

## **SOUTH EAST SCOTLAND CANCER NETWORK (SCAN) PROSPECTIVE CANCER AUDIT**

# **Bladder Cancer 2020-21 Comparative Audit Report**

Patients diagnosed 1st April 2020 to 31st March 2021

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## Document History

Version	Circulation	Date	Comments
1	SCAN leads sign off meeting	18/02/2022	Agree actions and comments
2	SCAN Sign off group	14/03/2022	For confirmation of actions and comments. For insertion of clinical Lead's commentary
3	SCAN Urology Group	22/03/2022	For final approval / comments
4	SCAN Clinical Governance Framework, Action Plan Leads and SCAN Urology Group	06/04/2022	
4w	Report assessed for disclosive data and report to be added to SCAN Website	2022	

## Lead clinician summary

This is year 7 of the Bladder Cancer QPIs and I am pleased to note the audit findings from SCAN – we have now completed 3 years since incorporating changes to QPIs and measurability criteria following the 1<sup>st</sup> national formal review meeting. In addition, SCAN data and clinicians have been vital to the *Scot BC Quality OPS* clinical project (DOI: [10.1016/j.euf.2021.07.011](https://doi.org/10.1016/j.euf.2021.07.011)), where we've just completed analysis of the long term clinical outcomes in patients treated during the first 3-year cycle (April 2014 to March 2017) of the bladder cancer QPIs. These results have helped, among others, to inform discussions at the 2<sup>nd</sup> national formal review meeting and recommendations made by SCAN last year have influenced changes to the QPIs. Evaluation of clinical outcomes from the second 3-year cycle (April 2017 to March 2020) will evaluate the benefits of the changes to the QPIs enacted following the 1<sup>st</sup> formal review in 2018. These findings are anticipated to inform clinical practice.

The case attainment for the Bladder Cancer QPIs has been 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, particularly where (acceptable) discrepancy exists between pathology and staging scans (QPI 4, for example). I am confident that the audit data reflects the clinical experience.

The action points and recommendations following the 2019-20 audit and comparative report have also been explored in my comments.

**QPI 1**– SCAN has done very well with this QPI - almost every new cancer patient has gone through the multi-disciplinary team meeting.

**QPI 2(i)** – Documentation of tumour characteristics are essential in the management of NMIBC. SCAN had a shortfall of 17%. Lothian had a shortfall (1.8%) for the first time. 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 with this QPI. Rollout across Scotland is awaited and support from the cancer networks will help in this regard.

**QPI 2(ii)** – SCAN missed this target by about 1% for the second time in 2 years. Once again the electronic proforma/ operation note is anticipated to help compliance with this QPI too.

**QPI 2(iii)** – I'm pleased to note that SCAN has met the target for this very important QPI. As it is critical to achieve this benchmark particularly in patients with high grade cancer (we have found that centres meeting this target for patients in high grade cancer were associated with a significantly lower risk of recurrence and progression at 5 years), our recommendation to modify this QPI has been accepted at the recent formal review. The denominator will focus on patients with high grade cancer and not all NMIBC. Training in TURBT plays an important part

in ensuring we comply with this QPI and as Lothian has had a 5% shortfall, I will provide feedback to the department as well.

**QPI 3** - Our clinical study has revealed (for the first time in a large real-world cohort) that the use of a single instillation of Mitomycin-C following the initial TURBT reduces the risk of recurrence (and progression) significantly. Despite an improvement from 2019-20, SCAN has not met the target for this important QPI, with a shortfall of 1.9%. Lothian and Borders have met the target. D&G continue to have a shortfall - it is anticipated that the recent appointment of permanent consultant staff will help with a streamlined, consistent process. Use of the electronic operation note will also facilitate this QPI. It was also agreed, following SCAN's recommendations to the recent formal review, that this QPI will focus on patients with Low Grade non-invasive bladder cancer as the denominator as these are the patients who are more likely to benefit from Mitomycin-C.

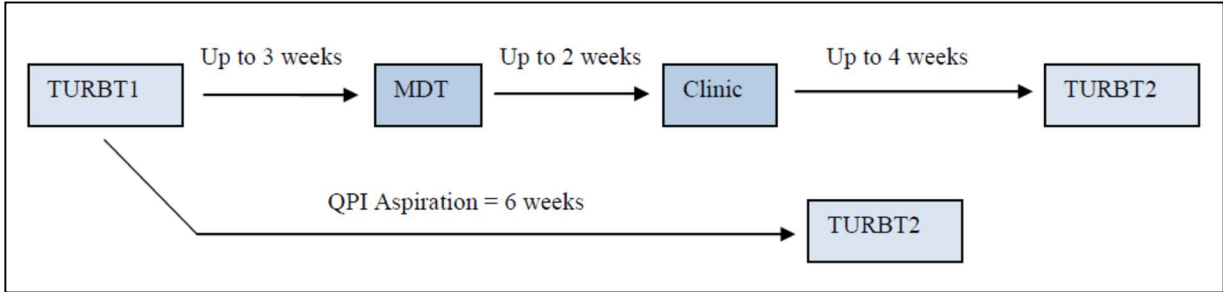
**QPI 4 (i), (ii), (iii)** – SCAN and each constituent health board have failed to meet the target of carrying out re-TURBT (in selected patients) within 42 days of the initial TURBT. It must be noted that the significant shortfall is mainly the result of not meeting the timing, as opposed to actually 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 (as described in my summary last year):

(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 capacity. Appointment of another consultant to support bladder cancer in Lothian and a process to secure the ring fenced lists immediately after MDM is expected to help.

(b) 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 and innovative approaches to efficiently secure this capacity is much needed and should help:

**2020/21 Re-TURBT (QPI 4) practice in Lothian v QPI aspiration:**



However, reassuringly, from our clinical study in 91% 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%). Clinicians are therefore reassured that consequent to a better quality TURBT at the outset, the need for repeat TURBT within 42 days is becoming less and that we can be even more selective. I feel the process needs to be more nuanced. Further analysis, as part of the larger project, to assess if there are indeed longer term clinical disadvantages to having the re-TURBT beyond 42 days is almost complete and will be presented at BAUS 2022.

**QPI 5(i) and 5(ii)** – We are very grateful to our pathologists in Scotland. SCAN has comfortably met the target for this very important QPI over the past 7 years. Consequent to the high compliance across Scotland, the 2<sup>nd</sup> formal review has recommended that this QPI be archived.

**QPI 6** – SCAN has had a shortfall of 6% with Fife's shortfall being 50%. It was recommended that Fife surgeon(s) consider using the same standardised operative template from NHS Lothian, where description of the lymphadenectomy template is specified. The formal review

has recommended that the lymphadenectomy template as well as lymph node count are now used as the metrics for this QPI.

**QPI 7(i)** - It was a pleasure to note that all patients in SCAN health boards received radical treatment within 3 months of diagnosis of MIBC.

**QPI 7(ii)** – SCAN had a shortfall of 15% for this QPI. With small denominators, 2 patients not receiving radical radiotherapy within the stipulated timing meant Lothian did not meet the target.

**QPI 8** – This is the 3rd year of reporting using the new target for the hospital of 20 cystectomies. Radical surgery for SCAN is only carried out in Lothian and Fife and the case ascertainment has been accurate. SCAN met the target for hospital volume and surgeon volume. However, Fife had a shortfall of 9 cystectomies for the hospital volume target - it has been recommended that we discuss this at the next RCPG in 2022.

**QPI 9** – As in the previous 6 years, this continues to be a difficult QPI to meet for SCAN with a shortfall of 13%. Lothian missed the target by 18.3%. This trend has been noted in the other cancer networks as well. The vast majority of patients with MIBC not meeting this QPI are noted to have a specific surgical option recommended at the MDM, i.e. there is no oncology option – oncologists for SCAN were satisfied that patients in this cohort received appropriate treatment without the potential delays that comes with an additional (oncology) clinic appointment. SCAN oncologists agreed that this QPI should be considered for revision at the formal review - the option suggested is: change the denominator to include only patients suitable for all radical treatment options with the numerator being number of these patients seen by an oncologist.

**QPI 10** – This is also another QPI that SCAN have never met in 7 years of QPIs - the shortfall this time is 30%. SCAN oncologists felt that the reason for patients not having concurrent chemotherapy with radical radiotherapy (not unlike previous years) was mainly because patients were clinically unsuitable for concurrent chemotherapy. Our oncology colleagues 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. Consequently, this QPI is being considered for revision in the future.

**QPI 11** – Of 56 patients who underwent radical treatment for muscle invasive bladder cancer in SCAN, there were no deaths within 30 days of radical treatment. Two patients passed away between 30 and 90 days (i.e. 90-day mortality rate) after radical cystectomy in Lothian that caused the proportion to exceed the target. One of these patients had a myocardial infarction and discussion at the Urology morbidity and mortality (M&M) meeting deemed that this mortality, whilst unfortunate, was within the accepted risk in patients with higher risk undergoing major surgery and did not necessitate any practice change. The other patient had an advanced cancer that progressed rapidly after surgery. The one patient who passed away within 90 days of radical radiotherapy also had rapidly advancing cancer.

It was felt during the previous formal review, as the denominators are small, 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 causes un-related to the Bladder Cancer.

**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 in SCAN. It is understood that recruitment to clinical trials will be evaluated as part of a process separate to the QPIs.

Param Mariappan  
March 2022

### Clinical Recommendation Summary from 2020-21

QPI	Action required	Lead	Date for update
2	TRAK proforma roll out across Scotland planned with Intersystem	Param Mariappan	Ongoing
2ii	Need a "not sure" drop down option for this data item - discuss at formal review meeting 21 <sup>st</sup> February	Lorna Bruce and Param Mariappan	Complete
3	NHS Fife need to review the 10 Fife patients to ascertain why they had no MMC.	Ian Mitchell	3 <sup>rd</sup> May 2022
4	QPI to be discussed at the formal review and no other actions were identified.	Lorna Bruce and Param Mariappan	Complete

### Clinical Recommendation Summary from 2019-20

QPI	Action required	Progress
2	Clinical colleagues to use bladder proforma.	Well established in Lothian. Work to improve proforma use in other boards is ongoing.
	Audit staff to annotate comments box in eCase as to whether proforma used or not (or missing from notes).	Complete
	This QPI requires revision at the Formal review	Formal Review ongoing.
3	Locum consultants have been covering the D&G Urology service for several years which has led to problems with continuity and general service cover. A permanent Urology consultant appointment has now commenced meaning more consistent TURBTs. The D&G proforma has been changed to include a checkbox for Mitomycin (indicated/prescribed and comments for reasons not to give, this coupled with on-going audit of cases, should result in improvement going forward. Options to deliver Mitomycin within theatre are also being explored, which would also highlight decision on delivery at the time of operation. Progress should be continued to be monitored closely.	Ongoing
4	There is not enough capacity in Lothian, a new consultant appointed in October 2020 will help with future results. However, indications and timelines need revised at Formal Review.	Formal Review ongoing.
9	This QPI requires revision at the Formal review	Formal Review ongoing.
10	Changes in practice have affected the denominator for this QPI, which probably needs revised at Formal Review.	Formal Review ongoing.

