

Working regionally to improve cancer services

SOUTH EAST SCOTLAND CANCER NETWORK PROSPECTIVE CANCER AUDIT

UROLOGICAL CANCER 2010 COMPARATIVE AUDIT REPORT

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Document History

Version	Events	Date	Actions
Version 1.1	First circulation to SCAN Urology Group for comments	05/10/2011	Amendments made
Version 1.2	Circulation to SCAN Group for comments, sign-off, and identification of action points	16/11/2011	Amendments made
Version 2	Clinicians Meeting	16/11/2011	Amendments made (now version 3.1)
Version 3.1	Review of report contents for potentially disclosive information completed. Any necessary amendments made Website version prepared	06/06/2012	Amendments made
Version 3.2	Second Circulation to SCAN Group for final comments, sign-off, and identification of action points	26/06/2012	Re-circulated to SCAN group for amendment approval
Version 3.3	Signed-off version circulated to Clinical Governance Groups and forwarded for agenda of Regional Cancer Planning Group	19/09/2012	No Amendments or Queries- Report Approved
Version 4 (W)	Report has been assessed for risk of disclosure of sensitive Information and lodged on SCAN website	08/10/2012	Website version lodged on SCAN website

SOUTH EAST SCOTLAND CANCER NETWORK (SCAN) Urological Cancer Annual Comparative Report Report on Patients diagnosed 1st January - 31st December 2010

1.1 Introduction & Methods

This report presents data collected on urological cancer patients diagnosed in SCAN health boards between 1st January and 31st December 2010. Lead clinician Mr Prasad Bollina, Consultant Surgeon

Data supplied by Audit Facilitator Lauren Aitken (SCAN & Lothian), Yvonne Chapman (Fife) and Lynn Smith (Borders). Dumfries and Galloway was unable to supply data because of audit resource problems.

Actions for Improvement

After final sign off, the process is for the report to be sent to the Clinical Governance groups within the four health boards and to the Regional Cancer Planning Group. Action plans and progress with plans will be highlighted to the groups. The report will be placed on the SCAN website once it has been fully signed-off and checked for any disclosive material.

1.2 Datasets and Definitions

The dataset collected is the National Minimum dataset for Urological Cancers as published by ISD Scotland (July 2005). The definitions were developed by ISD Scotland in collaboration with the Regional Cancer Networks.

Quality of data and Results presented

Estimated Case Ascertainment: See Section 1 for estimate of case ascertainment compared with the latest information available from the Scottish Cancer Registry. High estimated case ascertainment provides confidence in the completeness of the number of patients included in audit and therefore in the reliability of the results shown.

Most patients are identified through referral to the weekly multidisciplinary. Checks are also made against Pathology lists and GRO Death Lists.

SCAN participates in the external quality assurance (QA) programme undertaken by ISD Scotland. No formal QA of Urological cancer data has yet been undertaken.

Clinical sign-off: Data from reports prepared for individual hospitals is signed off as accurate following review between the lead clinicians from each service and the audit staff. Once collated into a draft comparative report it has been reviewed by a group of clinicians, with comments added as appropriate, before final sign-off is agreed.

1.3 Audit Processes

Capture of patient referral, investigation, diagnosis, pathology and surgery data is based around the preparation of information for the weekly multidisciplinary meeting (MDM). Oncology data is obtained from clinical records (electronic systems and casenotes).

Urological Cancer Audit 2010 Most data is recorded and entered to the urology cancer database from the patient record of referral, investigation, and treatment (electronic systems and paper case notes). In NHS Lothian (also covering NHS Borders and Dumfries & Galloway) a summary of data is printed from the database and supplied to the MDM. Meeting decisions are also recorded on the database. NHS Fife operates a separate MDM

1.4 Analysis of Data

The report provides mainly descriptive data about the patients diagnosed with urological cancers in SCAN in 2010. There are currently no detailed nationally-agreed standards for measuring the quality of care for urological cancers, but the SCAN Urology Group has agreed a draft set of clinical effectiveness measures, based on the Scottish Core Cancer standards (published March 2008), and on SIGN Guidelines 85 (Bladder cancer).

Results have been categorised by stage and level of risk. In Prostate Cancer for example results have been divided into four groups, localised, locally advanced, nodal involvement and distant metastases.

Lauren Aitken completed a risk assessment for any potential or actual risk of disclosive information. Any data identified as high risk was amended using disclosure control techniques.

Further Information and Comment

For further information or comment on the measures used and analysis of data, please contact:

Lauren Aitken, SCAN Cancer Audit Facilitator Email: Lauren.aitken@luht.scot.nhs.uk

Comment by SCAN Urology Group Chair

This report presents information on the 1290 patients diagnosed with urological cancers in the South East of Scotland Cancer Network (SCAN) in 2010. The report provides very comprehensive descriptive statistics of the numbers, presentation and characteristics of patients diagnosed with one of the six types of cancers comprising the group of urological cancers within the health board areas of NHS Lothian, Fife, and Borders. Dumfries & Galloway have not been able to contribute data to this report although we hope that they will be able to contribute in 2012.

Results have been categorised by stage and level of risk, what treatment they have received and the levels of mortality at one year. The data allows us to compare results and promote equity of treatment for patients in each of the participating health board areas.

Currently there are no national agreed standards for urological cancers. In this report we show some results for bladder cancer measured against SIGN Guidelines which were published some time ago. The Scottish Cancer Taskforce's Quality Performance Indicators (QPIs) are process of being developed, with Renal and Prostate Cancer QPIs being implemented during 2012 and Bladder and Testicular Cancers following in 2013. Development of these QPIs has involved significant time and input over the past year from both clinicians and audit staff in SCAN but we are looking forward to the opportunity in the future to measure our results so as to demonstrate the high quality outcomes and quality of care which are the purpose and mission of the SCAN Urology Group.

