West of Scotland Cancer Network

Urological Cancer
Managed Clinical Network

Audit Report

Bladder Cancer
Quality Performance Indicators

Clinical Audit Data: 01 April 2019 to 31 March 2020

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Bladder Cancer QPI Overview

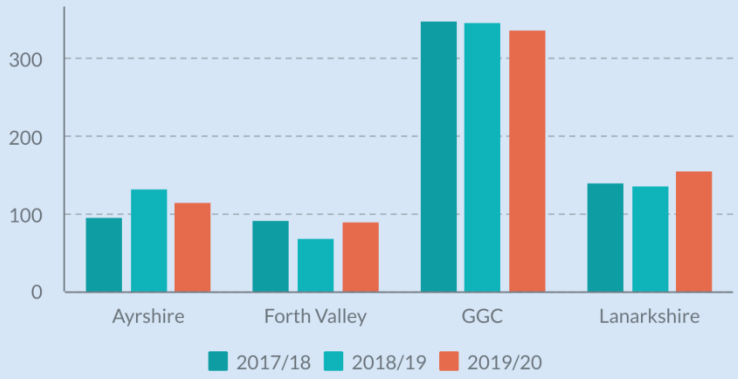
Patients diagnosed April 19 - March 20

Number of Cases Diagnosed
700

Gender Split:
Males: 70.3%
Females: 29.7%

Median Age:
Males: 73
Females: 73

Number of new Bladder Cancer Cases by Board



WoSCAN QPI Performance (%)

QPI 1: MIBC: Discussion at MDT 98.4% 95%	**QPI 1: NMIBC: Discussion at MDT** 97.5% 95%	**QPI 2 (i): Quality of TURBT: Bladder diagram** 82.9% 95%	**QPI 2(ii): Quality of TURBT: Complete Resection** 96.2% 95%	**QPI 2(iii): Quality of TURBT: Detrusor Muscle** 78.9% 80%	**QPI 3: Mitomycin following TURBT** 60.8% 60%
QPI 4(i): Early TURBT: T1 or select high grade Ta NMIBC 30.2% 80%	**QPI 4(ii): Early TURBT: High grade or low grade G2 NMIBC** 15% 80%	**QPI 4(iii): Early TURBT: NMIBC where initial resection is incomplete** 31.8% 80%	**QPI 5 (i): Pathology Reporting: TURBT** 98.4% 90%	**QPI 5(ii): Pathology Reporting: Cystectomy** 98.0% 90%	**QPI 6: Lymph Node Yield** 100% 90%
QPI 7(i): Time to Radical Treatment 91.7% 90%	**QPI 7(ii): Time to Neo-adjuvant Chemotherapy** 69.0% 90%	**QPI 8: Volume of Cases per Surgeon** 3 Met 7 Not Met	**QPI 9: Oncological Discussion** 48.1% 60%	**QPI 10: Radical Radiotherapy with Chemotherapy** 20.0% 50%	**QPI 11: Surgical 30 Day Mortality** 0.0% <3%
QPI 11: Radiotherapy 30 Day Mortality 0.0% <3%	**QPI 11: Surgical 90 Day Mortality** 0.0% <5%	**QPI 11: Radiotherapy 90 Day Mortality** 1.6% <5%	**QPI 12: Clinical Trials** 5.6% 15%		

Key Achievements

QPI results indicate that overall, the quality of bladder cancer services across the WoS is good. Particular areas of note include:

- QPI 1: 98% of patients were discussed at MDT before definitive treatment.
- QPI 5: A high rate of compliance with pathology reporting in line with Royal College of Pathology Guidance, with 3 Boards achieving 100%.
- QPI 6: Meticulous lymph node dissection was performed in 100% of radical cystectomy cases.
- Zero mortality at 30 and 90 days following surgery and low mortality rates following radiotherapy with a single death within 90 days.

Executive Summary

Introduction

This report contains an assessment of the performance of West of Scotland (WoS) urological cancer services using clinical audit data relating to patients diagnosed with bladder cancer in the twelve months between 01 April 2019 and 31 March 2020.

In order to ensure the success of the Cancer QPIs (Quality Performance Indicators) in driving quality improvement in cancer care, QPIs will continue to be assessed for clinical effectiveness and relevance. The initial formal review of Bladder Cancer QPIs took place in 2018. With six years of reporting now complete, a second cycle of review has commenced in March 2021. This clinically led review aims to identify potential refinements to the current QPIs and involves key clinicians from each of the Regional Cancer Networks. The review will focus on any significant changes to the QPIs that are required due to changes in evidence or clinical practice.

Background

A total of 700 cases of bladder cancer were recorded through audit as diagnosed in the WoS between 01 April 2019 and 31 March 2020. Male cases accounted for over two thirds of all new WoS bladder cancer diagnoses (70.3%) captured by audit between April 2019 and March 2020. The majority of new cases of bladder cancer diagnosed in WoS occurred in people within older age groups with over three quarters of cases occurring in those over the age of 65 years at time of diagnosis (74.9%).

The configuration of the urological cancer MDTs in WoS is set out below and each MDT convenes on a weekly basis.

MDT	Constituent Hospitals
Ayrshire & Arran	Ayr Central Hospital, Crosshouse Hospital
Pan Glasgow	(i) Glasgow Royal Infirmary, Stobhill ACH (ii) Gartnavel General Hospital, Queen Elizabeth University Hospital, New Victoria ACH
Clyde	Inverclyde Royal Hospital, Royal Alexandra Hospital, Vale of Leven District General
Forth Valley	Forth Valley Royal Hospital
Lanarkshire	Hairmyres Hospital, Monklands Hospital, Wishaw Hospital

Methodology

Further detail on the audit and analysis methodology and data quality is available in the meta data within Appendix 1.

Results

The overall case ascertainment for bladder cancer in WoS is 94.7%, which indicates excellent data capture through audit.

A summary of the Bladder Cancer QPIs (QPI 1 to 12) for 2019/20 clinical audit data is presented below, with a more detailed analysis of the results set out in the main report. Data are analysed by location of diagnosis or treatment, and illustrate NHS Board performance against each target and overall regional performance for each performance indicator. Results are presented graphically and the accompanying tabular format also highlights any missing data and its' possible effect on any of the measured outcomes.

Where the number of cases meeting the denominator criteria for any indicator is between one and four, the percentage calculation has not been shown on any associated charts or tables. This is to avoid any unwarranted variation associated with small numbers and to minimise the risk of disclosure. Any charts or tables impacted by this restricted data are denoted with a dash (-). An asterisk (*) is used to specify a denominator of zero and to distinguish between this and a 0% performance. Any commentary provided by NHS Boards relating to the impacted indicators will however be included as a record of continuous improvement.

In accordance with the regional governance process, specific NHS Board actions are identified to address issues highlighted through data analysis.

Please note actions have been categorised into the following groupings for internal management purposes to allow regional trends to be identified, and co-ordinate regional actions across multiple tumour groups where appropriate; AHP / CNS, Capacity, Clinical documentation, Clinical Trials, Data Capture, MDT, Oncology, Other, Other diagnostic, Pathology, Performance review, Practice, QPI Definition, Radiology, Resource, Surgery, Time to Treatment, Treatment Decision and Workforce.

Summary of Bladder QPI Results – 3 Years

Colour Key		Symbol Key	
	Above QPI target	†	Analysed by Board/hospital of surgery
	Below QPI target	^	Small numbers in some Boards - percentage comparisons over a single year should be viewed with caution

Summary of the QPI results for clinical audit data. A dash (-) denotes restricted data where the denominator is less than 5. An asterisk (*) denotes data where the denominator is zero.

Bladder MCN					
Year	**AA**	**FV**	**GGC**	**LAN**	**WoSCAN**
2019 - 20	115	91	337	157	**700**
2018 - 19	134	69	348	137	**688**
2017 - 18	96	92	349	141	**678**

Quality Performance Indicator (QPI)	**Performance by NHS Board of diagnosis**						
	QPI target	**Year**	**AA**	**FV**	**GGC**	**LAN**	**WoSCAN**
QPI 1 (i): Multi-Disciplinary Team Meeting Discussion: Proportion of patients with bladder cancer who are discussed at MDT meeting before definitive treatment. *(i) MIBC*	**95%**	2019 - 20	100.0%	100.0%	99.0%	95.2%	98.4%
		2018 - 19	97.8%	100.0%	96.3%	100.0%	97.5%
		2017 - 18	100.0%	95.5%	97.2%	97.6%	97.4%
QPI 1 (ii): Multi-Disciplinary Team Meeting Discussion: Proportion of patients with bladder cancer who are discussed at MDT meeting before definitive treatment. *(i) NMIBC*	**95%**	2019 - 20	100.0%	98.4%	95.7%	98.1%	97.5%
		2018 - 19	100.0%	70.3%	95.6%	94.5%	94.1%
		2017 - 18	-	-	-	-	-
QPI 2 (i): Quality of Transurethral Resection of Bladder Tumour: Proportion of patients with bladder cancer who undergo good quality TURBT. *(i) Use of a bladder diagram / detailed description with documentation of tumour location, size, number and appearance at initial resection.*	**95%**	2019 - 20	82.7%	91.3%	78.1%	88.1%	82.9%
		2018 - 19	92.9%	69.4%	74.6%	85.8%	80.2%
		2017 - 18	100.0%	63.4%	76.0%	82.9%	79.5%
QPI 2 (ii): Quality of Transurethral Resection of Bladder Tumour: Proportion of patients with bladder cancer who undergo good quality TURBT. *(ii) Whether the resection is complete or not at initial resection*	**95%**	2019 - 20	88.8%	98.6%	99.6%	93.7%	96.2%
		2018 - 19	99.1%	87.8%	94.0%	96.7%	95.0%
		2017 - 18	100.0%	88.7%	98.5%	85.4%	94.4%

Quality Performance Indicator (QPI)	Performance by NHS Board of diagnosis						
	QPI target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 2 (iii): Quality of Transurethral Resection of Bladder Tumour: Proportion of patients with bladder cancer who undergo good quality TURBT. *(iii) Whether detrusor muscle included in the specimen at initial resection.*	**80%**	2019 - 20	71.6%	86.6%	78.9%	80.2%	78.9%
		2018 - 19	76.2%	75.0%	79.2%	80.5%	78.5%
		2017 - 18	-	-	-	-	-
QPI 3: Mitomycin C Following Transurethral Resection of Bladder Tumour: Proportion of patients with NMIBC who undergo TURBT who receive a single instillation of mitomycin C within 24 hours of resection.	**60%**	2019 - 20	63.8%	34.4%	70.2%	52.9%	60.8%
		2018 - 19	72.6%	63.2%	78.4%	58.3%	71.7%
		2017 - 18	88.9%	50.9%	68.1%	74.4%	70.6%
QPI 4 (i): Early Re-Transurethral Resection of Bladder Tumour: Proportion of patients who have undergone TURBT with high grade 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. *(i) With T1 (all grades) or select high grade Ta NMIBC*	**80%**	2019 - 20	9.7%	36.4%	40.9%	19.5%	30.2%
		2018 - 19	18.8%	25.0%	31.3%	24.1%	26.8%
		2017 - 18	-	-	-	-	-
QPI 4 (ii): Early Re-Transurethral Resection of Bladder Tumour: Proportion of patients who have undergone TURBT with high grade 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. *(ii) With high grade or low grade G2 NMIBC where detrusor muscle absent from specimen.*	**80%**	2019 - 20	8.3%	0.0%	21.3%	14.3%	15.0%
		2018 - 19	17.4%	9.1%	8.3%	11.1%	11.0%
		2017 - 18	-	-	-	-	-
QPI 4 (iii): Early Re-Transurethral Resection of Bladder Tumour: Proportion of patients who have undergone TURBT with high grade 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. *(iii) With NMIBC where initial resection is incomplete.*	**80%**	2019 - 20	50.0%	100.0%	33.3%	0.0%	31.8%
		2018 - 19	50.0%	0.0%	33.3%	33.3%	31.3%
		2017 - 18	-	-	-	-	-
QPI 5(i): Pathology Reporting (TURBT): Proportion of patients with bladder cancer who undergo TURBT reported according to the guidelines provided by the Royal College of Pathology for the reporting of these specimens.	**90%**	2019 - 20	92.0%	100.0%	99.7%	100.0%	98.4%
		2018 - 19	94.5%	98.2%	98.2%	100.0%	97.8%
		2017 - 18	82.8%	100.0%	99.1%	96.9%	96.3%

