West of Scotland Cancer Network

Urological Cancer Managed Clinical Network



Audit Report

Prostate Cancer Quality Performance Indicators

Clinical Audit Data: 01 July 2022 to 30 June 2023

Dr Hilary Glen MCN Clinical Lead

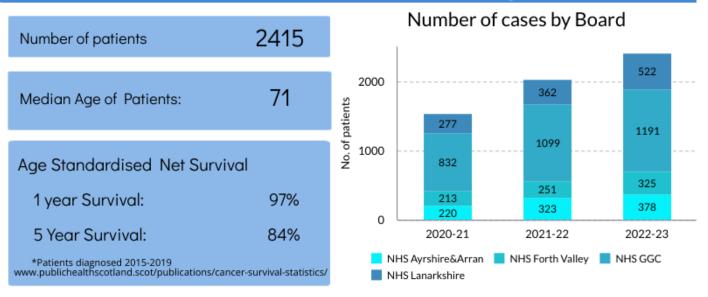
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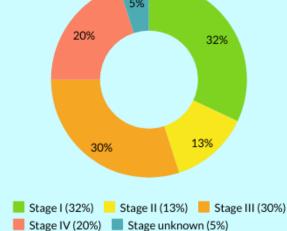
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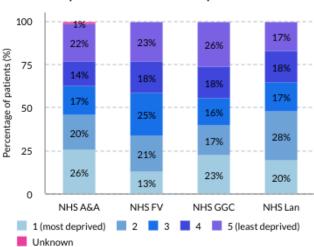
Prostate Quality Performance Indicators: Data Overview

Patients diagnosed Jul 2022 - Jun 2023



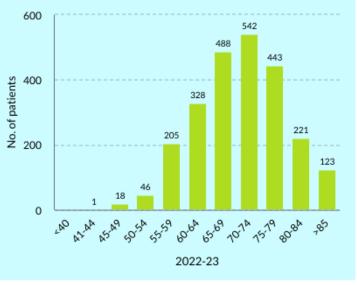




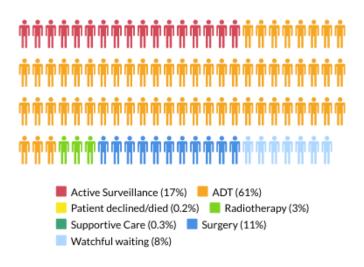


Deprivation Index of patients

Age of patients







Executive Summary

This report contains an assessment of the performance of West of Scotland (WoS) urological cancer services using clinical audit data relating to patients diagnosed with prostate cancer between 01 July 2022 and 30 June 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.

Overall WoS results are reassuring and demonstrate the high standard of care provided for prostate cancer patients. NHS Boards have found some of the targets for these QPIs challenging to meet. Encouragingly, improvements can be seen in a number of areas in the last year including surgical margins (QPI 5), assessment of post-treatment patient reported outcome measures (QPI 8i), diagnostic pre-biopsy MRI (QPI 14i) and radiotherapy in patients with a low metastatic burden (QPI 15(ii)). Definitions for QPI 7ii, QPI 8i and QPI 11 measures have been updated as part of the recent Formal Review of Prostate Cancer QPIs and revised definitions are reported in this report.

Where QPI targets were not met, the NHS Boards have provided detailed commentary. In the main, these indicate valid clinical reasons or that, in some cases, patient choice or co-morbidities have influenced patient management.

QPI 4(i): multi-disciplinary team meeting, QPI 5: surgical margins, QPI 8(i): assessment of posttreatment patient reported outcome measures and QPI 14(i): diagnostic pre-biopsy MRI were met by all Boards, and therefore detailed graphs have not been included for these QPIs in the main report.

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

QPI 4 (ii): Multi-Disciplinary Team (MDT) Meeting

• NHSGGC to ensure that all involved in prostate cancer management automatically list patients for MDT discussion when ADT is commenced, to expedite scans if needed.

QPI 7 (ii): Androgen Deprivation Therapy (ADT) with Additional Systemic Therapy

- All Boards to record the ADT start date at MDT to highlight the timeframe for commencing additional SACT.
- NHS Lanarkshire to address oncology clinic capacity issues.
- MCN to compare rates with other regions in Scotland and ascertain rates in England as this is a new QPI definition and confidence in target and measurability is important to determine.
- The regional Information Team to routinely report two separate elements: the number of patients receiving immediate ADT with additional SACT and the timescale for receiving this treatment.

