

**West of Scotland Cancer Network**

**Haemato-oncology  
Managed Clinical Network**



# **Audit Report**

## **Lymphoma**

### **Quality Performance Indicators**

**Clinical Audit Data:  
01 October 2022 to 30 September 2023**

Dr Katrina Farrell  
Consultant Haematologist  
**MCN Clinical Lead**

Heather Wotherspoon  
**MCN & Improvement Manager**

Christine Urquhart  
**Information Analyst**

# Lymphoma Quality Performance Indicators: Data Overview

Patients diagnosed Oct 2022 - Sep 2023

Number of patients

590

Median Age of Patients:

Hodgkin Lymphoma

37

Non Hodgkin Lymphoma

69

Patient gender:

Male

Female

Hodgkin Lymphoma

51%

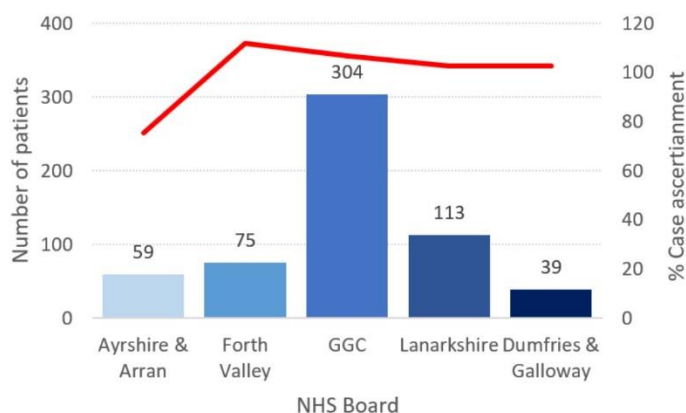
49%

Non Hodgkin Lymphoma

54%

46%

## Where are patients diagnosed



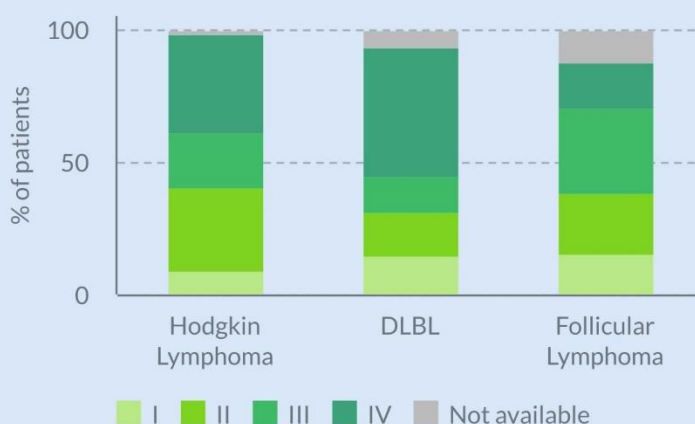
NHS Ayrshire & Arran had lower case ascertainment when compared to Scottish Cancer Registry data. **Action Required:** NHSAA to review local processes to ensure that all patients diagnosed with lymphoma are captured in clinical audit

## Morphology



■ Hodgkin Lymphoma 
 ■ DLBCL 
 ■ Follicular Lymphoma 
 ■ other B cell Lymphoma 
 ■ T & NK Cell Lymphoma 
 ■ Primary Cutaneous Lymphoma 
 ■ unclassifiable / other

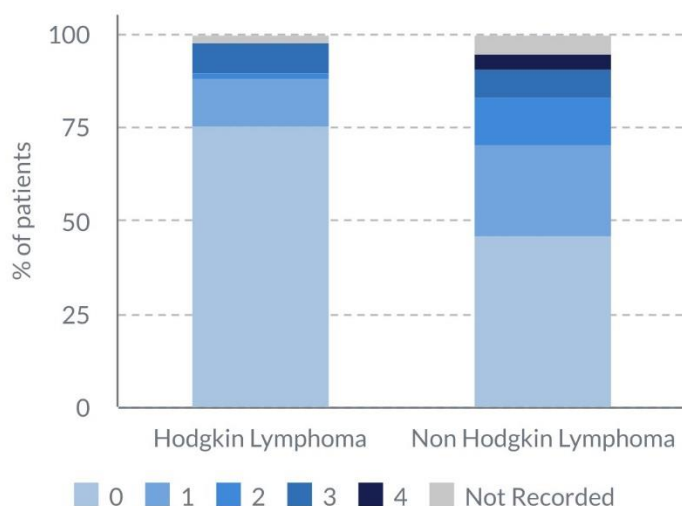
## Stage of Disease at Diagnosis



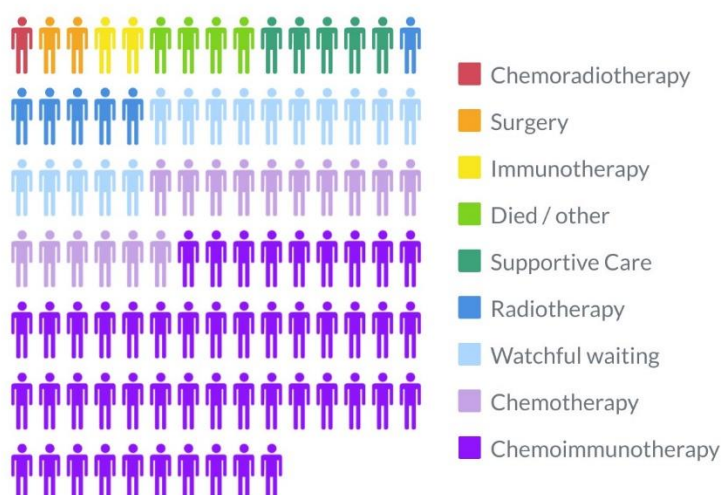
There is some variation in the completeness of recording of staging information between NHS Boards.

**Action Required:** NHS Lanarkshire and NHS Forth Valley to ensure that disease stage is recorded for all patients

## Performance Status of Patients



## First Treatment



## Executive Summary

This report contains an assessment of the performance of West of Scotland (WoS) lymphoma services using clinical audit data relating to patients diagnosed with lymphoma between 1<sup>st</sup> October 2022 and 30<sup>th</sup> September 2023.

