West of Scotland Cancer Network

Urological Cancer
Managed Clinical Network

Audit Report

Bladder Cancer
Quality Performance Indicators

Clinical Audit Data: 01 April 2022 to 31 March 2023

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Bladder Cancer Quality Performance Indicators: Data Overview

Patients diagnosed April 2022 - March 2023

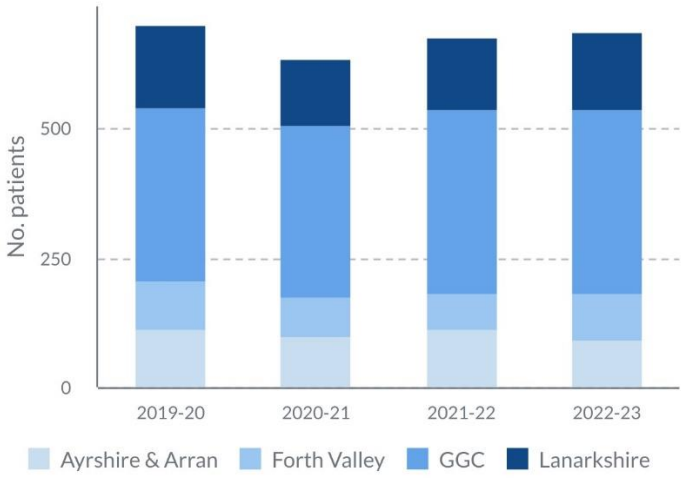
Number of patients diagnosed	686
Non-muscle invasive bladder cancer	472
Muscle invasive bladder cancer	214

Muscle Invasive Bladder Cancer Survival

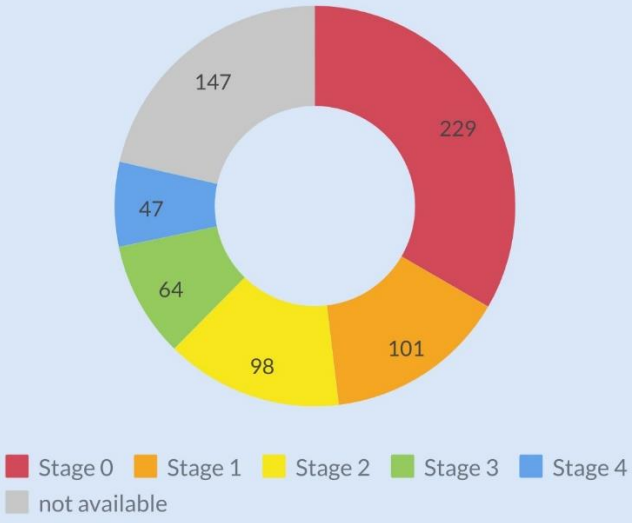
1 Year age standardised net survival	70%
5 Year age standardised net survival	48%

* patients diagnosed 2015-2019
www.publichealthscotland.scot/publications/cancer-survival-statistics/

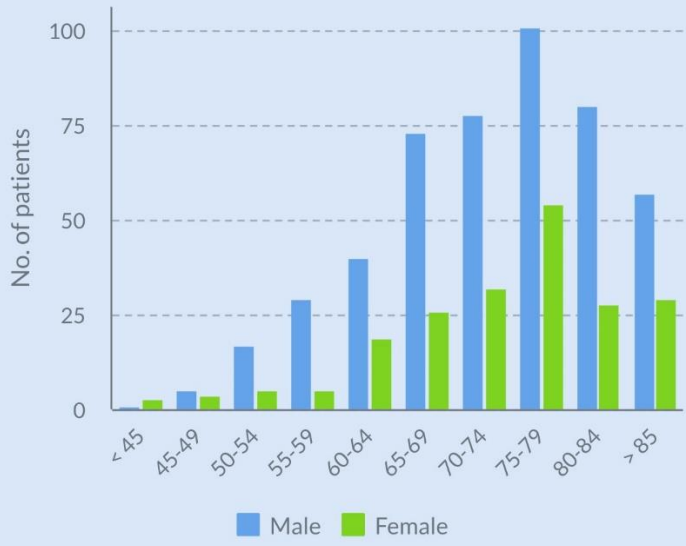
Where are patients diagnosed



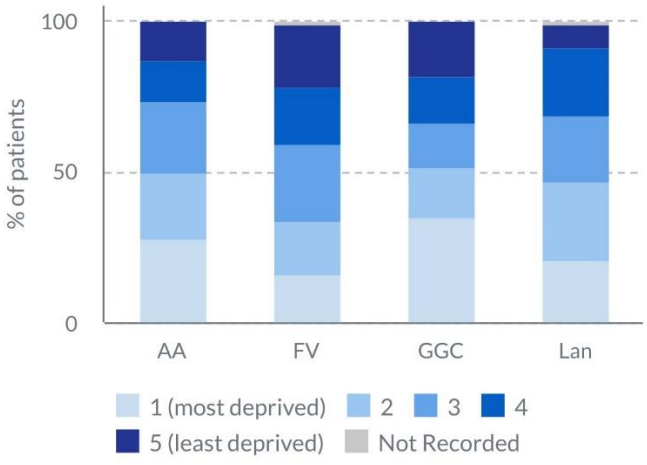
Stage at Presentation



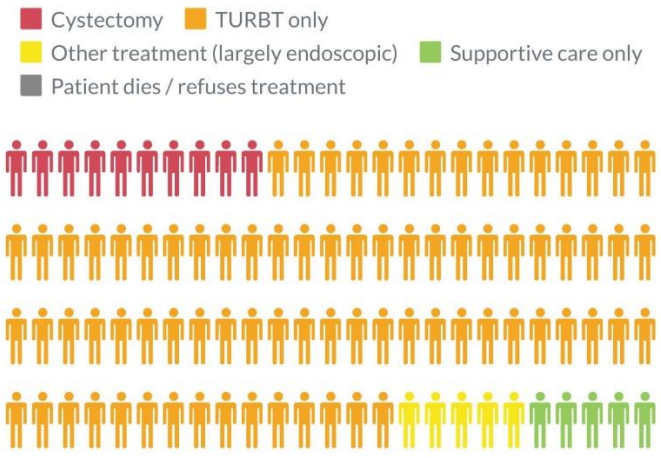
Age of patients



Deprivation Index of Patients



First Treatment



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 bladder cancer in the twelve months between 01 April 2022 and 31 March 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. In 2021 a Formal Review of Bladder Cancer QPIs was commenced, resulting in amendments to the definitions of a number of indicators. These changes were implemented in full for the first time for patients diagnosed in 2022-23, where changes to definitions have been made there are no comparable data from previous years. Note that QPI measures that have been met by all NHS Boards are included in the summary results table but not within the body of the report.

The results presented within this report illustrate that some of the QPI targets remain challenging, with room for further service improvement. The main challenge is ensuring timely treatment in the face of pressures on theatre capacity and oncology resource; however Boards are progressing a number of actions, including the identification of further capacity and review of patient pathways which will hopefully go some way to improving performance in this area (QPI 4 & 7). For some of the QPI targets not met, review of performance indicates that the service provided to patients was clinically appropriate; in some instances the MCN has suggested amendments to the definition of the QPIs at the upcoming Formal Review of Bladder Cancer QPIs to maximise the value of the results reported.

It is encouraging that targets relating to discussion at MDT (QPI 1) were consistently met by all Boards in this reporting period. In addition, this first year of reporting of the updates QPI 10 will act as a benchmark for measuring the introduction of the new radiosensitiser service at the Beatson West of Scotland Cancer Centre.

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 ensure that TURBT proformas are routinely completed for all patients having TURBT.**
- **MCN to propose review of the target and / or exclusions for QPI 2(iii) at the upcoming Formal Review to take into account those patients for which an aggressive resection is not appropriate.**
- **MCN to propose review of the target and / or exclusions for QPI 3 at the upcoming Formal Review to take into account those patients for which mitomycin C is not clinically appropriate.**
- **NHS Ayrshire & Arran to consider developing a designated list for re-TURBT in the Day Surgery Unit.**
- **NHSGGC to share work on the accelerated pathway to re-TURBT for high risk bladder cancer patients with other WoSCAN Boards.**
- **MCN to undertake additional analysis to explore variation in the proportion of patients having re-TURBT or early cystoscopy, timeliness of re-TURBT or early cystoscopy and the impact of giving intravesical therapy on performance against this target across WoSCAN to better understand performance against QPI 4 and support service improvement.**

- **MCN to propose amending QPI 4 at Formal Review to report whether patients had re-TURBT / cystoscopy and timeliness of the procedure separately. In addition the MCN will propose that the review should take into account intravesical therapy, which results in delays to repeat cystoscopy, and that the data definition for repeat cystoscopy is updated to ensure consistent recording of repeat procedures across Scotland.**
- **MCN to suggest exclusion of patients that have had previous lymphadenectomy from QPI 6 at the upcoming Formal Review.**
- **NHSGGC to share learning from the review of the patient pathway for radical treatment with the MCN, including identification of any areas where efficiencies could be made.**
- **MCN to undertake further analysis to timeliness of cystectomy and radiotherapy across WoSCAN separately to better understand performance against QPI 7 and support service improvement.**
- **MCN to suggest exclusion of simple cystectomies from QPI 8 at the upcoming Formal Review.**
- **MCN to keep abreast of the ongoing Regional Planning review of robotic surgery which will include configuration of surgical centres and surgical volumes across WoSCAN.**

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.**

Summary of Bladder QPI results

Key	
	Above Target Result
	Below Target Result
-	1-4 patients in denominator
	No comparable data for previous years

