SCAN
South East Scotland Cancer Network

NHS SCOTLAND

Working regionally to improve cancer services

SOUTH EAST SCOTLAND CANCER NETWORK (SCAN)
PROSPECTIVE CANCER AUDIT

Bladder Cancer 2018-19 Comparative Audit Report

Patients diagnosed 1st April 2018 to 31st March 2019

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Document History

Version	Circulation	Date	Comments
1	SCAN leads sign off meeting	28/04/2020	Covid19 Lockdown induced delay
2	SCAN Sign off group	01/05/2020	For clinical commentary
3	SCAN Urology Group for final comments	21/05/2020	No further comments received
4	SCAN Clinical Governance Framework, Action Plan Leads and SCAN Urology Group	16/06/2020	
4w	Report to be assessed for disclosive data and report to be added to SCAN Website	2022	

Lead clinician summary

This is year 5 of the Bladder Cancer QPIs and I am pleased to note the audit findings from SCAN – of particular importance is that this is the first report incorporating changes enacted following the formal national review meeting. In addition, having recently submitted a section of our large project on post-QPI clinical outcomes for publication (where we had noted impressive NMIBC outcomes across several Scottish sites), it was of interest to gauge our progress in the second 3 years of the bladder cancer QPI, beginning with the 2018-19 report.

The action points and recommendations following the 2017-18 audit have been explored in my comments.

The case attainment for the QPIs has been extremely good and I continue to be impressed by the high quality and diligence in the data collection process practiced by the audit personnel within the region. Regular, necessary dialogue between audit and clinical staff has ensured data accuracy, particularly where discrepancy exists between pathology and staging scans (QPI 4, for example).

The changes to the text of the QPIs and their measurability criteria, including the targets following the formal review would hopefully ensure data collected reflects clinical practice as closely as possible.

QPI 1(i) – while SCAN comfortably met this target of 95%, it was apparent that D&G had a shortfall of 15% (meaning there was no record of 3 patients with MIBC having been discussed at the MDM).

QPI 1(ii) – This target was met by SCAN (where we previously missed the target by 0.1%); however we have noted a shortfall of 10.2% (5 NMIBC patients) from D&G. It was therefore recommended, at the regional review meeting, that D&G address their process of listing and documentation around MDM discussion of both NMIBC and MIBC.

QPI 2(i) – SCAN had a shortfall of 9% (an improvement from 2017-18, nonetheless) with a shortfall of approx. 65% and 1% from D&G and Fife, respectively. The emphasis has been to utilise the standard proforma and the improvement seen in Fife is testament to its wider implementation. D&G have introduced the proforma in August 2019; therefore better compliance to key documentation around TURBT is anticipated to improve.
The electronic proforma incorporated into TRAKcare in Lothian is working well and I have approached TRAKcare technical support to assist with incorporation into TRAK functionality across Scotland as this will, additionally, support our plans for the national NMIBC database.

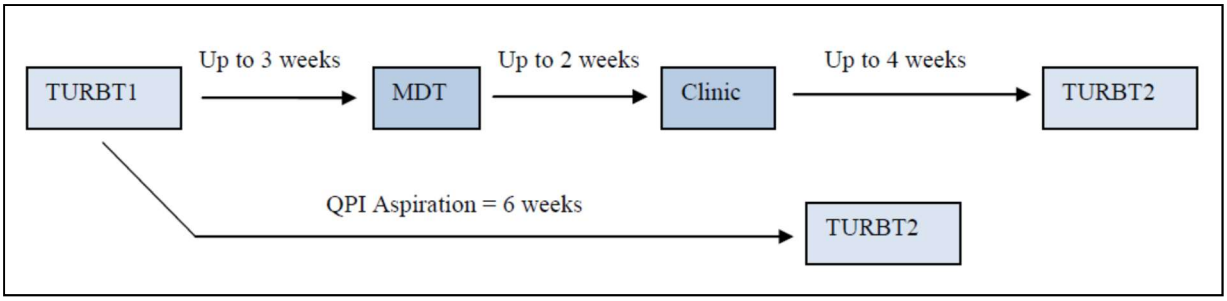
QPI 2(ii) – Proud to note SCAN meeting this target we missed by 6% in 2017-18.

QPI 2(iii) – The target to have detrusor muscle in 80% of the TURBT specimens was met by SCAN. All boards met this except for Lothian where there was a shortfall of 2.2% - this target has consistently been met since 2014. The data review suggests there were many TURBTs carried out by locum consultants who may not have been familiar with the QPI expectations.

QPI 3 – SCAN has not met the target for this important QPI for the first time, with a shortfall of 7.2%. All health boards, except for Lothian (shortfall of about 9%) and D&G (shortfall of 47.9%) met the target. The review in Lothian records revealed the likely reasons for the shortfall included a combination of non-regular bladder cancer surgeons/ locums performing the operations; the onerous process of requesting for the Mitomycin C; the clinical assessment that tumour was high grade and invasive; and situations which fell into the 'tolerance' where thin bladder wall and suspected perforation were observed. Discussions have begun with Pharmacy colleagues to facilitate the process of delivering Mitomycin C.
With regards D&G, the reasons for the shortfall in 2018-19 are unclear and it also appears that a review of the shortfall noted in 2017-18 remains outstanding.

QPI 4 (i), (ii), (iii) – SCAN and each 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 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:
(a) Capacity - There was a shortfall in capacity, despite taking up extra lists to accommodate patients with bladder cancer. In Lothian, the main reason for the capacity shortfall is the specific loss of lists to support bladder cancer capacity.
(b) Timing - With the MDM and pathology reporting based in Lothian, timescales for pathology results and discussion at the MDM have affected the ability of Borders and D&G to achieve compliance in carrying out the re-TURBT within 42 days. Suggestions have been made to ring-fence spaces/ slots on theatre lists to allow for placement as soon as the patient is discussed at the MDM. This can be challenging and in fact, based on the timeline below it is close to impossible to achieve this QPI in SCAN, given the current capacity and process:

2018/19 Re-TURBT (QPI 4) practice in Lothian vs. QPI aspiration:



However, reassuringly, from our clinical study across two-thirds of Scotland (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%), therefore

clinicians are reassured that consequent to a complete TURBT at the outset, the need for repeat TURBT within 42 days is becoming less and that we can be even more selective. Further analysis, as part of the larger project, is being undertaken to assess if there are indeed clinical disadvantages to having the re-TURBT beyond 42 days. This QPI will need to be reviewed nationally once we've published the clinical data and at the next formal review. In the meanwhile, it is hoped that this QPI shortfall can help leverage additional clinical capacity.

QPI 5(i) and 5(ii) – SCAN has comfortably met the target for this pathology QPI and reflects the improvement since D&G pathology reporting started being done centrally in Lothian. Sustained support for our pathologists is vital to achieving this very important QPI.

QPI 6 – This is the first reporting of this QPI using the new definitions of lymph node (anatomical) extent as opposed to the count. SCAN has met this target. The apparent shortfall of 20% (3 operations) in Fife was felt to be related to documentation. Fife surgeon will ensure clear documentation (as agreed) of the extent of lymph node dissection in the operation note and also pathology samples.

QPI 7(i) – Whilst Lothian and Borders met this target, we noted a shortfall of 18.6% for SCAN. With small overall denominators, 7 patients (2 from D&G and 5 from Fife), not having their radical treatment for muscle invasive bladder cancer (MIBC) within 92 days resulted in this shortfall. Staff illness and consequent loss of capacity were felt to be the reasons.

QPI 7(ii) – All patients received radical treatment for muscle invasive bladder cancer within 56 days (8 weeks) of neo-adjuvant chemotherapy in SCAN.

QPI 8 – This is the first year of reporting using the new target of 20%. Radical surgery for SCAN is only carried out in Lothian and Fife. The shortfall for the Fife surgeon was suggested to be due to a combination of illness and also under-reporting by the SMRO1. As the Lothian surgeon also confirmed under-reporting of his total cystectomies by SMRO1 (n=35) compared with surgeon's prospective database (n=50); it was recommended that the Fife surgeon also shares his operative log with audit personnel for completion and accurate representation of total cystectomies performed.

QPI 9 – This continues to be a difficult QPI to meet for SCAN with a shortfall of 15%. As in previous years, with all patients being discussed at the MDM prior to radical treatment, the vast majority of patients with MIBC not meeting this QPI are noted to have a specific surgical option recommended, i.e. there is no oncology option – oncologists for SCAN were satisfied that patients in this cohort received appropriate treatment without the potential delays associated with an additional (oncology) clinic appointment. As suggested in the 2017-18 report, perhaps consideration should be made in the future to revise this target.

QPI 10 – Despite an improvement from 2017-18, we experienced a shortfall of 21% for this QPI. The reasons gleaned by our oncology colleagues, for patients not having concurrent chemotherapy with radical radiotherapy included patients being clinically unsuitable, patients declining chemotherapy and development of toxicity. Our SCAN oncologists were satisfied that all patients undergoing radical radiotherapy were being assessed for concurrent chemotherapy and that there were documented clear reasons for not giving this combined treatment. Perhaps a review of the national compliance data accumulated over the past 5 years by our oncology colleagues might inform a more achievable target for the patients in Scotland.

QPI 11 – Of 68 patients who underwent radical treatment for muscle invasive bladder cancer in SCAN, there was no mortality within 30 days. However, with 2 mortality from Lothian (patients with advanced cancer) and 2 from Fife (one with rapidly progressive cancer), the 90-day mortality following radical cystectomy was 12.5%. There were no deaths following chemo or radiotherapy in SCAN. As denominators are small, it was felt during the formal review, that performance against this QPI will be analysed/ reviewed in 5-year cycles to allow for more accurate interpretation of trends. In addition, as QPIs need to reflect and measure quality of care as opposed to cancer biology, perhaps the definitions and measurability criteria should be altered to only measure 30 and 90 day mortality consequent to non bladder cancer related causes.

QPI 12 - Clinical trials access QPI – With all the NMIBC clinical trials closed to recruitment, and the numbers recruited into MIBC trials being small, we have experienced a shortfall in achieving the target for this QPI. Clinical trials have been opened recently, into which patients have been included; however with policies since Covid-19 mandating cessation of all non-Covid-19 related clinical trials, it is likely that this target will not be achievable in 2019-20 either.

Param Mariappan
May 2020.

Clinical Recommendation Summary from 2018 – 2019

QPI	Action required	Lead	Date for update
1	D&G local urology MDT are not in line with the other SCAN Boards for MDM referrals / documentation. This should be addressed.	Alison Solley	
3	Streamlining the ordering and distribution of Mitomycin C post TURBT is required and discussions in Lothian with Pharmacy and SACT team are ongoing. Review of 20 cases is outstanding for D&G 2017-18 and is now required for 29 patients in the 2018-19 cohort	Param Mariappan Vicky Stewart Alison Solley	
4	Consequent to a complete TURBT at the outset, the need for repeat TURBT within 42 days is becoming smaller. However, this QPI is not met due to a capacity issue within the NHS setting. Ring-fencing lists would help but this is also a challenge. This QPI will need to be reviewed nationally once we've published the clinical data and at the next formal review.	Param Mariappan Lorna Bruce	
6	Documentation needs to be explicit in operation notes. SCAN cystectomy surgeons to agree and implement standard nomenclature.	Param Mariappan Ian Smith	
8	Surgeons should share their operative logs with audit personnel for completion and accurate representation of total cystectomies performed.	Param Mariappan Ian Smith	

Clinical Recommendation Summary from 2017 – 2018

QPI	Action required	Progress
2	Clinicians should be using bladder proforma to ensure that all data items are documented appropriately	**D&G:** Bladder proforma in use from 01/08/19. Consultant Urologist is using form for TURBT procedures. **Lothian:** Improvement has been seen in the overall use of the formal proforma. Electronic copy of proforma is now available to all users.
3	Case review in D&G where no Mitomycin C was given is required	**D&G:** Not yet undertaken
5	Template with data required by Royal College of Pathologists should be used in D&G.	**D&G:** Due to pathology staffing issues this could not be progressed. From 03/09/19 agreed a SLA with NHS Lothian for 3 years for the processing of all Urology Pathology samples. NHSA Lothian will issue all pathology reports and will use the same format as used for NHS Lothian patients.