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. With the development of QPIs, this has now become a national programme to drive continuous improvement and ensure equity of care for patients across Scotland.

The results illustrate that some of the QPI targets set have been challenging for NHS Boards to achieve and there remains room for further service improvement particularly around timely radiological imaging and reporting. Pressures on radiology departments across the WoS have impacted on performance against QPIs 1, 2, 3 and 12(ii). This was escalated regionally via the Regional Cancer Oversight Group (RCOG) in 2023 and while there are improvements in 2023 in some areas there are ongoing pressures on radiology services across WoSCAN. It should also be noted that performance is affected by the small numbers of patients on which some measures are based.

There was excellent performance against the measure looking at cytogenetic testing in patients undergoing chemotherapy with curative intent (QPI 4(i) and (ii)).

Where QPI targets were not met, NHS Boards have provided detailed commentary. NHS Boards are encouraged to continue with this proactive approach of reviewing data and addressing issues as necessary, in order to work towards increasingly advanced performance against targets, and demonstration of overall improvement in quality of the care and service provided to patients.

There are a number of actions required as a consequence of this assessment of performance against the agreed criteria.

### **Actions required:**

- NHS Ayrshire & Arran to review local processes to ensure that all patients diagnosed with lymphoma are captured in clinical audit.
- NHS Lanarkshire and NHS Forth Valley to ensure that disease stage is recorded for all patients.
- MCN to flag with the West of Scotland PET-CT Centre and the Diagnostic Imaging Network the importance of appropriately prioritising treatment response scans for haematology as these are critical for treatment decision making.
- MCN to work with the West of Scotland PET-CT Centre and WoSCAN Boards to ensure equitable access to PET-CT imaging for all WoSCAN patients.
- NHSGGC and NHS Forth Valley to ensure that all clinical staff request both hepatitis B core antibody (anti-HBcAB) and surface antigen (HB-sAG) for all new lymphoma diagnoses.

A summary of actions has been included within the Action Plan Report accompanying this report and templates have been provided to Boards.

**Completed Action Plans should be returned to WoSCAN in a timely manner to allow the plans to be reviewed at the RCOG.**

## Summary of Performance

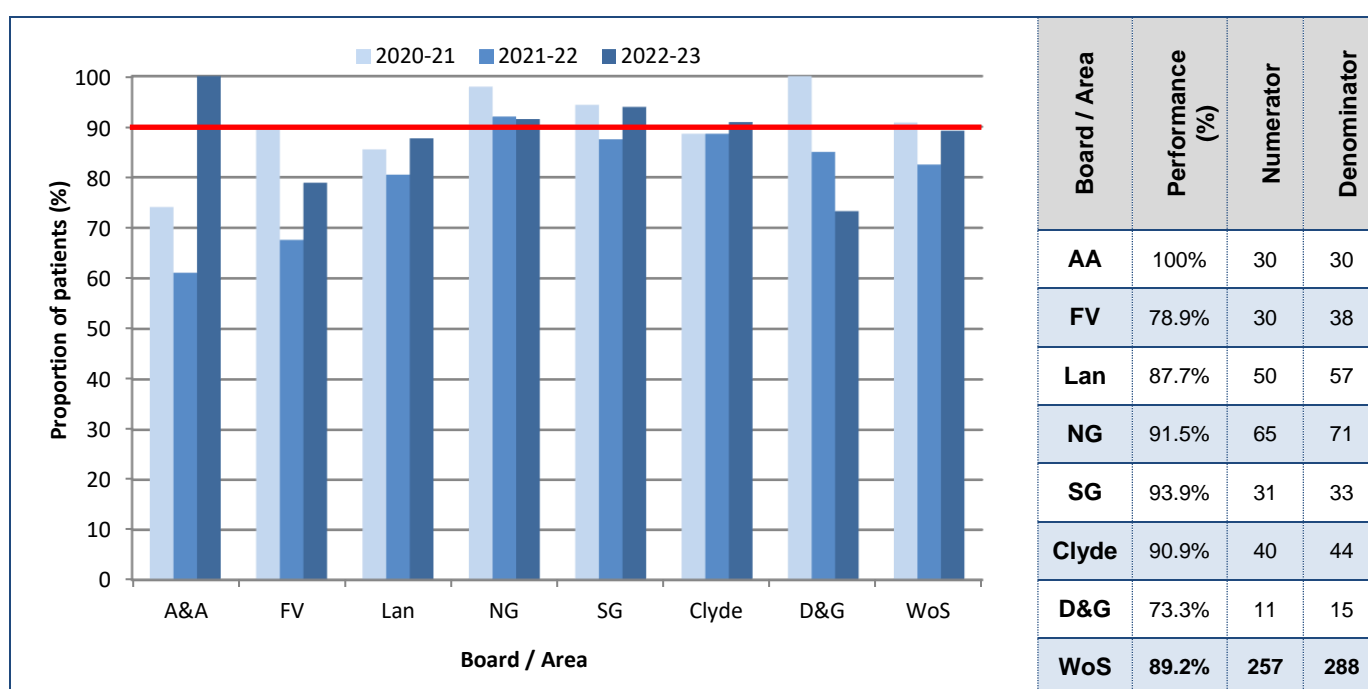
Key	
	Above Target Result
	Below Target Result
-	Results based on less than 5 patients

