

SOUTH EAST SCOTLAND CANCER NETWORK (SCAN) PROSPECTIVE CANCER AUDIT

Bladder Cancer 2023-24 Comparative Audit Report

Patients diagnosed 1st April 2023 to 31st March 2024

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Document History

Version	Circulation	Date	Comments
1	SCAN leads sign off meeting	20/05/25	Agree actions and comments
2	SCAN Lead	28/05/25	For confirmation of actions and comments. For insertion of clinical Lead's commentary
3	SCAN Urology Group	23/10/25	For final approval / comments
4	SCAN Clinical Governance Framework, Action Plan Leads and SCAN Urology Group	10/11/25	Checked for disclosive data for website version
4w	Report assessed for disclosive data, completed action plans to be added and report to be added to SCAN Website	August 2026	

Lead clinician summary

This is year 10 of the Scottish national Bladder Cancer QPIs and I am pleased to note the audit findings from SCAN – we have now completed 6 years since incorporating changes to QPIs and measurability criteria recommended at the 1st national formal review meeting in 2018 and this is the 1st report since the 3rd formal review of 2024. There have been several changes to the QPIs and at the last formal review and we continue to push the envelope to improve patient outcomes.

SCAN data and clinicians have been vital to the **Scot BC Quality OPS** clinical project [<https://pubmed.ncbi.nlm.nih.gov/34419380/>]. Upon completion of analyses of long term outcomes from the cohort of patients diagnosed between April 2014 – March 2017, the second paper in the series, is now available online: <https://pubmed.ncbi.nlm.nih.gov/38296735/>, showing significant improvement in recurrence and progression in NMIBC when benchmarks are met. We are extremely proud of the attention the Scottish QPI programme is getting from the global bladder cancer community, and particularly proud to note that Quality Indicators have now been included in the European Association of Urology NMIBC guidelines of 2024, citing Scotland's programme [<https://uroweb.org/guidelines/non-muscle-invasive-bladder-cancer>]. All these elements informed the 3rd formal review of 2024. We are currently working on publishing the outcomes from intermediate and high risk NMIBC patients, comparing the outcomes between cycles 1 and 2 of the QPIs and have produced a novel Scottish Risk Calculator based on incorporating the QPIs into routine patient care.

The case attainment for the Bladder Cancer QPIs continues to be extremely good and I continue to be impressed by the high quality and diligence practiced by the audit personnel within the region. Regular, necessary dialogue between audit and clinical staff ensures data accuracy. I am confident that the audit data reflects real world clinical experience across the SCAN region and will continue to influence patient care and reduce variability.

The action points and recommendations following the 2022-23 audit and comparative report have also been explored in my comments below, along with the SCAN group's suggested changes to be considered at the next formal review (or its equivalent).

QPI 2(i) – Good Quality and comprehensive documentation of tumour characteristics are essential to the management of bladder cancer. The target has now increased to 95%.

SCAN had a shortfall of only 5%. The emphasis continues to be the utilisation of the standard operation proforma - the electronic TRAKcare version (developed by and currently being used in Lothian) is expected to facilitate improved compliance across SCAN and Scotland. The technical programming elements of this electronic operation note/ audit tool has been passed on to InterSystems and **we await funding confirmation** to allow for the rollout across Scotland. We have noted that D&G do not use TRAKcare and therefore will continue to use the paper proforma – but more work needs to be done to ensure compliance.

QPI 2(ii) – The 95% target has been met by SCAN. D&G's shortfall will hopefully be met with regular use of the proforma.

QPI 2(iii) – This QPI now measures sampling detrusor muscle in patients with **high grade cancer** with a target of 90%. SCAN have missed the target by 16.3% (worsened from last year), while Lothian and Fife had shortfalls of 20. As it is critical to achieve this benchmark, training in performing TURBT effectively and to a high standard is vital to ensuring excellent outcomes as well as reducing the requirement for re-TURBT. As in previous years, I continue to emphasise this at the annual Scottish Bladder Cancer Symposium. Whilst there is a possibility that this higher target is too ambitious, we should still try to raise the awareness of meeting this target. Lothian continue to emphasise the need to protect capacity in dedicated bladder cancer surgeons' lists to carry out TURBTs – there are still competing demands for the limited theatre capacity. The pre-TURBT triage process in Lothian can sometimes be impeded by lack of timely information from the diagnostic cystoscopy – this will continue to be emphasised locally. I will also share presented and published data with colleagues to highlight the importance of achieving this QPI and improving the overall clinical pathway. This is work in progress.

QPI 3 - SCAN had a shortfall of only 0.7%, an improvement from last year. D&G appear to still be outliers with the 45.5% achievement on a 80% target. We understand that there is significant work being done locally to improve the performance. The recent publication in the European Urology Oncology Journal [<https://pubmed.ncbi.nlm.nih.gov/38296735/>] will hopefully encourage and inform compliance to this very important QPI.

QPI 4 (i), (ii), (iii) – **This QPI has undergone significant modification at the last formal review and it is too early for this report to reflect those changes.** SCAN and each constituent health board have failed to meet the target of carrying out re-TURBT (in selected patients) within 42 days of the initial TURBT. It must be noted that the significant shortfall is mainly the result of not meeting the timing, as opposed to actually performing the re-TURBT when indicated.

Despite best intention and attempting to ring-fence spaces on theatre lists (as in NHS Lothian) for the early re-TURBT (or GA cystoscopy) within 42 days of the initial TURBT, there has been a significant shortfall in being able to meet this target in the SCAN region for a variety of reasons (some have been described in my summaries over the previous 3 years):

(a) Capacity - There was a shortfall in capacity, despite taking up extra lists to accommodate patients with bladder cancer. In NHS Lothian, the main reason for the capacity shortfall is the specific loss of lists to support bladder cancer service. Some health boards in SCAN, BGH for example, do not have regular lists and therefore cannot ringfence.

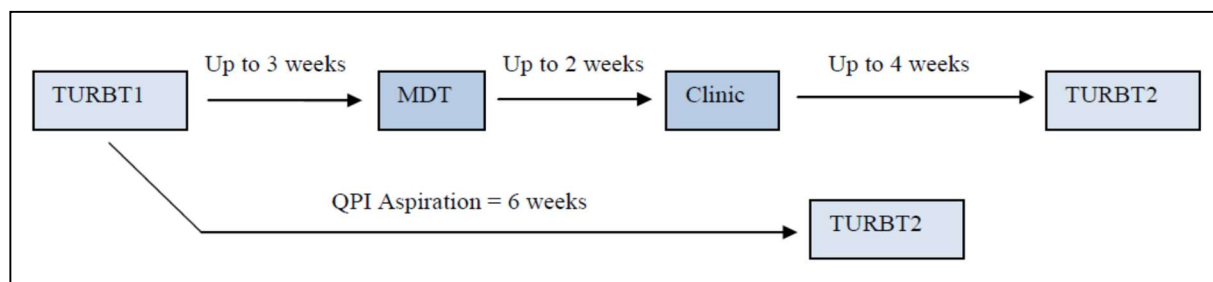
(b) Some of the patients with high grade cancer were deemed un-fit to undergo re-TURBT – consideration should be made to include such patients in the 'tolerance' to the QPI target.

(c) MDM recommendation for BCG instead of re-TURBT in these patients. This also reflects the overall need to be more nuanced in performing re-TURBT.

(d) Delays in pathology reporting and MDM, especially for D&G and BGH, have resulted in delays in the pathway to re-TURBT.

(e) Timing - based on the timeline below it is close to impossible to achieve this QPI in SCAN, given the current capacity and processes. Ring fenced theatre capacity (Lothian have now planned for a specific monthly dedicated list for re-TURBT) and innovative approaches to efficiently secure this capacity is much needed and should help:

2022/23 Re-TURBT (QPI 4) practice in Lothian v QPI aspiration:



However, reassuringly, from our clinical study in 92% of Scotland's patients (where SCAN centres and clinicians have contributed data), the risk of under-staging with the initial TURBT (the main reason for performing re-TURBT) in high risk NMIBC is very low (2.9%) [<https://pubmed.ncbi.nlm.nih.gov/32690321/>]. Clinicians are therefore reassured that consequent to a better quality TURBT at the outset, the need for repeat TURBT within 42 days has reduced and that we can be even more selective. However, the first TURBT has to be performed to a high standard and therefore meeting QPI 2(iii) has a direct consequence to the requirement for QPI 4. Selection of patients for re-TURBT must therefore be more nuanced and the yet to be published data supports this. Additionally, we have demonstrated (presented at BAUS 2022 and EAU 2023) that within the QPI 'environment' there doesn't seem to be a disadvantage if the re-TURBT is performed beyond 42 days – the QPI has therefore been modified at the 3rd formal review to reflect this. We should also consider altering the starting point of the timeline for this QPI to pathology or MDT date.

QPI 6 – This QPI has undergone significant modification at the last formal review and it is too early for this report to reflect those changes. SCAN has had a shortfall of 14%, with Lothian and Fife meeting the 95% target in 80.4% and 83.3% patients, respectively – all improvements from last year. Some patients who were included in the denominator were not surgically suitable to undergo extended pelvic lymphadenectomy (for example scarring and fibrosis in the pelvis from previous surgery). The SWOG S1011 Phase III trial showed that there does not appear to be a survival advantage in patients undergoing extended pelvic lymph node clearance compared with standard lymph node clearance (https://ascopubs.org/doi/10.1200/JCO.2023.41.16_suppl.4508) – as a result **this QPI has been modified.**

QPI 7(i) – This is the 2nd report incorporating the new target of 42 days (halved from the previous target of 90 days) for radical treatment. SCAN had a shortfall of 76% for this highly ambitious target. Small denominator numbers contribute to large apparent shortfalls. This is a vital QPI, however, perhaps the target is too ambitious. Additionally, perhaps the starting point of the timeline should change from the current date of MIBC pathological diagnosis to the MDT date. It must also be noted that time is required to counsel and prepare patients for radical treatment and this cannot be rushed. Oncologists feel there is a shortage of capacity to see patients in time to commence treatment. Reassuringly, local survival data from Lothian's surgical service has not shown deterioration in survival following radical surgery.

QPI 7(ii) – These are small denominators that cause big shifts in compliance with small numbers failing. The data review suggests that the shortfall between time from NAC to radical treatment is felt to be contributed by side effects following chemotherapy and need for specialist staging scans (PET scan).

QPI 8 – This is the 6th year using the new target for the hospital of 20 cystectomies per year. All surgical teams have met this target in SCAN.

QPI 9 – This QPI has undergone significant modification at the last formal review and it is too early for this report to reflect those changes. This is the first time in the past 9 years that SCAN have met this target – well done, everyone! At the MDM, 9 out of the 21 Lothian patients were felt not to require oncology input. This QPI has been modified at the last formal

review to include only patients deemed suitable for all radical treatment options in the denominator. This will hopefully be reflected in next year's data.

QPI 10 – There was a 27% significant shortfall for this QPI in SCAN, with Lothian meeting the target. Small denominators appear to be causing big shifts in compliance in the other health boards. QPI target has remained the same after the recent formal review.

QPI 11 – I'm pleased to see that SCAN and have met the target for 30- and 90-day mortality.

QPI 13(i) – I am pleased to see the 2nd reporting of this QPI that is essentially the best reflections of a high quality and effective TURBT as well as utilisation of the single instillation of chemotherapy in patients with low grade non-invasive cancer. SCAN have comfortably met this target and I'm pleased to note that only 5.8% of 138 patients had a recurrence at 3 months after the initial TURBT – well done, everyone!

QPI 13(ii) – The target was missed in SCAN with a shortfall of 12.4% (an improvement from last year). Whilst this target of 20% in high grade T1 patients could be considered ambitious, I feel it is an excellent marker of initial resection quality and by extension, cancer patient care. We will strive to improve the outcomes.

QPI 13(iii) – The 2.6% shortfall in SCAN is actually a significant improvement from last year – once again reflecting the good initial TURBT in patients with high grade NMIBC. We will continue to emphasise training and raising awareness around the performance of TURBT in high grade cancer.

Professor Param Mariappan
SCAN lead for Bladder Cancer
October 2025.

Clinical Recommendation Summary from 2023-24

QPI	Action required	Lead	Date for update
3	Issue in D&G is largely down to deep resections, and work is already underway to understand this, update required from D&G.	Roland Donat/ Martin Keith	8 th December 2025
4	This QPI has been changed at FR, so we will await next year results and no action required at this point.	N/A	February 2026
7	No issues with radiotherapy capacity were identified, so issues lie more with the pathway and MDM timing issues. This is an ambitious target which we will monitor going forward.	N/A	February 2026
13	Raise awareness of the requirement for early cystoscopy/resection	Param Mariappan	8 th December 2025

Clinical Recommendation Summary from 2022-23

QPI	Action required	Progress
2i & 2ii	D&G - At a management meeting on 11/03/2024 agreed to thorough monitoring in the next 6 months for all the actions identified for the Urology service.	Work done with Theatre staff to ensure proforma used. Weekly audits carried out until August 24 This has been monitored and performance has improved. A full audit will take place December 24 to determine compliance levels
2iii	Triage is very important to identify clinically high-grade cases. At cystoscopy small tumours may be perceived as low grade. We recommend that consultants perform base of tumour resections in cases of trainee operations.	No cases are undertaken by trainees in NHSB or NHSD&G NHSF Update (March 2025): the importance of resecting detrusor muscle has been highlighted to the Urology Team. Further action is required with regards to appropriateness of lists
3	Expect further improvement in 2023-24 following training during 2023 year with short stay staff post-op around administration of mitomycin. Mitomycin checkbox also now included on bladder proforma. With dedicated specialist TURBT lists agreed, we can expect improved performance in 2023-24.	NHSD&G Mitomycin checklist now added to op note and theatre staff will prompt Consultant to ensure completed. Weekly audits of compliance carried out until August 2024 This has been monitored and performance has improved. A full audit will take place December 2024 to determine compliance levels NHSF A revised operation note has been available since 2022 to all consultants and this version must be completed post TURBT ensuring Mitomycin C fields are completed. All old TURBT templates must be deleted from shared drives. A further TURBT operation note is currently under review for implementation later this year via a new platform. Update (March 2025): work is ongoing with regards the new platform for Fife-wide op notes. Meantime, a dedicated MMC section has been added to the existing op note which will hopefully show some improvement next cohort.