QPI 5(ii): Pathology Reporting (Cystectomy): Proportion of patients with bladder cancer who undergo cystectomy reported according to the guidelines provided by the Royal College of Pathology for the reporting of these specimens.	**90%**	2019 - 20	100.0%	100.0%	100.0%	91.7%	98.0%
		2018 - 19	100.0%	83.3%	100.0%	100.0%	98.4%
		2017 - 18	87.5%	100.0%	100.0%	100.0%	98.1%
QPI 6: Lymph Node Yield: Proportion of 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.	**90%**	2019 - 20	100.0%	100.0%	100.0%	81.8%	96.0%
		2018 - 19	92.3%	100.0%	96.8%	90.0%	95.0%
		2017 - 18	-	-	-	-	-
QPI 7 (i): Time To Treatment: Proportion of patients with MIBC who commence radical treatment within 3 months of their diagnosis of MIBC, or within 8 weeks of completing treatment where patients are undergoing neoadjuvant chemotherapy. *(i) Radical treatment (cystectomy or radiotherapy)*	**90%**	2019 - 20	100.0%	100.0%	93.9%	81.3%	91.7%
		2018 - 19	62.5%	57.1%	85.0%	100.0%	76.0%
		2017 - 18	100.0%	85.7%	95.8%	100.0%	95.8%
QPI 7 (ii): Time To Treatment: Proportion of patients with MIBC who commence radical treatment within 3 months of their diagnosis of MIBC, or within 8 weeks of completing treatment where patients are undergoing neoadjuvant chemotherapy. *(ii) Neoadjuvant chemotherapy*	**90%**	2019 - 20	50.0%	50.0%	73.3%	75.0%	69.0%
		2018 - 19	71.4%	50.0%	94.4%	85.7%	85.3%
		2017 - 18	60.0%	100.0%	54.5%	78.6%	67.7%
QPI 8: Volume of Cases per Surgeon: Number of radical cystectomy procedures performed by a surgeon over a 1 year period (SMR01 data).	**Min 10 per year**	2019 - 20	1 MET	2 NOT MET	2 MET 3 NOT MET	2 NOT MET	3 MET 7 NOT MET
		2018 - 19	1 MET 3 NOT MET	0 MET 1 NOT MET	2 MET 3 NOT MET	0 MET 3 NOT MET	3 MET 10 NOT MET
		2017 - 18	2 NOT MET	1 MET	1 MET 8 NOT MET	1 MET 8 NOT MET	3 MET 18 NOT MET
QPI 9: Oncological Discussion: Proportion of patients with muscle invasive bladder cancer who had radical surgery who met with an oncologist prior to radical cystectomy	**60%**	2019 - 20	na	0.0%	56.3%	66.7%	48.1%
		2018 - 19	33.3%	40.0%	53.3%	100.0%	51.4%
		2017 - 18	100.0%	50.0%	76.9%	77.8%	75.8%
QPI 10: Radical Radiotherapy with Chemotherapy: Proportion of patients with transitional cell carcinoma of the bladder (T2-T4) undergoing radical radiotherapy receiving concomitant chemotherapy.	**50%**	2019 - 20	30.0%	0.0%	27.6%	0.0%	20.0%
		2018 - 19	22.2%	25.0%	27.3%	0.0%	20.9%
		2017 - 18	0.0%	100.0%	15.8%	0.0%	9.8%

QPI 11 – 30 Day Mortality - Surgery Proportion of patients with bladder cancer who die within 30 days of treatment with curative intent (radical cystectomy, radiotherapy and chemotherapy) for bladder cancer.	**<5%**	2019 - 20	0.0%	0.0%	0.0%	0.0%	0.0%
		2018 - 19	7.1%	0.0%	0.0%	0.0%	1.6%
		2017 - 18	12.5%	0.0%	4.3%	0.0%	4.0.%
QPI 11 – 30 Day Mortality - Radiotherapy Proportion of patients with bladder cancer who die within 30 days of treatment with curative intent (radical cystectomy, radiotherapy and chemotherapy) for bladder cancer.	**15%**	2019 - 20	0.0%	0.0%	0.0%	0.0%	0.0%
		2018 - 19	0.0%	0.0%	0.0%	0.0%	0.0%
		2017 - 18	0.0%	0.0%	0.0%	0.0%	0.0%
QPI 11 – 90 Day Mortality - Surgery Proportion of patients with bladder cancer who die within 30 days of treatment with curative intent (radical cystectomy, radiotherapy and chemotherapy) for bladder cancer.	**<5%**	2019 - 20	0.0%	0.0%	0.0%	0.0%	0.0%
		2018 - 19	7.7%	0.0%	0.0%	0.0%	1.7%
		2017 - 18	12.5%	0.0%	8.7%	0.0%	6.1%
QPI 11 – 90 Day Mortality - Radiotherapy Proportion of patients with bladder cancer who die within 30 days of treatment with curative intent (radical cystectomy, radiotherapy and chemotherapy) for bladder cancer.	**<5%**	2019 - 20	0.0%	0.0%	2.9%	0.0%	1.6%
		2018 - 19	0.0%	0.0%	4.3%	0.0%	2.1%
		2017 - 18	0.0%	0.0%	4.0%	0.0%	2.0%
Clinical Trials 2018: Proportion of patients diagnosed with bladder cancer who are consented for a clinical trial / research study.	**15%**	2019 - 20	0.8%	2.0%	8.8%	3.5%	5.6%
		2018 - 19	1.6%	2.0%	4.6%	0.7%	3.3%
		2017 - 18	-	-	-	-	-

Conclusions and Action Required

Cancer audit has underpinned much of the regional development and service improvement work of the MCN and the regular reporting of activity and performance have been fundamental in assuring the quality of care delivered across the region. Following the development of QPIs, this has now become an established national programme to drive continuous improvement and ensure equity of care for patients across Scotland.

QPI results indicate that overall, the quality of bladder cancer services across the WoS is good. Particular areas of note include:

- QPI 1: 98% of patients were discussed at MDT before definitive treatment.
- QPI 5: A high rate of compliance with pathology reporting in line with Royal College of Pathology Guidance, with 3 Boards achieving 100%.
- QPI 6: Meticulous lymph node dissection was performed in 100% of radical cystectomy cases.
- Zero mortality at 30 and 90 days following surgery and low mortality rates following radiotherapy.

In line with the agreed regional governance process, each NHS Board was asked to complete a Performance Summary Report (PSR), providing detailed comments where QPI targets were not met. In the main, feedback from the Boards indicates valid clinical reasons or that, in some cases, patient choice or co-morbidities have influenced patient management. Additionally, these Boards have indicated where positive action has already been taken at a local level to address any issues highlighted through the QPI data analysis. It is anticipated that these positive changes will result in improved performance going forward.

The MCN will actively take forward regional actions identified and NHS Boards are asked to develop local Action/Improvement Plans in response to the findings presented in the report. A summary of actions for each NHS Board has been included within the Action Plan templates in Appendix I.

Action required:

QPI 2(ii) - Quality of Transurethral Resection of Bladder Tumour

- The MCN will recommend the re-examination of the bladder diagram at Formal Review to ensure that only the most relevant key clinical items are highlighted as mandatory to help with compliance.
- MCN to support the onward progress and adoption of TRAK developments with a digital proforma.

QPI 3 – Mitomycin C Following Transurethral Resection of Bladder Tumour

- MCN to discuss ahead of Formal Review, whether QPI 2iii exclusions or target could be amended to avoid the possibility of potentially driving negative practice in terms of more aggressive resection to obtain muscle in low grade lesions, as this could result in perforation and missed opportunity for post-operative Mitomycin-C.

QPI 4 - Early Re-Transurethral Resection of Bladder Tumour

- Clinicians in NHSGGC have developed a protocol to ensure the flagging up of high risk pathology and early discussion in the MDT. It is recommended that this good practice is shared with a view to adoption across the region.
- The MCN, at the national formal review of bladder QPIs, will recommend a change to align the QPI to guidelines by removing Ta G2 tumours from this QPI and thereby focussing the resource on the most time crucial cases.

QPI 10 - Radical Radiotherapy with Chemotherapy

- MCN to monitor the development of the new service being led by the clinical team in radiation oncology at BWoSCC, and MCN uro-oncology lead to provide an update to the MCN Advisory Board.

Completed Action Plans should be returned to WoSCAN within two months of publication of this report.

Progress against these plans will be monitored by the MCN Steering Group and any service or clinical issue which the Steering Group considers not to have been adequately addressed will be escalated to the NHS Board Territorial Lead Cancer Clinician and Regional Lead Cancer Clinician.

Additionally, progress will be reported annually to the Regional Cancer Advisory Group (RCAG) by NHS Board Territorial Lead Cancer Clinicians and MCN Clinical Leads, and nationally on a three-yearly basis to Healthcare Improvement Scotland as part of the governance processes set out in CEL 06 (2012).

1. Introduction

This report contains an assessment of the performance of West of Scotland (WoS) urological cancer services using clinical audit data relating to patients diagnosed with Bladder cancer between 1st April 2019 and 31st March 2020. Data analysed and included within this report relates to cancer of the bladder and results are measured against the Bladder Cancer Quality Performance Indicators[1]. Twelve months of data were measured against the Bladder Cancer QPIs for the sixth consecutive year.

In order to ensure the success of the Cancer QPIs in driving quality improvement in cancer care, QPIs will continue to be assessed for clinical effectiveness and relevance. The initial formal review of Bladder Cancer QPIs took place in 2018. With six years of reporting now complete, a second cycle of review commenced in March 2021. This clinically led review aims to identify potential refinements to the current QPIs and involves key clinicians from each of the Regional Cancer Networks. The review will focus on any significant changes to the QPIs that are required due to changes in evidence or clinical practice.

2. Background

Four NHS Boards across the WoS serve the 2.5 million population[3]. From this population, around 393 new cases of muscle-invasive bladder cancer (MIBC) are diagnosed each year[4]. It should be noted that non-muscle-invasive bladder cancers (NMIBC) are also included in audit figures and managed through the Multidisciplinary Teams (MDTs). There were 700 new cases of bladder cancer (MIBC and NMIBC) managed in the WoS between 01 April 2019 and 31 March 2020.

The configuration of the MDTs in WoS is set out below and each MDT convenes on a weekly basis.

MDT	Constituent Hospitals
Ayrshire & Arran	Ayr Hospital, Crosshouse Hospital
Pan Glasgow	(i) Glasgow Royal Infirmary, Stobhill Hospital (ii) Gartnavel General Hospital, Queen Elizabeth University Hospital, Victoria Infirmary
Clyde	Inverclyde Royal Hospital, Royal Alexandra Hospital, Vale of Leven District General
Forth Valley	Forth Valley Royal Hospital
Lanarkshire	Hairmyres Hospital, Monklands Hospital, Wishaw Hospital

2.1 National Context

Bladder cancer (MIBC only) accounts for 2.5% of all cancers and is the twelfth most common cancer type with 837 cases diagnosed in Scotland in 2019[4]. Incidence of bladder cancer has reduced by 10% over the last ten years[4]. There is a notable difference in incidence between the sexes with twice as many cases being diagnosed in the male population in 2019[4]. Invasive bladder cancer accounts for 3.4% of all cancer diagnoses in men and was the eighth most commonly diagnosed cancer in males in 2019. It was the fourteenth most common cancer type in females accounting for only 1.5% of all female cancer diagnoses[4].

Survival rates for bladder cancer are relatively low compared to other cancer types which are detected more easily, either due to earlier presentation or screening programmes[5]. One-year and 5-year relative survival for males diagnosed between 2007 and 2011 is 73.1% and 49.6% respectively, compared to only 58.5% and 34% respectively for females[4]. The lower survival rates amongst the female population are attributed to delays in diagnosis often due to later presentation or misdiagnosis[5]. Although bladder cancer shows a decrease in survival rates over the past 20 years, this is an artefact of a change in classification whereby some invasive bladder cancers were reclassified as non-invasive and are therefore no longer included in the survival statistics[5].

Invasive bladder cancer is the ninth most common cause of death from cancer in Scotland[4] however overall mortality rates have decreased by 6.3% from 2009 to 2019[4].

2.2 West of Scotland Context

A total of 700 cases of bladder cancer were recorded through audit as diagnosed in the WoS between 01 April 2019 and 31 March 2020. The number of patients diagnosed within each NHS Board of diagnosis is presented in Figure 1. As the largest WoS Board, 50.6% of all new cases of bladder cancer were diagnosed in NHS Greater Glasgow and Clyde (NHSGGC) which is approximately in line with population estimates for this Board[3].

Figure 1: Number of new bladder cancer cases within each NHS Board of diagnosis from 2017/19 – 2019/20.

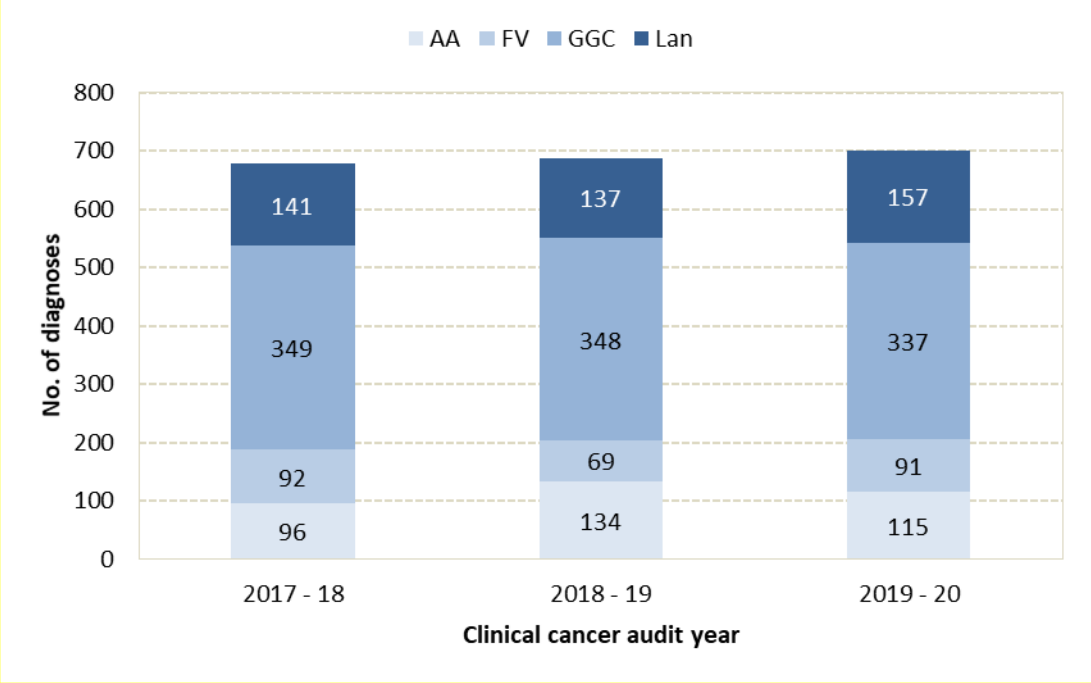
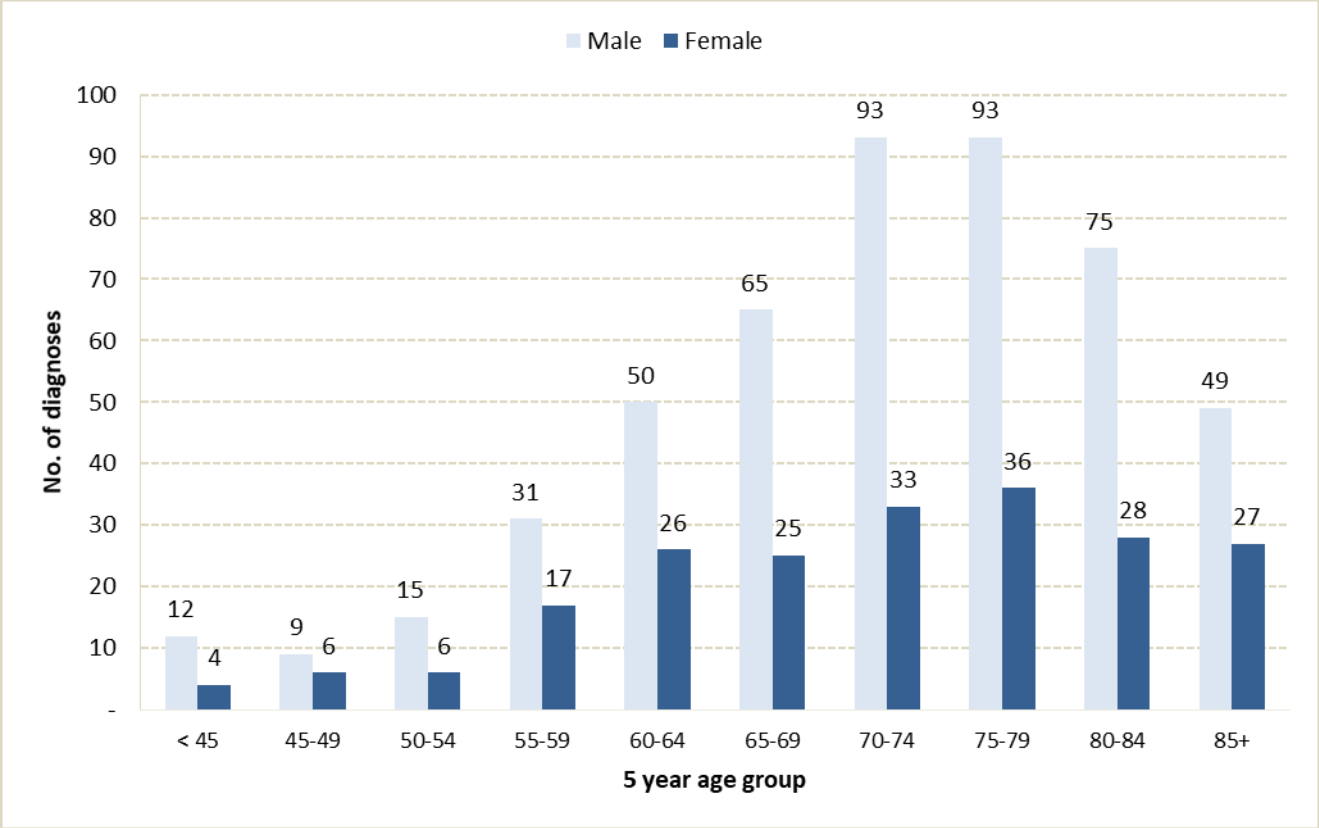