QPI	Performance by Board									
	Target	Year	WoS	A&A	FV	Lan	NG	SG	Clyde	D&G
<b>QPI 1: Radiological Diagnosis and Staging.</b>  Proportion of patients with lymphoma undergoing treatment with curative intent who undergo CT of chest, abdomen and pelvis or PET CT scanning prior to treatment where the report is available within 3 weeks of radiology request.	90%	2022-23	89% (257/288)	100% (30/30)	79% (30/38)	88% (50/57)	92% (65/71)	94% (31/33)	91% (40/44)	73% (11/15)
		2021-22	83%	61%	68%	80%	92%	88%	89%	85%
		2020-21	91%	74%	90%	85%	98%	94%	89%	100%
<b>QPI 2: Treatment Response</b>  Proportion of patients with DLBCL who are undergoing chemotherapy treatment with curative intent who undergo CT of chest, abdomen and pelvis or PET CT scan at end of chemotherapy treatment.	90%	2022-23	78% (121/155)	100% (16/16)	78% (14/18)	70% (26/37)	86% (25/29)	70% (16/23)	67% (14/21)	91% (10/11)
		2021-22	78%	79%	64%	73%	79%	84%	81%	89%
		2020-21	78%	61%	92%	75%	78%	86%	77%	82%
<b>QPI 3: Positron Emission Tomography (PET CT) Staging</b>  Proportion of 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.	95%	2022-23	76% (47/62)	75% (6/8)	57% (4/7)	46% (6/13)	94% (16/17)	80% (4/5)	100% (10/10)	-
		2021-22	76%	67%	80%	57%	92%	56%	78%	67%
		2020-21	89%	60%	75%	86%	100%	100%	-	-
<b>QPI 4(i): Cytogenetic testing</b>  Proportion of patients with Burkitt Lymphoma or DLBCL undergoing chemotherapy with curative intent who have MYC testing.	90%	2022-23	98% (182/186)	95% (20/21)	95% (21/22)	100% (44/44)	97% (34/35)	100% (28/28)	96% (24/25)	100% (11/11)
		2021-22	96%	94%	96%	93%	98%	93%	100%	100%
		2020-21	97%	100%	94%	100%	94%	100%	97%	92%
<b>QPI 4(ii): Cytogenetic testing</b>  Proportion of patients with DLBCL MYC rearrangement identified on FISH analysis undergoing chemotherapy treatment with curative intent who have BCL2/BCL6 testing within 3 weeks of commencing treatment.	90%	2022-23	96% (23/24)	-	-	100% (5/5)	-	100% (7/7)	-	-
		2021-22	100%	-	-	-	-	-	100%	-
		2020-21	92%	-	-	83%	100%	-	100%	-

QPI	Target	Year	WoS	A&A	FV	Lan	NG	SG	Clyde	D&G
<b>QPI 5: Lymphoma MDT</b>  Proportion of patients with lymphoma who are discussed at MDT meeting within 8 weeks of the pathology report being issued.	90%	2022-23	89% (489/550)	90% (45/50)	93% (67/72)	85% (94/110)	81% (98/121)	94% (67/71)	93% (82/88)	95% (36/38)
		2021-22	87%	82%	90%	80%	84%	95%	91%	97%
		2020-21	91%	88%	97%	91%	87%	94%	88%	100%
<b>QPI 11: Hepatitis and HIV Status</b>  Proportion of patients with lymphoma undergoing SACT who have hepatitis B [core antibody (anti-HBcAB) and surface antigen (HB-sAG)], hepatitis C and HIV status checked prior to treatment.	95%	2022-23	89% (355/397)	95% (41/43)	83% (44/53)	100% (92/92)	79% (64/81)	94% (45/48)	81% (47/58)	100% (22/22)
		2021-22	86%	95%	85%	100%	82%	85%	65%	100%
		2020-21	88%	100%	95%	100%	86%	72%	67%	100%
<b>QPI 12(i): Treatment Response in Hodgkin Lymphoma</b>  Proportion of patients with advanced HL who receive ABVD, BEACOPP or BEACOPDac chemotherapy treatment that have their treatment evaluated with PET CT scan after two cycles of chemotherapy.	80%	2022-23	67% (29/43)	-	-	80% (8/10)	75% (9/12)	-	75% (6/8)	-
		2021-22	62%	-	-	40%	67%	83%	80%	-
		2020-21	71%	67%	78%	83%	75%	57%	-	-
<b>QPI 12(ii): Treatment Response in Hodgkin Lymphoma</b>  Proportion of patients with advanced HL who receive ABVD, BEACOPP or BEACOPDac chemotherapy treatment that have their treatment evaluated with PET CT scan after two cycles of chemotherapy and where the report is available within 3 working days.	80%	2022-23	75% (21/28)	-	-	88% (7/8)	78% (7/9)	-	83% (5/6)	-
		2021-22	57%	-	-	-	67%	40%	-	-
		2020-21	60%	-	43%	80%	67%	-	-	-

## QPI 1: Radiological Staging

<b>Title:</b>	Patients with lymphoma should be evaluated with appropriate imaging to detect the extent of disease, with timely reports available to guide treatment decision making
<b>Numerator:</b>	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 where the report is available within 3 weeks of radiology request.
<b>Denominator:</b>	All patients with lymphoma undergoing treatment with curative intent who undergo CT of chest, abdomen and pelvis or PET CT scanning prior to treatment.
<b>Exclusions:</b>	None
<b>Target:</b>	90%