4i	This is an important aspect of patient care (particularly in high grade disease cases) This is an NHS-centric issue with competing priorities of the endoscopic and surgical services. Where the 42-day target was narrowly missed, it indicates clear capacity issues with no evidence of any survival disadvantage.	NHSB Urology Theatre capacity remains below pre-covid levels. Cancer performance is continually monitored and managed NHSB will review the booking process for Re: TURBT. Pending appointment of new Urology Consultant, short notice clinic capacity should increase NHSF Consultants should follow the Regional Pathway to have this category of patients listed within 6 weeks of initial TURBT. Current theatre capacity vs demand can impact on this 6-week target, considering all aspects (pathology reporting, MDT, further theatre planning). Update (March 2025) capacity remains an issue. As this QPI is under formal review, it is hoped the 6-week target can be extended.
4ii & 4iii	This is an important aspect of patient care (particularly in high grade disease cases) This is an NHS-centric issue with competing priorities of the endoscopic and surgical services. Where the 42-day target was narrowly missed, it indicates clear capacity issues with no evidence of any survival disadvantage. Ring-fence theatre slots to try and accommodate repeat resections.	NHSB Reviewed the numbers and only 1 patient for QPI 4iii failed so ring fencing slots would not be an efficient way of moving forward, however process improvements have been made since this report. Cancer performance is continually monitored and managed. We will continue to engage with regional Urology Pathway developments NHS D&G Theatre slots already available for these patients, locally the challenge is that pathology processing and MDT discussion take approximately 30-35 days currently so difficult to get procedure done within 42 days. Continue to monitor NHSF Current theatre capacity vs demand can impact on this 6-week target, considering all aspects (pathology reporting, MDT, further theatre planning). Capacity remains an issue.

Bladder Cancer QPI Attainment Summary 2023-24			Target%		Borders		D&G		Fife		Lothian		SCAN	
QPI 2: Quality of TURBT at initial resection	Detailed description with tumour location, size, number, appearance	95	N 34 D 35	97.1%	N 36 D 59	61.0%	N 69 D 76	90.8%	N 203 D 210	96.7%	N 342 D 380	90.0%		
	Resection is documented as complete or not	95	N 33 D 33	100%	N 42 D 55	76.4%	N 71 D 74	95.9%	N 206 D 207	99.5%	N 352 D 369	95.4%		
	High Grade NMIBC with detrusor muscle included at initial TURBT	90	N 8 D 8	100%	N 17 D 20	85.0%	N 18 D 26	69.2%	N 55 D 79	69.6%	N 98 D 133	73.7%		
QPI 3: Low Grade Ta NMIBC - Mitomycin C following TURBT		80	N 13 D 18	72.2%	N 5 D 11	45.5%	N 26 D 36	72.2%	N 67 D 75	89.3%	N 111 D 140	79.3%		
QPI 4: Early TURBT Re-TURBT within 42 days of initial TURBT	T1 or select Ta NMIBC	80	N 0 D 7	0.0%	N 1 D 16	6.3%	N 2 D 24	8.3%	N 3 D 75	4.0%	N 6 D 122	4.9%		
	HG NMIBC - no detrusor muscle at TURBT1	80	N 0 D 0	N/A	N 0 D 2	0.0%	N 0 D 9	0.0%	N 1 D 25	4.0%	N 1 D 36	2.8%		
	NMIBC - incomplete resection at TURBT1	80	N 0 D 0	N/A	N 1 D 3	33.3%	N 2 D 4	50.0%	N 0 D 8	0.0%	N 3 D 15	20.0%		
QPI 6: Lymph Node Yield. Pelvic lymph node dissection to at least level 2 undertaken and ≥10 lymph nodes taken at radical cystectomy		95	Presented by board of treatment			N 5 D 6	83.3%	N 37 D 46	80.4%	N 42 D 52	80.8%			
QPI 7: Time to Treatment (MIBC)	Radical treatment within 6 weeks of diagnosis of MIBC	90	N 0 D 5	0.0%	N 1 D 10	10.0%	N 0 D 3	0.0%	N 4 D 18	22.2%	N 5 D 36	13.9%		
	Cystectomy or radiotherapy within 8 weeks from neoadjuvant chemo	90	N 1 D 1	100%	N 3 D 4	75.0%	N 2 D 2	100%	N 6 D 7	85.7%	N 12 D 14	85.7%		
QPI 8: Volume of Cases / Surgeon: Radical surgery ≥10 per surgeon and ≥20 per centre over a 1-year period		≥20	3 Surgeons met the QPI criteria. 1 Health Board met the QPI criteria.											
QPI 9: Oncological Discussion: MIBC patients who met with an oncologist prior to radical surgery		60	N 1 D 2	50.0%	N 7 D 10	70.0%	N 3 D 4	75.0%	N 12 D 21	57.1%	N 23 D 37	62.2%		
QPI 10 Patients with stageT2-T4 undergoing radical radiotherapy who receive concomitant radiosensitiser		50	N 0 D 3	0.0%	N 0 D 5	0.0%	N 0 D 1	0.0%	N 3 D 4	75.0%	N 3 D 13	23.1%		
QPI 11: 30 Day Mortality	Radical Surgery	<3	Presented by board of treatment			N 0 D 6	0.0%	N 1 D 46	2.2%	N 1 D 52	1.9%			
	Radiotherapy	<3	N 0 D 4	0.0%	N 0 D 6	0.0%	N 0 D 1	0.0%	N 0 D 4	0.0%	N 0 D 15	0.0%		
QPI 11: 90 Day Mortality	Radical Surgery	<5	Presented by board of treatment			N 0 D 6	0.0%	N 2 D 46	4.3%	N 2 D 52	3.8%			
	Radiotherapy	<5	N 0 D 4	0.0%	N 0 D 6	0.0%	N 0 D 1	0.0%	N 0 D 4	0.0%	N 0 D 15	0.0%		

Bladder Cancer QPI Attainment Summary 2023-24			Target%	Borders		D&G		Fife		Lothian		SCAN	
QPI 13: Early Recurrence for NMIBC	Recurrence first follow-up cystoscopy for low grade pTa	<10	N 0 D 18	0.0%	N 1 D 11	9.1%	N 2 D 35	5.7%	N 5 D 74	6.8%	N 8 D 138	5.8%	
	Residual cancer at re-TURBT in patients with pT1	<20	N 1 D 2	50.0%	N 1 D 1	100%	N 2 D 9	22.2%	N 8 D 25	32.0%	N 12 D 37	32.4%	
	Pathological MIBC (pT2) at re-TURBT in patients with pT1	<1	N 0 D 3	0.0%	N 0 D 2	0.0%	N 1 D 16	6.3%	N 1 D 35	2.9%	N 2 D 56	3.6%	

INTRODUCTION AND METHODS

Cohort

This report covers patients newly diagnosed with bladder cancer in SCAN between 01/04/2023 and 31/03/2024. The results contained within this report have been presented by NHS board of diagnosis. Where the QPI relates to surgical outcomes the results are presented by hospital of surgery.

Dataset and Definitions

The QPIs have been developed collaboratively with the three Regional Cancer Networks, Public Health Scotland (PHS), and Healthcare Improvement Scotland (HIS). It is intended that QPIs will be kept under regular review and be responsive to changes in clinical practice and emerging evidence.

The overarching aim of the cancer quality work programme is to ensure that activity at NHS board level is focused on areas most important in terms of improving survival and patient experience, whilst reducing variance and ensuring safe, effective and person-centred cancer care.

Following a period of development, public engagement and finalisation, each set of QPIs is published by Healthcare Improvement Scotland.

Accompanying datasets and measurability criteria for QPIs are published on the PHS website link. NHS boards are required to report against QPIs as part of a mandatory, publicly reported, programme at a national level.

The QPI dataset for bladder cancer was implemented from 01/04/2014, and this is the tenth publication of QPI results for bladder cancer within SCAN.

The Bladder QPIs were subject to a third formal review and the revised QPI documents for were published by HIS in November 2024. The supporting documents for data collection are awaiting publication by PHS at the time of this report.

The following QPIs have been updated:

- QPI 4 – Early Re-Transurethral Resection of Bladder Tumour (TURBT)
- QPI 6 – Lymph Node Yield
- QPI 8 – Volume of Cases per Centre / Surgeon
- QPI 9 – Oncological Discussion
- QPI 10 – Radical Radiotherapy Treatment with a Concomitant Radiosensitiser

The following QPI have been archived:

- QPI 1 – Multi-Disciplinary Team Meeting Discussion
- QPI 12 – Clinical Trials and Research Study Access

QPI documents are available at www.healthcareimprovementscotland.org

Datasets and measurability documents are available at www.isdscotland.org

Audit Processes

Data was analysed by the audit facilitators in each NHS board according to the measurability document provided by PHS. SCAN data was collated by Juan Yanez Casal, SCAN Cancer Information Analyst.

Data capture focuses round the process for the weekly multidisciplinary meetings (MDM), ensuring that information is collected through routine processes. Data is recorded in eCase for Borders, Dumfries & Galloway, Fife and Lothian.

Clinical Sign-Off: This report compares analysed data from Borders, D&G, Fife and Lothian and was signed off as accurate following review by the lead clinicians from each board. The collated SCAN results were reviewed jointly by the lead clinicians, including oncologists, to assess variances and provide comments on results.

Lead Clinicians and Audit Personnel

SCAN Region	Hospital	Lead Clinician	Audit Support
NHS Borders	Borders General Hospital	Mr Ben Thomas	Leanne Robinson
NHS Dumfries & Galloway	Dumfries & Galloway Royal Infirmary	Mr Syed Rizvi	Jennifer Bruce
NHS Fife	Queen Margaret Hospital	Mr I Mitchell	Julie Whyte
SCAN & NHS Lothian	Western General Hospital and St John's Hospital	Prof P Mariappan Dr D Noble	Juan Yanez Casal

Data Quality

Estimate of Case Ascertainment

An estimate of case ascertainment (the percentage of the population with bladder cancer recorded in the audit) is made through comparison with the Scottish Cancer Registry five-year average data from 2018 to 2022. High levels of case ascertainment provide confidence in the completeness of the audit recording and contribute to the reliability of results presented. Levels greater than 100% may be attributable to an increase in incidence. Allowance should be made when reviewing results where numbers are small and variation may be due to chance.

Number of cases recorded in audit: Patients diagnosed between 01/04/2023 and 31/03/2024.

	Borders	D&G	Fife	Lothian	SCAN
Bladder Cancer	37	63	96	245	441

Estimate of Case Ascertainment: Calculated using the average of the most recent available five years of Cancer Registry Data 2018 – 2022.

	Borders	D&G	Fife	Lothian	SCAN
Cases from Audit	37	63	96	245	441
Cancer Registry 5 Year Average	39	57	107	227	430
Case Ascertainment %	95	111	90	108	103

Note: Extract of data provided by PHS from the Cancer Registry data mart ACaDMe on 31/03/2025

Quality Assurance

All hospitals in the region participate in a Quality Assurance (QA) programme provided by Public Health Scotland (PHS). QA of the bladder cancer data has been carried out on year 1 QPI data. Performance was above 90% in each SCAN Health Board but numerous dataset changes and different interpretation by IPHS mean that the performance is not a true reflection of audit practice in SCAN and around the country.

Clinical Sign-Off

This report compares data from reports prepared for individual hospitals and was signed off as accurate following review by the lead clinicians from each service. The collated SCAN results are reviewed jointly by the lead clinicians, to assess variances and provide comments on results:

- Individual health board results were reviewed and signed-off locally.
- Regional sign off meeting achieved remotely on 20th May 2025

Present at regional sign off meeting.

Borders: Ben Thomas, Leanne Robinson

D&G: Martin Keith, Jennifer Bruce, Michael Charles

Fife: Julie Whyte

Lothian: Param Mariappan, Angus Killeen, Rami Bajis, Marie O'Donnell
Lorna Bruce, Juan Yanez Casal

Actions for Improvement

After final sign off, the process is for the report to be sent to the Clinical Governance groups with action plans for completion at Health Board level which are returned to SCAN Audit and subsequently reported to the Regional Cancer Planning Group.

The final report is placed on the SCAN website, with completed action plans, once it has been fully signed-off and checked for any disclosive information.

QPI 2i - Quality of Transurethral Resection of Bladder Tumour – Target = 95%

Title: Transurethral resection of bladder tumour (TURBT) procedures undertaken should be of good quality.

Numerator = 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 = All patients with bladder cancer who undergo TURBT.

Exclusions = Patients undergoing palliative resection or very small tumours ($\leq 5\text{mm}$).

The tolerance within this target level accounts for the fact that it is not always possible to include detrusor muscle within the specimen.

Presented by Board of surgery

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	0	1	13	33	47
Excluded from analysis	0	2	7	2	11
Numerator	34	36	69	203	342
Not recorded for numerator	0	0	0	0	0
Denominator	35	59	76	210	380
Not recorded for exclusion	0	1	1	0	2
Not recorded for denominator	0	0	0	0	0
% Performance	97.1	61.0	90.8	96.7	90.0

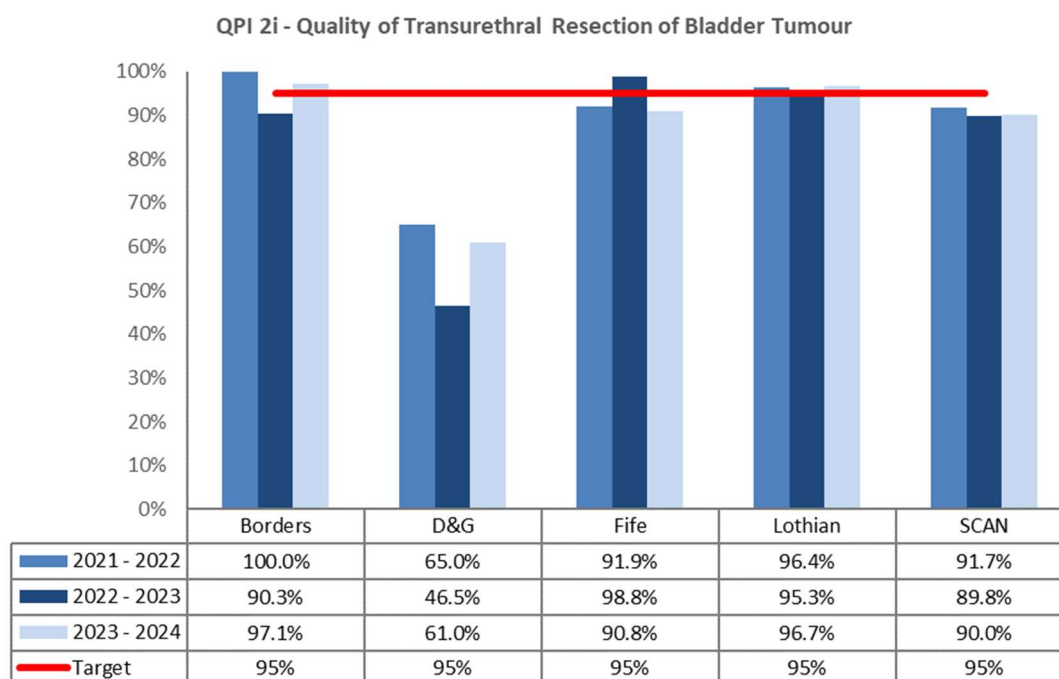
Comment:

D&G: The QPI target was not met showing a shortfall of 34.0% (23 patients). All of them had missing information, mainly tumour size and number of tumours. It was noted that the bladder proforma was not used for the patients that failed to achieve the QPI.