Figure 2 illustrates the distribution of the number of new diagnoses within each 5-year age group by sex for the WoS. Male cases accounted for over two thirds of all new WoS bladder cancer diagnoses (70.3%) captured by audit between 01 April 2019 and 31 March 2020. The majority of new cases of bladder cancer diagnosed in WoS occurred in people within older age groups with over three quarters of cases occurring in those over the age of 65 years at time of diagnosis (74.9%).

Fig 2: Number of patients diagnosed with bladder cancer in WoS within each 5-year age group by sex from 01 April 2019 to 31 March 2020.



3. Methodology

Further detail on the audit and analysis methodology and data quality is available in the meta data within Appendix 1.

4. Results and Action Required

4.1 Performance against Quality Performance Indicators (QPIs)

The overall case ascertainment for bladder cancer in WoS is 94.7%, which indicates excellent data capture through audit.

A summary of the Bladder Cancer QPIs (QPI 1 to 12) for 2019/20 clinical audit data is presented below. Data are analysed by location of diagnosis or treatment, and illustrate NHS Board performance against each target and overall regional performance for each performance indicator. Results are presented graphically and the accompanying tabular format also highlights any missing data and its' possible effect on any of the measured outcomes.

Where the number of cases meeting the denominator criteria for any indicator is between one and four, the percentage calculation has not been shown on any associated charts or tables. This is to avoid any unwarranted variation associated with small numbers and to minimise the risk of disclosure. Any charts or tables impacted by this restricted data are denoted with a dash (-). An asterisk (*) is used to specify a denominator of zero and to distinguish between this and a 0% performance. Any commentary provided by NHS Boards relating to the impacted indicators will however be included as a record of continuous improvement.

In accordance with the regional governance process, specific NHS Board actions are identified to address issues highlighted through data analysis.

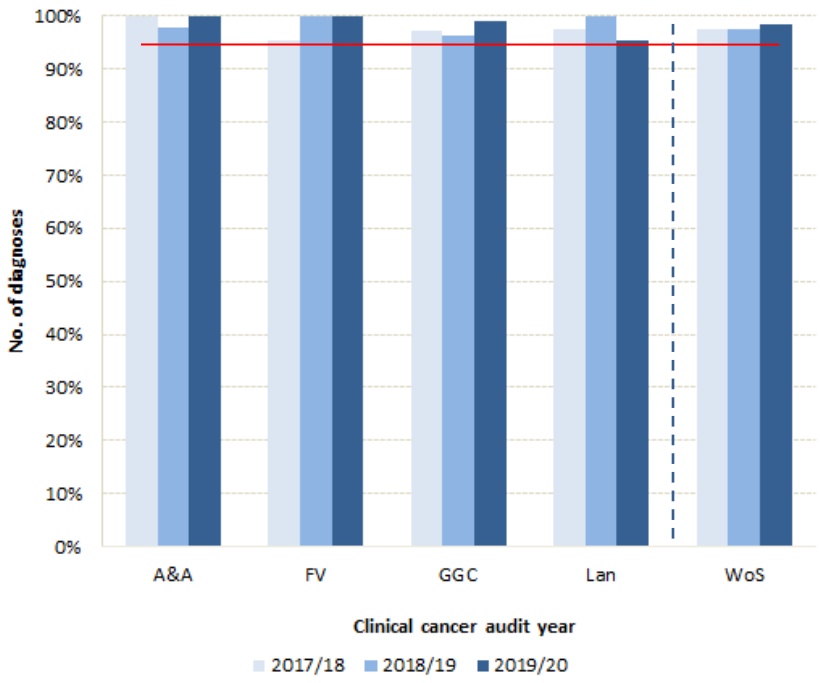
Please note actions have been categorised into the following groupings for internal management purposes to allow regional trends to be identified, and co-ordinate regional actions across multiple tumour groups where appropriate; AHP / CNS, Capacity. Clinical documentation, Clinical Trials, Data Capture, MDT, Oncology, Other, Other diagnostic, Pathology, Performance review, Practice, QPI Definition, Radiology, Resource, Surgery, Time to Treatment, Treatment Decision and Workforce

QPI 1: Multidisciplinary Team Meeting Discussion

Evidence suggests that patients with cancer managed by a multidisciplinary team have a better outcome. There is also evidence that the multidisciplinary management of patients increases their overall satisfaction with their care[1]. Discussion prior to definitive treatment decisions being made provides reassurance that patients are being managed appropriately[1].

QPI 1		Patients with bladder cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.
Description:		Proportion of patients with bladder cancer who are discussed at MDT meeting before definitive treatment.
Numerator:	i)	Number of patients with MIBC discussed at the MDT before definitive treatment (this includes: neo-adjuvant SACT, radical cystectomy, radiotherapy and supportive care only).
	ii)	Number of patients with NMIBC discussed at the MDT following histological confirmation of bladder cancer.
Denominator:	i)	All patients with MIBC.
	ii)	All patients with NMIBC
Exclusions:	i)	Patients who died before first treatment.
	ii)	None
Target:	95%	

Fig 3: The proportion of patients with MIBC who are discussed at MDT meeting from 2017/18 – 2019/20.

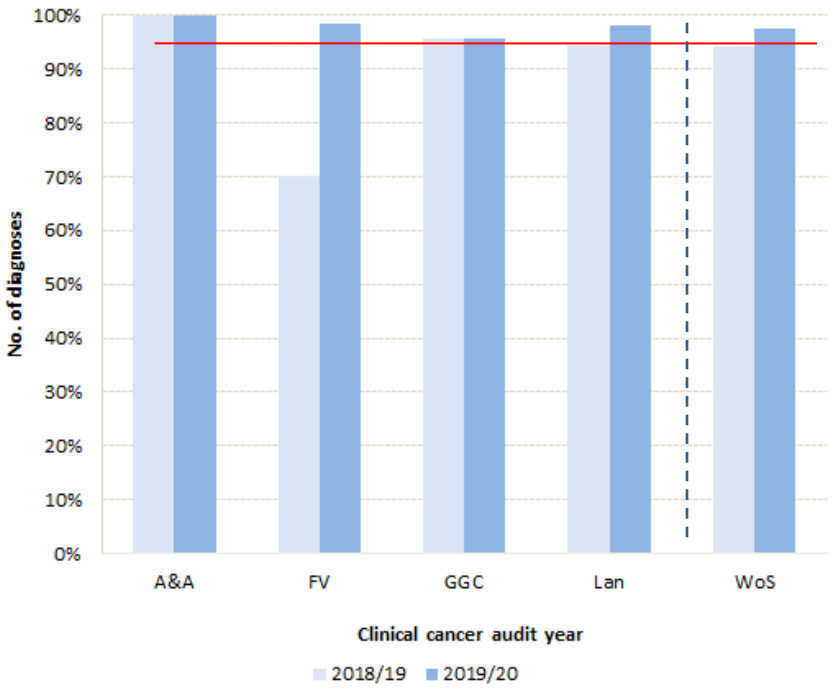


		2017/18	2018/19	2019/20
AA	N	23	44	24
	D	23	45	24
	%	100.0%	97.8%	100.0%
FV	N	21	23	18
	D	22	23	18
	%	95.5%	100.0%	100.0%
GGC	N	104	103	100
	D	107	107	101
	%	97.2%	96.3%	99.0%
Lan	N	41	25	40
	D	42	25	42
	%	97.6%	100.0%	95.2%
WoS	N	189	195	182
	D	194	200	185
	%	97.4%	97.5%	98.4%

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

All Boards met the 95% target for QPI 1(i) for the third consecutive year. The overall performance for the WoS was 98.4%.

Fig 6: The proportion of patients with NMIBC who are discussed at MDT meeting from 2017/18 – 2019/20.



		2018/19	2019/20
AA	N	86	90
	D	86	90
	%	100.0%	100.0%
FV	N	26	62
	D	37	63
	%	70.3%	98.4%
GGC	N	215	202
	D	225	211
	%	95.6%	95.7%
Lan	N	104	106
	D	110	108
	%	94.5%	98.1%
WoS	N	431	460
	D	458	472
	%	94.1%	97.5%

(-) Data is not shown; denominator less than 5.

(*) denotes a zero.

WoS performance was 97.5% against the 95% target with 460 of 472 patients with NMIBC discussed at the MDT following histological confirmation of bladder cancer. All Boards met the target with NHS Ayrshire & Arran achieving 100% and improved performance noted in NHS Forth Valley and NHS Lanarkshire.

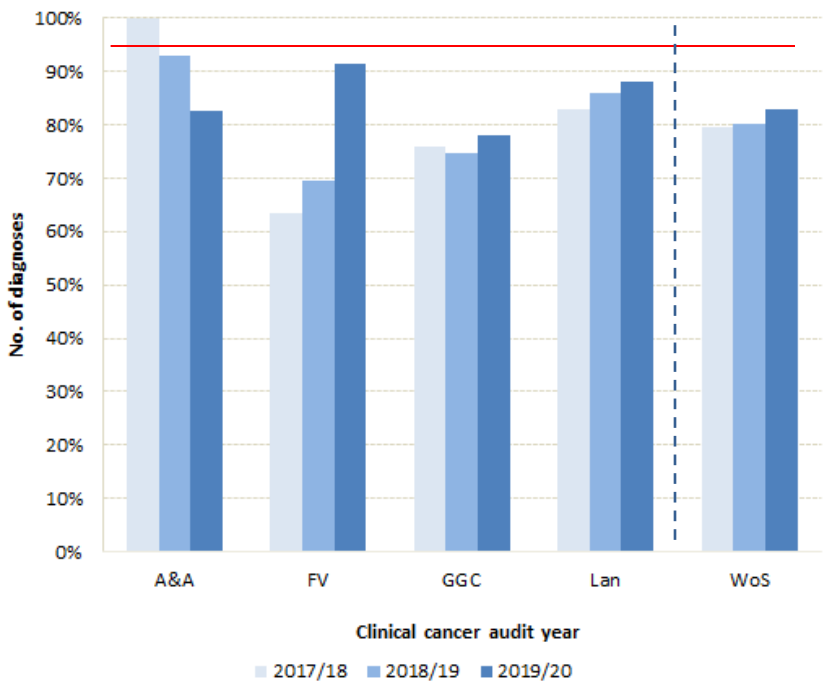
QPI 2: Quality of Transurethral Resection of Bladder Tumour Recording

Transurethral resection of bladder tumour (TURBT) procedures undertaken should be of good quality. TURBT is considered to be the gold standard initial treatment of non-muscle-invasive bladder cancer (NMIBC), with the aim of completely removing all macroscopic tumours and obtaining tissue for essential pathological evaluation[1]. It is recommended that a TURBT is performed in a systematic manner; a complete resection with detrusor muscle in the sample is the ultimate aim. Adequate documentation (use of a bladder diagram) with a conclusion regarding radicality or residual tumour is recommended[1].

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

Numerator:	Number of patients with bladder cancer who undergo TURBT where a bladder diagram / detailed description with documentation of tumour location, size, number and appearance has been used at initial resection.
Denominator:	All patients with bladder cancer who undergo TURBT.
Exclusions:	• Patients undergoing palliative resection. • Patients with very small tumours (≤5mm).
Target:	95%

Fig 4: The proportion of patients with bladder cancer who undergo TURBT with a bladder diagram / detailed description was used at initial resection from 2018/19 – 2019/20.



