

West of Scotland Cancer Network

**Urological Cancer
Managed Clinical Network**



Audit Report

Renal Cancer Quality Performance Indicators

Clinical Audit Data: 1st January - 31st December 2022

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Renal Quality Performance Indicators Overview

Patients diagnosed: Jan 2022–Dec 2022

Number of WoS cases: **538**

Gender of patients: Male 63% Female 37%

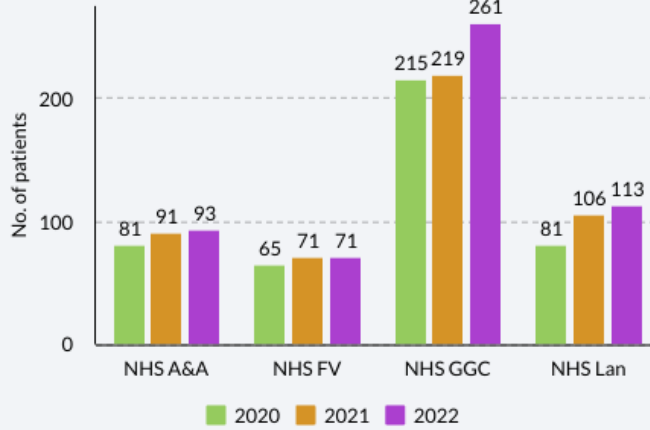
Number of new diagnoses in Scotland, 2021*: Male 755 Female 407

*Source: PHS

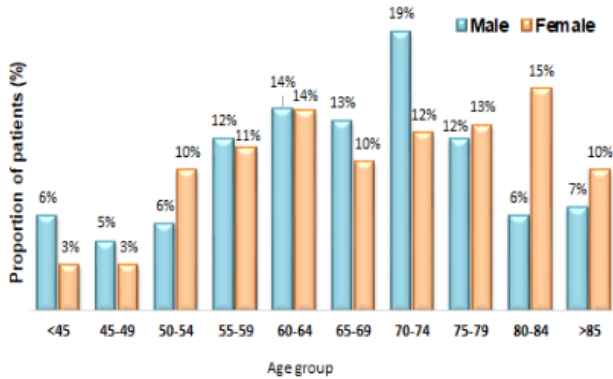
1 year Net survival* Male 80.1% Female 77.8%
5 year Net survival* Male 63.1% Female 59.6%