In addition to collection of the nationally-agreed dataset our data records are also integrated with details collected by individual clinicians on complex surgical cases in SCAN (Prostatectomy, Cystectomy, and Nephrectomy) (the BAUS complex surgery data set) and this information has proved invaluable in contributing to the debate about surgical service development and outcome in Scotland.

I would like to thank all the audit staff in Lothian, Borders and Fife for their hard work and commitment in recording and reporting this high quality data and in particular recognise the lead role of our SCAN Audit Facilitator, Lauren Aitken, in bringing together all the data for this report.

Prasad Bollina Chair SCAN Urology Group

ADJ AM AS BCG BGH BRACHY CHEMO CIS CNS CT EBRT	Adjuvant Active Monitoring Active Surveillance Bacille Calmette-Guerin Borders General Hospital Brachytherapy Chemotherapy Carcinoma in situ clinical nurse specialist Computed tomography External Beam Radiotherapy
G GP	Grade (Tumour differentiation) General Practitioner
GRO	General Register of Scotland
Gy	Gray (measurement unit, radiotherapy)
HIS	Healthcare Improvement Scotland
HT	Hormone Therapy
ISD	Information Services Division
MDM	Multi-Disciplinary Meeting
MMC MRI	Mitomycin C Magnetic resonance imaging
MTI	Magnetic resonance imaging Malignant Teratoma Intermediate
MTU	Malignant Teratoma Undifferentiated
NEO-ADJ	Neo-Adjuvant
NICE	National Institute for Health and Clinical Excellence
PALL	Palliative/ Palliation
PLND	pelvic lymph nodes dissection
PSA	Prostate-Specific Antigen
рТ	Pathological tumour stage
QA RFA	Quality Assurance Radio Frequency Ablation
RT	Radiotherapy
SCAN	South East of Scotland Cancer Network
SCC	Squamous Cell Carcinoma
SCT	Scottish Cancer Task Force
SIGN	Scottish Intercollegiate Guidelines Network
TCC	Transitional cell carcinoma
TNM	Tumour, node, metastasis
	transurethral resection
	transurethral resection of bladder tumour
WGH WHO	Western General Hospital World Health Organisation
WHO	Word Health Organisation Watchful Waiting
	tratonial trating

2 ALL UROLOGICAL CANCERS

2.1 Summary of Patients by Key Categories

2.1.1 Incidence by Tumour Site

Patients diagnosed within the SCAN network between 01/01/2010 and 31/12/2010 with the following

Primary Tumour Site	Borders	Lothian	Fife	SCAN
C61 Prostate	86	384	200	670
C67 Bladder* & C68.0P Urethra	34	201	84	319
C64 Kidney	13	113	50	176
C62 Testis	2	47	19	68
C65 Renal Pelvis & C66 Ureter	1	31	15	47
C60 Penis	0	4	6	10
Total	136	780	374	1290

*Breakdown of Bladder cancer inclusion to allow comparison with national data	Borders	Lothian	Fife	SCAN
C67 Bladder	34	91	49	174
ICD[8010/2] Bladder – carcinoma in situ	1	1	6	8
ICD[8130/2 & 8130/3] Bladder – Stage pTa (G1/G2)	22	106	29	157
C68.0P Urethra	0	3	0	3
Total	57	201	84	342

15 patients had synchronous tumours in one other urological organ/ site

2.1.2 Estimate of numbers recorded in audit in 2010 in comparison with Scottish Cancer Registry

	ISD 5 year		SCAN Audit	
	average (2005-	SCAN Audit	Registration 2010 (pTa	
	2009)	Registrations 2010	and Cis excluded)	2010 % of Cancer Registry
Borders	137.8	136	112	81.3%
Lothian	728.6	780	639	87.7%
Fife	312.8	374	325	103.9%
SCAN	1179.2	1290	1112	94.3%

Percentage of Registry average was calculated using SCAN Audit registrations of all cancers minus Renal pelvis, Ureteric, Urethral and all Cis and Bladder pTa (which are not routinely included in Scottish Cancer Registry figures)

2.2 Referral category & timeline

Referral Urgency	Borders	Lothian	Fife	SCAN
Urgent	61	391	187	639
Non-Urgent	75	389	187	651
Total	136	780	374	1290

	Borders	Lothian	Fife	SCAN
Timelines	Median (days)	Median (days)	Median (days)	Median (days)
Referral to Diagnosis	15.5	20	19	19
Referral to First Treatment	57	74	57	66
Diagnosis to First Treatment	35	49	30	42
Diagnosis to First Surgery	50	58	26	44

Comment:

The field 'Urgent with suspicion of cancer' which is now used as the basis for reporting of national cancer waiting times targets is not included in national audit datasets. It may be locally collected at the discretion of individual health boards but is not included for reporting.

Timelines shown above differ from those submitted by health boards for measurement of the national Cancer Waiting Times targets. These timelines include patients referred from any source with any urgency and there are no exclusions for reasons such as patient induced delay, clinical complexity etc.