QPI	Target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 1: Multi-Disciplinary Team Meeting Discussion: Proportion of patients with bladder cancer who are discussed at MDT meeting before definitive treatment (i) MIBC	**95%**	2022 - 23	97% (32/33)	100% (31/31)	98% (105/107)	100% (42/42)	99% (210/213)
		2021 - 22	100%	100%	96%	100%	98%
		2020 - 21	100%	100%	99%	100%	100%
(ii) NMIBC	**95%**	2022 - 23	100% (55/55)	100% (45/45)	99% (225/227)	100% (98/98)	100% (423/425)
		2021 - 22	100%	97%	99%	100%	99%
		2020 - 21	100%	89%	99%	100%	98%
QPI 2: Quality of Transurethral Resection of Bladder Tumour: Proportion of patients with bladder cancer who undergo good quality TURBT* (i) Use of a bladder diagram / detailed description with documentation of tumour location, size, number and appearance at initial resection	**95%**	2022 - 23	81% (62/77)	96% (66/69)	95% (287/303)	95% (119/125)	93% (534/574)
		2021 - 22	96%	92%	92%	95%	93%
		2020 - 21					
(ii) Whether the resection is complete or not at initial resection	**95%**	2022 - 23	96% (71/74)	99% (67/68)	99% (265/269)	99% (118/119)	98% (521/530)
		2021 - 22	99%	98%	98%	97%	98%
		2020 - 21	99%	94%	99%	100%	99%
(iii) Whether detrusor muscle included in the specimen at initial resection	**90%**	2022 - 23	78% (18/23)	97% (30/31)	73% (75/103)	86% (37/43)	80% (160/200)
		2021 - 22	73%	90%	70%	76%	74%
		2020 - 21					

QPI	Target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 3: Mitomycin C Following Transurethral Resection of Bladder Tumour: Proportion of patients with low grade Ta NMIBC who undergo TURBT who receive a single instillation of mitomycin C (or other alternative chemotherapy agent) within 24 hours of resection*	**80%**	2022 - 23	68% (19/28)	73% (11/15)	72% (87/121)	61% (28/46)	69% (145/210)
		2021 - 22			`		
		2020 - 21					
QPI 4: Early Re-Transurethral Resection of Bladder Tumour: (i) Proportion of patients with T1 (all grades) or select high grade Ta NMIBC who have undergone TURBT who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection*	**80%**	2022 - 23	6% (1/18)	17% (4/23)	35% (29/84)	26% (9/35)	27% (43/160)
		2021 - 22	5%	29%	44%	13%	32%
		2020 - 21	0%	54%	51%	17%	37%
(ii) Proportion of patients with high grade NMIBC who have undergone TURBT where detrusor muscle is absent from specimen who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection*	**80%**	2022 - 23	-	-	40% (12/30)	33% (2/6)	35% (14/40)
		2021 - 22	11%	67%	34%	44%	34%
		2020 - 21					
(iii) Number of patients with NMIBC who have undergone TURBT where initial resection is incomplete who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection*	**80%**	2022 - 23	0% (0/10)	-	19% (4/21)	20% (2/10)	14% (6/43)
		2021 - 22	0%	-	42%	30%	35%
		2020 - 21	0%	*	64%	46%	50%
QPI 6: Lymph Node Yield: Proportion of patients with bladder cancer who undergo primary radical cystectomy where ≥ 10 lymph nodes are resected and pathologically examined, and at least level 2 pelvic lymph node dissection (to the middle of the common iliac artery or level of the crossing of the ureter) has been undertaken*	**95%**	2022 - 23	20% (2/10)	* (0/0)	91% (30/33)	91% (21/23)	80% (53/66)
		2021 - 22	47%	*	89%	100%	80%
		2020 - 21					
QPI 7: Time To Treatment: Proportion of patients with MIBC who commence radical treatment within 6 weeks of their diagnosis of MIBC, or within 8 weeks of completing treatment where patients are undergoing neoadjuvant chemotherapy (i) Radical treatment (cystectomy or radiotherapy)	**90%**	2022 - 23	0% (0/5)	0% (0/13)	35% (11/31)	33% (3/9)	24% (14/58)
		2021 - 22					
		2020 - 21					

QPI	Target	Year	AA	FV	GGC	LAN	WoSCAN
(ii) Neoadjuvant chemotherapy	**90%**	2022 - 23	-	-	18% (2/11)	75% (9/12)	61% (19/31)
		2021 - 22					
		2020 - 21					
QPI 8: Volume of Cases per Surgeon: Number of radical cystectomy procedures performed by a surgeon over a 1 year period (SMR01 data)* By Surgeon	**Min 10 per year**	2022 - 23	1 met 1 not met	*	2 met 5 not met	1 met 2 not met	4 met 8 not met
		2021 - 22	1 met 1 not met	*	2 met 3 not met	3 met	6 met 4 not met
		2020 - 21	1 met	*	2 met 4 not met	2 met 1 not met	5 met 5 not met
By Surgical Centre	**Min 20 per year**	2022 - 23	16	*	52	21	2 met 1 not met
		2021 - 22					
		2020 - 21					
QPI 9: Oncological Discussion: Proportion of patients with muscle invasive bladder cancer who had radical surgery who met with an oncologist prior to radical cystectomy	**60%**	2022 - 23	29% (2/7)	-	48% (11/23)	67% (8/12)	52% (24/46)
		2021 - 22	33%	-	87%	56%	71%
		2020 - 21	46%	-	73%	100%	69%
QPI 10: Radical Radiotherapy Treatment with a Concomitant Radiosensitiser: Proportion of patients with transitional cell carcinoma of the bladder (T2-T4) undergoing radical radiotherapy receiving a concomitant radiosensitiser.	**50%**	2022 - 23	-	11% (1/9)	0% (0/18)	0% (0/8)	6% (2/36)
		2021 - 22					
		2020 - 21					
QPI 11: 30/90 Day Mortality after Treatment for Bladder Cancer: Proportion of patients with bladder cancer who die within 30 days of treatment with curative intent (radical cystectomy or radiotherapy) for bladder cancer (i) 30 Day Mortality - Surgery*	**<3%**	2022 - 23	10% (1/10)	* (0/0)	3% (1/33)	0% (0/23)	3% (2/66)
		2021 - 22	0%	*	4%	0%	2%
		2020 - 21	6%	*	3%	0%	3%

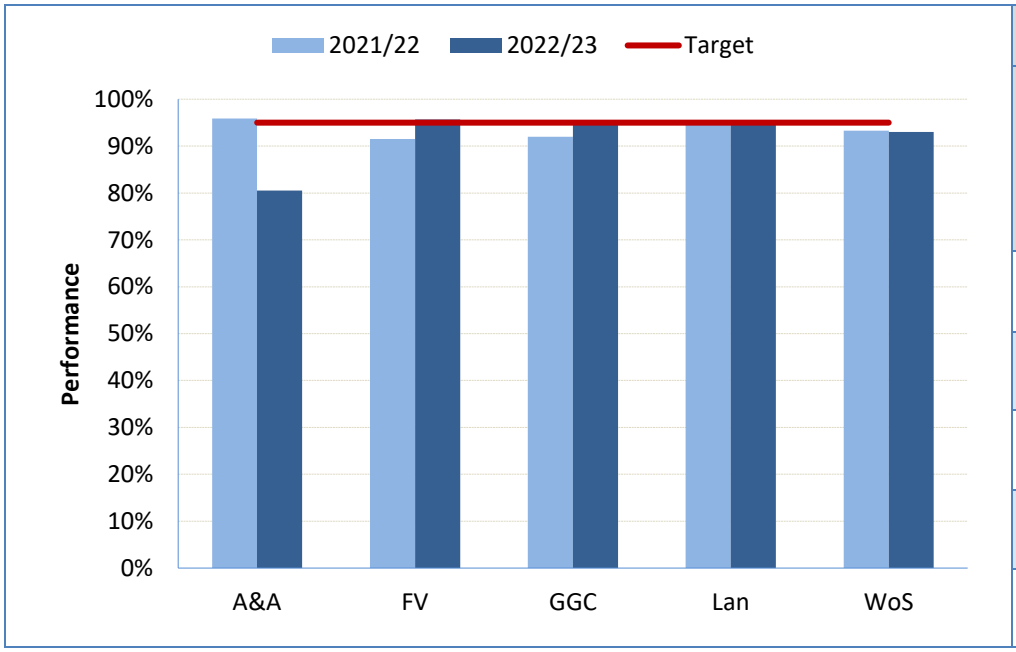
QPI	Target	Year	AA	FV	GGC	LAN	WoSCAN
(i) 30 Day Mortality - Radiotherapy	**<3%**	2022 - 23	-	0% (0/14)	0% (0/19)	0% (0/9)	0% (0/44)
		2021 - 22	0%	0%	0%	0%	0%
		2020 - 21	0%	0%	0%	0%	0%
(ii) 90 Day Mortality - Surgery*	**<5%**	2022 - 23	10% (1/10)	* (0/0)	6% (2/33)	4% (1/23)	6% (4/66)
		2021 - 22	7%	*	8%	0%	6%
		2020 - 21	6%	*	3%	0%	3%
(ii) QPI 11 – 90 Day Mortality - Radiotherapy	**<5%**	2022 - 23	-	0% (0/14)	6% (1/18)	22% (2/9)	7% (3/42)
		2021 - 22	0%	0%	0%	0%	0%
		2020 - 21	0%	0%	0%	0%	0%
QPI 13: Early Recurrence in Patients (NMIBC): Proportion of patients who have undergone TURBT with low grade pTa cancer where recurrence is found at first follow up cystoscopy, or with pT1 who have residual cancer or pathological MIBC (pT2) at reTURBT. (i) Recurrence at first follow-up cystoscopy (RRFFC) in patients with low grade pTa cancer	**<10%**	2022 - 23	20% (5/25)	0% (0/15)	8% (10/118)	9% (4/44)	9% (19/202)
		2021 - 22					
		2020 - 21					
(ii) Residual cancer at re-TURBT in patients with pT1	**<20%**	2022 - 23	-	33% (2/6)	19% (7/36)	43% (3/7)	24% (12/51)
		2021 - 22					
		2020 - 21					
(iii) Pathological MIBC (pT2) at re-TURBT in patients with pT1	**<1%**	2022 - 23	-	11% (1/9)	0% (0/41)	11% (1/9)	3% (2/61)
		2021 - 22					
		2020 - 21					

** QPIs analysed by NHS Board of Surgery*

QPI 2: Quality of Transurethral Resection of Bladder Tumour Recording

(i) Use of a bladder diagram with documentation of tumour location, size, number and appearance