* Net non-age standardised survival for patients diagnosed 2015–19 in Scotland

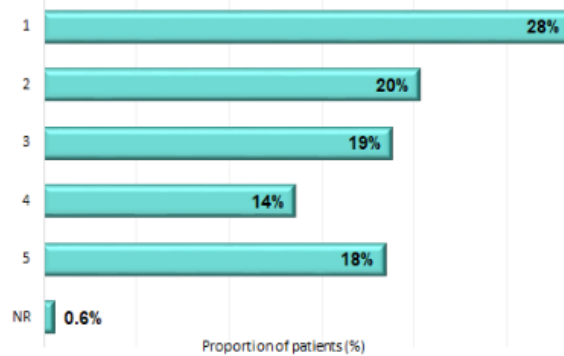
Number of cases by Board



5 year Age distribution

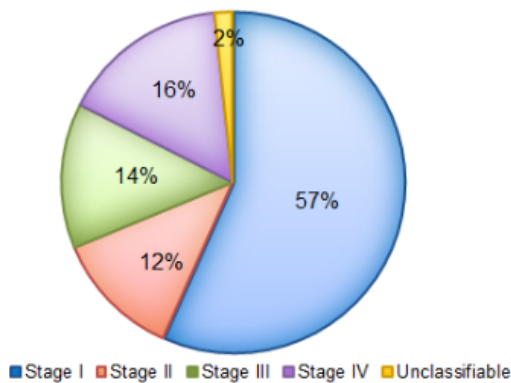


SIMD

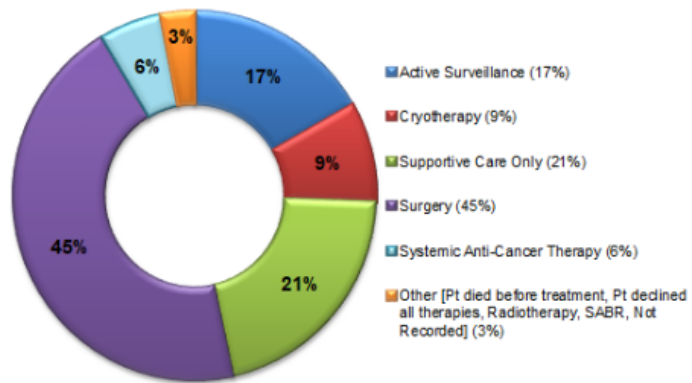


*1=most deprived, 5=least deprived

Stage



First Treatment Type



Executive Summary

This report contains an assessment of the performance of West of Scotland (WoS) urological cancer services using clinical audit data relating to patients diagnosed with renal cancer in the twelve months between 01 January and 31 December 2022.

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

Outstanding performance was evident across the region, surpassing the majority of QPI targets across all Boards. Notable areas of achievement include QPI 2(ii): Histological Diagnosis before SACT and QPI 11: Leibovich Score, both meeting regional targets at 100%. Reassuringly, surgeons routinely performing renal cancer operations successfully met the minimum target of 15 procedures for QPI 12. No instances of mortality within 30 days of Surgery and 30 or 90 days following Cryotherapy procedures were reported (QPI 8). Particularly noteworthy is the normalisation of mortality rates associated with nephrectomies and cryotherapy in NHS Forth Valley to zero compared to previous years, signifying an improvement in patient outcomes.

Where QPI targets were not met, the majority of NHS Boards have provided detailed commentary. In the main these indicate valid clinical reasons or that, in some cases, patient choice or co-morbidities have influenced patient management. QPI 1: Radiological Diagnosis, QPI 2(ii): Histological Diagnosis, QPI 3: Clinical Staging -TNM, QPI 4: Multi-Disciplinary Team Meeting, QPI 7: Nephron Sparing Surgery, QPI 11: 30/90-Day Mortality- Cryotherapy, RFA, Surgery, QPI 9: Systemic Therapy, QPI 10: Prognostic Scoring in Metastatic Disease, QPI 11: Leibovich Score and QPI 13: Trifecta Rate were met by all Boards, and therefore detailed graphs have not been included for these QPIs in the main report.

Due to the consistent performance against QPIs in this reporting period no NHS Boards actions or areas for improvement have been identified.

Summary of Renal QPI Results

Colour Key	
	Above QPI target
	Below QPI target
	Indicates no comparable measure for previous years

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

Renal MCN					
	AA	FV	GGC	LAN	WoSCAN
2022	93	71	261	113	538
2021	91	71	219	106	487
2020	81	65	215	81	442

Quality Performance Indicator (QPI)	Performance by NHS Board of diagnosis						
	QPI target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 1-Radiological Diagnosis: Proportion of patients with RCC receiving active treatments who undergo pre-treatments cross-sectional imaging of the chest, abdomen +/- pelvis.	95%	2022	100% (50/50)	97.6% (41/42)	100% (158/158)	97.1% (66/68)	99.1% (315/318)
		2021	100%	98%	99%	97%	99%
		2020	98%	98%	100%	96%	98%
QPI 2(i)-Histological Diagnosis: Proportion of patients with RCC where surgery is not the primary treatment who have a histological diagnosis before treatments, via biopsy. Cryotherapy / Radiofrequency ablation/ Stereotactic ablative radiotherapy (SABR)	90%	2022	92.9% (13/14)	100% (8/8)	85.7% (18/21)	80.0% (4/5)	89.6% (43/48)
		2021	88%	-	93%	78%	89%
		2020	75%	82%	100%	100%	88%
QPI 2(ii)-Histological Diagnosis: Proportion of patients with RCC where surgery is not the primary treatments who have a histological diagnosis before treatments, via biopsy. Systemic Anti-Cancer Therapy (SACT)	90%	2022	-	-	100% (13/13)	100% (12/12)	100% (30/30)
		2021	100%	-	100%	89%	97%
		2020	100%	100%	94%	100%	97%