2.3 Patient Management

NHS QIS Cancer Core Standard 2a states that "All patients with cancer are managed by a multidisciplinary process" as there is evidence that the multidisciplinary management of patients increases their satisfaction and overall outcome

MDM Discussion	Borders		Borders Lothia			Fife	SCAN		
MDM Discussion	130	95.6%	753	96.5%	374	100.0%	1257	97.4%	
No MDM Discussion	6	4.4%	27	3.5%	0	0.0%	33	2.6%	
Total	136	100.0%	780	100.0%	374	100.0%	1290	100.0%	

15 Lothian 3 Fife and 2 Borders patients had synchronous urological tumours, all of whom were discussed at MDM.

Borders & Lothian Explanations for 33 patients not discussed at MDM:

3 Bladder - Not discussed (unknown reason)

29 Prostate - ALL clinically diagnosed

1 Kidney not referred to urology

Comments: Overall the SCAN percentage of patients discussed at MDM is high. There is a small group of patients who are not discussed due to having very low risk cancer. It is recognised that in order to optimise collection of incidence and diagnostic details, every patient must at least be registered with a treatment plan.

2.4 Outcomes

1 patient died within 30 days of Radical Surgery (11 days post-op). Cause of death: 1a. Postoperative pneumonia

SCAN Mortality

1 Year Mortality	Prostate	Bladder & Urethra	Kidney	Testicular	Renal Pelvis & Ureter	Penile	All Urological cancer
Total Deceased	43	54	38	0	8	1	144
Diagnosis to Death (Range) days Diagnosis to Death	18 – 362	10 – 364	6 - 349	n/a	10 – 310	87	6 – 364
(Median) days	194	175	104.5	n/a	160.5	87	150.5
Age at Diagnosis (Range) years Age at Diagnosis	56 – 96	48 – 91	56 - 95	n/a	60 - 90	54	48 – 96
(Median) years	80	80	77	n/a	74.5	54	78.5

Comment:

The table above shows patients who were diagnosed in SCAN during 2010 and were recorded as deceased within 365 days of diagnosis date.

This is an all-cause of death comparison so may include patients where cancer was not their primary cause of death.

3 PROSTATE CANCER

	Age Distribution										
Age	Borders	%	Lothian	%	Fife	%	SCAN	%			
<50	0	0.0%	6	1.6%	1	0.5%	7	1.0%			
50-54	1	1.2%	14	3.6%	6	3.0%	21	3.1%			
55-59	9	10.5%	36	9.4%	12	6.0%	57	8.5%			
60-64	20	23.3%	81	21.1%	34	17.0%	135	20.1%			
65-69	24	27.9%	101	26.3%	25	12.5%	150	22.4%			
70-74	17	19.8%	57	14.8%	46	23.0%	120	17.9%			
75-79	9	10.5%	34	8.9%	34	17.0%	77	11.5%			
80-84	3	3.5%	31	8.1%	23	11.5%	57	8.5%			
85-89	3	3.5%	19	4.9%	15	7.5%	37	5.5%			
>90	0	0.0%	5	1.3%	4	2.0%	9	1.3%			
Total	86	100.0%	384	100.0%	200	100.0%	670	100.0%			

3.1 Incidence & Timeline

	Borders	Lothian	Fife	SCAN
Timelines	Median (days)	Median (days)	Median (days)	Median (days)
Referral to Diagnosis	16	24	23	22
Referral to First Treatment	62	91	69	80
Diagnosis to First Treatment	38	58	42	49
Diagnosis to First Surgery	112	103	92	99

NOTE: all patients diagnosed incidentally by cystoprostatectomy for bladder cancer are included in overall incidence but are excluded from all diagnosis, staging and treatment calculations.

3.2 Diagnosis & Staging

3.2.1 Number and percentage of patients categorised by risk group

Risk Group (6 Cystoprostatectomies excluded)	Borders	%	Lothian	%	Fife	%	SCAN	%
Localised Cancer	65	75.6%	251	66.2%	112	56.3%	428	64.5%
Locally Advanced Cancer	5	5.8%	76	20.1%	43	21.6%	124	18.7%
Nodal Involvement	0	0.0%	6	1.6%	6	3.0%	12	1.8%
Distant Mets +/- nodes	16	18.6%	46	12.1%	38	19.1%	100	15.1%
Total	86	100.0%	379	100.0%	199	100.0%	664	100.0%

3.2.2 Age at Diagnosis - Number and Percentage of patients Aged \geq 75

Risk Group	Borders	% of N	Lothian	% of N	Fife	% of N	SCAN	% of n
Localised Cancer :								
Low	2	13.3%	10	11.4%	2	2.6%	14	7.8%
Intermediate	1	6.7%	12	13.6%	12	15.8%	25	14.0%
High	3	20.0%	8	9.1%	15	19.7%	26	14.5%
Locally Advanced Cancer:		0.0%						
PSA <50	0	0.0%	21	23.9%	6	7.9%	27	15.1%
PSA >50	1	6.7%	10	11.4%	15	19.7%	26	14.5%
Nodal Involvement	0	0.0%	3	3.4%	2	2.6%	5	2.8%
Distant Mets +/- Nodes	8	53.3%	24	27.3%	24	31.6%	56	31.3%
Total	15	100.0%	88	100.0%	76	100.0%	179	100.0%

(1 Lothian cystoprostatectomy excluded)

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3.3 Treatment by risk group

3.3.1 Localised Cancer Summary

SCAN	Localised Low Risk	Localised Intermediate Risk	Localised High Risk	Total	% of Total
Surgery	38	64	7	109	25.5%
Radiotherapy	8	46	42	96	22.4%
Brachytherapy	13	20	0	33	7.7%
HT Alone	0	9	22	31	7.2%
WW/AM	100	42	12	154	36.0%
Refused/ NR/ died	3	2	0	5	1.2%
Total	162	183	83	428	100.0%

3.3.2 Localised Prostate Cancer

Localised Prostate cancer is defined as: organ confined, non-metastatic with PSA < 50 Treatment success can be estimated by risk group.