Bladder Cancer QPI Attainment Summary 2020-21		Target%	Borders			D&G			Fife		Lothian		SCAN	
QPI 1: MDT Discussion	Before definitive treatment (MIBC)	95	N 7 D 7	100%	N 12 D 12	100%	N 17 D 18	94.4%	N 70 D 71	98.6%	N 106 D 108	98.1%		
	NMIBC discussed at the MDT after histological confirmation of NMIBC	95	N 21 D 21	100%	N 30 D 30	100%	N 72 D 72	100%	N 128 D 128	100%	N 251 D 251	100%		
QPI 2: Quality of TURBT at initial resection	Detailed description with tumour location, size, number, appearance	95	N 26 D 27	96.3%	N 4 D 42	9.5%	N 58 D 77	75.3%	N 164 D 176	93.2%	N 252 D 322	78.3%		
	Where the resection is documented as complete or not	95	N 26 D 27	96.3%	N 36 D 42	85.7%	N 69 D 77	89.6%	N 171 D 176	97.2%	N 302 D 322	93.8%		
	Where detrusor muscle is included in the specimen at initial TURBT.	80	N 25 D 25	100%	N 36 D 39	92.3%	N 64 D 74	86.5%	N 126 D 168	75.0%	N 251 D 306	82.0%		
QPI 3: Mitomycin C following TURBT		60	N 14 D 21	66.7%	N 5 D 30	16.7%	N 39 D 75	52.0%	N 96 D 139	69.1%	N 154 D 265	58.1%		
QPI 4: Early TURBT	All T1 or Ta where multifocal or >3cm NMIBC to have re TURBT within 42 days from TURBT1	80	N 2 D 5	40.0%	N 1 D 8	12.5%	N 1 D 37	2.7%	N 3 D 53	5.7%	N 7 D 103	6.8%		
	HG or LG G2 NMIBC with no Detrusor muscle at TURBT1 to have re TURBT in 42 days	80	N 0 D 0	N/A	N 0 D 2	0%	N 0 D 10	0%	N 2 D 40	5.0%	N 2 D 52	3.8%		
	NMIBC where resection was incomplete at TURBT1 to have re TURBT in 42 days.	80	N 1 D 2	50.0%	N 2 D 6	33.3%	N 0 D 5	0%	N 0 D 7	0%	N 3 D 20	15.0%		
QPI 5: Pathology Reporting: reported according to the guidelines by the RCPATH	TURBT	90	N 27 D 28	96.4%	N 41 D 42	97.6%	N 88 D 89	98.9%	N 177 D 187	94.7%	N 333 D 346	96.2%		
	Cystectomy	90	Presented by Board of surgery			N 6 D 6	100%	N 19 D 19	100%	N 25 D 25	100%			
QPI 6: Lymph Node Yield. Pelvic lymph node dissection to at least level 2 undertaken at radical cystectomy		90	Presented by Board of surgery			N 3 D 6	50%	N 18 D 19	94.7%	N 21 D 25	84.0%			
QPI 7: Time to Treatment (MIBC)	Radical treatment within 3 months of diagnosis of MIBC	90	N 1 D 1	100%	N 3 D 3	100%	N 2 D 2	100%	N 24 D 24	100%	N 30 D 30	100%		
	Cystectomy or chemoradiotherapy within 8 weeks of neoadjuvant chemotherapy	90	N 0 D 0	N/A	N 3 D 3	100%	N 1 D 1	100%	N 2 D 4	50.0%	N 6 D 8	75.0%		
QPI 8: Volume of Cases / Surgeon: number of radical cystectomy procedures performed by a surgeon over a 1 year.		≥20	2 Surgeons met the QPI Target in SCAN.											
QPI 9: Oncological Discussion: MIBC patients who had radical surgery who met with an oncologist prior to radical cystectomy.		60	N 0 D 1	0%	N 2 D 2	100%	N 1 D 2	50.0%	N 5 D 12	41.7%	N 8 D 17	47.1%		

<b>Bladder Cancer QPI Attainment Summary 2020-21</b>		Target%	<b>Borders</b>			<b>D&amp;G</b>			<b>Fife</b>			<b>Lothian</b>			<b>SCAN</b>		
QPI 10 Patients with TCC of the bladder (stageT2-T4) undergoing radical radiotherapy who receive concomitant chemotherapy.		50	N	0	N/A	N	2	50.0%	N	0	N/A	N	2	12.5%	N	4	20.0%
			D	0		D	4		D	0		D	16		D	20	
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	0%	N	0	0%	N	0	0%	N	0	0%
			D	6		D	4		D	1		D	16		D	21	
	Radiotherapy	<3	N	0	N/A	N	0	0%	N	0	0%	N	0	0%	N	0	0%
			D	0		D	4		D	1		D	16		D	21	
	Chemotherapy	<3	N	0	N/A	N	0	0%	N	0	0%	N	0	0%	N	0	0%
			D	0		D	3		D	1		D	6		D	10	
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	0	0%	N	0	0%	N	2	10.5%	N	2	8.0%
			D	6		D	4		D	1		D	19		D	25	
	Radiotherapy	<5	N	0	N/A	N	0	0%	N	0	0%	N	1	6.7%	N	1	5.0%
			D	0		D	4		D	1		D	15		D	20	
	Chemotherapy	<5	N	0	N/A	N	0	0%	N	0	0%	N	0	0%	N	0	0%
			D	0		D	3		D	1		D	5		D	9	
Clinical Trial Access. N = Consented to trials or research (SCRN database) D = 5 year average Cancer Registry incidence		15	N	1	5.3%	N	2	6.7%	N	0	0%	N	10	8.5%	N	13	5.7%
			D	19		D	30		D	61		D	118		D	228	



## Introduction and Methods

### Cohort

This report covers patients newly diagnosed with bladder cancer in SCAN between 01/04/2020 and 31/03/2021. 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. 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 seventh publication of QPI results for bladder cancer within SCAN.

The latest formal review process is currently ongoing. This process was delayed due to the COVID19 pandemic. The changes to the dataset and definitions will be reported on in year 8.

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 <i>not recorded</i> 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 <i>not recorded</i> 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 <i>not recorded</i> 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.	

<sup>1</sup> QPI documents are available at [www.healthcareimprovementscotland.org](http://www.healthcareimprovementscotland.org)

<sup>2</sup> Datasets and measurability documents are available at [www.isdscotland.org](http://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 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	Campbell Wallis
NHS Fife	Queen Margaret Hospital	Mr I Mitchell	Julie Whyte
SCAN & NHS Lothian	Western General Hospital and St John's Hospital	Mr P Mariappan Dr D Noble	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 2015 to 2019. 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 01/04/2020 and 31/03/2021

	Borders	D&G	Fife	Lothian	SCAN
Bladder Cancer	28	43	101	226	398

**Estimate of Case Ascertainment:** Calculated using the average of the most recent available five years of Cancer Registry Data 2015 – 2019.

	Borders	D&G	Fife	Lothian	SCAN
Cases from Audit	28	43	101	226	398
Cancer Registry 5 Year Average	19	30	61	118	228
<b>Case Ascertainment %</b>	<b>147</b>	<b>143</b>	<b>166</b>	<b>192</b>	<b>175</b>

Note: Extract of data taken from PHS Cancer Registry data mart ACaDMe on 30/01/2022

## **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 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.
- Regional sign off meeting achieved remotely on 18/02/2022.
- Final report circulated to SCAN Urology Group and Clinical Governance Groups on 06/04/2022.

## **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.

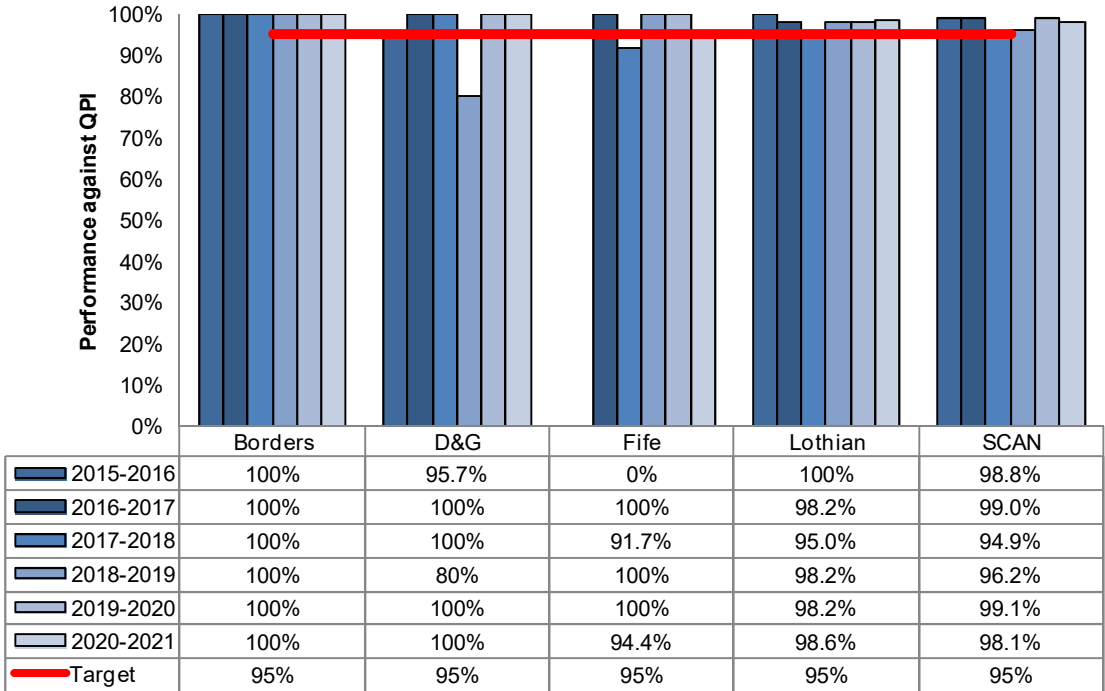
Presented by Board of Diagnosis

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	21	31	83	154	289
Excluded from analysis	1	0	0	1	2
Numerator	7	12	17	70	106
Not recorded for numerator	0	0	0	0	0
Denominator	7	12	18	71	108
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>100</b>	<b>100</b>	<b>94.4</b>	<b>98.6</b>	<b>98.1</b>

**Comment:**

Fife: The QPI target was not met showing a shortfall of 0.6% (1 case). The case was not discussed at MDM. No action was identified

**QPI 1i - MDM discussion 2015/16 to 2020/21**



**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.

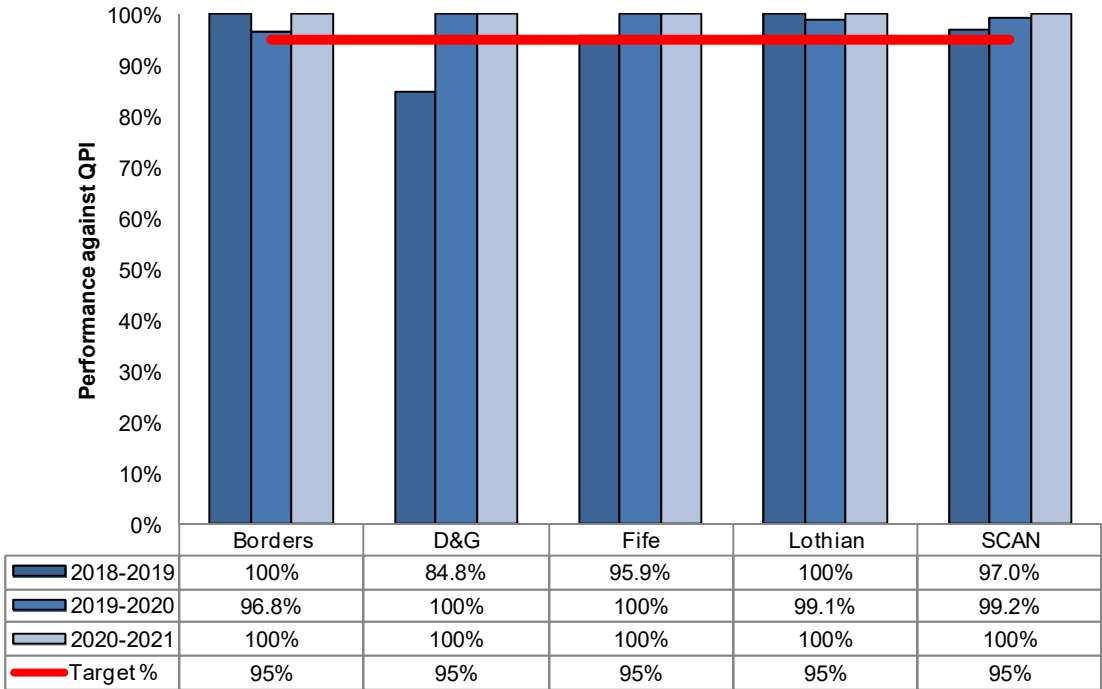
Denominator = All patients with NMIBC.