Fife: The QPI target was not met showing a shortfall of 4.2% (7 patients). Five patients did not have a TURBT pro-forma completed (procedures mostly performed by locums) and although the other 2 cases did have pro-forma, these had not been completed fully so unable to determine accurate findings.

A new style TURBT pro-forma has been introduced so it is hoped documenting issues will improve. It should be noted that although Fife has failed this QPI, Fife's performance against the recurrence QPI 13 is reassuring and shows that this is not having a detrimental outcome on patients.

Action: Important ongoing work with InterSystems and the proforma is hoped to be rolled out throughout all the incidences of TRAK in Scotland in due course with the adoption of the proforma this is likely to improve so no further action required.



QPI 2ii - Quality of Transurethral Resection of Bladder Tumour – Target = 95%

Title: Transurethral resection of bladder tumour (TURBT) procedures undertaken should be of good quality.

Numerator = Patients with bladder cancer who undergo TURBT where it is documented whether the resection was complete or not at initial resection.

Denominator = All patients with bladder cancer who undergo TURBT.

Exclusions = Patients undergoing palliative resection or with very small tumours ($\leq 5\text{mm}$).

The tolerance within this target level accounts for the fact that it is not always possible to include detrusor muscle within the specimen.

Presented by Board of surgery

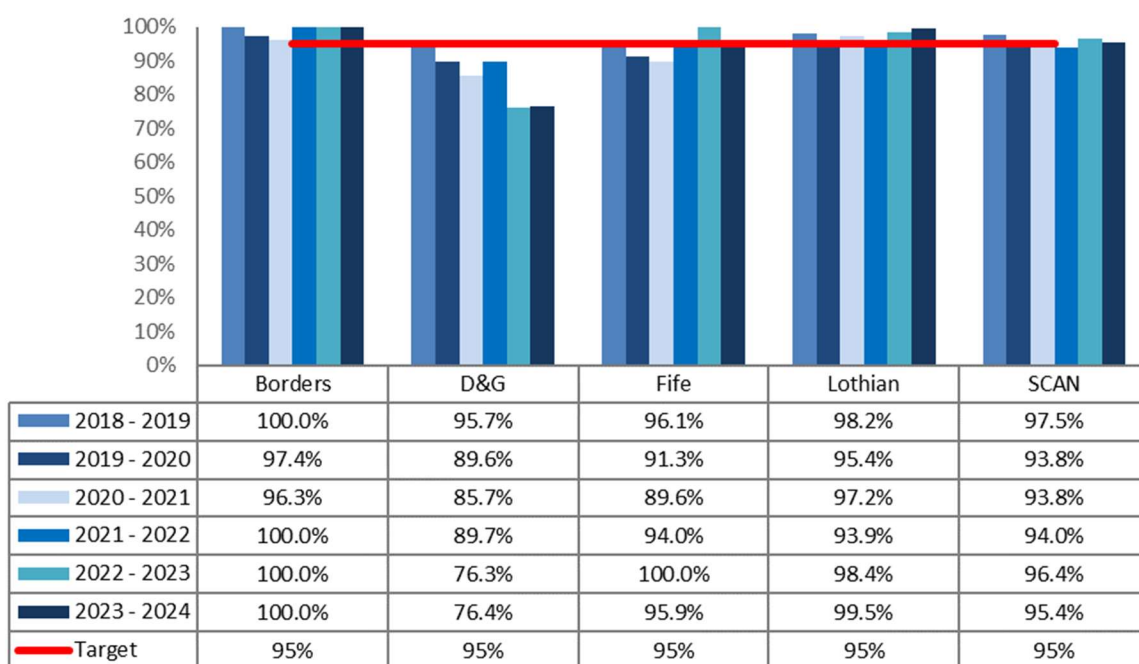
Target 95%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	1	5	13	35	54
Excluded from analysis	3	2	9	3	17
Numerator	33	42	71	206	352
Not recorded for numerator	0	0	0	0	0
Denominator	33	55	74	207	369
Not recorded for exclusion	0	14	5	3	22
Not recorded for denominator	0	0	0	0	0
% Performance	100.0	76.4	95.9	99.5	95.4

Comment:

D&G: The QPI target was not met showing a shortfall of 18.6% (13 patients). The resection was complete but not recorded on operation note or clinical letter. It was noted that the bladder proforma was not used for the patients that failed to achieve the QPI.

Action: With the adoption of the proforma this is likely to improve so no further action required.

QPI 2ii - TURBT Quality 2018/19 to 2023/24



QPI 2iii - Quality of Transurethral Resection of Bladder Tumour – Target = 90%

Title: Transurethral resection of bladder tumour (TURBT) procedures undertaken should be of good quality.

Numerator = Patients with high grade NMIBC who undergo TURBT where detrusor muscle is included in the specimen at initial resection.

Denominator = All patients with high grade NMIBC who undergo TURBT.

Exclusions = Patients undergoing palliative resection, with very small tumours ($\leq 5\text{mm}$) or patients with bladder diverticular tumours.

The tolerance within this target level accounts for the fact that it is not always possible to include detrusor muscle within the specimen.

Presented by Board of surgery

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	25	37	64	162	288
Excluded from analysis	4	5	5	4	18
Numerator	8	17	18	55	98
Not recorded for numerator	0	0	0	0	0
Denominator	8	20	26	79	133
Not recorded for exclusion	0	4	0	0	4
Not recorded for denominator	0	0	1	0	1
% Performance	100.0	85.0	69.2	69.6	73.7

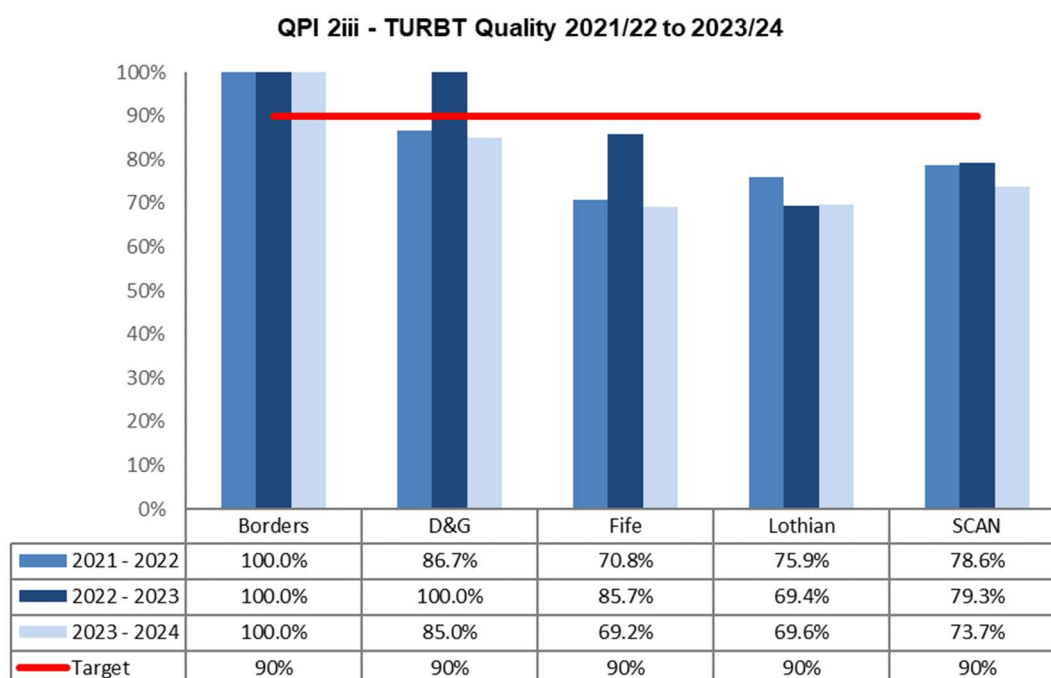
Comment:

D&G: The QPI target was not met showing a shortfall of 5.0% (3 patients). All cases were reviewed and it was not possible to identify why the muscle was not sampled. Of note 2 of the 3 cases were done by a locum who is no longer with the board so it was not possible to discuss them with them.

Fife: The QPI target was not met showing a shortfall of 20.8% (3 patients). These TURBT procedures were performed by various clinicians including consultants and registrars and trainees (supervised and unsupervised). With the exception of one, in each case repeat procedures confirmed either pTa/pT1 disease or no evidence of malignancy (with/without DM present). The TURBT2 for the remaining case confirmed pT2 disease and the patient went on to have the appropriate treatment and the patient was included in QPI for denominator based on measurability (pTTURBT = pT1; TGRADE20041 = 2; TURBTINTENT <> 2). Fife are aware that the CWT 31-day target does have some impact, as in order to achieve this target, there are occasions where patients are not added to an appropriate TURBT list. The 'not recorded for / exclude from denominator' had no TGRADE20041 recorded.

Lothian: There are 24 cases not meeting this QPI and a spectrum of different reasons was found. Patients with small tumours are booked onto any surgeons list and may not be resected deep enough by the non-specialist urologist, which is a training issue. It's difficult to fix these issues, but we will continue to raise awareness amongst clinicians.

Action: Important QPI, target is high and will remain so with the new QPIs following FR3 monitor with next set of results.



QPI 2 (I, II, III) - TURBT complete / incomplete resection (count and %)

Title: Patients with bladder cancer who undergo TURBT that have complete / incomplete resection (count and %)

Numerator = Number (and %) of patients with bladder cancer who undergo TURBT and have a complete resection / an incomplete resection / unsure whether complete or incomplete resection.

Denominator i = All patients with bladder cancer who undergo TURBT. (Excluding Patients undergoing palliative resection)

Denominator ii = All patients with bladder cancer who undergo TURBT. (Excluding patients undergoing palliative resection and patients with very small tumours (<5mm))

Denominator iii = All patients with high grade NMIBC who undergo TURBT. (Excluding Patients undergoing palliative resection, patients with very small tumours (≤5mm), and patients with bladder diverticular tumours).

Presented by Board of surgery

Additional info for TURBT QPI 2 from surgical proforma	Resection recorded as	Borders		D&G		Fife		Lothian		SCAN	
		n	%total	n	%total	n	%total	n	%total	n	%total
i) Number and % of patients who undergo TURBT and have a complete, incomplete, unsure resection. (Excluding palliative resection)	Complete	23	88.5%	35	59.3%	63	82.9%	171	81.4%	293	78.8%
	Incomplete	2	7.7%	11	18.3%	9	11.8%	30	14.3%	52	14.0%
	Unsure	1	3.8%	0	0.0%	1	1.3%	8	3.8%	10	2.7%
	Not recorded	0	0.0%	13	22.2%	3	3.9%	1	0.5%	17	4.6%
	Totals	26	100%	59	100%	76	100%	210	100%	372	100%
ii) Number and % of patients who undergo TURBT and have a complete, incomplete, unsure resection. (Excluding palliative resection and <5mm tumours)	Complete	23	88.5%	31	56.4%	62	83.8%	168	81.2%	285	78.5%
	Incomplete	2	7.7%	11	20.0%	9	12.2%	30	14.5%	52	14.3%
	Unsure	1	3.8%	0	0.0%	0	0.0%	8	3.9%	9	2.5%
	Not recorded	0	0.0%	13	23.6%	3	4.1%	1	0.5%	17	4.7%
	Totals	26	100%	55	100%	74	100%	207	100%	363	100%
iii) Number and % of patients who undergo TURBT and have a complete, incomplete, unsure resection. (Excluding palliative resection, <5mm tumours and bladder diverticular tumours)	Complete	21	87.5%	13	65.0%	23	88.5%	69	87.3%	127	84.7%
	Incomplete	2	8.3%	3	15.0%	2	7.7%	5	6.3%	12	8.0%
	Unsure	1	4.2%	0	0.0%	0	0.0%	5	6.3%	6	4.0%
	Not recorded	0	0.0%	4	20.0%	1	3.8%	0	0.0%	5	3.3%
	Totals	26	100%	20	100%	26	100%	79	100%	150	100%

QPI 3 – Mitomycin C following TURBT – Target = 80%

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.

Exclusion = None.

The tolerance within this target is designed to account for situations where patients have severe haematuria, which requires continuous irrigation or surgical intervention. It also accounts for those patients where there has been intra or extraperitoneal perforation, and those with high risk of extravasation. Additionally, at time of TURBT it is often difficult to identify if disease is superficial, invasive or high/low grade therefore in order to minimise over-treatment some patients with suspected muscle invasive bladder cancer may not receive mitomycin C (or another alternative chemotherapy agent).

Presented by Board of surgery

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	0	53	59	170	282
Excluded from analysis	0	0	0	0	0
Numerator	13	5	26	67	111
Not recorded for numerator	0	0	0	0	0
Denominator	18	11	36	75	140
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	1	0	1
% Performance	72.2	45.5	72.2	89.3	79.3

Comment:

Borders: The QPI target was not met showing a shortfall of 7.8% (5 patients). One of the patients had the instillation of Mitomycin C outwith 24 hours, for the second one Mitomycin C was not given as the patient had a tiny lesion biopsied under local anaesthetic, for other patient it was due to diagnostic uncertainty, and for the other two Mitomycin C was not given because of deep resection.