		Borders	Lothian	Fife	SCAN	Total
LOW RISK	Surgery	5	31	2	38	8.9%
T1 - T2b ,Gleason <7	Radiotherapy	1	7	0	8	1.9%
Diagnosis PSA <10	Brachytherapy	2	10	1	13	3.0%
	HT	0	0	0	0	0.0%
	WW/ AM	20	62	18	100	23.4%
	Refused/ NR, RIP	0	3	0	3	0.7%
INTERMEDIATE RISK	Surgery	11	47	6	64	15.0%
T2b, Gleason 7	Radiotherapy	6	23	17	46	10.7%
Diagnosis PSA 10 - 19	Brachytherapy	3	13	4	20	4.7%
	HT	2	3	4	9	2.1%
	WW/ AM	1	21	20	42	9.8%
	Refused/ NR, RIP	1	0	1	2	0.5%
	Surgery	1	6	0	7	1.6%
	Radiotherapy	6	14	22	42	9.8%
Gl >7 (8 - 10) ,T3a Diagnosis PSA >20 (<50)	Brachytherapy	0	0	0	0	0.0%
	HT	6	5	11	22	5.1%
	WW/ AM	0	6	6	12	2.8%
	Refused/ NR, RIP	0	0	0	0	0.0%
Total		65	251	112	428	100.0%

AM= Active Monitoring, WW= Watchful Waiting, HT= Hormone Therapy, EBRT= External Beam Radiotherapy, RT= Radiotherapy

Prostate Cancer- Urological Cancer Audit 2010

3.3.3 Locally Advanced & Metastatic Cancer

	Locally	Locally				
	Advanced	Advanced	Nodal			% of
SCAN	(PSA <50)	(PSA >50)	Involvement	Metastatic	Total	Total
Surgery	7	1	0	0	8	3.4%
HT Alone	19	26	5	77	127	53.8%
Radiotherapy	42	20	6	20	88	37.3%
WW	5	3	0	0	8	3.4%
Other Oncology	0	0	1	2	3	1.3%
Patient refusal	0	1	0	0	1	0.4%
Died before t/x	0	0	0	1	1	0.4%
Total	73	51	12	100	236	100.0%

3.3.4 Non-Localised Prostate Cancer

		Borders	Lothian	Fife	SCAN	Total
LOCALLY ADVANCED	Surgery	0	6	1	7	2.9%
Diagnosis PSA <50	HT Alone	0	10	9	19	8.1%
No Nodes/ Metastases	EBRT & HT	0	32	10	42	17.8%
	WW	0	4	1	5	2.1%
	Clinical Trial	0	0	0	0	0.0%
LOCALLY ADVANCED	Surgery	0	0	1	1	0.4%
Diagnosis PSA >50 No Nodes/ Metastases	HT Alone	2	9	15	26	11.0%
	EBRT & HT	3	14	3	20	8.5%
	WW	0	1	2	3	1.3%
	Clinical Trial	0	0	0	0	0.0%
	Refused	0	0	1	1	0.4%
NODAL INVOLVEMENT	Surgery	0	0	0	0	0.0%
Any PSA	HT Alone	0	0	5	5	2.1%
No Distant Metastases	EBRT & HT	0	6	0	6	2.5%
	WW	0	0	0	0	0.0%
	Clinical Trial	0	0	1	1	0.4%
METASTATIC	Surgery	0	0	0	0	0.0%
Any PSA	HT Alone	15	29	33	77	32.6%
Distant Metastases	HT (+ pall RT)	1	16	3	20	8.5%
(+/- Nodes)	WW	0	0	0	0	0.0%
	Clinical Trial	0	1	1	2	0.8%
	Died before tx	0	0	1	1	0.4%
Total		21	128	87	236	100.0%

3.4 Prostatectomy Approach

3.4.1 Patients diagnosed in SCAN in 2010

Type of procedure	Borders	Fife	Lothian	SCAN
Open Procedure	1	8	0	9
Laparoscopic	16	2	90	108
Total Prostatectomy	17	10	90	117

3.4.2 Operations in NHS Lothian

Number of prostatectomies carried out in NHS Lothian during 2010, regardless of diagnosis date or health board of referral.

This includes those diagnosed on any date and in any health board and surgeries carried out in the private setting.

Type of procedure	Out of region/ private	Dumfries	Borders	Lothian	Fife	SCAN
Open Procedure	0	0	0	1	10	11
Laparoscopic	24	16	13	91	0	144
Total Prostatectomy	24	16	13	92	10	155

Comment:

Table 3.4.1 shows 2 open procedure cases for Lothian while Table 3.4.2 shows 1 case- this can be explained by difference in cohort as the Table 3.4.1 includes patients who were diagnosed in 2010 but may have had surgery in 2010 while Table 3.4.2 contains only patients who had surgery in 2010 regardless of diagnosis date.

3.5 Edinburgh Cancer Centre- Radiotherapy

Oncologists based at the Edinburgh Cancer Centre serve the entire SCAN region and a proportion of patients from other boards for specialist procedures. Below is a summary of radiotherapy service activity which is based on number of Bladder and Prostate cancer patients seen by each oncologist by calendar year (does not include duplicate patients within the year but does include patients twice if seen in both years).

Prostate Cancer- Radical Radiotherapy Patients receive 3 months of hormone therapy prior to radiation so may begin treatment the year following their diagnosis. Some also defer starting oncological treatment (from months to years) and may undergo radiotherapy post-surgery or as part of a clinical trial which can intentionally be some time after diagnosis. There are also a significant number of patients receiving radiotherapy for a recurrence/spread of cancer or with a palliative intent e.g. Bone metastases.