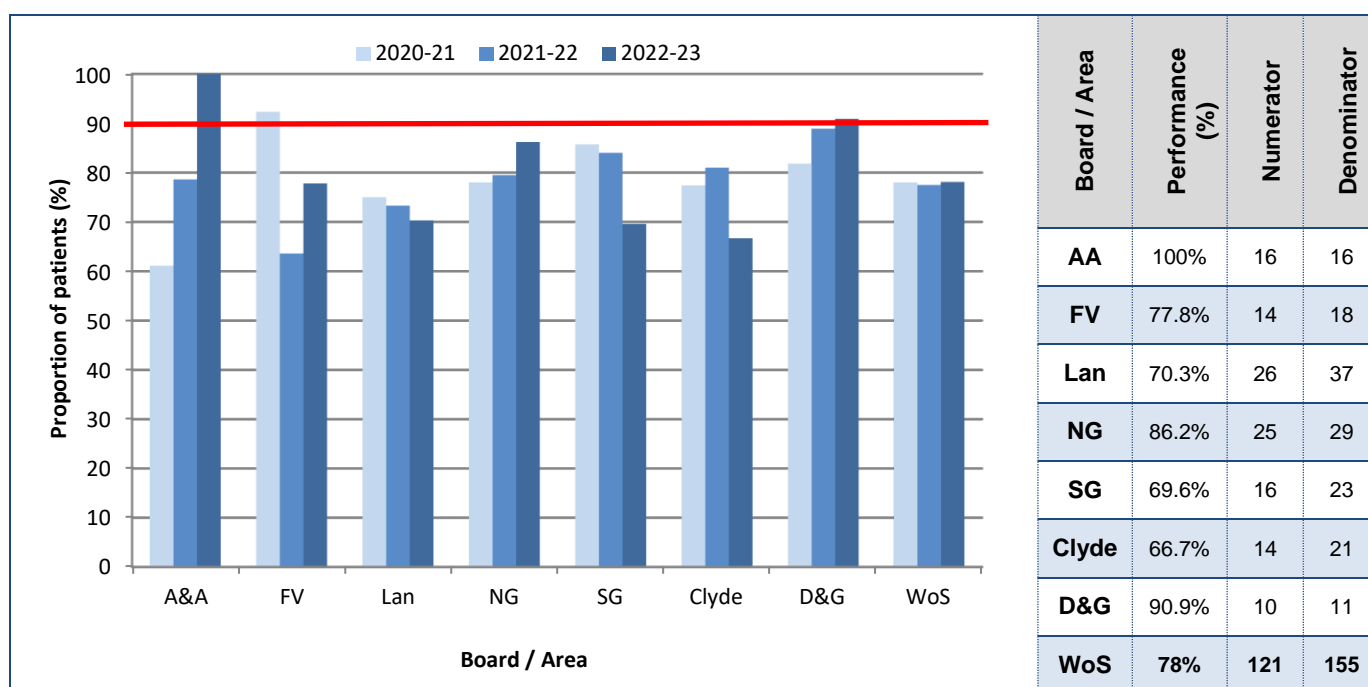


Performance against this measure has improved following the dip last year and regional performance was very close to the 90% target. Review of patients not meeting this QPI indicates that patients did have appropriate imaging but this was reported more than 3 weeks after the radiology request, largely due to reporting capacity within radiology services. Radiology services have continued to find it challenging to undertake and report staging CT imaging in a timely manner given the ongoing pressures on radiology departments across the WoS and more widely. These pressures, which have impacted on performance against QPI 1, 2, 3 and 12, have previously been escalated regionally via the RCOG.

Within NHS Forth Valley, service pressures on the radiology department have made the timescales required to meet this QPI challenging however a third CT scanner is planned to address this. Within NHS Lanarkshire, performance is impacted by a shortage of radiology consultants, resulting in delays and outsourcing of radiology reporting. NHS Lanarkshire continues to strive to recruit to vacant radiologist posts and to outsource reporting of imaging where appropriate.

## QPI 2: Treatment response

<b>QPI Title:</b>	Patients with DLBCL who are treated with curative intent should have their response to treatment evaluated with appropriate imaging.
<b>Numerator:</b>	Number of patients with DLBCL who are undergoing chemotherapy treatment with curative intent who undergo CT of chest, abdomen and pelvis or PET CT scan at end of chemotherapy treatment.
<b>Denominator:</b>	All patients with DLBCL who are undergoing chemotherapy treatment with curative intent.
<b>Exclusions:</b>	Patients that died during treatment.
<b>Target:</b>	90%



Across all NHS Boards, the majority of patients not meeting this QPI had their treatment response evaluated with appropriate imaging, however the imaging was not undertaken within the timescales required. A small number of patients did not have CT imaging due to clinically appropriate reasons. In addition three patients from NHS Lanarkshire are still undergoing treatment, and therefore their end of treatment scan had not yet been undertaken at the time of analysis.

Pressures on radiology departments across the WoS, and more widely, have resulted in radiology services finding it particularly challenging to prioritise the end of treatment imaging requests, which are not tracked under the Cancer Waiting Time initiative. In addition, some patients did not meet the required timescale due to clinical or patient requests for a later imaging date. Performance against this measure will be kept under close review going forward and it is hoped that some improvement in performance may be seen in subsequent years if pressures on radiology services ease.

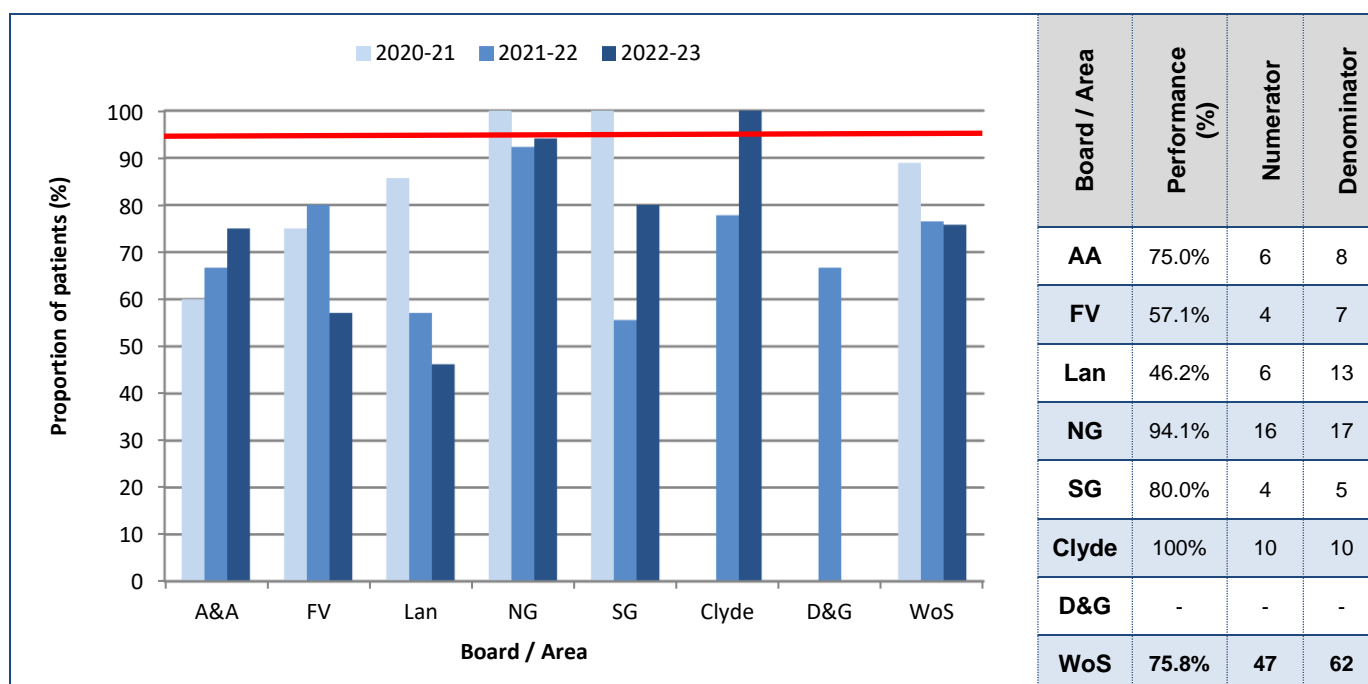
### Action Required:

