

NOSCAN

North of Scotland
Cancer Network



**NORTH OF SCOTLAND
PLANNING GROUP**

Urological Cancer Managed Clinical Network

Audit Report

Bladder Cancer Quality Performance Indicators

Patients diagnosed April 2015 – March 2016

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The North of Scotland Cancer Network (or NOSCAN), is one of the 3 regional Scottish Cancer Networks, which report to their respective regional NHS Board Planning Groups and for specific workstreams, to the Scottish Cancer Taskforce Group.

The principle role of NOSCAN is to support the organization, planning and delivery of regional and national cancer services, and thereby to ensure consistent and high quality cancer care is being provided equitably across the North of Scotland.

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EXECUTIVE SUMMARY

This publication reports the performance of cancer services in the six NHS Boards in the North of Scotland (NoS) for patients diagnosed with bladder cancer between April 2015 and March 2016. The quality of Board and regional performance are measured and reported against a set of nationally agreed standards (the Bladder Cancer Quality Performance Indicators, or 'QPIs') that were clinically identified and thereafter service implemented across Scotland.

2015-2016 is the second year in which bladder cancer QPI data have been collected in Scotland, during which time in the North of Scotland:

- 359 patients diagnosed with bladder cancer were audited.
- The results reported were considered to be representative of bladder cancer services in the region.

Summary of QPI Results

QPI	QPI Target	Performance ^b					
		NOSCAN	NHS Grampian	NHS Highland	NHS Orkney	NHS Tayside	NHS W Isles
QPI 1: Multi-Disciplinary Team Meeting Discussion - Proportion of patients with bladder cancer who are discussed at MDT meeting before definitive treatment.							
(i) Patients with Muscle Invasive Bladder Cancer (MIBC)	95%	92% n=97	95% n=41	95% n=19	-	100% n=28	43% n=7
(ii) Patients with Non Muscle Invasive Bladder Cancer (NMIBC)	95%	91% n=235	87% n=91	88% n=32	60% n=5	97% n=103	-
QPI 2: Quality of Transurethral Resection of Bladder Tumour - Proportion of patients with bladder cancer who undergo good quality TURBT.							
(i) Use of a bladder diagram / detailed description with documentation of tumour location, size, number and appearance.*	80%	31% n=304	30% n=129	49% n=57	-	20% n=115	-
(ii) Whether the resection is complete or not.*	80%	58% n=304	77% n=129	63% n=57	-	33% n=115	-
(iii) Whether detrusor muscle included in the specimen.*	80%	81% n=304	76% n=129	79% n=57	-	89% n=115	-

QPI 3: Mitomycin C Following Transurethral Resection of Bladder Tumour (TURBT) - Proportion of patients with NMIBC who undergo TURBT who receive a single instillation of mitomycin C within 24 hours of resection.	60%	57% n=235	71% n=92	16% n=32	-	57% n=101	-
QPI 4: Early Re-Transurethral Resection of Bladder Tumour (TURBT) - Proportion of patients who have undergone TURBT with high risk NMIBC, where detrusor muscle is absent from specimen or initial resection is incomplete, who have a second resection or early cystoscopy within 6 weeks of initial TURBT.							
(i) Patients with high risk NMIBC.*	80%	13% n=124	14% n=51	36% n=14	-	7% n=57	-
(ii) Patients where detrusor muscle absent from specimen.*	80%	10% n=30	16% n=19	-	-	0% n=7	-
(iii) Where initial resection is incomplete.*	80%	33% n=18	33% n=9	-	-	33% n=6	-
QPI 5: Pathology Reporting - Proportion of patients with bladder cancer who undergo TURBT or cystectomy reported according to the guidelines provided by the Royal College of Pathology for the reporting of these specimens.							
(i) Patients undergoing TURBT	90%	53% n=329	46% n=131	25% n=51	60% n=5	69% n=131	50% n=8
(ii) Patients undergoing cystectomy	90%	84% n=37	56% n=9	78% n=9	-	100% n=19	-
QPI 6: Lymph Node Yield - Proportion of patients with bladder cancer who undergo primary radical cystectomy where ≥ 10 lymph nodes are resected and pathologically examined.*	90%	77% n=31	45% n=11	-	-	100% n=17	-
QPI 7: 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 treatment where patients are undergoing neoadjuvant chemotherapy.							
(i) Patients undergoing radical treatment (cystectomy or radiotherapy).	90%	57% n=21	63% n=16	-	-	-	-
(ii) Patients undergoing neoadjuvant chemotherapy.	90%	50% n=14	71% n=7	29% n=7	-	-	-
QPI 8: Volume of Cases Per Surgeon - Number of radical cystectomy procedures performed by a surgeon over a 1 year period.	min. 10	NHS Highland		Surgeon 1	8		
		NHS Highland		Surgeon 2	1		
		NHS Highland		Surgeon 3	1		
		NHS Tayside		Surgeon 1	17		
		NHS Grampian		Surgeon 1	4		
		NHS Grampian		Surgeon 2	1		
		NHS Grampian		Surgeon 3	1		
		NHS Grampian		Surgeon 4	5		

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.	85%	79% n=24	100% n=8	100% n=6	-	50% n=10	-
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%	56% n=25	45% n=20	-	-	-	-
QPI 11: 30 / 90 Day Mortality after Treatment for Bladder Cancer - Proportion of patients with bladder cancer who die within 30 / 90 days of treatment with curative intent for bladder cancer.							
(ia) Surgery – 30 day mortality*	<5%	0% n=11	0% n=6	-	-	-	-
(ib) Surgery – 90 day mortality*	<5%	0% n=11	0% n=6	-	-	-	-
(iia) Radical radiotherapy – 30 day mortality	<5%	0% n=25	0% n=20	-	-	-	-
(iib) Radical radiotherapy – 90 day mortality	<5%	4% n=23	6% n=18	-	-	-	-
(iiaa) Chemotherapy – 30 day mortality	<5%	3% n=29	5% n=19	0% n=9	-	-	-
(iiib) Chemotherapy – 90 day mortality	<5%	7% n=29	11% n=19	0% n=9	-	-	-
Clinical Trials Access - Proportion of patients with bladder cancer who are enrolled in an interventional clinical trial or translational research.							
Interventional clinical trials	7.5%	4% n=198					
Translational research	15%	6% n=198					

Performance shaded pink where QPI target has not been met.

^b Excluding Boards with less than 5 patients.

* Results are analysed by Hospital of Diagnosis with the exception of QPIs 2, 4, 6 & 11(i), which are presented by 'Board of Surgery'.

During this second audit cycle, only one out of the 12 quality performance targets set for bladder cancer was achieved at regional level in the North of Scotland although some significant improvements in performance can be seen between the two years. There were eleven QPIs where the target was not met and various contributing factors were reported by NHS Boards for this. These factors are well understood and many NHS Boards have already

made efforts to resolve issues highlighted by the QPI results. In summary, the following issues are thought to be the major cause of QPI targets not being met;

- Some QPI definitions require amendment to make them as clinically relevant as possible (QPIs 1, 3, 5-7 & 9).
- Data collection is not uniform across all NHS Boards (e.g. TURBT proforma) and some data are not available for cancer audit staff to record, affecting QPI results.
- Staffing shortages, bed capacity and theatre availability impact on the ability of some NHS Boards to meet some QPIs.
- Small number of cases can skew the results (e.g. QPIs 7, 10 & 11).

Since the last audit report, some areas of improvement have been observed. In addition most NHS Boards have taken measures to improve performance that will have been implemented after the reporting period of this report. Consequently, it is anticipated the next audit results will be more compliant with the QPI targets.

The actions so far identified to improve data collection and service delivery in the North of Scotland include;

- Mainland NHS Boards to consider appointment of a dedicated bladder cancer nurse specialist to ensure all patients with bladder cancers are discussed at MDT.
- All NHS Boards to adopt a bladder proforma for recording findings at TURBT. All clinicians (senior and trainees) to be reminded about these proformas.
- All NHS Boards to ensure that local cancer audit teams have access to TURBT proforma.
- NHS Highland: The benefit of mitomycin C in patients with NMICB undergoing TURBT is widely accepted and it is recommended by various clinical guidelines. NHS Highland to instigate local department level discussion to achieve consensus on the use of mitomycin C and how this should be administered. If mitomycin C cannot be given in theatre, NHS Highland to consider giving mitomycin C on the ward.
- NHS Orkney to ensure audit staff have access to information on procedures undertaken in other NHS Boards.
- All NHS Boards to work to improve availability of both beds and theatre time for patients requiring early re-TURBT including considering
 - Adding patients to the MDT immediately after TURBT, rather than waiting for pathology results. The MDT co-coordinator should be involved in this process so that the patient can be added to the final MDT list immediately once pathology results are available.

- Reserving small numbers of theatre slots each month in anticipation of patients requiring early re-resection.
- MCN to support the adoption of a standard pathology proforma for reporting bladder cancer across the North of Scotland.
- All NHS Boards to ensure that intent of surgery is clearly documented and available to cancer audit staff to allow accurate reporting.
- All NHS Boards to consider restricting numbers of surgeons undertaking radical cystectomy to 1 or 2 per NHS Board.
- All NHS Boards to work with SMR01 trackers to ensure that collection of data for radical cystectomies is accurate.
- All NHS Boards are encouraged to participate in clinical trials for bladder cancer.

A number of other areas have also been identified in this report where further work might be required with national partners to ensure that the bladder cancer QPIs are as clinically relevant as possible in the future, and able to better evaluate patient and service outcomes.

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1. Introduction

In 2010, the [Scottish Cancer Taskforce](#) established the [National Cancer Quality Steering Group](#) (NCQSG) to take forward the development of national [Quality Improvement Indicators](#) (QPIs) for all cancer types to enable national comparative reporting and drive continuous improvement for patients. In collaboration with the three Regional Cancer Networks ([NOSCAN](#), [SCAN](#) & [WoSCAN](#)) and [Information Services Division](#) (ISD), the first QPIs were published by [Healthcare Improvement Scotland](#) (HIS) in January 2012. [CEL 06 \(2012\)](#) mandates all NHS Boards in Scotland to report on specified QPIs on an annual basis. Data definitions and measurability criteria to accompany the Bladder Cancer QPIs are available from the ISD website¹.

The need for regular reporting of activity and performance (to assure the quality of care delivered) was first nationally set out as a fundamental requirement of a Managed Clinical Network (MCN) in [NHS MEL\(1999\)10](#)². This has since been further restated and reinforced in [HDL\(2002\)69](#)³, [HDL \(2007\) 21](#)⁴, and most recently in [CEL 29 \(2012\)](#)⁵.

This report assesses the performance of specialist cancer services for patients diagnosed with bladder cancer in the North of Scotland Cancer Network during the twelve months from 1st April 2015 to 31st March 2016.

Using clinical audit data, which has been collected at individual Board level for all patients diagnosed with an bladder cancer during the period indicated, performance is reported against the Bladder Cancer Quality Performance Indicators (QPIs)⁶ which were implemented for patients diagnosed on or after 1st April 2014. Results are reported both by Board, and collectively as a network, with supporting narrative to enhance understanding of performance outcomes.