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

Presented by Board of Diagnosis

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	7	13	29	98	147
Excluded from analysis	0	0	0	0	0
Numerator	21	30	72	128	251
Not recorded for numerator	0	0	0	0	0
Denominator	21	30	72	128	251
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**QPI 1ii - MDM Discussion 2018/2019 to 2020/21**



## 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.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	1	1	12	27	41
Excluded from analysis	0	0	12	23	35
Numerator	26	4	58	164	252
Not recorded for numerator	0	0	3	0	3
Denominator	27	42	77	176	322
Not recorded for exclusion	0	23	16	8	47
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>96.3</b>	<b>9.5</b>	<b>75.3</b>	<b>93.2</b>	<b>78.3</b>

### Comment:

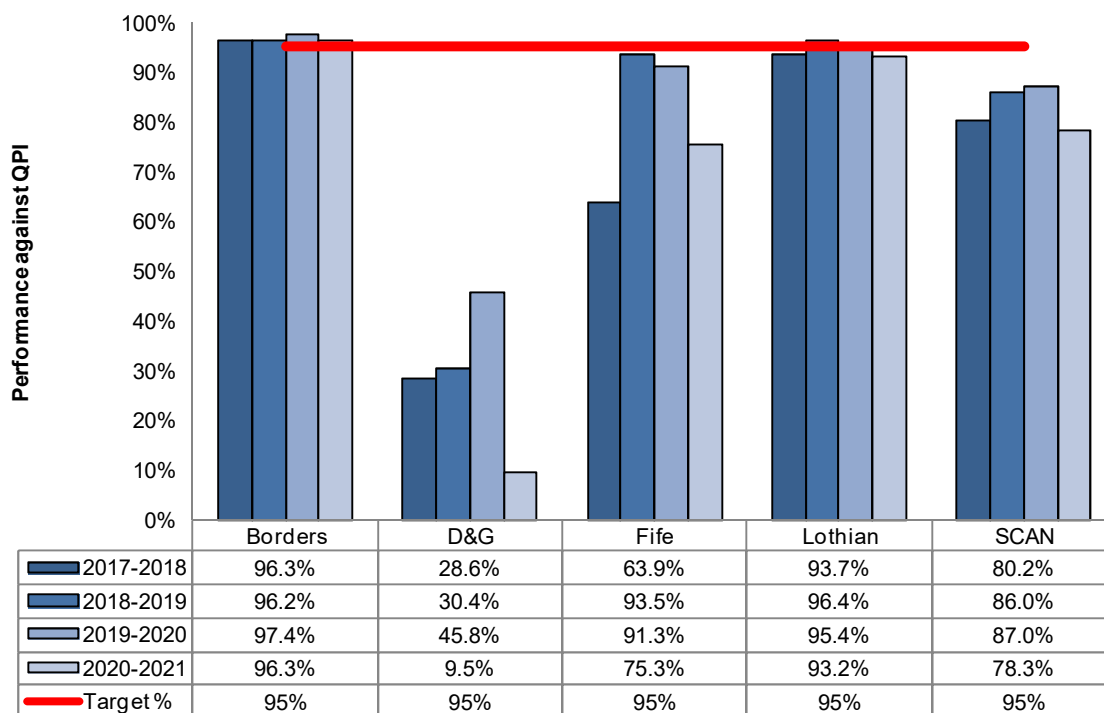
**D&G:** The QPI target was not met showing a shortfall of 85.5% (38 cases) number and size were the most frequent items missing. Current locums and team are encouraged to use the dedicated proforma in theatre. Improvement work continues with the team.

**Fife:** The QPI target was not met showing a shortfall of 19.7% (16 cases). In 14 cases, proformas were not used. 2 did use pro-formas, but tumour size was not recorded. 3 not recorded for numerator, operation notes were missing. (2 no electronic version. 1 unable to access the casenotes/op note). 16 not recorded for exclusion, had no reference to the size of the tumour. To help improve standardised use of the correct TURBT pro-forma, this issue was discussed at a Urology governance meeting, it is still hoped that electronic op notes can be placed on the portal system but no progress has been made locally in this regard.

**Lothian:** The QPI target was not met showing a shortfall of 1.8% (12 cases) 9 cases did not have a proforma completed (also various details about resections missing) 3 had proformas completed but various details regarding operation detail has been omitted.

**Action:** TRAK proforma roll out planned with intersystem and no further action identified.

### QPI 2i - TURBT Quality 2017/18 to 2020/21



### 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.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	1	1	12	27	41
Excluded from analysis	0	0	12	23	35
Numerator	26	36	69	171	302
Not recorded for numerator	0	0	0	0	0
Denominator	27	42	77	176	322
Not recorded for exclusion	0	23	16	8	47
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>96.3</b>	<b>85.7</b>	<b>89.6</b>	<b>97.2</b>	<b>93.8</b>

**D&G:** The QPI target was not met showing a shortfall of 9.3% (6 cases) resection status not recorded.

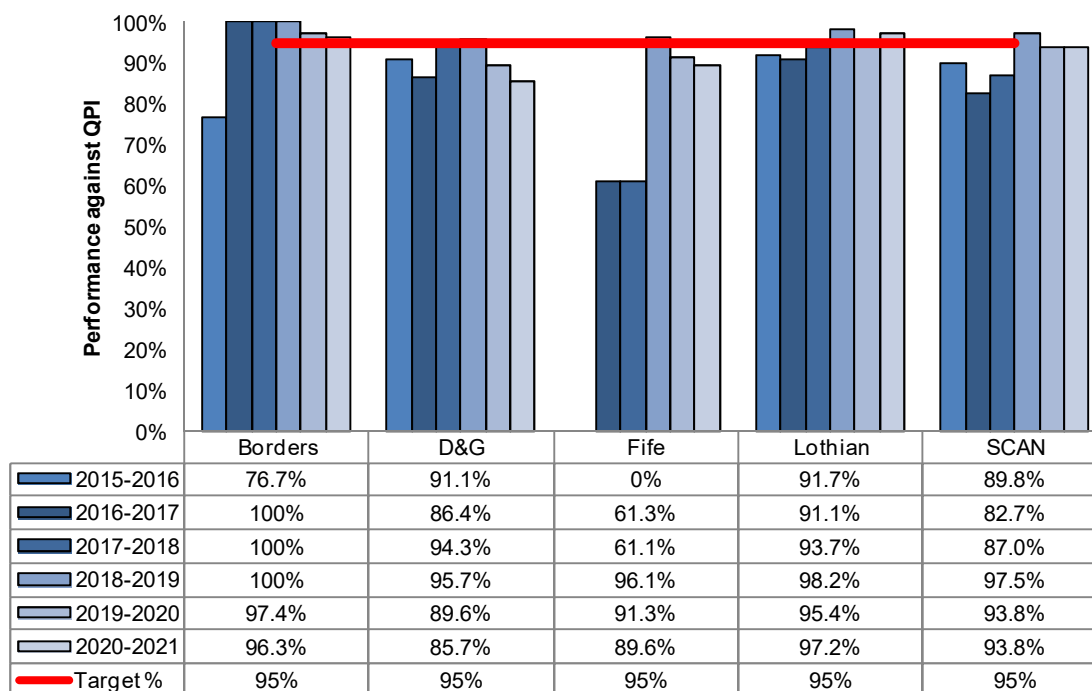
**Fife:** The QPI target was not met showing a shortfall of 5.4% (8 cases) 3 TURBT pro-formas were not used. 3 operation notes did not specify if the resection was complete/incomplete. 1 op note was missing from the casenotes (no electronic version). 1 case had no electronic version available prior to analysis. 16 not recorded for exclusion did not have any reference

to the size of the tumour. As per QPI 2(i), standardised use of the correct pro-forma should help improve the documenting of TURBT procedures with a view to meeting the QPI target.

**Action:** Improvement on last year noted and no actions indentified.

Need a “not sure” drop down option for this data item - to be discussed at Formal review.

**QPI 2ii - TURBT Quality 2015/16 to 2020/21**



**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.

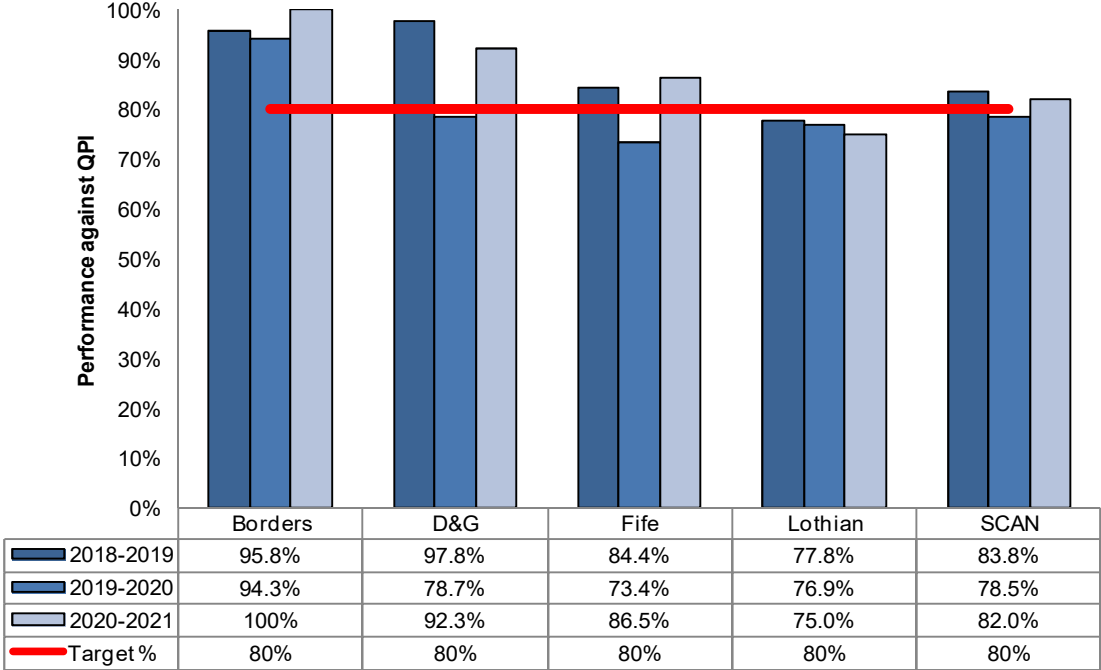
Target 80%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	3	1	12	25	41
Excluded from analysis	0	3	15	33	51
Numerator	25	36	64	126	251
Not recorded for numerator	0	0	0	2	2
Denominator	25	39	74	168	306
Not recorded for exclusion	0	20	15	7	42
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>100</b>	<b>92.3</b>	<b>86.5</b>	<b>75.0</b>	<b>82.0</b>



**Lothian:** The QPI target was not met showing a shortfall of 5% (40 cases) All 40 cases recorded as detrusor muscle absent. 2 pathology reports did not mention detrusor muscle, thus recorded as not recorded for Numerator. 7 had tumour size field not recorded, so were not recorded for exclusion.