Bladder Cancer QPI Attainment Summary 2018-19		Target%	Borders		D&G		Fife		Lothian		SCAN	
QPI 1: MDT Discussion	Before definitive treatment (MIBC)	95	N 4 D 4	100%	N 12 D 15	80.0%	N 29 D 29	100%	N 56 D 57	98.2%	N 101 D 105	96.2%
	NMIBC discussed at the MDT after histological confirmation of NMIBC	95	N 26 D 26	100%	N 28 D 33	84.8%	N 70 D 73	95.9%	N 135 D 135	100%	N 259 D 267	97.0%
QPI 2: Quality of TURBT at initial resection	Detailed description with tumour location, size, number, appearance	95	N 25 D 26	96.2%	N 14 D 46	30.4%	N 72 D 77	93.5%	N 160 D 166	96.4%	N 271 D 315	86.0%
	Where the resection is documented as complete or not	95	N 26 D 26	100%	N 44 D 46	95.7%	N 74 D 77	96.1%	N 163 D 166	98.2%	N 307 D 315	97.5%
	Where detrusor muscle is included in the specimen at initial TURBT.	80	N 23 D 24	95.8%	N 44 D 45	97.8%	N 65 D 77	84.4%	N 126 D 162	77.8%	N 258 D 308	83.8%
QPI 3: Mitomycin C following TURBT		60	N 22 D 25	88.0%	N 4 D 33	12.1%	N 44 D 71	62.0%	N 71 D 138	51.4%	N 141 D 267	52.8%
QPI 4: Early TURBT	All T1 or Ta where multifocal or >3cm NMIBC to have re TURBT within 42 days from TURBT1	80	N 0 D 8	0%	N 3 D 11	27.3%	N 0 D 17	0%	N 2 D 46	4.3	N 5 D 82	6.1%
	HG or LG G2 NMIBC with no Detrusor muscle at TURBT1 to have re TURBT in 42 days	80	N 0 D 1	0%	N 0 D 0	N/A	N 1 D 11	9.1%	N 0 D 30	0%	N 1 D 42	2.4%
	NMIBC where resection was incomplete at TURBT1 to have re TURBT in 42 days.	80	N 0 D 5	0%	N 2 D 2	100%	N 0 D 2	0%	N 1 D 6	16.7%	N 3 D 15	20.0%
QPI 5: Pathology Reporting: reported according to the guidelines by the Royal College of Pathologists	TURBT	90	N 29 D 29	100%	N 43 D 46	93.5%	N 96 D 97	99.0%	N 172 D 178	96.6%	N 340 D 350	97.1%
	Cystectomy	90	Presented by Board of surgery				N 11 D 11	100%	N 23 D 25	92.0%	N 34 D 36	94.4%
QPI 6: Lymph Node Yield	Level 2 pelvic lymph node dissection done at Radical Surgery	90	Presented by Board of surgery				N 7 D 10	70.0%	N 23 D 23	100%	N 30 D 33	90.9%
QPI 7: Time to Treatment (MIBC)	Radical treatment within 3 months of diagnosis of MIBC	90	N 1 D 1	100%	N 3 D 5	60.0%	N 6 D 11	54.5%	N 10 D 11	90.9%	N 20 D 28	71.4%
	Cystectomy or chemoradiotherapy within 8 weeks of neoadjuvant chemotherapy	90	N 1 D 1	100%	N 0 D 0	N/A	N 2 D 2	100%	N 7 D 7	100%	N 10 D 10	100%
QPI 8: Volume of Cases / Surgeon: number of radical cystectomy procedures performed by a surgeon over a 1 year.		≥20	1 Lothian surgeon performed 35 cystectomies 1 Fife surgeon performed 10 cystectomies									
QPI 9: Oncological Discussion: MIBC patients who had radical surgery who met with an oncologist prior to radical cystectomy.		60	N 0 D 2	0%	N 1 D 4	25.0%	N 4 D 7	57.1%	N 2 D 7	28.6%	N 7 D 20	35.0%

Bladder Cancer QPI Attainment Summary 2018-19		Target%	Borders	D&G	Fife	Lothian	SCAN
QPI 10 Patients with TCC of the bladder (stageT2-T4) undergoing radical radiotherapy who receive concomitant chemotherapy.		50	N 0 D 1 0%	N 0 D 1 0%	N 2 D 6 33.3%	N 3 D 9 33.3%	N 5 D 17 29.4%
QPI 11: 30 Day Mortality. Patients with bladder cancer who die within 30 days of treatment with curative intent for bladder cancer.	Radical Surgery	<3	Presented by Board of surgery		N 0 D 10 0%	N 0 D 23 0%	N 0 D 33 0%
	Radiotherapy	<3	N 0 D 1 0%	N 0 D 1 0%	N 0 D 7 0%	N 0 D 11 0%	N 0 D 20 0%
	Chemotherapy	<3	N 0 D 1 0%	N 0 D 1 0%	N 0 D 5 0%	N 0 D 8 0%	N 0 D 15 0%
QPI 11: 90 Day Mortality Patients with bladder cancer who die within 90 days of treatment with curative intent for bladder cancer.	Radical Surgery	<5	Presented by Board of surgery		N 2 D 10 20.0%	N 2 D 22 9.1%	N 4 D 32 12.5%
	Radiotherapy	<5	N 0 D 1 0%	N 0 D 1 0%	N 0 D 7 0%	N 0 D 11 0%	N 0 D 20 0%
	Chemotherapy	<5	N 0 D 1 0%	N 0 D 1 0%	N 0 D 5 0%	N 0 D 6 0%	N 0 D 13 0%
Clinical Trial Access QPI	Interventional + Interventional Trials	15	N 1 D 18 5.6%	N 0 D 32 0%	N 1 D 59 1.7%	N 7 D 124 5.6%	N 9 D 233 3.9%

Introduction and Methods

Cohort

This report covers patients newly diagnosed with bladder cancer in SCAN between 01/04/2018 and 31/03/2019. 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, Information Services Division (ISD), and Healthcare Improvement Scotland. 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 ISD 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 fifth publication of QPI results for bladder cancer within SCAN.

After Formal Review of QPIs the following QPIs were amended.

QPI 1, QPI 2, QPI 4, QPI 6, QPI 7, QPI 8, QPI 9 and QPI 11.
QPIs 1ii, QPI 2iii, QPI 4i to QPI 4iii were reported in 2017-18 report, and QPI 6 is reported in this report for the first time since formal review.

The standard QPI format is shown below:

QPI Title:	Short title of Quality Performance Indicator (for use in reports etc.)	
Description:	Full and clear description of the Quality Performance Indicator.	
Rationale and Evidence:	Description of the evidence base and rationale which underpins this indicator.	
Specifications:	Numerator:	Of all the patients included in the denominator those who meet the criteria set out in the indicator.
	Denominator:	All patients to be included in the measurement of this indicator.
	Exclusions:	Patients who should be excluded from measurement of this indicator.
	Not recorded for numerator	Include in the denominator for measurement against the target. Present as *not recorded* only if the patient cannot otherwise be identified as having met/not met the target
	Not recorded for exclusion	Include in the denominator for measurement against the target unless there is other definitive evidence that the record should be excluded. Present as *not recorded* only where the record cannot otherwise be definitively identified as an inclusion/exclusion for this standard.
	Not recorded for denominator	Exclude from the denominator for measurement against the target. Present as *not recorded* only where the patient cannot otherwise be definitively identified as an inclusion/exclusion for this standard
Target:	Statement of the level of performance to be achieved.	

[1] QPI documents are available at www.healthcareimprovementscotland.org
[2] 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 ISD. SCAN data was collated by Adam Steenkamp, SCAN Audit Facilitator for Urological cancer.

Data capture focuses around 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	Miss Maria Bews-Hair	Martin Keith
NHS Fife	Queen Margaret Hospital	Mr I Mitchell Mr K Janjua	Angela Gillie / Alison Robertson
SCAN & NHS Lothian	Western General Hospital and St John's Hospital	Mr P Mariappan Dr J Malik	Adam Steenkamp

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 2014 to 2018. 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 01/04/2018 and 31/03/2019

	Borders	D&G	Fife	Lothian	SCAN
Bladder Cancer	31	48	108	225	412

Estimate of Case Ascertainment: Calculated using the average of the most recent available five years of Cancer Registry Data 2014 – 2018.

	Borders	D&G	Fife	Lothian	SCAN
Cases from Audit	31	48	108	225	412
Cancer Registry 5 Year Average	18	32	59	124	233
Case Ascertainment %	**172**	**150**	**183**	**184**	**177**

Note: Extract of data taken from ISD Cancer Registry data mart ACaDMe on 20/01/2020

Quality Assurance

All hospitals in the region participate in a Quality Assurance (QA) programme provided by the National Services Scotland Information Services Division (ISD). 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 ISD 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.
- Covid19 lockdown measures delayed the regional sign off meeting which was achieved remotely on 28th April 2020.
- Final report circulated to SCAN Urology Group and Clinical Governance Groups on 16th June 2020.

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 1i - Multi-Disciplinary Team Meeting Discussion - Target = 95%

Title: Patients with bladder cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.

Numerator = Patients with muscle invasive bladder cancer (MIBC) discussed at the MDT before definitive treatment (this includes: neo-adjuvant SACT, radical cystectomy, radiotherapy and supportive care only).

Denominator = All patients with MIBC, excluding patients who died before first treatment.

The tolerance within this target is designed to account for situations where patients require treatment urgently.

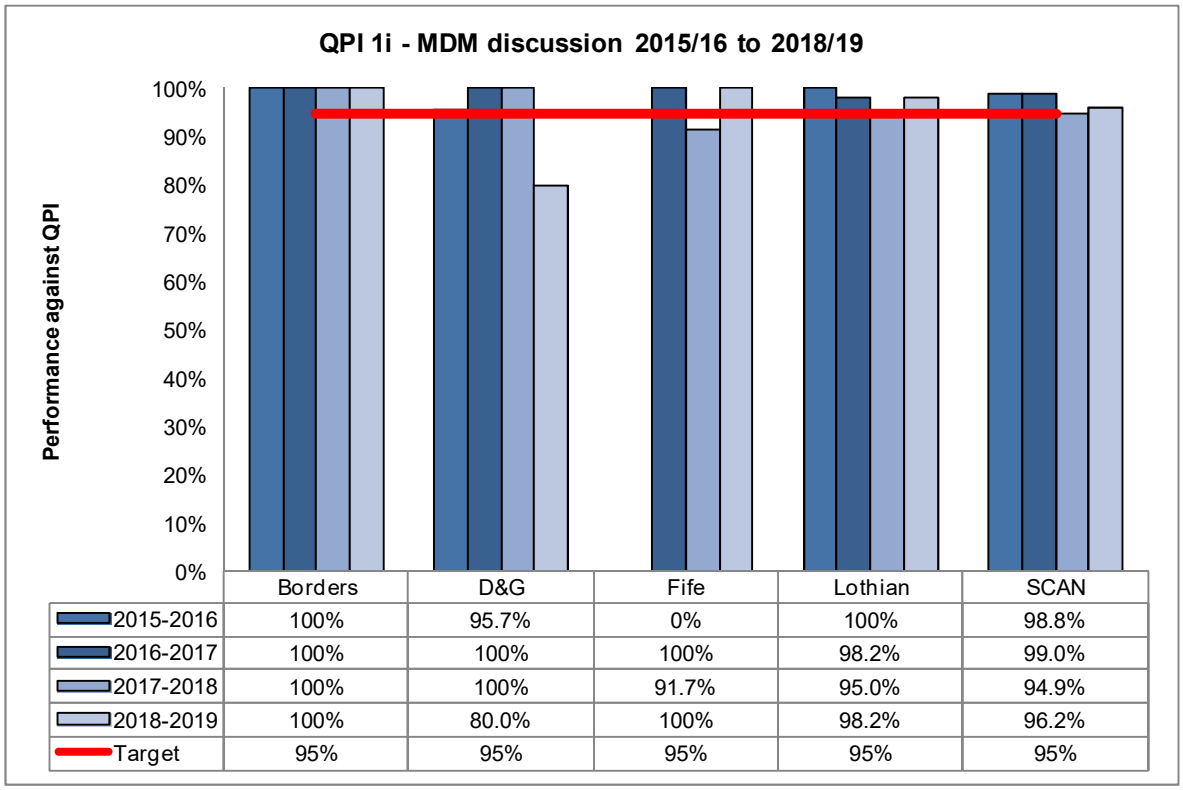
Presented by Hospital of Diagnosis

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	27	32	79	166	304
Excluded from analysis	0	0	0	2	2
Numerator	4	12	29	56	101
Not recorded for numerator	0	0	0	0	0
Denominator	4	15	29	57	105
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	1	0	0	1
% Performance	**100**	**80.0**	**100**	**98.2**	**96.2**

Comment:

D&G: The QPI target was not met showing a shortfall of 15% (3 cases) no documented reason was noted why these patients were not discussed.

Action: It is noted that small numbers can produce large percentages changes and no action has been identified.



	Borders	D&G	Fife	Lothian	SCAN
2015-2016	100%	95.7%	0%	100%	98.8%
2016-2017	100%	100%	100%	98.2%	99.0%
2017-2018	100%	100%	91.7%	95.0%	94.9%
2018-2019	100%	80.0%	100%	98.2%	96.2%
Target	95%	95%	95%	95%	95%

QPI 1ii - Multi-Disciplinary Team Meeting Discussion - Target = 95%

Title: Patients with bladder cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.

Numerator = Patients with NMIBC discussed at the MDT following histological confirmation of bladder cancer.