2. Background

Six NHS Boards across the North of Scotland serve the 1.40 million population⁷. There were 359 patients diagnosed with bladder cancer in the North of Scotland between 1st April 2015 and 31st March 2016. The configuration of the Multidisciplinary Teams (MDTs) in the North of Scotland for the management of urological cancer, which includes bladder cancer, is set out below.

MDT	Constituent Hospitals
Grampian	Aberdeen Royal Infirmary, Balfour Hospital, Kirkwall, Gilbert Bain Hospital, Lerwick
Highland	Raigmore Hospital, Inverness
Tayside	Ninewells Hospital, Dundee

2.1 National Context

Latest available cancer registration figures indicate that with 841 cases recorded in Scotland during 2014, bladder cancer is the tenth most common types of cancer. While it appears that incidence rates have decreased by 9% over the past 10 years, this is thought to be the result of a change in coding practice rather than a real change in occurrence⁸.

Survival from bladder cancer is lower than the average for all malignant neoplasms, with a one year age-standardised relative survival for 2007-2011 of 74.6% and 5-year survival of 49.1% for men and considerably lower survival rates for women. Survival from bladder

cancer appears to have decreased considerably since 1987-1991, however this is an artefact of changes in the coding of bladder cancers between the two periods⁹. The table below details the percentage change in 1 and 5 year relative survival for patients diagnosed 1987-1991 to 2007-2011.

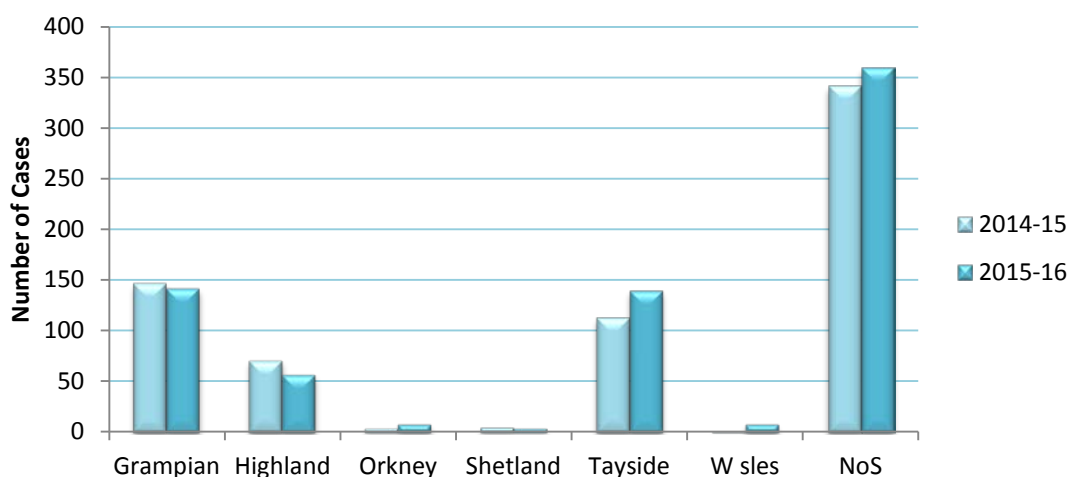
Relative age-standardised survival for bladder cancer in Scotland at 1 year and 5 years showing percentage change from 1987-1991 to 2007-2011⁹.

Sex	Relative survival at 1 year (%)		Relative survival at 5 years (%)	
	2007-2011	% change	2007-2011	% change
Male	74.6%	- 6.7%	49.1%	- 14.2%
Female	63.3%	-9.5%	36.2%	-22.0%

2.2 North of Scotland Context

Between 1st April 2015 and 31st March 2016, a total of 359 cases of bladder cancer were diagnosed in the North of Scotland and recorded through audit.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
Number of Patients	142	57	8	4	140	8	359
% of NoS total	40%	16%	2%	1%	39%	2%	100%



Number of patients diagnosed with bladder cancer by Board of diagnosis 2014-15 and 2015-16

3. Methodology

The clinical audit data presented in this report were collected in accordance with an agreed dataset and definitions¹. The data were entered into the electronic Cancer Audit Support Environment (eCASE): a secure centralised web-based database.

Data for patients diagnosed between 1st April 2015 and 31st March 2016 were locally collated by cancer audit staff within individual NHS Boards. These data and any comments on QPI results were then signed-off at NHS Board level to ensure that the data was an accurate representation of service in each area prior to submission to NOSCAN for collation at a

regional level. The reporting timetable was developed to take into account the patient pathway (i.e. time taken from first cancer diagnosis until the point at which all information required to measure the QPIs is available) and thereby ensure that a complete treatment record was available for the vast majority of cases.

Where the number of cases meeting the denominator criteria for any indicator is between one and four, the results has not been shown in 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 are denoted with an asterisk (*). However, any commentary provided by NHS Boards relating to the impacted indicators will be included as a record of continuous improvement.

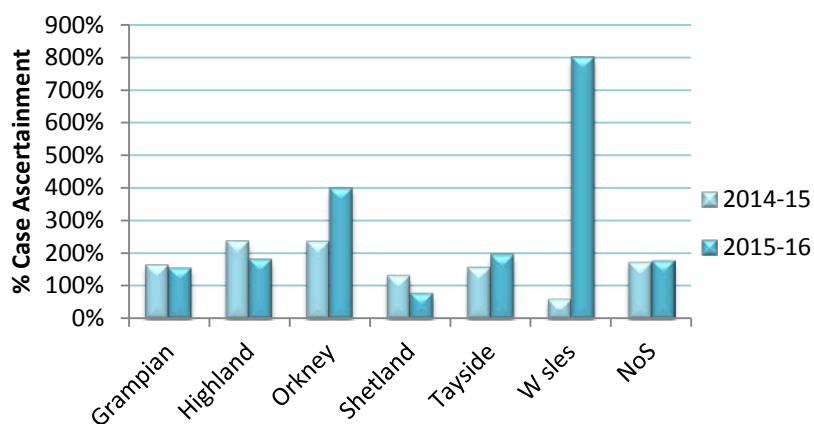
4. Results

4.1 Case Ascertainment

Audit data completeness can be assessed from case ascertainment, which is the proportion of expected patients that have been identified through audit within the time period measured. Case ascertainment is calculated by comparing the number of new cases identified by the cancer audit with a five year average of the total numbers having a similar diagnosis, as recorded by the National Cancer Registry (provided by Information Services Division (ISD)), for a particular NHS Board of diagnosis.

Cancer Registry figures were extracted from ACaDMe (Acute Cancer Deaths and Mental Health), a system provided by ISD. Due to timescale of data collection and verification processes, National Cancer Registry data are not available for 2016. Consequently an average of the previous five years' figures (i.e. 2010 to 2015) is used to take account of annual fluctuations in incidence within NHS Boards. It should be noted that case ascertainment figures are provided for guidance only: as it is not possible to compare the same cohort of patients, they are not an exact measurement of audit completeness.

Overall case ascertainment for the period reported in the North of Scotland was very high at 179%, slightly higher than the 2014-15 figure of 172%, however the reason for this high case ascertainment is due to differences between the way in which bladder cancer is defined through SCR and the QPI datasets. As such, total case ascertainment it not particularly meaningful for this tumour group however comparisons between Boards may be of some interest. Case ascertainment for each Board across the North of Scotland is illustrated below.



Case ascertainment by NHS Board for patients diagnosed with bladder cancer in 2014-2015 and 2015-16.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
Cases from audit 2015-16	142	57	8	4	140	8	359
ISD Cases (2011-2015)	90	31	2	5	71	1	201
% Case ascertainment 2015-16	158%	184%	400%	80%	197%	800%	179%
% Case ascertainment 2014-15	165%	237%	235%	132%	157%	59%	172%

QPI calculations based on data captured are considered to be representative of all patients diagnosed with bladder cancer during the audit period. For patients included within the audit, data collection was very good in some areas. However, the absence of recording of information on some aspects of surgical care across a number of NHS Boards did have a significant effect on the QPI results as follows;

- It is not always known if patients met the QPI. If there is no information to show that the patient met the QPI then the default position is to record the patient as not meeting it. This was a major issue for QPI 2(i), where there was insufficient information to assess whether 16% of patients met the QPI across the North of Scotland (35% in Tayside).
- It was not always known if patients should be included within the QPI. In the absence of sufficient information, patients will be excluded from the QPI calculation. This has affected results for QPI 4 where due to the absence of data up to 118 patients were not included in the figures and QPI 11, mortality following surgery.
- It is not always known if patients should be excluded from a QPI: unless there is adequate data to inform their exclusion, patients default to being included within the QPI calculation. This lack of information on whether patients should be excluded affected more than 50% of patients for each of QPI's 2, 4, 6 and 9.

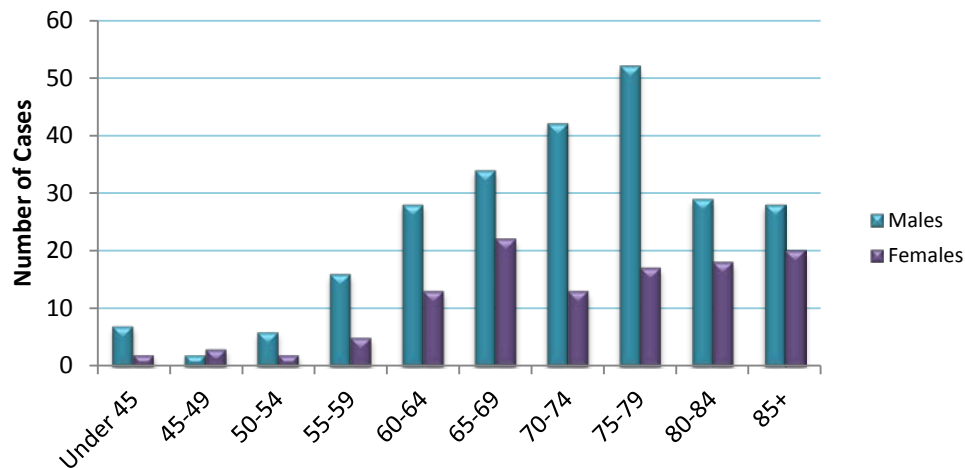
It should be noted that the data items that were not recorded differed slightly between NHS Boards however there were significant gaps in recording for all NHS Boards. This reflects the complex nature of the bladder cancer QPI dataset, which includes a lot of details information around TURBT and cystectomy that has not been routinely collected previously. Missing data items that most greatly affected QPI results were identified as follows:

- Intent of Surgery (TURBT)
- Bladder Diagram at TURBT
- Detrusor Muscle Sampled at TURBT
- Tumour Size at TURBT
- Number of Tumours at TURBT
- Tumour Appearance at TURBT
- Intravesical Instillation of Mitomycin C (and date)

- Complete Resection at TURBT
- Associated Carcinoma in Situ
- Intent of Surgery – Cystectomy
- Tumour Classification (Pathological)
- Tumour Grade

4.2 Age and Gender Distribution

The age distribution of patients diagnosed with bladder cancer in the North of Scotland in 2015-2016 is shown below. Incidence of bladder cancer were significantly higher in men than in women, with incidence peaking in the 65-69 age group for women and 75-79 age group for men.



Age distribution of patients diagnosed with bladder cancer in NOSCAN 2015-16.