		2017/18	2018/19	2019/20
AA	N	80	104	81
	D	80	112	98
	%	100.0%	92.9%	82.7%
FV	N	45	34	63
	D	71	49	69
	%	63.4%	69.4%	91.3%
GGC	N	199	212	200
	D	262	284	256
	%	76.0%	74.6%	78.1%
Lan	N	102	103	111
	D	123	120	126
	%	82.9%	85.8%	88.1%
WoS	N	426	453	455
	D	536	565	549
	%	79.5%	80.2%	82.9%

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

The overall performance for the WoS was 82.9%, with the majority of Boards showing continuous improvement in the last three reporting years.

Boards have reviewed cases not meeting the target and provided feedback.

NHS Ayrshire & Arran stated that patients that 17 patients did not meet the target due to not having correct information documented. The Board added that TURBT operation note is now in use and is being scanned onto Clinical Portal which should lead to improved performance in next years analysis.

NHS Forth Valley commented that three patients were missing one of the required data items and for three patients the TURBT proforma was not used. Further changes have been made to the TURBT proforma form to clarify tumour size, appearance and number.

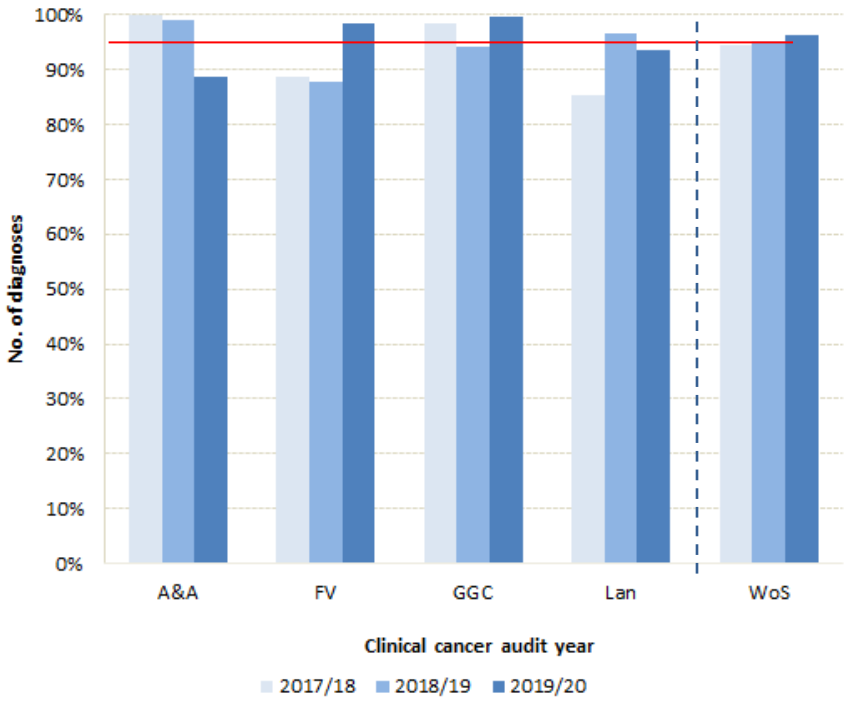
NHSGGC reviewed all cases not meeting the QPI and the vast majority of cases not meeting the target lacked one or two of the four required elements. NHSGGC noted that Bladder diagram was the most commonly omitted element. NHSGGC added that 40 of the cases not meeting the QPI were from the Clyde sector and the TURBT proforma was not used. The Board will reiterate the mandatory requirement to use the TURBT proforma.

NHS Lanarkshire stated that compliance has improved from the previous year's data. All cases that did not meet the target were reviewed. Most of the cases were missing one or more of the required data items, size, and number of tumours and some of the bladder diagrams. TURBT procedures were moved to the Nuffield in view of the pandemic and not all operation notes or bladder proforma documents were scanned back to the Lanarkshire portal. All consultants will be reminded to follow the protocol with regards recording surgical data items for this QPI.

(ii) Documented whether complete resection or not

Numerator:	Number of 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. • Patients with very small tumours (≤5mm).
Target:	95%

Fig 5: The proportion of patients with bladder cancer who undergo TURBT where it has been documented if resection was complete at initial resection from 2017/18 – 2019/20



		2017/18	2018/19	2019/20
AA	N	80	111	87
	D	80	112	98
	%	100.0%	99.1%	88.8%
FV	N	63	43	68
	D	71	49	69
	%	88.7%	87.8%	98.6%
GGC	N	258	267	255
	D	262	284	256
	%	98.5%	94.0%	99.6%
Lan	N	105	116	118
	D	123	120	126
	%	85.4%	96.7%	93.7%
WoS	N	506	537	528
	D	536	565	549
	%	94.4%	95.0%	96.2%

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

Of the 549 patients identified as undergoing TURBT, 96.2% had it documented whether the resection was complete or not at initial resection, which meets the QPI target of 95%. NHS Forth Valley and NHSGGC achieved above 95% with NHS Ayrshire and Arran and NHS Lanarkshire achieving 88.8% and 93.7% respectively.

NHS Ayrshire & Arran commented that 11 patients did not meet the target due to there being no record of resection being complete or incomplete. TURBT operation note is now in use and is being scanned onto Clinical Portal and is accessible by audit staff.

NHS Lanarkshire fell just short of the target. All cases not meeting the target were reviewed. It was not clearly documented in some cases whether it was a complete resection. In view of TURBT procedures moving to the Nuffield there were some operation notes not scanned to the Lanarkshire portal. All clinical staff performing this procedure to be reminded to clearly document whether the resection was complete or incomplete, either on the operation note or the TURBT proforma.

The MCN acknowledges that the current bladder diagram used across the region is very detailed. The ongoing development of a digital version on TRAK care is welcomed by the MCN and it is anticipated that this will be adopted in the future, and resolve some of the issues associated with the paper based diagram.

Action Required:

- The MCN will recommend the re-examination of the bladder diagram at Formal Review to ensure that only the most relevant key clinical items are highlighted as mandatory to help with compliance.
- MCN to support the onward progress and adoption of TRAK developments with a digital proforma.

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

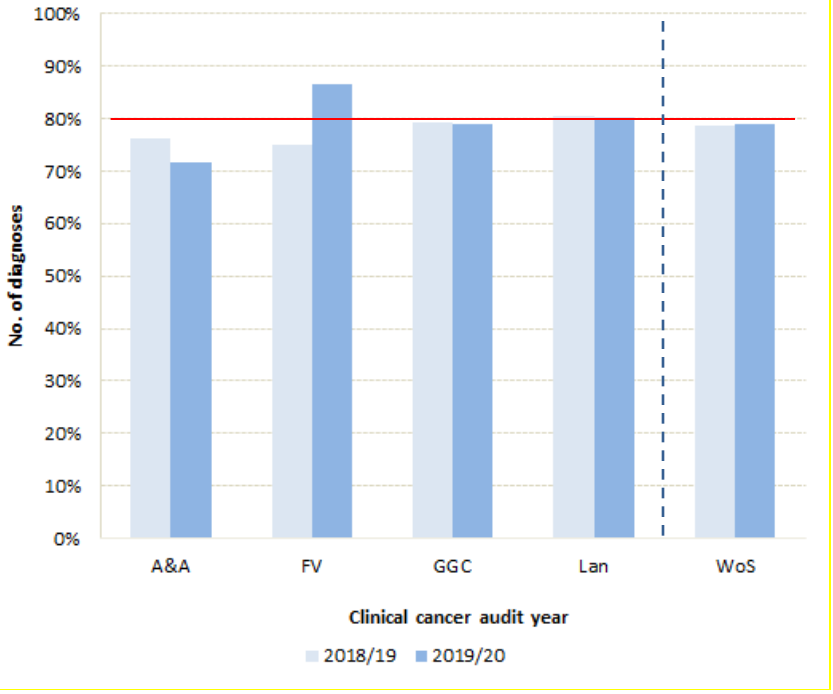
Numerator: Number of patients with bladder cancer who undergo TURBT where detrusor muscle is included in the specimen at initial resection.

Denominator: All patients with bladder cancer who undergo TURBT.

Exclusions:
- Patients undergoing palliative resection.
- Patients with very small tumours (≤5mm).
- Patients with bladder diverticular tumours.

Target: 80%

Fig 6: The proportion of patients with bladder cancer who undergo TURBT where detrusor muscle was included in the specimen at initial resection in 2018/19 – 2019/20.



		2018/19	2019/20
AA	N	80	68
	D	105	95
	%	76.2%	71.6%
FV	N	36	58
	D	48	67
	%	75.0%	86.6%
GGC	N	213	195
	D	269	247
	%	79.2%	78.9%
Lan	N	95	97
	D	118	121
	%	80.5%	80.2%
WoS	N	424	418
	D	540	530
	%	78.5%	78.9%

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

Overall in the WoS, 78.9 % of patients with bladder cancer undergoing TURBT had detrusor muscle included in the specimen at initial resection, which is marginally below the 80% QPI target. NHS Forth Valley and NHS Lanarkshire achieved the target with performances of 86.6% and 80.2% with NHSGGC just narrowly missing the target with 78.9% with NHS Ayrshire and Arran achieving 71.6%.

NHS Ayrshire and Arran commented that 27 patients had no detrusor muscle in specimen when examined by pathologist. This has been highlighted to the urology surgical team.

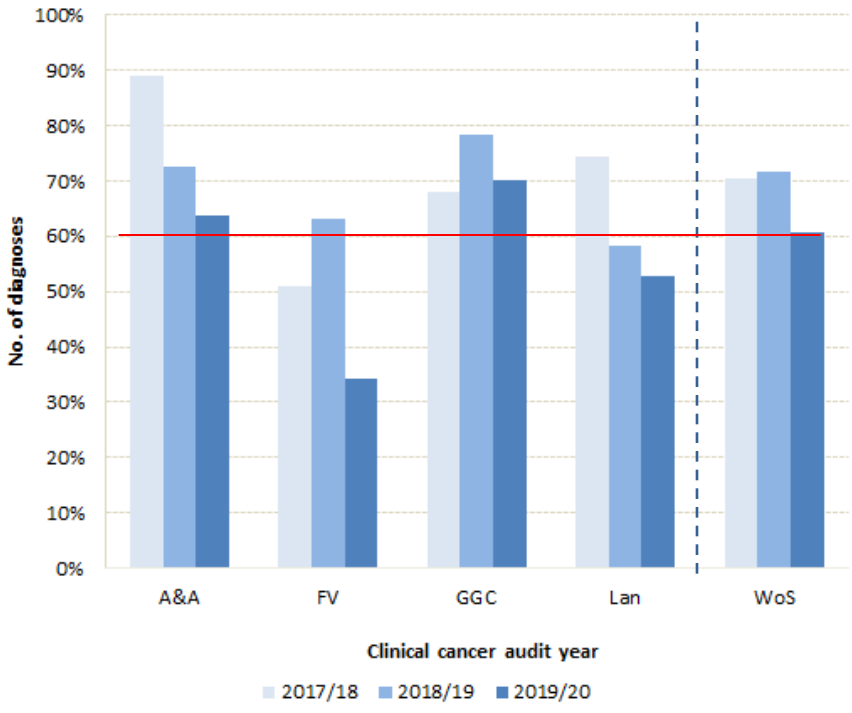
For QPI 2 there are a large number of cases Not Recorded for exclusions which contributes towards the results. The main data items missing from records are “clinical tumour size”, “bladder diverticular tumour” and “TURBT intent”. It is anticipated that review of constituent elements of this QPI at formal review will facilitate improvements in subsequent reporting periods.

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

Patients with non-muscle-invasive bladder cancer (NMIBC) who undergo TURBT should receive a single instillation of mitomycin C within 24 hours of resection, unless contraindicated. The recurrence rate in NMIBC is as high as 70%[1]. Tumour features (number, size, grade and stage) and quality of TURBT determine overall recurrence rates. However, TURBT causes tumour cells to be dispersed within the bladder during the procedure and these could be re-implanted in the bladder mucosa, subsequently being detected as recurrence[1]. By destroying floating cancer cells and those that have been implanted on the resection site, a single instillation of intravesical chemotherapy confers an absolute reduction in tumour recurrence of 12%[1].

Description:	Proportion of patients with NMIBC who undergo TURBT who receive a single instillation of mitomycin C within 24 hours of resection.
Numerator:	Number of 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.
Exclusions:	None.
Target:	60%

Fig 7: The proportion of patients with NMIBC who undergo TURBT who receive a single instillation of mitomycin C within 24 hours of resection from 2017/18 – 2019/20.



		2017/18	2018/19	2019/20
AA	N	64	61	60
	D	72	84	94
	%	88.9%	72.6%	63.8%
FV	N	28	24	22
	D	55	38	64
	%	50.9%	63.2%	34.4%
GGC	N	160	192	165
	D	235	245	235
	%	68.1%	78.4%	70.2%
Lan	N	67	60	54
	D	90	103	102
	%	74.4%	58.3%	52.9%
WoS	N	319	337	301
	D	452	470	495
	%	70.6%	71.7%	60.8%

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

Both NHS Forth Valley and NHS Lanarkshire did not achieve that target of 60%. All other Boards met the target. The overall performance for the WoS was 60.8%, a decrease from the previous year's performance of 71.7%.

NHS Forth Valley achieved 34.4% against the 60% QPI target. All cases were reviewed and the Board noted that in the majority of cases post-operative mitomycin C (MMC) was not given due to risk of extravasation/thin bladder. The MCN has noted that results of QPI 2iii and QPI 3 are closely linked, as NHS Forth Valley perform well in QPI 2iii, which indicates that a more aggressive resection to obtain muscle has taken place, with detrusor muscle present in resection specimens. The reasons stated for deferment of MMC due to extravasation are valid however given the potential benefits of a reduction in recurrence in patients with superficial disease; improvements in this QPI are required. This variance has been flagged up to the clinicians in FV and will be monitored going forward.