QPI 11: Management of Active Surveillance

• All Boards to reinforce the Regional Active Surveillance protocol to clearly outline the QPI requirements for the timing of surveillance investigations in relation to the diagnosis date.

QPI 15 (i): Low Burden Metastatic Disease

• NHSGGC to remind the MDT to document disease burden for all metastatic cases and circulate disease burden assessment tool.

QPI 15 (ii): Low Burden Metastatic Disease

• NHS Lanarkshire and NHS Ayrshire & Arran to monitor decision making in this group of patients and develop action plan to improve if rates remain low.

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 Regional Cancer Oversight Group.

Key	
	Above Target Result
	Below Target Result
-	Indicates data based on less than 5 patients
	Indicates no comparable measure for previous years

	Performance by NHS Board of diagnosis						
Quality Performance Indicator (QPI)	QPI target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 4(i): Multi-Disciplinary Team Meeting (MDT). Proportion		2022 - 23	96% (230/239)	97% (247/255)	97% (952/977)	97% (410/422)	97% (1839/1893)
of patients with non-metastatic prostate cancer (TanyNanyM0) discussed at the MDT before definitive treatment.	95%	2021 - 22	95%	96%	98%	99%	97%
		2020 - 21	94%	96%	98%	97%	97%
QPI 4(ii): Multi-Disciplinary Team Meeting (MDT).		2022 - 23	89% (64/72)	91% (51/56)	93% (189/203)	96% (90/94)	93% (394/425)
Proportion of patients with metastatic prostate cancer (TanyNanyM1) discussed at the MDT within 6 weeks of	95%	2021 - 22	91%	95%	95%	100%	96%
commencing treatment.		2020 - 21	95%	98%	98%	97%	98%
QPI 5: Surgical Margins* – Proportion of patients with	< 20%	2021 - 22			13% (20/154)		13% (20/154)
pathologically confirmed, organ confirmed (stage pT2) prostate cancer who undergo radical prostatectomy in which tumour is		2021 - 22			21%		21%
present at the margin, i.e. positive surgical margin.		2020 - 21			23%		23%
		2021 - 22			3 met 1 not met		3 met 1 not met
QPI 6: Volume of Cases per Surgeon* – Number of radical prostatectomy procedures performed by a surgeon over a one year period.	50 minimum	2021 - 22			2 met 1 not met		2 met 1 not met
		2020 - 21			2 met 1 not met		2 met 1 not met

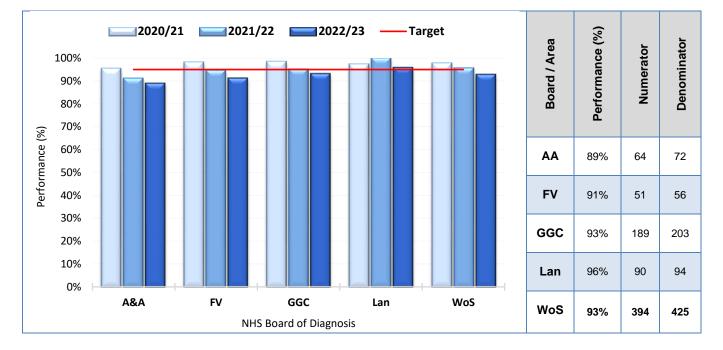
	Performance by NHS Board of diagnosis						
Quality Performance Indicator (QPI)	QPI target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 7(i): Androgen Deprivation Therapy (ADT) with		2022 - 23	96% (69/72)	86% (48/56)	91% (170/186)	97% (90/93)	93% (377/407)
Additional Systemic Therapy – Proportion of patients with metastatic prostate cancer (TanyNanyM1) who undergo	95%	2021 - 22	98%	87%	94%	94%	94%
immediate management with ADT.		2020 - 21	100%	90%	96%	96%	96%
QPI 7(ii): Androgen Deprivation Therapy (ADT) with Additional Systemic Therapy– Proportion of patients with	60%	2022 - 23	36% (24/66)	34% (19/56)	48% (85/178)	11% (10/88)	36% (138/388)
metastatic prostate cancer (TanyNanyM1) who undergo immediate management with ADT, plus additional systemic		2021 - 22					
therapy.		2020 - 21					
QPI 8: Assessment of Post-Treatment Patient Reported Outcome Measures (PROMs) */** - Proportion of patients with prostate cancer who undergo radical treatment that have		2022 - 23			65% (144/222)		65% (144/222)
returned a PROMs tool both pre and post treatment for	50%	2021 - 22			42%		42%
assessment of quality of life issues (i) Radical prostatectomy		2020 - 21			0%		0%
QPI 11: Management of Active Surveillance** - Proportion of men with prostate cancer under active surveillance who	95%	2022 - 23	72% (13/18)	82% (31/38)	80% (79/99)	60% (12/20)	77% (135/175)
undergo MRI (biparametric (bpMRI) or multiparametric		2021 - 22					
(mpMRI)) or prostate biopsy within 18 months of diagnosis.		2020 - 21					
QPI 14(i): Diagnostic Pre-biopsy MRI - Proportion of patients		2022 - 23	95% (157/165)	99% (138/139)	99% (543/546)	98% (230/235)	98% (1068/1085)
with prostate cancer who undergo biopsy that have a pre-biopsy bpMRI or mpMRI as their first line diagnostic investigation.	95%	2021 - 22	92%	96%	100%	96%	97%
		2020 - 21	93%	97%	100%	98%	98%
QPI 14(ii): Diagnostic Pre-biopsy MRI - Proportion of patients with prostate cancer who undergo biopsy that have a pre-biopsy		2022 - 23	100% (252/252)	96% (239/250)	95% (923/974)	87% (329/378)	94% (1743/1854)
bpMRI or mpMRI as their first line diagnostic investigation with	95%	2021 - 22	96%	93%	95%	91%	94%
imaging reported using a PI-RADS/ Likert system of grading.		2020 - 21	95%	98%	94%	95%	95%