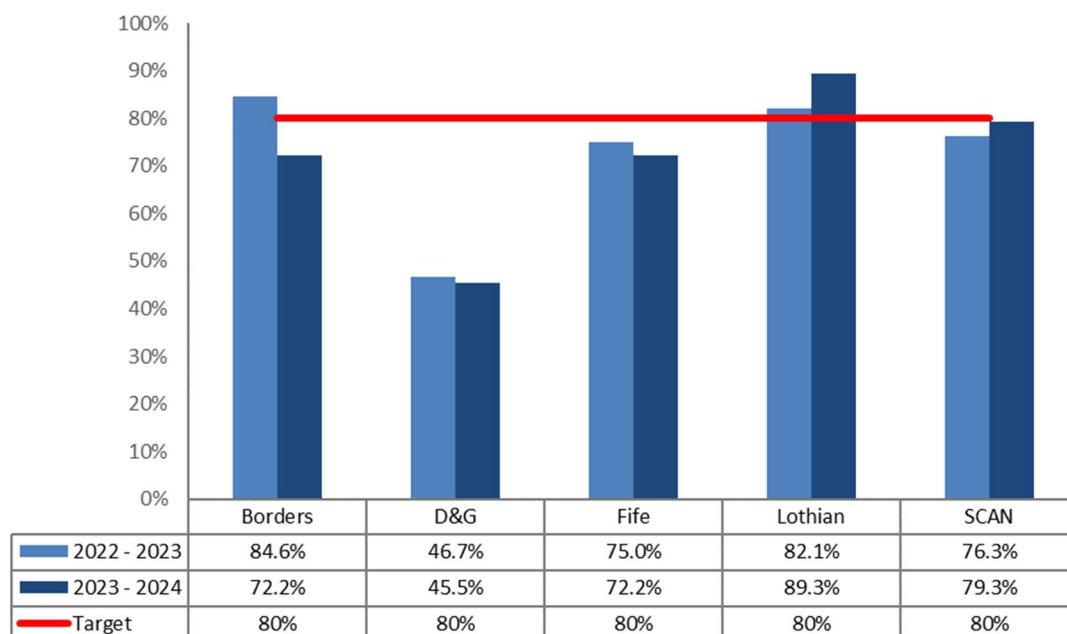
DGRI: The QPI target was not met showing a shortfall of 6 patients. A full clinical review has been done and no clinical reason was identified about why the patients didn't receive Mitomycin C. As a result, significant work has been undertaken from April to September 2024 to improve performance and as per end February 2025 the provisional performance for 2024-2025 has already achieved 70%. Further work is underway to audit and identify ways to continue improving performance.

Fife: The QPI target was not met showing a shortfall of 7.8% (10 patients). Six of them had deep resections to obtain muscle within the specimen. For the other four, one of them was clinically suspected of muscle invasive disease, a second patient had conflicting instructions on the operation note, the third one had a tumour within the ureter so Mitomycin C was not appropriate and for the other patient it was due to the lesion was an incidental finding during other treatment.

(The 'not recorded' value for / exclude from denominator had no TGRADE20041 recorded.)

Action: Issue in D&G is largely down to deep resections, and work is already underway to understand this, update required from D&G.

QPI 3: Mitomycin C 2022/23 to 2023/24



QPI 4i - Early Re-TURBT – Target = 80%

Title: Patients who have undergone TURBT with high grade Ta (multifocal - more than 2 or large >3cm) and/ or T1 NMIBC, where detrusor muscle is absent from specimen or initial resection is incomplete, who have a second resection or early cystoscopy (± biopsy) within 6 weeks of initial TURBT.

Numerator = Patients with T1 (all grades) or select high grade Ta (multifocal - more than 2 or large >3cm) NMIBC who have undergone TURBT who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection.

Denominator = All patients with T1 (all grades) or select high grade Ta NMIBC who have undergone TURBT.

Exclusion = Where TURBT has been carried out for palliation, undergone early cystectomy or where metastatic disease is confirmed.

The tolerance within this target is designed to account for situations where patients are not fit enough for a further operation, where patients are frail and a thin bladder wall is suspected and where there is imaging which suggests re-TURBT is not required or where PDD (photodynamic diagnosis) TURBT has been carried out. It also accounts for those patients where there has been intra or extraperitoneal perforation.

Presented by Board of surgery

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	28	39	67	167	301
Excluded from analysis	2	7	4	3	16
Numerator	0	1	2	3	6
Not recorded for numerator	0	0	0	0	0
Denominator	7	16	24	75	122
Not recorded for exclusion	0	1	0	0	1
Not recorded for denominator	0	3	1	0	4
% Performance	0.0	6.3	8.3	4.0	4.9

Comment:

Borders: The QPI target was not met due to a shortfall of 7 patients. One of them could not undergo a second resection within 6 weeks of the initial TURBT as awaiting haematology input. In the second case, it was delayed due to investigations/surgery for renal lesion at the Western General. Surveillance was decided for the third one, as the patient was receiving treatment for a concurrent cancer. For the other four it was due to theatre capacity issues.

DGRI: The QPI target was not met showing a shortfall of 15 patients, with the following breakdown:

- a) Seven patients had their TURBT done outwith 6 weeks, six of them experiencing a delay of 54, 61, 63, 65, 75 and 84 days, respectively. For the seventh case, it was due to the patient failed the assessment for radical surgery (being done on day 128).
- b) For seven patients, it was an MDM decision to opt for a different treatment instead of TURBT, as follows:
 - a. Two patients were considered for radical surgery
 - b. For one patient cystoscopy was suggested instead of TURBT
 - c. Two patents were considered for BCG
 - d. One patient chose BCG when given the option between BCG or TURBT
 - e. It was decided for one patient to treat first renal failure first prior to TURBT
- c) One patient was considered not fit to redo TURBT

Fife: The QPI target was not met showing a shortfall of 22 patients. It was recommended three month follow up for five patients at the MDM; two patients were for BCG instillations following their TURBT; one patient required further investigations prior to re-discussion at MDM; one patient wished thinking time to consider early cystectomy, agreeing on re-resection following clinic; other case was due to a delay on the pathology results as a further investigation was necessary to determine detrusor muscle invasion; another patient was initially for BCG but re-resection was arranged following clinic as the patient was considered fit for it. The failure of this QPI is mostly due to capacity issues in theatre as the remaining 11 cases waiting more than 42 days for the second procedure.

(The 'not recorded for / exclude from denominator' case had no TGRADE20041 recorded.)

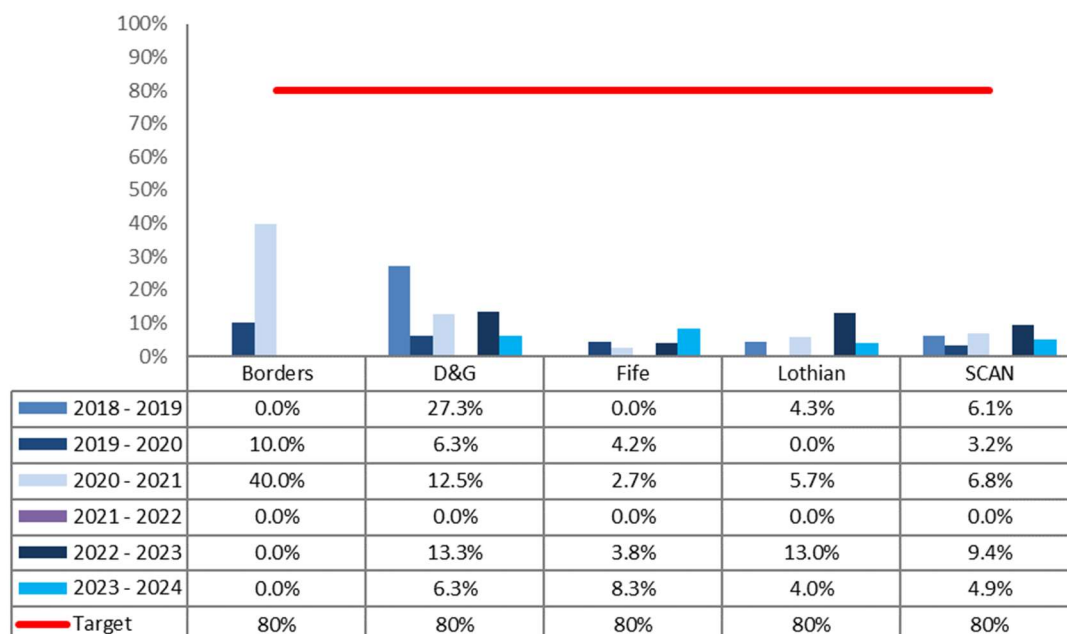
(*) Note: A formal review of the QPIs is underway and it is believed the clinical cohort for this QPI will be amended to focus on T1 cases only with the 6-week target being increased to 3 months (90 days), as there is no evidence of any survival disadvantage in this cohort. The impact of the proposed changes to this QPI would result in Fife having 74% (14/19).

Consultants should follow the Regional Pathway to have this category of patients listed within 6 weeks of initial TURBT

Lothian: 72 outliers – all reviewed with various reasons, main reason is timing.

Action This QPI has been changed at Formal Review, so we will await next year results and no action required at this point.

QPI 4i - Re-TURBT - High Grade 2018/19 to 2023/24



QPI 4ii - Early Re-TURBT (detrusor muscle) – Target = 80%

Title: Patients who have undergone TURBT with high grade Ta* (multifocal - more than 2 or large >3cm) and/ or T1 NMIBC, where detrusor muscle is absent from specimen or initial resection is incomplete, who have a second resection or early cystoscopy (± biopsy) within 6 weeks of initial TURBT.

Numerator = Patients with high grade NMIBC who have undergone TURBT where detrusor muscle absent from specimen who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection.

Denominator = All patients with high grade NMIBC who have undergone TURBT where detrusor muscle is absent from specimen.

Exclusion = Where TURBT has been carried out for palliation, undergone early cystectomy or where metastatic disease is confirmed.

The tolerance within this target is designed to account for situations where patients are not fit enough for a further operation, where patients are frail and a thin bladder wall is suspected and where there is imaging which suggests re-TURBT is not required or where PDD (photodynamic diagnosis) TURBT has been carried out. It also accounts for those patients where there has been intra or extraperitoneal perforation.

Presented by Board of surgery

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	35	60	86	217	398
Excluded from analysis	2	1	1	3	7
Numerator	0	0	0	1	1
Not recorded for numerator	0	0	0	0	0
Denominator	0	2	9	25	36
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	N/A	0.0	0.0	4.0	2.8

Comment:

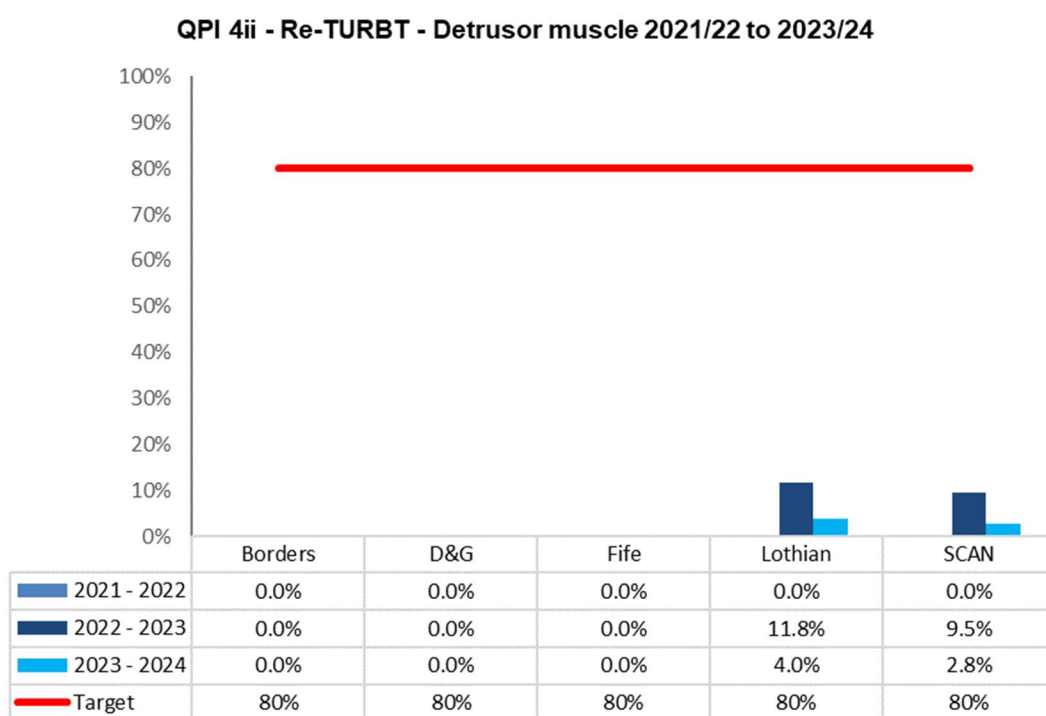
DGRI: The QPI target was not met showing a shortfall of 2 patients TURBT. The first one was done outwith 6 weeks and the second was an MDT decision to consider BCG or cystoscopy.

Fife: The QPI target was not met. Of the 9 outliers: 2 were for 3 month follow up as recommended at MDT and 1 required further investigations prior to re-discussion at MDT. The failure of this QPI is mostly due to capacity issues in theatre as the remaining 6 cases waited more than 42 days for their second procedure.

Note: A Formal Review of the QPIs is underway and it is believed QPI 4(ii) will be archived as high grade pT1 NMIBC are included in specification 4(i) and will undergo a second TURBT irrespective of whether detrusor muscle is present.

Lothian: All outliers reviewed with no actions identified.

Action: This QPI has been changed at Formal Review, so we will await next year results and no action required at this point.



QPI 4iii - Early Re-TURBT (incomplete resection) – Target = 80%

Title: Patients who have undergone TURBT with high grade Ta* (multifocal - more than 2 or large >3cm) and/ or T1 NMIBC, where detrusor muscle is absent from specimen or initial resection is incomplete, who have a second resection or early cystoscopy (± biopsy) within 6 weeks of initial TURBT.

Numerator = 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 = All patients with NMIBC who have undergone TURBT where initial resection is incomplete.

Exclusion = Where TURBT has been carried out for palliation, undergone early cystectomy or where metastatic disease is confirmed.

The tolerance within this target is designed to account for situations where patients are not fit enough for a further operation, where patients are frail and a thin bladder wall is suspected and where there is imaging which suggests re-TURBT is not required or where PDD (photodynamic diagnosis) TURBT has been carried out. It also accounts for those patients where there has been intra or extraperitoneal perforation.

Presented by Board of surgery

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	35	58	88	234	419
Excluded from analysis	2	2	3	3	10
Numerator	0	1	2	0	3
Not recorded for numerator	0	0	0	0	0
Denominator	0	3	4	8	15
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	10	1	0	11
% Performance	N/A	33.3	50.0	0.0	20.0

Comment:

DGRI: The QPI target was not met showing a shortfall of 2 patients. It was an MDT decision to prioritise the treatment for renal failure and therefore the patient didn't have a redo TURBT. The other patient was assessed for cystoprostatectomy but failed pre-assessment and redo TURBT procedure was delayed (done day 128).