**Action:** The vast majority of outliers are low grade so this will change with new QPI iteration next year. There may be issues with a small denominator if only high grade so the new target may be hard to achieve. No actions were identified

**QPI 2iii - TURBT Quality 2018/19 to 2020/21**



### 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
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	7	13	26	87	133
Excluded from analysis	0	0	0	0	0
Numerator	14	5	39	96	154
Not recorded for numerator	0	0	3	1	4
Denominator	21	30	75	139	265
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>66.7</b>	<b>16.7</b>	<b>52.0</b>	<b>69.1</b>	<b>58.1</b>

Further analysis in Lothian to exclude clinically diagnosed MIBC (where Mitomycin C does not apply) Shows a numerator of 96 (4 NR) and denominator of 128 giving a performance of 75.0%

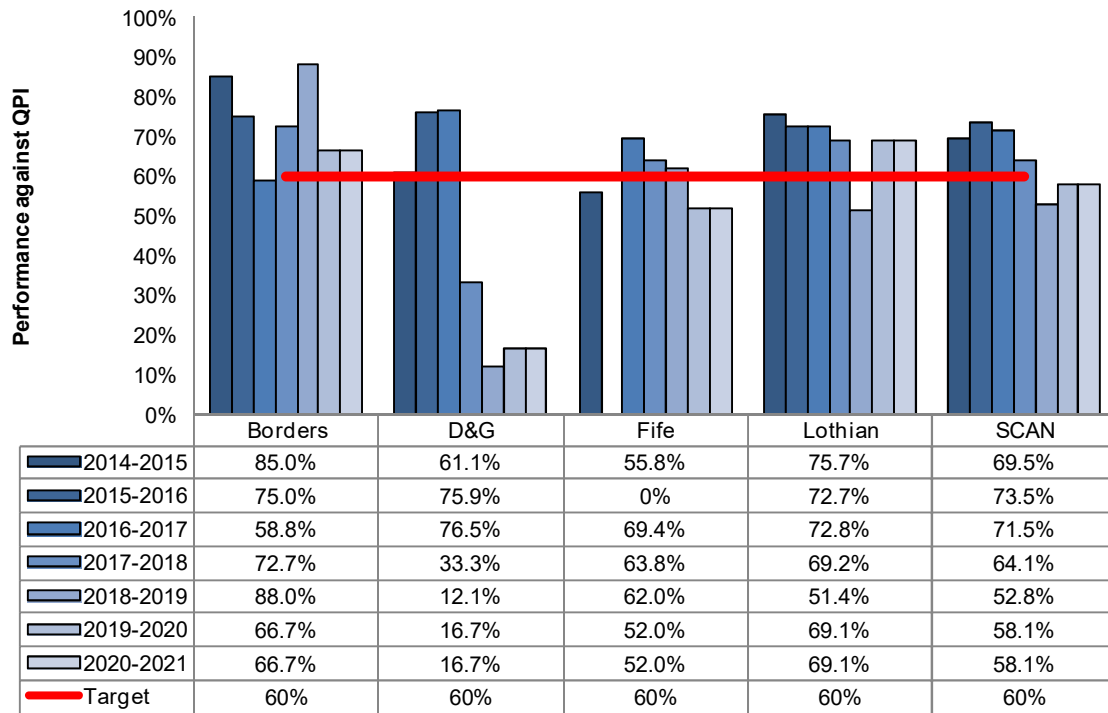
**Comment:**

**D&G:** The QPI target was not met showing a shortfall of 43.3% (25 cases) this reflects the period prior to the improvement work which has now been started. It is anticipated that there will be improvement in this QPI for 2021/22. No further action was identified.

**Fife:** The QPI target was not met showing a shortfall of 8% (33 cases) 10 did not have any reason recorded for no Mitomycin C. 7 were suspected clinically of muscle invasive disease. 11 had deep resection. 2 had thin bladder wall. 1 refused Mitomycin C installation. 1 had multifocal disease recorded as the reason. 1 was intended to receive Mitomycin, but never did due to an issue with availability. It should be noted that Mitomycin C is now prescribed and dispensed from the ward which should improve timing and availability. 3 not recorded for numerator, there was no indication as to whether Mitomycin was to be given, or received.

**Action:** NHS Fife need to review the 10 Fife patients to ascertain why they had no MMC.

### QPI 3: Mitomycin C 2014/15 to 2020/21



#### **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.

<b>Target 80%</b>	<b>Borders</b>	<b>D&amp;G</b>	<b>Fife</b>	<b>Lothian</b>	<b>SCAN</b>
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	23	31	57	151	262
Excluded from analysis	0	3	4	22	29
Numerator	2	1	1	3	7
Not recorded for numerator	0	0	0	0	0
Denominator	5	8	37	53	103
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	9	3	0	12
<b>% Performance</b>	<b>40.0</b>	<b>12.5</b>	<b>2.7</b>	<b>5.7</b>	<b>6.8</b>

#### **Comment:**

**BGH:** The QPI target was not met showing a shortfall of 40% (3 cases) 1 MDM recommended BCG before re-check. 2 had scheduling issues.

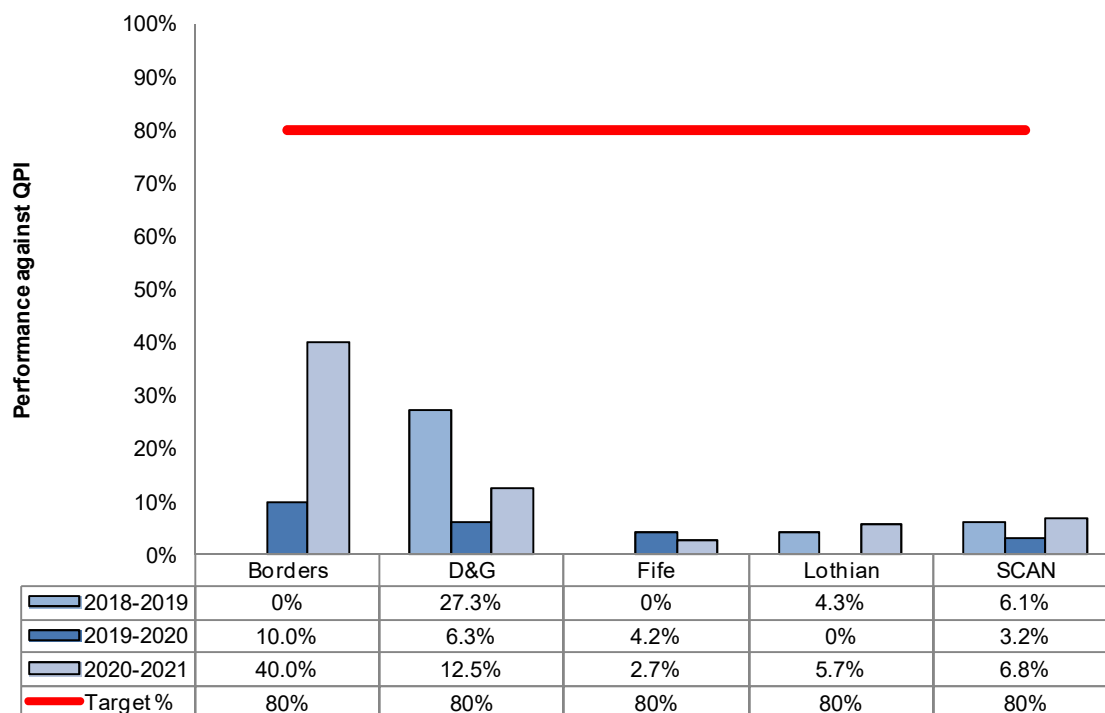
**D&G:** The QPI target was not met showing a shortfall of 67.5% (7 cases) 3 did not have repeat TURBT. (2 due to co-morbidities, 1 case commenced BCG). 4 completed repeat TURBT between 44 and 56 days. Timescales with pathology, discussion at MDT, clinic and surgical capacity impacted by COVID resulted in challenges within this pathway.

**Fife:** The QPI target was not met showing a shortfall of 77.3% (36 cases) 11 were for 3 month follow up as recommended at MDM. 9 were for a course of BCG following TURBT1. 3 were clinically suspected as muscle invasive disease at TURBT1. 1 did not have a second procedure due to patient health deterioration. 12 waited more than 42 days for their second procedure. Due to pre-op Covid isolation it has proved almost impossible to meet this target.

**Lothian:** The QPI target was not met showing a shortfall of 74.3% (50 cases) 7 were deemed for supportive care from MDM discussion post TURBT1, or passed died before follow up. 18 had MDM recommendation of BCG or Mitomycin C instillations post TURBT1. 7 had other cancers also diagnosed or were considered medically unfit for re-TURBT. 10 missed re-resection timescale (possibly down to capacity or timing issue within the service) 8 were diagnosed as muscle invasive disease on clinical grounds, thus had no re-TURBT.

**Action:** The difference between clinical and pathological findings skews the results here. Some cases have a clinically obvious T4 but path shows T1 or T1 high grade. This will be discussed at the formal review and no other actions were identified.

### QPI 4i - Re-TURBT - High Grade 2018/19 to 2020/21



### QPI 4ii - Early 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 ( $\pm$  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 ( $\pm$  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 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.

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	28	38	88	164	318
Excluded from analysis	0	3	2	22	27
Numerator	0	0	0	2	2
Not recorded for numerator	0	0	0	0	0
Denominator	0	2	10	40	52
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	1	0	1
<b>% Performance</b>	<b>N/A</b>	<b>0</b>	<b>0</b>	<b>5.0</b>	<b>3.8</b>

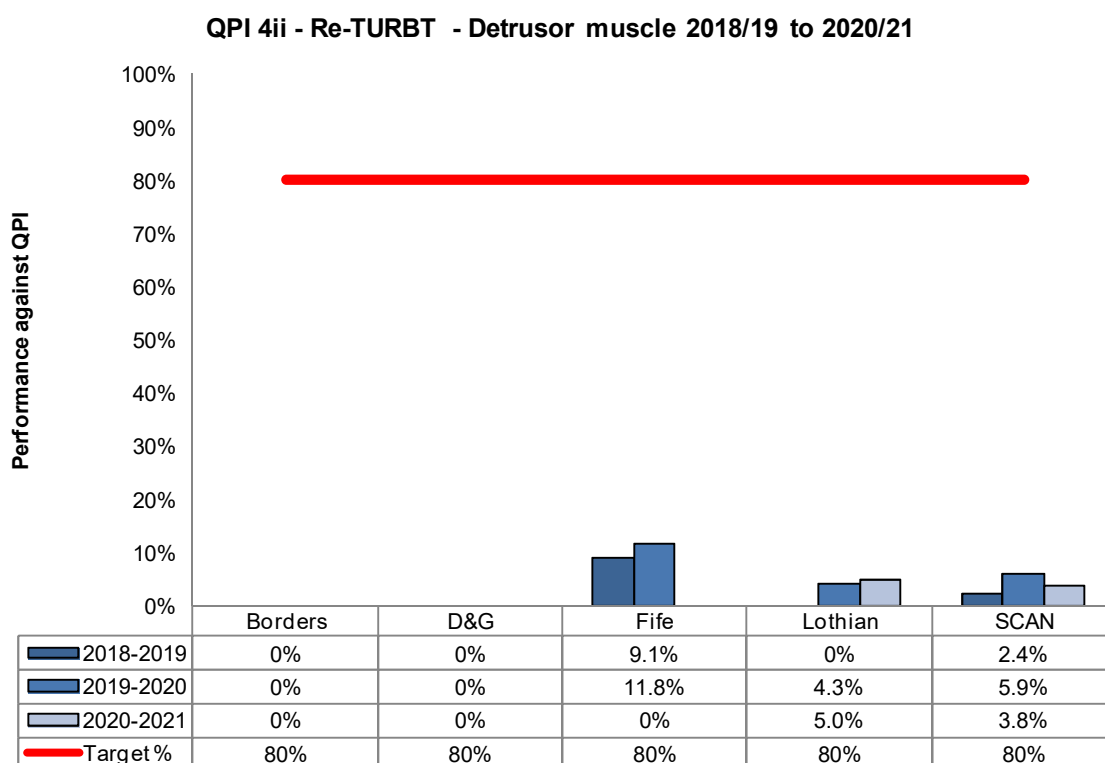
**Comment:**

**D&G:** The QPI target was not met showing a shortfall of 80% (2 cases) 1 did not have repeat TURBT as MDM decision to follow low risk pathway. 1 had re-TURBT in 54 days.

**Fife:** The QPI target was not met showing a shortfall of 80% (10 cases) 2 were for 3 month follow up as recommended at MDM. 1 patient did not have a second procedure due to health deterioration. 1 was due to receive BCG post-TURBT1. 6 waited more than 42 days for their second procedure. 1 was not recorded for denominator (disease grade could not be determined).

**Lothian:** The QPI target was not met showing a shortfall of 75% (38 cases) 4 were deemed for supportive care from MDM discussion post TURBT1, or died before follow up. 15 followed a low risk pathway and MDM recommended flexi cystoscopy follow up. 10 had MDM recommendation of BCG or Mitomycin C instillations post TURBT1. 5 had other cancers also diagnosed or other medical investigations which influenced the timeline for follow up. 2 missed re-resection timescale (possibly down to capacity +/- or timing issue within the service) 2 were diagnosed as muscle invasive disease on clinical grounds, thus had no re-TURBT.