	Performance by NHS Board of diagnosis						
Quality Performance Indicator (QPI)	QPI target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 15(i): Low Burden Metastatic Disease - Proportion of		2022 - 23	100% (72/72)	100% (57/57)	77% (157/203)	96% (90/94)	88% (376/426)
patients with metastatic prostate cancer in whom burden of disease is assessed.	95%	2021 - 22	100%	100%	73%	99%	85%
		2020 - 21	100%	100%	72%	100%	86%
QPI 15(ii): Low Burden Metastatic Disease - Proportion of		2022 - 23	38% (6/16)	60% (6/10)	69% (54/78)	46% (12/26)	60% (78/130)
patients with metastatic prostate cancer who have a low metastatic burden that receive radiotherapy.		2021 - 22	36%	27%	66%	72%	59%
		2020 - 21	35%	13%	54%	39%	39%

*QPI Reported by Board of Surgery ** QPI Reported one year in arrears

QPI 4: Multi-Disciplinary Team (MDT) Meeting

QPI 4 Title:	Patients should be discussed by a multidisciplinary team prior to definitive treatment.
Specification (ii)	Metastatic prostate cancer (TanyNanyM1)
Numerator (ii):	Number of patients with metastatic prostate cancer (TanyNanyM1) discussed at the MDT within 6 weeks of commencing treatment.
Denominator (ii):	All patients with metastatic prostate cancer (TanyNanyM1).
Exclusions:	Patients who died before first treatment.
Target:	95%



NHS Lanarkshire was the only Board to achieve the target within the region.

NHS Ayrshire & Arran noted that patients not meeting the QPI criteria began hormone therapy pre-MDT and were considered unfit for further treatment. NHS Forth Valley reviewed five non-compliant cases: two were discussed post-42 days, one without a recorded start date, and two were treated for acute symptoms without MDT discussion. The Board noted that those not discussed at MDT prior to treatment did not follow a standard referral pathway and were treated on clinical grounds to manage acute symptoms, rather than delay treatment to await MDT discussion.

NHSGGC reported two patients not discussed at MDT and 12 starting ADT over six weeks pre-MDT due to patient delays, an administrative issue and necessary biopsy/staging investigations. NHSGGC stated that they will ensure all staff involved in prostate cancer management automatically list patients for MDT discussion upon commencing ADT, to expedite scans if necessary.

Action required:

• NHSGGC to ensure that all involved in prostate cancer management automatically list patients for MDT discussion when ADT is commenced, to expedite scans if needed.

QPI 6: Volume of Cases per Surgeon

QPI 6 Title:	Surgery should be performed by surgeons who perform the procedure routinely.
Specifications:	Number of radical prostatectomies performed by each surgeon in a given year.
Exclusions:	None
Target:	Minimum of 50 procedures per surgeon in a 1 year period.