QPI 2 Title:	Transurethral resection of bladder tumour (TURBT) procedures undertaken should be of good quality
Specification (i):	Use of a bladder diagram / detailed description with documentation of tumour location, size, number and appearance
Numerator (i):	Number of patients with bladder cancer who undergo TURBT where a bladder diagram / detailed description with documentation of tumour location, size, number and appearance has been used at initial resection
Denominator (i):	All patients with bladder cancer who undergo TURBT
Exclusions:	Patients undergoing palliative resection
Target:	**95%**



2022-23			
Board / Area	**Performance (%)**	**Numerator**	**Denominator**
AA	80.5%	62	77
FV	95.7%	66	69
GGC	94.7%	287	303
Lan	95.2%	119	125
WoS	**93.0%**	**534**	**574**

Additional Information – completeness of TURBT for patients included within Specification (i)				
Board / Area	**Complete**	**Incomplete**	**Unsure**	**Not Recorded**
AA	45 (58.4%)	16 (20.8%)	13 (16.9%)	3 (3.9%)
FV	54 (78.3%)	13 (18.8%)	0 (0%)	2 (2.9%)
GGC	220 (72.6%)	51 (16.8%)	26 (8.6%)	6 (2.0%)
Lan	88 (70.4%)	27 (21.6%)	9 (7.2%)	1 (0.8%)
WoS	**407 (70.9%)**	**107 (18.6%)**	**48 (8.4%)**	**12 (2.1%)**

Within NHS Ayrshire & Arran the 15 patients that did not meet this QPI had hand written operation notes which did not contain the full suite of information required. The Board acknowledge that a TURBT proforma should be routinely used for all TURBT patients to ensure complete recording of the procedure. An electronic proforma has now been developed and is expected to be rolled out nationally in due course; this should result in improvements to this measure.

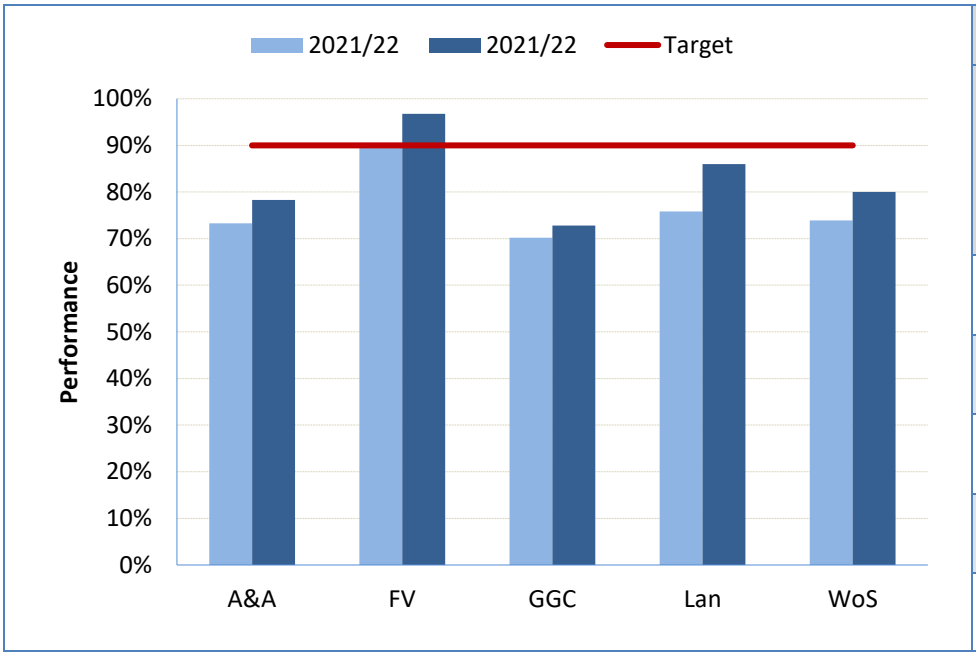
Action required:

- **NHS Ayrshire & Arran to ensure that TURBT proformas are routinely completed for all patients having TURBT.**

(ii) **Documented whether complete resection or not –**specification met by all NHS Boards

(iii) Detrusor muscle included in the specimen at initial resection

QPI 2 Title:	Transurethral resection of bladder tumour (TURBT) procedures undertaken should be of good quality
Specification (iii):	Whether detrusor muscle included in the specimen
Numerator (iii):	Number of patients with high grade NMIBC who undergo TURBT where detrusor muscle is included in the specimen at initial resection
Denominator (iii):	All patients with high grade NMIBC who undergo TURBT
Exclusions:	• Patients undergoing palliative resection • Patients with very small tumours (≤5mm) • Patients with bladder diverticular tumours
Target:	**90%**



2022-23			
Board / Area	**Performance (%)**	**Numerator**	**Denominator**
AA	78.3%	18	23
FV	96.8%	30	31
GGC	72.8%	75	103
Lan	86.0%	37	43
WoS	**80.0%**	**160**	**200**

Additional Information – completeness of TURBT for patients included within Specification (iii)				
Board / Area	**Complete**	**Incomplete**	**Unsure**	**Not Recorded**
AA	13 (56.5%)	4 (17.4%)	6 (26.1%)	0 (0%)
FV	24 (77.4%)	6 (19.4%)	0 (0%)	1 (3.2%)
GGC	73 (70.9%)	15 (14.6%)	13 (12.6%)	2 (1.9%)
Lan	32 (74.4%)	7 (16.3%)	4 (9.3%)	0 (0%)
WoS	**142 (71.0%)**	**32 (16.0%)**	**23 (11.5%)**	**3 (1.5%)**

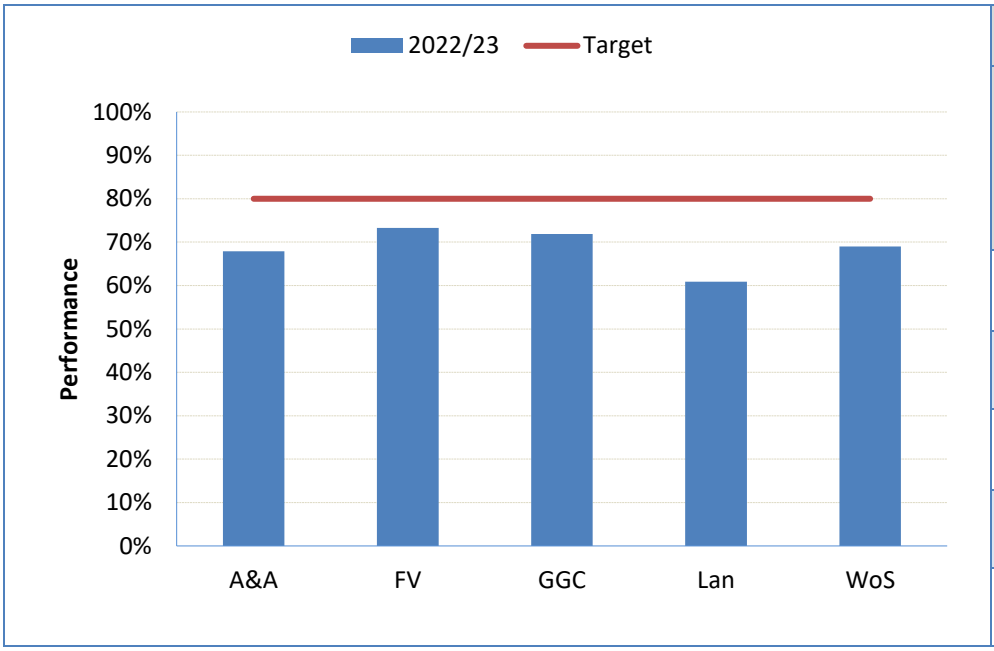
Review of patients not meeting the QPI was undertaken and it was concluded that patients had been treated appropriately. An aggressive resection is not always appropriate for this cohort of patients and therefore it is proposed that the target, or exclusions, for this specification are reviewed at the upcoming Formal Review to take into account.

Action required:

- **MCN to propose review of the target and / or exclusions for QPI 2(iii) at the upcoming Formal Review to take into account those patients for which an aggressive resection is not appropriate.**

QPI 3: Mitomycin C Following Transurethral Resection of Bladder Tumour (TURBT)

QPI 3 Title:	Patients with low grade Ta non muscle invasive bladder cancer (NMIBC) who undergo TURBT should receive a single instillation of mitomycin C (or other alternative chemotherapy agent) within 24 hours of resection, unless contraindicated
Numerator:	Number of patients with low grade Ta NMIBC who undergo TURBT who receive a single instillation of mitomycin C (or other alternative chemotherapy agent) within 1 day of initial TURBT
Denominator:	All patients with low grade Ta NMIBC who undergo initial TURBT
Exclusions:	No exclusions
Target:	**80%**



2022-23			
Board / Area	**Performance (%)**	**Numerator**	**Denominator**
AA	67.9%	19	28
FV	73.3%	11	15
GGC	71.9%	87	121
Lan	60.9%	28	46
WoS	**69.0%**	**145**	**210**

Amendments to the definition of this QPI to focus on patients with low grade Ta disease mean that there are no comparable data from previous years with which to compare the 2022/23 performance.

All NHS Boards noted that the majority of patients not meeting the QPI did not have mitomycin C due to having a perforation or thin-walled bladder. In such cases it was considered to be inappropriate for patients to have mitomycin C due to the risk of extravasation (chemotherapy agent leaking to surrounding tissue).

The target for this QPI was increased at the last Formal Review, however it would appear that this increase has not taken into account the relatively high proportion of patients for which mitomycin C may not be clinically appropriate and therefore the MCN will propose that the target, or exclusions, for this specification are reviewed at the upcoming Formal Review.