4.3 Performance against Quality Performance Indicators (QPIs)

Results of the analysis of Bladder Cancer Quality Performance Indicators are set out in the following sections. Graphs and charts have been provided where this aids interpretation and, where appropriate, numbers have also been included to provide context.

Data for most QPIs are presented by Board of diagnosis, however surgical QPIs (QPIs 2, 4, 6 and 11a) are presented by Hospital of Surgery and QPI 8 is presented by surgeon. Where performance is shown to fall below the target, commentary is often included to provide context to the variation. Specific regional and NHS Board actions have been identified to address issues highlighted through the data analysis where appropriate.

QPI 1: Multi-Disciplinary Team Meeting Discussion

QPI 1: Multi-Disciplinary Team Meeting Discussion: Patients with bladder cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.

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.

Specification (i)

Numerator: Number of patients with 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.

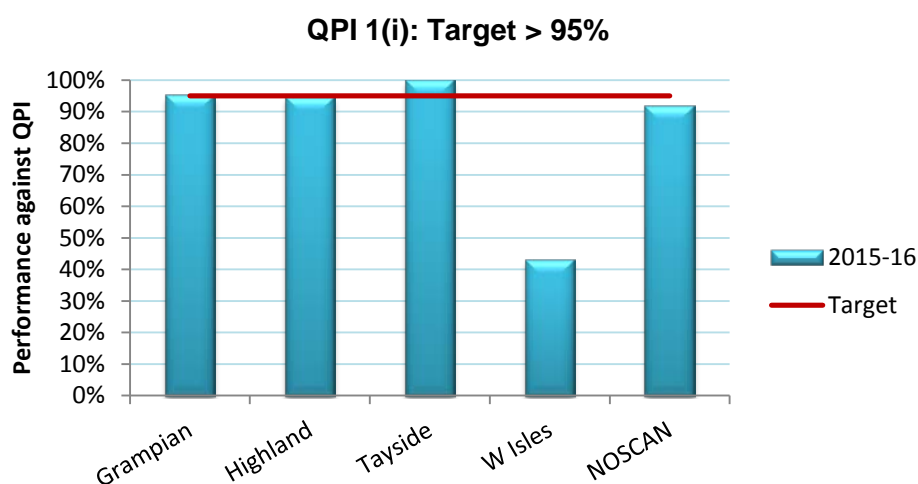
Exclusions: Patients who died before first treatment.

Target: 95%

QPI 1(i) Performance against target

89 of the 97 patients diagnosed with MIBC in the North of Scotland in 2015-2016 were discussed at the MDT prior to definitive treatment. This equates to a rate of 91.8%, which is below the target rate of 95%. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

At an NHS Board level NHS Grampian and NHS Tayside met this QPI while NHS Highland came very close to meeting the target with 94.7% of patients meeting this indicator.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	95.1%	39	41	0	0%	0	0%	0
Highland	94.7%	18	19	0	0%	0	0%	0
Orkney*	-	-	-	-	-	-	-	-
Shetland	-	0	0	0	-	0	-	0
Tayside	100%	28	28	0	0%	0	0%	0
W Isles	42.9%	3	7	0	0%	0	0%	0
NoS	91.8%	89	97	1	1.0%	0	0%	0

QPI 1: Multi-Disciplinary Team Meeting Discussion: Patients with bladder cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.

Specification (ii)

Numerator: Number of patients with Non Muscle Invasive Bladder Cancer discussed at the MDT following initial transurethral resection of bladder tumour (TURBT).

Denominator: All patients with NMIBC.

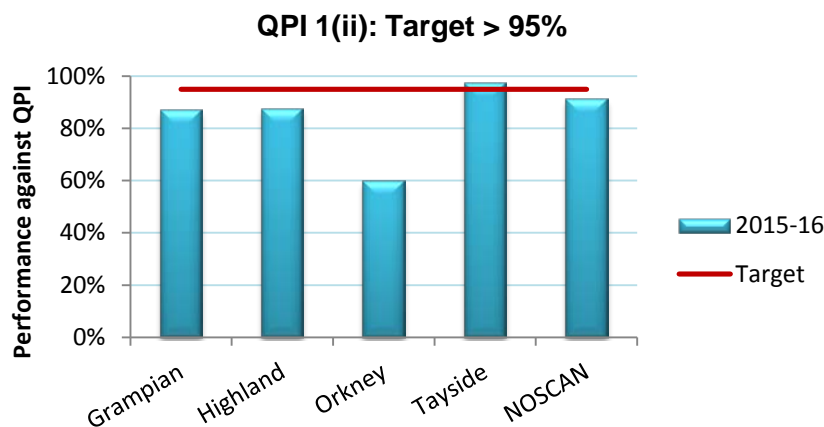
Exclusions: No Exclusions

Target: 95%

QPI 1(ii) Performance against target

214 of the 235 patients diagnosed with NMIBC in North of Scotland in 2015-2016 were discussed at the MDT following TURBT. This equates to a rate of 91.1%, which is below the target rate of 95%. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

At an NHS Board level NHS Tayside, NHS Shetland and NHS W Isles met this QPI.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	86.8%	79	91	0	0%	0	0%	0
Highland	87.5%	28	32	0	0%	0	0%	0
Orkney	60.0%	3	5	0	0%	0	0%	0
Shetland*	-	-	-	-	-	-	-	-
Tayside	97.1%	100	103	0	0%	0	0%	2
W Isles*	-	-	-	-	-	-	-	-
NoS	91.1%	214	235	0	0%	0	0%	2

The majority of patients with bladder cancers were discussed at MDT; however the QPI target was not met. NHS Tayside met targets for both MIBC and NMIBC while NHS Grampian met the target for MIBC but not NMIBC. NHS Boards identified the main reasons for not meeting the targets were staffing issue, involvement of multiple sites and complex category of patients which were actually discussed in MDT before TURBT. NHS Highland has noted improvements in performance against this QPI since the time of reporting, while NHS Grampian is in the process of appointing a dedicated bladder cancer nurse specialist, whose role will include ensuring all patients are discussed at MDT.

Actions Required:

- **Mainland NHS Boards to consider appointment of a dedicated bladder cancer nurse specialist to ensure all patients with bladder cancers are discussed at MDT.**
- **MCN to suggest to Formal Review of Bladder Cancer QPIs that patients with advanced disease having TURBT for palliation and patients with other concomitant cancers are excluded from QPI 1(ii) as these patients are likely to be discussed at MDT prior to TURBT.**

QPI 2: Quality of Transurethral Resection of Bladder Tumour Recording

QPI2: 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. Although the 10-year disease specific survival for Ta and T1 NMIBC is 85% and 70% respectively; the risk of recurrence is as high as 70%. Most recurrences are detected at the first check cystoscopy following initial TURBT and therefore attributable to residual disease or missed tumours at initial TURBT. These recurrences have been shown to vary according to the quality of the initial TURBT. Several surgical factors have hence been found to be associated with a good quality TURBT, thereby forming the benchmark for TURBT. These factors have been incorporated into this QPI.

Specification (i)

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:

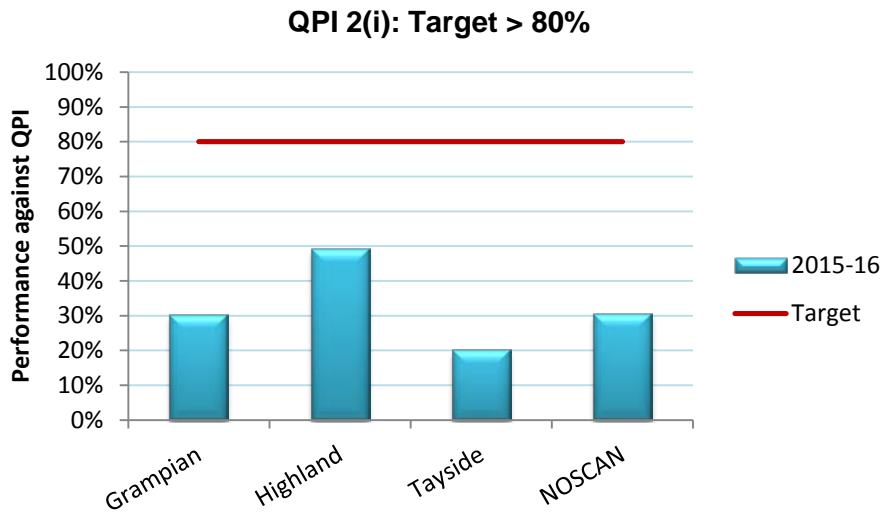
- Patients undergoing palliative resection.
- Patients with very small tumours ($\leq 5\text{mm}$).

Target: 80%

QPI 2(i) Performance against target

Across the North of Scotland, only 30.6% of the 304 patients diagnosed with bladder cancer in 2015-16, who had a TURBT met this indicator. This result falls far below the target rate of 80%. However it should be noted that there were significant problems with the availability of data to inform these results: 15.8% patients included within the QPI did not have information to clarify whether the QPI was met, and for 79.9% of patients who were included, there was inadequate information to assess whether they should be excluded from calculations due to either the tumour being very small or patients being on a palliative pathway. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

At Board level, this QPI was only met by NHS Shetland, who had very small numbers of patients.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	30.2%	39	129	8	6.2%	121	93.8%	0
Highland	49.1%	28	57	0	0%	24	42.1%	0
Orkney	-	0	0	0	-	0	-	0
Shetland*	-	-	-	-	-	-	-	-
Tayside	20.0%	23	115	40	34.8%	98	85.2%	0
W Isles	-	0	0	0	-	0	-	0
NoS	30.6%	93	304	48	15.8%	243	79.9%	0

When analysed by hospital of surgery, only one hospital met the QPI target, Gilbert Bain Hospital in NHS Shetland, and significant variation in performance can be seen between individual hospitals.

	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
ARI	36.9%	38	103	8	7.8%	95	92.2%	0
Dr Grays	3.8%	1	26	0	0%	26	100%	0
Raigmore	51.9%	27	52	0	0%	22	42.3%	0
Lorn & Islands	20.0%	1	5	0	0%	2	40.0%	0
Gilbert Bain*	-	-	-	-	-	-	-	-
Ninewells	22.5%	16	71	24	33.8%	62	87.3%	0
PRI	18.2%	4	22	8	36.4%	19	86.4%	0
Stracathro	13.6%	3	22	8	36.4%	17	77.3%	0

QPI2: Quality of Transurethral Resection of Bladder Tumour Recording: Transurethral resection of bladder tumour (TURBT) procedures undertaken should be of good quality.