SCAN reporting focuses on patients diagnosed within a year who are then followed for recording of definitive treatment. A small proportion of patients who have not yet started or completed definitive treatment at time of analysis may not be included in the figures for patients receiving radiotherapy.

Prostate and Bladder Cancer	2009	2010
Number of patients seen by Consultant Uro-oncologist	633	625

Note: 2 full time oncologists in 2009, addition of a third oncologist in 2011.

3.6 Outcome - Mortality

1 year mortality	Borders	Lothian	Fife	SCAN
Total Deceased	6	17	20	43
Diagnosis to Death (Median) days	125.5	199	159.5	194
Diagnosis to Death (Range) days	109 - 267	30 - 327	18 - 362	18 - 362
Age at Diagnosis (Median) years	80.5	80	79	80
Age at Diagnosis (Range) years	56 - 89	57 - 96	64 - 92	56 - 96

Comment:

The table above shows patients who were diagnosed in SCAN during 2010 and were recorded as deceased within 365 days of diagnosis date.

This is an all-cause of death comparison so may include patients where cancer was not their primary cause of death.

4 BLADDER CANCER

4.1 Incidence & Timeline

NOTE: The inclusion criteria for national prospective cancer audit datasets includes superficial and in situ cancers

	Age Distribut	ion		
Age	Borders	Lothian	Fife	SCAN
<50	0	9	5	14
50-54	1	4	3	8
55-59	0	12	3	15
60-64	5	18	15	38
65-69	3	26	13	42
70-74	5	31	16	52
75-79	10	40	11	61
80-84	4	36	8	48
85-89	6	19	9	34
>90	0	6	1	7
Total	34	201	84	319

	Borders	Lothian	Fife	SCAN
Timelines	Median (days)	Median (days)	Median (days)	Median (days)
Referral to Diagnosis	14	22	19	20
Referral to First Treatment	48	65	47	58
Diagnosis to First Treatment	31.5	35	22	30
Diagnosis to First Surgery	29	35.5	22	29

4.2 Tumour Type & Staging

Tumour Type	Borders	Lothian	Fife	SCAN
TCC	32	183	72	287
SCC	0	4	1	5
Cis	1	1	6	8
Adenocarcinoma	0	1	0	1
Clinical (1 metastatic)	0	8	4	12
Metastatic TCC	0	2	0	2
Small cell	1	1	0	2
Other	0	1	1	2
Total	34	201	84	319

4.3 Treatment by Tumour Grade/ Stage

		Total	% board total	Total	% SCAN total
Superficial	Borders	11	32.4%	143	44.8%
(G1/G2 pTa)	Lothian	103	51.2%		
	Fife	29	34.5%		
Superficially Invasive	Borders	13	38.2%	81	25.4%
(G3, pTa/ pT1)	Lothian	39	19.4%		
	Fife	29	34.5%		
Invasive	Borders	7	20.6%	44	13.8%
(G3, pT2- 4)	Lothian	28	13.9%		
	Fife	9	10.7%		
Metastatic	Borders	0	0%	10	3.1%
(N+, M+)	Lothian	7	3.5%		
	Fife	3	3.6%		
Inapplicable	Borders	3	8.8%	41	12.9%
(G3 pTx, pTis, Clinical,	Lothian	24	11.9%		
Not Recorded)	Fife	14	16.7%		
			Total	319	100.0%

4.3.1 Superficial Bladder Cancer

Superficial (G1/G2 pTa)	BCG/ MMC course	TURBT +/- MMC	Cystectomy	RT	Pall	Chemo (+/- RT)	W W	Total
Borders	0	10	0	0	0	0	1	11
Lothian	2	96	1	0	3	1	0	103
Fife	0	29	0	0	0	0	0	29
Total	2	125	1	0	3	1	1	133

(RT= Radical Radiotherapy, Pall= Palliative, WW= Watchful Waiting, Chemo= Chemotherapy)

4.3.2 Superficially Invasive Bladder Cancer

Superficially Invasive	BCG/ MMC	TURBT				Chemo		
(G3, pTa/ pT1)	course	+/- MMC	Cystectomy	RT	Pall	(+/- RT)	DBT	Total
Borders	0	13	0	0	0	0	0	13
Lothian	7	26	1	1	3	0	1	39
Fife	6	20	2	1	0	0	0	29
Total	13	59	3	2	3	0	1	81

(RT= Radical Radiotherapy, Pall= Palliative, WW= Watchful Waiting, Chemo= Chemotherapy, DBT= Died before treatment)

4.3.3 Invasive Bladder Cancer

Invasive (G3, pT2- 4)	BCG/ MMC course	TURBT +/- MMC	Cystectomy	RT	Pall	Chemo (+/- RT)	DBT	Total
Borders	0	4	1	0	1	1	0	7
Lothian	0	3	7	4	12	2	0	28
Fife	0	4	2	2	0	1	0	9
Total	0	11	10	6	13	4	0	44

(RT= Radical Radiotherapy, Pall= Palliative, WW= Watchful Waiting, Chemo= Chemotherapy, DBT= Died before treatment)

4.3.4 Metastatic Bladder Cancer

Metastatic (N+, M+)	BCG/ MMC course	TURBT +/- MMC	Cystectomy	RT	Pall	Chemo (+/- RT)	DBT	Total
Borders	0	0	0	0	0	0	0	0
Lothian	0	0	0	0	5	2	0	7
Fife	0	2	0	0	0	1	0	3
Total	0	2	0	0	5	3	0	10

(RT= Radical Radiotherapy, Pall= Palliative, WW= Watchful Waiting, Chemo= Chemotherapy, DBT= Died before treatment)