- **MCN to flag with the West of Scotland PET-CT Centre and the Diagnostic Imaging Network the importance of appropriately prioritising treatment response scans for haematology as these are critical for treatment decision making.**



### QPI 3: Positron Emission Tomography (PET CT) Staging

<b>QPI Title:</b>	Patients with CHL should be evaluated with PET CT scanning to detect the extent of disease, with timely reports available to guide treatment decision making.
<b>Numerator:</b>	Patients with CHL undergoing treatment with curative intent who undergo PET CT prior to first treatment where the report is available within 3 weeks of radiology request.
<b>Denominator:</b>	All patients with CHL undergoing treatment with curative intent who undergo PET CT prior to first treatment.
<b>Exclusions:</b>	None
<b>Target:</b>	95%



Of the 15 patients who did not meet the QPI, 10 were reported within 4 weeks and 14 within 5 weeks. Due to small numbers, any comparison of performance between NHS Boards should be made with caution. It should be noted that all PET-CT scans within the region are undertaken within the West of Scotland PET-CT Centre. The decline in performance against this indicator in recent years is likely to be related to ongoing radiology pressures, although performance is higher in North Glasgow, and in NHSGGC more generally, where the PET-CT centre is sited. In light of this the MCN will work with the West of Scotland PET-CT Centre and WoSCAN Boards to ensure equitable access to PET-CT imaging for all WoSCAN patients.

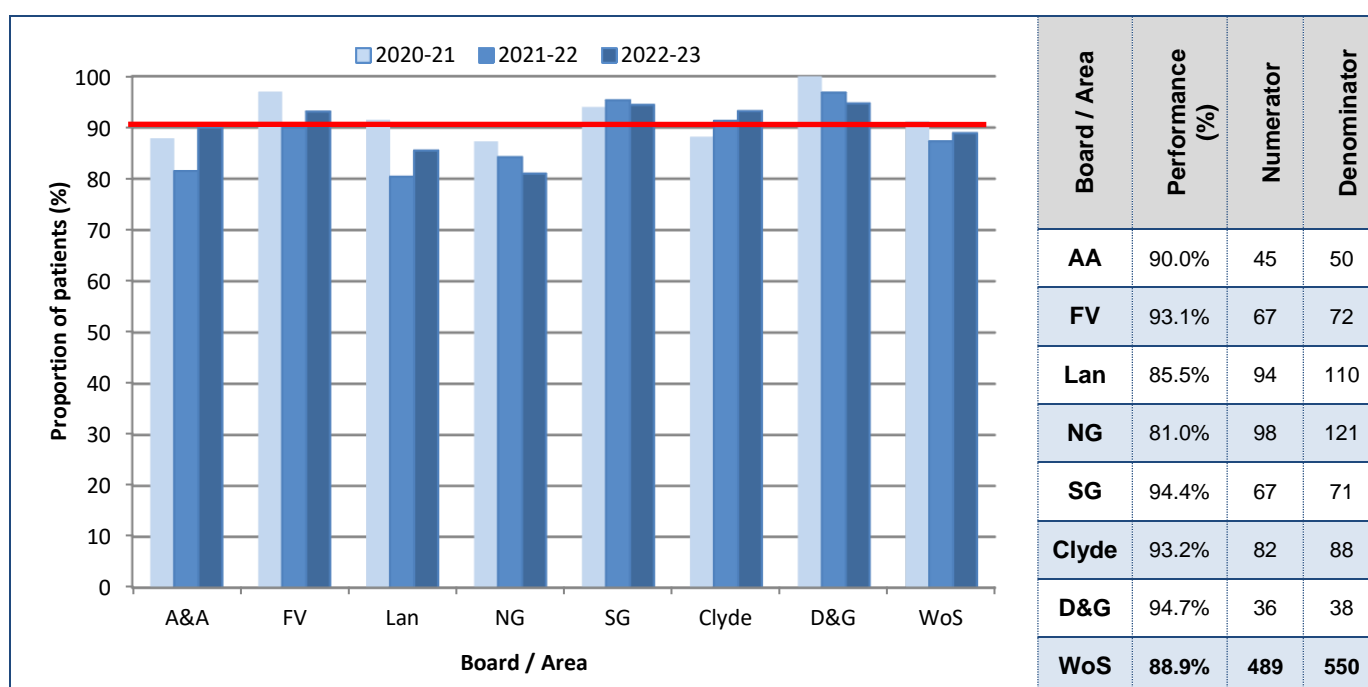
#### Action Required:

- **MCN to work with the West of Scotland PET-CT Centre and WoSCAN Boards to ensure equitable access to PET-CT imaging for all WoSCAN patients.**



## QPI 5: Lymphoma MDT

<b>QPI Title:</b>	Patients with lymphoma should be discussed by a MDT following diagnosis.
<b>Numerator:</b>	Number of patients with lymphoma discussed at the MDT within 8 weeks of the pathology report being issued.
<b>Denominator:</b>	All patients with lymphoma.
<b>Exclusions:</b>	Patients who died before first treatment. Patients with primary cutaneous lymphoma.
<b>Target:</b>	90%