Specification (ii)

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:

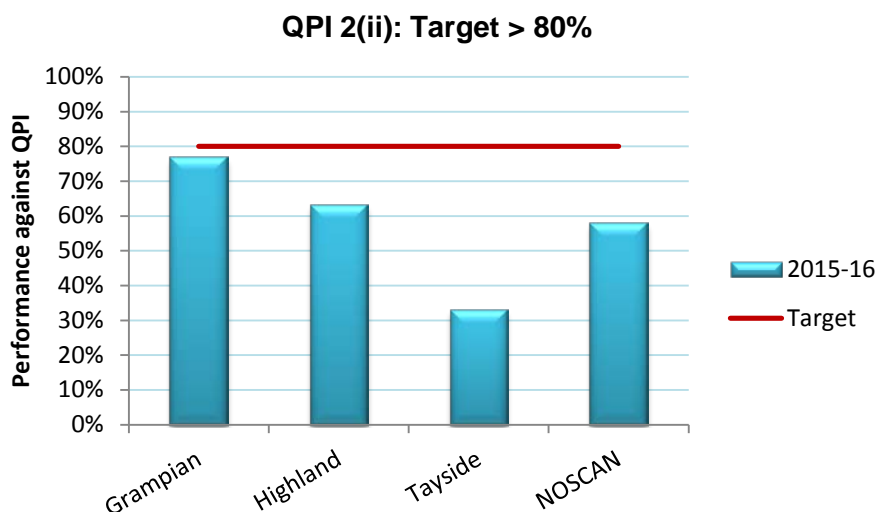
- Patients undergoing palliative resection.
- Patients with very small tumours ($\leq 5\text{mm}$).

Target: 80%

QPI 2(ii) Performance against target

Across the North of Scotland, in 57.9% of the 304 patients diagnosed with bladder cancer in 2015-16 who had a TURBT, there was documentation of whether the initial resection was complete or not. This result falls short of the target rate of 80%. However it should be noted that there were significant problems with the availability of data to inform these results, for 79.9% of patients who were included, there was inadequate information to assess whether they should be excluded from calculations due to either the tumour being very small or patients being on a palliative pathway. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

At Board level, this QPI was only met by NHS Shetland, who had very small numbers of patients.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	76.7%	99	129	0	0%	121	93.8%	0
Highland	63.2%	36	57	0	0%	24	42.1%	0
Orkney	-	0	0	0	-	0	-	0
Shetland*	-	-	-	-	-	-	-	-
Tayside	33.0%	38	115	1	0.9%	98	85.2%	0
W Isles	-	0	0	0	-	0	-	0
NoS	57.9%	176	304	1	0.3%	243	79.9%	0

When analysed by hospital of surgery, only three hospitals met the QPI target, Gilbert Bain Hospital in NHS Shetland, Dr Grays Hospital, NHS Grampian and Lorne and Islands Hospital, NHS Highland. Again, there was significant variation in performance between individual hospitals, with performance in NHS Tayside hospitals lower than that in NHS Grampian and NHS Tayside.

	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
ARI	73.8%	76	103	0	0%	95	92.2%	0
Dr Grays	88.5%	23	26	0	0%	26	100%	0
Raigmore	61.5%	32	52	0	0%	22	42.3%	0
Lorn & Islands	80.0%	4	5	0	0%	2	40.0%	0
Gilbert Bain*	-	-	-	-	-	-	-	-
Ninewells	38.0%	27	71	0	0%	62	87.3%	0
PRI	22.7%	5	22	0	0%	19	86.4%	0
Stracathro	27.3%	6	22	1	4.5%	17	77.3%	0

QPI2: Quality of Transurethral Resection of Bladder Tumour Recording: Transurethral resection of bladder tumour (TURBT) procedures undertaken should be of good quality.

Specification (iii)

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:

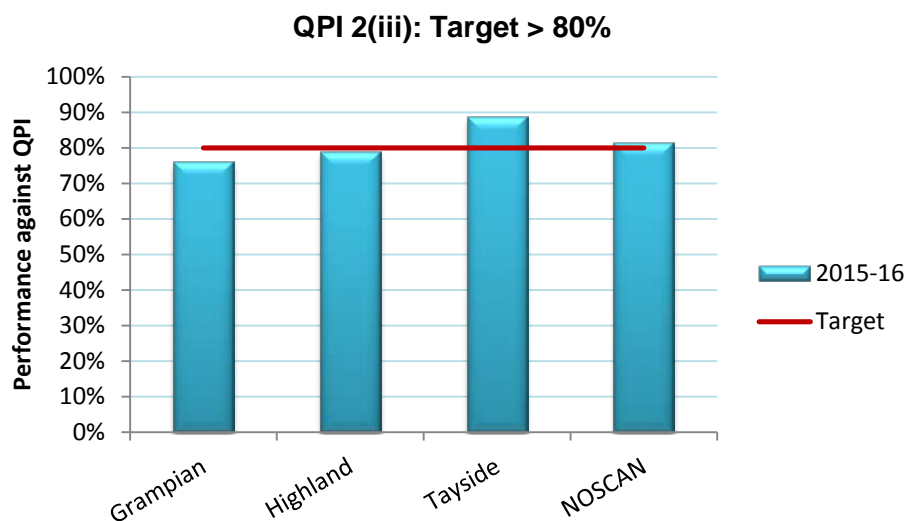
- Patients undergoing palliative resection.
- Patients with very small tumours ($\leq 5\text{mm}$).

Target: 80%

QPI 2(iii) Performance against target

Across the North of Scotland, in 81.3% of the 304 patients diagnosed with bladder cancer in 2015-16 who had a TURBT, detrusor muscle was included in the specimen at initial resection. This result exceeds the target rate of 80% despite the fact that there were significant problems with the availability of data to inform these results, for 79.9% of patients who were included, there was inadequate information to assess whether they should be excluded from calculations due to either the tumour being very small or patients being on a palliative pathway. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

At Board level this QPI was only met by NHS Tayside, although the target was only narrowly missed by NHS Highland.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	76.0%	98	129	1	0.8%	121	93.8%	0
Highland	78.9%	45	57	0	0%	24	42.1%	0
Orkney	-	0	0	0	-	0	-	0
Shetland*	-	-	-	-	-	-	-	-
Tayside	88.7%	102	115	0	0%	98	85.2%	0
W Isles	-	0	0	0	-	0	-	0
NoS	81.3%	247	304	1	0.3%	243	79.9%	0

When analysed by hospital of surgery the QPI target was met by 5 hospitals in the North of Scotland, Dr Grays Hospital, NHS Grampian, Lorne & Islands Hospital, NHS Highland and Ninewells Hospital, Perth Royal Infirmary and Stracathro Hospital, all in NHS Tayside.

	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
ARI	74.8%	77	103	1	1.0%	95	92.2%	0
Dr Grays	80.8%	21	26	0	0%	26	100%	0
Raigmore	76.9%	40	52	0	0%	22	42.3%	0
Lorn & Islands	100%	5	5	0	0%	2	40.0%	0
Gilbert Bain*	-	-	-	-	-	-	-	-
Ninewells	87.3%	62	71	0	0%	62	87.3%	0
PRI	100%	22	22	0	0%	19	86.4%	0
Stracathro	81.8%	18	22	0	0%	17	77.3%	0

This QPI is about the quality of recording of the findings at TURBT. Targets for this QPI were not met and main reason for this seems to be the difficulty in capturing data. Most NHS Boards have already put measures in place to facilitate accurate data recording and it is likely that results of next audit report will be more favourable.

Actions Required:

- **All NHS Boards to adopt a bladder proforma for recording findings at TURBT. All clinicians (senior and trainees) to be reminded about these proformas.**
- **All NHS Boards to ensure that local cancer audit teams have access to TURBT proformas.**

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

QPI3: 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%. 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 get re-implanted in the bladder mucosa, subsequently being detected as recurrence. 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 %. While there does not appear to be any difference in efficacy between the various agents, the use of mitomycin C is ubiquitous in the UK and therefore specified in the QPI. A single instillation of mitomycin C within 24 hours of TURBT for NMIBC is recommended.

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: No exclusions

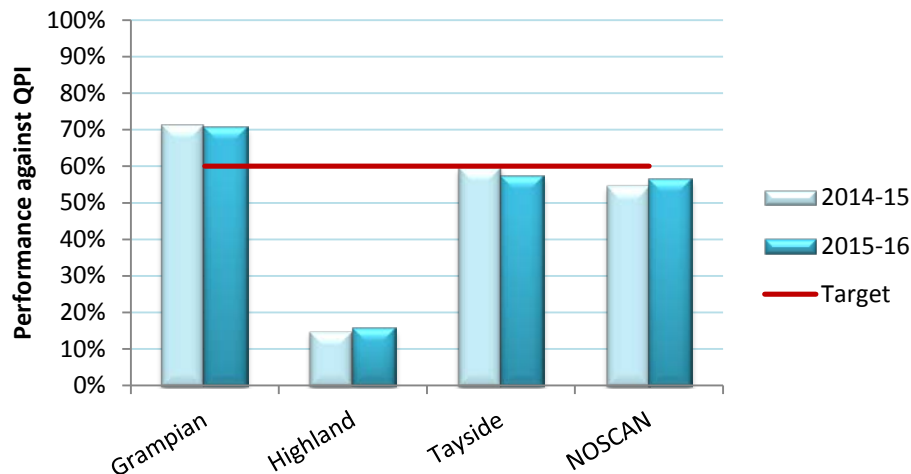
Target: 60%

QPI 3 Performance against target

In the North of Scotland 56.6% of patients diagnosed with NMIBC in 2015-2016 and undergoing TURBT received a single instillation of mitomycin C within 1 day of initial TURBT. This means that at a regional level, the target of 60% was not met with performance remaining at a similar to the 2014-15 level of 54.7%

At an NHS Board level, only NHS Grampian and NHS Shetland met the QPI standard required. Results for NHS Highland were notably lower than for other mainland Boards, while data had not been recorded on whether mitomycin C was given for some patients in NHS Tayside. Results were very similar to 2014-15, with similar geographic variation across the region.

QPI 3: Target > 60%



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	70.7%	65	92	1	1.1%	0	0%	0	-0.7%
Highland	15.6%	5	32	0	0%	0	0%	1	+0.5%
Orkney*	-	-	-	-	-	-	-	-	-
Shetland*	-	-	-	-	-	-	-	-	-
Tayside	57.4%	58	101	6	5.9%	0	0%	2	-2.3%
W Isles*	-	-	-	-	-	-	-	-	-
NoS	56.6%	133	235	8	3.4%	0	0%	3	+1.9%

Wide variation in results for this QPI can be seen across NHS Boards, with performance highest in NHS Grampian (70.7%) and lowest in Highland (15.6%). The lack of exclusion criteria for this QPI can also make results misleading and exclusion of patients with contraindications for mitomycin C should be considered when the QPIs are reviewed.

Actions Required:

- NHS Highland: The benefit of mitomycin C in patients with NMICB undergoing TURBT is widely accepted and it is recommended by various clinical guidelines. NHS Highland to instigate local department level discussion to achieve consensus on use of mitomycin C and how this should be administered. If mitomycin C cannot be given in theatre, NHS Highland to consider giving mitomycin on the ward.**

- **NHS Orkney to ensure audit staff have access to information on procedures undertaken in other NHS Boards.**
- **MCN to suggest to Formal Review of Bladder Cancer QPIs that patients with contraindications to mitomycin C, such as deep resection, endoscopic impression of solid looking tumour or post resection haematuria, are excluded from QPI 3.**

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

QPI 4: Early Re-Transurethral Resection of Bladder Tumour (TURBT): A second resection or early cystoscopy (\pm biopsy) should be carried out within 6 weeks of initial TURBT in patients with high risk non muscle invasive bladder cancer (NMIBC), when detrusor muscle is absent or when initial resection is incomplete, unless contraindicated.