Denominator = All patients with NMIBC.

The tolerance within this target is designed to account for situations where patients require treatment urgently.

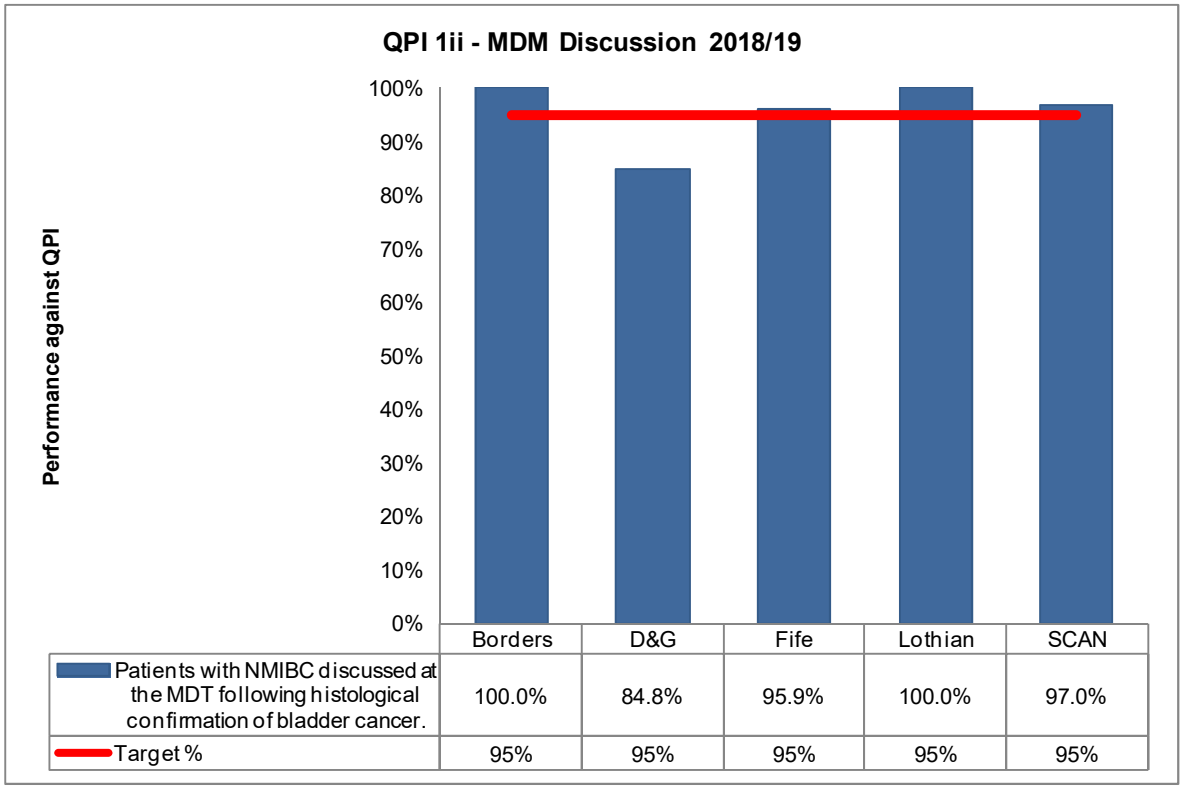
Presented by Hospital of Diagnosis

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	5	16	35	90	146
Excluded from analysis	0	0	0	0	0
Numerator	26	28	70	135	259
Not recorded for numerator	0	0	0	0	0
Denominator	26	33	73	135	267
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	1	0	0	0	1
% Performance	**100**	**84.8**	**95.9**	**100**	**97.0**

Comment:

D&G: The QPI target was not met showing a shortfall of 10.2% (5 cases) no documented reason was noted why these patients were not discussed.

Action: D&G local urology MDT are not in line with the other SCAN Boards for MDM referrals / documentation. This should be addressed.



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 (≤5mm).

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

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	1	2	11	47	61
Excluded from analysis	4	0	20	12	36
Numerator	25	14	72	160	271
Not recorded for numerator	0	0	0	0	0
Denominator	26	46	77	166	315
Not recorded for exclusion	1	28	3	4	36
Not recorded for denominator	0	0	0	0	0
% Performance	**96.2**	**30.4**	**93.5**	**96.4**	**86.0**

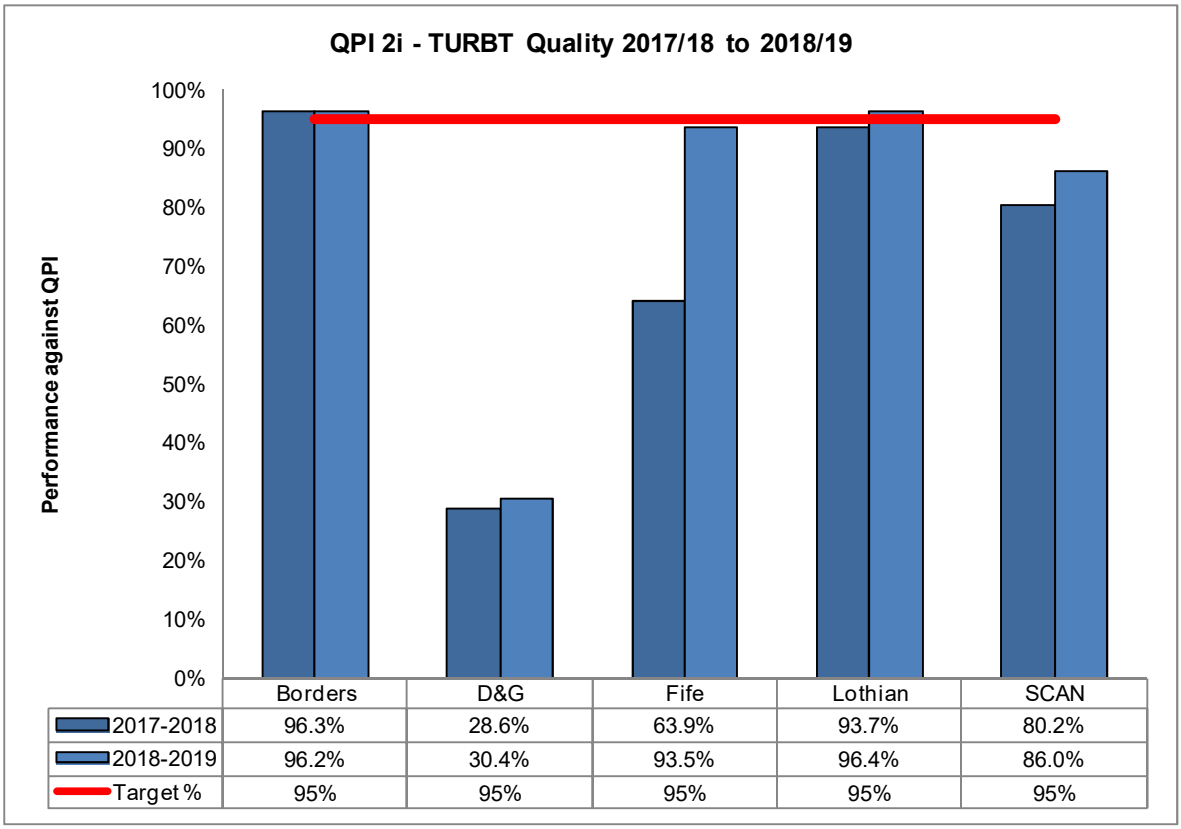
Comment:

D&G: The QPI target was not met showing a shortfall of 64.6% (32 cases) main missing fields are size and appearance. Use of the proforma in D&G was only implemented in August 2019, so there is no real improvement in performance noted in these results. It is anticipated that improvements in performance will be evident in the 2019-20 report.

Fife: The QPI target was not met showing a shortfall of 1.5% (5 cases) 4 cases had no tumour size recorded. One case was an SCC therefore tumour appearance was marked as N/A. This year represents the transition to using the proforma in Fife and there is clear improvement since last year.

SCAN: The SCAN proforma has now been implemented in all Boards, but Lothian is the only Board that has an electronic version incorporated into TRAK. It is noted that TRAK versions differ between the Health Boards and that an electronic proforma is desirable.

Action: None identified.



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.

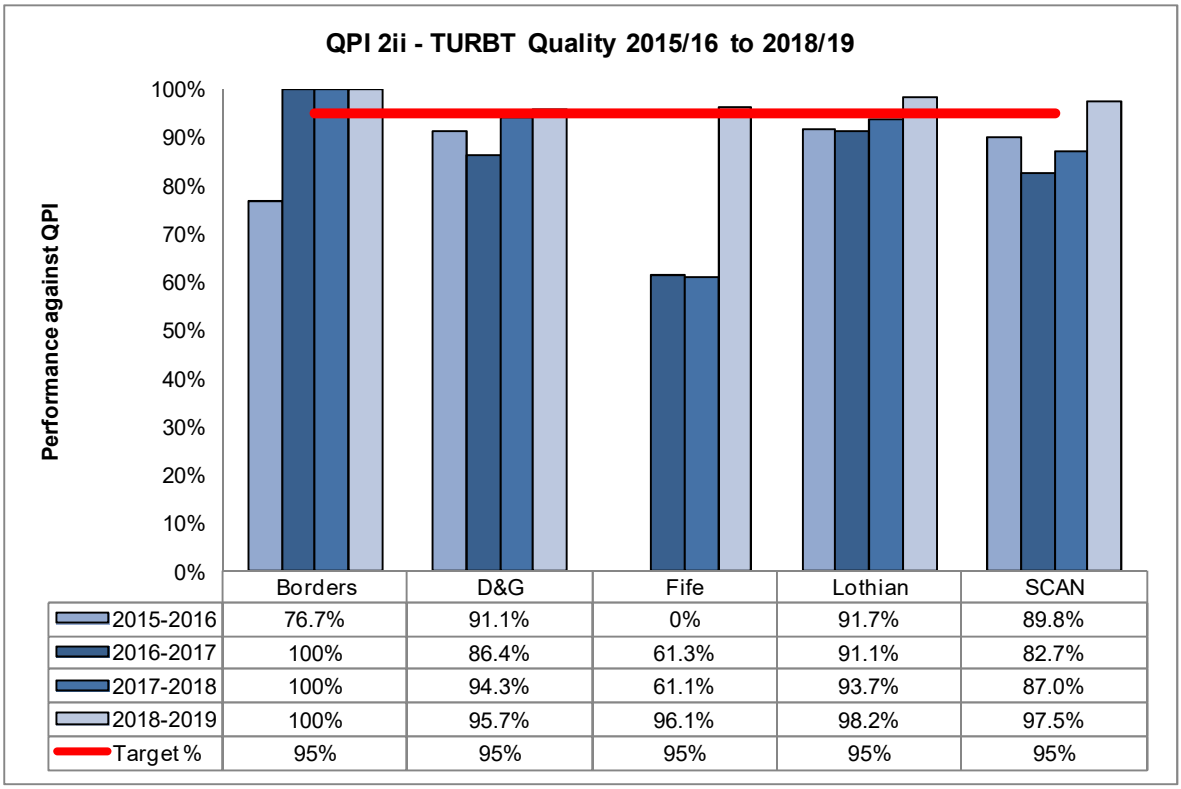
Exclusions = Patients undergoing palliative resection or with very small tumours (≤5mm).

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

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	1	2	11	47	61
Excluded from analysis	4	0	20	12	36
Numerator	26	44	74	163	307
Not recorded for numerator	0	0	0	0	0
Denominator	26	46	77	166	315
Not recorded for exclusion	1	28	3	4	36
Not recorded for denominator	0	0	0	0	0
% Performance	**100**	**95.7**	**96.1**	**98.2**	**97.5**

Comment: QPI achieved in all Health boards

D&G: Note the 28 patients with NR for exclusion in D&G.



	Borders	D&G	Fife	Lothian	SCAN
2015-2016	76.7%	91.1%	0%	91.7%	89.8%
2016-2017	100%	86.4%	61.3%	91.1%	82.7%
2017-2018	100%	94.3%	61.1%	93.7%	87.0%
2018-2019	100%	95.7%	96.1%	98.2%	97.5%
Target %	95%	95%	95%	95%	95%

QPI 2iii - Quality of Transurethral Resection of Bladder Tumour - Target = 80%

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

Numerator = Patients with bladder cancer who undergo TURBT where detrusor muscle is included in the specimen at initial resection.

Denominator = All patients with bladder cancer who undergo TURBT.

Exclusions = Patients undergoing palliative resection, with very small tumours (≤5mm) 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.