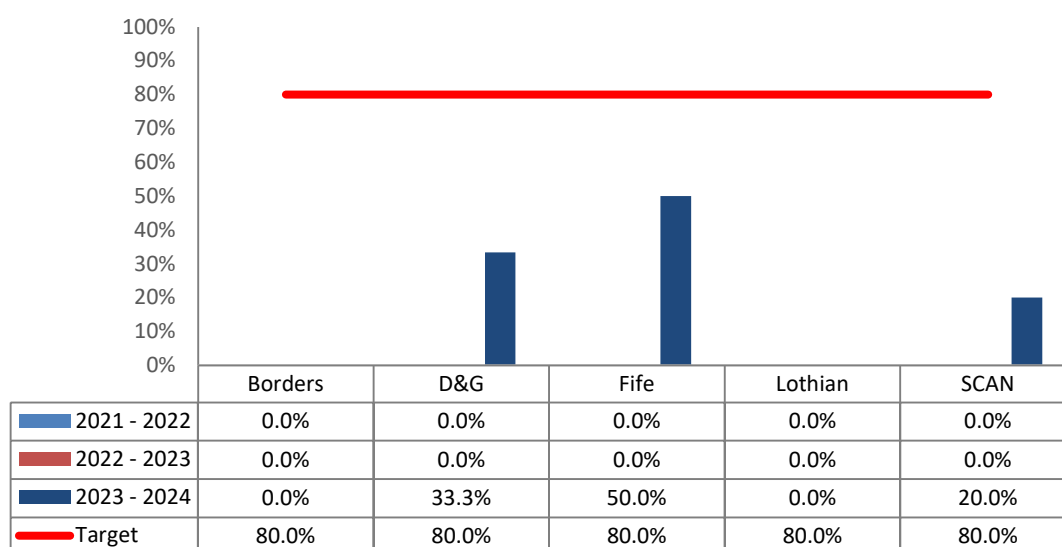
Fife: The QPI target was not met showing a shortfall of the 2 patients. One of them required further investigation prior to re-discussion at MDT. The other case missed the 42-day target by 3 days.

The 'not recorded for / exclude from denominator' case had RESECCOMP1 = 99.

Lothian: All outliers reviewed with no actions identified.

Action: This QPI has been changed at Formal Review, so we will await next year results and no action required at this point.

QPI 4iii - Re-TURBT - Incomplete resection 2021/22 to 2023/24



QPI 6 – Lymph Node Yield – Target = 95%

Title: Patients with bladder cancer that 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.

Numerator = 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.

The tolerance within this target accounts for situations where patients are not fit enough to undergo extensive lymphadenectomy.

Presented by Board of surgery

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis			88	199	287
Excluded from analysis			2	0	2
Numerator	-	-	5	37	42
Not recorded for numerator	-	-	0	0	0
Denominator	-	-	6	46	52
Not recorded for exclusion	-	-	0	2	2
Not recorded for denominator	-	-	0	0	0
% Performance	N/A	N/A	83.3	80.4	80.8

Comment:

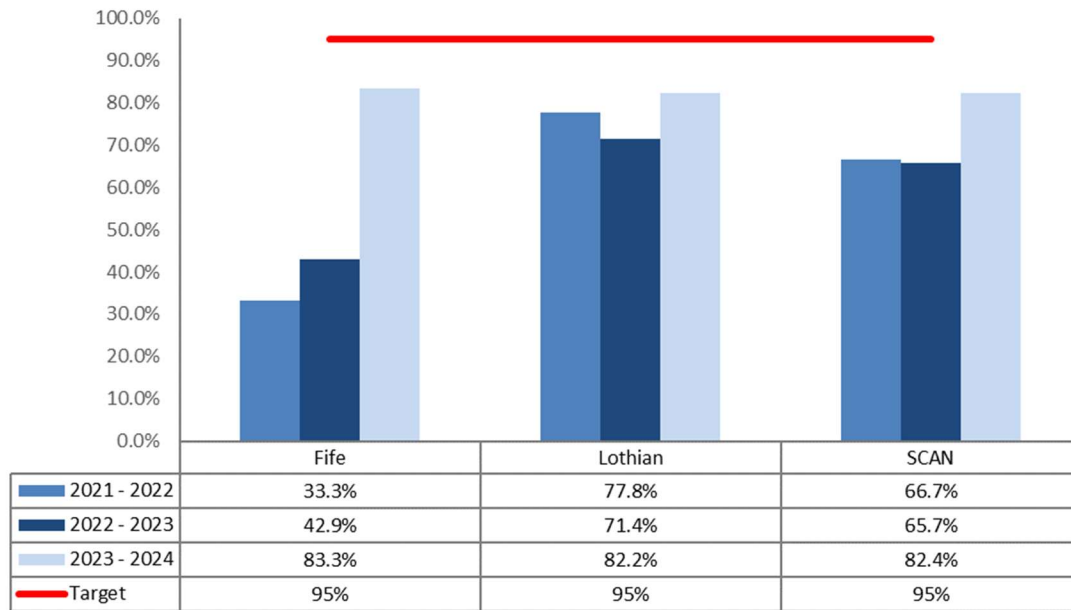
Fife: The QPI target was not met showing a shortfall of 11.7% (1 case). Although the correct level of node dissection was undertaken, less than 10 nodes were pathologically examined and both have to be present in order to meet the criteria for this QPI. The adjustment to the operation note template has shown improvement in Fife's recording of the level of lymph node dissection.

Lothian: The QPI target was not met showing a shortfall of 14.6% (9 cases). In three cases (two renal transplant patients and one patient with a history of pelvic lymph node dissection (PLND) for prostate cancer), PLND was omitted due to the presence of fibrosis. Sampling only, was performed in four cases, as they were subject to prior pelvic radiotherapy or encountered bleeding during the operation due to advanced disease. Despite adherence to the standard template, two cases still failed to meet the QPI criteria.

Action: This QPI has been changed at FR, so we will await next year results and no action required at this point.

Path comment: There is significant variation within tissue samples, some have large lozenge-shaped and fused nodes and some have very small nodes. Pathologically, 10 is an ambitious number to identify so there will always be variability.

QPI 6 - Lymph node yield 2021/22 to 2023/24



QPI 7i – Time to Treatment – Target = 90%

Title: Patients with muscle invasive bladder cancer (MIBC) undergoing treatment with radical intent should commence treatment as soon as possible.

Numerator = Number of patients with MIBC who undergo radical cystectomy or radiotherapy only within 6 weeks of diagnosis of MIBC.

Denominator = All patients with MIBC undergoing radical cystectomy or radiotherapy only.

Exclusion = None.

The tolerance within this target accounts for situations where patients are not fit enough to undergo treatment within the required timescales due to other medical conditions.

Presented by Board of diagnosis

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	31	52	93	226	402
Excluded from analysis	1	1	0	1	3
Numerator	0	1	0	4	5
Not recorded for numerator	0	0	0	0	0
Denominator	5	10	3	18	36
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	0.0	10.0	0.0	22.2	13.9

Comment:

Borders: The QPI target was not met showing a shortfall of 5 patients. One of them was delayed due to Christmas holiday period. The second patient required assessment in the high-risk anaesthetic clinic. For the third case there was a delay in starting inpatient radiotherapy. The fourth one required assessment in the high-risk anaesthetic clinic. The last one required additional clinic appointments due to co-morbidities

DGRI: The QPI target was not met showing a shortfall of 9 patients. Five of them exceeded the six-week period (42 days) to cystectomy (47 to 93 days) and the other four to radiotherapy (53 to 122 days).

Fife: The QPI target was not met showing a shortfall of three 3 patients. One of the cases missed the target by 7 days due to a variety of delays in each step of the pathway. The second patient missed the target by 34 days due to a temporary co-morbidity. The third one was a complex case.

Lothian: There were 14 cases not meeting the QPI criteria, 11 underwent radical cystectomy and 3 radical radiotherapy. For the three patients receiving radical radiotherapy, one patient did not have staging scans reported at time of oncology review, one did not attend first new patient appointment, and the other one initially wished to have surgery but changed their mind ,so there was a delay to oncology.

Reviews for the 11 cystectomy patients:

6–7 weeks (2 cases): Delays due to awaiting further imaging and availability of a second operator for the nephrectomy component.

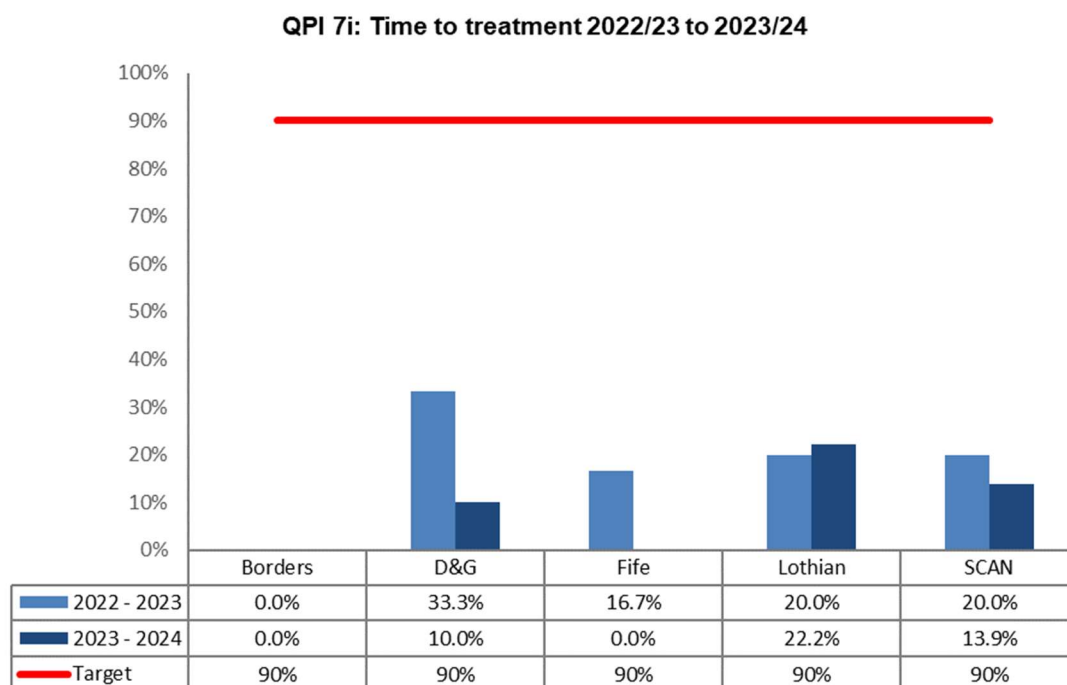
9 weeks (2 cases): Delay related to pending imaging. Both proceeded to surgery within 6 weeks of the MDM.

10–11 weeks (4 cases): 1 case delayed due to limited robotic theatre access. 2 cases delayed by a 4-week pathology turnaround, though both had surgery within 6 weeks of MDM. 1 case initially planned for chemotherapy; ongoing haematuria prompted a switch to surgery.

14–16 weeks (3 cases): 1 case delayed by a missed clinic appointment, second opinion, and further imaging for suspected aggressive disease. 1 case required second opinion and

planning for neobladder reconstruction. 1 case was initially considered metastatic; subsequent imaging revised the diagnosis, enabling surgical intervention.

Action: No issues with radiotherapy capacity were identified, so issues lie more with the pathway and MDM timing issues. This is an ambitious target which we will monitor going forward.



QPI 7ii – Time to Treatment – Target = 90%

Title: Patients with muscle invasive bladder cancer (MIBC) undergoing treatment with radical intent should commence treatment as soon as possible.

Numerator = Number of patients with MIBC who have neoadjuvant chemotherapy who undergo cystectomy or radiotherapy within 8 weeks of completing treatment.

Denominator = All patients with MIBC undergoing neo-adjuvant chemotherapy.

Exclusion = None.

The tolerance within this target accounts for situations where patients are not fit enough to undergo treatment within the required timescales due to other medical conditions.

Presented by Board of diagnosis

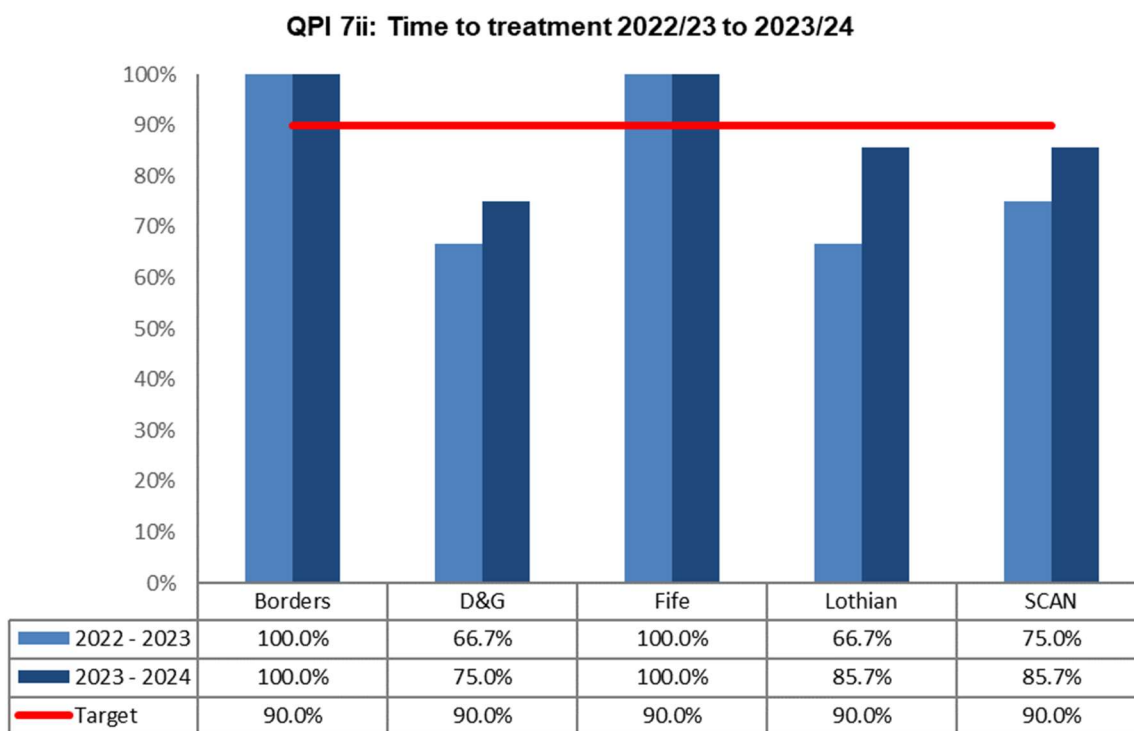
Target 90%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	36	59	94	238	427
Excluded from analysis	0	0	0	0	0
Numerator	1	3	2	6	12
Not recorded for numerator	0	0	0	0	0
Denominator	1	4	2	7	14
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	100.0	75.0	100.0	85.7	85.7

Comment:

DGRI: The QPI target was not met showing a shortfall of 1 patient (at 68 days) Complex case investigations contributed to delays.