Quality Performance Indicator (QPI)	Performance by NHS Board of diagnosis						
	QPI target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 3-Clinical Staging–TNM: Proportion of patients whose RCC is staged pre-treatments using the TNM staging system	98%	2022	100% (93/93)	100% (71/71)	98.5% (257/261)	100% (113/113)	99.3% (534/538)
		2021	100%	100%	99%	100%	99%
		2020	100%	100%	100%	100%	100%
QPI 4-Multi-Disciplinary Team (MDT) Meeting: Proportion of patients with RCC who are discussed at the MDT before definitive treatments.	95%	2022	98.9% (91/92)	100% (68/68)	96.9% (252/260)	100% (113/113)	98.3% (524/533)
		2021	100%	100%	98%	98%	99%
		2020	98%	98%	96%	99%	97%
QPI 7-Nephron Sparing Treatment: Proportion of patients with T1aN0M0 RCC who undergo nephron sparing treatment (cryotherapy, RFA, SABR or robotic / laparoscopic / open partial nephrectomy).	50%	2022	95.5% (21/22)	100% (16/16)	87.0% (40/46)	81.3% (13/16)	90.0% (90/100)
		2021	76%	100%	89%	100%	89%
		2020	89%	100%	83%	75%	86%
QPI 8(i)-30 Day Mortality Following Treatment for RCC: Proportion of patients who die within 30 days of treatments for RCC. (a) Cryotherapy	<2%	2022	0% (0/14)	0% (0/7)	0% (0/21)	0% (0/5)	0% (0/47)
		2021	0%	-	0%	0%	0%
		2020	25%	0%	0%	0%	4%
QPI 8(i)-30 Day Mortality Following Treatment for RCC: Proportion of patients who die within 30 days of treatments for RCC. (b) RFA	<2%	2022	*	*	*	*	*
		2021	*	*	*	*	*
		2020	*	*	*	*	*
* QPI 8(i)-30 Day Mortality Following Treatment for RCC: Proportion of patients who die within 30 days of treatments for RCC. (c) Surgery	<2%	2022	0% (0/21)	0% (0/16)	0% (0/183)	0% (0/31)	0% (0/251)
		2021	0%	10%	0%	0%	1%
		2020	0%	0%	1%	0%	1%

Quality Performance Indicator (QPI)	Performance by NHS Board of diagnosis						
	QPI target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 8(ii)-90 Day Mortality Following Treatment for RCC: Proportion of patients who die within 90 days of treatments for RCC. (a) Cryotherapy	<2%	2022	0% (0/13)	0% (0/6)	0% (0/20)	-	0% (0/43)
		2021	0%	-	0%	0%	0%
		2020	25%	10%	0%	0%	9%
QPI 8(ii)-90 Day Mortality Following Treatment for RCC: Proportion of patients who die within 90 days of treatments for RCC. b) RFA	<2%	2022	*	*	*	*	*
		2021	*	*	*	*	*
		2020	*	*	*	*	*
* QPI 8(ii)-90 Day Mortality Following Treatment for RCC: Proportion of patients who die within 90 days of treatments for RCC. (c) Surgery	<2%	2022	0% (0/21)	0% (0/16)	0.5% (1/183)	0% (0/31)	0.4% (1/251)
		2021	0%	10%	1%	0%	1%
		2020	0%	0%	1%	3%	1%
QPI 9-Systemic Therapy: Proportion of patients presenting with advanced and/or metastatic RCC who receive initial SACT within 12 months of diagnosis. <i>Patients diagnosed 1st January 2021 - 31st December 2021.</i>	40%	2022	100% (5/5)	42.9% (3/7)	53.1% (17/32)	85.7% (6/7)	60.8% (31/51)
		2021	85%	40%	62%	63%	65%
		2020	33%	75%	74%	50%	62%
QPI 10-Prognostic Scoring in Metastatic Disease: Patients with metastatic Renal Cell Carcinoma (RCC) should be assigned a valid prognostic score following diagnosis.	90%	2022	100% (8/8)	100% (15/15)	94.4% (34/36)	91.7% (22/24)	95.2% (79/83)
		2021	100%	93%	87%	96%	92%
		2020	83%	100%	88%	100%	90%
QPI 11-Leibovich Score: Proportion of patients with clear cell RCC who are assigned a Leibovich score following radical nephrectomy.	100%	2022	100% (17/17)	100% (9/9)	100% (82/82)	100% (22/22)	100% (130/130)
		2021					
		2020					