Action required:

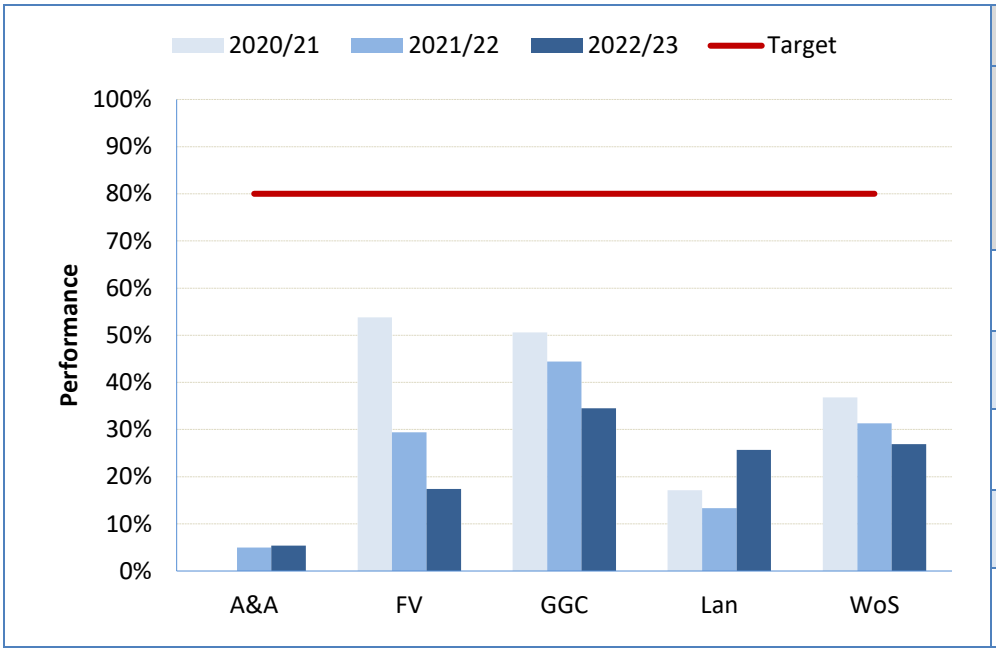
- **MCN to propose review of the target and / or exclusions for QPI 3 at the upcoming Formal Review to take into account those patients for which mitomycin C is not clinically appropriate.**

QPI 4: Early Re-Transurethral Resection of Bladder Tumour (TURBT)

(i) T1 (all grades) or select high grade Ta* NMIBC

QPI 4 Title:	A second resection or early cystoscopy (± biopsy) should be carried out within 6 weeks of initial TURBT in patients with high grade and/ or T1 non muscle invasive bladder cancer (NMIBC), when detrusor muscle is absent or when initial resection is incomplete
Specification (i):	T1 (all grades) or select high grade Ta* NMIBC
Numerator (i):	Number of patients with T1 (all grades) or select high grade Ta NMIBC who have undergone TURBT who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection
Denominator (i):	All patients with T1 (all grades) or select high grade Ta NMIBC who have undergone TURBT
Exclusions:	• Patients where TURBT has been carried out for palliation • Patients who have undergone early cystectomy • Patients with confirmed metastatic disease
Target:	**80%**

*High grade Ta which are multifocal (more than 1) or large (>3cm)



2022-23			
Board / Area	**Performance (%)**	**Numerator**	**Denominator**
AA	5.6%	1	18
FV	17.4%	4	23
GGC	34.5%	29	84
Lan	25.7%	9	35
WoS	**26.9%**	**43**	**160**

Further analysis of results indicates that while 14 patients did not have re-TURBT or early cystoscopy (9%), the vast majority of patients not meeting this measure had re-TURBT or early cystoscopy outwith the 6 week timescale. 51% of patients had re-TURBT or early cystoscopy within 8 weeks and 64% within 12 weeks.

Review of the 14 patients that did not progress to re-TURBT or early cystoscopy indicates that these patients were recommended for supportive care only or symptomatic management in view of co-morbidities or disease progression.

Where patients had re-TURBT or early cystoscopy more than 6 weeks after their initial resection the reasons for delays were not always clear. While this is likely to relate to theatre capacity in many cases, a considerable number of patients had a course of intravesical therapy prior to early cystoscopy, delaying the repeat procedure. These patients generally had a cystoscopy more than 12 weeks after their initial TURBT.

While there are challenges with undertaking re-TURBT within 6 weeks, steps can be taken to improve performance in this area:

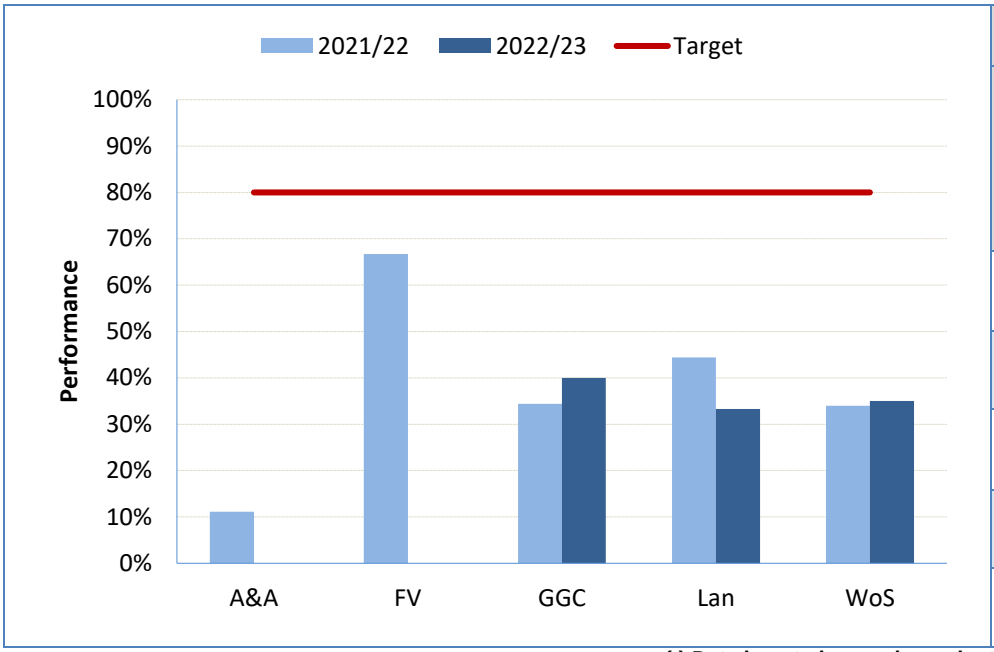
- NHSGGC surgical and pathology colleagues previously worked to develop an accelerated pathway for re-TURBT. This should be shared with other Boards in the region for consideration. Additional theatre capacity is being made available at the Queen Elizabeth University Hospital which it likely to results in improved performance in future.
- Within NHS Lanarkshire changes to the scheduling of re-TURBT were implemented towards the end of the reporting period; patients requiring re-resection are now highlighted to the MDT, the 6-week target date calculated and given to the theatre scheduling team to ensure timely booking of re-TURBT. This change may have resulted in some of the improvement in performance seen by the Board in 2022-23 and it is hoped will results in further improvements in future years.
- Within NHS Forth Valley theatre capacity was limited during the audit period due to job vacancies and reduced post COVID theatre access. A new consultant has since been appointed and two extra theatre lists allocated which it is hoped will improve timeliness of re-TURBT.
- In NHS Ayrshire & Arran delays in pathology reporting had made the 6 week target challenging, however since the reporting period the NHS Ayrshire & Arran pathology department have taken steps to improve resourcing, including outsourcing of some pathology reporting, resulting in a reduction in pathology reporting time. These changes are likely to make the 6 week target more achievable. The Board will also consider developing a designated list for these cases in the Day Surgery Unit.

In addition, the proposed formal designation of bladder centres across WoSCAN is likely to help secure the required surgical lists for re-TURBT. Performance against this measure will be continue to be reviewed to assess the impact of improvements to theatre scheduling and capacity.

There is a need to better understand the reasons why patients are not meeting this measure, in particular the impact of the use of intravesical therapy prior to cystoscopy on QPI results; this information is not currently recorded within the audit dataset.

(ii) High grade NMIBC where detrusor muscle absent from specimen

QPI 4 Title:	A second resection or early cystoscopy (± biopsy) should be carried out within 6 weeks of initial TURBT in patients with high grade and/ or T1 non muscle invasive bladder cancer (NMIBC), when detrusor muscle is absent or when initial resection is incomplete
Specification (ii):	High grade NMIBC where detrusor muscle is absent from specimen
Numerator (ii):	Number of patients with high grade NMIBC who have undergone TURBT where detrusor muscle is absent from specimen who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection
Denominator (ii):	All patients with high grade NMIBC who have undergone TURBT where detrusor muscle is absent from specimen
Exclusions:	• Patients where TURBT has been carried out for palliation • Patients who have undergone early cystectomy • Patients with confirmed metastatic disease
Target:	**80%**



2022-23			
Board / Area	Performance (%)	Numerator	Denominator
AA	-	-	-
FV	-	-	-
GGC	40.0%	12	30
Lan	33.3%	2	6
WoS	**35.0%**	**14**	**40**

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

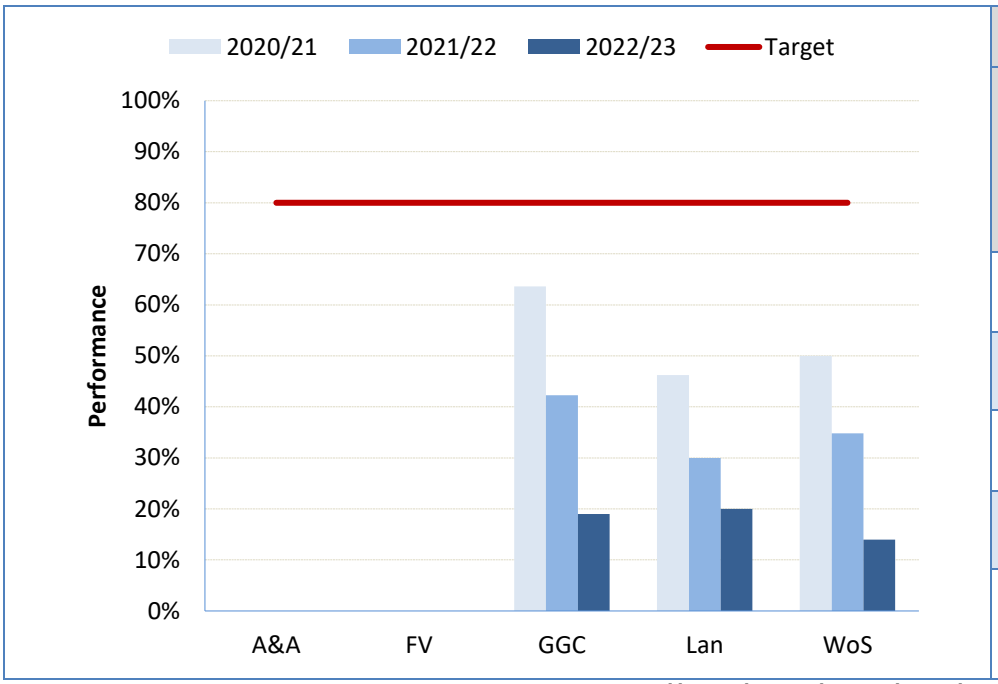
As for specification (i), further analysis of results indicates that while 6 patients did not have re-TURBT or early cystoscopy (15%), the majority of patients not meeting this measure had re-TURBT or early cystoscopy outwith the 6 week timescale. 60% of patients had re-TURBT or early cystoscopy within 8 weeks while 20% had the procedure more than 12 weeks after the initial resection.

