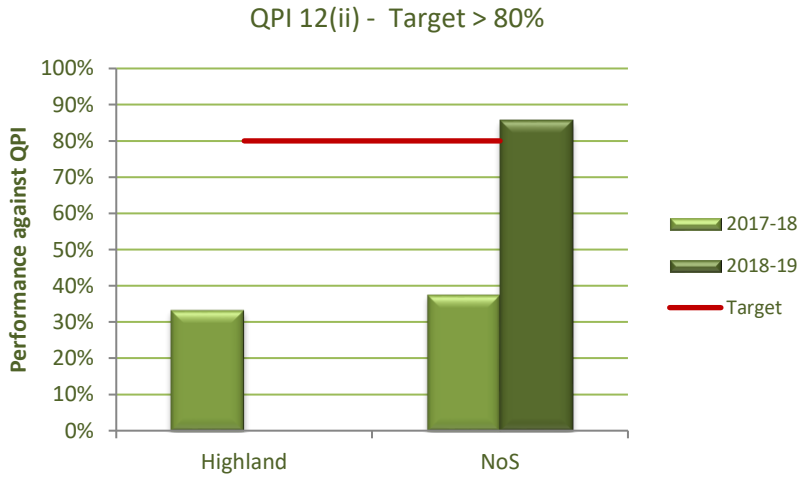
QPI 12	Treatment Response in Hodgkin Lymphoma
Proportion of patients with advanced Hodgkin Lymphoma (stage 2B and above) who receive ABVD chemotherapy treatment, that have their treatment evaluated with PET CT scan after 2 cycles of chemotherapy, and where the report is available within 3 days.	

Specification (i): Patients with advanced Hodgkin Lymphoma (stage 2B and above) who receive ABVD chemotherapy treatment that undergo PET CT scan after 2 cycles of chemotherapy.



	Performance (%)	Numerator	Denominator
Grampian*	-	-	-
Highland*	-	-	-
Orkney	-	0	0
Shetland	-	0	0
Tayside	**60%**	3	5
W Isles	-	0	0
NoS	**53.8%**	**7**	**13**

Specification (ii): Patients with advanced Hodgkin Lymphoma (stage 2B and above) who receive ABVD chemotherapy treatment that undergo PET CT scan after 2 cycles of chemotherapy where the report is available within 3 days.

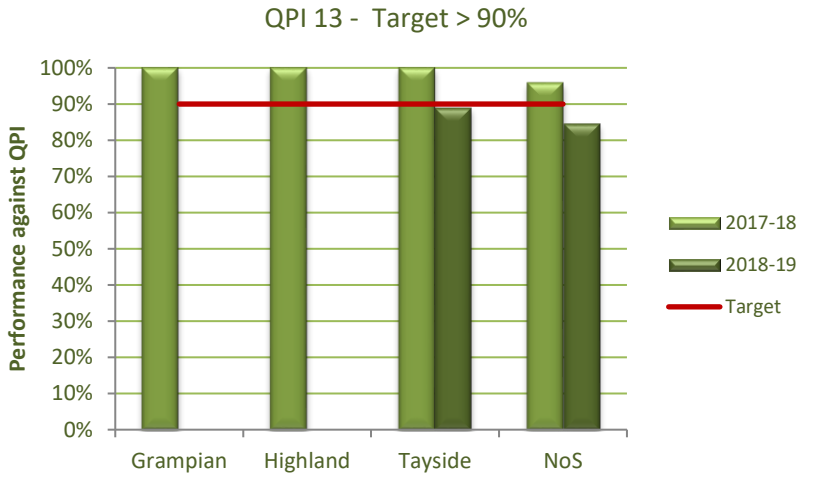


	Performance (%)	Numerator	Denominator
Grampian*	-	-	-
Highland*	-	-	-
Orkney	-	0	0
Shetland	-	0	0
Tayside*	-	-	-
W Isles	-	**0**	**0**
NoS	**85.7%**	**6**	**7**

Clinical Commentary	The first part (i) of this QPI was not met by any of the NoS boards, this was mainly due to issues involving a PET scanner breaking down, patient specific circumstances and technical issues. The second part (ii) of this QPI was not met by NHS Highland and this reflects the issues raised within QPI 1 and 3 in relation to radiology resource issues and patients

	having to travel to Aberdeen to their PET scan as there is not one located within NHS Highland.
Actions	1. NCA to discuss issues of access to PET-CT with NHS Highland to ensure equity and sustainable access is available. 2. NCA to benchmark Clinical Management Guidelines across Scotland to ascertain any variation 3. Investigate differences in patient numbers across the North
Risk Status	Escalate