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	1	2	11	46	60
Excluded from analysis	6	1	20	17	44
Numerator	23	44	65	126	258
Not recorded for numerator	0	0	1	1	2
Denominator	24	45	77	162	308
Not recorded for exclusion	1	28	3	4	36
Not recorded for denominator	0	0	0	0	0
% Performance	**95.8**	**97.8**	**84.4**	**77.8**	**83.8**

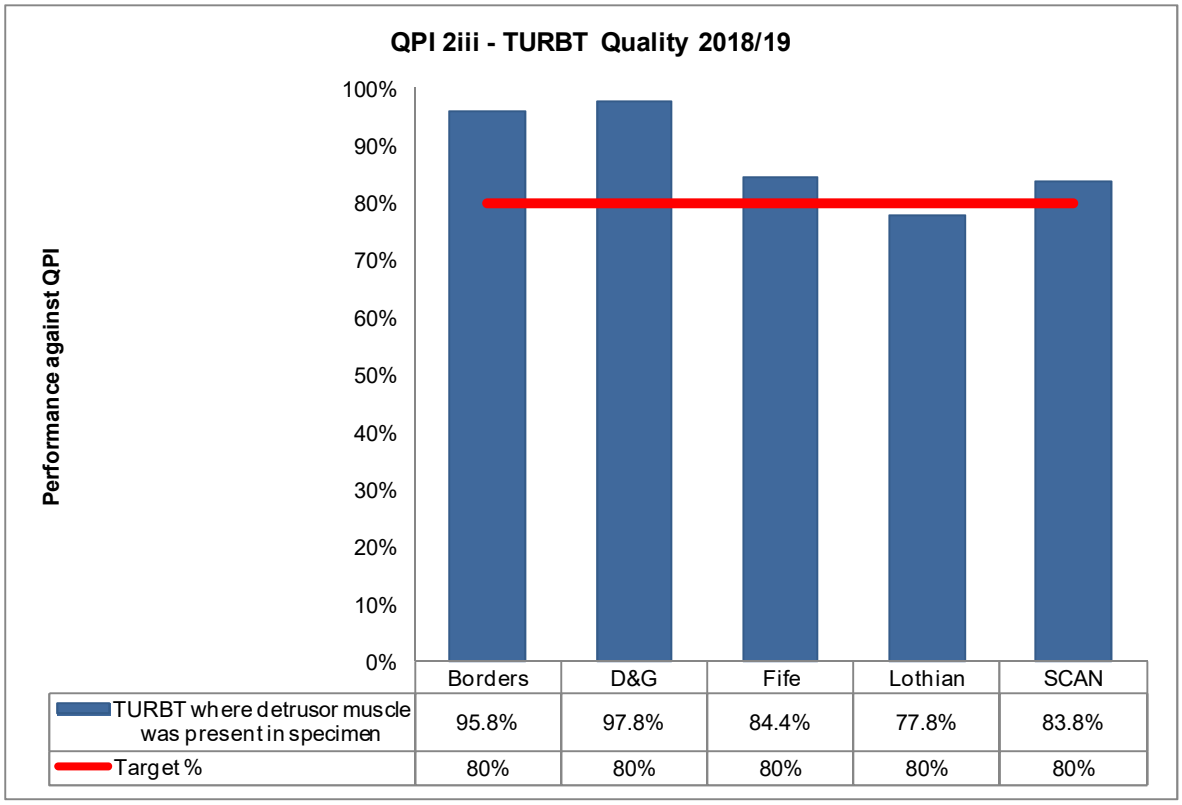
Comment: Achieved in all Boards.

D&G: Note 28 cases NR for exclusion.

Fife: The 3 NR for exclusion were due to tumour size not being recorded.

Lothian: The QPI target was not met showing a shortfall of 2.2% (36 cases). In 35 cases the detrusor muscle was absent from the specimen and in 1 case the detrusor muscle status was not recorded.

Action: With increased proforma use it is likely that 2019-20 results will show an improvement in performance for this QPI.



	Borders	D&G	Fife	Lothian	SCAN
TURBT where detrusor muscle was present in specimen	95.8%	97.8%	84.4%	77.8%	83.8%
Target %	80%	80%	80%	80%	80%

QPI 3 - Mitomycin C Following TURBT - Target = 60%

Title: Patients with non muscle invasive bladder cancer (NMIBC) who undergo TURBT should receive a single instillation of Mitomycin C (MMC) within 24 hours of resection, unless contraindicated.

Numerator = Patients with NMIBC who undergo TURBT who receive a single instillation of Mitomycin C within 1 day of initial TURBT.

Denominator = All patients with NMIBC who undergo initial TURBT (no exclusions).

The tolerance within this target is designed to account for situations where patients have severe haematuria which requires continuous irrigation or surgical intervention. At time of TURBT it is often difficult to identify if the disease is superficial or invasive; therefore in order to minimise over-treatment, some patients with suspected MIBC may not receive (MMC.

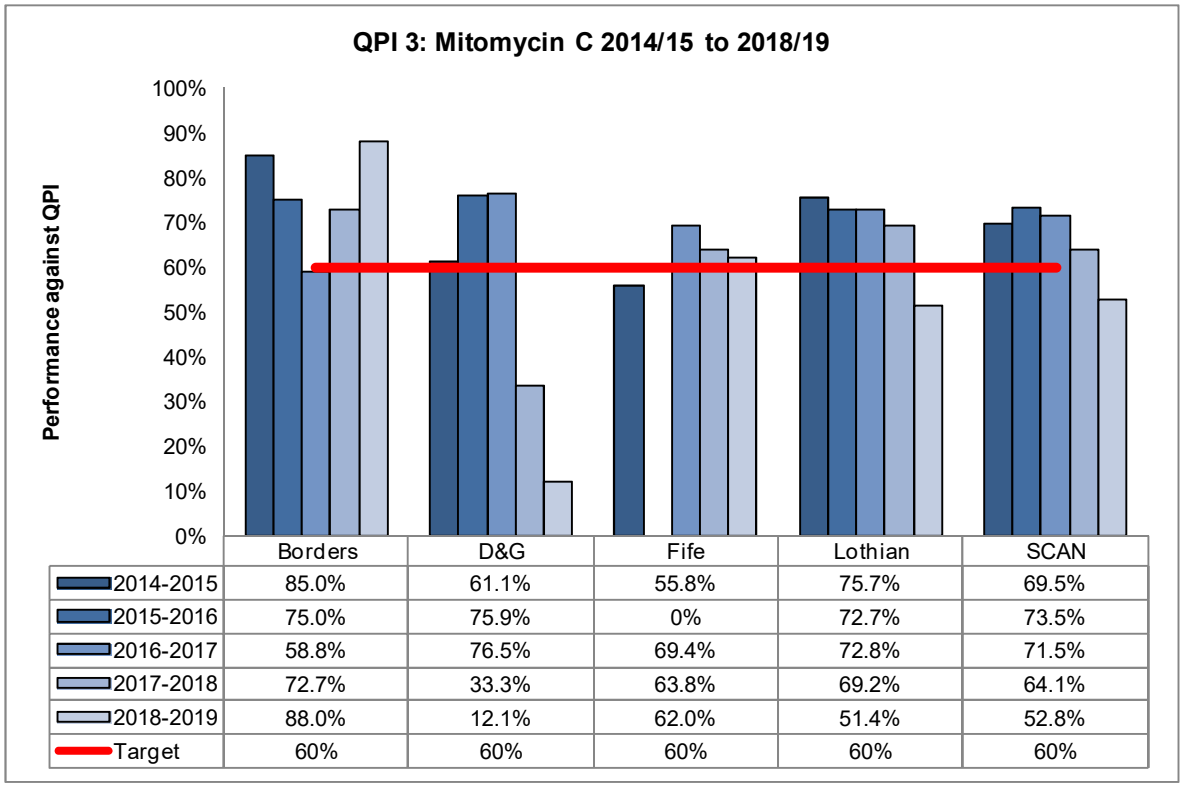
Target 60%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	6	15	37	87	145
Excluded from analysis	0	0	0	0	0
Numerator	22	4	44	71	141
Not recorded for numerator	0	0	1	1	2
Denominator	25	33	71	138	267
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	1	1
% Performance	**88.0**	**12.1**	**62.0**	**51.4**	**52.8**

Comment:

D&G: The QPI target was not met showing a shortfall of 47.9% (29 cases)

Lothian: The QPI target was not met showing a shortfall of 8.6% (67 cases) 66 had no MMC post TURBT. 1 was not recorded for Numerator with no record of Mitomycin and 1 was not recorded for Denominator due to pathological T stage not recorded.
The Lothian Lead clinician explored casenotes for all the patients and checked with the individual clinicians who performed the TURBTs. The reasons were a combination of non-regular bladder cancer surgeons doing operations;, the onerous process of requesting MMC; the clinical assessment that tumour was high grade and invasive; and situations which fell into the 'tolerance' where thin bladder wall and suspected perforation was observed.

Action: Ongoing discussions in Lothian with Pharmacy and SACT team about streamlining the ordering and distribution of MMC post TURBT.Review of cases is outstanding for 20 cases from D&G 2017-18 and is now required for these 29 cases in D&G..



	Borders	D&G	Fife	Lothian	SCAN
2014-2015	85.0%	61.1%	55.8%	75.7%	69.5%
2015-2016	75.0%	75.9%	0%	72.7%	73.5%
2016-2017	58.8%	76.5%	69.4%	72.8%	71.5%
2017-2018	72.7%	33.3%	63.8%	69.2%	64.1%
2018-2019	88.0%	12.1%	62.0%	51.4%	52.8%
Target	60%	60%	60%	60%	60%

QPI 4i - Early 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.

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	19	33	81	178	311
Excluded from analysis	4	0	9	1	14
Numerator	0	3	0	2	5
Not recorded for numerator	0	0	0	0	0
Denominator	8	11	17	46	82
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	4	1	1	6
% Performance	**0.0**	**27.3**	**0.0**	**4.3**	**6.1**

Lothian figures may be slightly misleading as clinically diagnosed cases with T2 disease are included in the QPI calculation, however removing those would result in only a slight change to 2/39 (5.1%).

Comment:

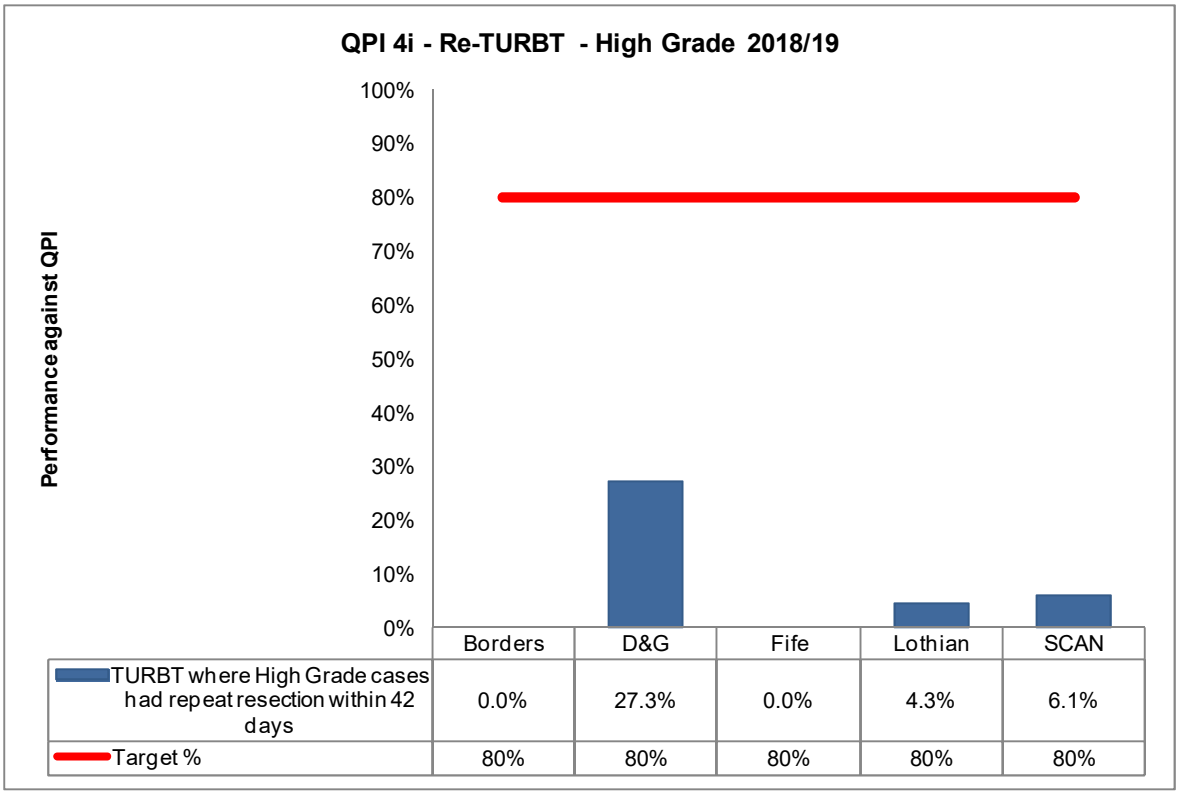
BGH: The QPI target was not met showing a shortfall of 80% (8 cases). 7 were due to scheduling delays and 1 MDM recommended cystoscopy in 3 months.