Review of the 6 patients that did not have re-TURBT or early cystoscopy showed similar results to that for specification (i); patients were not considered to be fit for a second procedure and were recommended for supportive care in view of their co-morbidities or disease progression.

Twenty patients did not meet the QPI due to having their re-TURBT or early cystoscopy more than 6 weeks after their initial resection. Issues with surgical capacity account for these delays in the majority of cases while six of these patients had delays to their repeat cystoscopy due to having intravesical therapy prior to treatment. As detailed for specification (i) above, issues with theatre capacity are been addressed across all WoSCAN Boards.

(iii) NMIBC where initial resection is incomplete

QPI 4 Title:	A second resection or early cystoscopy (± biopsy) should be carried out within 6 weeks of initial TURBT in patients with high grade and/ or T1 non muscle invasive bladder cancer (NMIBC), when detrusor muscle is absent or when initial resection is incomplete
Specification (iii):	NMIBC where initial resection is incomplete
Numerator (iii):	Number of patients with NMIBC who have undergone TURBT where initial resection is incomplete who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection
Denominator (ii):	All patients with NMIBC who have undergone TURBT where initial resection is incomplete.
Exclusions:	• Patients where TURBT has been carried out for palliation • Patients who have undergone early cystectomy • Patients with confirmed metastatic disease
Target:	**80%**



	2022-23		
Board / Area	Performance (%)	Numerator	Denominator
AA	0%	0	10
FV	-	-	-
GGC	19.0%	4	21
Lan	20.0%	2	10
WoS	**14.0%**	**6**	**43**

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

Performance against specification (iii) had dropped considerably in recent years, however 77% of patients did have re-TURBT or early cystoscopy, 56% within 12 weeks of initial resection.

Ten patients did not have re-TURBT or early cystoscopy. Review of these cases identified similar issues to specification (i) and (ii); patients were not considered to be fit for a second procedure and were recommended for supportive care in view of their co-morbidities or disease progression. Two of these patients died shortly after their initial TURBT.

A further 27 patients had re-TURBT or cystoscopy more than 6 weeks after their initial resection, the reasons outlined for delays were the same as those outlined in Specification (i) and (ii) above.

The MCN plan to undertaken additional analysis to further explore the proportion of patients having re-TURBT or early cystoscopy across WoSCAN Boards, variations in the timeliness of these procedures and the impact of intravesical therapy on performance against this target. These analysis will be undertaken routinely in future years and included within annual QPI data reports going forward. In addition, the MCN will propose that the Formal Review consider amending QPI 4 to measure whether re-TURBT or early cystoscopy is undertaken and whether it is in a timely manner separately. The review should also take into account the impact of intravesical therapy on QPI performance, as patients undergoing this treatment will have delayed repeat cystoscopy and fail the QPI.

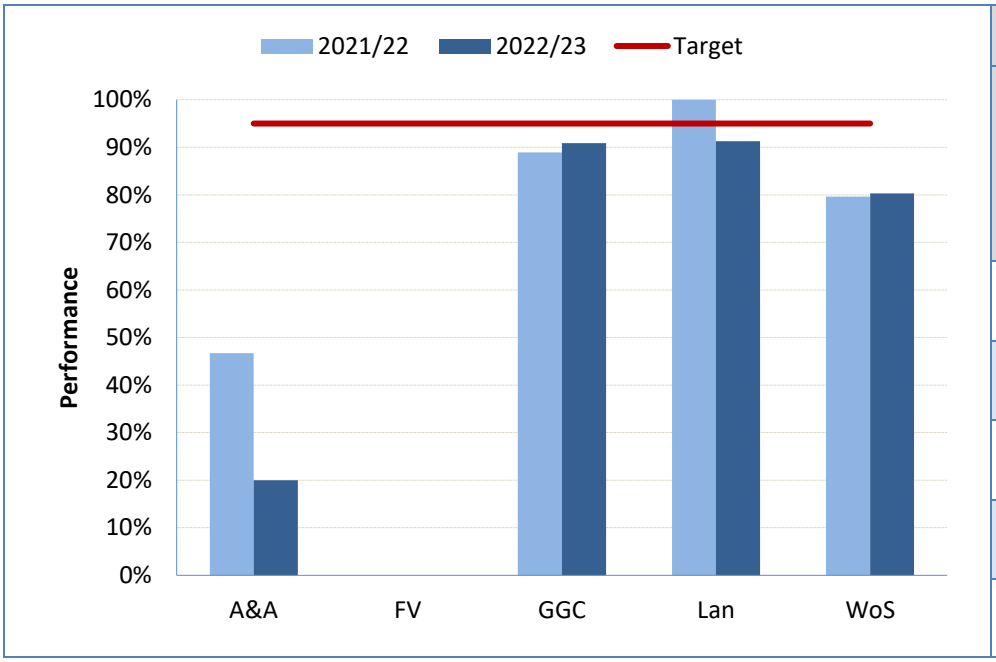
Action Required:

- **NHS Ayrshire & Arran to consider developing a designated list for re-TURBT in the Day Surgery Unit.**
- **NHSGGC to share work on the accelerated pathway to re-TURBT for high risk bladder cancer patients with other WoSCAN Boards.**
- **MCN to undertake additional analysis to explore variation in the proportion of patients having re-TURBT or early cystoscopy, timeliness of re-TURBT or early cystoscopy and the impact of giving intravesical therapy on performance against this target across WoSCAN to better understand performance against QPI 4 and support service improvement.**
- **MCN to propose amending QPI 4 at Formal Review to report whether patients had re-TURBT / cystoscopy and timeliness of the procedure separately. In addition the MCN will**

propose that the review should take into account intravesical therapy, which results in delays to repeat cystoscopy, and that the data definition for repeat cystoscopy is updated to ensure consistent recording of repeat procedures across Scotland.

QPI 6: Lymph Node Yield

QPI 6 Title:	For patients undergoing primary radical cystectomy for bladder cancer the number and extent of lymph nodes examined should be maximised
Numerator:	Number of patients with bladder cancer who undergo primary radical cystectomy where ≥ 10 lymph nodes are resected and pathologically examined, and at least level 2 pelvic lymph node dissection (i.e. to the middle of the common iliac artery or level of the crossing of the ureter) has been undertaken
Denominator:	All patients with bladder cancer who undergo primary radical cystectomy
Exclusions:	• Patients undergoing salvage cystectomy
Target:	**95%**



2022-23			
Board / Area	**Performance (%)**	**Numerator**	**Denominator**
AA	20.0%	2	10
FV	*	0	0
GGC	90.9%	30	33
Lan	91.3%	21	23
WoS	**80.3%**	**53**	**66**

Thirteen patients had less than 10 lymph nodes examined following cystectomy, 8 of which were from NHS Ayrshire & Arran. In March 2023 changes were made to the pathological processing of cystectomy specimens in NHS Ayrshire & Arran which are anticipated to increase lymph node yield, and performance against this QPI, in future years. Review of the two patients in NHS Lanarkshire that did not have 10 lymph nodes examined indicated that both patients have a level 2 pelvis lymph node dissection with 9 lymph nodes being sampled. Review of the three patients in NHSGGC indicated that they had between 6 and 9 nodes retrieved; one patient had previously received pelvic radiotherapy for another malignancy. The anatomy of some patients means that it is not always possible to remove 10 or more nodes and the MCN will propose excluding patients that have had previous lymphadenectomy from this measure at the upcoming Formal Review.

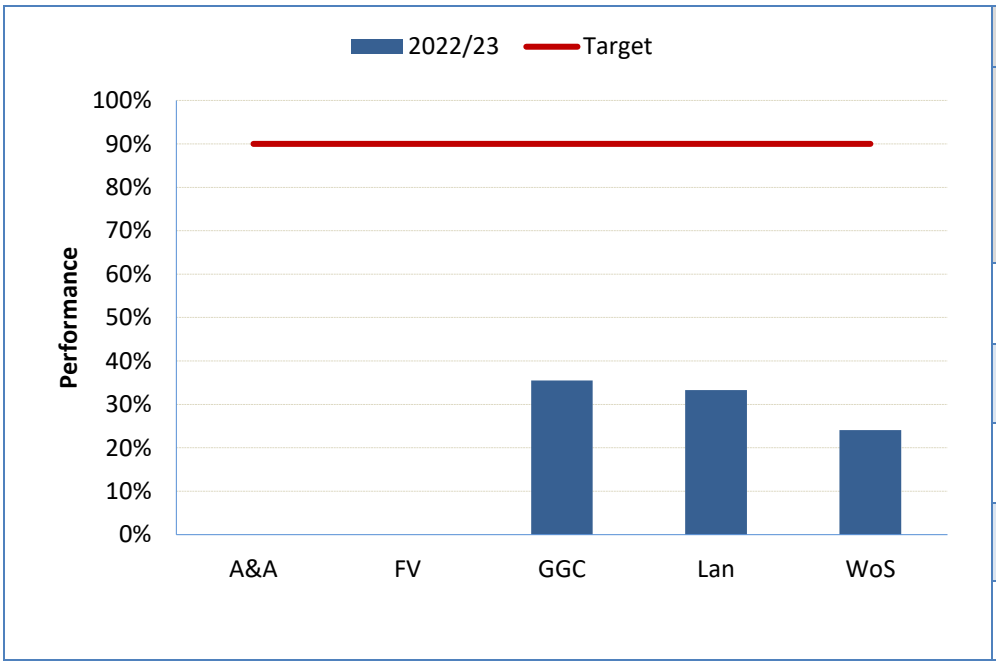
Action Required:

- **MCN to suggest exclusion of patients that have had previous lymphadenectomy from QPI 6 at the upcoming Formal Review.**

QPI 7: Time to Treatment

(i) Radical treatment (cystectomy or radiotherapy)

QPI 7 Title:	Patients with muscle invasive bladder cancer (MIBC) undergoing treatment with radical intent should commence treatment as soon as possible
Specification (i):	Radical treatment (cystectomy or radiotherapy)
Numerator (i):	Number of patients with MIBC who undergo radical cystectomy or radiotherapy only within 6 weeks of diagnosis of MIBC
Denominator (i):	All patients with MIBC undergoing radical cystectomy or radiotherapy only
Exclusions:	No exclusions
Target:	**90%**



2022-23			
Board / Area	**Performance (%)**	**Numerator**	**Denominator**
AA	0%	0	5
FV	0%	0	13
GGC	35.5%	11	31
Lan	33.3%	3	9
WoS	**24.1%**	**14**	**58**

The timescale within which treatment is required for this QPI measure was decreased from 3 months to 6 weeks and results for this first year of reporting of the revised definition highlight the challenges that NHS Boards in the West of Scotland have had with this more ambitious measure.