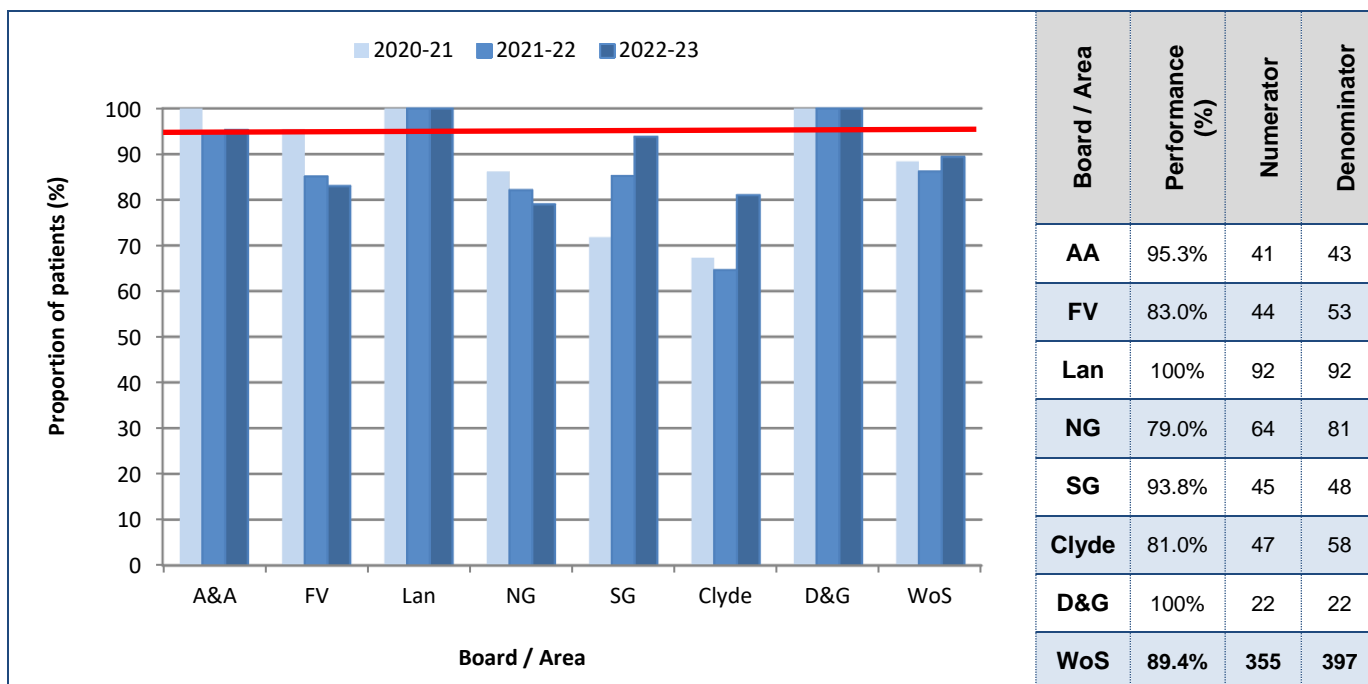
Additional information is provided below which shows the proportion of patients being discussed at MDT, irrespective of timing, and also comparing performance against this QPI for patients receiving active treatment to those on best supportive care and watchful waiting. Although the vast majority of patients were discussed at MDT (98.0%), this was not always within the 8 week timeframe. Just under half of the patients not meeting the QPI were receiving supportive care or watchful waiting and therefore the timeframe for MDT discussion was clinically appropriate, however 32 patients undergoing active treatment were not discussed within 8 weeks of pathology reporting.

	% Patients discussed at MDT (no time constraint)			% Patient undergoing active first treatment discussed within 8 weeks of pathology reporting			% Patient undergoing watchful waiting or best supportive care as first treatment discussed within 8 weeks of pathology reporting		
Board / Area	Performance (%)	Numerator	Denominator	Performance (%)	Numerator	Denominator	Performance (%)	Numerator	Denominator
AA	98.0%	49	50	88.4%	38	43	100%	7	7
FV	100%	72	72	93.3%	56	60	91.7%	11	12
Lan	96.4%	106	110	90.2%	83	92	61.1%	11	18
NG	96.7%	117	121	89.6%	86	96	48.0%	12	25
SG	100%	71	71	98.0%	48	49	86.4%	19	22
Clyde	100%	88	88	95.4%	62	65	86.4%	19	22
D&G	97.4%	37	38	100%	28	28	80.0%	8	10
WoS	98.2%	540	550	92.6%	401	433	75.0%	87	116

Patients not being discussed at the MDT within 8 weeks of the pathology report being issued were reviewed. Ten patients were not formally discussed at a haematology MDT meeting, although some of these were discussed informally, by other MDTs or clinical forums such as radiology meetings. Other patients were discussed at MDT more than 8 weeks from pathology reporting; for some of these patients there were delays due to patients being referred to other teams. Within NHS Lanarkshire, a tracker will continue to flag new diagnoses to the MDT in a timely manner. In 2022, North Glasgow implemented a new system whereby the MDT coordinator reminded clinicians if patients had not been discussed at MDT. This action should have been fully implemented for the 2022-23 reporting period, however performance has continued to decline in North Glasgow; the MDT coordinator now emails clinicians to remind them when a patient has not been presented at MDT. NHS Ayrshire & Arran are exploring the implementation of a new local MDT system using FormStream and a new 'on treatment' FormStream clinical note proforma, which it is hoped will improve performance against this QPI.

### QPI 11: Hepatitis and HIV Status

<b>QPI Title:</b>	Virological testing for HIV, hepatitis B and C should be undertaken for patients undergoing SACT.
<b>Numerator:</b>	Number of patients with lymphoma undergoing SACT who have hepatitis B [core antibody (anti-HBcAB) and surface antigen (HB-sAG)], C and HIV status checked prior to treatment.
<b>Denominator:</b>	All patients with lymphoma undergoing SACT.
<b>Exclusions:</b>	No exclusions.
<b>Target:</b>	95%



This QPI specifies that testing for both hepatitis B core antibody (anti-HBcAB) and surface antigen (HB-sAG) is required. Within NHSGGC and NHS Forth Valley the majority of patients not meeting this QPI had surface antigen testing for hepatitis B but not core antibody testing. Within NHS Forth Valley, these were inpatients from other services; the Board highlighted to the haematology team the need for hepatitis B core antibody testing for all inpatient referrals in 2023, more than half way through the 2022-23 audit period, and will reiterate the reminder again following review of the 2022-23 performance. The requirement for hepatitis B core antibody testing was highlighted to clinical staff within NHSGGC via the MDT following reporting of the QPIs in 2022 and a haematological malignancy diagnosis order set for all new lymphoma diagnoses was introduced at that time. This included both surface antigen and core antibody testing for hepatitis B. These actions are likely to have resulted in the improvements in performance noted in the South Glasgow and Clyde sectors however significant numbers of patients within the Board are still only getting surface antigen testing and clinicians have been reminded of the need to test for both hepatitis B core antibodies and surface antigens.