D&G: The QPI target was not met showing a shortfall of 52.7% (8 cases). A small delay at each stage generally led to patients having early re-TURBT 1-2 weeks after the recommended 42d timeframe.

Fife: The QPI target was not met showing a shortfall of 80% (17 cases). 3 patients did not have a second TURBT. 14 waited longer than 42 days for TURBT2.

Lothian: The QPI target was not met showing a shortfall of 75.7% (44 cases).Issues with capacity persist. In some cases MDM recommendations excluded cases for early repeat TURBT due to the overall clinical picture.

Action: see 4iii



QPI 4ii - Early 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 high grade or low grade G2 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 or low grade G2 NMIBC who have undergone TURBT where detrusor muscle 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.

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	26	48	93	194	361
Excluded from analysis	4	0	4	1	9
Numerator	0	0	1	0	1
Not recorded for numerator	0	0	0	0	0
Denominator	1	0	11	30	42
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	1	1
% Performance	**0.0**	**N/A**	**9.1**	**0.0**	**2.4**

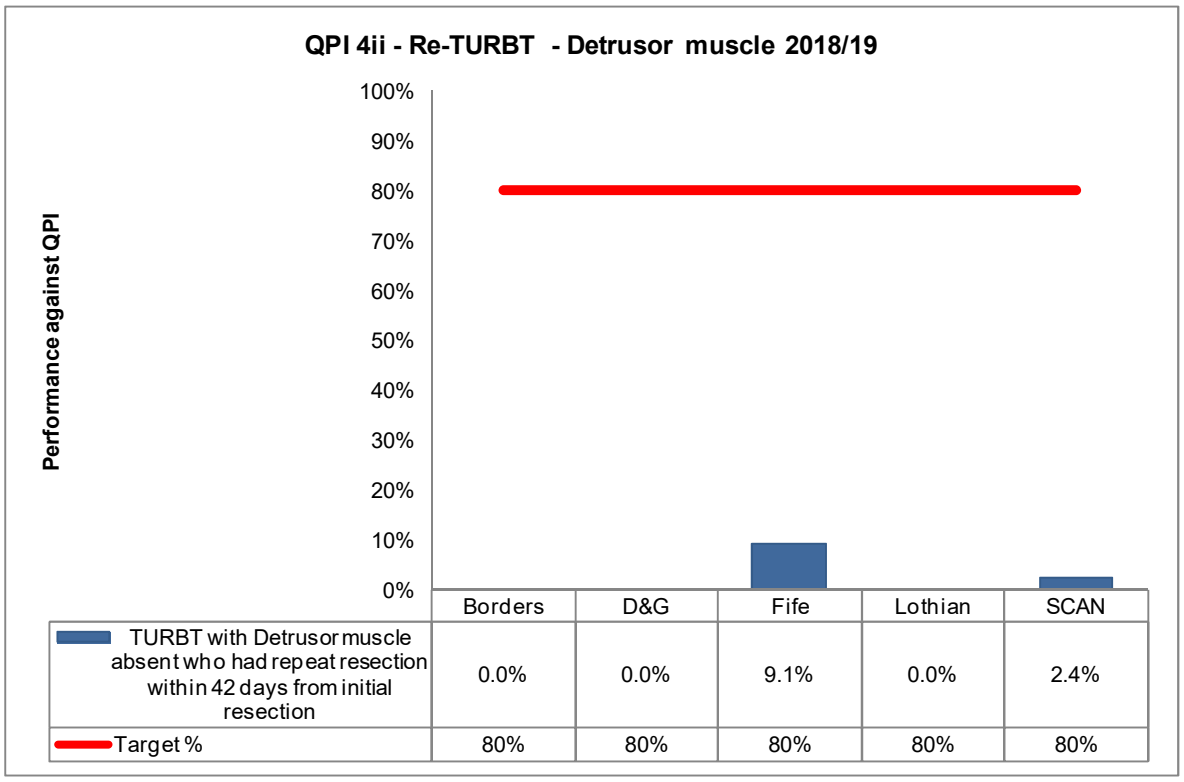
Comment:

BGH: The QPI target was not met showing a shortfall of 80% (1 case) 1 MDM recommended cystoscopy in 3 months.

Fife: The QPI target was not met showing a shortfall of 70.9% (10 cases). 9 waited longer than 42 days between TURBTs. 1 patient was lost to follow up and did not have a second TURBT.

Lothian: The QPI target was not met showing a shortfall of 80% (30 cases) capacity seems to be the overriding factor here. Timing issues from TURBT1 to TURBT2/ Cystoscopy with biopsy.

Action: See 4iii



	Borders	D&G	Fife	Lothian	SCAN
TURBT with Detrusor muscle absent who had repeat resection within 42 days from initial resection	0.0%	0.0%	9.1%	0.0%	2.4%
Target %	80%	80%	80%	80%	80%

QPI 4iii - Early 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 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.

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	22	45	95	219	381
Excluded from analysis	4	0	6	0	10
Numerator	0	2	0	1	3
Not recorded for numerator	0	0	0	0	0
Denominator	5	2	2	6	15
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	2	4	12
% Performance	**0.0**	**100**	**0.0**	**16.7**	**20.0**

Comment:

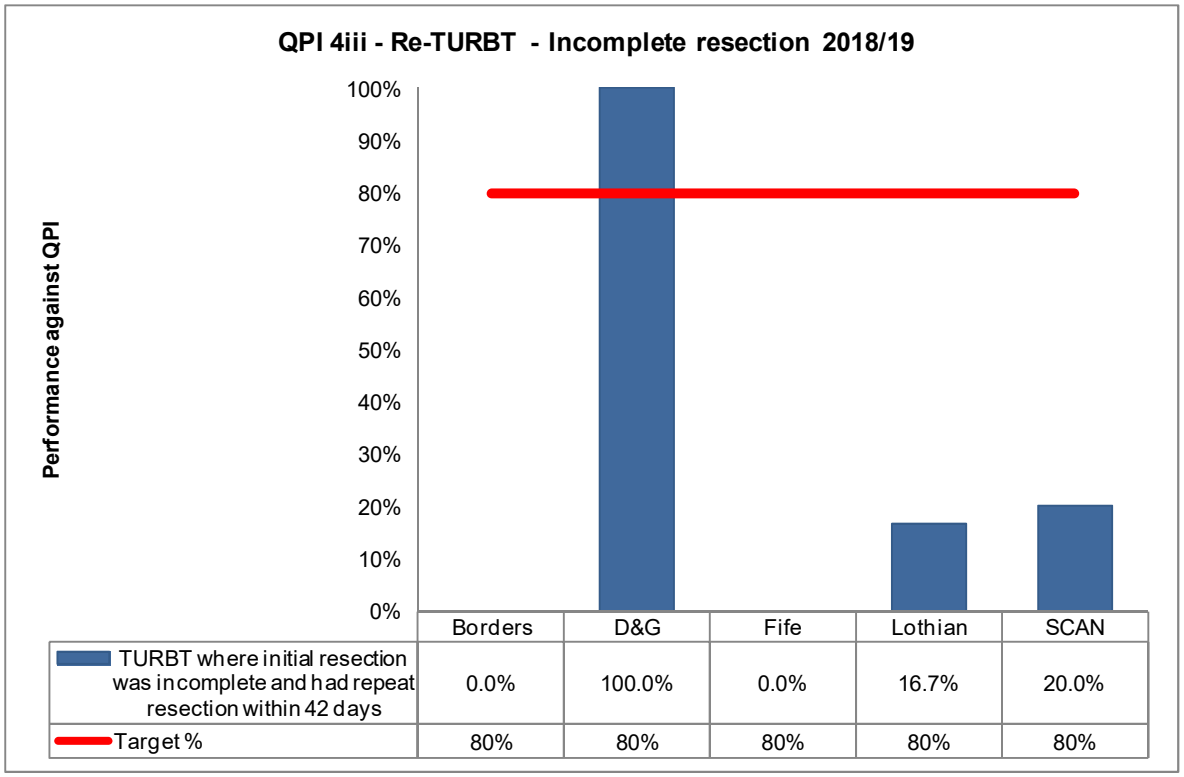
BGH: The QPI target was not met showing a shortfall of 80% (5 cases) 1 MDM recommended cystoscopy in 3 months. 4 were due to scheduling delays.

Fife: The QPI target was not met showing a shortfall of 80% (2 cases) 1 case had a lung primary which took precedence over bladder treatment. The second case took 77 days to TURBT2. Two cases were not included in the denominator as it had not been documented whether the resection was complete or not.

Lothian: The QPI target was not met showing a shortfall of 63.3% (5 cases) In 3 cases it was due to timing/capacity issues. In 2 cases it was considered not appropriate to re- resect within 42 days.

Action and Lead comment: Generally we will always fail to meet these QPI targets if we're expecting to get these patients into a list for re-TURBT within 42 days of the first TURBT. It is important to recognise that from our clinical study across two thirds of Scotland the risk of under staging in High grade NMIBC is very low, therefore clinicians are reassured that consequent to a complete TURBT at the outset, the need for repeat TURBT within 42 days is becoming smaller. It is a capacity issue within the NHS setting. Ring-fencing lists would help but this is also a challenge.

This QPI will need to be reviewed nationally once we've published the clinical data and at the next formal review.



QPI 5i – Pathology Reporting (TURBT) - Target = 90%

Title: All pathology reports for transurethral resection of bladder tumour (*TURBT*) specimens should contain comprehensive, standardised information according to the guidelines provided by the Royal College of Pathology.

Numerator = Number of patients with bladder cancer who undergo *TURBT* or Cystectomy where pathology report contains all relevant data items.

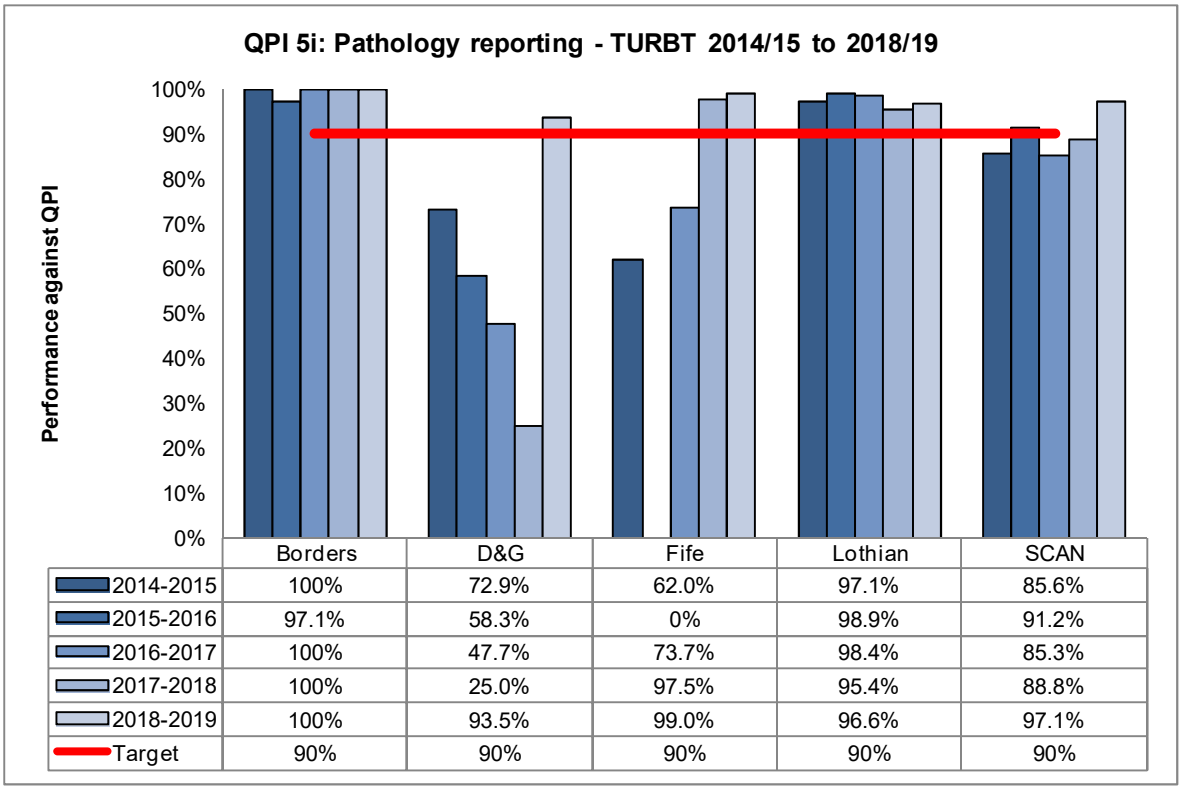
Denominator = All patients with bladder cancer who undergo *TURBT* or Cystectomy.

Exclusions = No exclusions.

The tolerance within this target is designed to account for situations where it is not possible to report on all components of the dataset, due to specimen size and where the specimen is diathermised and unsuitable for assessment.