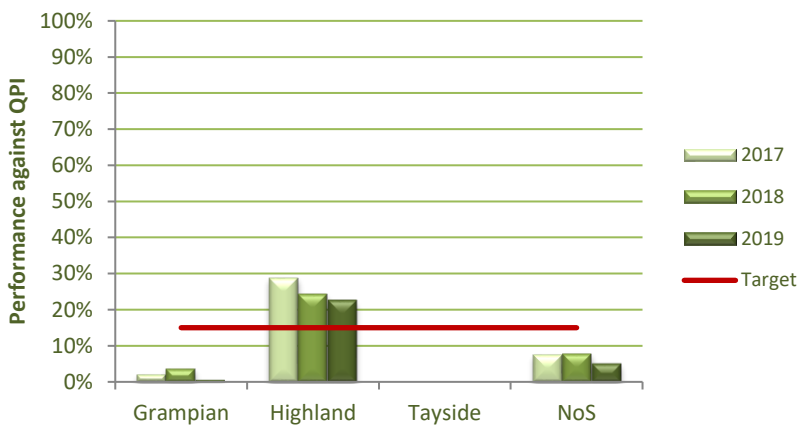
QPI 13	Maintenance Therapy for Follicular Lymphoma
Proportion of patients with follicular lymphoma undergoing treatment with R-Chemotherapy who receive maintenance treatment with anti-B cell monoclonal antibody therapy.	



	Performance (%)	Numerator	Denominator
Grampian*	-	-	-
Highland*	-	-	-
Orkney	-	0	0
Shetland	-	0	0
Tayside	**88.9%**	8	9
W Isles*	-	-	-
NoS	**84.6%**	**11**	**13**

Clinical Commentary	NHS Highland and NHS Tayside did not meet this QPI with one patient in each board not receiving maintenance treatment with anti-B cell monoclonal antibody therapy. This QPI involves small patient numbers due to the varying chemotherapy options available. There are plans to modify this QPI during the formal review to reflect other treatment options available.
Actions	1. NCA to benchmark Clinical Management Guidelines across Scotland to ascertain any variation
Risk Status	Tolerate

QPI 14	Clinical Trials and Research Study Access
Proportion of patients diagnosed with lymphoma who are consented for a clinical trial / research study. Data reported for patients enrolled in trials in 2018.	



	Performance (%)	Numerator	Denominator
Grampian	**0.7%**	1	135
Highland	**22.6%**	15	66
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**0%**	0	94
W Isles*	-	-	-
NoS	**5.2%**	**16**	**305**

Clinical Commentary	This QPI was not met by NHS Grampian and NHS Tayside. This QPI is often a challenge to meet due to the lack of clinical trials available to recruit.
Actions	1. All clinicians should consider opening relevant clinical trials in their tumour areas. When this is not possible patient referrals to other sites for access to clinical trials should be considered.
Risk Status	Tolerate

6. References

1. Public Health Scotland. Cancer Incidence in Scotland (to December 2018). Available at: https://beta.isdscotland.org/media/4312/2020-04-28-cancer-incidence-report.pdf

2. Information Services Division. Cancer Incidence Projections for Scotland 2013-2027. August 2015. Available at: http://www.isdscotland.scot.nhs.uk/Health-Topics/Cancer/Cancer-Statistics/Incidence-Projections/

3. ISD, NHS National Services Scotland. Cancer Survival in Scotland, 1987-2011. 2015. https://isdscotland.scot.nhs.uk/Health-Topics/Cancer/Publications/2015-03-03/2015-03-03-CancerSurvival-Report.pdf

4. Scottish Cancer Taskforce, 2017. Lymphoma Clinical Performance Indicators, Version 3.0. Health Improvement Scotland. Available at http://www.healthcareimprovementscotland.org/our_work/cancer_care_improvement/programme_resources/cancer_qpis.aspx

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

6. North Cancer Alliance: QPI Process Explained (August 2020) https://www.nrhcc.scot/uploads/tinymce/NCA/NCA%20Governance/NCA-GOV-QPI-Process-Explained.pdf

Appendix 1: Clinical trials for lymphoma open in the North of Scotland in 2019.

Trial	Principle Investigator	Patients Consented
CANDEL	Kim Ah-See (Grampian)	Y
ENRICH: Ibrutinib for untreated mantle cell lymphoma	Peter Forsyth (Highland) Dominic Culligan (Grampian)	Y
EuroNet PHL-LP1 Hodgkin's	Hugh Bishop (Grampian)	N
HORIZONS	Chrissie Lane (Highland) Debbie Forbes (Tayside)	Y
MaPLe: Molecular profiling for lymphoma	Peter Forsyth (Highland)	Y
MCL Biobank Observational Study	Julie Gillies (Highland)	N