**Action:** as for part i



### QPI 4iii - Early 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.

Target 80%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	26	37	86	197	346
Excluded from analysis	0	0	3	22	25
Numerator	1	2	0	0	3
Not recorded for numerator	0	0	0	0	0
Denominator	2	6	5	7	20
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	6	7	1	14
<b>% Performance</b>	<b>50.0</b>	<b>33.3</b>	<b>0</b>	<b>0</b>	<b>15.0</b>

#### Comment:

**BGH:** The QPI target was not met showing a shortfall of 30% (1 case) scheduling delay.

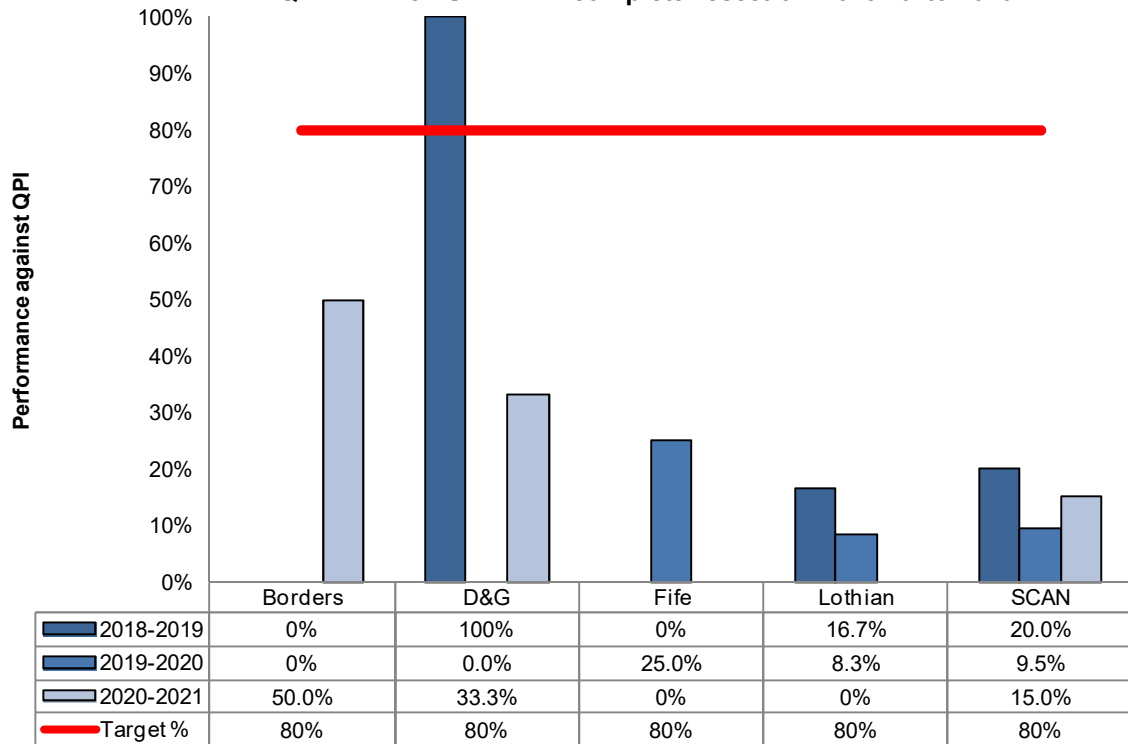
**D&G:** The QPI target was not met showing a shortfall of 46.7% (4 cases) 3 had repeat TURBTs between 56 and 71 days. 1 did not have repeat TURBT due to general health deterioration following initial TURBT.

**Fife:** The QPI target was not met showing a shortfall of 80% (5 cases) 2 were given a BCG course post-TURBT1. 1 was for 3 month follow up as recommended at MDM. 2 were not fit enough for a second procedure. 7 were not recorded for denominator as initial resection status could not be determined.

**Lothian:** The QPI target was not met showing a shortfall of 80% (7 cases) 1 was deemed for BSC from MDM discussion post TURBT1. 2 had MDM recommendation of BCG or Mitomycin C instillations post TURBT1. 4 missed re-resection timescale (possibly down to capacity +/- or timing issue within the service)

**Action:** as for part i

**QPI 4iii - Re-TURBT - Incomplete resection 2018/19 to 2020/21**





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

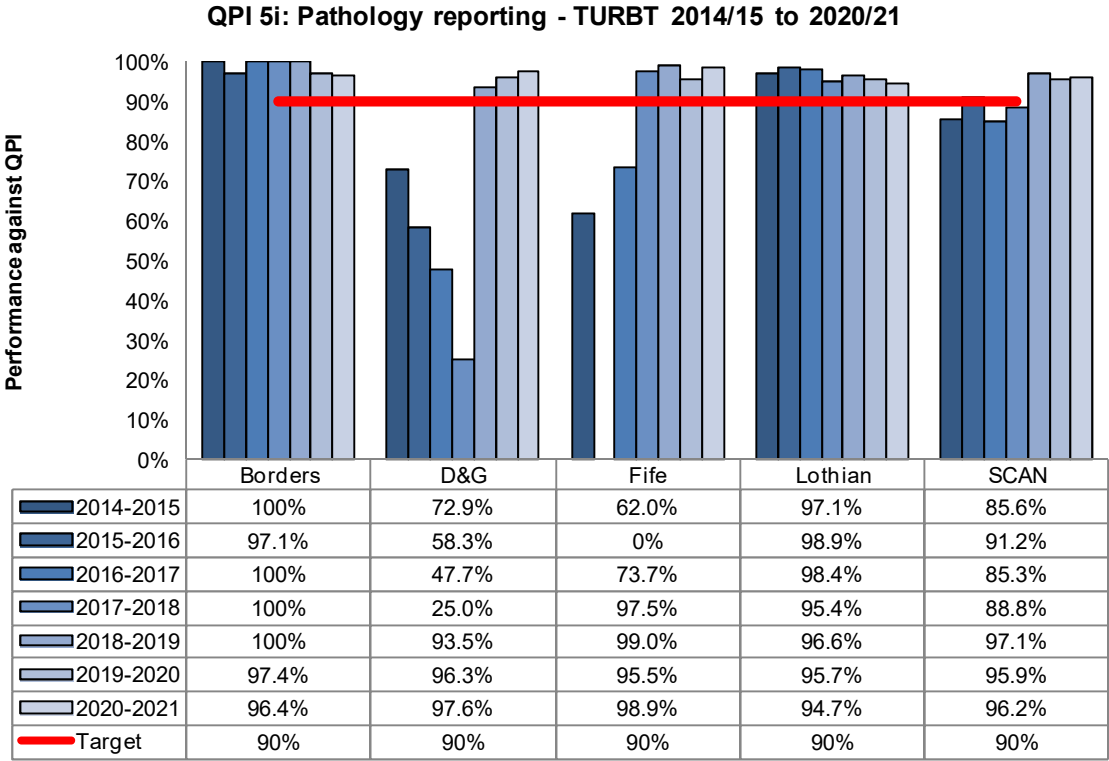
Title: All pathology reports for transurethral resection of bladder tumour (TURBT) specimens should contain comprehensive, standardised information according to the guidelines provided by the Royal College of Pathology.

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 (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
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	0	1	12	39	52
Excluded from analysis	0	0	0	0	0
Numerator	27	41	88	177	333
Not recorded for numerator	0	0	0	0	0
Denominator	28	42	89	187	346
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>96.4</b>	<b>97.6</b>	<b>98.9</b>	<b>94.7</b>	<b>96.2</b>



## 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.

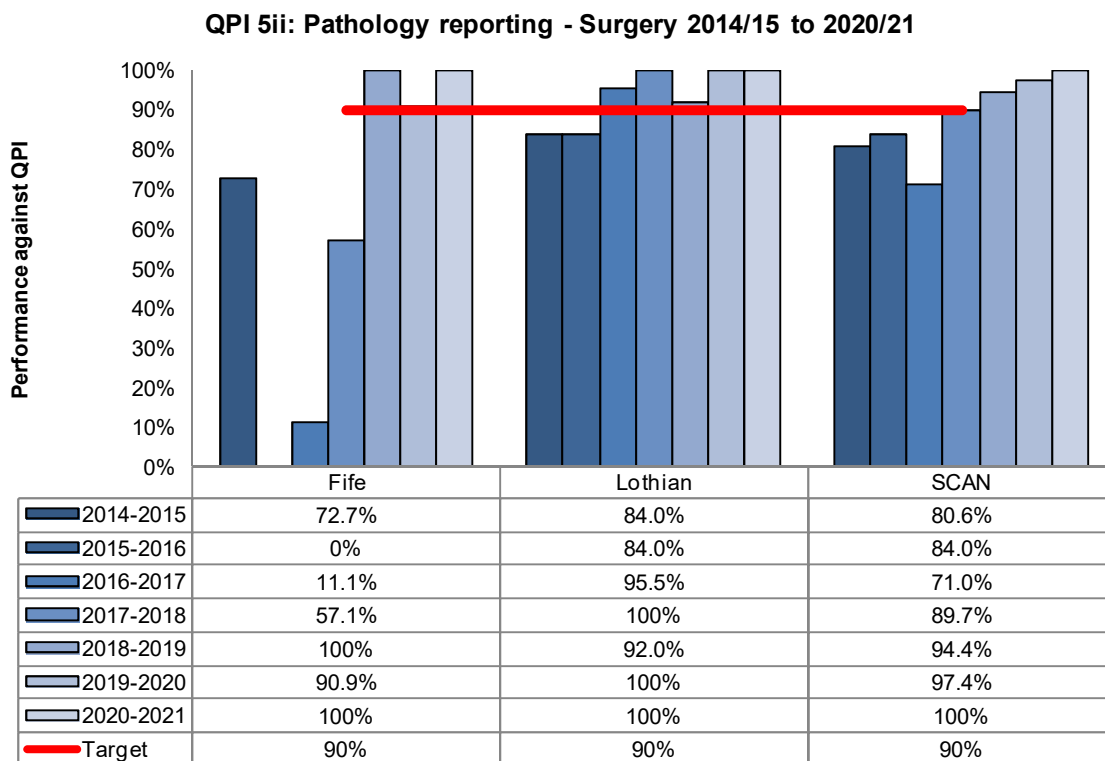
Denominator = All patients with bladder cancer who undergo TURBT or Cystectomy (no exclusions).

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
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	27	39	95	212	373
Excluded from analysis	0	0	0	0	0
Numerator	-	-	6	19	25
Not recorded for numerator	-	-	0	0	0
Denominator	-	-	6	19	25
Not recorded for exclusion	-	-	0	0	0
Not recorded for denominator	-	-	0	0	0
<b>% Performance</b>	<b>N/A</b>	<b>N/A</b>	<b>100</b>	<b>100</b>	<b>100</b>

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



**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.

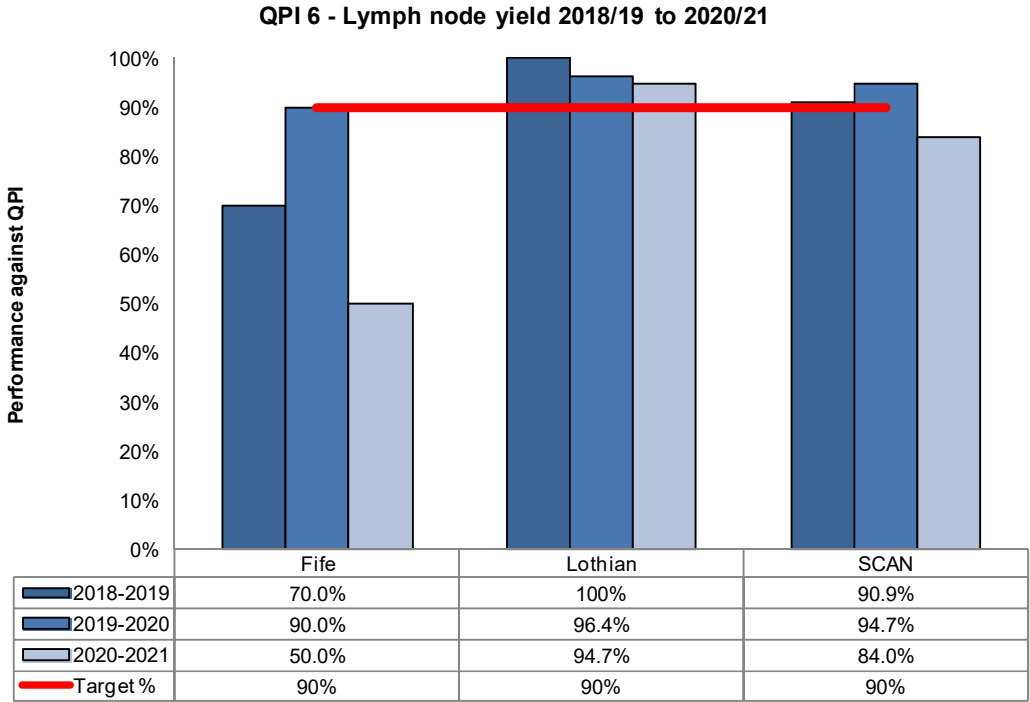
The tolerance within this target accounts for situations where patients are not fit enough to undergo extensive lymphadenectomy.