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	2	2	11	47	62
Excluded from analysis	0	0	0	0	0
Numerator	29	43	96	172	340
Not recorded for numerator	0	0	0	0	0
Denominator	29	46	97	178	350
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	**100**	**93.5**	**99.0**	**96.6**	**97.1**

Comment: Achieved in all Boards.



	Borders	D&G	Fife	Lothian	SCAN
2014-2015	100%	72.9%	62.0%	97.1%	85.6%
2015-2016	97.1%	58.3%	0%	98.9%	91.2%
2016-2017	100%	47.7%	73.7%	98.4%	85.3%
2017-2018	100%	25.0%	97.5%	95.4%	88.8%
2018-2019	100%	93.5%	99.0%	96.6%	97.1%
Target	90%	90%	90%	90%	90%

QPI 5ii – Pathology Reporting (Cystectomy) - Target = 90%

Title: All pathology reports for cystectomy specimens should contain comprehensive, standardised information according to the guidelines provided by the Royal College of Pathology.

Numerator = Number of patients with bladder cancer who undergo TURBT or Cystectomy where pathology report contains all relevant data items.

Denominator = All patients with bladder cancer who undergo TURBT or Cystectomy (no exclusions).

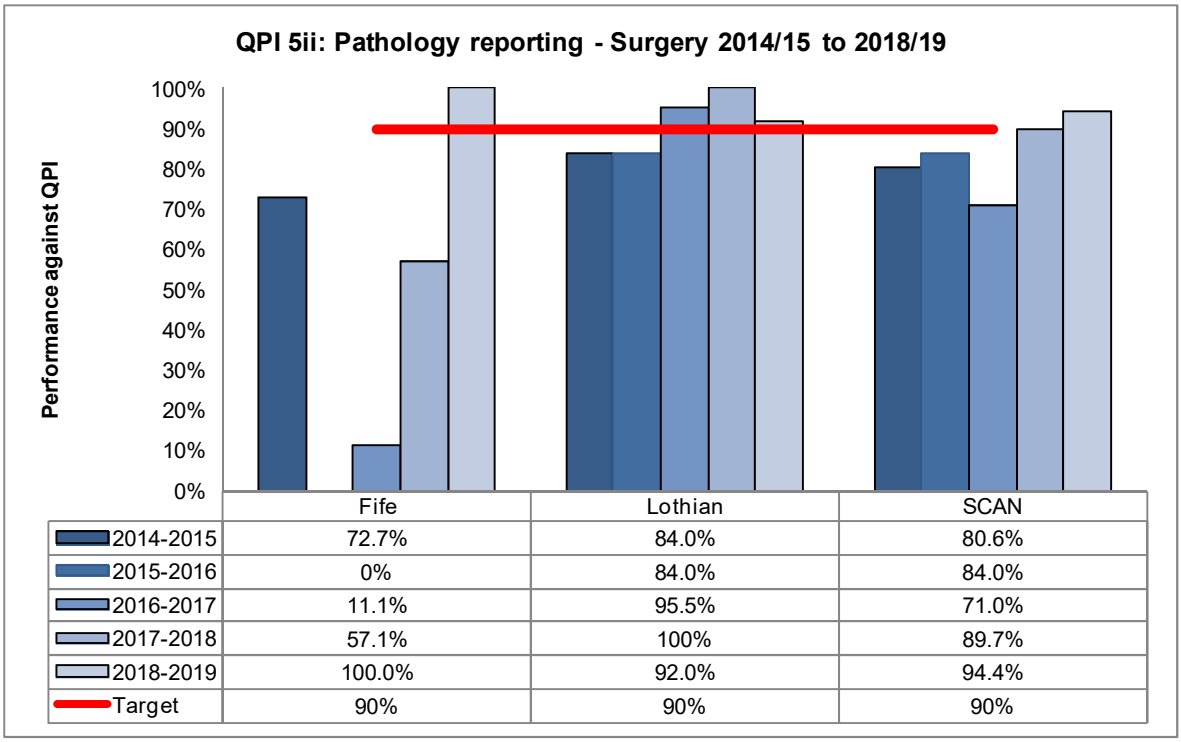
The tolerance within this target is designed to account for situations where it is not possible to report on all components of the dataset, due to specimen size and where specimen is diathermised and unsuitable for assessment.

Presented by Board of Surgery

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	26	44	97	209	376
Excluded from analysis	0	0	0	0	0
Numerator	-	-	11	23	34
Not recorded for numerator	-	-	0	0	0
Denominator	-	-	11	25	36
Not recorded for exclusion	-	-	0	0	0
Not recorded for denominator	-	-	0	0	0
% Performance	**N/A**	**N/A**	**100**	**92.0**	**94.4**

All Cystectomies are done in Fife and Lothian. QPI targets are presented by Board of surgery where the pathology is also done.

Comment: Achieved in all Boards.



	Fife	Lothian	SCAN
2014-2015	72.7%	84.0%	80.6%
2015-2016	0%	84.0%	84.0%
2016-2017	11.1%	95.5%	71.0%
2017-2018	57.1%	100%	89.7%
2018-2019	100.0%	92.0%	94.4%
Target	90%	90%	90%

QPI 6 – Lymph Node Yield - Target = 90%

Title: Patients with bladder cancer who undergo primary radical cystectomy where 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 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.

Denominator = All patients with bladder cancer who undergo primary radical cystectomy.

Exclusions = Patients undergoing salvage cystectomy.

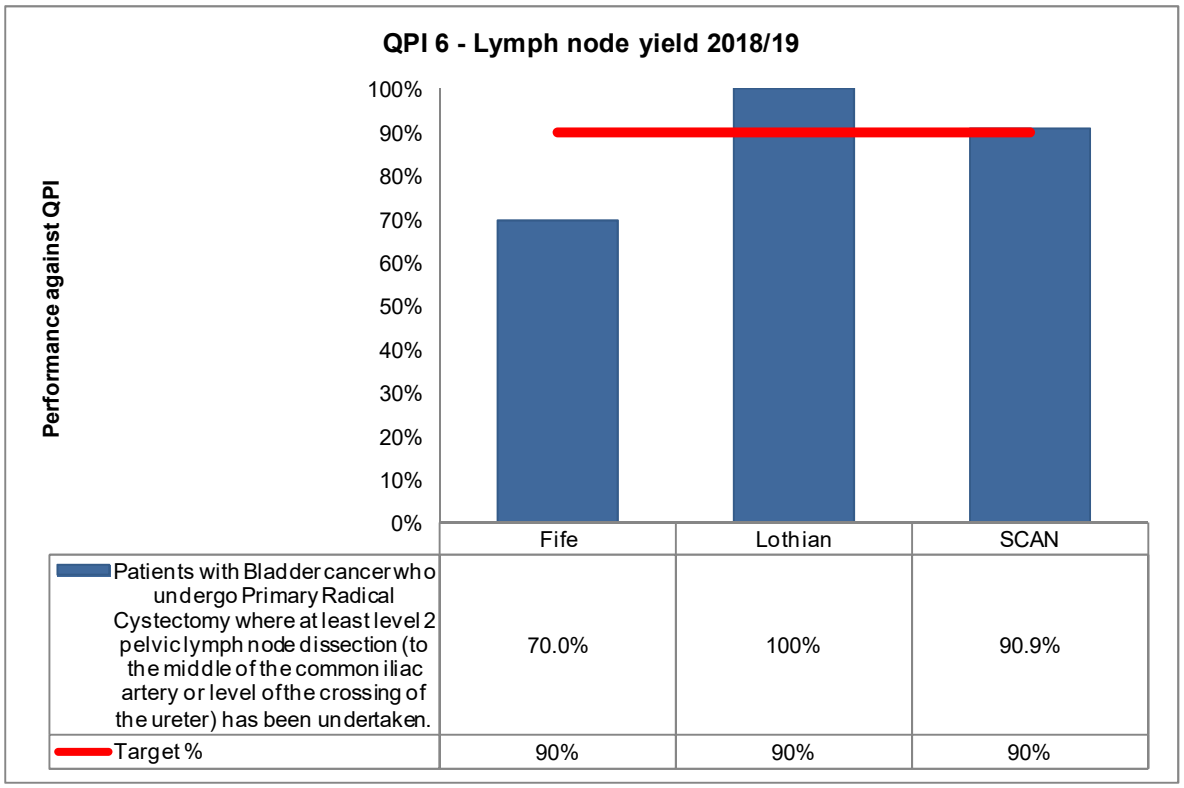
The tolerance within this target accounts for situations where patients are not fit enough to undergo extensive lymphadenectomy.

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	26	44	97	211	378
Excluded from analysis	0	0	1	0	1
Numerator	-	-	7	23	30
Not recorded for numerator	-	-	3	0	3
Denominator	-	-	10	23	33
Not recorded for exclusion	-	-	0	0	0
Not recorded for denominator	-	-	0	0	0
% Performance	**N/A**	**N/A**	**70.0**	**100**	**90.9**

Comment:

Fife: The QPI target was not met showing a shortfall of 20% (3 cases). All 3 cases did not have specification of lymph node level location, albeit bilateral lymph node dissection was undertaken. Fife will take forward an action to ensure the node specimens are labeled correctly in future.

Action: Documentation needs to be explicit in operation notes. SCAN surgeons to agree and use standard nomenclature.



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 (within 3 months of diagnosis).

Numerator = Number of patients with MIBC who commence radical treatment (Radical cystectomy or radiotherapy) within 3 months (92 days) of diagnosis of MIBC.

Denominator = All patients with MIBC undergoing radical treatment (Radical cystectomy or radiotherapy). (No exclusions)

The tolerance within this target accounts for situations where patients are not fit enough to undergo treatment within 3 months, due to other medical conditions.

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	30	43	95	212	380
Excluded from analysis	0	0	2	2	4
Numerator	1	3	6	10	20
Not recorded for numerator	0	0	0	0	0
Denominator	1	5	11	11	28
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	**100**	**60.0**	**54.5**	**90.9**	**71.4**

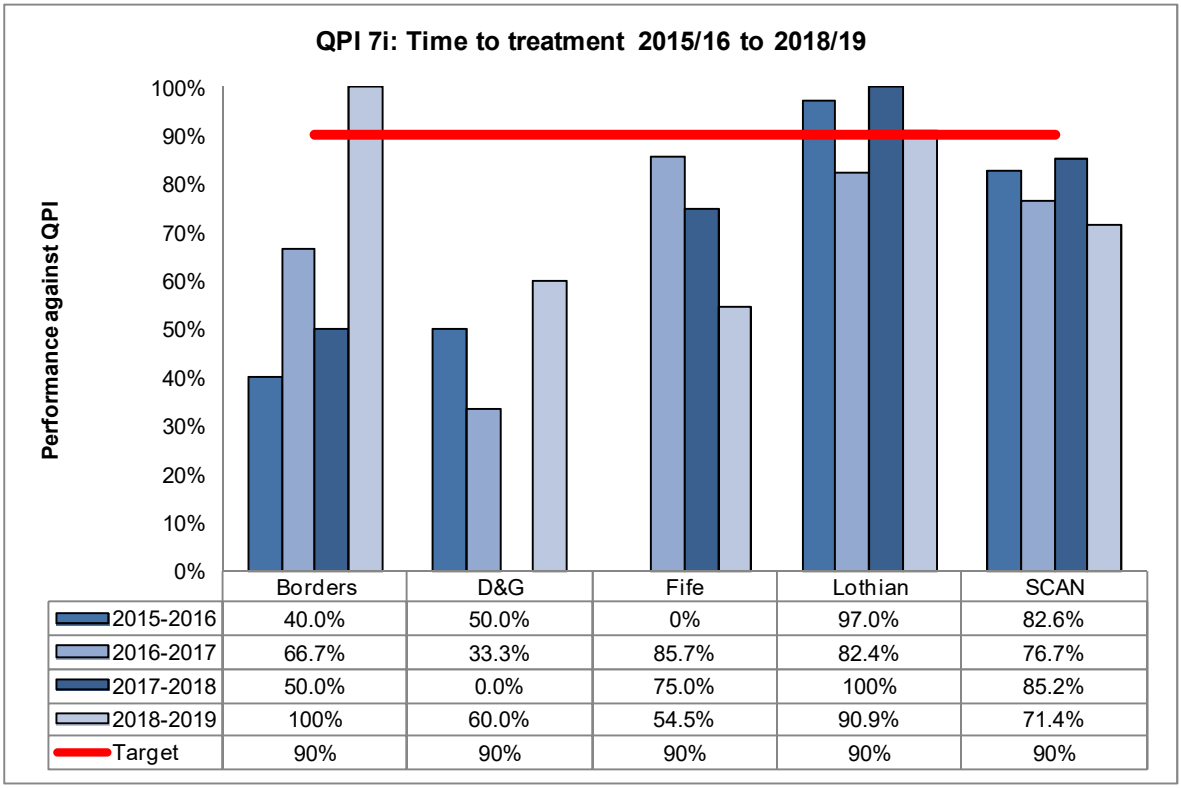
All radical treatment for patients from Borders and D&G is undertaken in NHS Lothian.