NHS Lanarkshire stated that the majority of cases not meeting the QPI had a deep resection therefore were unsuitable for post-operative MMC due to risk of extravasation. Individual cases that do not meet the target will continue to be reviewed clinically and as part of the local reporting process.

Action Required:-

- MCN to discuss ahead of Formal Review, whether QPI 2iii exclusions or target could be amended to avoid the possibility of potentially driving negative practice in terms of more aggressive resection to obtain muscle in low grade lesions, as this could result in perforation and missed opportunity for post-operative Mitomycin-C.

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

It is well established from white light TURBT series that 33%-53% of high risk NMIBC have residual disease following an initial TURBT[1]. This risk is high when detrusor muscle is absent in the initial resection specimen. The presence of residual disease is a poor prognostic indicator, especially in pT1 disease. A second TURBT in high risk NMIBC improves the recurrence-free survival. Understaging, i.e. not detecting muscle invasive bladder cancer in the initial TURBT, occurs in 4%-25% pT1 cancers and can potentially be detrimental to the patient[1].

Evidence suggests that re-TURBT should be performed if the primary resection was not radical, e.g. if there is no detrusor muscle in the sample (with the exception of TaG1 tumours and primary CIS) and/or where the initial specimen shows a T1 tumour[1]. The second TURBT should be performed at 2-6 weeks after initial resection[1].

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

Numerator: Number of patients with T1 (all grades) or select high grade Ta* NMIBC who have undergone TURBT who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection.

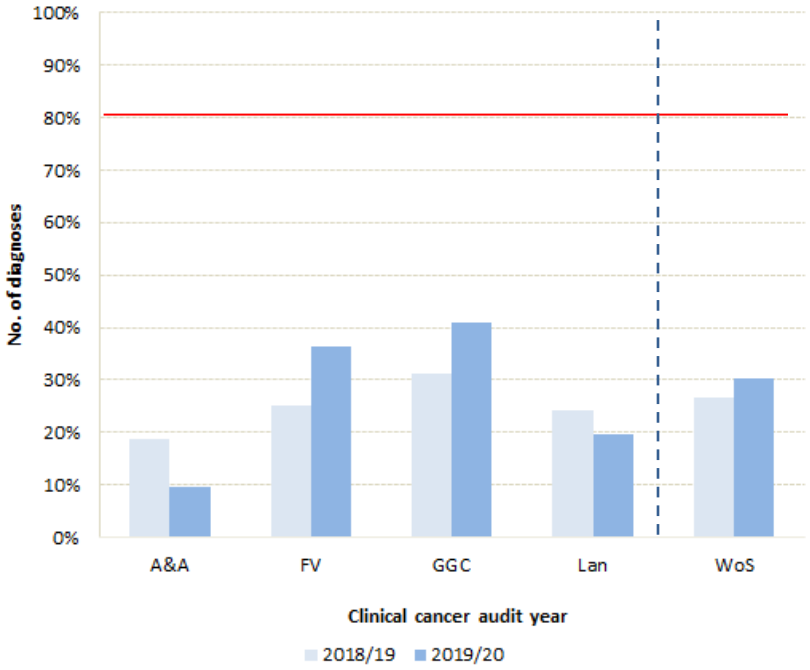
Denominator: All patients with T1 (all grades) or select high grade Ta* NMIBC who have undergone TURBT.

Exclusions:

- Patients where TURBT has been carried out for palliation.
- Patients who have undergone early cystectomy.
- Patients with confirmed metastatic disease.

Target: 80%

Fig 8: The proportion of patients with T1 (all grades) or select high grade Ta* NMIBC who have undergone TURBT who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection, 2018/19 – 2019/20.



		2018/19	2019/20
AA	N	6	3
	D	32	31
	%	18.8%	9.7%
FV	N	4	8
	D	16	22
	%	25.0%	36.4%
GGC	N	25	36
	D	80	88
	%	31.3%	40.9%
Lan	N	7	8
	D	29	41
	%	24.1%	19.5%
WoS	N	42	55
	D	157	182
	%	26.8%	30.2%

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

All Boards within the WoS fell significantly short of the 80% target for this QPI for the second year. Overall WoS performance was 30.2% with individual Board performance ranging from 9.7% in NHS Ayrshire & Arran to 40.9% in NHSGGC. Improvement is noted in NHS Forth Valley and NHSGGC.

NHS Ayrshire and Arran provided feedback for the 28 patients who failed the target and cited valid clinical reasons, including; poor performance status, patient's wishes or risks involved with the COVID-19 pandemic. Delays can also be attributed to the impact of the emerging COVID-19 pandemic on theatre availability.

NHSGGC commented that the majority of cases not meeting the target had re-resection after 6 weeks. In the remainder of cases, patients had either proceeded directly to radical treatment in the first instance, were not fit for re-resection or were delayed by COVID. The Board added that the pathway improvement project operating in Greater Glasgow to identify high risk patients requiring urgent re-resection from pathology reports has provided a large improvement in performance in North Glasgow sector (from 18.8% to 51.9%) as well as a more modest improvement (from 45.0% to 54.8%) in South Glasgow. Performance remains lower in Clyde sector and the Board will expand the project there to address this and in light of merger of North Glasgow and Clyde services.

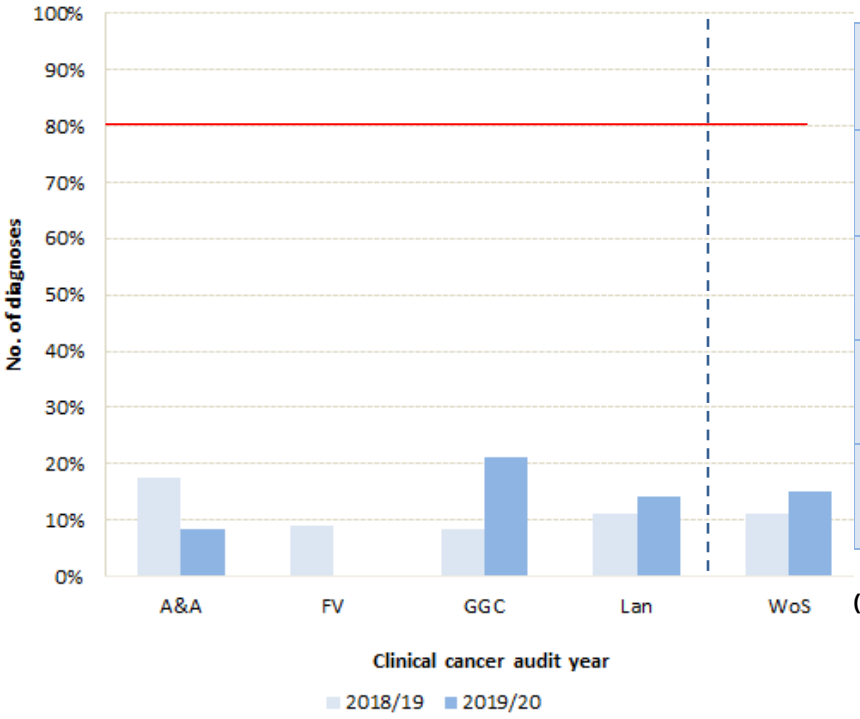
NHS Forth Valley stated that 4 patients had synchronous second primary cancer that required investigation/treatment, 3 patients were delays/changes to treatment due to COVID guidelines, 2 patients had a course of MMC/HIVEC (hyperthermic intravesical chemotherapy) between 1st and 2nd resection and 5 patients have no reason recorded for delay.

NHS Lanarkshire commented that some cases had re-resection over 6 weeks from index resection. Some cases went for BCG and check scope. Capacity issues were also a factor in view of the pandemic with a significant reduction in available theatre space which is still currently an issue at the present time.

(ii) High grade or low grade G2 NMIBC where detrusor muscle absent from specimen

Numerator:	Number of 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.
Exclusions:	• Patients where TURBT has been carried out for palliation. • Patients who have undergone early cystectomy. • Patients with confirmed metastatic disease.
Target:	80%

Fig 9: The proportion of 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 in 2018/19 – 2019/20.



		2018/19	2019/20
AA	N	4	2
	D	23	24
	%	17.4%	8.3%
FV	N	1	0
	D	11	8
	%	9.1%	0.0%
GGC	N	4	10
	D	48	47
	%	8.3%	21.3%
Lan	N	2	3
	D	18	21
	%	11.1%	14.3%
WoS	N	11	15
	D	100	100
	%	11.0%	15.0%

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

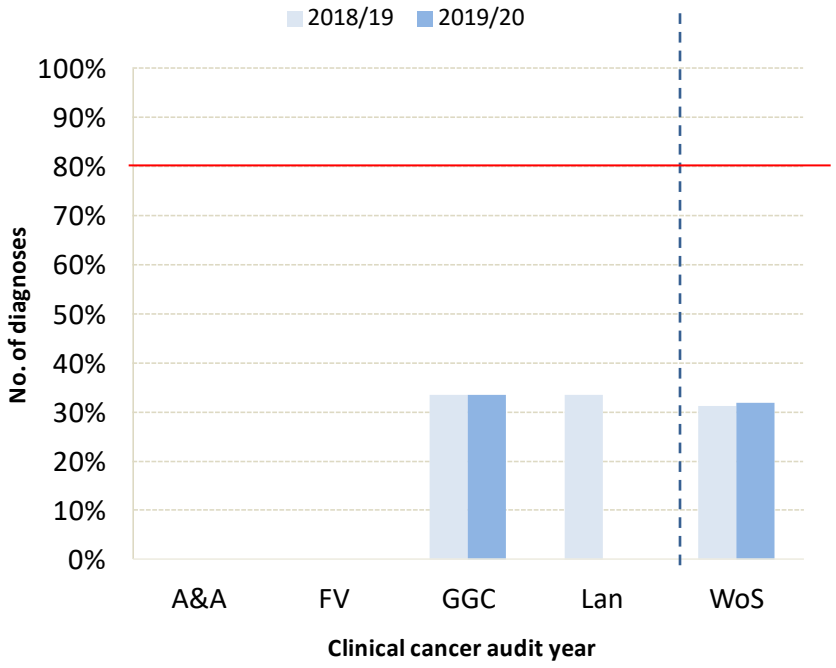
The 95% target for QPI 5 was not achieved for the second consecutive year. In the WoS 15% of patients with high grade or low grade G2 NMIBC who underwent TURBT where detrusor muscle absent from specimen had a second TURBT or early cystoscopy (± biopsy) within 6 weeks of initial resection. No board met the target with performance ranging from 0% in NHS Forth Valley to 21.3% in NHSGGC.

All Boards reviewed cases not meeting the QPI and comments provided reflected the points provided for 4(i).

(iii) NMIBC where initial resection is incomplete

Numerator:	Number of patients with NMIBC who have undergone TURBT where initial resection is incomplete who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection.
Denominator:	All patients with NMIBC who have undergone TURBT where initial resection is incomplete.
Exclusions:	• Patients where TURBT has been carried out for palliation. • Patients who have undergone early cystectomy. • Patients with confirmed metastatic disease.
Target:	80%

Fig 10: The proportion of patients with NMIBC who have undergone TURBT where initial resection is incomplete who have a second TURBT or early cystoscopy (± biopsy) within 6 weeks (42 days) of initial resection in 2018/19 – 2019/20.



		2018/19	2019/20
AA	N	-	-
	D	-	-
	%	-	-
FV	N	-	-
	D	-	-
	%	-	-
GGC	N	3	4
	D	9	12
	%	33.3%	33.3%
Lan	N	1	0
	D	3	6
	%	33.3%	0.0%
WoS	N	5	7
	D	16	22
	%	31.3%	31.8%

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

Overall WoS performance was 31.8% against the 80% target, with only NHS Forth Valley meeting the 80% QPI target; however it should be noted that numbers are small and this can have a greater effect on proportions.

The majority of NHS Boards failed to achieve the 80% target for all three parts of this QPI. A number of factors impacted upon performance for example, for part (i) the MCN has highlighted that the QPI specification is not aligned to current NICE risk stratification. Additionally, all Boards noted that although many patients did have a re-resection, it was carried out after the 6 week window specified in the QPI, often due to changes in treatment due to COVID guidelines or delay to surgery due to COVID related theatre capacity and staffing issues.

Action Required:

- Clinicians in NHSGGC have developed a protocol to ensure the flagging up of high risk pathology and early discussion in the MDT. It is recommended that this good practice is shared with a view to adoption across the region.
- The MCN, at the national formal review of bladder QPIs, will recommend a change to align the QPI to guidelines by removing Ta G2 tumours from this QPI and thereby focussing the resource on the most time crucial cases.

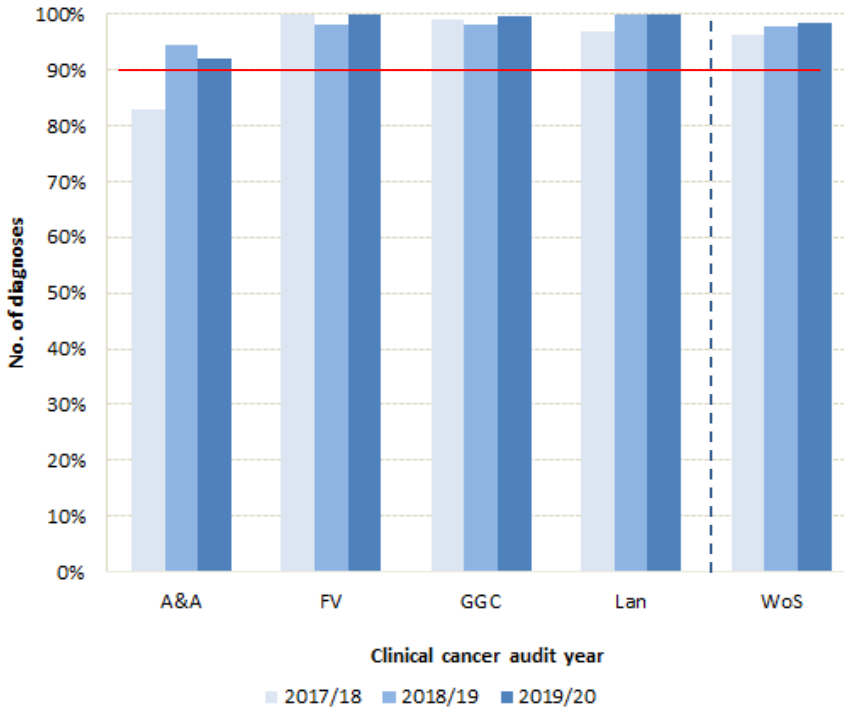
QPI 5: Pathology Reporting

All pathology reports for transurethral resection of bladder tumour (TURBT) and cystectomy specimens should contain comprehensive, standardised information according to the guidelines provided by the Royal College of Pathology (RCP). To help plan treatment for patients diagnosed with bladder cancer, prognostic information from the TURBT and cystectomy is necessary[1]. Standardising the information contained with pathology reports is useful in order to ensure that important prognostic information which is required to inform patients' clinical management is available, for example the staging and grading of tumours[1].