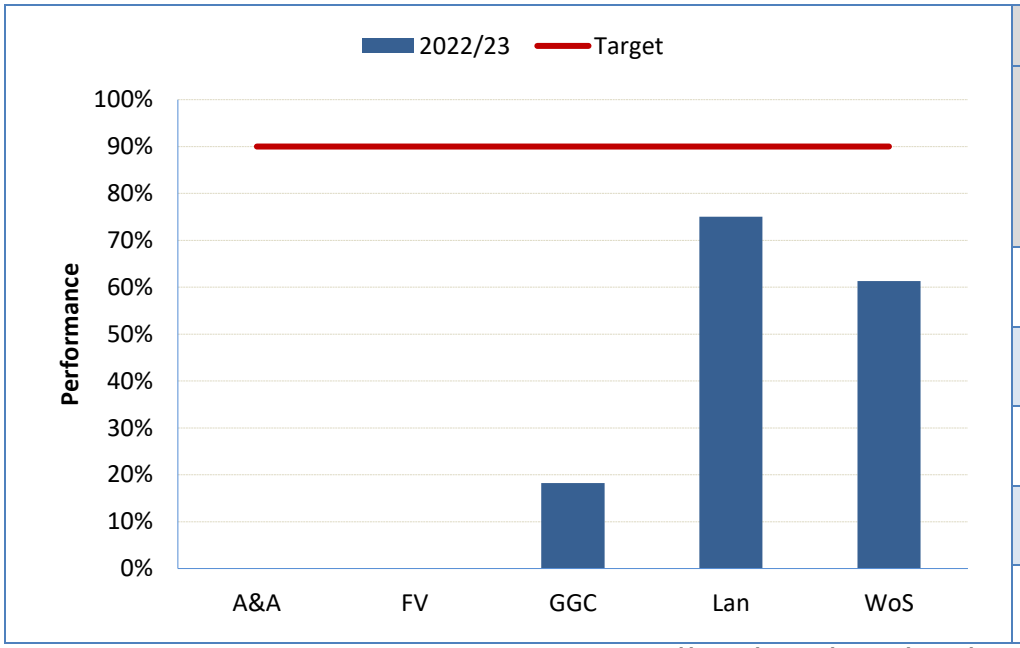
Twenty-five patients included within this QPI had cystectomy. Of these 9 (36.0%) had treatment within 6 weeks of diagnosis with MIBC, 17 (68.0%) within 8 weeks and 23 (92.0%) within 12 weeks. Most patients not meeting the measure were from NHS Ayrshire & Arran (5 patients) and NHSGGC (8 patients). For some cases delays in surgery were necessary to ensure the patient had the appropriate care. NHS Ayrshire & Arran noted that waiting times for cystectomy are anticipated to reduce following appointment of a new urological consultant.

Thirty three patients had radiotherapy only. Performance in this group of patients was lower; only 5 patients (15.2%) had treatment within 6 weeks of diagnosis of MIBC, 11 (33.3%) within 8 weeks and 22 (66.7%) within 12 weeks.

Within NHS Lanarkshire delays in seeing the oncologist for assessment and consent for radiotherapy was considered to be the main issue. There are now two consultants in the clinic and it is anticipated that this increase in oncology resource will result in improved performance in future years. NHSGGC acknowledged capacity issues, particularly within oncology services, and are currently undertaking a review of the whole system pathway with the aim of identifying where efficiencies can be realised.

(ii) Neoadjuvant chemotherapy

QPI 7 Title:	Patients with muscle invasive bladder cancer (MIBC) undergoing treatment with radical intent should commence treatment as soon as possible
Specification (ii):	Neoadjuvant chemotherapy
Numerator (ii):	Number of patients with MIBC who have neoadjuvant chemotherapy who undergo cystectomy or radiotherapy within 8 weeks of completing treatment
Denominator (ii):	All patients with MIBC undergoing neo-adjuvant chemotherapy
Exclusions:	No exclusions
Target:	**90%**



2022-23			
Board / Area	**Performance (%)**	**Numerator**	**Denominator**
AA	-	-	-
FV	-	-	-
GGC	18.2%	2	11
Lan	75.0%	9	12
WoS	**61.3%**	**19**	**31**

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

The measurability of this QPI was revised at the last Formal Review of Bladder Cancer QPIs and as such results are not comparable with those from previous years.

Twenty-one patients included within this QPI had cystectomy. Of these 13 (61.9%) had treatment within 8 weeks of chemotherapy and 18 (85.7%) within 10 weeks. Most patients not meeting the measure were from NHSGGC (7 patients).

Ten patients had radiotherapy. Performance in this group of patients was similar to those patients having surgery with 6 (60.0%) having radiotherapy within 8 weeks of chemotherapy and 80% within 12 weeks.

The regional radiotherapy service is under significant pressure with respect to capacity. Within NHS Lanarkshire, patients are now consented for radiotherapy as they start the final cycle of SACT so performance against this indicator is anticipated to improve in future. As highlighted for specification (i), NHSGGC acknowledged capacity issues, particularly within oncology services, and are currently undertaking a review of the whole system pathway with the aim of identifying where efficiencies can be realised.

The MCN will undertake further analysis to review timelines to treatment for patients undergoing cystectomy and radiotherapy separately, with the aim of providing these figures as part of routine annual reporting in future years.

Action Required:

- **NHSGGC to share learning from the review of the patient pathway for radical treatment with the MCN, including identification of any areas where efficiencies could be made.**
- **MCN to undertake further analysis to timeliness of cystectomy and radiotherapy across WoSCAN separately to better understand performance against QPI 7 and support service improvement.**

QPI 8: Volume of Cases per Surgeon/Centre

QPI 8 Title:	Radical cystectomy should be performed by surgeons who perform the procedure routinely in hospitals where there is an appropriate volume of such cases.
Description:	Number of radical cystectomy procedures performed by a specialist centre, and surgeon over a one year period.
Exclusions:	No exclusions.
Target:	Minimum 20 procedures per centre, with a minimum of 10 procedures per surgeon in a 1 year period.

Please note this QPI is reported using SMR01 data instead of clinical audit data.

	No. of Operating Surgeons	No. of Procedures	No. of Surgeons Meeting Target
AA	2	16	1
FV*	0	0	0
GGC*	7	52	2
Lan*	3	21	1
WoS	**12**	**86**	**4**

**Board adjusted results*

Data from this QPI were extracted from SMR01; NHS Boards have checked these data against local records and made corrections where there are inaccuracies, for example in the surgeon or the operation code recorded.

All NHS Boards met the target of 20 surgeries per centre with the exception of NHS Ayrshire & Arran; however the target for 10 surgeries per individual surgeon was more challenging.

As currently defined, this QPI only counts one surgeon per procedure; despite dual operations taking place and three surgeons sometimes attending a single surgery. As such figures provided above are an underestimate of the total number of radical cystectomies attended by individual surgeons.

Within NHS Ayrshire & Arran the surgeon that did not perform 10 surgeries was the second operating surgeon on the majority of cases within the Board so likely to have met the target had these procedures been counted. Similarly in NHS Lanarkshire many of the procedures involved at least two consultants, and audit data indicate that 2 surgeons were involved with more than 10 surgeries. NHSGGC have reviewed the impact of counting a second surgeon for the 2021-22 data and concluded that it would not have altered the number of surgeons meeting the QPI, however the three NHSGGC surgeons performing fewer than 10 radical cystectomies all perform very significant volumes of other complex abdomino-pelvic resections as part of their normal practice.

On review of results it was noted that some surgeons included within figures, and failing to meet the target, only undertook very small numbers of simple cystectomies or the cystectomy part of an exenteration. Simple cystectomy is a very different procedure to radical cystectomy therefore the MCN have suggested that this code be removed from the QPI measurability at the upcoming Formal Review.