The number of radical prostatectomies performed per surgeon 2022/23.

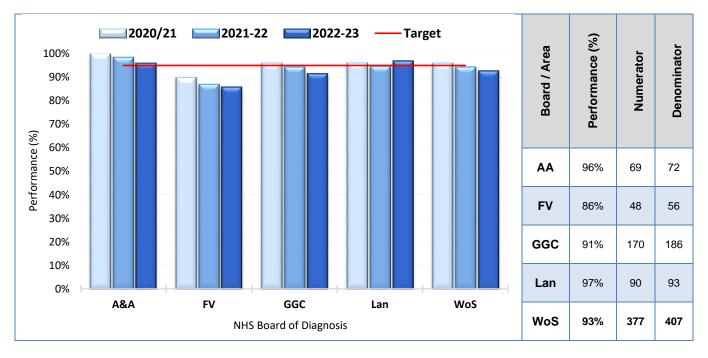
	No. of Operating Surgeons	No. of Procedures	No. of Surgeons Meeting Target
GGC	4	280	3
WoS	4	280	3

Within NHSGGC, one surgeon performed 45 procedures. It is anticipated that this surgeon will meet the target in next year's analysis, having already performed 32 procedures in the first half of the upcoming audit period.

Going forward, the MCN will monitor surgical volumes given that NHS Ayrshire & Arran now have robotic capacity with a single operator and will be undertaking robotic-assisted laparoscopic radical prostatectomy (RALP) in NHS Ayrshire & Arran and also accepting referrals from NHS Forth Valley. Volume of cases per surgeon will be considered as part of the ongoing Regional Planning review of Robotic Assisted Surgery (RAS).

QPI 7: Androgen Deprivation Therapy (ADT) with Additional Systemic Therapy

QPI 7 Title:	Patients with metastatic prostate cancer should undergo immediate androgen deprivation therapy (ADT), with additional systemic therapy where appropriate.
Specification (i)	Immediate ADT
Numerator (i):	Number of patients presenting with metastatic prostate cancer (TanyNanyM1) treated with immediate ADT.
Denominator (i):	All patients presenting with metastatic prostate cancer (TanyNanyM1).
Exclusions:	Patients documented to have declined immediate ADTPatients enrolled in clinical trials
Target:	95%

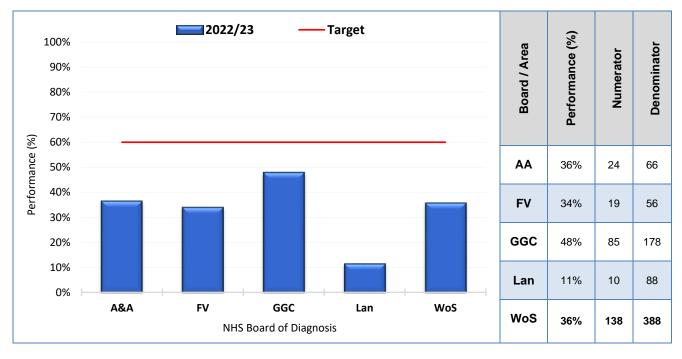


The proportion of patients with metastatic disease undergoing immediate hormone therapy has been lower in NHS Forth Valley than in other NHS Boards over a number of years.

NHS Forth Valley reviewed the cases and commented that eight patients did not meet the QPI for various reasons, including issues with hormone treatment initiation, lack of MDT discussion (due to non-typical referral pathway), patient mortality, cognitive decline, surgical considerations, and cardiac status. The Board concluded that all decisions were clinically appropriate.

NHSGGC reported multiple QPI non-compliant cases. Two patients started ADT immediately after diagnosis without MDT discussion, seven received only supportive care, and three began ADT late due to initially undetected metastases. Four patients experienced delays due to unusual presentation, extensive investigations, patient delays, and scheduling issues.

QPI 7 Title:	Patients with metastatic prostate cancer should undergo immediate androgen deprivation therapy (ADT), with additional systemic therapy where appropriate [‡] .
Specification (ii)	Immediate ADT plus additional systemic therapy
Numerator (ii):	Number of patients presenting with metastatic prostate cancer (TanyNanyM1) treated with immediate ADT plus additional systemic therapy.
Denominator (ii):	All patients presenting with metastatic prostate cancer (TanyNanyM1).
Exclusions:	 Patients documented to have declined immediate ADT Patients documented to have declined systemic therapy Patients enrolled in clinical trials
Target:	60%



After the Formal Review of prostate cancer QPIs, the target increased from 40% to 60%, and this QPI was updated to cover all systemic treatments, including androgen receptor targeted agents (ARTA), aligning with advancements in clinical practice. This is the initial year of reporting using the new definition, establishing a baseline for subsequent years.