(i) TURBT

Numerator:	Number of patients with bladder cancer who undergo TURBT where pathology report contains all relevant data items.
Denominator:	All patients with bladder cancer who undergo TURBT.
Exclusions:	None.
Target:	90%

Fig 11: The proportion of patients with bladder cancer who undergo TURBT where pathology report contains all relevant data items according to the guidelines provided by the Royal College of Pathology from 2017/18 – 2019/20.



		2017/18	2018/19	2019/20
AA	N	77	120	103
	D	93	127	112
	%	82.8%	94.5%	92.0%
FV	N	77	56	78
	D	77	57	78
	%	100.0%	98.2%	100.0%
GGC	N	317	321	307
	D	320	327	308
	%	99.1%	98.2%	99.7%
Lan	N	124	127	135
	D	128	127	135
	%	96.9%	100.0%	100.0%
WoS	N	595	624	623
	D	618	638	633
	%	96.3%	97.8%	98.4%

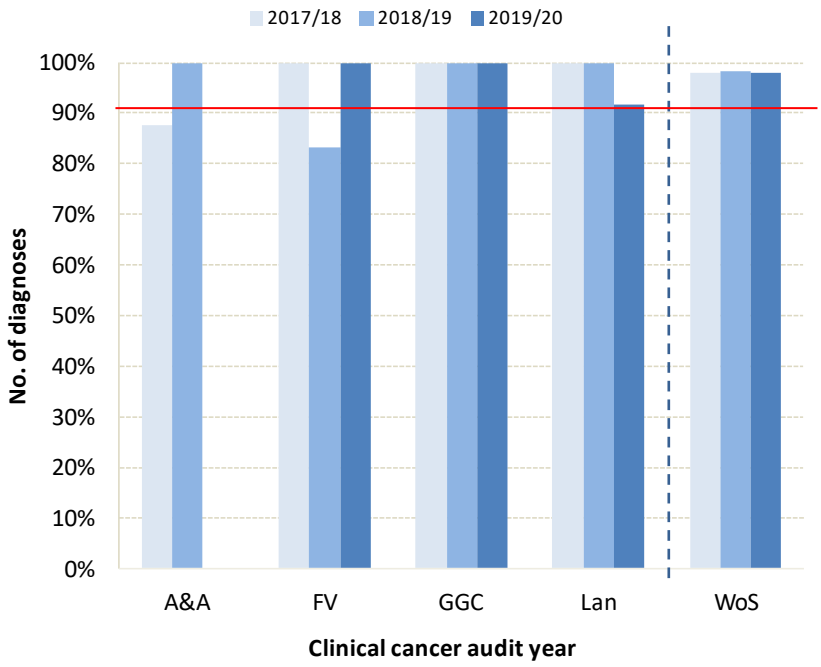
(-) Data is not shown; denominator less than 5.
(*) denotes a zero.

Overall in the WoS 98.4% of patients with bladder cancer who underwent TURBT had a pathology report containing all relevant data items, which meets the 90% QPI target. All units met the target with NHS Forth Valley and NHS Lanarkshire achieving 100%.

(ii) Cystectomy

Numerator:	Number of patients with bladder cancer who undergo cystectomy where pathology report contains all relevant data items.
Denominator:	All patients with bladder cancer who undergo cystectomy.
Exclusions:	None.
Target:	90%

Fig 12: The proportion of patients with bladder cancer who undergo cystectomy where pathology report contains all relevant data items according to the guidelines provided by the Royal College of Pathology from 2017/18 – 2019/20..



		2017/18	2018/19	2019/20
AA	N	7	15	-
	D	8	15	-
	%	87.5%	100.0%	-
FV	N	7	5	8
	D	7	6	8
	%	100.0%	83.3%	100.0%
GGC	N	25	33	27
	D	25	33	27
	%	100.0%	100.0%	100.0%
Lan	N	12	10	11
	D	12	10	12
	%	100.0%	100.0%	91.7%
WoS	N	51	63	50
	D	52	64	51
	%	98.1%	98.4%	98.0%

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

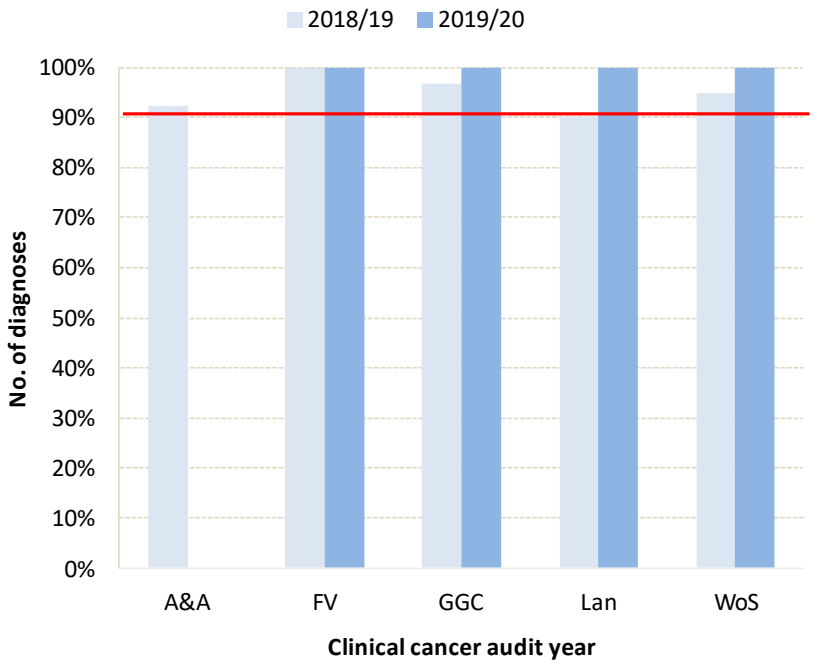
All Boards met the 90% target. The overall performance for the WoS was 98%.

QPI 6: Lymph Node Yield

Adequate lymph node yield is important for accurate staging. Evidence suggests that this should be an integral part of cystectomy[1]. It is important that at least the area of the standard node dissection needs to be removed[1]. It is therefore important that a meticulous lymph node dissection is performed to obtain the maximum number of nodes[1].

Description:	Proportion of 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:	Number of 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.
Target:	90%

Fig 13: The proportion of 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 in 2018/19 – 2019/20.



		2018/19	2019/20
AA	N	12	-
	D	13	-
	%	92.3%	-
FV	N	6	8
	D	6	8
	%	100.0%	100.0%
GGC	N	30	27
	D	31	27
	%	96.8%	100.0%
Lan	N	9	11
	D	10	11
	%	90.0%	100%
WoS	N	57	50
	D	60	50
	%	95.0%	100%

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

All Boards met the 90% target. The overall performance for the WoS was 100%.

QPI 7: Time to Treatment

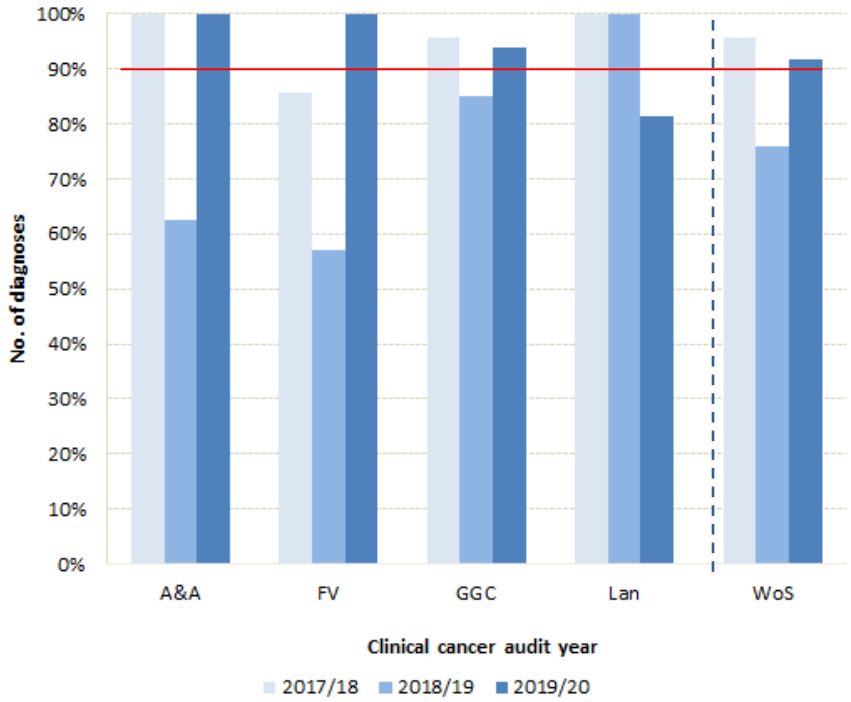
Patients with bladder cancer should have cystectomy within 3 months of diagnosis as this has optimum survival benefit, if delayed for more than this time it can increase the risk of progression and cancer specific death[1].

Neo-adjuvant chemotherapy should be offered to suitable patients prior to definitive radical therapy (this includes radical cystectomy, radical radiation therapy, or preoperative radiotherapy and cystectomy)[1]. This treatment should be commenced as soon as possible following diagnosis. Evidence suggests that patients who undergo radical cystectomy up to 12 weeks after neo-adjuvant chemotherapy show no increased risk of complications or nodal metastases[1].

(i) Radical treatment (cystectomy or radiotherapy)

Numerator:	Number of patients with MIBC who undergo radical cystectomy or radiotherapy only within 3 months of diagnosis of MIBC.
Denominator:	All patients with MIBC undergoing radical cystectomy or radiotherapy only.
Exclusions:	None.
Target:	90%

Fig 14: The proportion of patients with MIBC who undergo radical cystectomy or radiotherapy only within 3 months of diagnosis of MIBC from 2017/18 – 2019/20.



		2017/18	2018/19	2019/20
AA	N	5	10	6
	D	5	16	6
	%	100.0%	62.5%	100.0%
FV	N	6	4	5
	D	7	7	5
	%	85.7%	57.1%	100.0%
GGC	N	23	17	31
	D	24	20	33
	%	95.8%	85.0%	93.9%
Lan	N	12	7	13
	D	12	7	16
	%	100.0%	100.0%	81.3%
WoS	N	46	38	55
	D	48	50	60
	%	95.8%	76.0%	91.7%

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

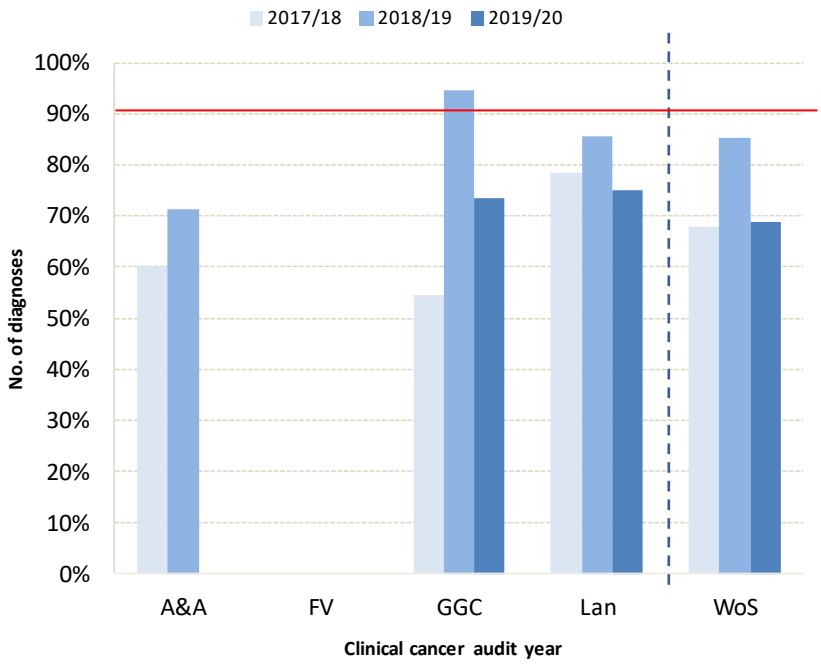
NHS Ayrshire and Arran, NHS Greater Glasgow and Clyde and NHS Lanarkshire all met the 90% target. NHS Lanarkshire were short of the target with 81.3%. The overall performance for the WoS was 91.7%. It should be noted that small numbers mean that comparison between Boards should be made with caution.

NHS Lanarkshire commented that the 3 cases not meeting the target were reviewed and no remedial action is required. Individual cases that do not meet the target will continue to be reviewed clinically and as part of the local reporting process.

(ii) Neo-adjuvant chemotherapy

Numerator:	Number of patients with MIBC who have neo-adjuvant chemotherapy who undergo cystectomy or chemoradiation within 8 weeks of completing treatment.
Denominator:	All patients with MIBC undergoing neo-adjuvant chemotherapy.
Exclusions:	None.
Target:	90%

Fig 15: The proportion of patients with MIBC who have neo-adjuvant chemotherapy who undergo cystectomy or chemoradiation within 8 weeks of completing treatment from 2017/18 – 2019/20.