4.3.5 Bladder Cancer with no available staging

Inapplicable	BCG/ MMC course	TURBT + MMC	Cystectomy	RT	Pall	ww	DBT/ private/ Refused	Chemo & RT	Total
Borders	0	2	0	0	0	0	0	1	3
Lothian	2	6	3	1	10	0	2	0	24
Fife	5	4	1	0	1	1	2	0	14
Total	7	12	4	1	11	1	4	1	41

(RT= Radical Radiotherapy, Pall= Palliative, WW= Watchful Waiting, Chemo= Chemotherapy, DBT= Died before treatment)

4.4 Edinburgh Cancer centre- Radiotherapy

Please see point 3.5 of the Prostate Cancer chapter for Radiotherapy at the Edinburgh Cancer Centre data and detail (Page 16)

4.5 Outcome – Mortality

Comment: The table below shows patients who were diagnosed in SCAN during 2010 and were recorded as deceased within 365 days of diagnosis date.

This is an all-cause of death comparison so may include patients where cancer was not their primary cause of death.

1 year Mortality	Borders	Lothian	Fife	SCAN
Total Deceased	5	38	11	54
Diagnosis to Death (Median) days	111	177.5	181	175
Diagnosis to Death (Range) days	78 - 361	10 - 356	89 - 364	10 - 364
Age at Diagnosis (Median) years	79.5	80	81	80
Age at Diagnosis (Range) years	51 - 86	48 - 91	66 - 90	48 - 91

4.6 Clinical Effectiveness Measures

These measures are based on selected guidelines from the SIGN Guideline No. 85 for Management of Transitional Cell Carcinoma (TCC) of the Bladder. There are no formally-defined measurement criteria for these guidelines e.g. to clarify appropriate exclusions, which may affect compliance achievements.

SIGN 85 3.1.3

100% of patients diagnosed with a pT2-4 (N0. M0) tumour should have a cystectomy within three months of diagnosis (Diagnosis defined as first positive histology)

These results relate to patients diagnosed in Lothian between 01/01/2010 and 31/12/2010. Cystectomies were also performed in Lothian on patients from other health boards, on those whose initial pathology did not meet above criteria, and also those who were initially diagnosed outside the 2010 cohort. This measure does not include SCC or urethral cancer.

	Borders	Lothian	Fife	SCAN
Total numbers diagnosed with pT2 – 4, N0, M0 Number of those patients undergoing Radical cystectomy	7	23	9	39
(partial cystectomy excluded)	1	7	2	10
Compliance	14.3%	30.4%	22.2%	25.6%
<93d from diagnosis to cystectomy	n/a	6	2	8
>93d from diagnosis to cystectomy	1	1	0	2
Median time from diagnosis to cystectomy	101	38	33	n/a
Range	101	30 - 140	24-41	n/a
Compliance	0%	85.7%	100.0%	80%

Explanatory notes for those not having cystectomy within guideline:

Borders: 1 patient had prostatic resection prior to cystectomy for staging purposes

Lothian: 1 patient was delayed due to Neo Adjuvant Chemotherapy Definitive treatment of those not having Cystectomy-6 Radical EBRT (1 chemo), 9 Palliative Radiotherapy/ supportive care (unfit), 2 had Radical Chemotherapy, 1 Died before Radical Radiotherapy

Fife:

Definitive treatment of those not having Cystectomy-

7 patients not undergoing cystectomy: 1 local control only, 2 radical radiotherapy, 1 patient returned home abroad, 1 procedure abandoned as bladder fixed, and 2 palliative care only.

SIGN 85.4.6.1

Cis patients should have BCG (Bacillus Calmette-Guerin) treatment

	Borders	Lothian	Fife	SCAN
Patients diagnosed with Cis alone	1	1	6	8
Patients receiving BCG	1	1	5	7
Compliance	100.0%	100.0%	83.3%	85.7%

1 Fife patient defaulted from follow up

5 KIDNEY CANCER

5.1 Incidence & Timeline

			A	ge Distributio	n			
Age	Bor	ders	Lothian		Fi	Fife		CAN
<50	1	7.7%	9	8.0%	6	12.0%	16	9.1%
50-54	2	15.4%	7	6.2%	4	8.0%	13	7.4%
55-59	0	0.0%	12	10.6%	5	10.0%	17	9.7%
60-64	2	15.4%	16	14.2%	7	14.0%	25	14.2%
65-69	2	15.4%	18	15.9%	4	8.0%	24	13.6%
70-74	2	15.4%	17	15.0%	5	10.0%	24	13.6%
75-79	2	15.4%	15	13.3%	11	22.0%	28	15.9%
80-84	1	7.7%	11	9.7%	5	10.0%	17	9.7%
85-89	0	0.0%	6	5.3%	3	6.0%	9	5.1%
>90	1	7.7%	2	1.8%	0	0.0%	3	1.7%
Total	13	100.0%	113	100.0%	50	100.0%	176	100.0%

	MALE- Age Distribution			FEMALE- Age Distribution			SCAN	
Age	Borders	Lothian	Fife	Borders	Lothian	Fife	Male	Female
<50	0	5	5	1	4	1	10	6
50-54	2	2	4	0	5	0	8	5
55-59	0	9	2	0	3	3	11	6
60-64	2	12	2	0	4	5	16	9
65-69	0	12	1	2	6	3	13	11
70-74	0	8	2	2	9	3	10	14
75-79	0	9	6	2	6	5	15	13
80-84	0	7	4	1	4	1	11	6
85-89	0	2	3	0	4	0	5	4
>90	1	0	0	0	2	0	1	2
Total	5	66	29	8	47	21	100	76

