SCAN
South East Scotland Cancer Network

NHS SCOTLAND

Working regionally to improve cancer services

SOUTH EAST SCOTLAND CANCER NETWORK (SCAN)
PROSPECTIVE CANCER AUDIT

Prostate Cancer 2020-21 Comparative Audit Report

Patients diagnosed 1st July 2020 to 30th June 2021

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Document History

Version	Circulation	Date	Comments
1	SCAN Urology Leads sign off meeting	27/05/2022	Action points and comments agreed. Chair's summary to be added.
2	SCAN Lead Clinician and sign off group	30/05/2022	Lead's commentary added and comments to be approved by sign off group
3	SCAN Urology Group	20/06/2022	For any final comments and SCAN Group Approval by 13/08/2021
Final Version	SCAN Group SCAN Governance Framework SCAN Action Plan Board Executive Leads.	05/07/2022	Document to be assessed for disclosive data in preparation for publishing to the website.
Web Version	Published to SCAN website.		

SCAN Urology Chair Summary

This has been my first experience of in depth reviewing of QPI outcomes for Prostate Cancer. The experience of talking through with Adam and the other Audit facilitators opened up my eyes to the vast amount of detailed work required to produce these reports. So, we owe these people an immense amount of thanks for their continued efforts.

The purpose of these QPIs must be to reassure the public and clinicians of the quality of prostate cancer care in Scotland. They also serve as important ways in which to help shape and drive forward quality improvement and to reduce unwanted variation in practice and outcomes in Scotland. This first year has been eye-opening in the iterative manner in which some of the QPIs are written which does not always incorporate best practice and can show a “red”/”missed” QPI target as a result. An example of this is QPI 11 – for patients to have an MRI within 12 to 18months of starting active surveillance. Clearly designed to ensure patients were getting access to current best imaging, however, the time target did not allow for earlier MRI/intervention with biopsy in cases of a rising PSA which resulted in appropriate care (proceeding to earlier MRI, biopsy and treatment). It therefore serves to highlight that QPIs need constant changing in order to drive best care rather than driving care to achieve the QPIs which in the case I have highlighted would not have been in the patient’s best interest.

The impact of COVID on prostate cancer services has been significant from diagnostics, radiology through to surgery and oncological treatments. It has been pleasing to see all health professionals involved have continued to offer high quality care. As we emerge from COVID it is vital that the services for prostate cancer, the biggest cancer killer of men in the UK, are given greater priority in order to establish a service that is fit for the next decade.

It has been pleasing to see that despite COVID, the Board of Surgery were able to have their highest volume year of operations and a further improvement of the positive surgical margin rate from the year before. This further adds to the argument that high volume practice leads to better results and it remains vital that this continues. There remains doubt as to the importance of very focal apical positive margins (PSMs) from a biochemical recurrence standpoint. Furthermore, with the advent of Neurosafe and other techniques, pathological consistency remains important when comparing rates around the country. Waiting times for surgery and the percentage of low-risk prostate cancer operated on remain potential influencers on PSMs. These are two potential areas I think merit QPI focus in order to reduce the number of men with low-risk prostate cancer treated and also to introduce a maximum waiting time for surgery. Urology faces significant competing demands with other aggressive cancers (bladder, renal, testes, penile) and prostate cancer patients’ waits are often not held in as high importance. As we emerge from COVID, with the inevitable backlog, it is vital prostate cancer patients do not lose out.

The management of prostate cancer is evolving rapidly and some of the QPIs (7) are clearly out of date. It remains vital in my opinion that, in order to continue to reassure patients and also to help drive improvements in care, new QPIs for the outcomes of radiation-based treatments form part of the QPI process. This is particularly important given that more patients in SCAN were treated with radiation than surgery.

Finally in order to really make the QPI process impactful, it remains my strong belief that we establish closer working of clinicians around Scotland in formal quality improvement forum. From a surgical perspective, the Scottish government investment in Robotic systems across Scotland, I think provides the perfect opportunity for all prostate cancer surgeons to show how working more closely on the sharing of best practice can lead to best outcomes for patients across Scotland. This has been made easier with recording of surgical procedures and the widespread adoption of virtual meetings.

Mr D Good Consultant Urological Surgeon, NHS Lothian
June 2022

Clinical Recommendation Summary 2020 – 2021

QPI	Action required	Lead	Date for update
2&4	Suggest removing cystoprostatectomy incidental findings from this QPI at next Formal Review.	Lorna Bruce / QPI program	Awaiting formal review.
4	If possible, archive this QPI at formal review or remove timeframe. Otherwise request that CNS teams register all patients with the MDT	Lorna Bruce / QPI program/ CNS teams	Awaiting formal review.
5	UK audit has a measure for percentage of patients with Gleason 3+3 who undergo treatment with radiotherapy or surgery – consider for formal review	Lorna Bruce / QPI program	Awaiting formal review.
7i	SCAN Chair to write to outlier clinicians to remind registration at MDT	Alan McNeill	
7ii	This QPI is out-dated and requires to be reviewed in light of new additional therapies e.g., Abiraterone or Enzalutamide. Also consider exclusion criteria for elderly patients unsuitable for chemotherapy on basis of age or co-morbidities and where cases patients are not reviewed by the Oncology service.	Lorna Bruce / QPI program	Awaiting formal review.
11	QPI is out-dated and requires revision at formal review	Lorna Bruce / QPI program	Awaiting formal review.
14ii	Borders lead to write to radiology head in Borders. Explore reasons why radiologists are not recording PI-RADS or Likert scores	Ben Thomas	
15i	Services to encourage burden recording as high or low	All Clinical Leads	

Clinical Recommendation Summary 2019 – 2020

QPI	Action required	Lead	Progress at Board Level
2 & 4	Suggest removing cystoprostatectomy incidental findings from this QPI at next Formal Review.	Lorna Bruce / QPI program	Awaiting formal review.
7ii	This QPI is out-dated and requires to be reviewed in light of new additional therapies e.g., Abiraterone or Enzalutamide.	Lorna Bruce / QPI program	Awaiting formal review.
14ii	SCAN Lead clinician to liaise with Lothian radiology.	Alan McNeill	Implemented with broad adoption in Lothian.
15	Burden of metastases to be added in the annotation section of patient record.	Aravind Sundaramurthy	Implemented. Still a work in progress.

Prostate Cancer QPI Attainment Summary 2020-21		Target %	Borders		D&G		Fife		Lothian		SCAN	
QPI 2: Radiological Staging: High risk cases undergoing radical treatment, who had MRI + Bone scan.		95	N 10 D 10	100%	N 23 D 23	100%	N 57 D 57	100%	N 95 D 96	99.0%	N 185 D 186	99.5%
QPI 4: MDT Meeting: Patients with prostate cancer discussed by MDT before treatment	Non-metastatic prostate cancer (TanyNanyM0)	95	N 48 D 49	98.0%	N 104 D 105	99.0%	N 170 D 172	98.8%	N 325 D 370	87.8%	N 647 D 696	93.0%
	Metastatic prostate cancer (TanyNanyM1)	95	N 15 D 16	93.8%	N 29 D 33	87.9%	N 38 D 40	95.0%	N 90 D 107	84.1%	N 172 D 196	87.8%
QPI 5: Surgical Margins: Positive margins in pathologically confirmed organ confined pT2 radical prostatectomy		≤20	Presented by Board of Surgery						N 20 D 124	16.1%	N 20 D 124	16.1%
QPI 6: Surgical Volume: Radical prostatectomy /surgeon in 1 year		50+	Two of NHS Lothian consultants met the QPI target.									
QPI 7: Hormone Therapy and Docetaxel Chemotherapy	Hormone therapy within 31 days of MDM decision	95	N 13 D 14	92.9%	N 32 D 33	97.0%	N 40 D 40	100%	N 94 D 107	87.9%	N 179 D 194	92.3%
	Docetaxel chemotherapy within 90 days of Hormones	40	N 0 D 2	0%	N 0 D 15	0%	N 5 D 25	20.0%	N 0 D 41	0%	N 5 D 83	6.0%
QPI 8: Those undergoing prostatectomy who returned PROMs pre and post operatively (12-18 months) to assess continence.		50	Presented by Board of Surgery						N 110 D 172	64.0%	N 110 D 172	64.0%
QPI 11: Patients under active surveillance who have bpMRI or mpMRI within 12-18 months of diagnosis.		95	N 4 D 17	23.5%	N 4 D 14	28.6%	N 10 D 27	37.0%	N 36 D 50	72.0%	N 54 D 108	50.0%
QPI 13: Patients diagnosed with prostate cancer consented for a clinical trial / research study.		15	N 4 D 94	4.3%	N 3 D 131	2.3%	N 3 D 252	1.2%	N 54 D 514	10.5%	N 64 D 991	6.5%
QPI 14: Diagnostic Pre-biopsy MRI	Those for biopsy that had pre-biopsy bpMRI or mpMRI as initial investigation.	95	N 31 D 33	93.9%	N 78 D 79	98.7%	N 76 D 77	98.7%	N 223 D 225	99.1%	N 408 D 414	98.6%
	Those that had pre biopsy bpMRI or mpMRI reported with PI-RADS/ Likert	95	N 1 D 39	2.6%	N 52 D 100	52.0%	N 67 D 138	48.6%	N 8 D 314	2.5%	N 128 D 591	21.7%
QPI 15: Low Burden Metastatic Disease	Patients with metastatic prostate cancer in whom burden of disease is assessed.	95	N 17 D 17	100%	N 9 D 34	26.5%	N 12 D 40	30.0%	N 90 D 108	83.3%	N 128 D 199	64.3%
	Those with low metastatic burden that receive radiotherapy.	60	N 2 D 2	100%	N 4 D 5	80.0%	N 2 D 2	100%	N 18 D 26	69.2%	N 26 D 35	74.3%

Introduction and Methods

Cohort

This report covers patients newly diagnosed with prostate cancer in SCAN between 01/07/2020 and 30/06/2021. The results contained within this report are presented by NHS board of diagnosis, where the QPI relates to surgical outcomes the results has been presented by hospital of surgery.