The measurement of this indicator is complex, requiring multiple time parameters and treatment conditions to be satisfied in order to achieve the QPI target. Following review of the first year of data, the MCN has highlighted that the QPI may require further refinement in order to accurately assess the volume of additional SACT treatment for metastatic disease in the hormone sensitive setting.

Only patients with newly diagnosed metastatic disease are captured in the denominator therefore patients with relapsed metastatic disease who are treated with additional SACT will not be included, which may impact calculations.

In the meantime, the MCN has requested comparative data from England to gain further insight into the number of patients presenting with metastatic disease, and the WoSCAN Information Team will routinely provide results broken down by number of patients receiving additional SACT treatment and proportion receiving treatment within the defined time parameters, to offer further context to QPI results.

NHS Ayrshire & Arran observed that patients failing to meet the QPI criteria were deemed unfit for SACT and were for long term hormones only.

NHS Forth Valley reviewed 37 patients not meeting the QPI. Reasons included missing hormone start dates, delayed ARTA or chemotherapy, lack of MDT discussion and late hormone initiation. Some patients received hormone therapy without ARTA or chemotherapy due to clinical reasons. The QPI criteria was primarily unmet in patients requiring additional staging investigations and assessments to determine suitability for additional systemic therapy.

NHS Lanarkshire clinical review concluded that 29 patients received additional systemic therapy beyond the 100-day target, while others were ineligible for additional systemic therapy due to factors such as co-morbidities, concurrent medical conditions, general fitness, and frailty. Oncology feedback indicates delays in oncologist appointments due to clinic and capacity pressures. Furthermore it was noted that this group of patients is deemed non urgent or low risk as they have already begun treatment.

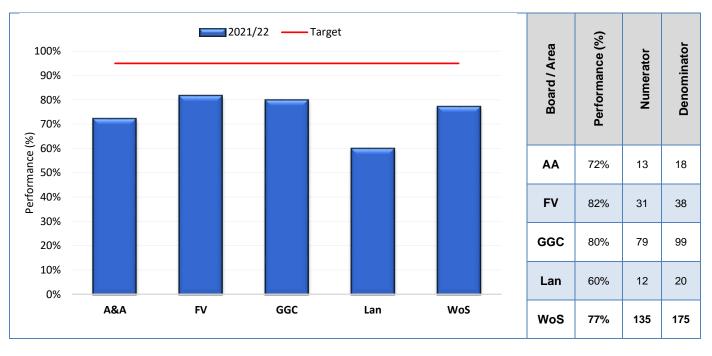
NHSGGC commented that while some patients started ARTA within the timescale but did not receive ADT within 31 days of MDT, others experienced delays due to requirement for additional investigations, patient factors, other treatments, comorbidities, and trial screening. A number of patients didn't receive ARTA due to fitness, comorbidities, being on supportive care, or other factors. The Board intends to document the ADT start date at MDT to highlight the remaining time for initiating ARTA, if appropriate for the patient.

Action required:

- All Boards to record the ADT start date at MDT to highlight the timeframe for commencing additional SACT.
- NHS Lanarkshire to address oncology clinic capacity issues.
- MCN to compare rates with other regions in Scotland and ascertain rates in England as this is a new QPI definition and confidence in target and measurability is important to determine.
- The regional Information Team to routinely report two separate elements: the number of patients receiving immediate ADT with additional SACT and the timescale for receiving this treatment.

QPI 11: Management of Active Surveillance

QPI 11 Title: Men under active surveillance for prostate cancer should undergo MRI or prostate biopsy within 18 months of diagnosis. Numerator: Number of patients with prostate cancer under active surveillance who undergo MRI (bpMRI or mpMRI) or prostate biopsy within 18 months of diagnosis. Denominator: All patients with prostate cancer under active surveillance. Patients unable to undergo an MRI scan: Pacemaker or other MRI Exclusions: incompatible implanted device, Cerebral aneurysm clip, Metal in eye, Claustrophobia, Unable to fit bore of scanner, Too heavy for MRI table Patients who decline MRI Patients who undergo radical treatment within 12 months Target: 95%



This QPI is reported one year in arrears therefore data presented are for patients diagnosed in 2021-22.