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 and/or where the initial specimen shows a high grade Ta/T1 tumour. The second TURBT should be performed at 2-6 weeks after initial resection.

Specification (i)

Numerator: Number of patients with high risk NMIBC* who have undergone TURBT who have a second TURBT or early cystoscopy (\pm biopsy) within 6 weeks (42 days) of initial resection.

Denominator: All patients with high risk NMIBC who have undergone TURBT.

Exclusions: Patients where TURBT has been carried out for palliation.

Target: 80%

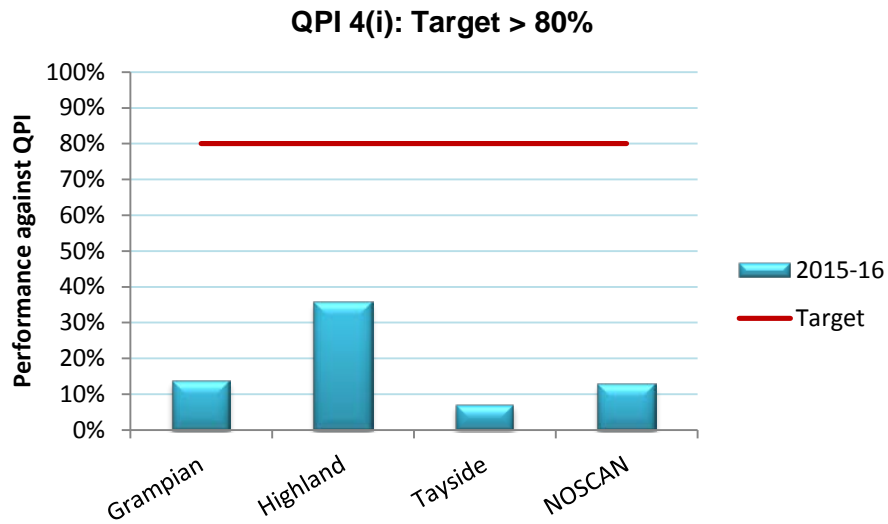
* High Risk NMIBC is defined as: patients with High Grade G2/G3, pT1 or pTa, or CIS

QPI 4 (i) Performance against target

Of the 124 patients diagnosed during 2015-2016 with high risk NMIBC in the North of Scotland, 16 (12.9 %) were recorded to have had a second TURBT or early cystoscopy within 6 weeks of initial resection.

Whilst results at a regional level are well below the target rate of 80%, this is in part due to the lack of recording of some data; for 63.7% of patients included in the figure, information on whether they should be excluded from the QPI was not available, and a further 43 patients could not be considered for inclusion due to a lack of information. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

At individual Board level, this QPI was not met by any of the NHS Boards in the North of Scotland. Results for NHS Highland were slightly higher than those from other Boards, possibly reflecting better data collection here.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	13.7%	7	51	0	0%	44	86.3%	16
Highland	35.7%	5	14	0	0%	0	0%	16
Orkney	-	0	0	0	-	0	-	0
Shetland*	-	-	-	-	-	-	-	-
Tayside	7.0%	4	57	0	0%	35	61.4%	11
W Isles	-	0	0	0	-	0	-	0
NoS	12.9%	16	124	0	0%	79	63.7%	43

Results for individual hospitals where TURBT was performed are shown below, with results from all hospitals falling well below the target level.

	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
ARI	17.5%	7	40	0	0.0%	33	82.5%	12
Dr Grays	0%	0	11	0	0.0%	11	100%	4
Raigmore	36.4%	4	11	0	0.0%	0	0%	16
Lorn & Islands*	-	-	-	-	-	-	-	-
Gilbert Bain*	-	-	-	-	-	-	-	-
Ninewells	12.9%	4	31	0	0.0%	19	61.3%	9
PRI	0%	0	12	0	0.0%	8	66.7%	2
Stracathro	0%	0	14	0	0.0%	8	57.1%	0

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

Specification (ii)

Numerator: Number of patients with high risk 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 risk NMIBC who have undergone TURBT where detrusor muscle absent from specimen.

Exclusions: Patients where TURBT has been carried out for palliation.

Target: 80%

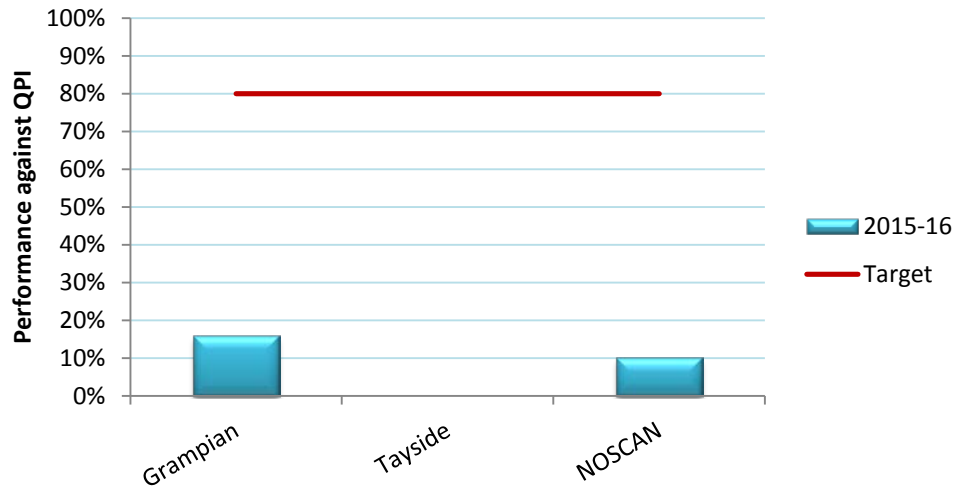
* High Risk NMIBC is defined as: patients with High Grade G2/G3, pT1 or pTa, or CIS

QPI 4 (ii) Performance against target

Of the 30 patients diagnosed with NMIBC in the North of Scotland during 2015-2016 who had TURBT where detrusor muscle was absent from the specimen, 3 (10.0%) had a second TURBT within 6 weeks. Consequently the target rate of 80% was not met. However as was noted for QPI 4(i) above, issues with data completeness are thought to have impacted on the results being reported. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

Results for all NHS Boards in the North of Scotland fell well below the target level required.

QPI 4(ii): Target > 80%



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	15.8%	3	19	0	0%	17	89.5%	4
Highland*	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0
Shetland*	-	-	-	-	-	-	-	-
Tayside	0%	0	7	0	0%	5	71.4%	3
W Isles	-	0	0	0	-	0	-	0
NoS	10.0%	3	30	0	0%	22	73.3%	14

Analysis by hospital of TURBT not shown as only one hospital, Aberdeen Royal Infirmary, had results based on 5 or more patients. The QPI target was not met in any hospital.

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

Specification (iii)

Numerator: Number of patients with high risk NMIBC* who have undergone TURBT where initial resection is incomplete who have a second TURBT or early cystoscopy (\pm biopsy) within 6 weeks (42 days) of initial resection.

Denominator: All patients with high risk NMIBC who have undergone TURBT where initial resection is incomplete.

Exclusions: Patients where TURBT has been carried out for palliation.

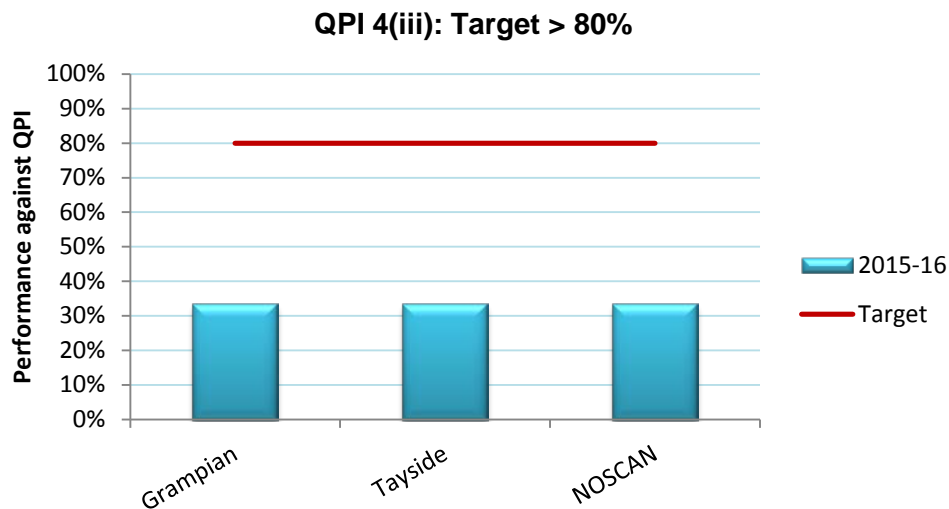
Target: 80%

* High Risk NMIBC is defined as: patients with High Grade G2/G3, pT1 or pTa, or CIS

QPI 4 (iii) Performance against target

Of the 18 patients diagnosed with NMIBC in the North of Scotland during 2015-2016 who had TURBT where the initial resection was incomplete, 6 (33.3%) had a second TURBT within 6 weeks. Consequently the target rate of 80% was not met. However, as with specification (i) and (ii) above, the lack of information on whether patients should be excluded from the QPI and the lack of information on whether 69 patients should be included within the QPI is likely to have impacted on these results. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

No NHS Boards within the North of Scotland individually met this QPI target.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	33.3%	3	9	0	0%	8	88.9%	18
Highland*	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0
Shetland	-	0	0	-	-	-	-	-
Tayside	33.3%	2	6	0	0%	2	33.3%	39
W Isles	-	0	0	0	-	0	-	0
NoS	33.3%	6	18	0	0%	10	55.6%	69

Analysis by hospital of TURBT is not shown as only one hospital, Aberdeen Royal Infirmary, had results based on 5 or more patients. The QPI target was not met in any hospital.

All NHS Boards struggle to come close to the target set for this QPI. Although the majority of patients did get re-resection it was not within 6 weeks. Logistical issues such as shortages of hospital beds, theatre cancellation etc. remain a major challenge and prevent cancer centres from achieving the target.

Early re-resection in Primary CIS is not recommended as per European Association of Urology guidelines. During the Formal Review of Bladder Cancer QPs this QPI should be amended to provide more clarity about inclusion and exclusion criteria.

Actions Required:

- **All NHS Boards to work to improve availability of both beds and theatre time for patients requiring early re-TURBT including considering**
 - **Adding patients to the MDT immediately after TURBT, rather than waiting for pathology results. The MDT co-coordinator should be involved in this process so that the patient can be added to the final MDT list immediately once pathology results are available.**
 - **Reserving small numbers of theatre slots each month in anticipation of patients requiring early re-resection.**

In addition, actions around recording identified under QPI 2 will also help ensure robust information for reporting of this QPI.

QPI 5: Pathology Reporting

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.

To help plan treatment for patients diagnosed with bladder cancer, prognostic information from the TURBT and cystectomy is necessary. 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.

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

Denominator: All patients with bladder cancer who undergo TURBT or cystectomy.