Dataset and Definitions

The QPIs have been developed collaboratively with the three Regional Cancer Networks, Information Services Division (PHS), and Healthcare Improvement Scotland. QPIs are kept under regular review and be responsive to changes in clinical practice and emerging evidence.
The overarching aim of the cancer quality work programme is to ensure that activity at NHS board level is focused on areas most important in terms of improving survival and patient experience whilst reducing variance and ensuring safe, effective and person-centred cancer care.
Following a period of development, public engagement and finalisation, each set of QPIs is published by Healthcare Improvement Scotland. Accompanying datasets and measurability criteria for QPIs are published on the PHS website. NHS boards are required to report against QPIs as part of a mandatory, publicly reported programme at a national level.

The QPI dataset for prostate cancer was implemented from 01/07/2012 and this is the ninth publication of QPI results for prostate cancer within SCAN. The dataset is due for formal review in 2022. Changes to QPIs and how it will be measured will be discussed, agreed and implemented in the months to follow.

Audit Processes

Data was analysed by the audit facilitators in each NHS board according to the measurability document provided by PHS. SCAN data was collated by Adam Steenkamp, SCAN Audit Facilitator for Urological cancer.

Data capture focuses round the process for the weekly multidisciplinary meetings (MDM) ensuring that information is collected through routine process. Data is recorded in eCase.

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

QPI Dashboard

National QPI performance is now recorded on the SCRIS dashboard provided by PHS.

The SCRIS dashboard has all the different cancer QPIs contained in one place along with survival data for each when that becomes available. SCRIS requires individual user access and all interested parties are encouraged to sign up.

For guidance on registering for access, please follow this link:
http://www.nssdiscovery.scot.nhs.uk/docs/discovery-registering-for-access-v1-4.pdf

Lead Clinicians and Audit Personnel

SCAN Region	Hospital	Lead Clinician	Audit Support
NHS Borders	Borders General Hospital	Mr Ben Thomas	Alistair Johnston
NHS Dumfries & Galloway	Dumfries & Galloway Royal Infirmary	Miss Maria Bews-Hair	Jennifer Bruce Campbell Wallis
NHS Fife	Queen Margaret Hospital	Mr I Mitchell	Michelle MacDonald
SCAN & NHS Lothian	St John's Hospital Western General Hospital	Mr D Good Dr A Sundaramurthy	Adam Steenkamp

Data Quality

Estimate of Case Ascertainment

An estimate of case ascertainment (the percentage of the population with prostate cancer recorded in the audit) is made by comparison with the Scottish Cancer Registry five year average data from 2016 to 2020. High levels of case ascertainment provide confidence in the completeness of the audit recording and contribute to the reliability of results presented. Levels greater than 100% may be attributable to an increase in incidence. Allowance should be made when reviewing results where numbers are small and variation may be due to chance.

Number of cases recorded in audit: Patients diagnosed 01/07/2020 to 30/06/2021

	Borders	D&G	Fife	Lothian	SCAN
Prostate Cancer	70	149	230	490	939

Estimate of Case Ascertainment: Calculated using the average of the most recent available five years of Cancer Registry Data 2016-2020

Note: Extract of data taken from PHS Cancer Registry website: https://www.isdscotland.org/Health-Topics/Cancer/Scottish-Cancer-Registry/

	Borders	D&G	Fife	Lothian	SCAN
Cases from Audit	70	149	230	490	939
Cancer Registry 5 Year Average	94	131	252	514	991
Case Ascertainment %	**74.5**	**113.7**	**91.3**	**95.3**	**94.8**

Quality Assurance

All hospitals in the region participate in a Quality Assurance (QA) programme provided by the National Services Scotland Information Services Division (PHS). QA of the prostate cancer data was carried out in 2020 (2017-18 cohorts) and overall accuracy percentage results are shown below:

	Borders	D&G	Fife	Lothian	SCAN
Accuracy of data recording (%)	95.0	96.3	99.5	99.8	97.7

Clinical Sign-Off

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

- Individual health board results were reviewed and signed-off locally.
- Final report circulated to SCAN Urology Group and Clinical Governance Groups on 05/07/2022.

Actions for Improvement

After final sign off, the process is for the report to be sent to the Clinical Governance groups with action plans for completion at Health Board level. The report is placed on the SCAN website with completed action plans once it has been fully signed-off and checked for any disclosive material.

QPI 2: Radiological Staging – High Risk - Target = 95%

Title: Patients with high risk prostate cancer, who are suitable for radical treatment, should be evaluated for locally advanced, nodal or bony metastatic disease.

Numerator = Number of patients with high risk prostate cancer undergoing radical treatment who have an MRI of the prostate and isotope bone scan (or alternative whole body MRI evaluation).

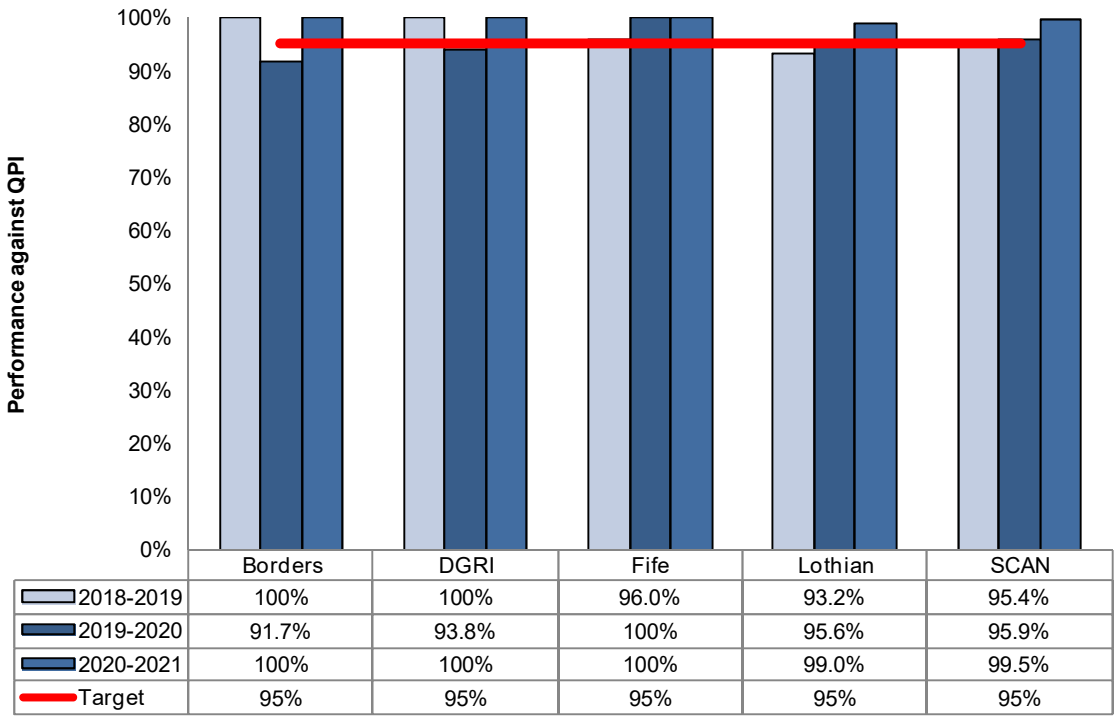
Denominator = All patients with high risk prostate cancer undergoing radical treatment.

Exclusions: Patients unable to undergo an MRI scan, patients who decline MRI and Patients with T2c tumours (with no other high risk factors).

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-2021 cohort	70	149	230	490	939
Excluded from analysis	0	2	46	14	62
Ineligible for analysis	60	124	111	380	675
Numerator	10	23	57	95	185
Not recorded for numerator	0	0	0	0	0
Denominator	10	23	57	96	186
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	7	15	0	22
% Performance	**100**	**100**	**100**	**99.0**	**99.5**

Comments:
Overall, a good result. Note the not recorded figures for Fife and D&G; some improvement of TNM recording seen in both boards.

QPI 2: Radiological Staging High risk 2018/19 to 2020/21



	Borders	DGRI	Fife	Lothian	SCAN
2018-2019	100%	100%	96.0%	93.2%	95.4%
2019-2020	91.7%	93.8%	100%	95.6%	95.9%
2020-2021	100%	100%	100%	99.0%	99.5%
Target	95%	95%	95%	95%	95%

QPI 4i: Multi-Disciplinary Team (MDT) Meeting - Target = 95%

Title: Patients should be discussed by a multidisciplinary team prior to definitive treatment.

Numerator = Number of patients with non-metastatic prostate cancer (TanyNanyM0) discussed at the MDT before definitive treatment.

Denominator = All patients with non-metastatic prostate cancer (TanyNanyM0).

Exclusion = Patients who died before first treatment.

The tolerance within this target accounts for situations where patients require treatment urgently or where prostate cancer is an incidental finding at surgery.