Comment:

D&G: The QPI target was not met showing a shortfall of 30% (2 cases).Treatment performed on day 96 and day 121.

Fife: The QPI target was not met showing a shortfall of 35.5% (5 cases) All 5 cases waited more than 92 days. In 1 case the patient chose treatment in a different board and in the other 4 cases, there was a lack of theatre space with consultant dates not accommodated. During this reporting period, Fife had capacity issues and a reduction in surgical staff due to illness.

Action: None identified.



	Borders	D&G	Fife	Lothian	SCAN
2015-2016	40.0%	50.0%	0%	97.0%	82.6%
2016-2017	66.7%	33.3%	85.7%	82.4%	76.7%
2017-2018	50.0%	0.0%	75.0%	100%	85.2%
2018-2019	100%	60.0%	54.5%	90.9%	71.4%
Target	90%	90%	90%	90%	90%

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 (within 3 months of diagnosis of MIBC) or (within 8 weeks of treatment where patients are undergoing neoadjuvant chemo).

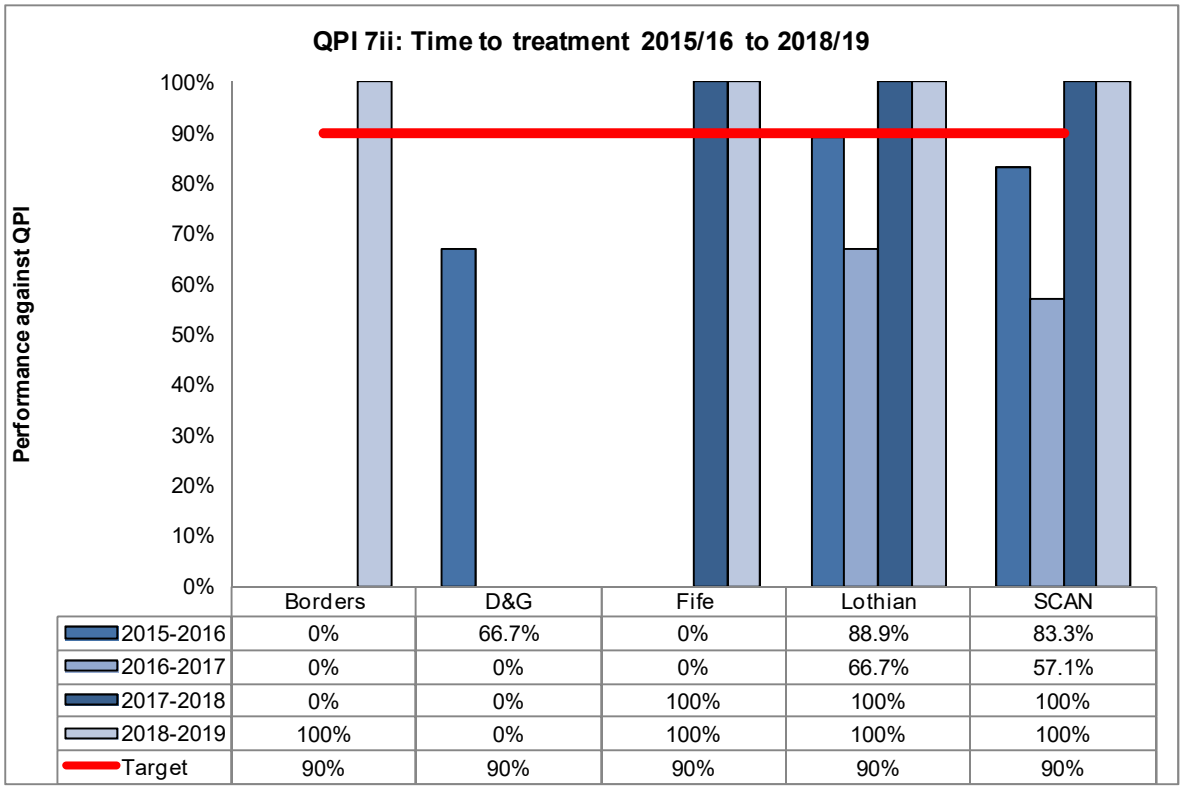
Numerator = Number of patients with MIBC who have neo-adjuvant chemotherapy, who undergo cystectomy or chemoradiotherapy) within 8 weeks (56 days) of treatment.

Denominator = All patients with MIBC undergoing neo-adjuvant (NA) chemotherapy (no exclusions).

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

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	30	48	106	218	402
Excluded from analysis	0	0	0	0	0
Numerator	1	0	2	7	10
Not recorded for numerator	0	0	0	0	0
Denominator	1	0	2	7	10
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	**100**	**N/A**	**100**	**100**	**100**

Comment: Achieved in all Boards.



	Borders	D&G	Fife	Lothian	SCAN
2015-2016	0%	66.7%	0%	88.9%	83.3%
2016-2017	0%	0%	0%	66.7%	57.1%
2017-2018	0%	0%	100%	100%	100%
2018-2019	100%	0%	100%	100%	100%
Target	90%	90%	90%	90%	90%

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

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

Numerator = Number of radical cystectomy procedures performed by each surgeon in a given year.

Exclusions = No exclusions

All cystectomies are carried out in Fife and Lothian.

Board of Surgery*	Surgeon	Number of radical cystectomies
NHS Fife	A	10
NHS Lothian	B	35

*Data supplied by ISD SMR01 returns.

Comment: SMR01 is under reporting surgical numbers. The Fife surgeon was operating for a partial year due to illness.

Action: Surgeons should share their operative logs with audit personnel for completion and accurate representation of total cystectomies performed.

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.

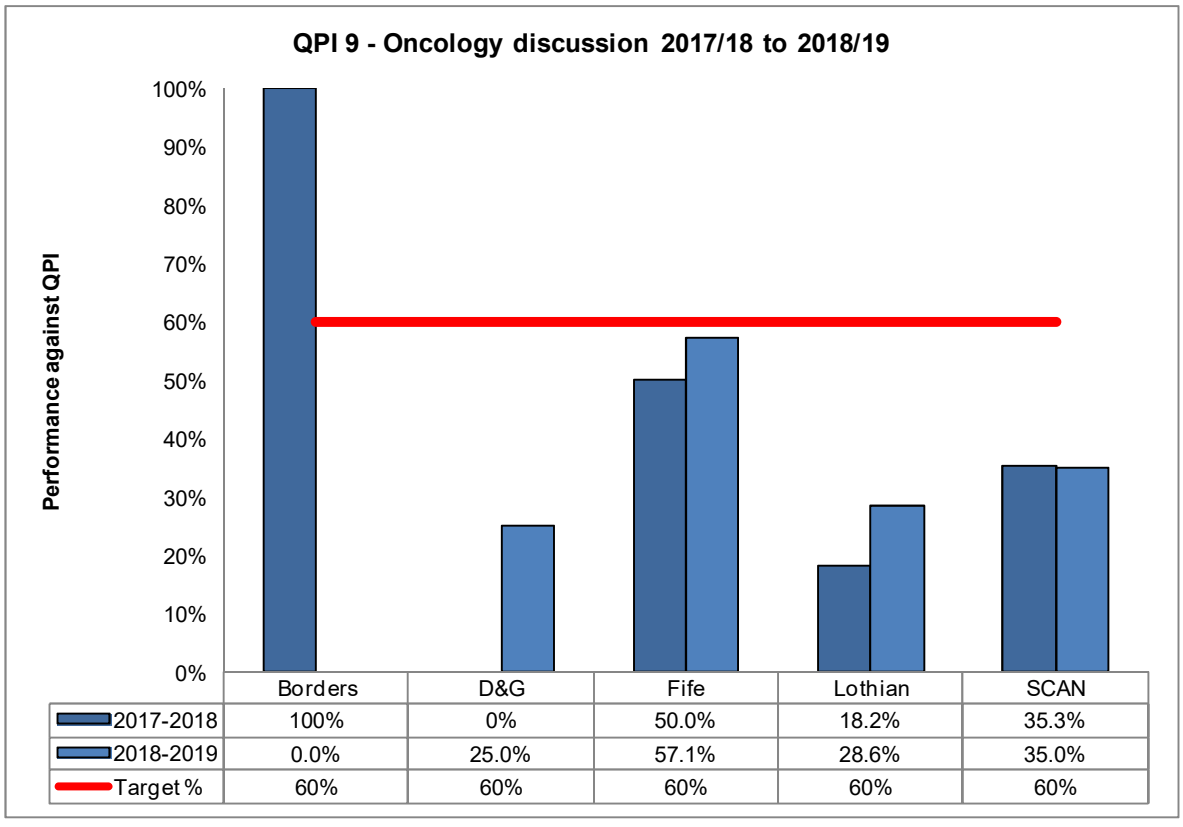
Denominator = All patients with muscle invasive bladder cancer who undergo radical cystectomy (no exclusions)

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.

Target 60%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	29	44	100	216	389
Excluded from analysis	0	0	1	2	3
Numerator	0	1	4	2	7
Not recorded for numerator	0	0	0	0	0
Denominator	2	4	7	7	20
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	**0.0**	**25.0**	**57.1**	**28.6**	**35.0**

SCAN Oncology Comment: These patients always get discussed in MDT and for various reasons (multifocal disease, extensive CIS, symptoms and presence of hydronephrosis) would have surgery recommended as the better treatment option. There are no concerns about these cases. Given the trends over the past 6 years, this target might be too ambitious.

Action: None identified.



QPI 10 – Radical Radiotherapy with Chemotherapy - Target = 50%

Title: Patients undergoing radical radiotherapy for transitional cell carcinoma of bladder should be considered for concomitant chemotherapy.

Numerator = Number of patients with transitional cell carcinoma of the bladder (T2-T4) receiving radical radiotherapy treated concomitantly with chemotherapy.

Denominator = All patients with transitional cell carcinoma of the bladder (T2-T4) receiving radical radiotherapy.

Exclusions = Patients enrolled in a clinical trial.

The tolerance 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 chemotherapy.

Target 50%	Borders	D&G	Fife	Lothian	SCAN
2018-2019 cohort	31	48	108	225	412
Ineligible for analysis	29	47	102	216	394
Excluded from analysis	1	0	0	0	1
Numerator	0	0	2	3	5
Not recorded for numerator	0	0	0	0	0
Denominator	1	1	6	9	17
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	**0.0**	**0.0**	**33.3**	**33.3**	**29.4**

Comment:

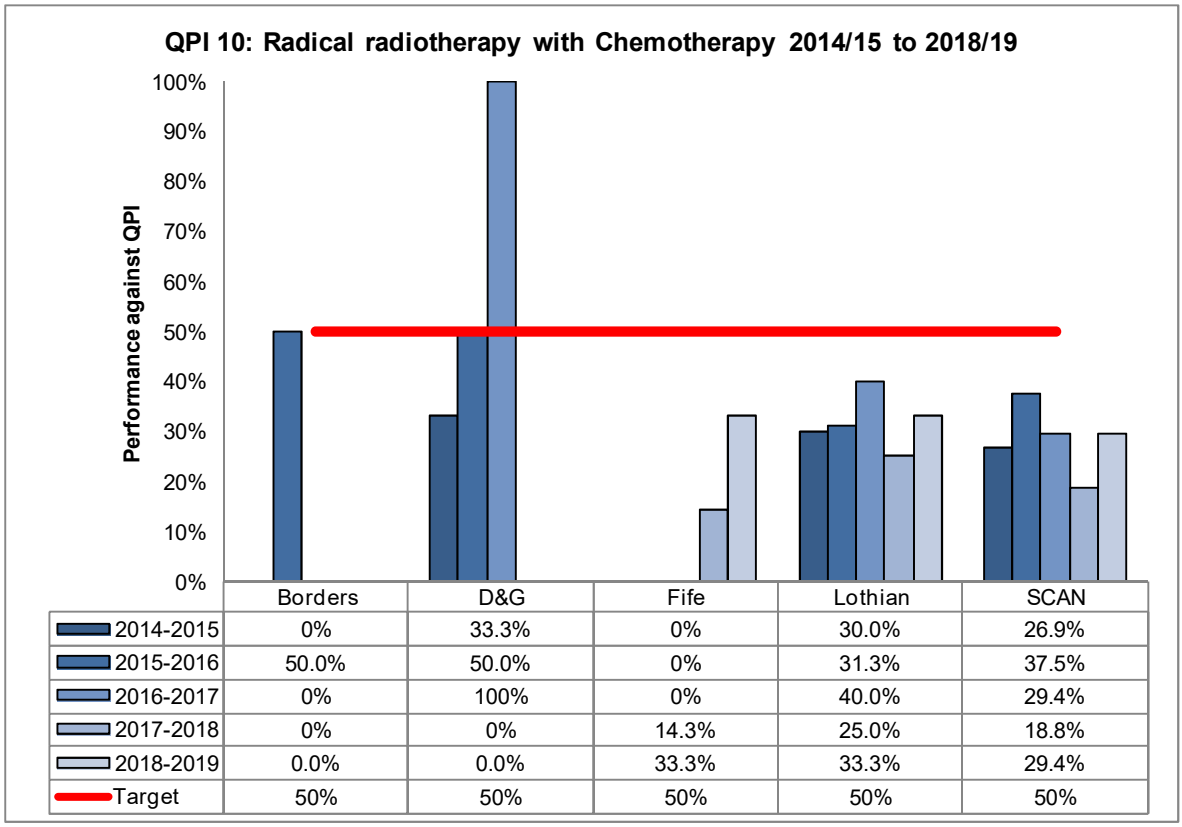
BGH: The QPI target was not met showing a shortfall of 50% (1 case) Patient developed acute renal failure whilst on neo adjuvant chemotherapy and proceeded with radiotherapy alone.