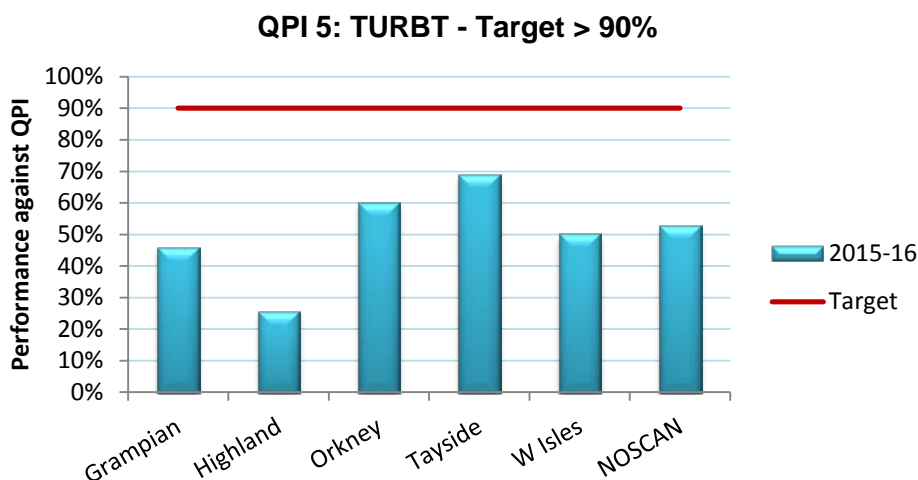
Exclusions: No exclusions.

Target: 90%

QPI 5 Performance against target

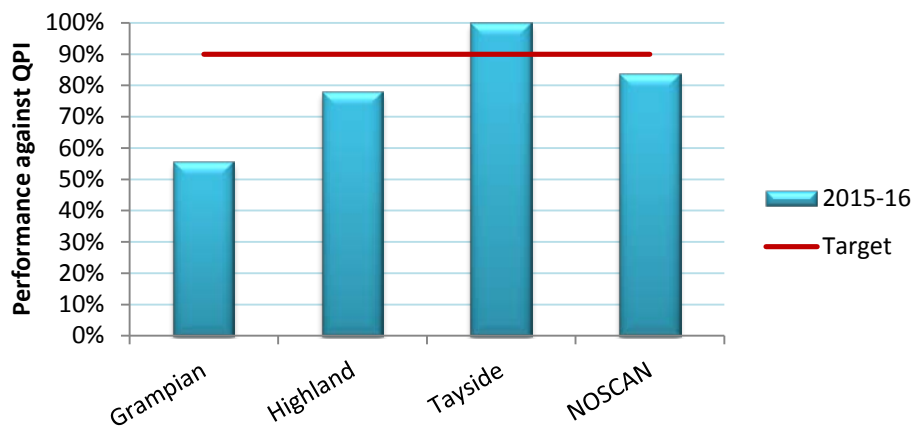
Of the 329 patients diagnosed with bladder cancer and undergoing TURBT in the North of Scotland during 2015-2016, the pathology reports of 173 of these patients (52.6%) contained all relevant data items. Results for patients who had a cystectomy were higher, of the 37 patients diagnosed with bladder cancer in 2015-2016 and having a cystectomy 31 (83.8%) had all relevant data items within their pathology report. These figures show that the target of 90% was not met in the North of Scotland for either group. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

At a Board level this QPI was only met by NHS Shetland for patients undergoing TURBT and by NHS Tayside for patients undergoing cystectomy.



TURBT	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	45.8%	60	131	0	0%	0	0%	0
Highland	25.5%	13	51	0	0%	0	0%	0
Orkney	60.0%	3	5	0	0%	0	0%	0
Shetland*	-	-	-	-	-	-	-	-
Tayside	68.7%	90	131	0	0%	0	0%	0
W Isles	50.0%	4	8	0	0%	0	0%	0
NoS	52.6%	173	329	0	0%	0	0%	0

QPI 5: Cystectomy - Target > 90%



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	55.6%	5	9	0	0%	0	0%	0
Highland	77.8%	7	9	0	0%	0	0%	0
Orkney	-	0	0	0	-	0	-	0
Shetland	-	0	0	0	-	0	-	0
Tayside	100%	19	19	0	0%	0	0%	0
W Isles	-	0	0	0	-	0	-	0
NoS	83.8%	31	37	0	0%	0	0%	0

Performance against the target of this QPI is quite low in many NOSCAN cancer centres. Despite the review of this QPI in 2016, some pathologists in the North of Scotland remain concerned about the definition of this indicator. Additionally, pathology reports from non uro-pathologists also have been highlighted as affecting performance against this QPI in some NHS Boards.

Actions Required:

- **MCN to suggest to Formal Review of Bladder Cancer QPIs that pathology fields required to meet QPI 5 are reviewed, with input from all uro-pathologists within NOSCAN.**
- **MCN to support the adoption of a standard pathology proforma for reporting bladder cancer across the North of Scotland.**

QPI 6: Lymph Node Yield

QPI 6: Lymph Node Yield: For patients undergoing radical cystectomy for bladder cancer the number of lymph nodes examined should be maximised.

Adequate lymph node yield is important for accurate staging.

Numerator: Number of patients with bladder cancer who undergo primary radical cystectomy where ≥ 10 lymph nodes are resected and pathologically examined.

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

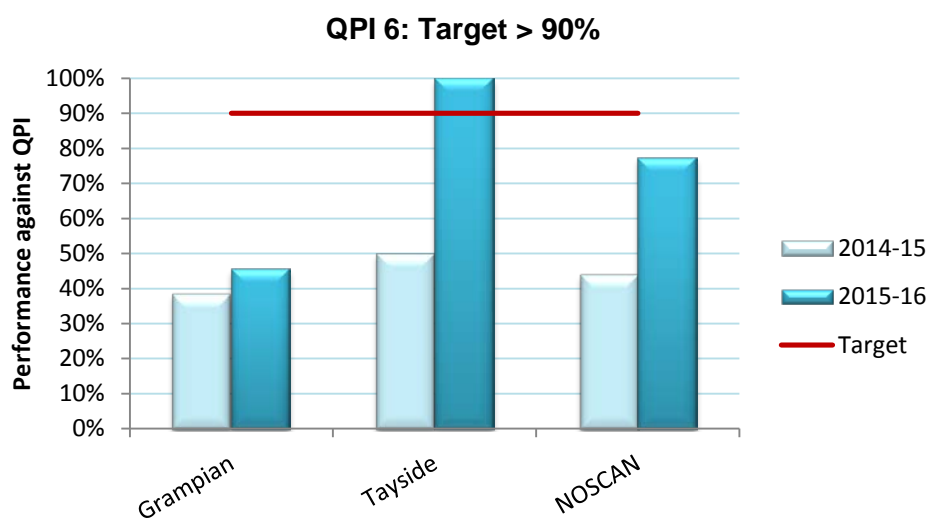
Exclusions: No Exclusions.

Target: 90%

QPI 6 Performance against target

In 2015 - 2016, 31 patients diagnosed with bladder cancer in the North of Scotland had a radical cystectomy. Of these, 24 (77.4%) had 10 or more lymph nodes resected and pathologically examined, which is below the target rate of 90% although a considerable improvement from the 2014-15 results of 44.0%. It should be noted however, that the absence of information for some patients will have affected the results of this QPI. In particular, in the absence of information on the intent of surgery for the majority of patients some patients on a palliative pathway may have been erroneously included within this QPI.

At individual NHS Board level, this QPI was met by one the NHS Board in the North of Scotland in 2015-2016, NHS Tayside. Analysis by hospital of surgery is identical to that for NHS Board of surgery, as this procedure was only undertaken in Aberdeen Royal Infirmary (NHS Grampian), Raigmore Hospital (NHS Highland) and Ninewells Hospital (NHS Tayside).



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	45.5%	5	11	0	0%	5	45.5%	0	+7.0%
Highland*	-	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0	-
Shetland	-	0	0	0	-	0	-	0	-
Tayside	100%	17	17	0	0%	14	82.4%	0	+50.0%
W Isles	-	0	0	0	-	0	-	0	-
NoS	77.4%	24	31	0	0%	19	61.3%	0	+33.4%

There is an overall improvement in this QPI compare to last year. NHS Tayside met the target for all patients, and this may reflect the fact that all cystectomies were performed by a single surgeon in this NHS Board. It should be noted that it is possible that some patients have been recorded as failing this QPI when they should have been excluded, due to lack of information being recorded.

Actions Required:

- **All NHS Boards to ensure that intent of surgery is clearly documented and available to cancer audit staff to allow accurate reporting.**
- **MCN to suggest to Formal Review of Bladder Cancer QPIs that the level or extent of lymph node dissection should be included in QPI 6.**

QPI 7: Time to Treatment

QPI 7: Time To Treatment: Patients with muscle invasive bladder cancer (MIBC) undergoing treatment with radical intent should commence treatment as soon as possible.

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.

Neoadjuvant chemotherapy should be offered to suitable patients prior to definitive radical therapy, this includes radical cystectomy, radical radiation therapy, or preoperative radiotherapy and cystectomy, therefore this treatment should be commenced as soon as possible following diagnosis.

Specification (i)

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: No exclusions

Target: 90%

QPI 7(i) Performance against target

Of the 21 patients diagnosed with MIBC in the North of Scotland during 2015-16 and undergoing radical cystectomy or radiotherapy, 12 (57.1%) began their treatment within 3 months of diagnosis. This means that at regional level, the North of Scotland did not meet the performance target of 90%. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

At individual Board level NHS Tayside did meet this QPI, although numbers of patients on which results were based were very small. Due to the small numbers of patients included within this measure in individual Boards, data are not presented graphically.

	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	62.5%	10	16	0	0%	0	0%	1
Highland*	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0
Shetland	-	0	0	0	-	0	-	0
Tayside*	-	-	-	-	-	-	-	-
W Isles	-	0	0	0	-	0	-	0
NoS	57.1%	12	21	0	0%	0	0%	8

QPI 7: Time To Treatment: Patients with muscle invasive bladder cancer (MIBC) undergoing treatment with radical intent should commence treatment as soon as possible.

Specification (ii)

Numerator: Number of patients with MIBC who have neoadjuvant chemotherapy who undergo cystectomy or chemoradiation within 8 weeks of treatment.

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

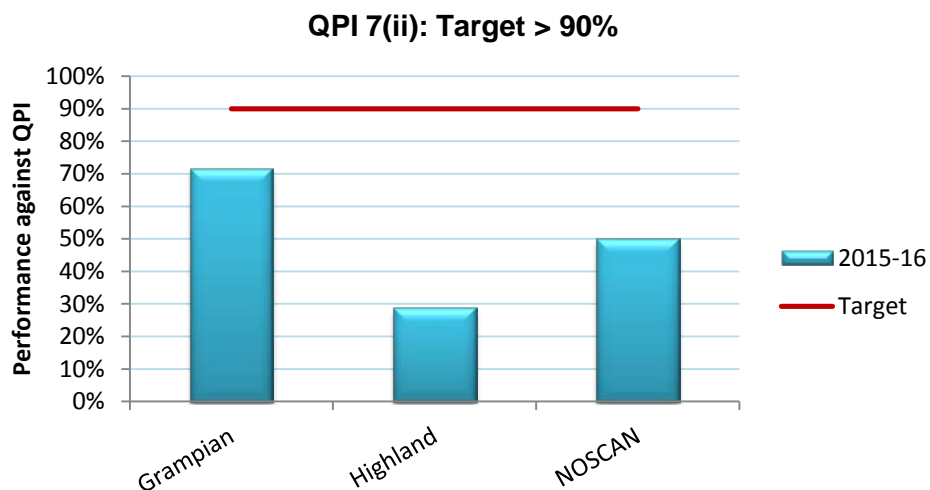
Exclusions: No exclusions

Target: 90%

QPI 7(ii) Performance against target

Of the 14 patients diagnosed with MIBC in the North of Scotland during 2015-2016 and undergoing neo-adjuvant chemotherapy, 7 (50.0%) had a cystectomy or chemoradiation within 8 weeks of treatment. This means that at regional level, the North of Scotland did not meet the performance target of 90%. It is not possible to compare results with the previous year due to changes in the way this QPI is measured.