		2017/18	2018/19	2019/20
AA	N	3	5	-
	D	5	7	-
	%	60.0%	71.4%	-
FV	N	-	-	-
	D	-	-	-
	%	-	-	-
GGC	N	6	17	11
	D	11	18	15
	%	54.5%	94.4%	73.3%
Lan	N	11	6	6
	D	14	7	8
	%	78.6%	85.7%	75.0%
WoS	N	21	29	20
	D	31	34	29
	%	67.7%	85.3%	69.0%

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

Of the 20 patients diagnosed with MIBC who underwent neo-adjuvant chemotherapy, 29 of these patients had cystectomy or chemoradiotherapy within 8 weeks of initial treatment. This equates to a 69.0% WoS performance against the 90% target. No Board met the 90% target. It should be noted that numbers are low across all four Boards.

Patients not meeting this QPI have been reviewed and valid clinical reasons provided, such as patient induced delay, patient requiring re-TURBT due to recurrence, patients requiring further investigations and patient's treatment plan being impacted by COVID.

QPI 8: Volume of Cases per Surgeon/Centre

Radical cystectomy should be performed by surgeons who perform the procedure routinely. Although evidence has shown varied results, recent studies have shown that there is a positive relationship between volume and re-intervention rates[1]. Within each network, bladder cancer should be managed by multidisciplinary teams, with surgical and other radical treatments administered by those with appropriate expertise and caseloads[1].

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

Description:	Number of radical cystectomy procedures performed by a specialist centre, and surgeon over a one year period.
Exclusions:	None.
Target:	Minimum of 20 procedures per centre in a one year period. Minimum of 10 procedures per surgeon in a one year period.

Table 1: The number of patients undergoing radical cystectomy in each NHS Board and the total number of surgeons recorded as having carried out procedures in each Board in 2019/20.

	No. of Operating Surgeons	No. of Procedures	No. of Surgeons Meeting Target
AA	1	10	1
FV	2	10	0
GGC	5	51	2
Lan	2	11	0
WoS	**10**	**82**	**3**

There are a number of known coding issues with the SMR01 data used to calculate performance for this QPI. Boards have reviewed the data alongside local surgical data to provide an updated position on performance.

NHS Forth Valley commented that 9 procedures were carried out by one consultant and the other consultant helped with a single procedure.

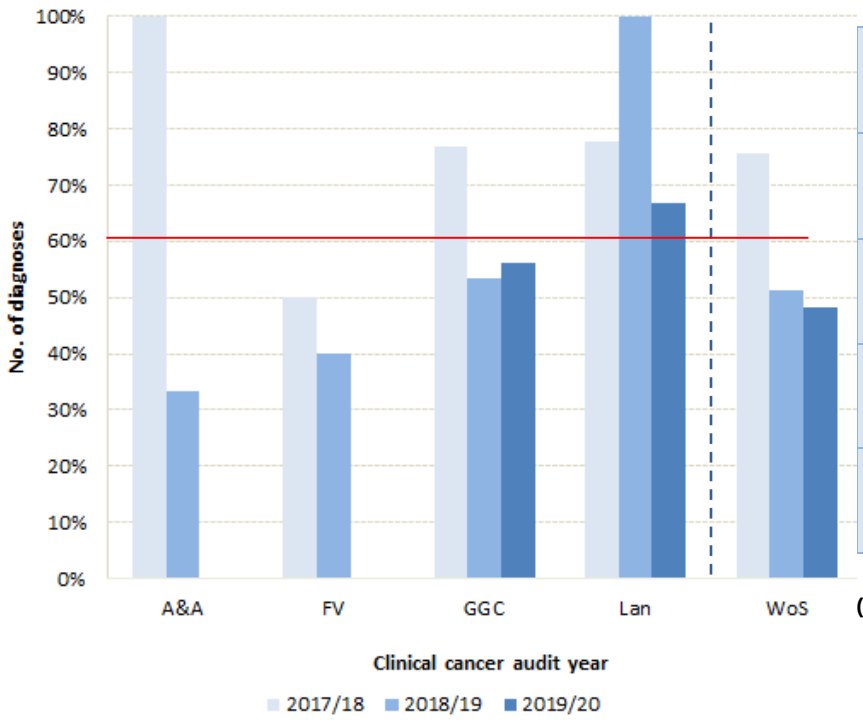
NHS Lanarkshire reported that two consultants perform radical cystectomy within the Board. A total of 11 cystectomies were performed within a single centre, with both surgeons working together on all surgeries, therefore both surgeons met the target of 10 procedures per year. Data will continue to be monitored through local reporting.

QPI 9: Oncological Discussion

Patients with muscle-invasive bladder cancer (MIBC) should have all treatment options discussed with them prior to radical cystectomy. Clinical judgement is required to assess the risks and benefits of prescribing chemotherapy. Evidence has shown that an informed discussion with patients to outline the aims, benefits and toxicity of treatment is necessary before therapy begins[1]. In elderly patients or in those with significant co-morbid illness, treatment-related toxicity may outweigh any advantages to chemotherapy[1].

Description:	Proportion of patients with MIBC who have radical surgery who met with an oncologist prior to radical cystectomy.
Numerator:	Number of patients with MIBC who undergo cystectomy who met with an oncologist prior to radical cystectomy.
Denominator:	All patients with MIBC who undergo radical cystectomy.
Exclusions:	None.
Target:	60%

Fig 16: The proportion of patients with MIBC who have radical surgery who met with an oncologist prior to radical cystectomy from 2017/8 – 2019/20.



		2017/18	2018/19	2019/20
AA	N	5	4	0
	D	5	12	0
	%	100.0%	33.3%	na
FV	N	3	2	0
	D	6	5	5
	%	50.0%	40.0%	0.0%
GGC	N	10	8	9
	D	13	15	16
	%	76.9%	53.3%	56.3%
Lan	N	7	5	4
	D	9	5	6
	%	77.8%	100.0%	66.7%
WoS	N	25	19	13
	D	33	37	27
	%	75.8%	51.4%	48.1%

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

Overall performance in the WoS was 48.1% with only NHS Lanarkshire achieving the 60% target. Small denominator numbers also impacted upon the attainment percentages for this measure.

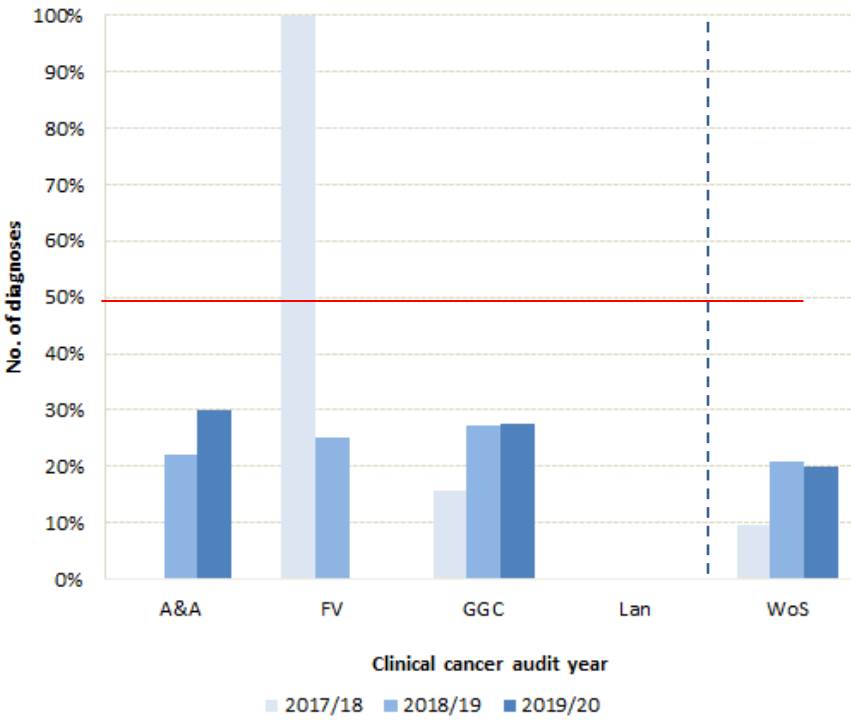
NHS Boards have provided detailed feedback on all cases not meeting the target. Patient comorbidities and unsuitability for oncological therapy were noted as factors impacting on performance.

QPI 10: Radical Radiotherapy with Chemotherapy

Patients undergoing radical radiotherapy for transitional cell carcinoma of bladder should be considered for concomitant chemotherapy. A well-conducted randomised trial concluded treating patients with transitional cell carcinoma of the bladder with combined chemotherapy (5FU and mitomycin C) as opposed to radiotherapy alone significantly improves local control with no significant increase in toxicity[1].

Description:	Proportion of patients with transitional cell carcinoma of the bladder (T2-T4) undergoing radical radiotherapy receiving 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.
Target:	50%

Fig 17: The proportion of patients with transitional cell carcinoma of the bladder (T2-T4) undergoing radical radiotherapy receiving concomitant chemotherapy from 2017/18 – 2019/20.



		2017/18	2018/19	2019/20
AA	N	-	2	3
	D	-	9	10
	%	0.0%	22.2%	30.0%
FV	N	-	-	-
	D	-	-	-
	%	100.0%	25.0%	0.0%
GGC	N	3	6	8
	D	19	22	29
	%	15.8%	27.3%	27.6%
Lan	N	0	0	0
	D	17	8	15
	%	0.0%	0.0%	0.0%
WoS	N	4	9	11
	D	41	43	55
	%	9.8%	20.9%	20.0%

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

WoS Boards have consistently failed to achieve the 50% target over the past 3 years, however regional performance has increased from 10% in 2017/18 to 20% in 2019/20. This result has been audited within the BWoSCC over the past 2 years with the outcome concluding that all cases had valid clinical reasons for not receiving chemotherapy, usually related to patient fitness. Comparison of results from SCAN and NCA shows similarly small denominator numbers and that WoS performance is in line with the rest of the country.

There is a desire for a new service to be set up at the Beatson West of Scotland Cancer Centre (BWoSCC) to administer a different agent (carbogen/nicotinamide) which would likely be much better tolerated as many patients are not fit enough for other combined treatments. This has been at the planning stage for 2 years but halted due to COVID and other factors.

Action Required:

- MCN to monitor the development of the new service being led by the clinical team in radiation oncology at BWoSCC, and MCN uro-oncology lead to provide an update to the MCN Advisory Board.

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

Treatment-related mortality is a marker of the quality and safety of the whole service provided by the multidisciplinary team (MDT)[1]. Outcomes of treatment, including treatment-related morbidity and mortality, should be regularly assessed. Treatment should only be undertaken in individuals that may benefit from that treatment, that is, treatments should not be undertaken in futile situations[1]. This QPI is intended to ensure treatment is given appropriately, and the outcome reported on and reviewed.

With regards to mortality following SACT, a decision has been taken nationally to move to a new generic QPI (30-day mortality for SACT) applicable across all tumour types. This new QPI will use CEPAS (Chemotherapy ePrescribing and Administration System) data to measure SACT mortality to ensure that the QPI focuses on the prevalent population rather than the incident population. The measurability for this QPI is still under development to ensure consistency across the country and it is anticipated that performance against this measure will be reported in the next audit cycle. In the meantime all deaths within 30 days of SACT will continue to be reviewed at a NHS Board level.

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

Numerator: Number of patients with bladder cancer who receive treatment with curative intent (radical cystectomy or radiotherapy) that die within 30/90 days of treatment.

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

Exclusions: None.

Target: (i) 30 days <3%
(ii) 90 days <5%

Table 2: The proportion of patients with bladder cancer who receive treatment with curative intent (radical cystectomy) that die within 30 or 90 days of treatment from in 2017/18 – 2019/20.

		Surgery – Radical Cystectomy					
		30 Day mortality			90 Day mortality		
		2017/18	2018/19	2019/20	2017/18	2018/19	2019/20
AA	N	1	1	-	1	1	-
	D	8	14	-	8	13	-
	%	12.5%	7.1%	-	12.5%	7.7%	-
FV	N	0	0	0	0	0	0
	D	7	6	8	7	6	8
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GGC	N	1	0	0	2	0	0
	D	23	31	27	23	31	27
	%	4.3%	0.0%	0.0%	8.7%	0.0%	0.0%
Lan	N	0	0	0	0	0	0
	D	12	10	11	11	10	11
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
WoS	N	2	1	0	3	1	0
	D	50	61	50	49	60	50
	%	4.0%	1.6%	0.0%	6.1%	1.7%	0.0%

(-) Data is not shown; denominator less than 5.

30 and 90 day mortality, within the WoS, after surgical treatment with curative intent was within the 3% target for all treatment modalities. No patients died within either 30 or 90 days of treatment with curative intent.

(ii) 30/90 Day Mortality - Radiotherapy

Table 5: The proportion of patients with bladder cancer who receive treatment with curative intent (radiotherapy) that die within 30 or 90 days of treatment from in 2017/18 – 2019/20.

		Radiotherapy					
		30 Day mortality			90 Day mortality		
		2017/18	2018/19	2019/20	2017/18	2018/19	2019/20
AA	N	0	0	0	0	0	0
	D	6	11	9	6	11	8
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FV	N	-	-	-	-	-	-
	D	-	-	-	-	-	-
	%	-	-	-	-	-	-
GGC	N	0	0	0	1	1	1
	D	25	24	34	25	23	34
	%	0.0%	0.0%	0.0%	4.0%	4.3%	2.9%
Lan	N	0	00	0	0	0	0
	D	18	9	19	18	9	19
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
WoS	N	0	0	0	1	1	1
	D	51	48	64	51	47	63
	%	0.0%	0.0%	0.0%	2.0%	2.1%	1.6%

(-) Data is not shown; denominator less than 5.

30 and 90 day mortality, within the WoS, after radiotherapy treatment with curative intent was within the 5% target for all treatment modalities. In total, one patient died within 90 days of radiotherapy treatment with curative intent.