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	27	39	95	212	373
Excluded from analysis	0	0	0	0	0
Numerator	-	-	3	18	21
Not recorded for numerator	-	-	2	0	2
Denominator	-	-	6	19	25
Not recorded for exclusion	-	-	0	0	0
Not recorded for denominator	-	-	0	0	0
<b>% Performance</b>	<b>N/A</b>	<b>N/A</b>	<b>50.0</b>	<b>94.7</b>	<b>84.0</b>

**Comment:**

**Fife:** The QPI target was not met showing a shortfall of 40% (3 cases) 1 patient did not have a lymph node dissection in view of significant blood loss. 2 were not recorded for numerator as there was no reference to the level of lymph node dissection within the op note.

It should be noted that as per SCAN Clinical Lead's instructions at last year's regional sign-off meeting (as confirmed in the 2019-20 Comparative Audit Report), only the cystectomy operation note has been used to evaluate compliance of this QPI.



## QPI 7i – Time to Treatment (radical) - 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.

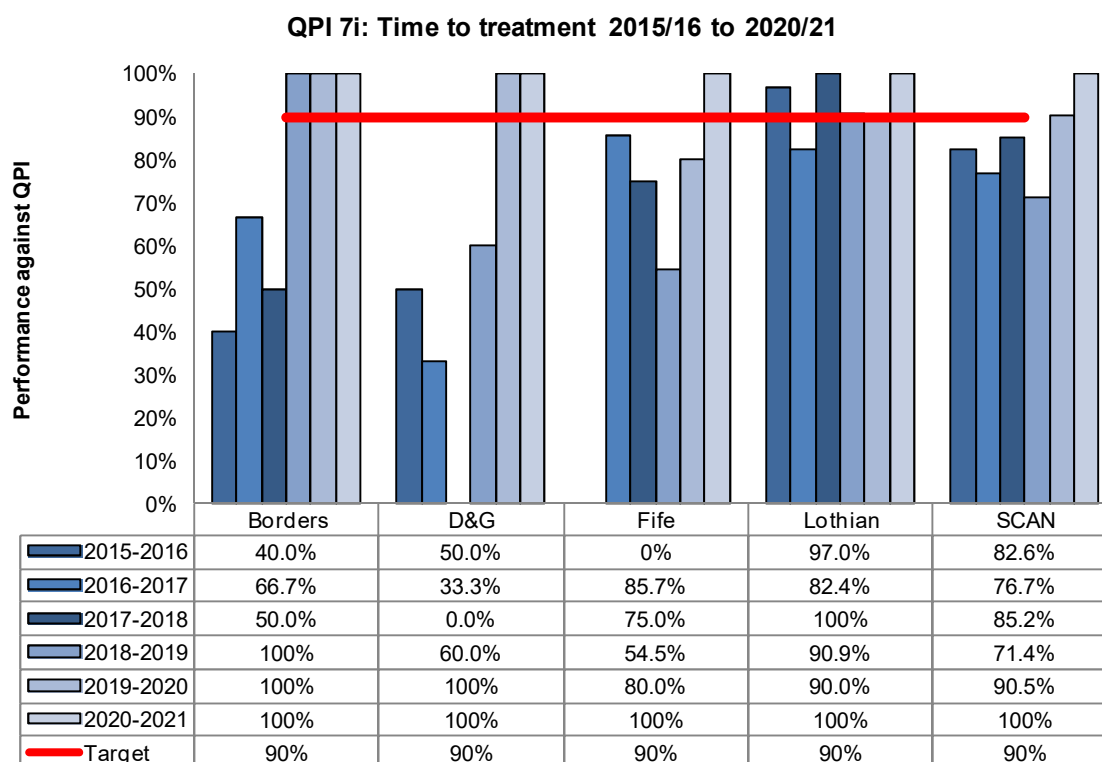
Denominator = All patients with MIBC undergoing radical treatment (Radical cystectomy or radiotherapy). (No exclusions)

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
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	27	40	99	183	349
Excluded from analysis	0	0	0	19	19
Numerator	1	3	2	24	30
Not recorded for numerator	0	0	0	0	0
Denominator	1	3	2	24	30
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

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

**Comment:** 4 Fife patients had radical surgery post TURBT and no record was kept or mention made of muscle invasive disease at TURBT1, TURBT2, CT staging investigations or at MDT discussion. No date for muscle invasive bladder cancer was recorded thus these 4 were not included in this QPI denominator.



**QPI 7ii – Time to Treatment (neoadjuvant) - 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).

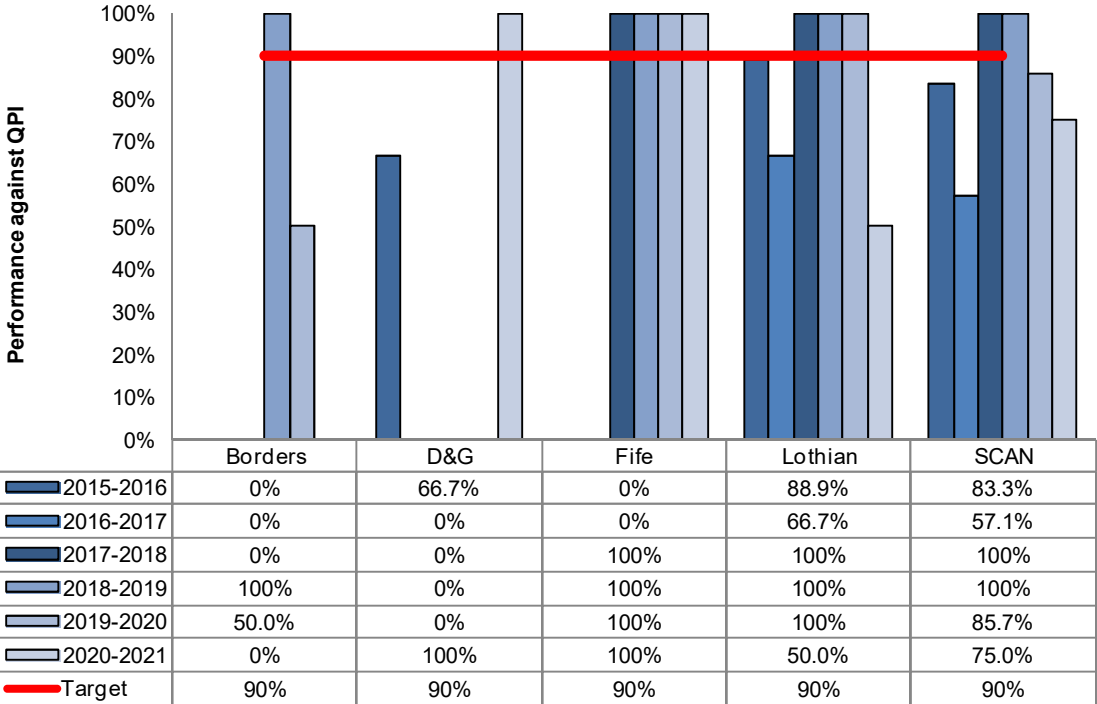
The tolerance within this target accounts for situations where patients are not fit enough to undergo treatment within required timescales, due to other medical conditions.

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	28	40	100	222	390
Excluded from analysis	0	0	0	0	0
Numerator	0	3	1	2	6
Not recorded for numerator	0	0	0	0	0
Denominator	0	3	1	4	8
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>N/A</b>	<b>100</b>	<b>100</b>	<b>50.0</b>	<b>75.0</b>

**Comment:**

**Lothian:** The QPI target was not met showing a shortfall of 40% (2 cases). 1 missed the prescribed timeline with 2 days. 1 had radical radiotherapy only and neoadjuvant chemotherapy was not offered on clinical grounds. No action was identified.

**QPI 7ii: Time to treatment 2015/16 to 2020/21**



**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.

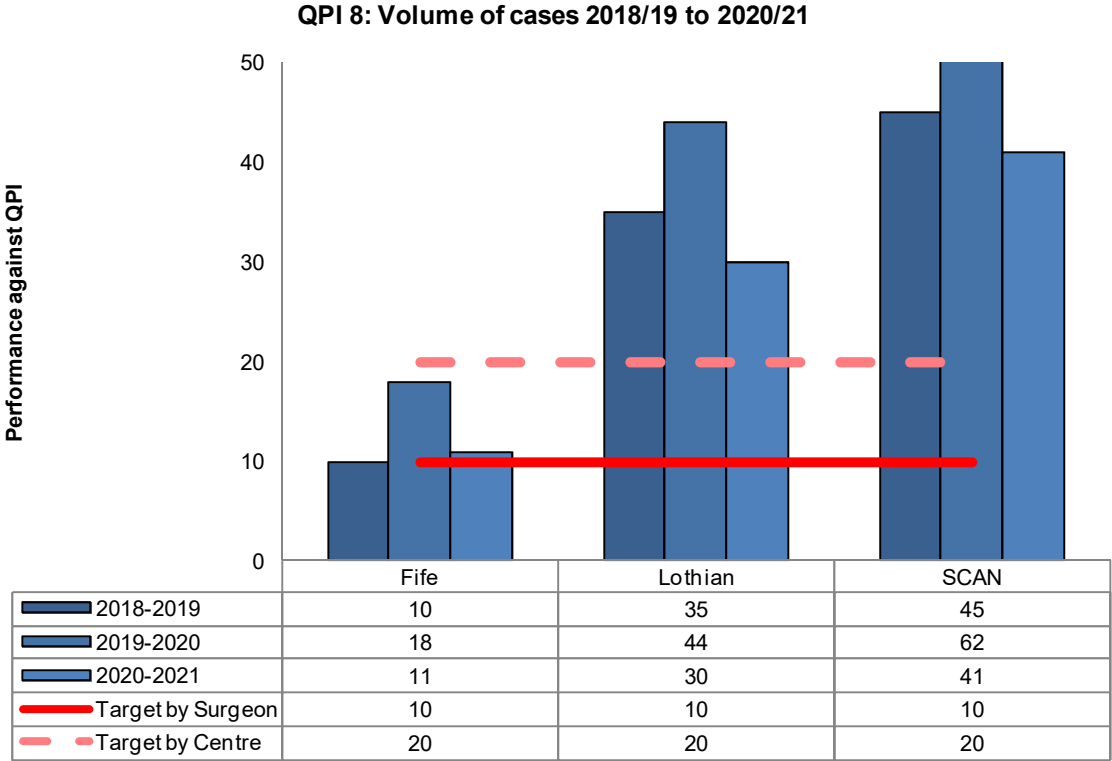
Numerator = Number of radical cystectomy procedures performed by each surgeon in a given year (no exclusions).

All cystectomies are carried out in Fife and Lothian.

Board of Surgery*	Surgeon	Number of radical cystectomies
NHS Fife	A	11
NHS Lothian	B	30

\*Data supplied by PHS SMR01 returns.