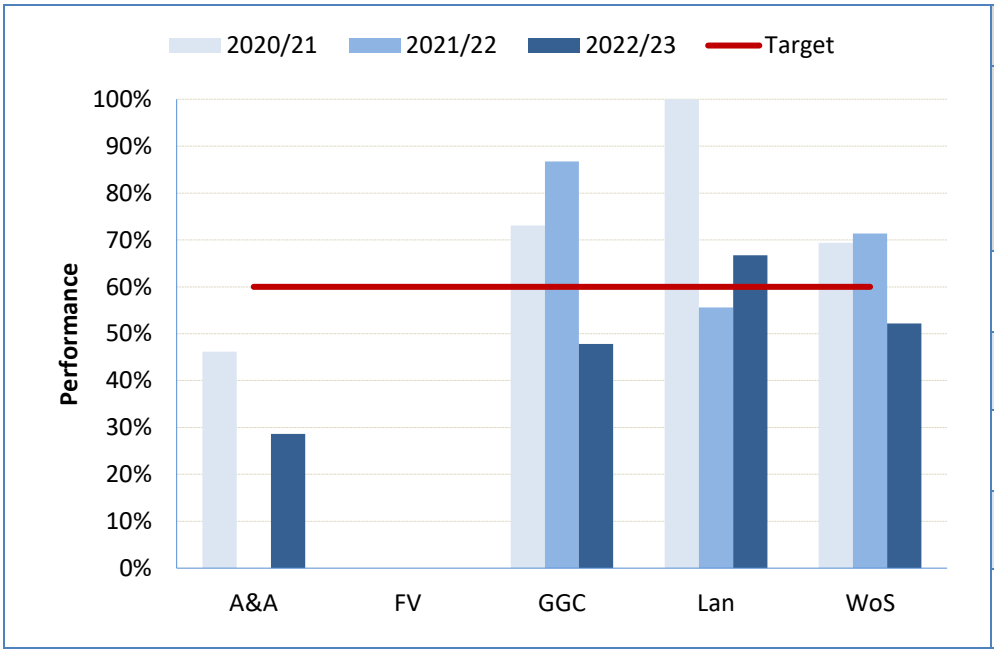
Ongoing Regional Planning work regarding robotic surgery will consider the optimal number of cystectomy centres and operating surgeons in the West of Scotland, and consequently surgical volumes.

Action required:

- **MCN to suggest exclusion of simple cystectomies from QPI 8 at the upcoming Formal Review.**
- **MCN to keep abreast of the ongoing Regional Planning review of robotic surgery, which will include configuration of surgical centres and surgical volumes across WoSCAN.**

QPI 9: Oncological Discussion

QPI 9 Title:	Patients with muscle invasive bladder cancer (MIBC) should have all treatment options discussed with them prior to radical cystectomy.
Numerator:	Number of patients with MIBC who undergo cystectomy who met with an oncologist prior to radical cystectomy.
Denominator:	All patients with MIBC who undergo radical cystectomy.
Exclusions:	No exclusions.
Target:	**60%**



	2022-23		
Board / Area	**Performance (%)**	**Numerator**	**Denominator**
AA	28.6%	2	7
FV	-	-	-
GGC	47.8%	11	23
Lan	66.7%	8	12
WoS	**52.2%**	**24**	**46**

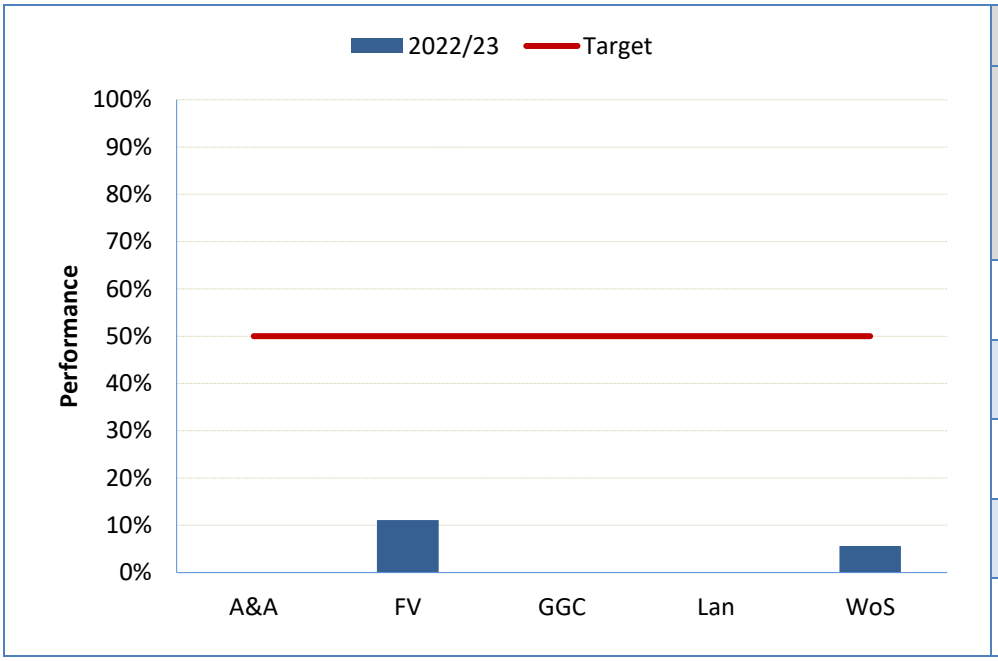
(-) Data is not shown; denominator less than 5, (*) denotes a zero.

All patients with MIBC not meeting an oncologist prior to radical cystectomy were reviewed. In all cases it was considered clinically appropriate to progress straight to cystectomy due to a number of contraindications to chemotherapy. As such, despite the target not being met, patients were treated appropriately. Numbers of patients included within this QPI are relatively small and, as can be seen

from the target, it is anticipated that not all patients require oncological assessment prior to surgery. As such, we might expect performance against this measure to fluctuate between years.

QPI 10: Radical Radiotherapy Treatment with a Concomitant Radiosensitiser

QPI 10 Title:	Patients undergoing radical radiotherapy for transitional cell carcinoma of bladder should be considered for treatment with a concomitant radiosensitiser.
Numerator:	Number of patients with transitional cell carcinoma of the bladder (T2-T4) receiving radical radiotherapy treated with a concomitant radiosensitiser.
Denominator:	All patients with transitional cell carcinoma of the bladder (T2-T4) receiving radical radiotherapy.
Exclusions:	• Patients enrolled in a clinical trial.
Target:	**50%**



2022-23			
Board / Area	**Performance (%)**	**Numerator**	**Denominator**
AA	-	-	-
FV	11.1%	1	9
GGC	0%	0	18
Lan	0%	0	8
WoS	**5.6%**	**2**	**36**

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

This QPI was amended at the last Formal Review of Bladder Cancer QPIs to report the proportion of patients that have concomitant radiosensitiser, rather than those receiving chemotherapy only. As such, there are no previous years performance with which to compare results for 2022/23.

Only two of the 36 patients with transitional cell carcinoma receiving radical radiotherapy had concomitant radiosensitiser. Review of patients not meeting this measure indicated that the majority had co-morbidities or were not fit for SACT; for some patients this was due to poor renal function. In addition a small number of patients refused SACT. Performance is anticipated to improve with the introduction of less toxic radiosensitisers. Work is ongoing to establish a service that will provide radiosensitiser at the Beatson West of Scotland Cancer Centre and the Lanarkshire Beatson. This first year of reporting of the updated QPI definition will act as a benchmark against which the development of this service can be assessed and the MCN will maintain oversight of the introduction of this service.

QPI 11: 30/90-Day Mortality after Treatment for Bladder Cancer

QPI 11 Title:	30/90 day mortality following treatment with curative intent for bladder cancer. i) 30/90-day mortality - Surgery (Radical Cystectomy) ii) 30/90-day mortality - Radiotherapy
Numerator:	Number of patients with bladder cancer who receive treatment with curative intent (radical cystectomy or radiotherapy) that die within 30/90 days of treatment
Denominator:	All patients with bladder cancer who receive treatment with curative intent (radical cystectomy or radiotherapy)
Exclusions:	No exclusions
Target:	**<3% - 30 day** and **<5% - 90 day**

(i) 30/90-Day Mortality – Surgery (Radical Cystectomy)

Board / Area	30 Day mortality			90 Day mortality		
	Performance (%)	Numerator	Denominator	Performance (%)	Numerator	Denominator
AA	10.0%	1	10	10.0%	1	10
FV	*	0	0	*	0	0
GGC	3.0%	1	33	6.1%	2	33
Lan	0%	0	23	4.3%	1	23
WoS	**3.0%**	**2**	**66**	**6.1%**	**4**	**66**

Clinical review of patients that died within 90 days of surgery did not highlight any issues or areas for improvement. This measure reports patients that died regardless of the cause and it should be noted that no patient died as a direct result of surgery.

(i) 30/90-Day Mortality – Radiotherapy

Board / Area	30 Day mortality			90 Day mortality		
	Performance (%)	Numerator	Denominator	Performance (%)	Numerator	Denominator
AA	-	-	-	-	-	-
FV	0%	0	14	0%	0	14
GGC	0%	0	19	5.6%	1	18
Lan	0%	0	9	22.2%	2	9
WoS	**0%**	**0**	**44**	**7.1%**	**3**	**42**

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

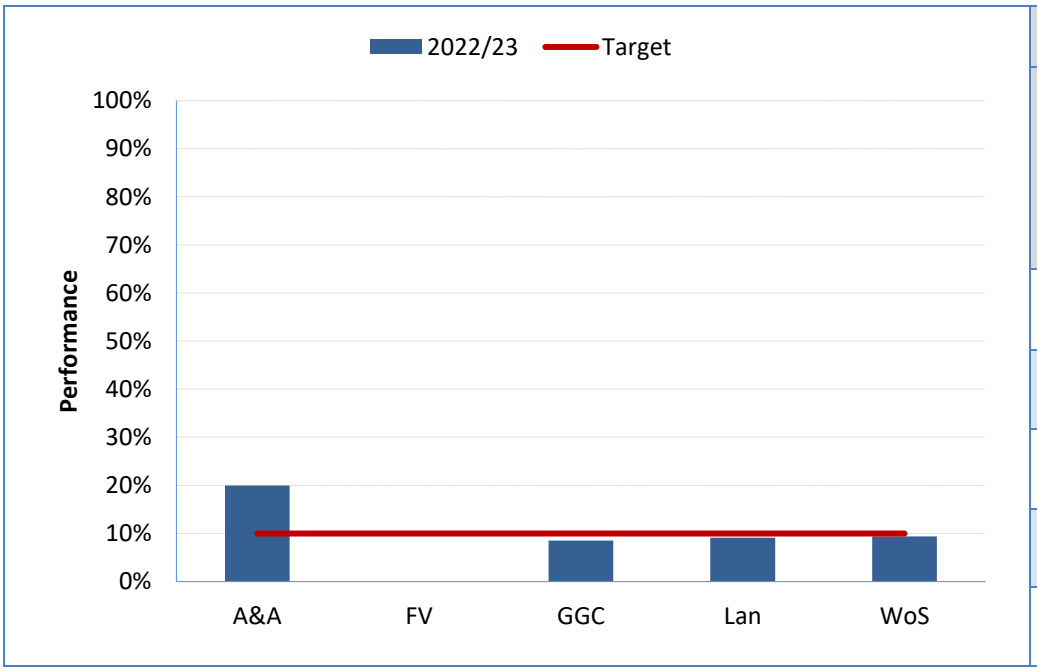
Review of the three patients that died within 90 days of radiotherapy indicated that two of these patients died of rapid disease progression while one died of unrelated causes.