QPI 12: Clinical Trial and Research Study Access

Clinical trials are necessary to demonstrate the efficacy of new therapies and other interventions. Evidence suggests improved patient outcomes from participation in clinical trials[1]. Clinicians are therefore encouraged to enter patients into well-designed trials and to collect longer-term follow-up data. High accrual activity into clinical trials is used as a goal of an exemplary clinical research site[1].

The clinical trials QPI is measured utilising Scottish Cancer Research Network (SCRN) data and ISD incidence data, as is the methodology currently utilised by the Chief Scientist Office (CSO) and the National Cancer Research Institute (NCRI). The principal benefit of this approach is that this data is already collected utilising a robust mechanism[1].

Description: Proportion of patients diagnosed with bladder cancer who are consented for a clinical trial / research study.

Numerator: Number of patients diagnosed with bladder cancer consented for a clinical trial / research study.

Denominator: All patients with bladder cancer.

Exclusions: None.

Target: 15%

Table 3: The proportion of patients consented for clinical trials with bladder cancer, by NHS Board of residence in 2017-2019.

NHS Board of Residence	Consented - QPI Target 15%								
	2017			2018			2019		
	N	D	%	N	D	%	N	D	%
Ayrshire & Arran	2	74	2.7%	2	123	1.6%	1	123	0.8%
Forth Valley	5	48	10.4%	2	99	2.0%	2	99	2.0%
GGC	18	189	9.5%	17	374	4.5%	33	374	8.8%
Lanarkshire	1	83	1.2%	1	143	0.7%	5	143	3.5%
WoS	**26**	**394**	**6.6%**	**22**	**739**	**3.0%**	**41**	**739**	**5.5%**

The denominator represents the 5 year average of ISD incidence data for bladder cancer between 2003 and 2007. Note: 2003-2007 is the last point where MIBC and NMIBC were both included.

No Boards met the 15% target. A list of active bladder cancer clinical trials in 2019 is shown below.

Short Title	Total
ATLANTIS	5
CANC 5631	2
Durvalumab + BCG in NMIBC	8
FIGHT-201 - INCYTE, Efficacy and Safety of INCB054828 in Urothelial Cancer	15
iROC	9
KX-ORAX-012	1
RAIDER	1
Total	**41**

5. Next Steps

The MCN will actively take forward regional actions identified and NHS Boards are asked to develop local Action/Improvement Plans in response to the findings presented in the report. A summary of actions for each NHS Board has been included within the Action Plan templates in Appendix I.

Acknowledgement

This report has been prepared using clinical audit data provided by the following NHS Boards in the WoSCAN area:

NHS Ayrshire & Arran
NHS Forth Valley
NHS Greater Glasgow and Clyde
NHS Lanarkshire

We would like to thank all members and active participants in the cancer network for their continued support of the MCN, and the many hospitals that are committed to making the audit succeed. We also acknowledge the efforts of the clinical effectiveness staff, nurses, and other service users for their work in ensuring the data are available to enable analysis to take place each year. Without their considerable efforts this level of progress would not be possible.

Abbreviations

5FU	5-Fluorouracil
AA	NHS Ayrshire & Arran
ACaDMe	Acute Cancer Deaths and Mental Health
BCG	Bacillus Calmette-Guérin (therapy)
CEL	Chief Executive Letter
CIS	Carcinoma in situ
eCASE	Electronic Cancer Audit Support Environment
FV	NHS Forth Valley
GGC	NHS Greater Glasgow and Clyde
HIS	Healthcare Improvement Scotland
ISD	Information Services Division
LAN	NHS Lanarkshire
MCN	Managed Clinical Network
MDT(s)	Multidisciplinary Team(s)
MIBC	Muscle-Invasive Bladder Cancer
NCQSG	National Cancer Quality Steering Group
NHSGGC	NHS Greater Glasgow and Clyde
NMIBC	Non-Muscle-Invasive Bladder Cancer
QPI(s)	Quality Performance Indicator(s)
RCAG	Regional Cancer Advisory Group
RCP	Royal College of Pathologists
SACT	Systemic Anti-Cancer Therapy
SMR01	General/Acute Inpatient and Day Case (Scottish Morbidity Records)
TCC	Transitional Cell Carcinoma
TURBT	Transurethral Resection of Bladder Tumour
WoS	West of Scotland
WoSCAN	West of Scotland Cancer Network

References

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5. Information Services Division, NHS National Services Scotland. Cancer in Scotland - Trends in Cancer Survival in Scotland, 1983-2017; June 2004 (updated January 2021). Available at: http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Statistics/Survival_summary_8307.pdf?1

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Appendix 1: Meta Data

<table>
<tr><td>Report Title</td><td>Cancer Audit Report: Bladder Cancer Quality Performance Indicators</td></tr>
<tr><td>Time Period</td><td>Patients diagnosed between 1st April 2019 and 31st March 2020</td></tr>
<tr><td>Data Source</td><td>Cancer Audit Support Environment (eCASE). A secure centralised web-based database which holds cancer audit information in Scotland.</td></tr>
<tr><td>Data extraction date</td><td>2200 hrs on 14th April 2021</td></tr>
<tr><td>Methodology</td><td>Analysis was performed centrally for the region by the WoSCAN Information Team. The timescales agreed took into account the patient pathway to ensure that a complete treatments record was available for the majority of patients.

Initial results were provided to Boards to check for inaccuracies, inconsistencies or obvious gaps and a subsequent download taken upon which final analysis was carried out.

The final data analysis was disseminated for NHS Board verification in line with the regional audit governance process to ensure that the data was an accurate representation of service in each area. Please see info graphic in appendix 2 for a more detailed look at the reporting process.</td></tr>
<tr><td>Data Quality</td><td>Audit data completeness can be assessed by estimating the proportion of expected patients that have been identified through audit compared to the number reported by the National Cancer registry (provided by ISD, National Services Division); this is known as case ascertainment. Figures should only be used as a guide as it is not possible to compare the same exact cohort from each data source. Note that a 5 year average is taken for cancer registry cases to take account of annual fluctuations in incidence within NHS Boards.

<table>
<tr><th></th><th>Ayrshire & Arran</th><th>Forth Valley</th><th>GGC</th><th>Lanarkshire</th><th>WoS</th></tr>
<tr><td>Cases from audit</td><td>115</td><td>91</td><td>337</td><td>157</td><td>700</td></tr>
<tr><td>Cases from ISD (2003-2007)*</td><td>123</td><td>99</td><td>374</td><td>143</td><td>739</td></tr>
<tr><td>Case ascertainment</td><td>93.5%</td><td>91.9%</td><td>90.1%</td><td>109.8%</td><td>94.7%</td></tr>
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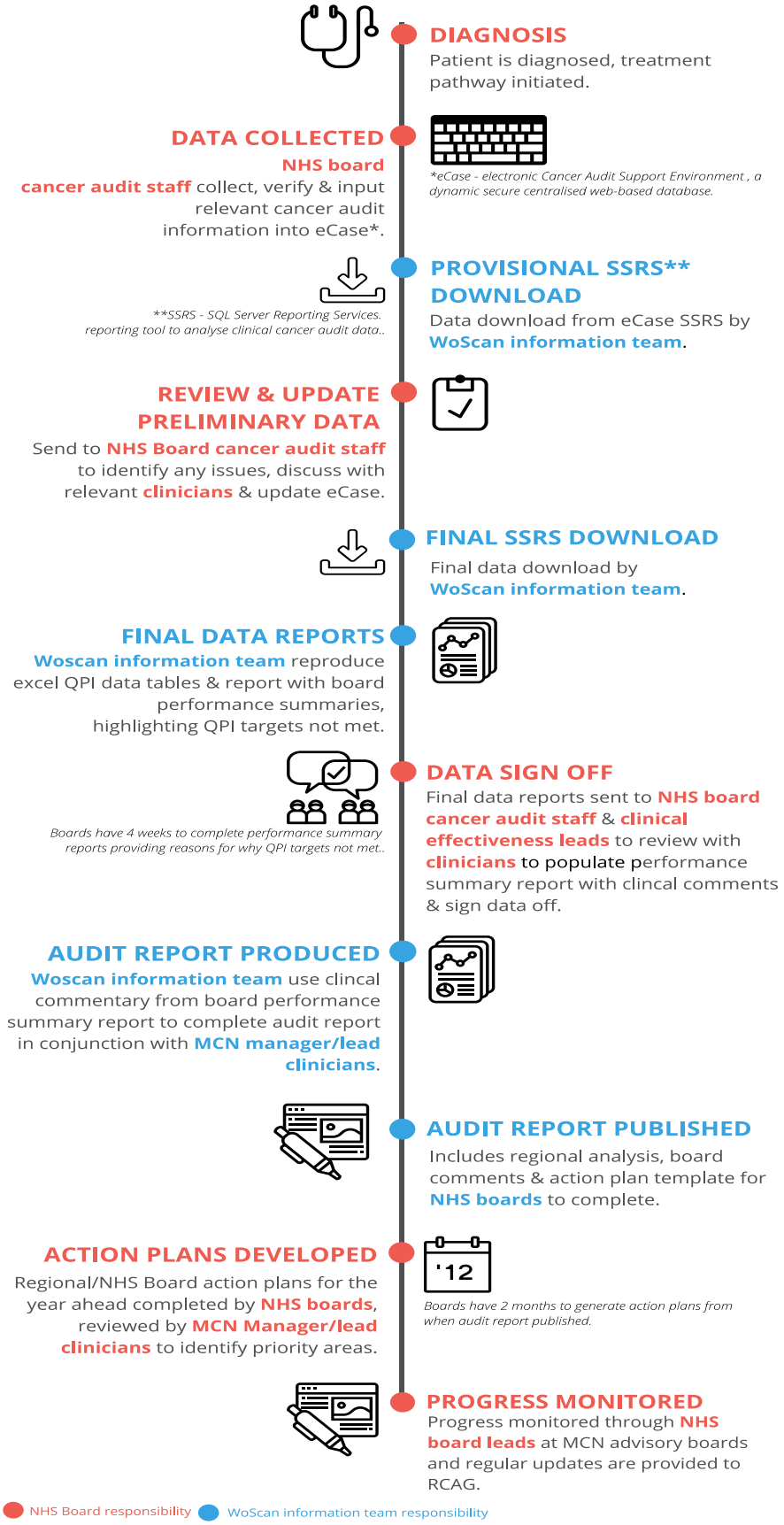
</table>

Appendix 2: Cancer Audit Timeline



Appendix 3: NHS Board Action Plans

A summary of actions for each NHS Board has been included within the following Action Plan templates. Completed Action Plans should be returned to WoSCAN within two months of publication of this report.

Bladder Cancer QPI Action / Improvements Plan

Area:	NHS Greater Glasgow & Clyde
Action Plan Lead:	
Date:	

KEY (Status)	
1	**Action fully implemented**
2	**Action agreed but not yet implemented**
3	**No action taken (please state reason)**

QPI No.	**Action Required**	**Health Board Action Taken**	**Timescales**		**Lead**	**Progress/Action Status**	**Status (see Key)**
			Start	**End**			
	Ensure actions mirror those detailed in Audit Report.	*Detail specific actions that will be taken by the NHS Board.*	*Insert date*	*Insert date*	*Insert name of responsible lead for each specific action.*	*Provide detail of action in progress, change in practices, problems encountered or reasons why no action taken.*	*Insert No. from key above*.
QPI 4 - Early Re-Transurethral Resection of Bladder Tumour	Clinicians in NHSGGC have developed a protocol to ensure the flagging up of high risk pathology and early discussion in the MDT. It is recommended that this good practice is shared with a view to adoption across the region.						

Bladder Cancer QPI Action / Improvements Plan

Area:	MCN
Action Plan Lead:	
Date:	

KEY (Status)	
1	**Action fully implemented**
2	**Action agreed but not yet implemented**
3	**No action taken (please state reason)**

QPI No.	**Action Required**	**Health Board Action Taken**	**Timescales**		**Lead**	**Progress/Action Status**	**Status (see Key)**
			Start	**End**			
	Ensure actions mirror those detailed in Audit Report.	*Detail specific actions that will be taken by the NHS Board.*	*Insert date*	*Insert date*	*Insert name of responsible lead for each specific action.*	*Provide detail of action in progress, change in practices, problems encountered or reasons why no action taken.*	*Insert No. from key above*.
QPI 2(ii) - Quality of Transurethral Resection of Bladder Tumour	The MCN will recommend the re-examination of the bladder diagram at Formal Review to ensure that only the most relevant key clinical items are highlighted as mandatory to help with compliance. *(QPI Definition)*						
QPI 2(ii) - Quality of Transurethral Resection of Bladder Tumour	MCN to support the onward progress and adoption of TRAK developments with a digital proforma. *(Data Capture)*						
QPI 3 – Mitomycin C Following Transurethral Resection of Bladder Tumour	MCN to discuss ahead of Formal Review, whether QPI 2iii exclusions or target could be amended to avoid the possibility of potentially driving negative practice in terms of more aggressive resection to obtain muscle in low grade lesions, as this could result in perforation and missed opportunity for post-operative Mitomycin-C. *(QPI Definition)*						

QPI No.	Action Required	Health Board Action Taken	Timescales		Lead	Progress/Action Status	Status (see Key)
			Start	End			
	Ensure actions mirror those detailed in Audit Report.	*Detail specific actions that will be taken by the NHS Board.*	*Insert date*	*Insert date*	*Insert name of responsible lead for each specific action.*	*Provide detail of action in progress, change in practices, problems encountered or reasons why no action taken.*	*Insert No. from key above*.
QPI 4 - Early Re-Transurethral Resection of Bladder Tumour	The MCN, at the national formal review of bladder QPIs, will recommend a change to align the QPI to guidelines by removing Ta G2 tumours from this QPI and thereby focussing the resource on the most time crucial cases. *(QPI Definition)*						
QPI 10 - Radical Radiotherapy with Chemotherapy	MCN to monitor the development of the new service being led by the clinical team in radiation oncology at BWoSCC, and MCN uro-oncology lead to provide an update to the MCN Advisory Board. *(Oncology)*						