#### Action required:

- **NHSGGC and NHS Forth Valley to ensure that all clinical staff request both hepatitis B core antibody (anti-HBcAB) and surface antigen (HB-sAG) for all new lymphoma diagnoses.**

## QPI 12: Treatment Response in Hodgkin Lymphoma

**QPI Title:** Patients with advanced Hodgkin Lymphoma who receive treatment with ABVD, BEACOPP or BEACOPDac chemotherapy should have early assessment of response by appropriate imaging.

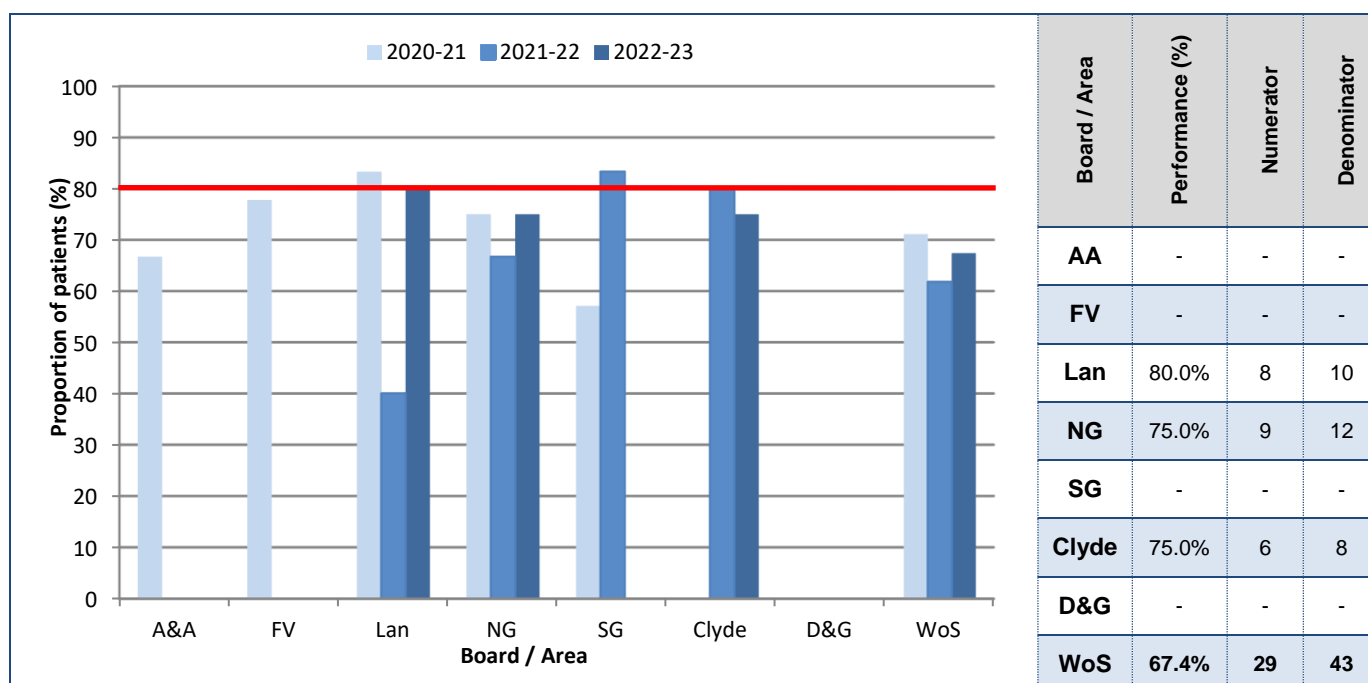
### Specification (i)

**Numerator:** Number of patients with advanced Hodgkin Lymphoma (stage 2B and above) who receive ABVD, BEACOPP or BEACOPDac chemotherapy treatment that undergo PET CT scan after 2 cycles of chemotherapy.

**Denominator:** All patients with advanced Hodgkin Lymphoma (stage 2B and above) who receive ABVD, BEACOPP or BEACOPDac chemotherapy treatment.

**Exclusions:** Patients who die during treatment.

**Target:** 80%



To meet this QPI patients are required to have an interim PET-CT scan within the week prior to commencing their 3<sup>rd</sup> cycle of chemotherapy. Comparison of performance between NHS Boards is difficult due to the relatively small numbers of patients included within this QPI measure. Review of patients not meeting this QPI indicates that all patients except one had an interim PET-CT scan, but failed the QPI due to the timing of imaging in relation to the 3<sup>rd</sup> cycle of chemotherapy for a variety of reasons. While some of these reasons were clinically valid, for some patients there was a delay to delivering the 3<sup>rd</sup> cycle of chemotherapy due to hold-ups in reporting of PET-CT results. Eight of the 14 patients not meeting this QPI had their 3<sup>rd</sup> cycle of chemotherapy within 14 days of PET-CT being performed.

Performance against this QPI has been impacted by delays in reporting of PET-CT scans and the definition of this QPI is now unintentionally measuring timely PET-CT reporting (as chemotherapy is delayed until the PET result is available). This makes results for the QPI difficult to interpret and the way that this QPI is measured will be amended in future reports to require imaging within a specific timeframe following the 2<sup>nd</sup> cycle of chemotherapy, but independent of the timing of the 3<sup>rd</sup> cycle of chemotherapy following the Formal Review of Lymphoma QPIs in 2023.