Patients that die within 90 days of treatment will continue to be reviewed on a case by case basis. On review of these data no areas of concern were noted, however clinicians will ensure that review of practice is undertaken if any potential issues are raised when reviewing patient outcomes.

QPI 13: Early Recurrence in Patients with Non-Muscle Invasive Bladder Cancer (NMIBC)

i) Recurrence at first follow-up cystoscopy (RRFFC) in patients with low grade pTa cancer

QPI 13 Title:	The risk of early recurrence in patients with non-muscle invasive bladder cancer (NMIBC) should be minimised
Specification (i):	Recurrence at first follow-up cystoscopy (RRFFC) in patients with low grade pTa cancer
Numerator (i):	Number of patients with low grade pTa NMIBC who have undergone initial TURBT where recurrence is found at first follow up cystoscopy
Denominator (i):	All patients with low grade pTa NMIBC who have undergone initial TURBT
Exclusions:	Patients with incomplete resection at initial TURBT
Target:	**< 10%**

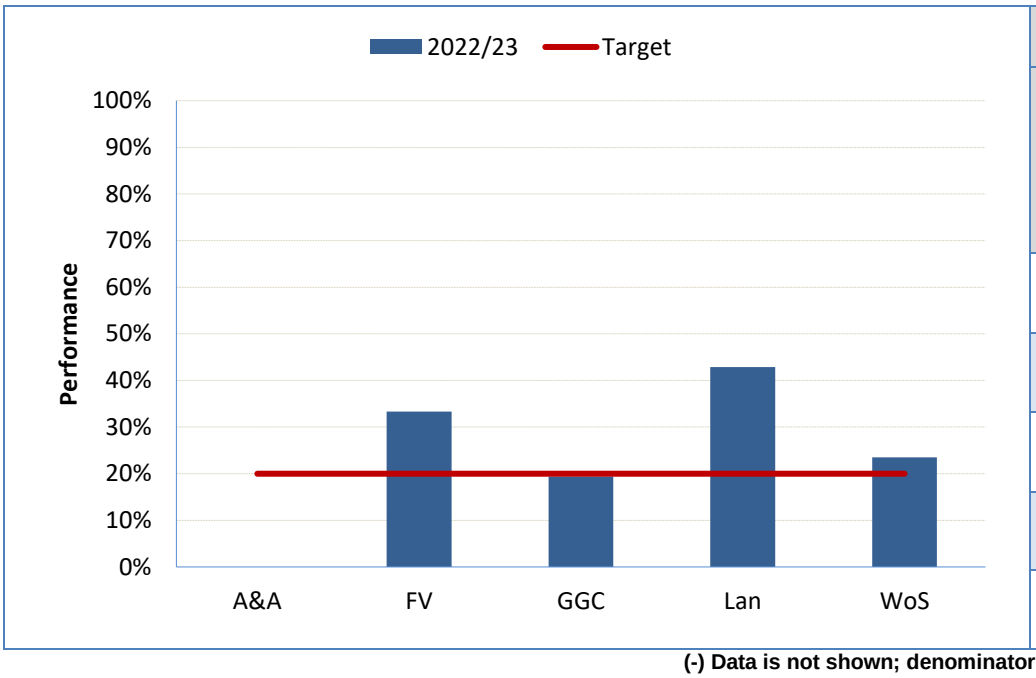


	2022-23		
Board / Area	Performance (%)	Numerator	Denominator
AA	20.0%	5	25
FV	0%	0	15
GGC	8.5%	10	118
Lan	9.1%	4	44
WoS	**9.4%**	**19**	**202**

This QPI was developed at the last Formal Review and this is the first year of reporting; results show that the target of less than 10% was met at a regional level. The target was not met by NHS Ayrshire & Arran, these 5 patients had low grade recurrence at first flexible cystoscope post TURBT and went on to have TURBT or cystoscope and diathermy. Due to the small numbers of patients with recurrence, further years of data are required to establish whether there is any variation in performance against this measure within WoSCAN.

ii) Residual cancer at re-TURBT in patients with pT1

QPI 13 Title:	The risk of early recurrence in patients with non-muscle invasive bladder cancer (NMIBC) should be minimised
Specification (ii):	Residual cancer at re-TURBT in patients with pT1
Numerator (ii):	Number of patients with pT1 NMIBC who have undergone a second TURBT or early cystoscopy (± biopsy) and have residual cancer at re-TURBT
Denominator (ii):	All patients with pT1 NMIBC who have undergone a second TURBT or early cystoscopy (± biopsy)
Exclusions:	• Patients in whom concomitant cis is present in the tumour specimen. • Patients with incomplete resection at initial TURBT
Target:	**< 20%**



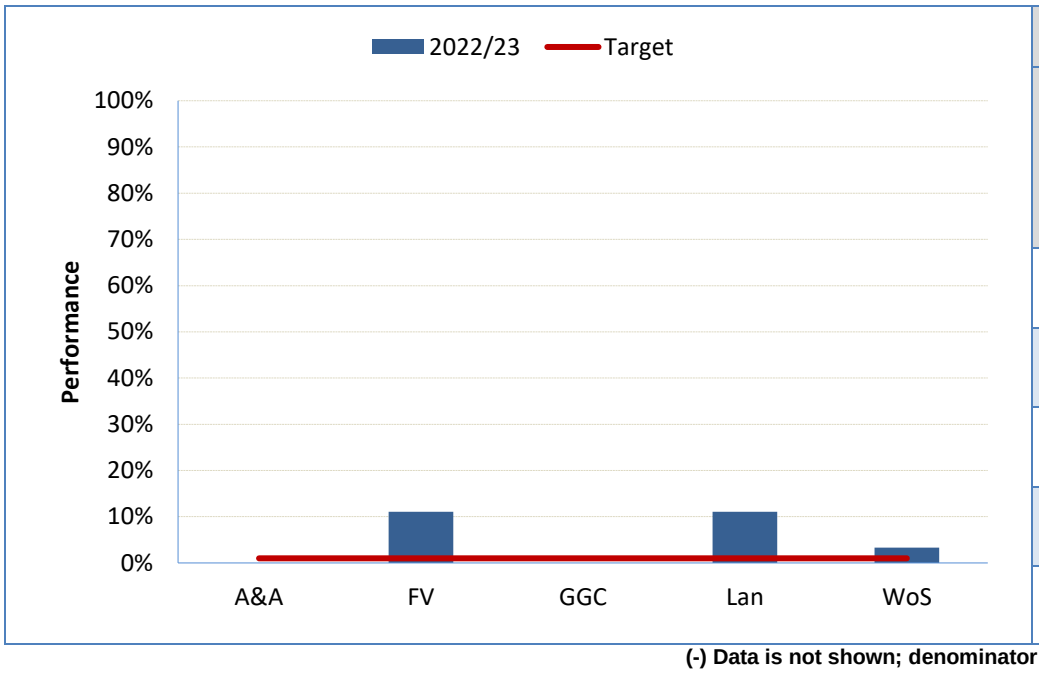
	2022-23		
Board / Area	Performance (%)	Numerator	Denominator
AA	-	-	-
FV	33.3%	2	6
GGC	19.4%	7	36
Lan	42.9%	3	7
WoS	**23.5%**	**12**	**51**

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

Results for this first year of reporting show that the target of less than 20% was narrowly missed at a regional level. As this measure is based on relatively small number of patients, further years of data are required to assess any trends or variation in recurrence within the region.

iii) Pathological MIBC (pT2) at re-TURBT in patients with pT1

QPI 13 Title:	The risk of early recurrence in patients with non-muscle invasive bladder cancer (NMIBC) should be minimised
Specification (iii):	Pathological MIBC (pT2) at re-TURBT in patients with pT1
Numerator (iii):	Number of patients with pT1 NMIBC who have undergone a second TURBT or early cystoscopy (± biopsy) and have Pathological MIBC (pT2) at re-TURBT
Denominator (iii):	All patients with pT1 NMIBC who have undergone a second TURBT or early cystoscopy (± biopsy)
Exclusions:	Patients with incomplete resection at initial TURBT
Target:	**< 1%**



	2022-23		
Board / Area	Performance (%)	Numerator	Denominator
AA	-	-	-
FV	11.1%	1	9
GGC	0%	0	41
Lan	11.1%	1	9
WoS	**3.3%**	**2**	**61**

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

Results for this first year of reporting show that the target of less than 1% was missed at a regional level with two patients having MIBC at re-TURBT. As with other specifications, as this measure is based on small numbers of patients, further years of data are required to assess any trends or variation in recurrence within the region.

Appendix 1: Meta Data

<table>
<tr><td>Report Title</td><td>Cancer Audit Report: Bladder Cancer Quality Performance Indicators</td></tr>
<tr><td>Time Period</td><td>Patients diagnosed between 1st April 2022 and 31st March 2023</td></tr>
<tr><td>QPI Version</td><td>Bladder Cancer QPIs V4.0 (April 22) Cancer Quality Performance Indicators (QPIs) (healthcareimprovementscotland.org)</td></tr>
<tr><td>Data extraction date</td><td>2200 hrs on 22nd January 2024</td></tr>
<tr><td>Data Quality</td><td>
<table>
<tr><th></th><th>Ayrshire & Arran</th><th>Forth Valley</th><th>GGC</th><th>Lanarkshire</th><th>WoS</th></tr>
<tr><td>Cases from audit</td><td>94</td><td>88</td><td>356</td><td>148</td><td>686</td></tr>
<tr><td>Cancer Registry (2017-2021)</td><td>135</td><td>87</td><td>374</td><td>165</td><td>761</td></tr>
<tr><td>Case ascertainment</td><td>69.6%</td><td>101.1%</td><td>95.2%</td><td>89.7%</td><td>90.1%</td></tr>
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