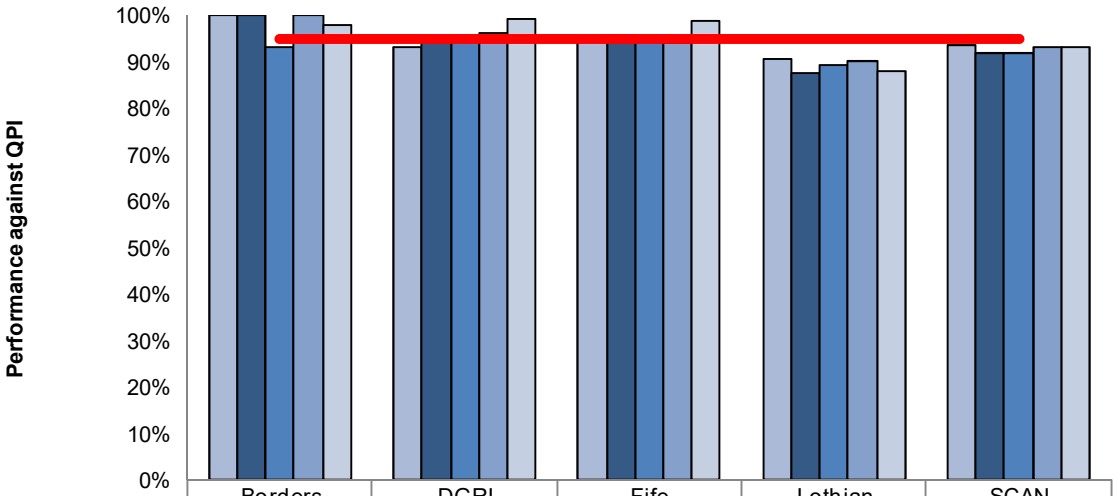
Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-2021 cohort	70	149	230	490	939
Excluded from analysis	0	0	0	2	2
Ineligible for analysis	21	44	40	118	223
Numerator	48	104	170	325	647
Not recorded for numerator	1	0	0	6	7
Denominator	49	105	172	370	696
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	1	6	17	6	30
% Performance	**98.0**	**99.0**	**98.8**	**87.8**	**93.0**

Comments:

Lothian: The QPI target was not met showing a shortfall of 7.2 % (39 cases) 16 didn't have MDM discussion prior to treatment. 6 had cystoprostatectomy with prostate cancer found incidentally. 17 cases had treatment decisions confirmed prior to MDM review. Excluding cystoprostatectomies from the calculation, the result would improve to 89.3%

Action: QPI requires revision; this QPI is not a measurement of quality of care, rather a measure of quality of data therefore is not a useful QPI. The QPI penalises departments for treating patients as soon as possible (before MDM discussion), so the timeframe should be removed. Action noted from last year: Cystoprostatectomies should not be included in this QPI.

QPI 4i: MDM Discussion - Non-Metastatic 2016/17 to 2020/21



	Borders	DGRI	Fife	Lothian	SCAN
2016-2017	100%	93.2%	94.7%	90.5%	93.6%
2017-2018	100%	94.6%	95.6%	87.7%	92.0%
2018-2019	93.3%	94.6%	94.7%	89.2%	91.9%
2019-2020	100%	96.2%	93.9%	90.1%	93.0%
2020-2021	98.0%	99.0%	98.8%	87.8%	93.0%
Target	95%	95%	95%	95%	95%

QPI 4ii: Multi-Disciplinary Team (MDT) Meeting - Target = 95%

Title: Patients should be discussed by a multidisciplinary team prior to definitive treatment.

Numerator = Number of patients with metastatic prostate cancer (TanyNanyM1) discussed at the MDT within 42 days of commencing treatment.

Denominator = All patients with metastatic prostate cancer (TanyNanyM1).

Exclusion = Patients who died before first treatment.

The tolerance within this target accounts for situations where patients require treatment urgently or where prostate cancer is an incidental finding at surgery.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-2021 cohort	70	149	230	490	939
Excluded from analysis	0	0	0	2	2
Ineligible for analysis	54	116	173	381	724
Numerator	15	29	38	90	172
Not recorded for numerator	0	0	0	0	0
Denominator	16	33	40	107	196
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	1	6	17	6	30
% Performance	**93.8**	**87.9**	**95.0**	**84.1**	**87.8**

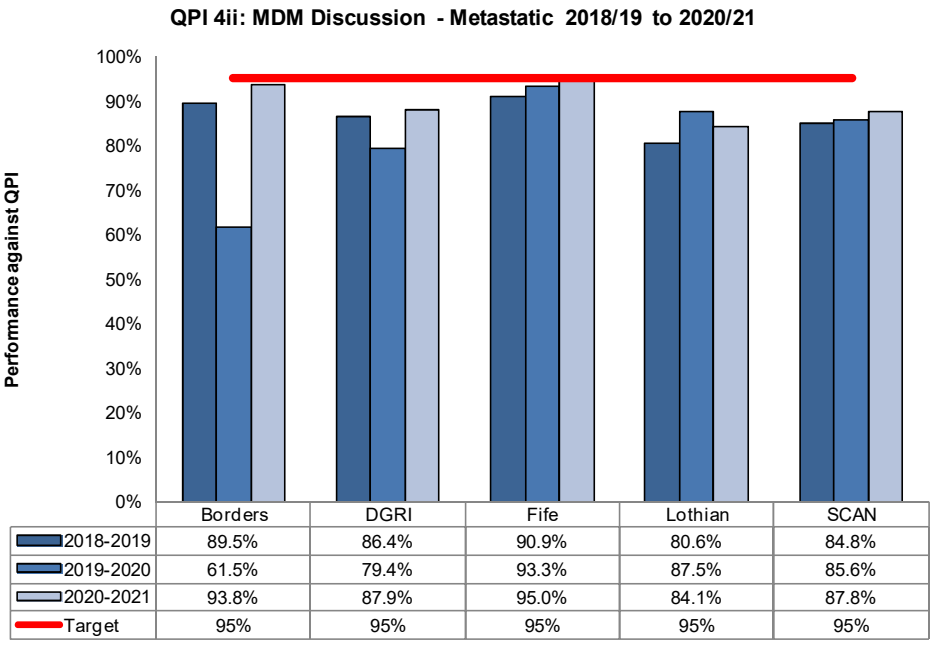
Comments:

Borders: The QPI target was not met showing a shortfall of 1.2% (1 case) hormone treatment was started at diagnosis and discussed at MDM outwith the 6 week timeframe.

D&G: The QPI target was not met showing a shortfall of 7.1% (4 cases) all were started on hormone treatment before MDM discussion, outwith the 6 week timeframe.

Lothian: The QPI target was not met showing a shortfall of 10.9% (17 cases). 11 didn't have MDM discussion prior to treatment decision made. 6 had MDM discussion and treatment commenced outwith the 6 week timeframe.

Action: All patients not meeting the QPI criteria were treated appropriately. There seems to be a disconnect with this QPI and actual treatments. Recommend archiving this QPI or consider revising it to allow for watchful waiting and active surveillance decisions to be audited at the MDM date rather than before, which is currently the case for patients receiving best supportive care. Alternatively, ask CNS teams to ensure registration at MDM.



QPI 5: Surgical Margins - Target ≤ 20%

Title: Organ confined prostate cancers which are surgically treated with radical prostatectomy should be completely excised.

Numerator = Number of patients with stage pT2 prostate cancer who underwent radical prostatectomy in which tumour is present at the margin.

Denominator = All patients with stage pT2 prostate cancer who underwent radical prostatectomy (cohort based on surgeries performed in 2020-21 rather than diagnoses in 2020-21). No exclusions.

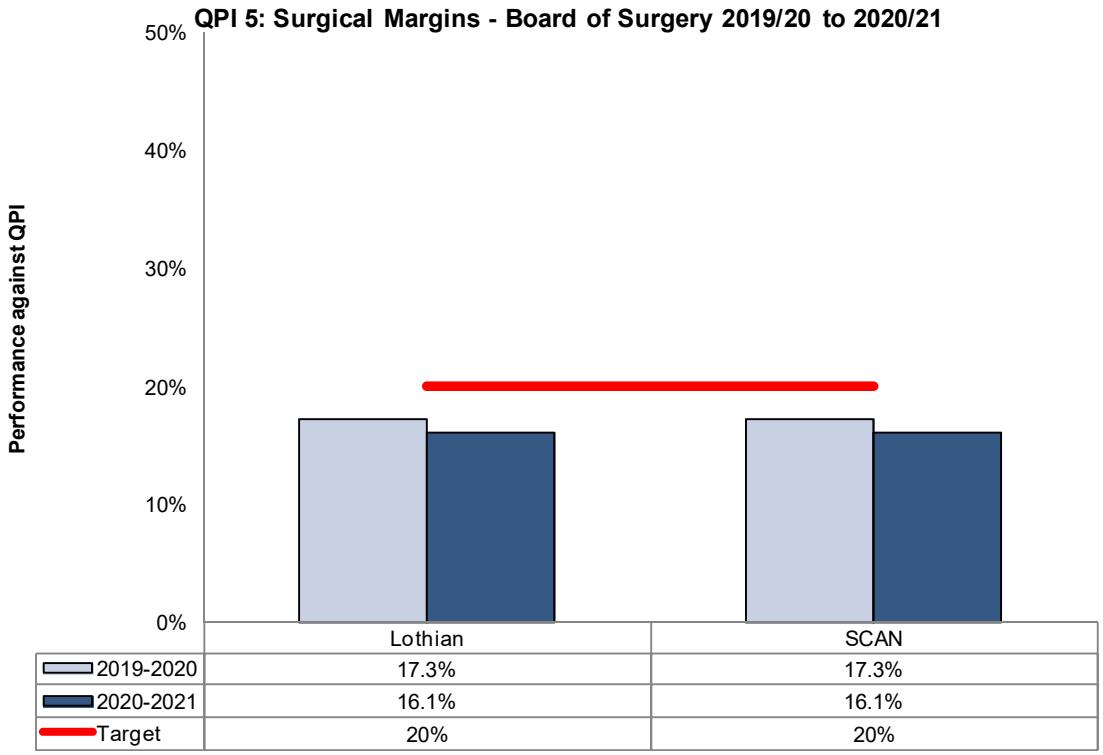
By Board of Surgery

Target ≤ 20%	**Lothian**	**SCAN**
Numerator	20	20
Not recorded for numerator	1	1
Denominator	124	124
Not recorded for exclusion	0	0
Not recorded for denominator	0	0
% Performance	**16.1**	**16.1**

Note: All surgery was performed in Lothian. Since June 2016 NHS Lothian exclusively performed robotic assisted prostatectomies on Borders, D&G and most Fife patients.

Comment: Good to see a large volume of surgeries performed with a low percentage of positive margins. UK National Audit has a measure for percentage of patients with Gleason 3+3 who undergo treatment with radiotherapy or surgery; this could be considered for formal review.