	Borders	Lothian	Fife	SCAN
Timelines	Median (days)	Median (days)	Median (days)	Median (days)
Referral to Diagnosis	0	1	7	2
Referral to First Treatment	90	61	53	57.5
Diagnosis to First Treatment	62	54	36	45
Diagnosis to First Surgery	74	68.5	41	60

5.2 Tumour Type & Staging

Tumour Morphology	Borders	Lothian	Fife	SCAN
Renal Cell Carcinoma	9	62	29	100
Clinical Diagnosis only	4	43	15	62
Chromophobe/TCC/ PNET/ sarcomatoid/ oncocytic neoplasm	0	4	3	7
Adenocarcinoma	0	0	2	2
Metastases Histology (1 TCC)	0	4	1	5
Total	13	113	50	176
	•	·		
Pathological Tumour Size (2 had biopsy only)	Borders	Lothian	Fife	SCAN
	0	0.4	00	400

Pathological Tumour Size (2 had biopsy only)	Borders	Lothian	Fife	SCAN
Number with Size recorded	9	64	33	106
Range	22 - 165	4 - 150	15 – 200	4 - 200
Median	58	59	59	58

5.3 Treatment

Treatment Types by Stage Group

Fuhrman Grade	Surgery	Supportive care & Palliative RT/ Chemo	WW	RFA	Systemic Therapy (Sutent)	Refused/ Died/NAT	supportive care	Endoscopic	Total
Borders									
Grade 1	1	0	0	0	0	0	0	0	1
Grade 2	4	0	0	0	0	0	0	0	4
Grade 3	3	0	0	0	0	0	0	0	3
Grade 4	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0
NI	1	3	0	0	0	0	0	1	5
Lothian									
Grade 1	4	0	0	0	0	0	0	0	4
Grade 2	35	0	0	0	2	0	0	0	37
Grade 3	14	1	0	0	0	0	0	0	15
Grade 4	9	0	0	0	0	0	0	0	9
NR	1	0	0	0	2	0	0	0	3
NI	1	4	18	0	1	7	14	0	45
Fife									
Grade 1	2	0	0	0	0	0	0	0	2
Grade 2	17	0	0	1	2	0	0	0	20
Grade 3	4	0	0	0	0	0	0	0	4
Grade 4	3	0	0	0	0	0	0	0	3
NR	4	0	1	0	1	0	0	0	6
NI	0	4	9	1	0	1	0	0	15
Total	103	12	28	2	8	8	14	1	176

5.4 Surgery Type

Number of patients diagnosed in 2010 having surgery in 2010

Type of Radical Surgery	Borders	Lothian	Fife	SCAN
Laparoscopic Radical Nephrectomy	7	43	16	66
Open Radical Nephrectomy	1	10	6	17
Open Partial Nephrectomy	1	10	5	16
Laparoscopic Partial Nephrectomy	0	1	0	1
Laparoscopic Nephroureterectomy	0	0	1	1
Excision of metastases	0	0	2	2
Total	9	64	30	103

Number of Nephrectomies carried out in NHS Lothian during 2010 (Includes patients diagnosed in other cohorts and/or in health boards outside SCAN)

Surgery Type	Number Operations
Laparoscopic Nephroureterectomy	17
Open Radical Nephrectomy	2
Open Partial Nephrectomy	16
Laparoscopic Radical Nephrectomy	85
TOTAL	120

5.5 Mortality

1 year Mortality	Borders	Lothian	Fife	SCAN
Total Deceased	2	30	6	38
Diagnosis to Death (Median) days	60	95	135.5	104.5
Diagnosis to Death (Range) days	37 - 83	6 - 349	74 - 196	6 - 349
Age at Diagnosis (Median) years	67	77	76	77
Age at Diagnosis (Range) years	65 - 69	56 - 95	58 - 79	56 - 95

Comment:

The table above shows patients who were diagnosed in SCAN during 2010 and were recorded as deceased within 365 days of diagnosis date. This is an all-cause of death comparison so may include patients where cancer was not their primary cause of death.

TESTICULAR CANCER

6.1 Incidence

6

Age Distribution								
Age	Borders	Lothian	Fife	SCAN				
<26	0	7	4	11				
26-30	1	8	5	14				
31-35	0	6	5	11				
36-40	0	9	1	10				
41-45	0	3	1	4				
46-50	1	5	2	8				
>50	0	9	1	10				
Total	2	47	19	68				

	Borders	Lothian	Fife	SCAN
Timelines	Median (days)	Median (days)	Median (days)	Median (days)
Referral to Diagnosis	31.5	8	9	9
Referral to First Treatment	46.5	21	17	19
Diagnosis to First Treatment	15	7	7	7
Diagnosis to First Surgery	0	8	7	7

6.2 Tumour Type

Tumour Types	Borders	Lothian	Fife	SCAN
Seminoma	1	32	7	40
Malignant Teratoma Undifferentiated (MTU)	0	2	2	4
Teratoma	0	1	0	1
Leydig/ Interstitial cell tumour	0	3	0	3
Malignant Teratoma Intermediate (MTI)	0	1	1	2
Mixed Germ Cell	1	4	9	14
Metastatic seminoma	0	1	0	1
Embryonal	0	1	0	1
Mixed embryonal & teratoma (non-seminiferous)	0	1	0	1
Yolk Sac	0	1	0	1
Total	2	47	19	68