No individual NHS Boards met this target.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator
Grampian	71.4%	5	7	0	0%	0	0%	2
Highland	28.6%	2	7	0	0%	0	0%	0
Orkney	-	0	0	0	-	0	-	0
Shetland	-	0	0	0	-	0	-	0
Tayside	-	0	0	0	-	0	-	1
W Isles	-	0	0	0	-	0	-	0
NoS	50.0%	7	14	0	0%	0	0%	3

Although the target for this QPI was not met, commentary from NHS Boards indicates that the majority of patients missed this target time by just a few days. Additionally, logistical issues and patient's factors also affected the results.

Actions Required:

- **MCN to suggest to Formal Review of Bladder Cancer QPIs that patients who require endoscopic control only are excluded from QPI 7.**

QPI 8: Volume of Cases per Surgeon

QPI 8: Volume of Cases per Surgeon: 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 reintervention rates.

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.

Specification: Number of radical cystectomy procedures performed by each surgeon in a given year.

Exclusions: No exclusions.

Target: Minimum 10 procedures per surgeon in a 1 year period.

QPI 8 Performance against target

One of the eight surgeons recorded as performing radical cystectomies in the North of Scotland during 2015-2016 was identified as performing 10 or more procedures and thereby meeting the QPI target.

Board of Surgery	Surgeon	Number of Cystectomy Procedures in 2014-2015
NHS Highland	Surgeon 1	8
	Surgeon 2	1
	Surgeon 3	1
NHS Tayside	Surgeon 1	17
NHS Grampian	Surgeon 1	4
	Surgeon 2	1
	Surgeon 3	1
	Surgeon 4	5

Overall, NOSCAN centres are not very high volume centres for radical cystectomy. Therefore if there is more than one surgeon performing radical cystectomy in each centre this target is unlikely to be met. However, it should be noted that these data were derived from the general / acute inpatient and day case database SMR01, rather than Cancer Audit, and there were some concerns that the results from these do not match surgeons personal records in both NHS Grampian and NHS Highland.

Actions Required:

- **All NHS Boards to consider restricting numbers of surgeons undertaking radical cystectomy to 1 or 2 per NHS Board.**
- **All NHS Boards to work with SMR01 trackers to ensure that collection of data for radical cystectomies is accurate.**
- **MCN to suggest to Formal Review of Bladder Cancer QPIs that there should be a clear statement about inclusion or exclusion of cystectomies done for other indications for QPI 8 (e.g. simple cystectomy or cystectomy as a part of pelvic exenteration for non-urological cancers).**

QPI 9: Oncological Discussion

QPI 9: Oncological Discussion: Patients with muscle invasive bladder cancer (MIBC) should have all treatment options discussed with them prior to radical cystectomy.

Evidence has shown that an informed discussion with patients to outline the aims, benefits and toxicity of treatment is necessary before therapy begins.

Numerator: Number of patients with muscle MIBC who undergo cystectomy who met with an oncologist prior to radical cystectomy.

Denominator: All patients with MIBC who undergo radical cystectomy.

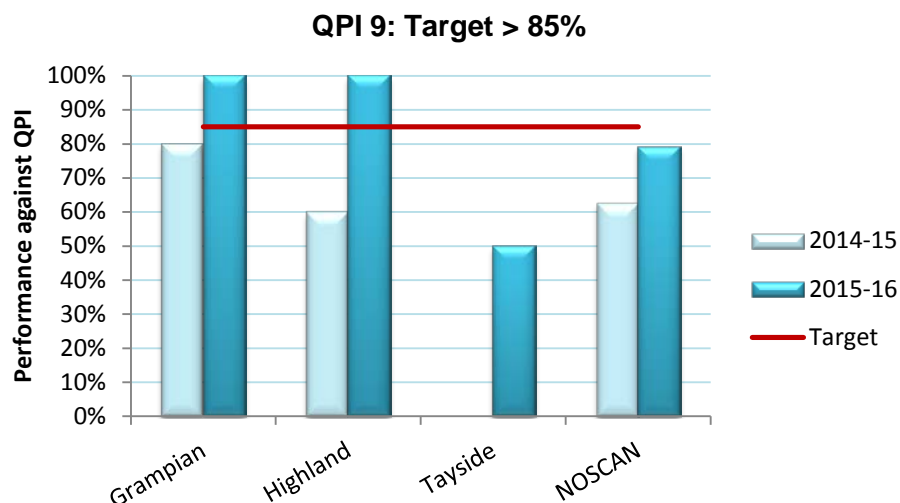
Exclusions: No Exclusions

Target: 85%

QPI 9 Performance against target

In the North of Scotland during 2015–16, 24 patients were diagnosed with muscle invasive bladder cancer and subsequently went on to have a radical cystectomy. Of these patients, 19 (79.2%) met with an oncologist prior to surgery. This falls short of the required target of 85% but is an increase on the 2014-15 figure of 62.5%.

At individual NHS Board level, two Boards (NHS Grampian and NHS Highland) met this QPI in the North of Scotland. However, it is noted that data for all Boards are based on small numbers of patients and therefore comparison of performance across NHS Boards is difficult.



	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	100%	8	8	0	0%	4	50%	0	+20.0%
Highland	100%	6	6	0	0%	0	0%	0	+40.0%
Orkney	-	0	0	0	-	0	-	0	-
Shetland	-	0	0	0	-	0	-	0	-
Tayside	50.0%	5	10	0	0%	8	80%	0	-
W Isles	-	0	0	0	-	0	-	0	-
NoS	79.2%	19	24	8	3.4%	12	50%	0	+16.7%

NHS Tayside highlighted that the patients that were not seen by an oncologist were not suitable for chemotherapy or radiotherapy and, while these cases were discussed at MDT, oncological review was not considered necessary. It is suggested that this QPI definition should be amended to reflect this situation.

Actions Required:

- **MCN to suggest to Formal Review of Bladder Cancer QPIs that QPI 9 is updated to exclude patients with contraindications for, or not suitable for, oncological treatments.**

QPI 10: Radical Radiotherapy with Chemotherapy

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 as opposed to radiotherapy alone significantly improves local control with no significant increase in toxicity.

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: No Exclusions

Target: 50%

QPI 10 Performance against target

In the North of Scotland during 2015-16, 56% of patients with transitional cell carcinoma of the bladder (T2-T4) receiving radical radiotherapy were treated concomitantly with chemotherapy. This meets of the target of 50% and is higher than the 2014-15 figure of 50%.

Across the North of Scotland, only NHS Highland and NHS Western Isles met the target for this QPI. However, it should be noted that results are based on small numbers of patients making it difficult to compare performance between NHS Boards. Consequently data are not shown graphically.

	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	45.0%	9	20	0	0%	0	0%	0	-33.6%
Highland*	-	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0	-
Shetland	-	0	0	0	-	0	-	0	-
Tayside	-	0	0	0	-	0	-	0	-
W Isles*	-	-	-	-	-	-	-	-	-
NoS	56.0%	14	25	0	0%	1	4%	0	+6.0%

The number of patients in this group is small however the QPI target was met and shows improvement from last year. It is expected that all NHS Boards will continue to adhere to their current policy and should document the reasons for those patients who are not given chemotherapy.

Actions Required:

None

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

QPI 11: 30/90 day mortality following treatment with curative intent for bladder cancer.

Treatment related mortality is a marker of the quality and safety of the whole service provided by the Multi Disciplinary Team (MDT).

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. This QPI is intended to ensure treatment is given appropriately, and the outcome reported on and reviewed.

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

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

Exclusions: No Exclusions

Target: < 5%

QPI 11 Performance against target

Radical cystectomy

None of the patients diagnosed with bladder cancer in the North of Scotland during 2015-2016 and who subsequently proceeded to have a radical cystectomy died within either 30 days or 90 days of surgery (0%). This level of performance far exceeded the required target of less than 5% and is the same as the 2014-2015 figure.

With zero mortality, all NHS Boards met this QPI. As radical cystectomies are only undertaken in a single hospital per NHS Board (ie, Aberdeen Royal Infirmary (NHS Grampian), Raigmore Hospital (NHS Highland) and Ninewells Hospital (NHS Tayside)), analysis by hospital of surgery yields identical results to analysis by NHS Board of Surgery.

30 and 90 day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	0%	0	6	0	0%	0	0%	5	0%
Highland*	-	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0	-
Shetland	-	0	0	0	-	0	-	0	-
Tayside*	-	-	-	-	-	-	-	-	-
W Isles	-	0	0	0	-	0	-	0	-
NoS	0%	0	11	0	0%	0	0%	19	0%

Radiotherapy

0% of patients diagnosed with bladder cancer in the North of Scotland during 2015-2016 and receiving radiotherapy died within 30 days of treatment, which is well within the target of less than 5% and below the 2014-2015 figure of 3.7%. The 90 day mortality following radiotherapy was higher at 4.3% but still meets the QPI target and is again lower than the 2014-2015 figure of 7.4%.

At individual NHS Board level the 30 day post radiotherapy mortality target was met by all NHS Boards. While the 90 day mortality target was not met by NHS Grampian this was due to the death of one patient.

30 Day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	0%	0	20	0	0%	0	0%	0	0%
Highland*	-	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0	-
Shetland	-	0	0	0	-	0	-	0	-
Tayside	-	0	0	0	-	0	-	0	-
W Isles*	-	-	-	-	-	-	-	-	-
NoS	0%	0	25	0	0%	0	0%	0	-3.7%

90 Day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	5.6%	1	18	0	0%	0	0%	0	-1.1%
Highland*	-	-	-	-	-	-	-	-	-
Orkney	-	0	0	0	-	0	-	0	-
Shetland	-	0	0	0	-	0	-	0	-
Tayside	-	0	0	0	-	0	-	0	-
W Isles*	-	-	-	-	-	-	-	-	-
NoS	4.3%	1	23	0	0%	0	0%	0	-3.1%

Chemotherapy

One of the 29 patients (3.4%) diagnosed with bladder cancer during 2015-2016 and undergoing chemotherapy died within 30 days of treatment, meeting the target of less than 5% but higher than the 0% in 2014-2015. Ninety day mortality was slightly higher at 6.9%, not meeting the target and again higher than the 2014-15 figure of 0%.