Action: Not required.



QPI 6: Volume of Cases per Surgeon - Target ≥ 50

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

These figures are reported using QPI Audit data, as agreed at the QPI formal review.

Cohort based on surgeries performed in 2020-21 rather than diagnoses in 2020-21.

Number of prostatectomy procedures by GMC number in 2019/20				
	A	B	C	D
SCAN Audit figures	2	122	110	12

Consultant A performed 2 local surgical procedures deemed necessary due to clinical requirements. Consultant D left NHS service in 2021-22.

QPI 7i: Immediate Hormone Therapy - Target = 95%

Title: Patients with metastatic prostate cancer should undergo hormone therapy within 31 days of being discussed at MDM.

Numerator = Number of patients presenting with metastatic prostate cancer (TanyNanyM1) treated with hormone therapy (LHRH agonist monotherapy, maximum androgen blockade or bilateral orchidectomy) within 31 days of being discussed at MDM.

Denominator = All patients presenting with metastatic prostate cancer (TanyNanyM1).

Exclusions = Patients documented to have declined hormone therapy and patients enrolled in clinical trials.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-2021 cohort	70	149	230	490	939
Excluded from analysis	0	0	0	0	0
Ineligible for analysis	56	116	173	383	728
Numerator	13	32	40	94	179
Not recorded for numerator	0	1	0	0	1
Denominator	14	33	40	107	194
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	1	6	17	6	30
% Performance	**92.9**	**97.0**	**100**	**87.9**	**92.3**

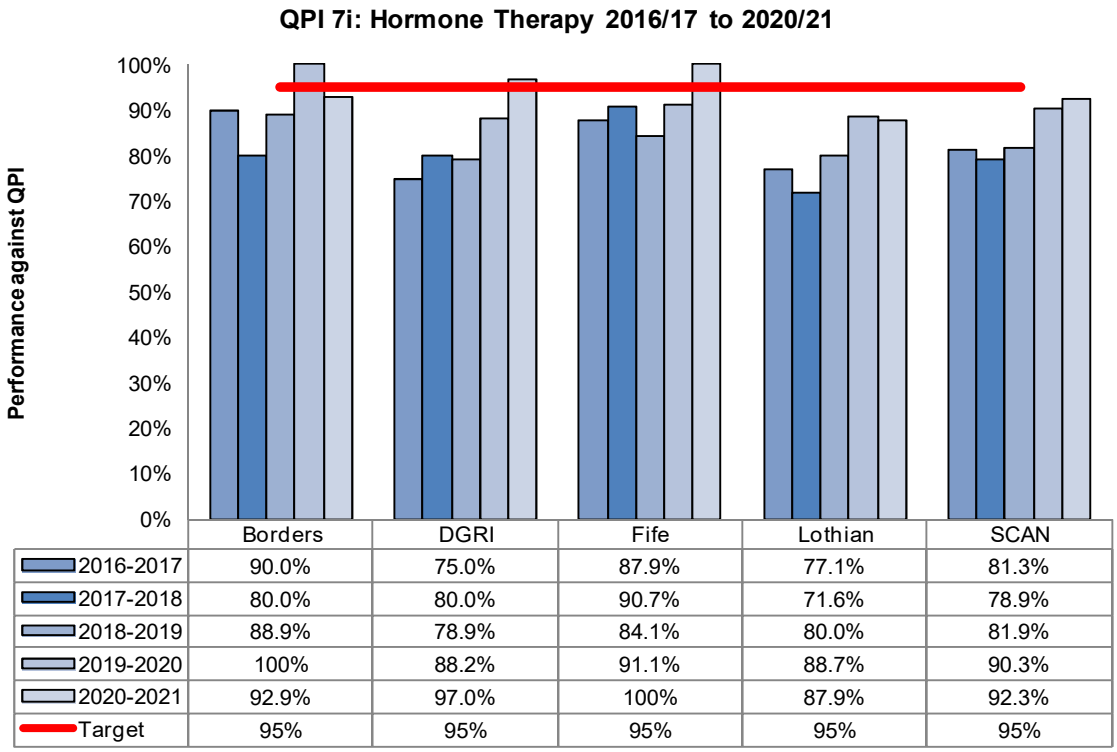
Comments:

Borders: The QPI target was not met showing a shortfall of 2.1% (1 case) diagnosed clinically and started on hormones. MDM discussion took place more than 31 days later.

Lothian: The QPI target was not met showing a shortfall of 7.1% (13 cases) 12 were not discussed at MDM. 1 had hormone treatment started 34 days from MDM discussion.

Action: All cases that didn't achieve the QPI criteria were reviewed and were appropriately treated.

Formal Review comment: Consider refining this QPI.



	Borders	DGRI	Fife	Lothian	SCAN
2016-2017	90.0%	75.0%	87.9%	77.1%	81.3%
2017-2018	80.0%	80.0%	90.7%	71.6%	78.9%
2018-2019	88.9%	78.9%	84.1%	80.0%	81.9%
2019-2020	100%	88.2%	91.1%	88.7%	90.3%
2020-2021	92.9%	97.0%	100%	87.9%	92.3%
Target	95%	95%	95%	95%	95%

QPI 7ii: Immediate Hormone Therapy and Docetaxel Chemotherapy - Target = 40%

Title: Patients with metastatic prostate cancer should undergo immediate hormone therapy and chemotherapy where appropriate

Numerator = Number of patients presenting with metastatic prostate cancer (TanyNanyM1) treated with immediate hormone therapy and Docetaxel chemotherapy.

Denominator = All patients presenting with metastatic prostate cancer (TanyNanyM1).

Exclusions = Patients documented to have declined immediate hormone therapy. Patients documented to have declined chemotherapy. Patients enrolled in clinical trials.

Target 40%	Borders	D&G	Fife	Lothian	SCAN
2020-2021 cohort	70	149	230	490	939
Excluded from analysis	13	18	15	68	114
Ineligible for analysis	55	116	173	381	725
Numerator	0	0	5	0	5
Not recorded for numerator	0	0	0	0	0
Denominator	2	15	25	41	83
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	1	6	17	0	24
% Performance	**0**	**0**	**20.0**	**0**	**6.0**

Comments:

Borders: The QPI target was not met showing a shortfall of 40% (2 cases) 1 was not given chemotherapy due to multiple co-morbidities. 1 was not seen by oncology.

D&G: The QPI target was not met showing a shortfall of 40% (15 cases) all were started on hormone treatment but none had Docetaxel chemotherapy.

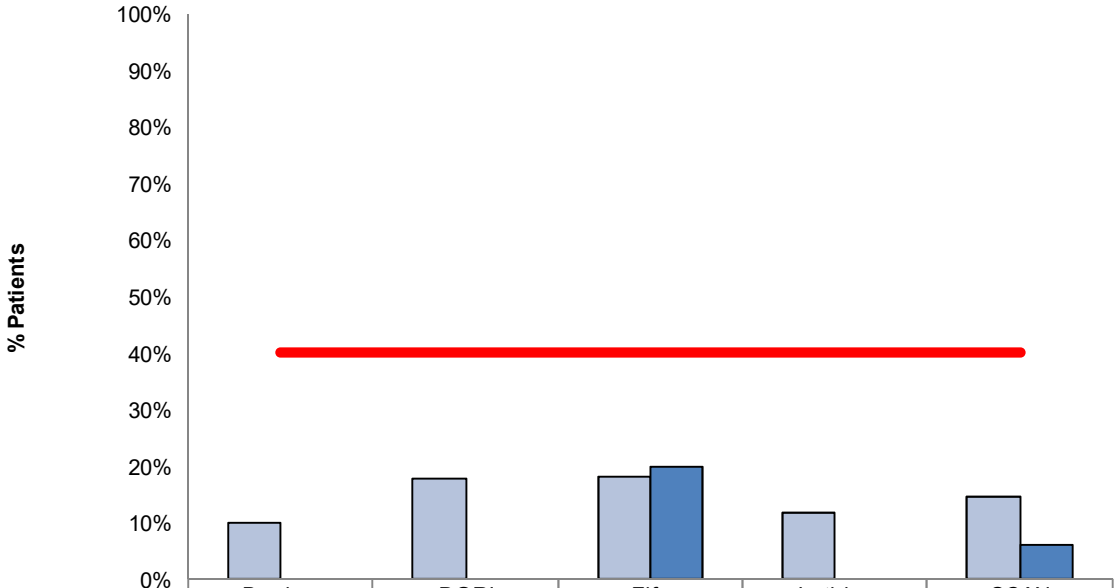
Fife: The QPI target was not met showing a shortfall of 20% (20 cases) 16 were deemed not fit for chemotherapy.

Lothian: The QPI target was not met showing a shortfall of 40% (41 cases). Information on all outliers has been reviewed.

SCAN Comment: A high proportion of patients are unsuitable for chemotherapy treatment (e.g., over 80 years old).

Action: This QPI is out-dated and requires to be reviewed in light of new additional therapies e.g., Abiraterone or Enzalutamide. Also consider exclusion criteria for elderly patients unsuitable for chemotherapy on basis of age or co-morbidities and where cases patients are not reviewed by the Oncology service.

QPI 7ii - Hormone Therapy + Chemotherapy 2019/20 to 2020/21



	Borders	DGRI	Fife	Lothian	SCAN
2019-2020	10.0%	17.9%	18.2%	11.7%	14.5%
2020-2021	0%	0%	20.0%	0%	6.0%
Target %	40%	40%	40%	40%	40%

QPI 8: Post Surgical Incontinence - Target = 50%

Title: Post surgical incontinence for patients with prostate cancer should be assessed using a validated PROMs (Patient Reported Outcome Measures) tool.

Numerator = Patients with prostate cancer undergoing radical prostatectomy that have returned a PROMs tool both pre-operatively and post-operatively (12-18 months following surgery) for assessment of incontinence.

Denominator = All patients with prostate cancer undergoing radical prostatectomy.