Action: None identified



## 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.

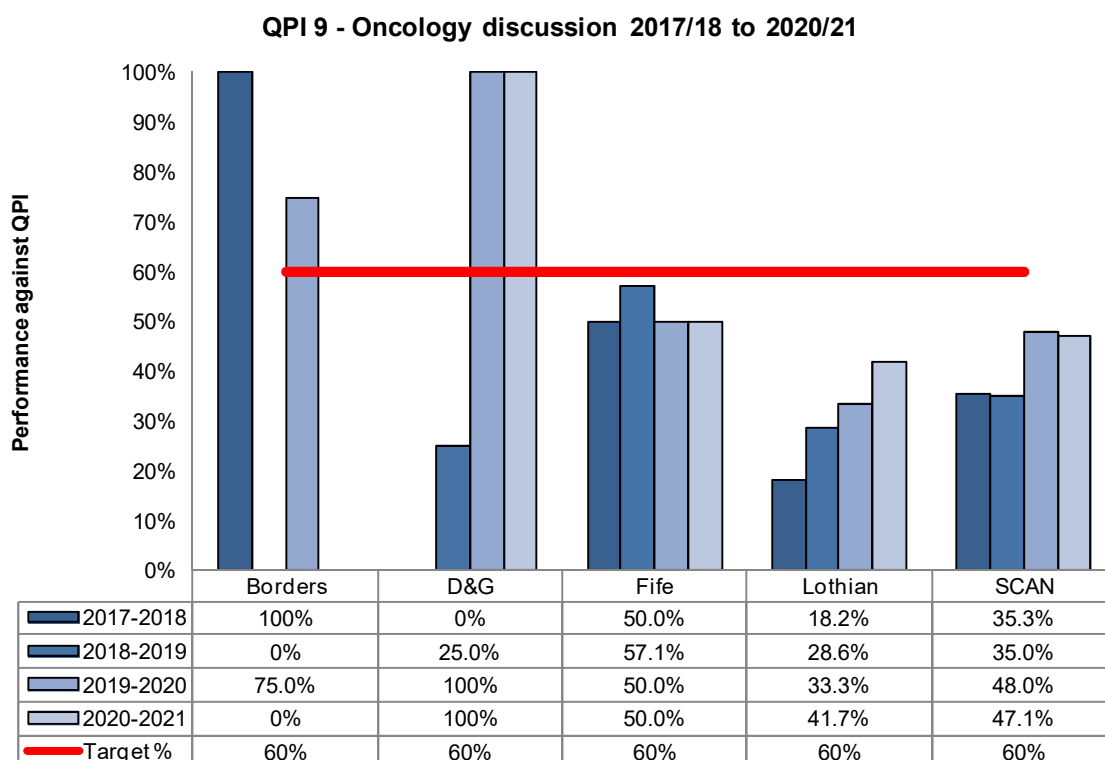
Denominator = All patients with muscle invasive bladder cancer who undergo radical cystectomy (no exclusions)

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
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	27	41	99	214	381
Excluded from analysis	0	0	0	0	0
Numerator	0	2	1	5	8
Not recorded for numerator	0	0	0	0	0
Denominator	1	2	2	12	17
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>0</b>	<b>100</b>	<b>50.0</b>	<b>41.7</b>	<b>47.1</b>

**SCAN Oncology Comment:** These patients always get discussed in MDM 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:** Given the small numbers involved, no action was 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. Excluding 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.

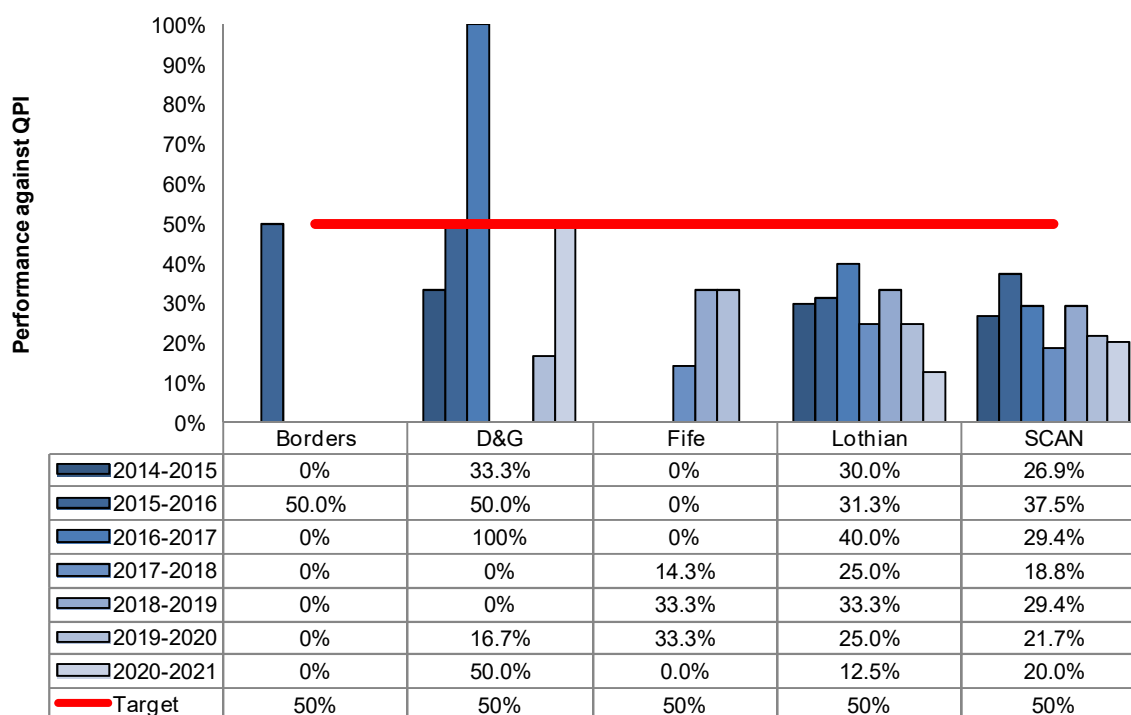
Target 50%	Borders	D&G	Fife	Lothian	SCAN
2020-21 cohort	28	43	101	226	398
Ineligible for analysis	28	39	101	210	378
Excluded from analysis	0	0	0	0	0
Numerator	0	2	0	2	4
Not recorded for numerator	0	0	0	0	0
Denominator	0	4	0	16	20
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
<b>% Performance</b>	<b>N/A</b>	<b>50.0</b>	<b>N/A</b>	<b>12.5</b>	<b>20.0</b>

### Comment:

**Lothian:** The QPI target was not met showing a shortfall of 37.5% (14 cases). All were medically assessed and found to be either unfit for combination treatment of chemotherapy and radiotherapy, or the combined option was found not to be in the best interest of patient due to toxicity or patient's overall performance status.

**Action:** None identified.

QPI 10: Radical radiotherapy with Chemotherapy 2014/15 to 2020/21





## 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
2020 - 2021 cohort	28	43	101	226	398
Ineligible for analysis	27	39	95	212	373
Excluded from analysis	0	0	0	0	0
Numerator – Surgery	-	-	0	0	0
Denominator – Surgery	-	-	6	19	25
<b>% Performance</b>	<b>N/A</b>	<b>N/A</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Radiotherapy** – Presented by Board of diagnosis

Target <3%	Borders	D&G	Fife	Lothian	SCAN
2020 - 2021 cohort	28	43	101	226	398
Ineligible for analysis	28	39	100	210	377
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	0	0
Denominator	0	4	1	16	21
<b>% Performance</b>	<b>N/A</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Chemotherapy** – Presented by Board of diagnosis

Target <3%	Borders	D&G	Fife	Lothian	SCAN
2020 - 2021 cohort	28	43	101	226	398
Ineligible for analysis	28	40	100	220	388
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	0	0
Denominator	0	3	1	6	10
<b>% Performance</b>	<b>N/A</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## 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
2020 - 2021 cohort	28	43	101	226	398
Ineligible for analysis	27	39	95	212	373
Excluded from analysis	0	0	0	0	0
Numerator – Surgery	-	-	0	2	2
Denominator – Surgery	-	-	6	19	25
<b>% Performance</b>	<b>N/A</b>	<b>N/A</b>	<b>0</b>	<b>10.5</b>	<b>8.0</b>

### Comment:

**Lothian:** The QPI target was not met showing a shortfall of 5.6% (2 cases) 1 had rapid disease progression post-surgery and aggressive type disease from the outset. 1 had an emergency admission for acute kidney injury and had a cardiac arrest on day of discharge from hospital.

**Radiotherapy** – Presented by Board of diagnosis

Target <5%	Borders	D&G	Fife	Lothian	SCAN
2020- 2021 cohort	28	43	101	226	398
Ineligible for analysis	28	39	100	211	378
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	1	1
Denominator	0	4	1	15	20
<b>% Performance</b>	<b>N/A</b>	<b>0</b>	<b>0</b>	<b>6.7</b>	<b>5.0</b>

### Comment:

**Lothian:** The QPI target was not met showing a shortfall of 1.8% (1 case) Rapid progression of metastatic disease post radiotherapy.

**Chemotherapy** – Presented by Board of diagnosis

Target <5%	Borders	D&G	Fife	Lothian	SCAN
2020 - 2021 cohort	28	43	101	226	398
Ineligible for analysis	28	40	100	221	389
Excluded from analysis	0	0	0	0	0
Numerator	0	0	0	0	0
Denominator	0	3	1	5	9
<b>% Performance</b>	<b>N/A</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

### 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 from SCRN database.

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

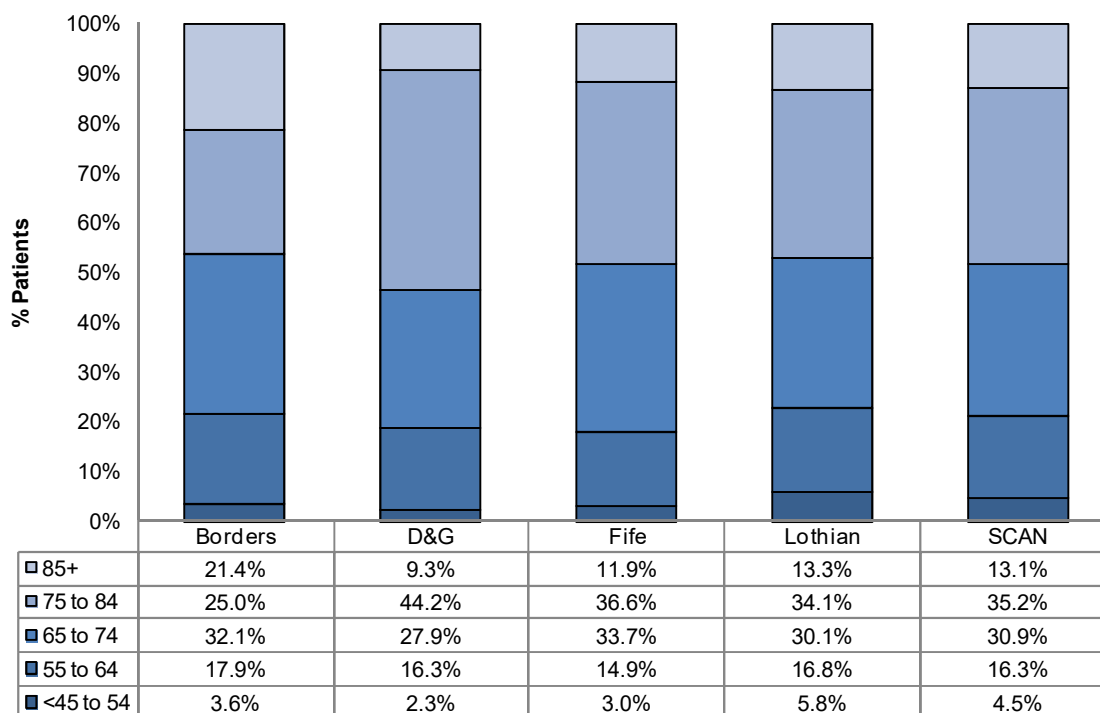
<b>Trials Target 15%</b>	<b>Borders</b>	<b>D&amp;G</b>	<b>Fife</b>	<b>Lothian</b>	<b>SCAN</b>
Numerator	1	2	0	10	13
Denominator	19	30	61	118	228
<b>% Performance</b>	<b>5.3</b>	<b>6.7</b>	<b>0</b>	<b>8.5</b>	<b>5.7</b>