Lothian: The QPI is not met showing a shortfall of 4.3% (1 patient). Concern was raised that the local tumour had progressed and an additional PET scan was requested causing the subsequent delay.

Action: Clinical reasons for delays. Small numbers result in big percentage swings.



QPI 8 – Volume of Cases per Centre/Surgeon – Target = ≥ 20 cases per year.

Title: Radical cystectomy should be performed by surgeons who perform the procedure routinely.

The criteria for this QPI are defined by a minimum of 10 operations per surgeon and overall 20 operations per Centre.

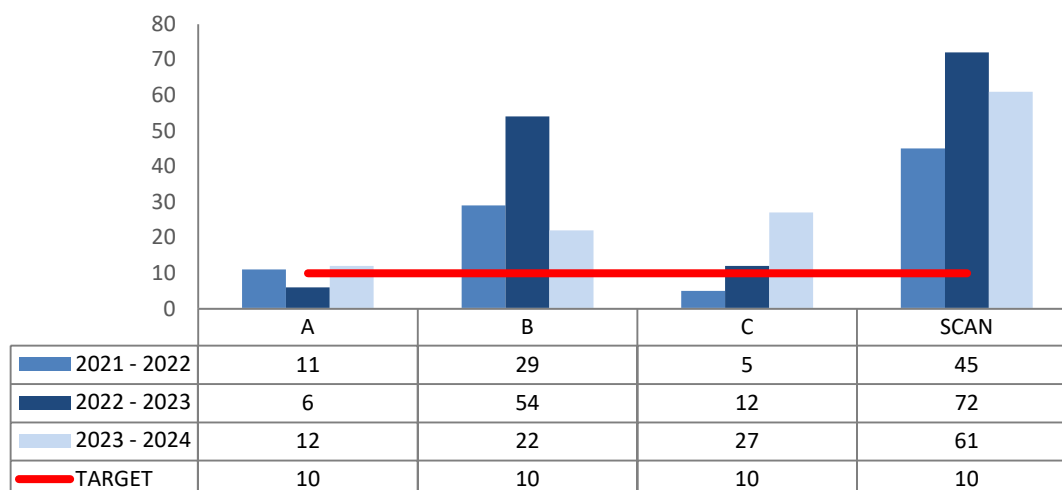
Numerator = Number of radical cystectomy procedures performed by each surgeon in a given year (no exclusions).

All cystectomies are carried out in Fife and Lothian.

Board of Surgery*	Surgeon	Number of radical cystectomies
NHS Fife	A	12
NHS Lothian	B	22
NHS Lothian	C	27

*Data supplied by PHS SMR01 returns.

QPI 8: Volume of cases per Surgeon 2021/22 to 2023/24



QPI 9 – Oncological Discussion – Target = 60%

Title: Patients with muscle invasive bladder cancer should have all treatment options discussed with them prior to radical cystectomy.

Numerator = Number of patients with muscle invasive bladder cancer who undergo cystectomy who met with an oncologist prior to radical cystectomy.

Denominator = All patients with muscle invasive bladder cancer who undergo radical cystectomy (no exclusions)

The tolerance accounts for the fact that patients might decline to see an oncologist, are deemed at multi-disciplinary team meeting to not be suitable for radical radiotherapy or neo-adjuvant chemotherapy, due to co-morbidities and for patients who undergo emergency cystectomy.

Presented by Board of diagnosis

Target 60%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	0	52	92	224	368
Excluded from analysis	0	1	0	0	1
Numerator	1	7	3	12	23
Not recorded for numerator	0	0	0	0	0
Denominator	2	10	4	21	37
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	50.0	70.0	75.0	57.1	62.2

Comment:

Borders: The QPI was not met showing a shortfall of 10.0% (1 case). After MDT discussion, surgery was considered the best option as the patient was not fit for neo-adjuvant chemo.

Lothian: The QPI was not met showing a shortfall of 2.9% (9 cases). One patient required urgent surgery due to locally advanced disease, discussion of treatment options with the oncologist prior to radical cystectomy was not possible. For one patient the reason was unclear (patient was not keen on bladder preservation route i.e., radiotherapy). One patient had a tumour within bladder diverticulum, making surgery the preferred method of treatment. The remaining six cases were on MDM advice:

Case1: MDM advised surgery as the only radical option to clear cell morphology of the tumour

Case 2: MDM advised pelvic exenteration as the patient was not suitable for radiotherapy due to locally advanced nature of the disease and poor renal function

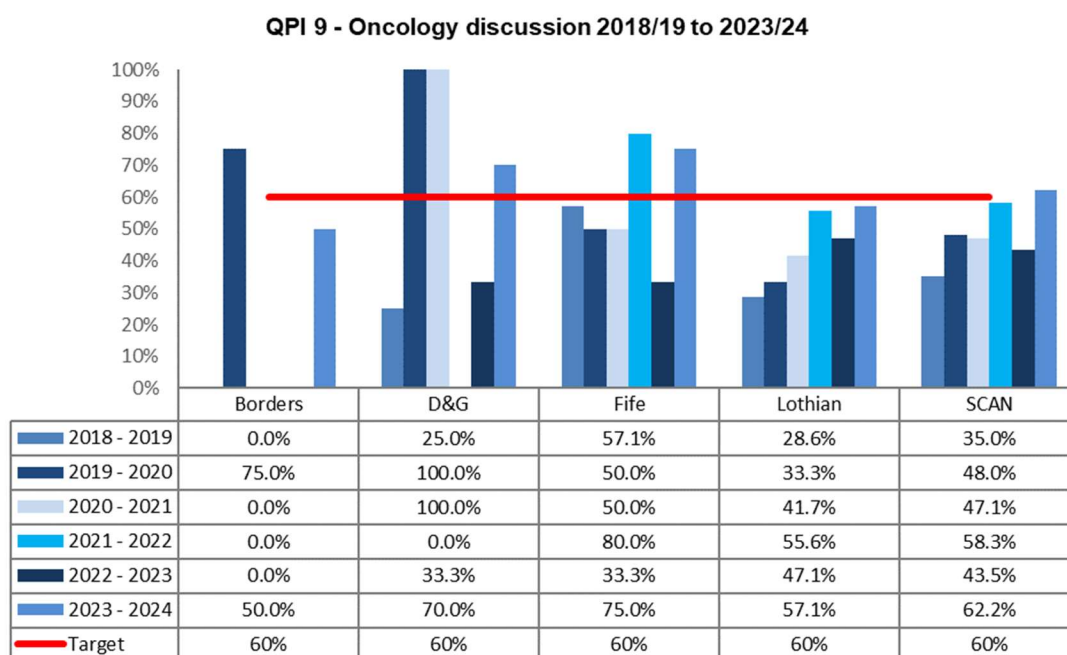
Case 3: MDM advised surgery due to the radiological appearances and the presence of extensive squamous differentiation

Case 4: MDM recommended upfront surgery as the tumour was in the diverticulum and pathology showed a micropapillary variant

Case 5: MDM recommended upfront surgery as pathology showed a micropapillary variant

Case 6: the MDM recommended upfront surgery due to locally advanced disease.

Note: This is the first time that SCAN has met this QPI.



QPI 10 – Radical Radiotherapy with Concomitant Radiosensitiser – Target = 50%

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.

The target accounts for the fact that patients with cardiac disease may not be suitable to receive this type of treatment. It also accounts for the fact that due to co-morbidities and fitness not all patients will require or be suitable for radical radiotherapy with a radiosensitiser.

Target 50%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	34	58	95	238	425
Excluded from analysis	0	0	0	3	3
Numerator	0	0	0	3	3
Not recorded for numerator	0	0	0	0	0
Denominator	3	5	1	4	13
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	0.0	0.0	0.0	75.0	23.1

Comment:

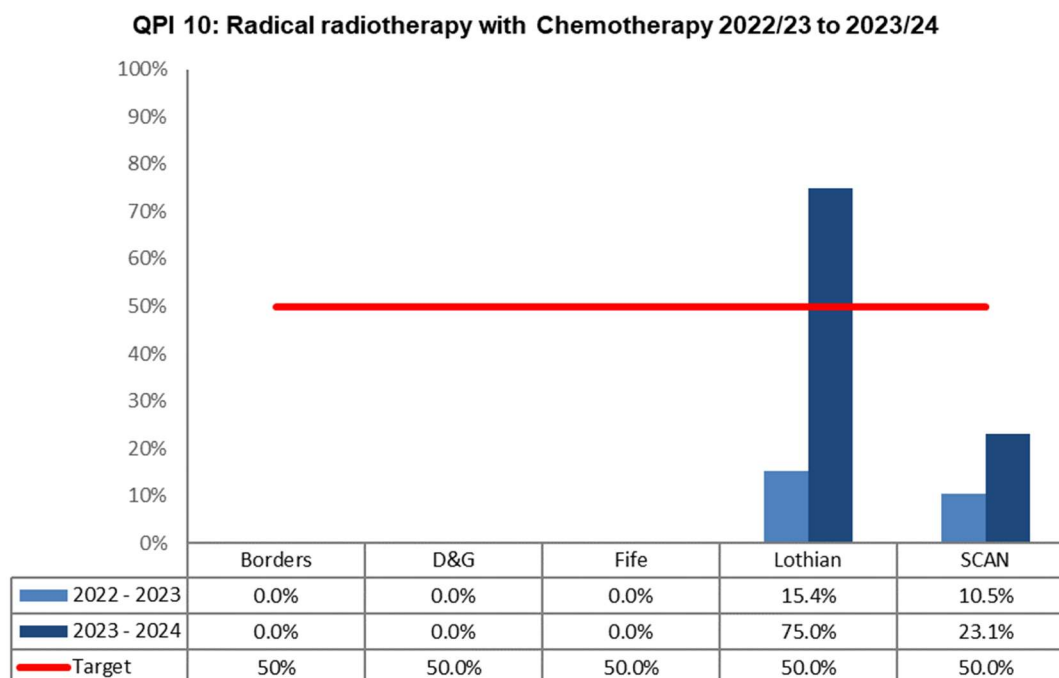
Borders: The QPI was not met showing a shortfall of 3 patients who did not receive the radiosensitiser.

DGRI: The QPI target was not met showing a shortfall of 5 patients who did not receive the radiosensitiser.

Fife: The QPI target was not met. The patient was seen by Oncology who deemed them not fit enough for combined chemoradiotherapy.

Actions: No action identified.

Comment: Introduction of BCON (Bladder Carbogen Nicotinamide) is less demanding and this should improve the QPI outcome.



QPI 11 – 30-day Mortality after radical cancer treatment –Target= <3%

Title: 30-day mortality following treatment with curative intent for bladder cancer.

Numerator: Number of patients with bladder cancer who receive treatment with curative intent (radical cystectomy or radiotherapy) that die within 30 days of treatment.

Denominator: All patients with bladder cancer who receive treatment with curative intent (radical cystectomy, radiotherapy).

Exclusion: No exclusions.

Surgery – Presented by Board of surgery.

Target <3%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis			90	200	290
Excluded from analysis			0	0	0
Numerator	-	-	0	1	1
Denominator	-	-	6	46	52
% Performance	N/A	N/A	0.0%	2.2%	1.9%

Comment: All surgical deaths are discussed at M&M meetings.

Radiotherapy – Presented by Board of diagnosis.

Target <3%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	33	57	95	242	427
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	0	0
Denominator	4	6	1	4	15
% Performance	0.0	0.0	0.0	0.0	0.0

Comment: There were no deaths 30d post radiotherapy

QPI 11 – 90-day Mortality after radical cancer treatment –Target= <5%

Title: 90-day mortality following treatment with curative intent for bladder cancer.

Numerator: Number of patients with bladder cancer who receive treatment with curative intent (radical cystectomy or radiotherapy) that die within 90 days of treatment.

Denominator: All patients with bladder cancer who receive treatment with curative intent (radical cystectomy or radiotherapy).

Exclusion: No exclusions.

Surgery – Presented by Board of surgery

Target <5%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis			90	201	291
Excluded from analysis	0		0	0	0
Numerator	-	-	0	2	2
Denominator	-	-	6	46	52
% Performance	N/A	N/A	0.0	4.3	3.8

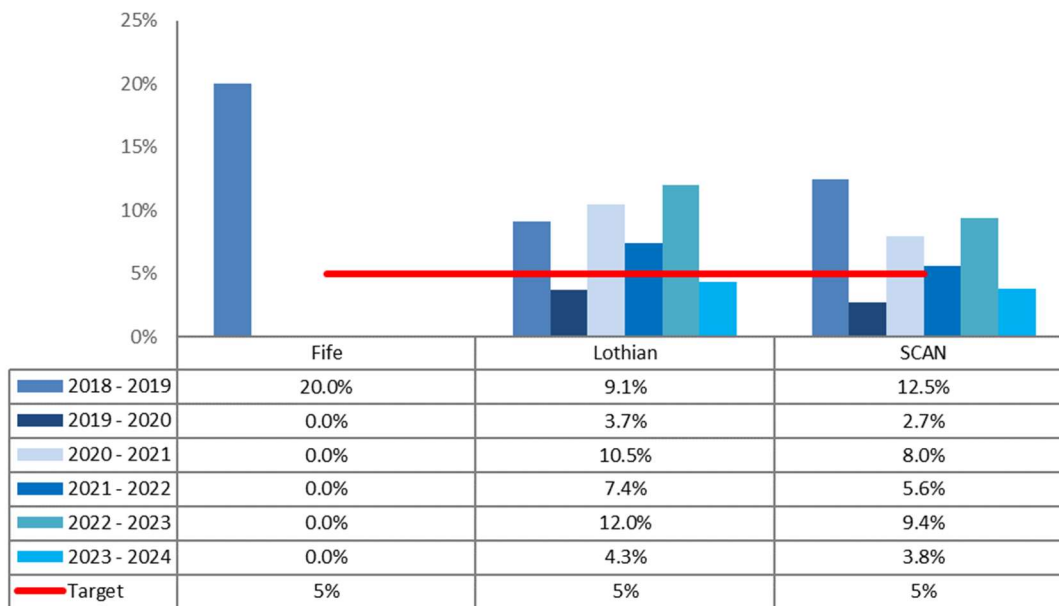
Comment: All surgical deaths are discussed at M&M meetings.