Exclusions = Patients who undergo salvage prostatectomy and patients who receive adjuvant radiotherapy within 12 months of surgery.

By Board of Surgery

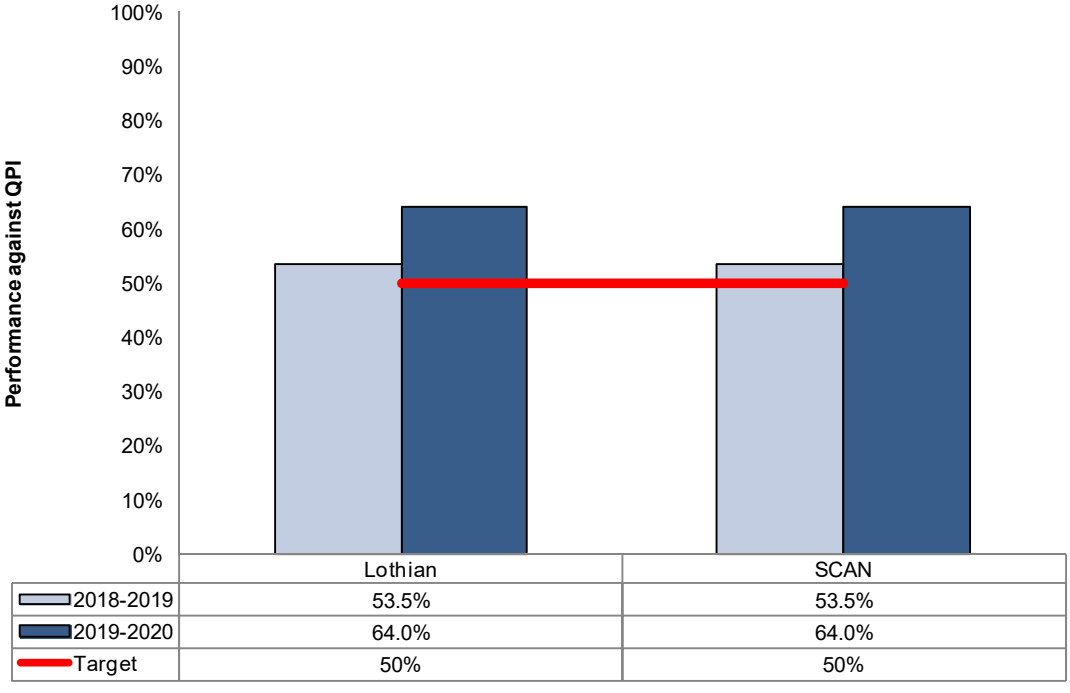
Target 50%	Fife	Lothian	SCAN
2019-2020 cohort		N/A	958
Excluded from analysis		N/A	0
Ineligible for analysis		N/A	786
Numerator	0	110	110
Not recorded for numerator	1	60	61
Denominator	1	170	171
Not recorded for exclusion	0	0	0
Not recorded for denominator	0	0	0
% Performance	**0.0**	**64.7**	**64.3**

Note: All surgery was performed in Lothian.

Comment SCAN is currently transitioning from paper forms to using an email-based system on the REDCap database.

SCAN comment: There may have been some difficulty with getting surgeons to input their own data to REDCap, as some patient records are missing for NHS Fife. The use of REDCap was paramount in achieving this good QPI outcome. Adopting this as an audit tool nationally should be encouraged.

QPI 8i: Post Surgical Incontinence - Board of Surgery 2018/19 to 2019/20



	Lothian	SCAN
2018-2019	53.5%	53.5%
2019-2020	64.0%	64.0%
Target	50%	50%

QPI 11: Management of Active Surveillance - Target = 95%

Title: Patients under active surveillance for prostate cancer should undergo bi-parametric MRI (bpMRI) or multi parametric MRI (mpMRI) within 12-18 months of diagnosis.

Numerator = Patients with prostate cancer under active surveillance who undergo bpMRI or mpMRI within 12-18 months of diagnosis.

Denominator = All patients with prostate cancer under active surveillance.

Exclusions = Patients unable to undergo an MRI scan and patients who decline MRI.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2019-2020 cohort	92	150	247	469	958
Excluded from analysis	0	1	4	7	12
Ineligible for analysis	75	135	216	412	838
Numerator	4	4	10	36	54
Not recorded for numerator	0	0	0	0	0
Denominator	17	14	27	50	108
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	**23.5**	**28.6**	**37.0**	**72.0**	**50.0**

Comments:

Borders: The QPI target was not met showing a shortfall of 71.5% (13 cases) 8 had scans outwith the 12-18 month timescale. 5 didn't have surveillance scans. Of the 12 patients who had a surveillance MRI, the median time was 306 days (range 129–547)

D&G: The QPI target was not met showing a shortfall of 66.4% (10 cases). 9 had MRI outwith the timeframe. The median time was 599 days (range 148-749 days)

Fife: The QPI target was not met showing a shortfall of 58% (17 cases). 9 had the surveillance MRI outwith the recommended timescale. 8 did not have a surveillance MRI but remained on Surveillance follow up. The median time was 420 days (range 226 – 675).

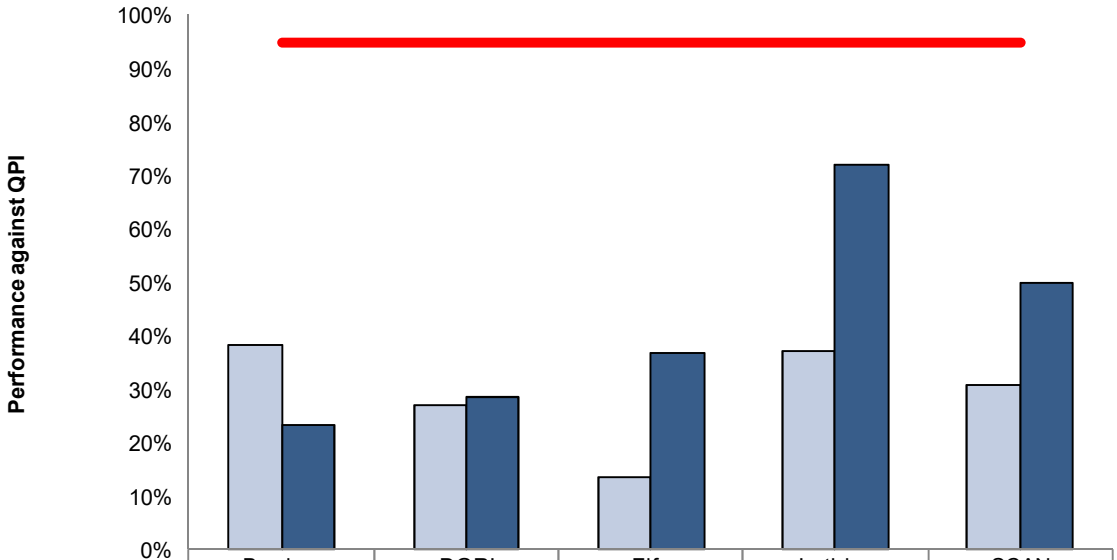
*****During the 2021/22 cohort a new protocol has been put in place for active surveillance follow up. Patients will be followed up in a standard manner by the cancer nurse specialist team and an increase in performance is expected as a result of this.

Lothian: The QPI target was not met showing a shortfall of 23.0% (14 cases). 5 didn't have surveillance MRIs performed. 9 had surveillance MRIs but not within the prescribed timeframe. The median time was 357 days (range 98-628).

SCAN Comment: COVID19 has likely influenced some of these results.

Action: This QPI needs to be revised at the formal review. Cases that had transperineal biopsies as part of surveillance (and no MRI scan) and then proceed to treatment, do not meet this QPI. However, this is clinically sound practice and so the QPI could be revised to include MRI and/or transperineal biopsy as surveillance measures. The timeframe is not helpful and the QPI should be assessing whether each centre has a good active surveillance program.

QPI 11: Surveillance MRI 12-18 months from Diagnosis 2018/19 to 2019/20



	Borders	DGRI	Fife	Lothian	SCAN
2018-2019	38.5%	27.3%	13.8%	37.3%	30.8%
2019-2020	23.5%	28.6%	37.0%	72.0%	50.0%
Target	95%	95%	95%	95%	95%

QPI 12: 30 Day Mortality following SACT - Target = <10%

Title: Proportion of patients with prostate cancer who die within 30 days of SACT treatment.

Numerator = Patients with prostate cancer who undergo SACT that die within 30 days of treatment.

Denominator = All patients with prostate cancer who undergo SACT (no exclusions)

This QPI has been replaced with a standardised 30 day SACT Mortality QPI across all the tumour types covered by the QPI program.

Measurement is being revised to use data from Chemocare (electronic chemotherapy prescribing system) for reporting in order to utilise existing data and provide an accurate picture of all patients with prostate cancer undergoing chemotherapy, rather than the subset of all diagnosed in the audit year cohort only. Future reporting will be part of the National SACT Program rather than the QPI program.

Progress has been complicated by the differences in the 5 instances of Chemocare across Scotland and a date for initial reporting is yet to be confirmed at the time of writing this report.

QPI 13: Clinical Trials – Target 15%

Proportion of patients with Prostate cancer who are consented for an interventional clinical trial or translational research.

Numerator = Number of patients with Prostate cancer consented to a clinical trial (SCRN) in 2020 and 2021.

Denominator = All patients with Prostate cancer. Average 5 year incidence Cancer Registry (2016- 2020)

Target 15%	Borders	D&G	Fife	Lothian	SCAN
Numerator	7	0	2	29	38
Denominator	94	131	252	514	991
% Performance	**7.4**	**0**	**0.8**	**5.6**	**3.8**

Open Trials in 2021	Number recruited
Cancer Of Unknown Primary Bio Study	1
CCP-Cancer UK	6
Phase I/IIa study to evaluate CCS1477 in advanced tumours v1.0	1
SCCAMP V1.0	8
Biobank SR1418	15
Cell Free DNA	2
Revolution Study - Lothian St Columba's Hospice	4
NEPTUNES	1

Cancer Registry data taken from PHS website (2016– 2020).
SCRN data 2021cohort

QPI 14i: Diagnostic Pre-biopsy MRI - Target = 95%

Title: Patients with prostate cancer that undergo biopsy and had a pre-biopsy bpMRI or mp MRI as their first line diagnostic investigation.