**QPI Title:** Patients with advanced Hodgkin Lymphoma who receive treatment with ABVD, BEACOPP or BEACOPDac chemotherapy should have early assessment of response by appropriate imaging.

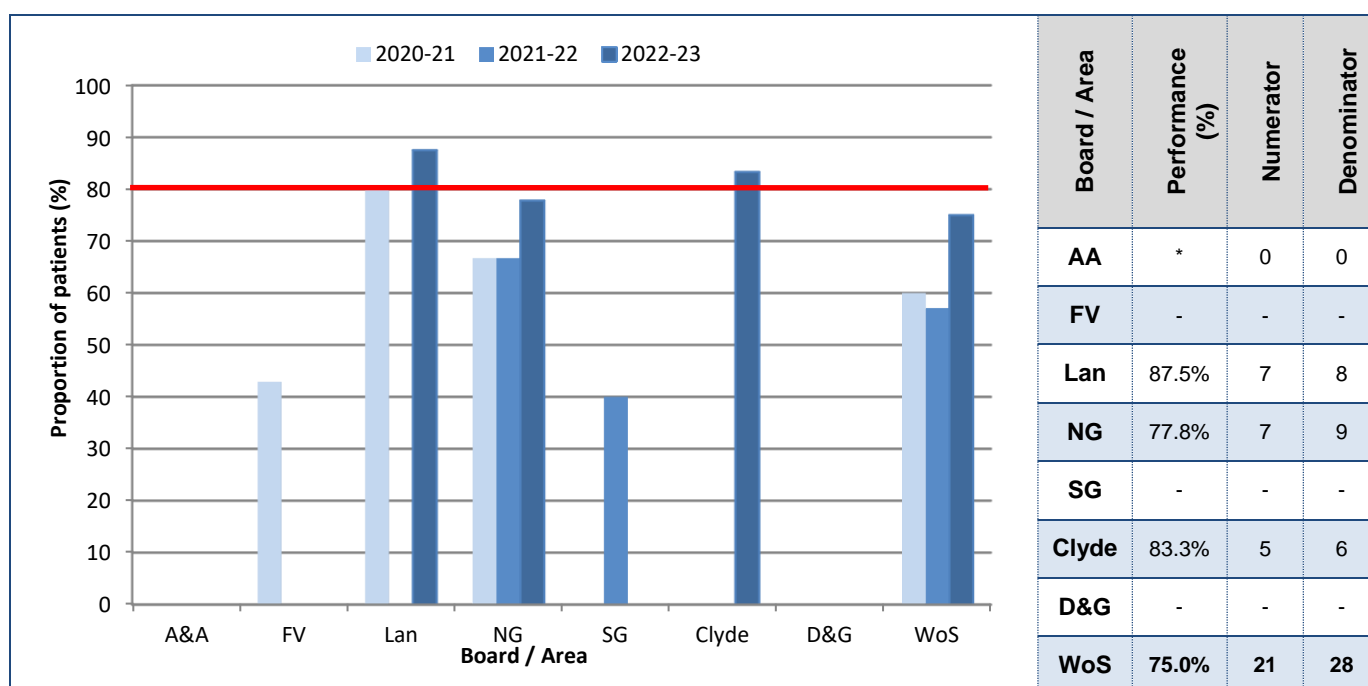
**Specification (ii)**

**Numerator:** Number of patients with advanced Hodgkin Lymphoma (stage 2B and above) who receive ABVD, BEACOPP or BEACOPDac chemotherapy treatment that undergo PET CT scan after 2 cycles of chemotherapy where the report is available within 3 working days.

**Denominator:** All patients with advanced Hodgkin Lymphoma (stage 2B and above) who receive ABVD, BEACOPP or BEACOPDac chemotherapy treatment that undergo PET CT scan after 2 cycles of chemotherapy.

**Exclusions:** No exclusions.

**Target:** 80%



Of the seven patients that did not meet the QPI, six had their PET-CT reported within 10 days of their scan and all patients had it recorded within 20 days. Please note that all PET-CT imaging within WoSCAN is undertaken within the West of Scotland PET-CT Centre. As with QPIs 1, 2 and 3, the failure to meet this target at a regional level is most likely due to the ongoing pressures on radiology services.

## Appendix 1: Meta Data

Report Title	Cancer Audit Report: Lymphoma Quality Performance Indicators																														
Time Period	Patients diagnosed between 01 October 2022 to 30 September 2023																														
QPI Version	<a href="#">Lymphoma QPIs v4.0</a>																														
Data extraction date	2200 hrs on 17 April 2024																														
Data Quality	<table><tr><th>Health Board of diagnosis</th><th>2022-23 Audit Data</th><th>Cases from Cancer registry (2018-2022)</th><th>Case Ascertainment</th></tr><tr><td>Ayrshire &amp; Arran</td><td>59</td><td>78</td><td>75.6%</td></tr><tr><td>Forth Valley</td><td>75</td><td>67</td><td>111.9%</td></tr><tr><td>GGC</td><td>304</td><td>284</td><td>107.0%</td></tr><tr><td>Lanarkshire</td><td>113</td><td>110</td><td>102.7%</td></tr><tr><td>Dumfries &amp; Galloway</td><td>39</td><td>38</td><td>102.6%</td></tr><tr><td><b>WoS Total</b></td><td><b>590</b></td><td><b>577</b></td><td><b>102.3%</b></td></tr></table>			Health Board of diagnosis	2022-23 Audit Data	Cases from Cancer registry (2018-2022)	Case Ascertainment	Ayrshire & Arran	59	78	75.6%	Forth Valley	75	67	111.9%	GGC	304	284	107.0%	Lanarkshire	113	110	102.7%	Dumfries & Galloway	39	38	102.6%	<b>WoS Total</b>	<b>590</b>	<b>577</b>	<b>102.3%</b>
Health Board of diagnosis	2022-23 Audit Data	Cases from Cancer registry (2018-2022)	Case Ascertainment																												
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Lanarkshire	113	110	102.7%																												
Dumfries & Galloway	39	38	102.6%																												
<b>WoS Total</b>	<b>590</b>	<b>577</b>	<b>102.3%</b>																												

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