<b>Trials in 2020</b>	<b>Number consented</b>
Biobank SR1418	9
MK6482-005	2
Quality of Life After Bladder Cancer (Q-ABC). V1.0	2

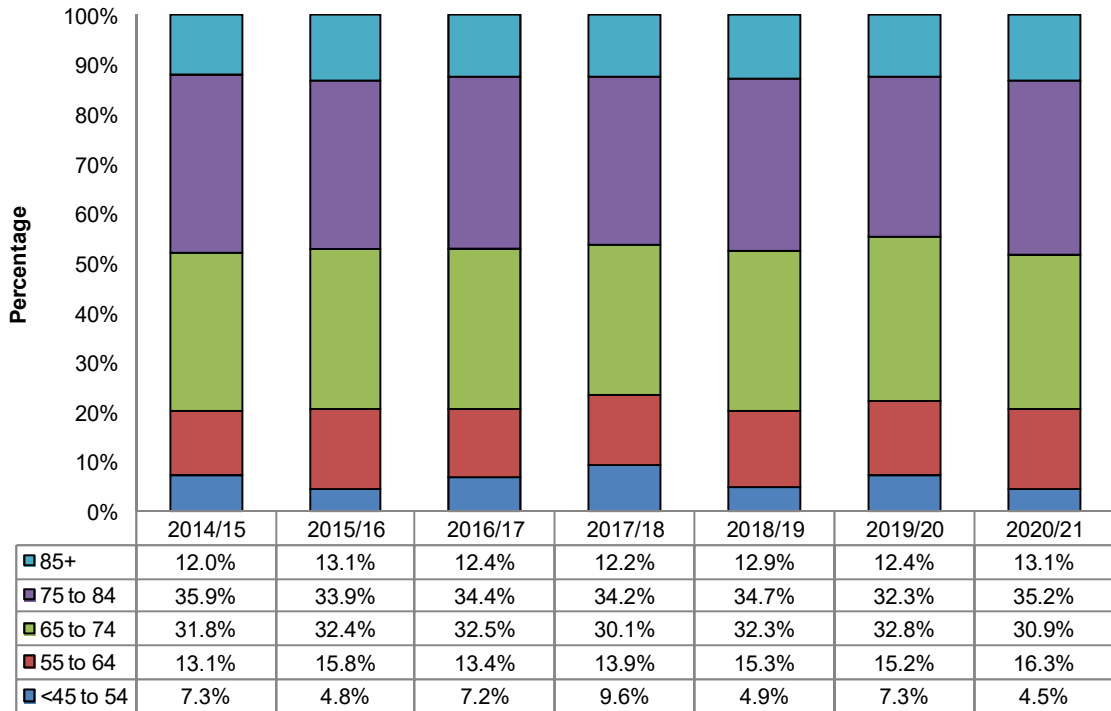
## Age and Gender Analysis

Age and Gender Analysis		Borders	D&G	Fife	Lothian	SCAN
Under 45	M	1	0	1	3	5
	F	0	0	0	0	0
45 - 49	M	0	0	1	3	4
	F	0	0	1	0	1
50 - 54	M	0	1	0	3	4
	F	0	0	0	4	4
55 - 59	M	2	4	2	9	17
	F	0	0	2	2	4
60 - 64	M	2	1	8	20	31
	F	1	2	3	7	13
65 - 69	M	2	4	12	23	41
	F	2	0	4	5	11
70 - 74	M	4	6	13	30	53
	F	1	2	5	10	18
75 - 79	M	4	9	16	35	64
	F	0	0	2	7	9
80 - 84	M	3	9	14	26	52
	F	0	1	5	9	15
85+	M	6	3	7	19	35
	F	0	1	5	11	17
Total	M	24	37	74	171	306
	F	4	6	27	55	92

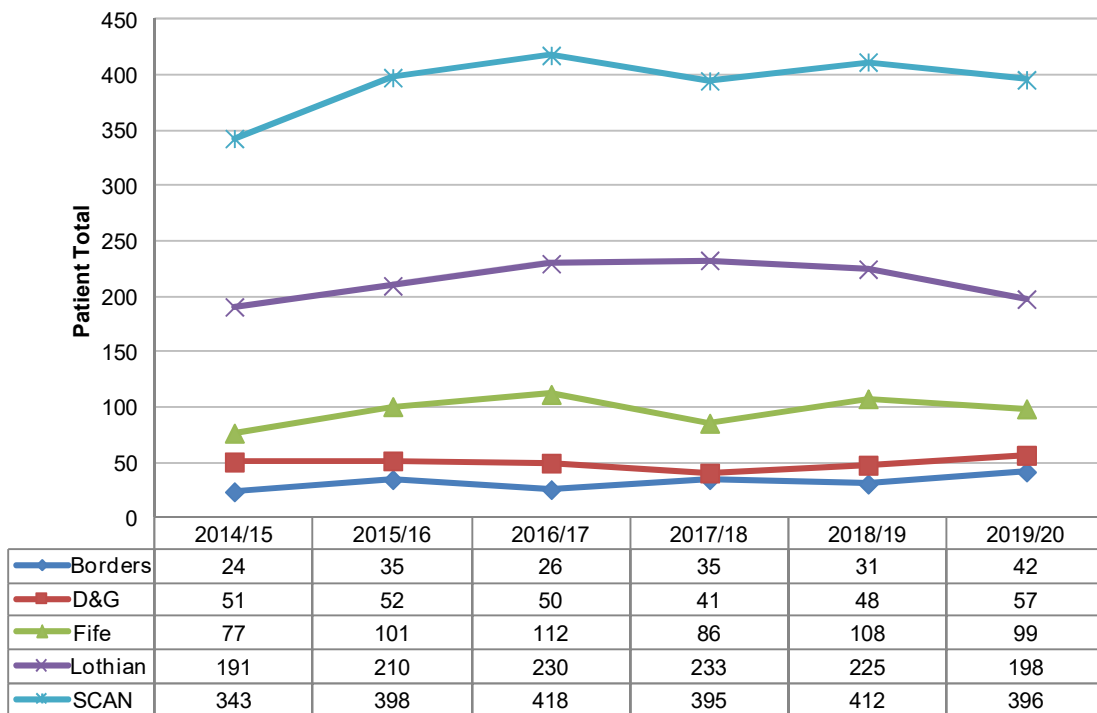
## Age at Diagnosis 2020/21



### Age at Diagnosis - SCAN Total over 7 years



### New Bladder Cancer totals by Year of Diagnosis



Bladder Cancer QPI Attainment Summary 2019-20		Target%	Borders			D&G			Fife			Lothian			SCAN		
QPI 1: MDT Discussion	Before definitive treatment (MIBC)	95	N 10 D 10	100%	N 15 D 15	100%	N 26 D 26	100%	N 55 D 56	98.2%	N 106 D 107	99.1%					
	NMIBC discussed at the MDT after histological confirmation of NMIBC	95	N 30 D 31	96.8%	N 39 D 39	100%	N 64 D 64	100%	N 115 D 116	99.1%	N 248 D 250	99.2%					
QPI 2: Quality of TURBT at initial resection	Detailed description with tumour location, size, number, appearance	95	N 38 D 39	97.4%	N 22 D 48	45.8%	N 63 D 69	91.3%	N 145 D 152	95.4%	N 268 D 308	87.0%					
	Where the resection is documented as complete or not	95	N 38 D 39	97.4%	N 43 D 48	89.6%	N 63 D 69	91.3%	N 145 D 152	95.4%	N 289 D 308	93.8%					
	Where detrusor muscle is included in the specimen at initial TURBT.	80	N 33 D 35	94.3%	N 37 D 47	78.7%	N 47 D 64	73.4%	N 113 D 147	76.9%	N 230 D 293	78.5%					
QPI 3: Mitomycin C following TURBT		60	N 17 D 31	54.8%	N 8 D 42	19.0%	N 39 D 65	60.0%	N 81 D 126	64.3%	N 145 D 264	54.9%					
QPI 4: Early TURBT	All T1 or Ta where multifocal or >3cm NMIBC to have re TURBT within 42 days from TURBT1	80	N 1 D 10	10.0%	N 1 D 16	6.3%	N 1 D 24	4.2%	N 0 D 45	0%	N 3 D 95	3.2%					
	HG or LG G2 NMIBC with no Detrusor muscle at TURBT1 to have re TURBT in 42 days	80	N 0 D 2	0%	N 0 D 9	0%	N 2 D 17	11.8%	N 1 D 23	4.3%	N 3 D 51	5.9%					
	NMIBC where resection was incomplete at TURBT1 to have re TURBT in 42 days.	80	N 0 D 2	0%	N 0 D 3	0%	N 1 D 4	25.0%	N 1 D 12	8.3%	N 2 D 21	9.5%					
QPI 5: Pathology Reporting: reported according to the guidelines by the RCPATH	TURBT	90	N 38 D 39	97.4%	N 52 D 54	96.3%	N 84 D 88	95.5%	N 156 D 163	95.7%	N 330 D 344	95.9%					
	Cystectomy	90	Presented by Board of surgery			N 10 D 11	90.9%	N 28 D 28	100%	N 38 D 39	97.4%						
QPI 6: Lymph Node Yield. Pelvic lymph node dissection to at least level 2 undertaken at radical cystectomy		90	Presented by Board of surgery			N 9 D 10	90.0%	N 27 D 28	96.4%	N 36 D 38	94.7%						
QPI 7: Time to Treatment (MIBC)	Radical treatment within 3 months of diagnosis of MIBC	90	N 4 D 4	100%	N 8 D 8	100%	N 8 D 10	80.0%	N 18 D 20	90.0%	N 38 D 42	90.5%					
	Cystectomy or chemoradiotherapy within 8 weeks of neoadjuvant chemotherapy	90	N 1 D 2	50.0%	N 0 D 0	N/A	N 1 D 1	100%	N 4 D 4	100%	N 6 D 7	85.7%					
QPI 8: Volume of Cases / Surgeon: number of radical cystectomy procedures performed by a surgeon over a 1 year.		≥20	1 Surgeon met the QPI Target in SCAN.														

Bladder Cancer QPI Attainment Summary 2019-20		Target%	Borders		D&G		Fife		Lothian		SCAN	
QPI 9: Oncological Discussion: MIBC patients who had radical surgery who met with an oncologist prior to radical cystectomy.		60	N 3 D 4	75.0%	N 1 D 1	100%	N 4 D 8	50.0%	N 4 D 12	33.3%	N 12 D 25	48.0%
QPI 10 Patients with TCC of the bladder (stageT2-T4) undergoing radical radiotherapy who receive concomitant chemotherapy.		50	N 0 D 2	0%	N 1 D 6	16.7%	N 1 D 3	33.3%	N 3 D 12	25.0%	N 5 D 23	21.7%
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 1 D 28	3.6%	N 1 D 38	2.6%	
	Radiotherapy	<3	N 0 D 2	0%	N 0 D 7	0%	N 0 D 7	0%	N 0 D 12	0%	N 0 D 28	0%
	Chemotherapy	<3	N 0 D 2	0%	N 0 D 1	0%	N 0 D 3	0%	N 0 D 5	0%	N 0 D 11	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 0 D 10	0%	N 1 D 27	3.7%	N 1 D 37	2.7%	
	Radiotherapy	<5	N 0 D 2	0%	N 1 D 7	14.3%	N 0 D 3	0%	N 2 D 11	18.2%	N 3 D 23	13.0%
	Chemotherapy	<5	N 0 D 2	0%	N 0 D 1	0%	N 0 D 3	0%	N 0 D 5	0%	N 0 D 11	0%
Clinical Trial Access. N = Consented to trials or research (SCRN database) D = 5 year average Cancer Registry incidence		15	N 1 D 19	5.3%	N 2 D 32	6.3%	N 1 D 60	1.7%	N 7 D 125	5.6	N 11 D 236	4.7%