Numerator = Patients with prostate cancer who undergo biopsy that have a pre-biopsy bpMRI or mpMRI as their first line diagnostic investigation.

Denominator = All patients with prostate cancer who undergo biopsy.

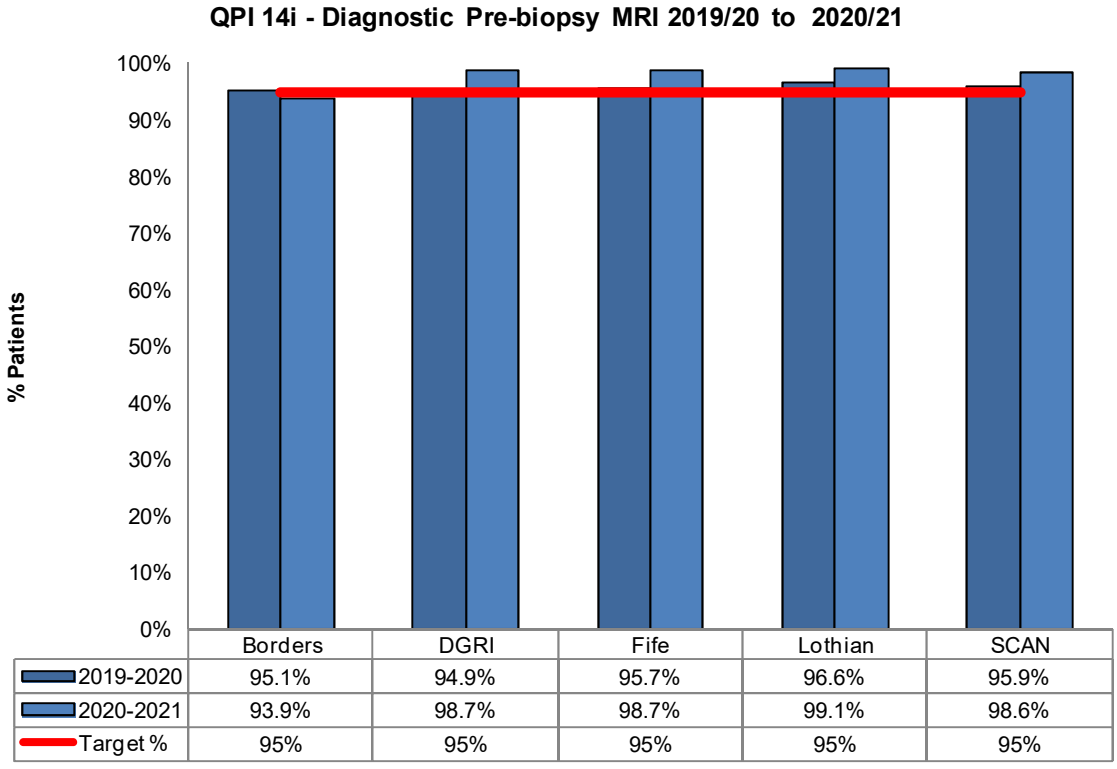
Exclusions = Patients unable to undergo an MRI scan, decline MRI, have undergone TURP, have undergone laser enucleation, or those with locally advanced (Clinical T3 and above) and / or M1 disease.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-2021 cohort	70	149	230	490	939
Excluded from analysis	33	33	67	119	252
Ineligible for analysis	4	37	84	146	271
Numerator	31	78	76	223	408
Not recorded for numerator	0	0	0	0	0
Denominator	33	79	77	225	414
Not recorded for exclusion	2	19	2	1	24
Not recorded for denominator	0	0	0	0	0
% Performance	**93.9**	**98.7**	**98.7**	**99.1**	**98.6**

Comments:

Borders: The QPI target was not met showing a shortfall of 1.1% (2 cases) both had MRI but not using mpMRI or bpMRI.

Action: Overall a good result. Small numbers in Borders affected the percentage performance, with only 2 cases not meeting the criteria, and no action is identified.



QPI 14ii: Diagnostic Pre-biopsy MRI - Target = 95%

Title: Patients with prostate cancer who undergo biopsy and had a pre-biopsy bpMRI or mp MRI as their first line diagnostic investigation, with imaging reported using a PI-RADS/Likert system of grading.

Numerator = Patients with prostate cancer who undergo biopsy that have a pre-biopsy bpMRI or mpMRI as their first line diagnostic investigation with imaging reported using a PI-RADS/Likert system of grading.

Denominator = All patients with prostate cancer who undergo biopsy that have a pre-biopsy bpMRI or mpMRI as their first line diagnostic investigation.

Exclusions = None.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-2021 cohort	70	149	230	490	939
Excluded from analysis	0	0	0	0	0
Ineligible for analysis	31	49	92	176	348
Numerator	1	52	67	8	128
Not recorded for numerator	38	48	71	306	463
Denominator	39	100	138	314	591
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	**2.6**	**52.0**	**48.6**	**2.5**	**21.7**

Comments:

Borders: The QPI target was not met showing a shortfall of 92.4% (38 cases) all had no Likert/PI-RADS score recorded by radiology.

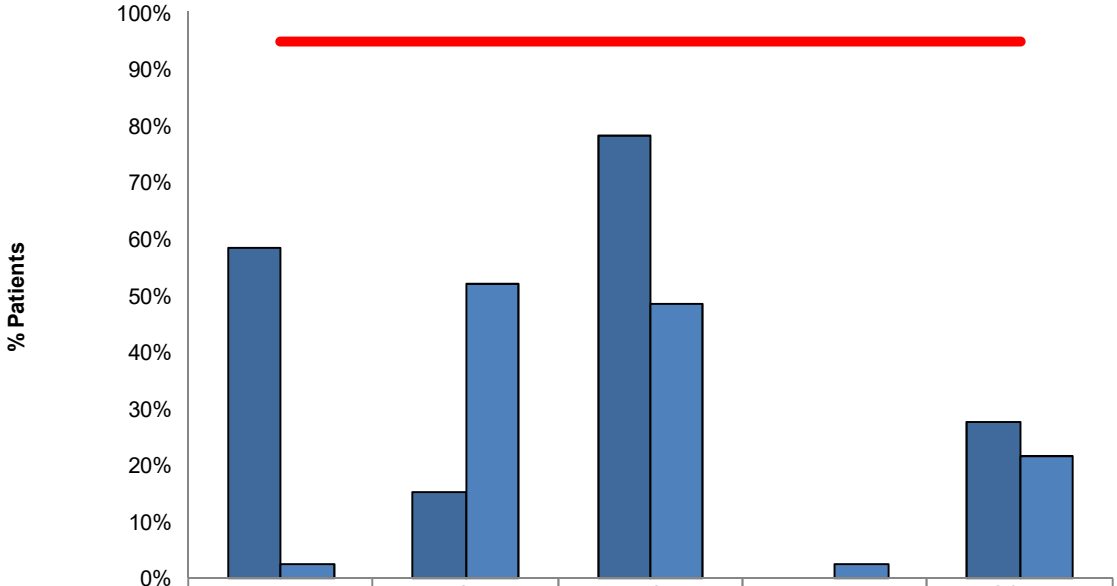
D&G: The QPI target was not met showing a shortfall of 43% (48 cases) all had no Likert/PI-RADS score recorded by radiology. Improvement seen and likely to continue.

Fife: The QPI target was not met showing a shortfall of 46.4% (71 cases) all had no Likert/PI-RADS score recorded by radiology. These MRIs were reported by Lothian radiologists on behalf of NHS Fife. Local Fife radiologists are very good.

Lothian: The QPI target was not met showing a shortfall of 92.5% (306 cases) all had no Likert/PI-RADS score recorded by radiology.
The action on this QPI has been implemented successfully after last year's result. The overall result should show a marked improvement next year. (Currently at 75%). No further action identified for Lothian.

Action: This remains problematic in the Borders as all reports are by general radiologists rather than radiologists specialising in urology. The Borders lead is to write to the radiology head of department in Borders to explore reasons why radiologists are not recording Likert or PI-RADS scores.

QPI 14ii - Diagnostic Pre-biopsy MRI 2019/20 to 2020/21



	Borders	DGRI	Fife	Lothian	SCAN
2019-2020	58.3%	15.2%	78.3%	0%	27.5%
2020-2021	2.6%	52.0%	48.6%	2.5%	21.7%
Target %	95%	95%	95%	95%	95%

QPI 15i: Low Burden Metastatic Disease - Target = 95%

Title: Patients with metastatic prostate cancer who have their burden of disease assessed.

Numerator = Patients with metastatic prostate cancer in whom burden of disease is assessed. (MRI, Bone Scan or CT is the current method routinely used within NHS Scotland to assess metastatic burden of disease.)

Denominator = All patients with metastatic prostate cancer. (No exclusions)

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2020-2021 cohort	70	149	230	490	939
Excluded from analysis	0	0	0	0	0
Ineligible for analysis	51	115	173	382	721
Numerator	17	9	12	90	128
Not recorded for numerator	0	25	28	18	71
Denominator	17	34	40	108	199
Not recorded for exclusion	0	0	0	0	0
Not recorded for denominator	2	6	17	6	31
% Performance	**100**	**26.5**	**30.0**	**83.3**	**64.3**

Comments:

D&G: The QPI target was not met showing a shortfall of 68.5% (25 cases). Level of burden was not recorded. Some bone scans are reported in Carlisle where assessment of burden is not recorded.