Following the recently completed Formal Review of prostate cancer QPIs the definition of this QPI has been amended to allow mpMRI / bpMRI from 11 months to 18 months following diagnosis, for patients having biopsy as an alternative to mpMRI / bpMRI to meet the QPI and for patients undergoing radical treatment within 12 months of diagnosis to be excluded.

It is anticipated that performance against this QPI will continue to improve following the introduction of the WoSCAN guidance for managing active surveillance, published in March 2023.

Across different NHS Boards, challenges with meeting surveillance targets for cancer patients were highlighted. All Boards noted that a number of patients had surveillance scans earlier than the 11 months specified in the QPI, mainly due to rising PSA levels, patient anxiety or other indication. For those cases receiving surveillance scans after 18 months factors such as incidental diagnosis, patient unavailability or patient choice not to undergo a scan impacted upon timelines.

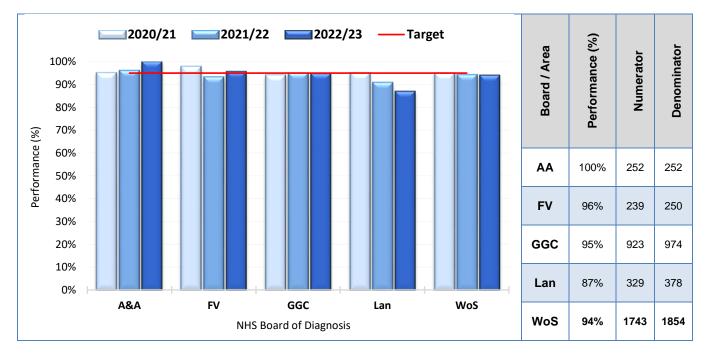
Additionally, NHS Forth Valley identified that staffing challenges affecting CNS follow-up, had led to scans being booked at 1 year from MRI, rather than 1 year from biopsy. Reinforcement of guidelines was provided to the current CNS team.

Action required:

• All Boards to reinforce the Regional Active Surveillance protocol to clearly outline the QPI requirements for the timing of surveillance investigations in relation to the diagnosis date.

QPI 14: Diagnostic Pre-biopsy MRI

QPI 14 Title:	Patients with prostate cancer who undergo biopsy should be evaluated initially with a pre-biopsy biparametric MRI (bpMRI) or multiparametric MRI (mpMRI) and reported using a PI-RADS/Likert system of grading
Specification (ii):	Patients with prostate cancer who undergo biopsy that have a pre-biopsy bpMRI or mpMRI as their first line diagnostic investigation with imaging reported using a PI-RADS/ Likert system of grading.
Numerator (ii):	Number of patients with prostate cancer who undergo biopsy that have a pre-biopsy bpMRI or mpMRI as their first line diagnostic investigation with imaging reported using a PI-RADS/Likert system of grading.
Denominator (ii):	All patients with prostate cancer who undergo biopsy that have a pre-biopsy bpMRI or mpMRI as their first line diagnostic investigation.
Exclusions:	No Exclusions
Target:	95%



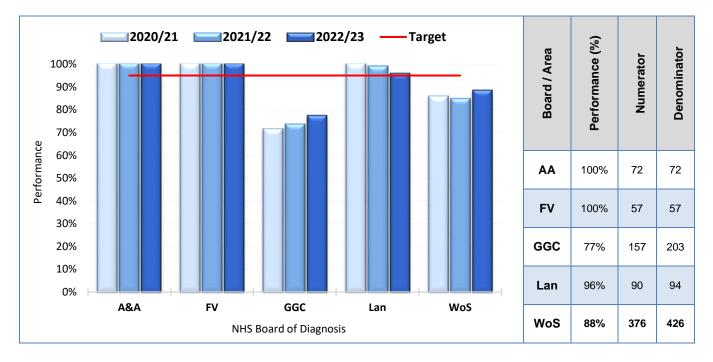
NHS Forth Valley observed that 11 patients did not meet the QPI, with no recorded PIRADS / LIKERT grades; three MRIs were reported by external radiologists, while Forth Valley radiologists reported the remaining 8 MRIs however no reason was documented for the missing grades.