6.3 Treatment by Tumour Stage

	Surgery alone	Surgery & Adj. chemo	Surgery & Adj. EBRT	Chemo	Chemo & EBRT	Pt died	Total
SCAN							
T1	25	4	5	0	0	0	34
T2	11	8	2	0	0	0	21
Т3	3	1	0	0	0	0	4
Тх	0	1	0	1	0	0	2
T10	2	1	0	1	0	0	4
Not Recorded	2	0	0	1	0	0	3
Total	43	15	7	3	0	0	68

6.4 Outcome- Mortality

1 year Mortality	Borders	Lothian	Fife	SCAN
Total Deceased	0	0	0	0
Diagnosis to Death (Median) days	n/a	n/a	n/a	n/a
Diagnosis to Death (Range) days	n/a	n/a	n/a	n/a
Age at Diagnosis (Median) years	n/a	n/a	n/a	n/a
Age at Diagnosis (Range) years	n/a	n/a	n/a	n/a

Comment:

The table above shows patients who were diagnosed in SCAN during 2010 and were recorded as deceased within 365 days of diagnosis date. This is an all-cause of death comparison so may include patients where cancer was not their primary cause of death.

7 RENAL PELVIS & URETERIC CANCERS

	Age Distribution						
Age	Borders	Lothian	Fife	SCAN			
<50	0	0	2	2			
50-54	0	1	0	1			
55-59	0	0	0	0			
60-64	0	3	3	6			
65-69	1	5	5	11			
70-74	0	9	2	11			
75-79	0	4	3	7			
80-84	0	7	0	7			
85-89	0	1	0	1			
>90	0	1	0	1			
Total	1	31	15	47			

7.1 Incidence & Timeline

	Borders	Lothian	Fife	SCAN
Timelines	Median (days)	Median (days)	Median (days)	Median (days)
Referral to Diagnosis	0	26	24	26
Referral to First Treatment	0	144	81	123
Diagnosis to First Treatment	0	99.5	43	87
Diagnosis to First Surgery	0	123	48	99

7.2 Tumour Type & Staging

51	5 5			
Tumour Type	Borders	Lothian	Fife	SCAN
TCC / Urothelial cell carcinoma	1	18	14	33
Papillary TCC	0	9	0	9
Clinical TCC	0	4	1	5
Total	1	31	15	47
Clinical T Stage	Borders	Lothian	Fife	SCAN
Т3	0	1	0	1
Τ4	0	0	1	1
Not Recorded	1	30	14	45
Total	1	31	15	47

	-	_		(
			Endoscopic treatment/	No active treatment/ Pt died/	
Pathological T Stage	Surgery	Chemotherapy	Laser Ablation	Pt refused/ WW	Total
рТх	1	0	0	0	1
рТа	19	0	1	1	21
pT1	4	0	0	0	4
pT2	3	0	0	0	3
рТЗ	7	0	0	0	7
pT4	1	0	0	0	1
Not Recorded	1	1	0	3	5
Total	36	1	1	4	42

7.3 Treatment by Tumour Stage

Excluded: 5 clinically diagnosed patients (4 lothian and 1 fife patient)

7.4Surgery Type

Surgery	Borders	Lothian	Fife	SCAN
Nephroureterectomy (1 open in Fife)	1	22	11	34
Cystectomy	0	1	0	1
Ureterectomy	0	0	1	1
Totals	1	23	12	36

7.5 Outcome- Mortality

1 year Mortality	Borders	Lothian	Fife	SCAN
Total Deceased	0	5	3	8
Diagnosis to Death (Range) days	n/a	26 - 310	10-207	10 - 310
Diagnosis to Death (Median) days	n/a	179	22	158.5
Age at Diagnosis (Range) years	n/a	60 - 90	66-79	60 - 90
Age at Diagnosis (Median) years	n/a	78	71	74.5

Comment:

The table above shows patients who were diagnosed in SCAN during 2010 and were recorded as deceased within 365 days of diagnosis date. This is an all-cause of death comparison so may include patients where cancer was not their primary cause of death.

8 PENILE CANCER

8.1 Incidence & Timeline

Age at diagnosis	SCAN
<60	4
61+	6
Total	10

	SCAN
Timelines	Median (days)
Referral to Diagnosis	26
Referral to First Treatment	75
Diagnosis to First Treatment	42
Diagnosis to First Surgery	43

8.2 Tumour Morphology

Tumour Type	SCAN
Squamous Cell Carcinoma	9
SCC & Cis	1
Total	10

8.3 Treatment by Tumour Stage and Grade for SCAN

Grade	Glansectomy	Total Penectomy	Excision of lesion / Circumcision	Total
G1	1	1	1	3
G2	2	0	4	6
G3	0	0	0	0
G9/ G10	1	0	0	1
Total	4	1	5	10

pT Stage	Glansectomy	Total Penectomy	Excision of lesion / Circumcision	Total
Tis	0	0	1	1
T1	0	0	2	2
T2	0	1	1	2
Т9	4	0	1	5
Total	4	1	5	10

8.4 Follow-up

Further intervention noted within 12 months of first treatment

pT Stage	Lymph node sample Dissection	Radical Surgery
1 (n=5)	3	0
2/3 (n=5)	3	2

8.5 Outcome - Mortality

1 year Mortality	Borders	Lothian	Fife	SCAN
Total Deceased	n/a	1	n/a	1
Diagnosis to Death (Range) days	n/a	87	n/a	87
Diagnosis to Death (Median) days	n/a	87	n/a	87
Age at Diagnosis (Range) years	n/a	54	n/a	54

Deceased Lothian patient was known to have significant co-morbidities.

Comment:

The table above shows patients who were diagnosed in SCAN during 2010 and were recorded as deceased within 365 days of diagnosis date. This is an all-cause of death comparison so may include patients where cancer was not their primary cause of death.