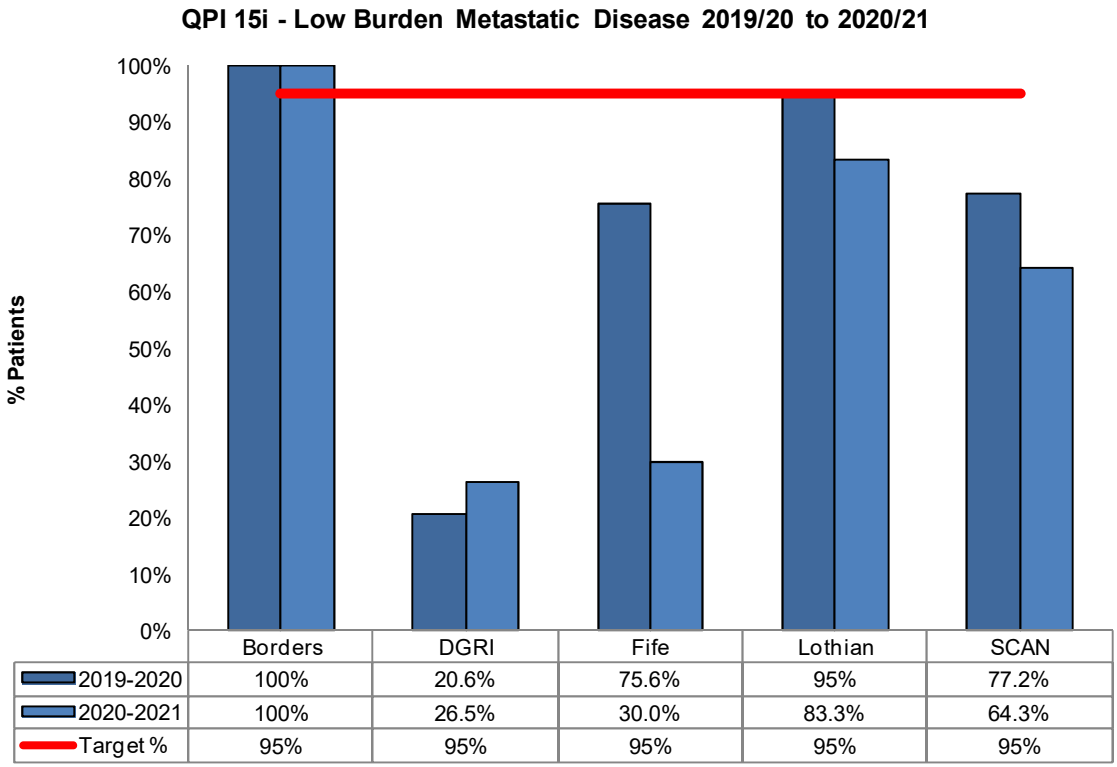
Fife: The QPI target was not met showing a shortfall of 65% (28 cases). Burden of metastatic disease has not been recorded. After the 2019-20 results, Fife added a burden of metastatic disease question to the MDM proforma. This has now been fully implemented and we anticipate an increase in performance for 2021-2022 report.

Lothian: The QPI target was not met showing a shortfall of 11.7% (18 cases). Burden of metastatic disease was not mentioned in clinic letters or easily discerned from imaging reports.

SCAN Comment: Radiotherapy to the prostate is influenced by this measure. 4 or less sites of metastatic disease would be considered low volume / burden. 5 or more would be considered high volume / burden.

Action Departments are encouraged to confirm burden recording as high or low.

Formal Review comment: Previously GI toxicity was attempted in the QPI program but was not recorded well. The UK National prostate cancer audit collects radiotherapy outcome data, so a PROMS QPI for radiotherapy could be considered at formal review.



QPI 15ii: Low Burden Metastatic Disease - Target = 60%

Title: Patients with metastatic prostate cancer who has their burden of disease assessed, and undergoes radiotherapy if metastatic burden is low. (Radiotherapy regimes included in the measurement of this QPI are 36Gy (6 fractions) or a minimum of 50Gy (20 fractions).

Numerator = Patients with metastatic prostate cancer who have a low metastatic burden that receive radiotherapy.

Denominator = All patients with metastatic prostate cancer who have a low metastatic burden.

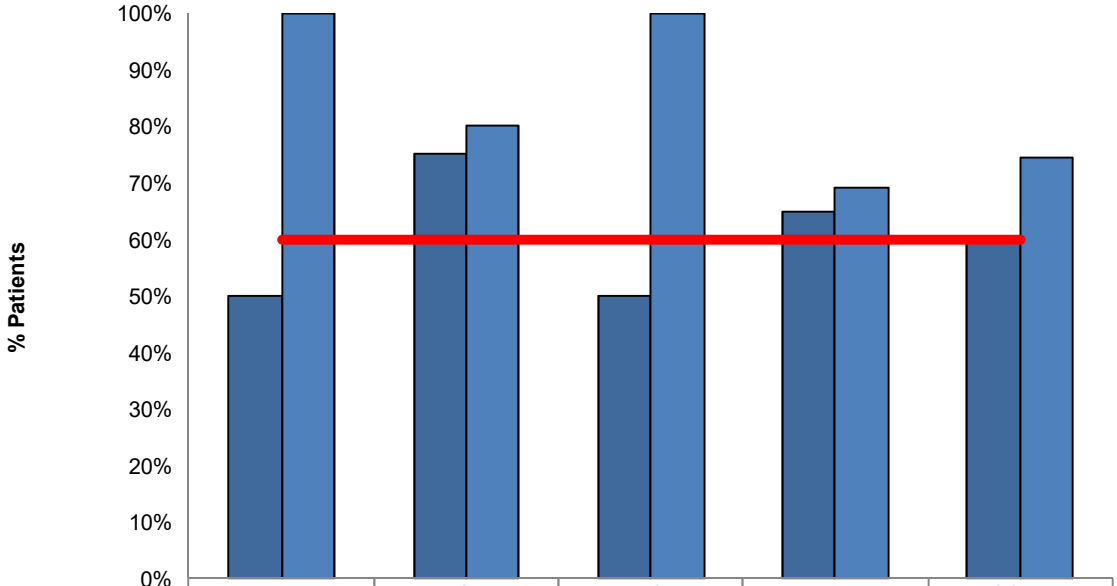
Exclusions = Patients documented to have declined radiotherapy treatment.

Target 60%	Borders	D&G	Fife	Lothian	SCAN
2020-2021 cohort	70	149	230	490	939
Excluded from analysis	0	1	0	0	1
Ineligible for analysis	68	143	183	464	858
Numerator	2	4	2	18	26
Not recorded for numerator	0	0	0	0	0
Denominator	2	5	2	26	35
Not recorded for exclusion	0	1	1	0	2
Not recorded for denominator	0	23	44	19	86
% Performance	**100**	**80.0**	**100**	**69.2**	**74.3**

Comments:

Action: No action required.

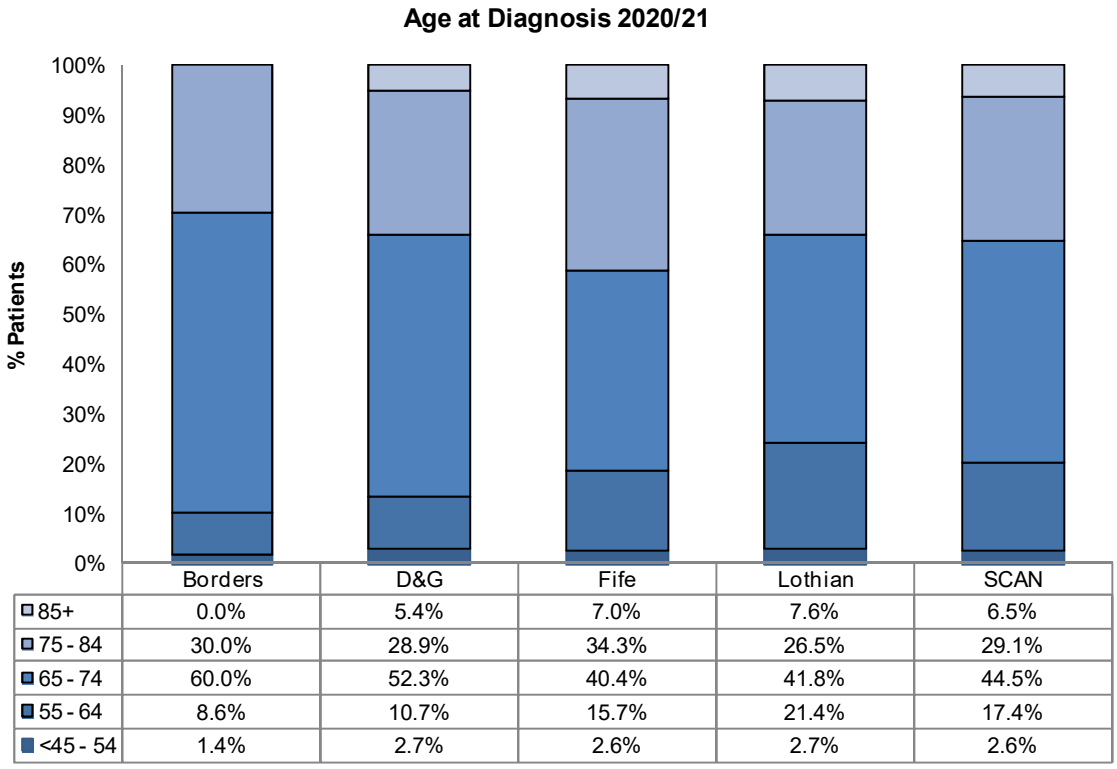
QPI 15ii - Low Burden Metastatic Disease 2019/20 to 2020/21



	Borders	DGRI	Fife	Lothian	SCAN
2019-2020	50.0%	75.0%	50.0%	65.0%	59.5%
2020-2021	100%	80.0%	100%	69.2%	74.3%
Target %	60%	60%	60%	60%	60%