Quality Performance Indicator (QPI)	Performance by NHS Board of diagnosis						
	QPI target	Year	AA	FV	GGC	LAN	WoSCAN
QPI 12: Volume of Cases per Surgeon - Number of renal surgical resections performed by each surgeon in a given year (SMR01 data).	Min-imum of 15	2022**	2 MET	1 MET	5 MET	2 MET	10 MET
		2021	2 MET	1 MET	4 MET 1 NOT MET	2 MET	9 MET 1 NOT MET
		2020	0 MET 2 NOT MET	1 MET	4 MET 2 NOT MET	2 MET 1 NOT MET	7 MET 5 NOT MET
QPI 13-Trifecta Rate: Proportion of patients with T1a RCC undergoing partial nephrectomy who achieve trifecta (ischaemia time conditions met, negative surgical margins and no complications).	50%	2022	*	*	84.6% (44/52)	*	84.6% (44/52)
		2021					
		2020					

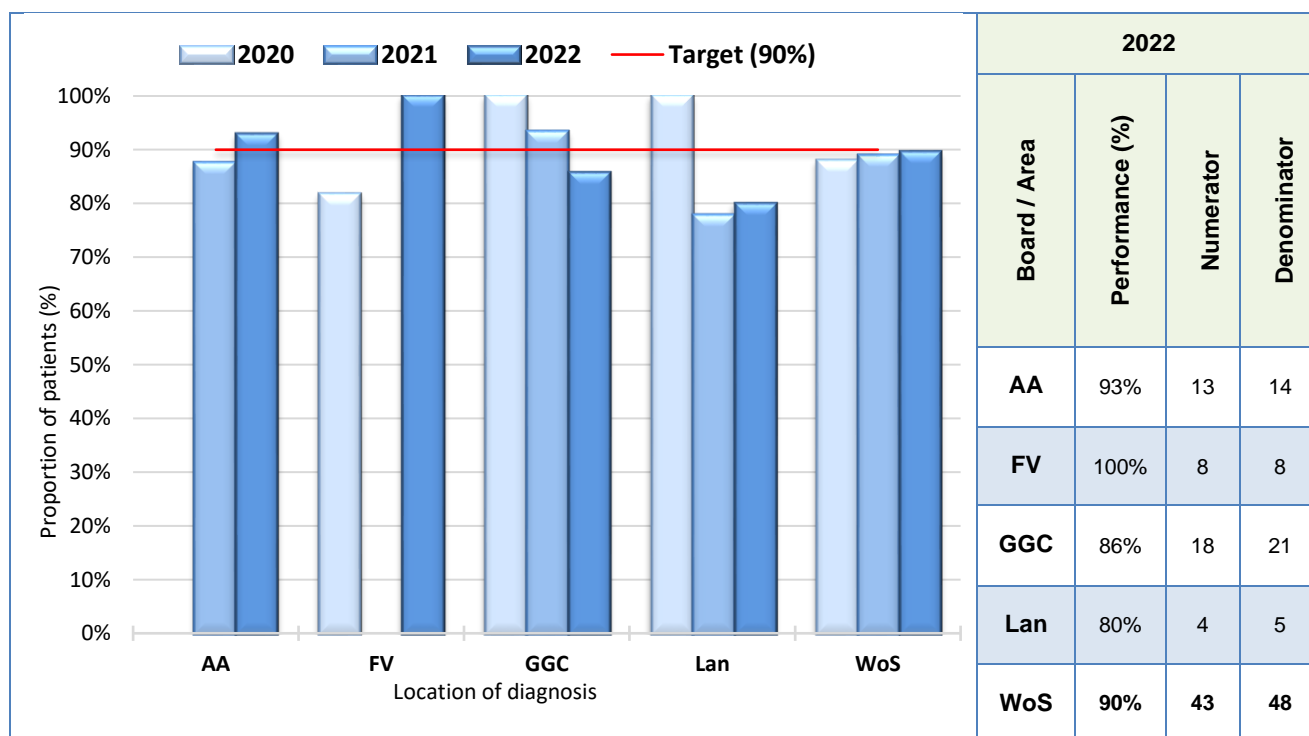
*QPI analysed by Location of Surgery

** Board adjusted figures

QPI 2: Histological diagnosis prior to treatment

QPI 2 Title:	Patients with renal cancer not undergoing surgery should have a histological diagnosis prior to commencing treatment.
Specification (i):	Cryotherapy / radiofrequency ablation (RFA) / stereotactic ablative radiotherapy (SABR)
Numerator (i):	Number of patients with RCC undergoing cryotherapy, radiofrequency ablation or SABR as their first treatment who have a histological diagnosis (confirmed by biopsy) before commencing treatment.
Denominator (i):	All patients with RCC undergoing cryotherapy, radiofrequency ablation or SABR as their first treatment.
Exclusions:	<ul style="list-style-type: none"> • Patients with inherited genetic renal cancer.
Target:	90%

Fig 5: Proportion of patients with RCC who have a histological diagnosis (confirmed by biopsy) before first treatment with cryotherapy or RFA.



Overall performance in the WoS was 90% with 43 of 48 patients having a histological diagnosis prior to starting treatment with cryotherapy or RFA. NHS Forth Valley and NHS Ayrshire & Arran achieved the target.

NHS GGC and NHS Lanarkshire reviewed the failed cases and noted that biopsy was not performed due to cystic lesions, technical difficulties or benign renal biopsies. NHS Lanarkshire highlighted the impact of small numbers on this QPI's results.

QPI 12: Volume of cases per surgeon