NHS Lanarkshire reviewed patients not meeting the target; 41 had no targetable lesions on MRI scans, and 8 had high-grade disease, and therefore clinicians concluded that assigning a PIRADS score in such cases would not be clinically relevant. The Board flagged that despite the absence of targetable lesions, no formal recording system exists and suggested adding an option within the dataset to record cases without targetable lesions to address this issue.

NHSGGC noted that Pi-RADS was not assessable in seven cases due to technical reasons. In the other 44 cases, no reason was provided for the missing score, but most had locally advanced disease, with almost half being metastatic.

QPI 15: Low Burden Metastatic Disease

QPI 15 Title:	Patients presenting with metastatic prostate cancer should have their burden of disease assessed, and undergo radiotherapy where appropriate.
Specification (i):	Patients presenting with metastatic prostate cancer in whom burden of disease is assessed.
Numerator (i):	Number of patients presenting with metastatic prostate cancer in whom burden of disease is assessed.
Denominator (i):	All patients presenting with metastatic prostate cancer.
Exclusions:	No Exclusions
Target:	95%

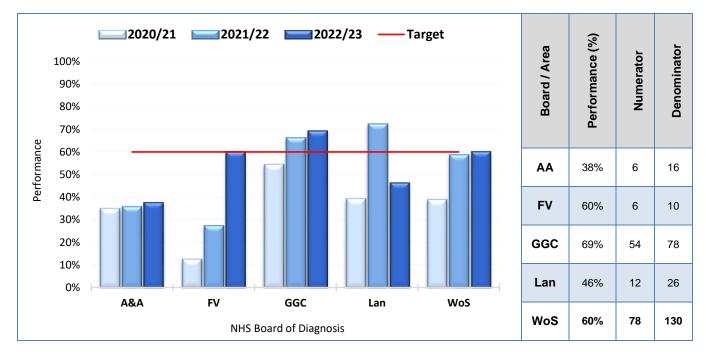


Within NHSGGC, the disease burden was not documented for 46 patients, and full staging was not completed in two cases, making assessment unachievable. Marginal improvement is observed from previous years. The MDT will be reminded to document disease burden for all metastatic cases, and the assessment tool will be circulated to clinical teams across all three sectors.

Action Required:

• NHSGGC to remind the MDT to document disease burden for all metastatic cases and circulate disease burden assessment tool.

Numerator (ii): Denominator (ii):	Number of patients presenting with metastatic prostate cancer who have a low metastatic burden that receive radiotherapy All patients with metastatic prostate cancer who have a low metastatic burden.
Exclusions:	Patients documented to have declined radiotherapy treatment.
Target:	60%



Performance has improved regionally, meeting the target despite small patient numbers making comparison difficult. The proportion of patients with low-volume metastatic disease appears low compared to published data. NHSGGC has maintained a good rate, surpassing the target, and NHS Forth Valley has improved significantly from the previous year, now achieving the target. NHS Lanarkshire previously met this target, but their rate has dropped significantly. NHS Ayrshire & Arran have persistently failed to achieve this target.

Cases not meeting the target were reviewed. Within NHS Ayrshire & Arran, 10 patients not having radiotherapy were considered not fit enough for treatment. In NHS Forth Valley, a review revealed that four patients did not undergo radiotherapy for low-burden metastatic disease, all decisions were deemed clinically appropriate. NHS Lanarkshire's review concluded that although many of the patients were reviewed by oncology, they were deemed not suitable for radiotherapy. Treatment decisions were influenced by diverse factors like age, frailty, comorbidities, and patient preferences.

Action Required:

• NHS Lanarkshire and NHS Ayrshire & Arran to monitor decision making in this group of patients and develop action plan to improve if rates remain low.

Appendix 1: Meta Data

Report Title	Cancer Audit Report: Prostate Cancer Quality Performance Indicators					
Time Period	Patients diagnosed between 01 July 2022 to 30 June 2023					
Data Source	Prostate Cancer QPIs V5.0 <u>Cancer Quality Performance Indicators (QPIs)</u> (healthcareimprovementscotland.org)					
Data extraction date	2200 hrs on 08 April 2024					
Data Quality						
		Ayrshire & Arran	Forth Valley	GGC	Lanarkshire	WoS
	Cases from audit 2022-23	378	324	1191	522	2415
	Cases from ISD (2018-22)	295	265	996	374	1930
	Case ascertainment	128.1%	122.3%	119.6%	139.6%	125.1%

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