All NHS Boards met the QPI target for 30 and 90 day mortality except NHS Grampian. It should be noted that outcomes from individual patients can have a significant effect on results and it is therefore difficult to draw meaningful conclusions when comparing results for individual NHS Boards. It should be noted that no patients died within 90 days of receiving chemotherapy in NHS Grampian in 2014-5.

30 Day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	5.3%	1	19	0	0%	0	0%	0	+5.3%
Highland	0%	0	9	0	0%	0	0%	0	0%
Orkney	-	0	0	0	-	0	-	0	-
Shetland	-	0	0	0	-	0	-	0	-
Tayside*	-	-	-	-	-	-	-	-	-
W Isles	-	0	0	0	-	0	-	0	-
NoS	3.4%	1	29	0	0%	0	0%	0	+3.4%

90 Day Mortality	Performance (%)	Numerator	Denominator	Not recorded - Numerator	% not recorded - Numerator	Not recorded - Exclusions	% not recorded - Exclusions	Not recorded - Denominator	% change from 2014-2015
Grampian	10.5%	2	19	0	0%	0	0%	0	+10.5%
Highland	0%	0	9	0	0%	0	0%	0	0%
Orkney	-	0	0	0	-	0	-	0	-
Shetland	-	0	0	0	-	0	-	0	-
Tayside*	-	-	-	-	-	-	-	-	-
W Isles	-	0	0	0	-	0	-	0	-
NoS	6.9%	2	29	0	0%	0	0%	0	+6.9%

Results are affected by small number of patients. Of the three patients who died in NHS Grampian two had rapidly progressive bladder cancer and died within 90 days. One patient died following development of an acute bowel ischemia which could have been a side effect of chemotherapy.

Actions Required:

None identified.

Clinical Trials Access QPI

The ability of patients to readily access a Clinical Trial is a common issue for all cancer types, and in order to further support recruitment through more active comparison and measurement of Board and network performance across the country, a generic QPI was developed as part of the National Programme of cancer quality improvement. Further details on the development and definition of this QPI can be found [here](#).

The QPI is defined as follows.

Clinical Trials Access QPI	
All patients should be considered for participation in available clinical trials, wherever eligible.	
Numerator:	Number of patients with bladder cancer enrolled in an interventional clinical trial or translational research.
Denominator:	All patients with bladder cancer.
Exclusions:	No exclusions
Target:	Interventional clinical trials – 7.5% Translational research - 15%

Key points during the period audited:

- Seven of the patients diagnosed with bladder cancer in the North of Scotland in 2015 (3.5%) were recruited into interventional clinical trials in one of the three cancer centres in the region; this is well below the required target of 7.5% but higher than the 0% recruited in 2014.
- Recruitment into translational research in the North of Scotland in 2015 was slightly higher at 11 patients (5.5%), clearly missing the target of 15% but an improvement on the 2014 figure of 0%.

	Number of patients recruited	ISD Cases annual average (2011-2015)	Percentage of patients recruited
Interventional Clinical Trials	7	201	3.5%
Translational Research	11	201	5.5%

The QPI targets for clinical trials are 7.5% for interventional trials and for translational trials are 15%. It should be noted that these targets are ambitious, particularly with the move towards more targeted trials.

All cancer patients that pass through each of the three cancer centres in NOSCAN are considered for potential participation in the open trials currently available. However, as with other cancer specific studies, consequent to the demise of larger general trials and the advent of genetically selective trials that only target small populations of patients, many of the bladder cancer trials that are currently open to recruitment in the North of Scotland have very select eligibility criteria. Consequently they will only be available to a small percentage of the total number of people who were diagnosed with bladder cancer.

During 2015 in NOSCAN, there was 1 interventional trial and 1 translational trial open to recruiting patients (see Appendix 1), thereby offering patients with a bladder cancer diagnosis the opportunity to participate in a range of different bladder cancer trials. Furthermore, all the bladder cancer patients passing through the cancer centres in NOSCAN will have been assessed for eligibility for clinical trials: further enquiry indicates that of patients diagnosed with bladder cancer in the North of Scotland during 2015, 7 (3.5%) patients were screened for interventional trials and 11 (5.5%) were screened for translational trials during the reporting period. The numbers screened and recruited for bladder cancer have increase from the previous year. It should be noted that NHS Grampian started recruiting to the PHOTO trial in 2016.

Due to the increasing complexity of trials and time burden needed to run them effectively, and a lack of clinical and research support to run such further trials, it is not currently possible to open a greater number (and thereby to have a greater scope) of available trials in the North of Scotland. Constraints imposed by the commercial trial sponsors also limit the number of trials it is possible to open in smaller cancer centres such as those in the NOSCAN region. However a large number of feasibility requests for trials are continually being reviewed by all consultants and if an expression of interest is submitted, the chances that the site will be selected for running the trial are high.

Actions Required:

- **All NHS Boards are encouraged to participate in clinical trials for bladder cancer.**

5. Conclusions

The Quality Performance Indicators programme was first introduced in order to launch and thereafter drive forward a programme of continuous service improvement and to ensure the quality and equity of access to care for cancer patients across Scotland.

As part of this programme, the North of Scotland has recently launched a programme of annual reporting of regional performance against QPIs. This is the second time that the results of individual Board performance against the Bladder Cancer QPIs have been reported in the North of Scotland, providing a clearer measure of overall performance across the region, and a more formal structure around which any improvements will be made.

Case ascertainment was not a reliable measure of audit completeness due to the different ways in which bladder cancer has been defined in cancer audit compared with the Scottish Cancer Registry data. While it is thought that most patients have been captured by cancer audit, it is clear that there are significant gaps in the data collected for many of the patients, particularly in relation to surgical information. These gaps in the data have significantly affected the QPI results in first two years of QPI reporting.

During this second audit cycle, only one out of the 12 quality performance targets set for bladder cancer was achieved at regional level in the North of Scotland although some significant improvements in performance can be seen between the two years. There were eleven QPIs where the target was not met and various contributing factors were reported by NHS Boards for this. These factors are well understood and many NHS Boards have already made efforts to resolve issues highlighted by the QPI results. In summary, the following issues are thought to be the major cause of QPI targets not being met;

- Some QPI definitions require amendment to make them as clinically relevant as possible (QPIs 1, 3, 5-7 & 9).
- Data collection is not uniform across all NHS Boards (e.g. TURBT proforma) and some data are not available for cancer audit staff to record, affecting QPI results.
- Staffing shortages, bed capacity and theatre availability impact on the ability of some NHS Boards to meet some QPIs.
- Small number of cases can skew the results (e.g. QPIs 7, 10 & 11).

Since the last audit report, some areas of improvement have been observed. In addition most NHS Boards have taken measures to improve performance that will have been implemented after the reporting period of this report. Consequently, it is anticipated the next audit results will be more compliant with the QPI targets.

The actions so far identified to improve data collection and service delivery in the North of Scotland include;

- Mainland NHS Boards to consider appointment of a dedicated bladder cancer nurse specialist to ensure that all patients with bladder cancers are discussed at MDT.
- All NHS Boards to adopt a bladder proforma for recording findings at TURBT. All clinicians (senior and trainees) to be reminded about these proformas.
- All NHS Boards to ensure that local cancer audit teams have access to TURBT proformas.
- NHS Highland: The benefit of mitomycin C in patients with NMICB undergoing TURBT is widely accepted and it is recommended by various clinical guidelines. NHS Highland to instigate local department level discussion to achieve consensus on use of mitomycin C and how this should be administered. If mitomycin C cannot be given in theatre, NHS Highland to consider giving mitomycin on the ward.
- NHS Orkney to ensure audit staff have access to information on procedures undertaken in other NHS Boards.
- All NHS Boards to work to improve availability of both beds and theatre time for patients requiring early re-TURBT including considering
 - Adding patients to the MDT immediately after TURBT, rather than waiting for pathology results. The MDT co-coordinator should be involved in this process so that the patient can be added to the final MDT list immediately once pathology results are available.
 - Reserving small numbers of theatre slots each month in anticipation of patients requiring early re-resection.
- MCN to support the adoption of a standard pathology proforma for reporting bladder cancer across the North of Scotland.
- All NHS Boards to ensure that intent of surgery is clearly documented and available to cancer audit staff to allow accurate reporting.
- All NHS Boards to consider restricting numbers of surgeons undertaking radical cystectomy to 1 or 2 per NHS Board.
- All NHS Boards to work with SMR01 trackers to ensure that collection of data for radical cystectomies is accurate.
- All NHS Boards are encouraged to participate in clinical trials for bladder cancer.

A number of other areas have also been identified where further work might be required with national partners to ensure that the bladder cancer QPIs are as clinically relevant as possible in the future, and able to better evaluate patient and service outcomes. As such the MCN has an action to suggest the following QPI amendments at the Formal Review of Bladder Cancer QPIs, which will take place in early 2018.

- Patients with advanced disease having TURBT for palliation and patients with other concomitant cancers are excluded from QPI 1(ii) as these patients are likely to be discussed at MDT prior to TURBT.
- Patients with contraindications to mitomycin C, such as deep resection, endoscopic impression of solid looking tumour or post resection haematuria, are excluded from QPI 3.
- Pathology fields required to meet QPI 5 are reviewed, with input from all uro-pathologists within NOSCAN.
- The level or extent of lymph node dissection should be included in QPI 6.
- Patients who require endoscopic control only are excluded from QPI 7.
- There should be a clear statement about inclusion or exclusion of cystectomies done for other indications for QPI 8 (e.g. simple cystectomy or cystectomy as a part of pelvic exenteration for non-urological cancers).
- QPI 9 is updated to exclude patients with contraindications for, or not suitable for, oncological treatments.

The North of Scotland Urological Cancer 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 blank Action Plan template can be found in the Appendix to this report.

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

Progress against these plans will be monitored by the North of Scotland Urological Cancer MCN and any service or clinical issue which the Advisory Board considers not to have been adequately addressed will be escalated to the NHS Board Lead Cancer Clinician and Regional Lead Cancer Clinician. Additionally, progress will be reported to the Regional Cancer Advisory Forum (RCAF) annually by the NOSCAN Bladder Cancer Clinical Lead as part of the regional audit governance process to enable RCAF to review and monitor regional improvement.

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Appendix 1: Open clinical trials for bladder cancer that recruited patients in NOSCAN in 2015.

Trial	Principle Investigator	Trial Type
The PHOTO Trial	Ghulam Nabi (Tayside)	Interventional
ABLADE	Ghulam Nabi (Tayside)	Translational

Appendix 2: NHS Board Action Plans

A blank Action Plan template can be found attached. Completed Action Plans should be returned to NOSCAN within two months of publication of this report.

Action Plan: Bladder Cancer Patients diagnosed 2015-16

Board:	
Action Plan Lead:	
Date:	

Status key	
1	Action Fully Implemented
2	Action agreed but not yet implemented
3	No action taken (please state reason)

QPI	Action Required	NHS Board Action Taken	Date		Lead	Progress	Status
			Start	End			
	<i>Ensure actions mirror those detailed in Audit Report</i>	<i>Detail specific actions that will be taken by the NHS Board</i>	<i>Insert date</i>	<i>Insert date</i>	<i>Insert name of responsible lead for each action.</i>	<i>Detail actions in progress, changes in practice, problems encountered or reasons why no action has been taken.</i>	<i>Insert no. from key</i>