D&G: The QPI target was not met showing a shortfall of 50% (1 case). Patient had multiple comorbidities so was treated with radiotherapy only.

Fife: The QPI target was not met showing a shortfall of 16.7% (4 cases). All 4 cases had radiotherapy only, with no chemotherapy.

Lothian: The QPI target was not met showing a shortfall of 16.7% (6 cases). In 4 cases; it was not in the patients' best interests to include chemotherapy. 1 patient declined chemotherapy and 1 developed chemotherapy toxicity and proceeded with radiotherapy alone.

Action: None identified.



	Borders	D&G	Fife	Lothian	SCAN
2014-2015	0%	33.3%	0%	30.0%	26.9%
2015-2016	50.0%	50.0%	0%	31.3%	37.5%
2016-2017	0%	100%	0%	40.0%	29.4%
2017-2018	0%	0%	14.3%	25.0%	18.8%
2018-2019	0.0%	0.0%	33.3%	33.3%	29.4%
Target	50%	50%	50%	50%	50%

QPI 11 – 30 day Mortality after radical treatment for Bladder cancer

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, radiotherapy and chemotherapy) that die within 30 days of treatment.

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

Exclusion: No exclusions.

Surgery – Presented by Board of surgery

Target <3%	Borders	D&G	Fife	Lothian	SCAN
2018 - 2019 cohort	31	48	108	225	412
Ineligible for analysis	26	44	98	211	379
Excluded from analysis	0	0	0	0	0
Numerator – Surgery	-	-	0	0	0
Denominator – Surgery	-	-	10	23	33
% Performance	**N/A**	**N/A**	**0.0**	**0.0**	**0.0**

Radiotherapy – Presented by Board of diagnosis

Target <3%	Borders	D&G	Fife	Lothian	SCAN
2018 - 2019 cohort	31	48	108	225	412
Ineligible for analysis	30	47	101	214	392
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	0	0
Denominator	1	1	7	11	20
% Performance	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Chemotherapy – Presented by Board of diagnosis

Target <3%	Borders	D&G	Fife	Lothian	SCAN
2018 - 2019 cohort	31	48	108	225	412
Ineligible for analysis	30	47	103	217	397
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	0	0
Denominator	1	1	5	8	15
% Performance	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

QPI 11 90 day Mortality after radical treatment for Bladder cancer

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, radiotherapy and chemotherapy) that die within 90 days of treatment.

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

Exclusion: No exclusions.

Surgery – Presented by Board of Surgery

Target <5%	Borders	D&G	Fife	Lothian	SCAN
2018 - 2019 cohort	31	48	108	225	412
Ineligible for analysis	27	44	98	211	380
Excluded from analysis	0	0	0	0	0
Numerator – Surgery	-	-	2	2	4
Denominator – Surgery	-	-	10	22	32
% Performance	**N/A**	**N/A**	**20.0**	**9.1**	**12.5**

Radiotherapy – Presented by Board of diagnosis

Target <5%	Borders	D&G	Fife	Lothian	SCAN
2018- 2019 cohort	31	48	108	225	412
Ineligible for analysis	30	47	101	211	392
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	0	0
Denominator	1	1	7	11	20
% Performance	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Chemotherapy – Presented by Board of diagnosis

Target <5%	Borders	D&G	Fife	Lothian	SCAN
2018 - 2019 cohort	31	48	108	225	412
Ineligible for analysis	30	47	103	219	399
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	0	0
Denominator	1	1	5	6	13
% Performance	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Comment:

Fife: The QPI target was not met showing a shortfall of 15% (2 cases). 1 patient died at day 42 with unrelated co-morbidities and the other at day 64 from rapidly progressive disease.

Lothian: The QPI target was not met showing a shortfall of 4.1% (2 cases). Both patients had locally advanced cancer.

Lead Comment: At the formal review we agreed that this particular QPI will be evaluated on a 3-year cycle, although description annually is fine. The numbers per year are too small for meaningful analysis.

Clinical Trial Access QPI – Trials\Research Target = 15%

Title: All patients should be considered for participation in available clinical trials, wherever eligible.

Numerator = Number of patients with bladder cancer consented to an Interventional clinical trial or Translational research.

Denominator = 5 year average from Cancer Registry bladder cancer registrations.

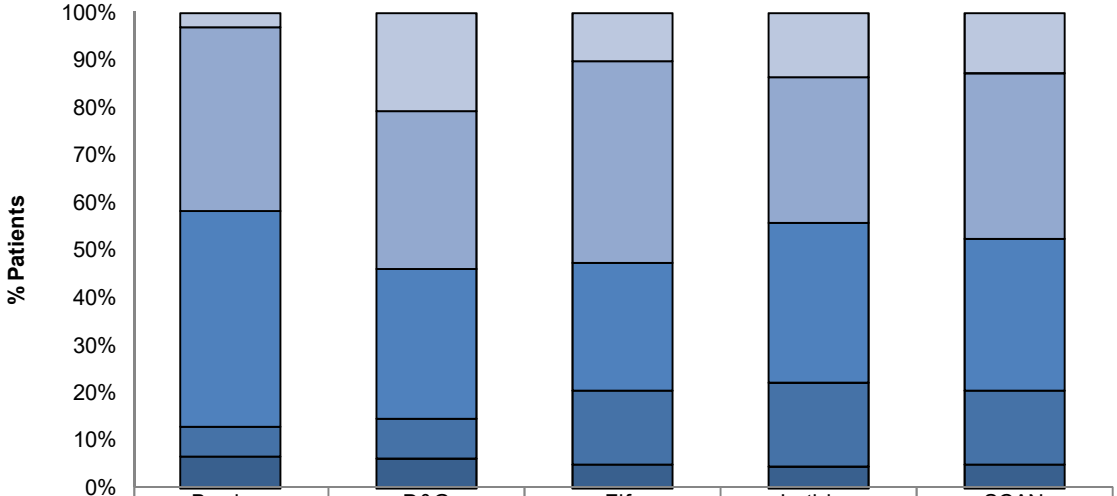
Trials Target 15%	Borders	D&G	Fife	Lothian	SCAN
Numerator	1	0	1	7	9
Denominator	18	32	59	124	233
% Performance	**5.6**	**0.0**	**1.7**	**5.6**	**3.9**

Trials in 2018	Number recruited
PHOTO Trial	6
RAIDER	3

Age and Gender Analysis

Age and Gender Analysis		Borders	D&G	Fife	Lothian	SCAN
Under 45	M	0	0	0	1	1
	F	0	0	2	0	2
45 - 49	M	0	0	1	2	3
	F	0	0	1	0	1
50 - 54	M	1	1	1	4	7
	F	1	2	0	3	6
55 - 59	M	1	2	4	7	14
	F	0	0	1	5	6
60 - 64	M	1	1	7	23	32
	F	0	1	5	5	11
65 - 69	M	3	5	12	23	43
	F	1	0	3	2	6
70 - 74	M	8	8	9	40	65
	F	2	2	5	10	19
75 - 79	M	6	4	20	18	48
	F	1	1	7	10	19
80 - 84	M	4	7	12	27	50
	F	1	4	7	14	26
85+	M	1	6	9	17	33
	F	0	4	2	14	20
Total	M	25	34	75	162	296
	F	6	14	33	63	116

Age at Diagnosis 2018/19



	Borders	D&G	Fife	Lothian	SCAN
85+	3.2%	20.8%	10.2%	13.8%	12.9%
75 to 84	38.7%	33.3%	42.6%	30.7%	34.7%
65 to 74	45.2%	31.3%	26.9%	33.3%	32.3%
55 to 64	6.5%	8.3%	15.7%	17.8%	15.3%
<45 to 54	6.5%	6.3%	4.6%	4.4%	4.9%

Bladder Cancer QPI Attainment Summary 2017-18			Target %	Borders		D&G		Fife		Lothian		SCAN	
QPI 1i: MDT Discussion	Before definitive treatment (MIBC)		95	N 8 D 8	100%	N 6 D 6	100%	N 22 D 24	91.7%	N 57 D 60	95.0%	N 93 D 98	94.9%
QPI 2: Quality of TURBT at initial resection	Bladder diagram / detailed description with tumour location, size, number and appearance		95	N 26 D 27	96.3%	N 10 D 35	28.6%	N 46 D 72	63.9%	N 177 D 189	93.7%	N 259 D 323	80.2%
	Where the resection is documented as complete or not		95	N 27 D 27	100%	N 33 D 35	94.3%	N 44 D 72	61.1%	N 177 D 189	93.7%	N 281 D 323	87.0%
QPI 3: Mitomycin C following TURBT			60	N 16 D 22	72.7%	N 10 D 30	33.3%	N 37 D 58	63.8%	N 101 D 146	69.2%	N 164 D 256	64.1%
QPI 5: Pathology Reporting: reported according to the guidelines by the Royal College of Pathologists (By Board of surgery)		TURBT	90	N 29 D 29	100%	N 9 D 36	25.0%	N 78 D 80	97.5%	N 185 D 194	95.4%	N 301 D 339	88.8%
		Cystectomy	90	Cystectomies are not performed in these Boards				N 7 D 7	100%	N 22 D 22	100%	N 29 D 29	100%
QPI 7: Time to Treatment (MIBC)	Radical treatment within 3 months of diagnosis of MIBC		90	N 1 D 2	50.0%	N 0 D 1	0%	N 6 D 8	75.0%	N 16 D 16	100%	N 23 D 27	85.2%
	Cystectomy or chemoradiotherapy within 8 weeks of neoadjuvant chemo		90	N 0 D 0	N/A	N 0 D 0	N/A	N 3 D 3	100%	N 3 D 3	100%	N 6 D 6	100%
QPI 8: Volume of Cases / Surgeon: number of radical cystectomy procedures performed by a surgeon over a 1 year.			≥10	1 Lothian surgeon performed 38 cystectomies 1 Fife surgeon performed 9 cystectomies.									
QPI 9: Oncological Discussion: MIBC patients who had radical surgery who met with an oncologist prior to radical cystectomy.			60	N 2 D 2	100%	N 0 D 0	N/A	N 2 D 4	50%	N 2 D 11	18.2%	N 6 D 17	35.3%
QPI 10 Patients with TCC of the bladder (stageT2-T4) undergoing radical radiotherapy who receive concomitant chemotherapy.			50	N 0 D 0	N/A	N 0 D 1	0%	N 1 D 7	14.3%	N 2 D 8	25.0%	N 3 D 16	18.8%
QPI 11: 30 Day Mortality. Patients with bladder cancer who die within 30 days of treatment with curative intent for bladder cancer.		Radical Surgery	<3	Presented by Board of surgery				N 0 D 7	0%	N 0 D 16	0%	N 0 D 23	0%
		Radiotherapy	<3	N 0 D 0	N/A	N 0 D 1	0%	N 0 D 7	0%	N 0 D 8	0%	N 0 D 16	0%
		Chemotherapy	<3	N 0 D 1	0%	N 0 D 0	N/A	N 0 D 5	0%	N 0 D 6	0%	N 0 D 12	0%
QPI 11: 90 Day Mortality		Radical Surgery	<5	Presented by Board of surgery				N 0 D 7	0%	N 0 D 16	0%	N 0 D 23	0%

Bladder Cancer QPI Attainment Summary 2017-18		Target %	Borders		D&G		Fife		Lothian		SCAN	
Patients with bladder cancer who die within 90 days of treatment with curative intent for bladder cancer.	Radiotherapy	<5	N 0 D 0	N/A	N 0 D 1	0%	N 0 D 7	0%	N 0 D 8	0%	N 0 D 16	0%
	Chemotherapy	<5	N 0 D 1	0%	N 0 D 0	N/A	N 0 D 5	0%	N 0 D 6	0%	N 0 D 12	0%
Clinical Trial Access QPI	Interventional + Interventional Trials	15	N 0 D 19	0%	N 0 D 31	0%	N 0 D 60	0%	N 47 D 126	37.3%	N 47 D 236	19.9%