Radiotherapy – Presented by Board of diagnosis.

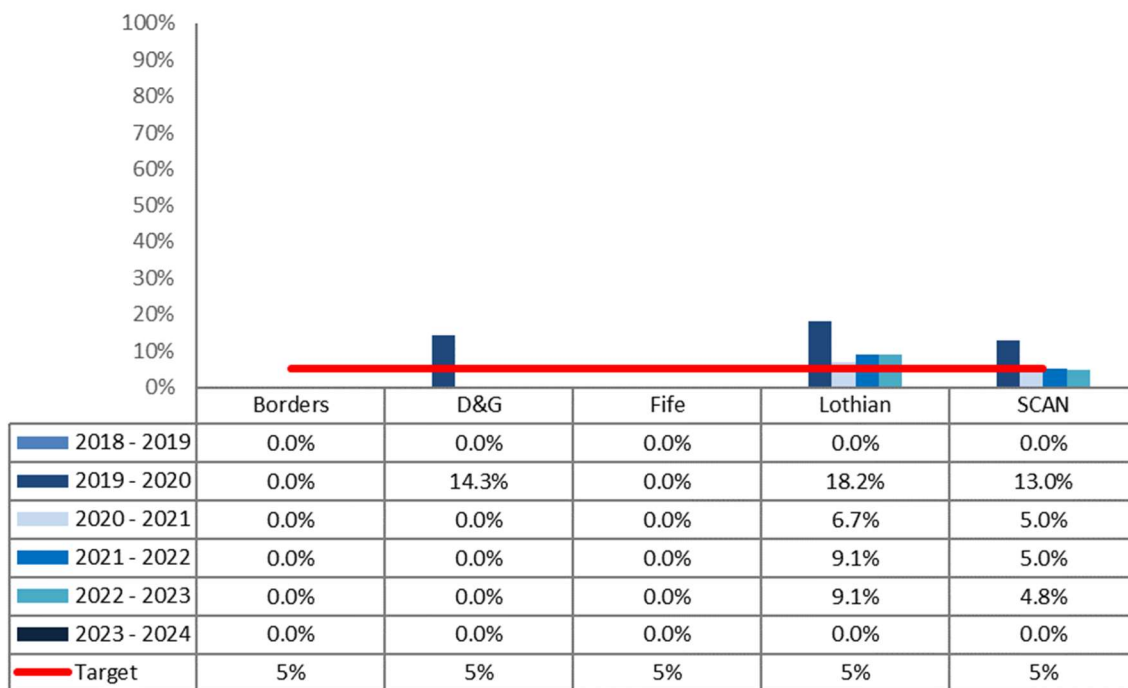
Target <5%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	33	57	95	241	426
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	0	0
Denominator	4	6	1	4	15
% Performance	0.0	0.0	0.0	0.0	0.0

Comment: There were no deaths 90d post radiotherapy

QPI 11: 90 Day Mortality - Surgery 2018/19 to 2023/24



QPI 11: 90 Day Mortality - Radiotherapy 2018/19 to 2023/24



QPI 13i - Early Recurrence NMIBC – Target = <10%

Title: The risk of early recurrence in patients with non-muscle invasive bladder cancer (NMIBC) should be minimised.

Numerator = Number of patients with low grade pTa NMIBC who have undergone initial TURBT where recurrence is found at first follow up cystoscopy.

Denominator = All patients with low grade pTa NMIBC who have undergone initial TURBT.

Exclusion = Patients with incomplete resection at initial TURBT.

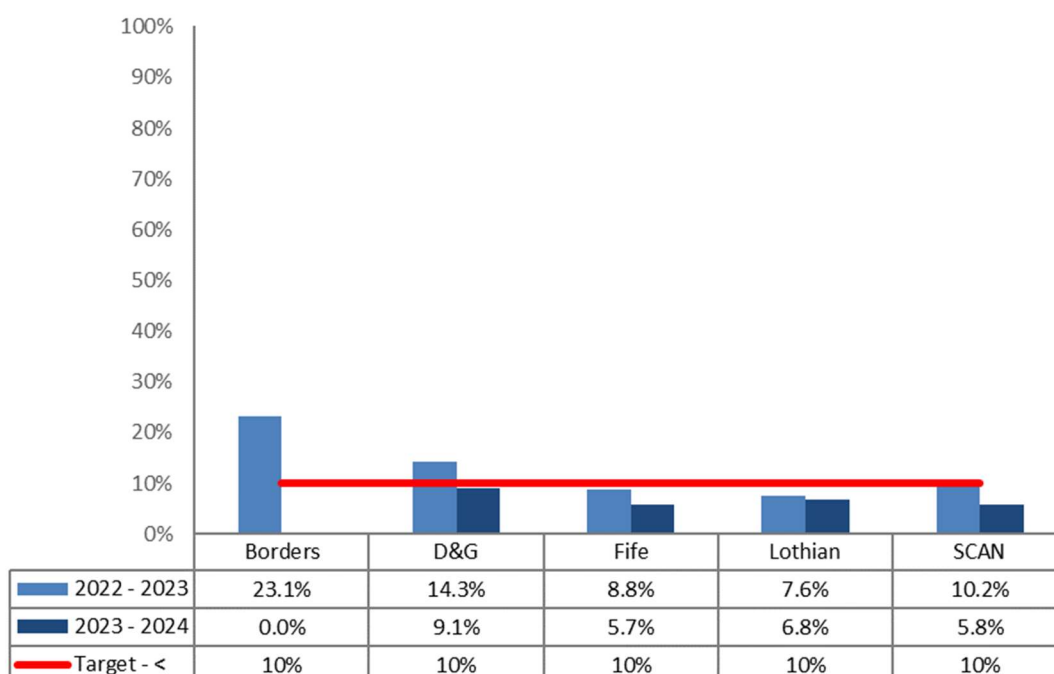
Presented by Board of surgery

Target <10%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	14	52	59	137	262
Excluded from analysis	5	0	1	34	40
Numerator	0	1	2	5	8
Not recorded for numerator	0	0	0	1	1
Denominator	18	11	35	74	138
Not recorded for exclusion	0	3	0	0	3
Not recorded for denominator	0	0	1	0	1
% Performance	0.0	9.1	5.7	6.8	5.8

Comment:

This is a very good result good indicator of quality of initial TURBT

QPI 13i: Early Recurrence (NMIBC) 2022/23 to 2023/24



QPI 13ii - Early Recurrence NMIBC – Target = <20%

Title: The risk of early recurrence in patients with non-muscle invasive bladder cancer (NMIBC) should be minimised.

Numerator = Number of patients with pT1 NMIBC who have undergone a second TURBT or early cystoscopy (± biopsy) and have residual cancer at re-TURBT.

Denominator = All patients with pT1 NMIBC who have undergone a second TURBT or early cystoscopy (± biopsy).

Exclusion = Patients in whom concomitant cis is present in the tumour specimen. Patients with incomplete resection at initial TURBT.

Presented by Board of surgery

Target <20%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	30	61	75	186	352
Excluded from analysis	5	1	12	34	52
Numerator	1	1	2	8	12
Not recorded for numerator	0	0	0	0	0
Denominator	2	1	9	25	37
Not recorded for exclusion	0	0	1	3	4
Not recorded for denominator	0	0	0	0	0
% Performance	50.0	100.0	22.2	32.0	32.4

Comment:

Borders: The QPI target was not met showing a shortfall of 1 patient. The initial resection was deemed complete but residual cancer was discovered at the second biopsy.

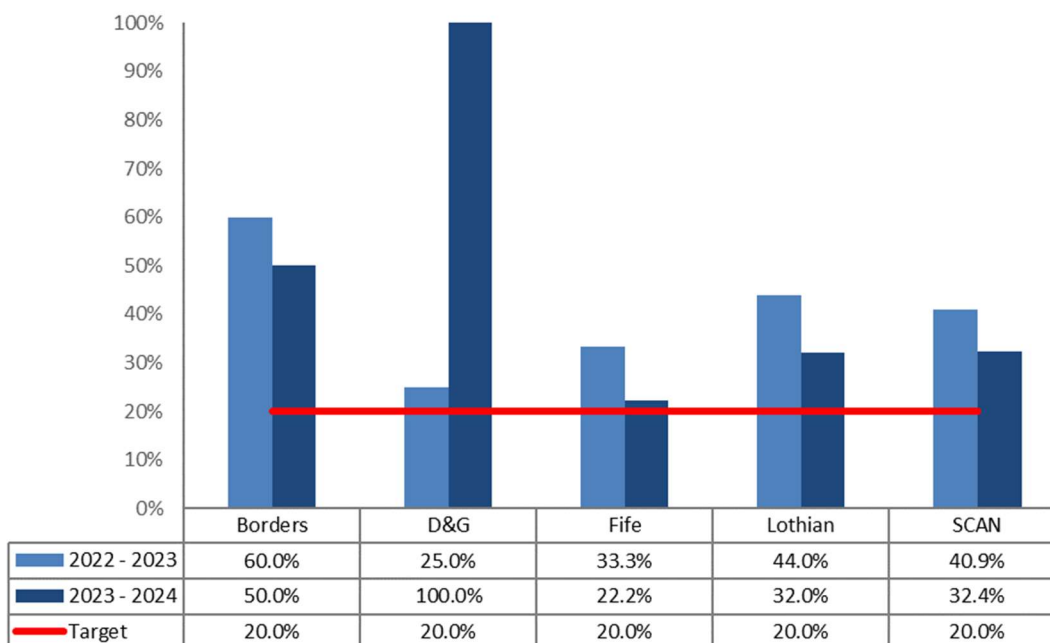
D&G: The QPI target was not met showing a shortfall of 1 patient. This case was reviewed and no issues were identified. Small numbers are considered to affect performance for this QPI.

Fife: The QPI target was not met showing a shortfall of 2.2% (2 patients). The small denominator should be noted and that only 2 cases were found to have recurrence. The 'not recorded for exclusion / include in denominator' case had RESECCOMP1 = 99.

Lothian: All outliers reviewed with no actions identified.

Action: Raise awareness this QPI directly correlates with QPI2.

QPI 13ii: Recurrence post pT1 disease at TURBT1 2022/23 to 2023/24



QPI 13iii - Early Recurrence NMIBC – Target = <1%

Title: The risk of early recurrence in patients with non-muscle invasive bladder cancer (NMIBC) should be minimised.

Numerator = 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 = All patients with pT1 NMIBC who have undergone a second TURBT or early cystoscopy (± biopsy).

Exclusion = Patients with incomplete resection at initial TURBT.

Presented by Board of surgery

Target <1%	Borders	D&G	Fife	Lothian	SCAN
2023-24 cohort	37	63	96	245	441
Ineligible for analysis	29	59	75	176	339
Excluded from analysis	5	2	5	34	46
Numerator	0	0	1	1	2
Not recorded for numerator	0	0	0	0	0
Denominator	3	2	16	35	56
Not recorded for exclusion	0	0	1	0	1
Not recorded for denominator	0	0	0	0	0
% Performance	0.0	0.0	6.3	2.9	3.6

Comment:

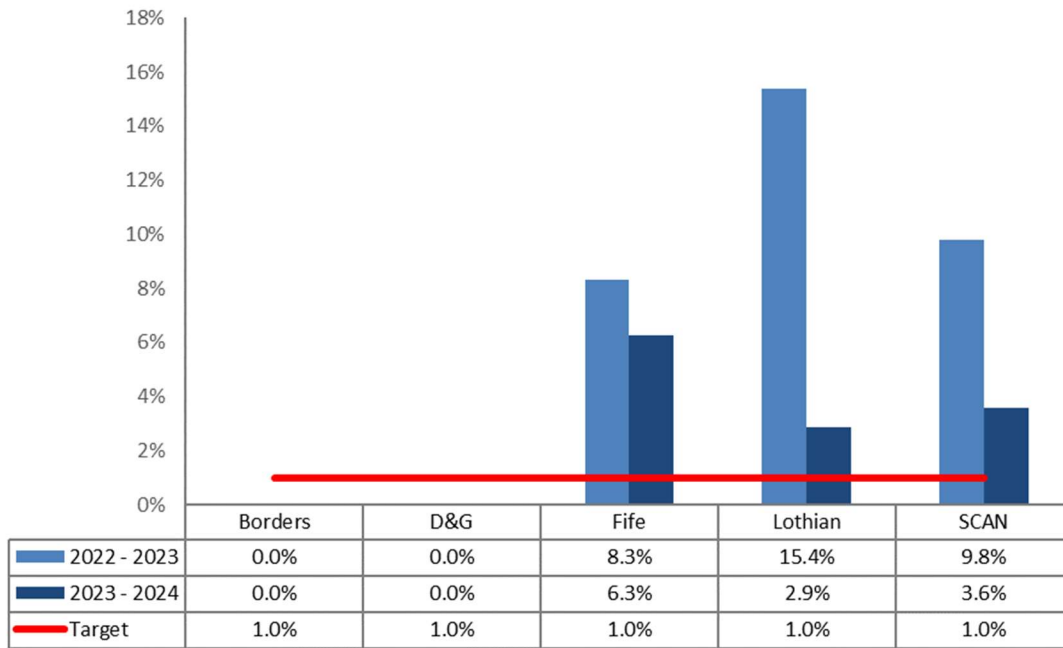
Fife: The QPI target was not met but the small denominator should be noted and only 1 case was found to have recurrence.

The 'not recorded for exclusion / include in denominator' case had RESECCOMP1 = 99.

Lothian: 1 case was found to have recurrence.

Comment: In future QPI reviews, reassessing and changing the target to 3% may be reasonable and still ambitious.