Age Analysis

Age Analysis	Borders	D&G	Fife	Lothian	SCAN
Under 45	0	0	0	1	1
45 - 49	0	1	1	1	3
50 - 54	1	3	5	11	20
55 - 59	1	4	13	44	62
60 - 64	5	12	23	61	101
65 - 69	21	37	52	95	205
70 - 74	21	41	41	110	213
75 - 79	11	32	52	84	179
80 - 84	10	11	27	46	94
85+	0	8	16	37	61
Total	**70**	**149**	**230**	**490**	**939**

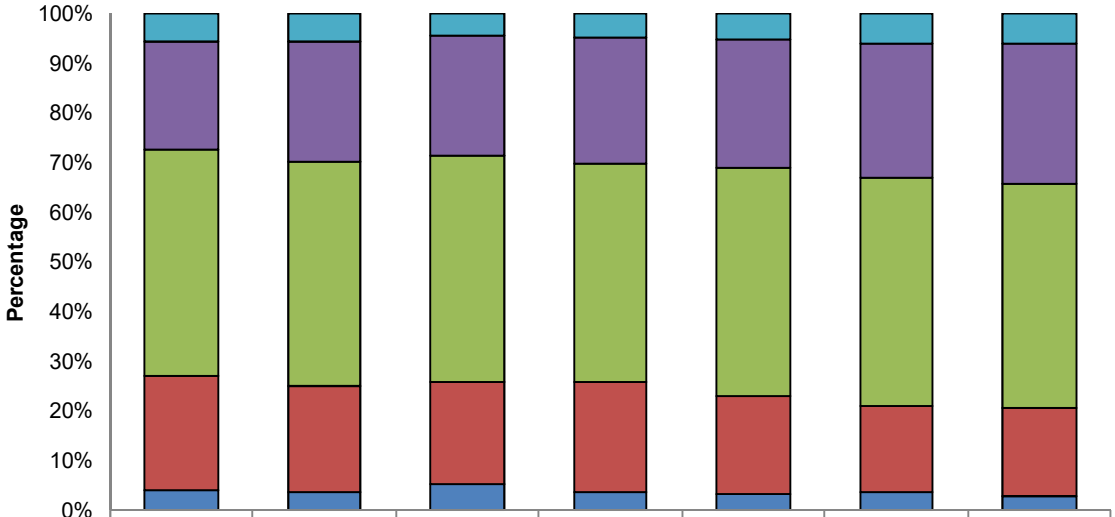


	Borders	D&G	Fife	Lothian	SCAN
85+	0.0%	5.4%	7.0%	7.6%	6.5%
75 - 84	30.0%	28.9%	34.3%	26.5%	29.1%
65 - 74	60.0%	52.3%	40.4%	41.8%	44.5%
55 - 64	8.6%	10.7%	15.7%	21.4%	17.4%
<45 - 54	1.4%	2.7%	2.6%	2.7%	2.6%

Treatment Types

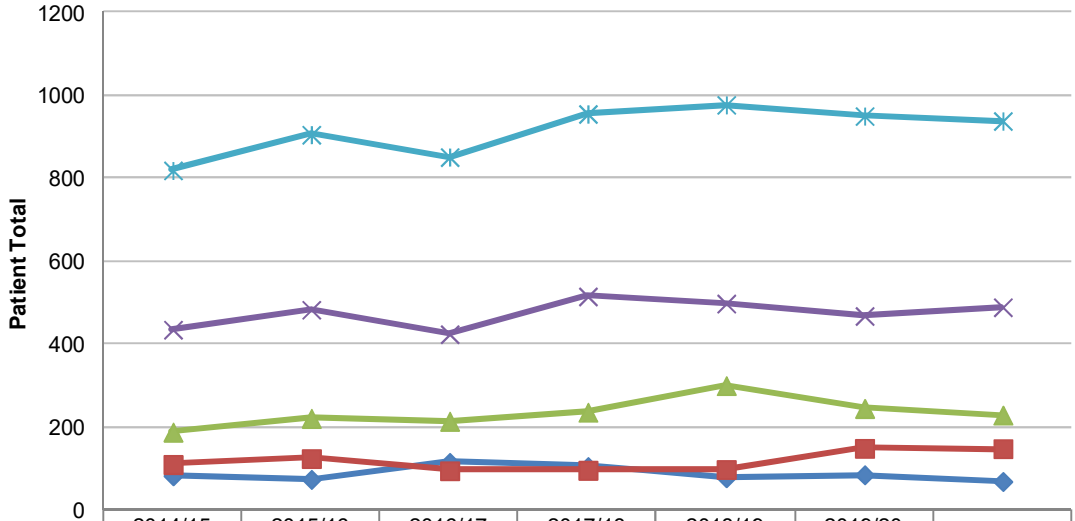
Health Board	Primary Hormones		Active Surveillance		WW / BSC		Radical Radiotherapy		Brachy-therapy		Surgery	
Borders	17	24.3%	15	21.4%	0	0%	20	28.6%	2	2.9%	15	21.4%
D&G	48	32.0%	19	13.0%	12	8.0%	27	18.0%	11	7.0%	32	21.0%
Fife	51	22.0%	20	9.0%	35	15.0%	63	27.0%	9	4.0%	47	20.0%
Lothian	138	28.2%	70	14.3%	62	12.7%	103	21.0%	14	2.9%	103	21.0%
SCAN	**254**	**26.6%**	**124**	**14.4%**	**109**	**8.9%**	**213**	**23.7%**	**36**	**4.2%**	**197**	**20.9%**

Age at Diagnosis - SCAN Total over 7 years



	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
85+	5.6%	5.6%	4.7%	5.0%	5.5%	6.3%	6.3%
75-84	21.8%	24.4%	23.9%	25.2%	25.5%	26.9%	28.1%
65-74	45.9%	45.0%	45.8%	44.2%	46.2%	45.8%	45.1%
55-64	22.7%	21.4%	20.7%	22.2%	19.8%	17.7%	17.8%
<45-54	4.0%	3.5%	4.9%	3.3%	3.0%	3.3%	2.7%

New Prostate Cancer totals by Year of Diagnosis



	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	
Borders	84	75	116	106	79	86	70
D&G	111	125	96	97	99	150	149
Fife	189	222	215	237	301	246	230
Lothian	436	484	425	516	499	469	490
SCAN	820	906	852	956	978	951	939

Prostate Cancer QPI Attainment Summary 2019-20		Target %	Borders		D&G		Fife		Lothian		SCAN	
QPI 2: Radiological Staging: High risk cases undergoing radical treatment, who had MRI + Bone scan.		95	N 22 D 24	91.7%	N 30 D 32	93.8%	N 51 D 51	100%	N 107 D 112	95.5%	N 211 D 220	95.9%
QPI 4: MDT Meeting: Patients with prostate cancer discussed by MDT before treatment	Non-metastatic prostate cancer (TanyNanyM0)	95	N 70 D 70	100%	N 101 D 105	96.2%	N 186 D 198	93.9%	N 317 D 352	90.1%	N 674 D 725	93.0%
	Metastatic prostate cancer (TanyNanyM1)	95	N 8 D 13	61.5%	N 27 D 34	79.4%	N 42 D 45	93.3%	N 84 D 96	87.5%	N 161 D 188	85.6%
QPI 5: Surgical Margins: Positive margins in pathologically confirmed organ confined pT2 radical prostatectomy		≤20	Presented by Board of Surgery						N 14 D 81	17.3%	N 14 D 81	17.3%
QPI 6: Surgical Volume: Radical prostatectomy /surgeon in 1 year		50+	One of NHS Lothian consultants met the QPI target.									
QPI 7: Hormone Therapy and Docetaxel Chemotherapy	Hormone therapy within 31 days of MDM decision	95	N 13 D 13	100%	N 30 D 34	88.2%	N 41 D 45	91.1%	N 84 D 94	89.4%	N 168 D 186	90.3%
	Docetaxel chemotherapy within 90 days of Hormones	40	N 1 D 10	10%	N 5 D 28	17.9%	N 6 D 33	18.2%	N 7 D 60	11.7%	N 19 D 131	14.5%
QPI 8: Those undergoing prostatectomy who returned PROMs pre and post operatively (12-18 months) to assess continence.		50	Presented by Board of Surgery						N 83 D 155	53.5%	N 83 D 155	53.5%
QPI 11: Patients under active surveillance who have bpMRI or mpMRI within 12-18 months of diagnosis.		95	N 5 D 13	38.5%	N 3 D 11	27.3%	N 4 D 29	13.8%	N 25 D 67	37.3%	N 37 D 120	30.8%
QPI 12: Patients who undergo SACT that die within 30 days of treatment.		<10	N N/A D N/A	N/A	N N/A D N/A	N/A	N N/A D N/A	N/A	N N/A D N/A	N/A	N N/A D N/A	N/A
QPI 13: Patients diagnosed with prostate cancer consented for a clinical trial / research study.		15	N 0 D 107	0%	N 0 D 122	0%	N 0 D 253	0%	N 21 D 525	4.0%	N 21 D 100	2.1%
QPI 14: Diagnostic Pre-biopsy MRI	Those for biopsy that had pre-biopsy bpMRI or mpMRI as initial investigation.	95	N 39 D 41	95.1%	N 74 D 78	94.9%	N 111 D 116	95.7%	N 201 D 208	96.6%	N 425 D 443	95.9%
	Those that had pre biopsy bpMRI or mpMRI reported with PI-RADS/ Likert	95	N 28 D 48	58.3%	N 16 D 105	15.2%	N 123 D 157	78.3%	N 0 D 298	0%	N 167 D 608	27.5%
QPI 15: Low Burden Metastatic Disease	Patients with metastatic prostate cancer in whom burden of disease is assessed.	95	N 13 D 13	100%	N 7 D 34	20.6%	N 34 D 45	75.6%	N 92 D 97	94.8%	N 146 D 189	77.2%
	Those with low metastatic burden that receive radiotherapy.	60	N 3 D 6	50.0%	N 3 D 4	75.0%	N 6 D 12	50.0%	N 13 D 20	65.0%	N 25 D 42	59.5%