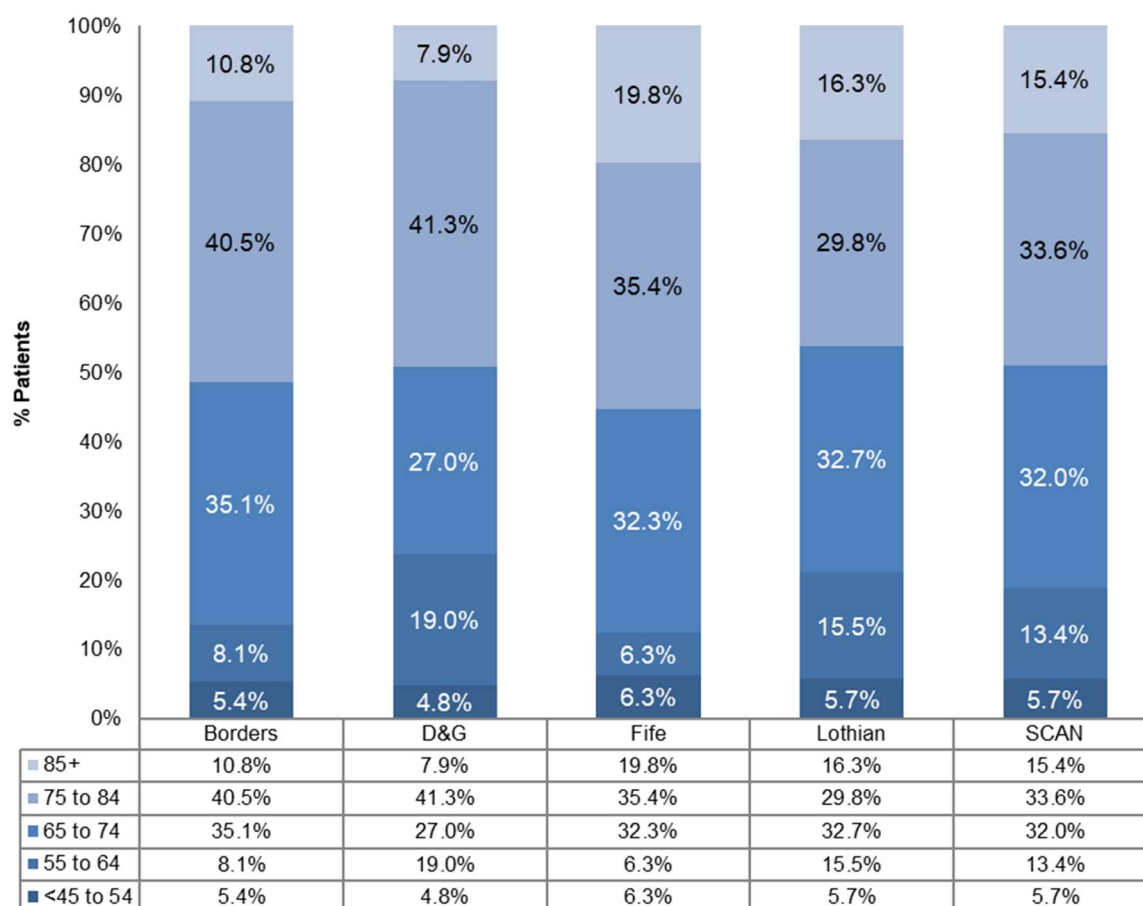
QPI 13iii: MIBC at recurrence post TURBT1 2022/23 to 2023/24



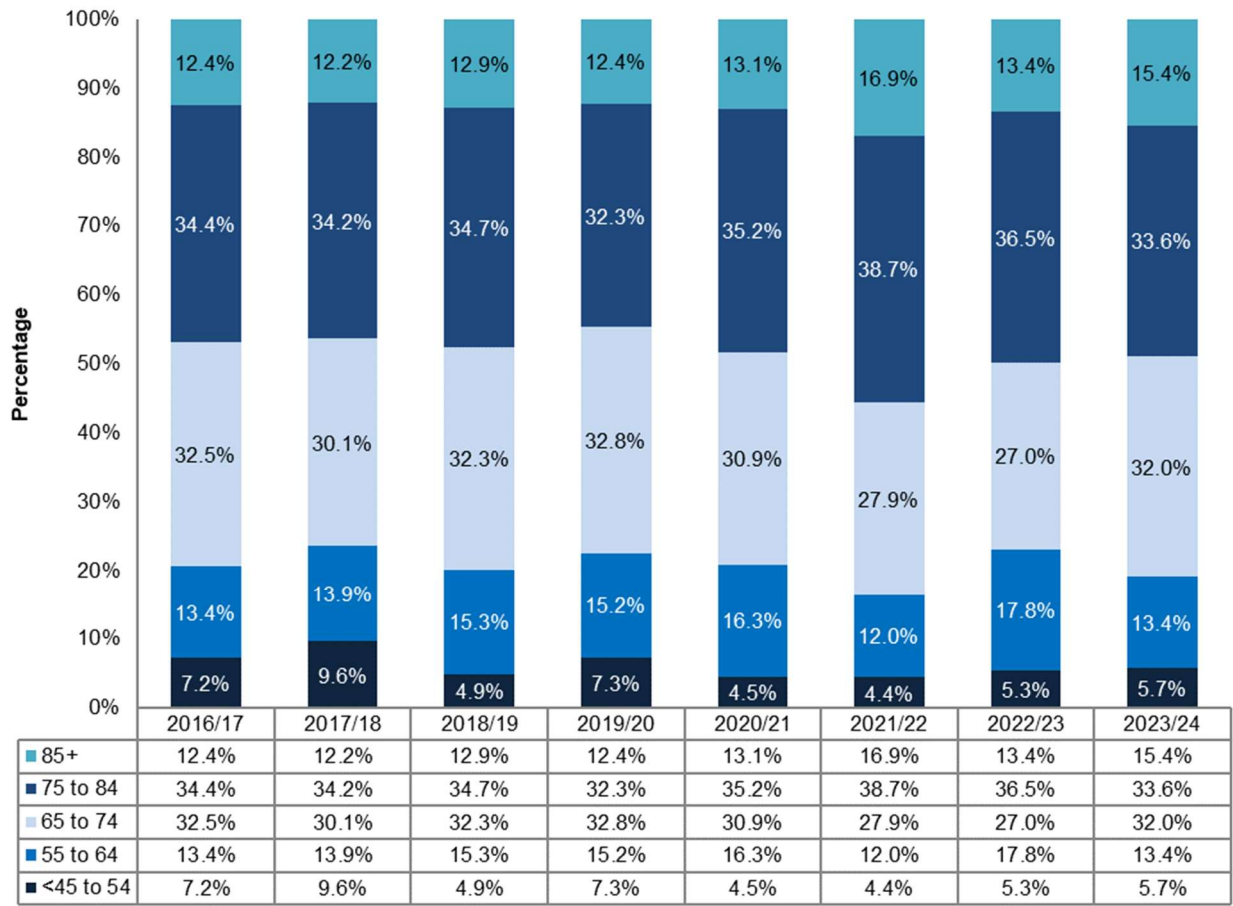
Age and Gender Analysis

Age and Gender Analysis											
	Borders		D&G		Fife		Lothian		SCAN		SCAN Total
	M	F	M	F	M	F	M	F	M	F	
Under 45	0	0	0	0	1	0	1	2	2	2	4
45 - 49	0	0	1	0	2	3	1	2	4	5	9
50 - 54	0	2	0	2	0	0	7	1	7	5	12
55 - 59	2	0	5	0	1	0	10	5	18	5	23
60 - 64	0	1	3	4	4	1	14	9	21	15	36
65 - 69	0	3	7	1	11	3	29	10	47	17	64
70 - 74	10	0	6	3	15	2	32	9	63	14	77
75 - 79	6	2	19	1	18	2	30	11	73	16	89
80 - 84	5	2	6	0	11	3	21	11	43	16	59
85+	1	3	5	0	12	7	26	14	44	24	68
Total	24	13	52	11	75	21	171	74	322	119	441

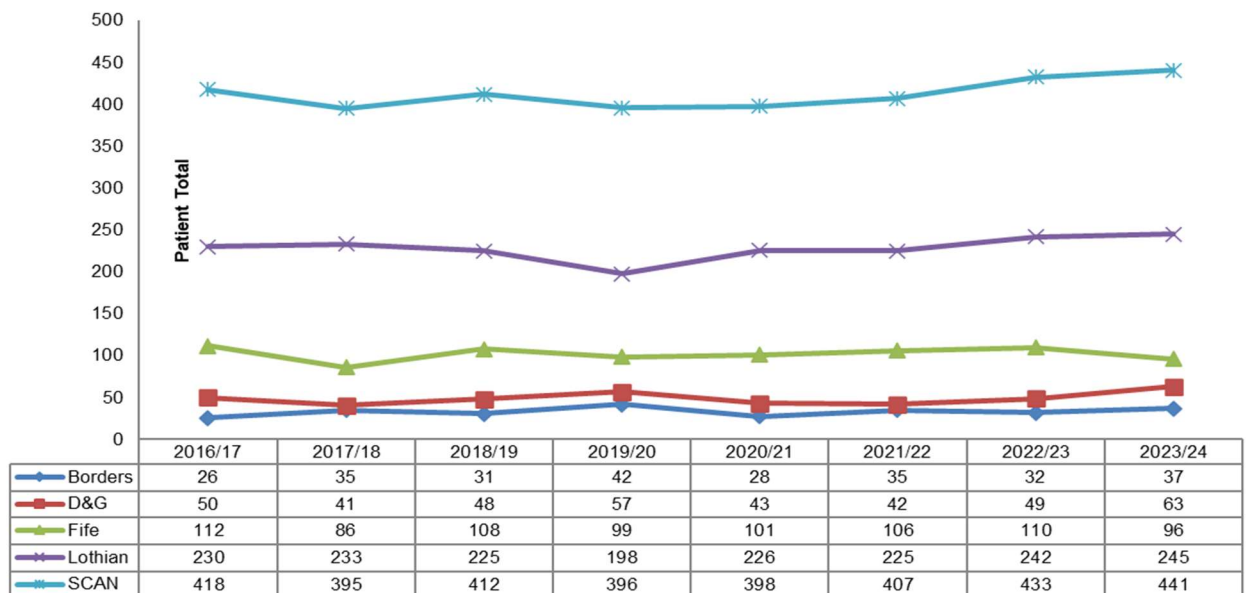
Age at Diagnosis 2023/24



Age at Diagnosis - SCAN Total over 7 years



New Bladder Cancer totals by Year of Diagnosis



Bladder Cancer QPI Attainment Summary 2022-23			Target %		Borders		D&G		Fife		Lothian		SCAN	
QPI 1: MDT Discussion	Before definitive treatment (MIBC)	95	N 7	100%	N 13	100%	N 30	100%	N 74	100%	N 124	100%		
	NMIBC discussed at MDT after histological confirmation of NMIBC	95	N 25	100%	N 33	100%	N 70	98.6%	N 129	100%	N 257	99.6%		
QPI 2: Quality of TURBT at initial resection	Detailed description with tumour location, size, number, appearance	95	N 28	90.3%	N 20	46.5%	N 84	98.8%	N 184	95.3%	N 316	89.8%		
	Resection is documented as complete or not	95	N 31	100%	N 29	76.3%	N 85	100%	N 181	98.4%	N 326	96.4%		
	High Grade NMIBC with detrusor muscle included at initial TURBT	90	N 8	100%	N 13	100%	N 24	85.7%	N 43	69.4%	N 88	79.3%		
QPI 3: Low Grade Ta NMIBC - Mitomycin C following TURBT		80	N 11	84.6%	N 7	46.7%	N 27	75.0%	N 55	82.1%	N 100	76.3%		
QPI 4: Early TURBT Re-TURBT within 42 days of initial TURBT	T1 or select Ta NMIBC	80	N 0	0%	N 2	13.3%	N 1	3.8%	N 6	13.0%	N 9	9.4%		
	HG NMIBC - no detrusor muscle at TURBT1	80	N 0	N/A	N 0	N/A	N 0	0%	N 2	11.8%	N 2	9.5%		
	NMIBC - incomplete resection at TURBT1	80	N 0	0%	N 0	0%	N 0	0%	N 0	0%	N 0	0%		
QPI 6: Lymph Node Yield. Pelvic lymph node dissection to at least level 2 undertaken and ≥10 lymph nodes taken at radical cystectomy		95	Presented by board of treatment				N 3	42.9%	N 20	71.4%	N 23	65.7%		
QPI 7: Time to Treatment (MIBC)	Radical treatment within 6 weeks of diagnosis of MIBC	90	N 0	0%	N 1	33.3%	N 1	16.7%	N 5	20.0%	N 7	20.0%		
	Cystectomy or radiotherapy within 8 weeks from neoadjuvant chemo	90	N 1	100%	N 2	66.7%	N 2	100%	N 4	66.7%	N 9	75.0%		
QPI 8: Volume of Cases / Surgeon: Radical surgery ≥10 per surgeon and ≥20 per centre over a 1-year period		≥20	2 Surgeons met the QPI criteria. 1 Health Board met the QPI criteria.											
QPI 9: Oncological Discussion: MIBC patients who met with an oncologist prior to radical surgery		60	N 0	N/A	N 1	33.3%	N 1	33.3%	N 8	47.1%	N 10	43.5%		
QPI 10 Patients with stageT2-T4 undergoing radical radiotherapy who receive concomitant radiosensitiser		50	N 0	N/A	N 0	0%	N 0	0%	N 2	15.4%	N 2	10.5%		
QPI 11: 30 Day Mortality	Radical Surgery	<3	Presented by board of treatment				N 0	0%	N 1	3.6%	N 1	2.9%		
	Radiotherapy	<3	N 0	0%	N 0	0%	N 0	0%	N 1	8.3%	N 1	4.8%		

Bladder Cancer QPI Attainment Summary 2022-23			Target %		Borders		D&G		Fife		Lothian		SCAN	
QPI 11: 90 Day Mortality	Radical Surgery	<5	Presented by board of treatment				N 0 D 7	0%	N 3 D 25	12.0%	N 3 D 32	9.4%		
	Radiotherapy	<5	N 0 D 2	0%	N 0 D 3	0%	N 0 D 5	0%	N 1 D 11	9.1%	N 1 D 21	4.8%		
QPI 13: Early Recurrence for NMIBC	Recurrence first follow-up cystoscopy for low grade pTa	<10	N 3 D 13	23.1%	N 2 D 14	14.3%	N 3 D 34	8.8%	N 5 D 66	7.6%	N 13 D 127	10.2%		
	Residual cancer at re-TURBT in patients with pT1	<20	N 3 D 5	60.0%	N 2 D 8	25.0%	N 2 D 6	33.3%	N 11 D 25	44.0%	N 18 D 44	40.9%		
	Pathological MIBC (pT2) at re-TURBT in patients with pT1	<1	N 0 D 5	0%	N 0 D 8	0%	N 1 D 12	8.3%	N 4 D 26	15.4%	N 5 D 51	9.8%		