QPI 12 Title:	Renal surgical resection* should be performed by surgeons who perform the procedures routinely.
Description:	Number of renal surgical resections performed by each surgeon in a given year.
Exclusions:	• No exclusions.
Target:	Minimum 15 procedures per surgeon in a 1 year period.

* Renal surgical resection includes nephrectomy, partial nephrectomy and nephroureterectomy

Table 1: The number of renal surgical resections performed in each NHS Board in 2022, the total number of surgeons recorded as having carried out procedures and the number of surgeons meeting QPI target

	No. of Operating Surgeons*	No. of Procedures	No. of Surgeons Meeting Target*
AA	2	^48	2
FV	1	^29	1
GGC	5	225	5
Lan	2	^44	2
WoS	10	346	10

*Board adjusted figures as per comments
^SMR01 figures

SMR01 data is used to measure performance for this QPI (rather than QPI audit data) and although the source data indicates that a small number of surgeons did not meet the minimum target of 15 procedures, further scrutiny of the data has identified some SMR01 data recording issues or that in some cases surgeons from other specialties were assisting with renal procedures (e.g. vascular surgeon). This data also includes renal surgical resections for non-cancer diagnoses, as defined within the QPI specification.

The data shown represents the Board adjusted figures based on detailed information provided by each Board. NHS Lanarkshire highlighted that SMR01 data will always differ from audit data due to the inclusion of benign cases. In light of Board review findings and the adjusted figures, all Boards concluded that surgeons routinely operating on renal cancer achieved the QPI target.

Appendix 1: Meta Data

Report Title	Cancer Audit Report: Renal Cancer Quality Performance Indicators					
Time Period	Patients diagnosed between 1st January - 31st December 2022					
QPI Version	Renal Cancer Clinical QPIs V5.0 (June 22) Cancer Quality Performance Indicators (QPIs) (healthcareimprovementscotland.org)					
Data extraction date	2200 hrs on 30 October 2023.					
Data Quality		Ayrshire & Arran	Forth Valley	GGC	Lanarkshire	WoS
	Cases from audit	93	71	261	113	538
	Cases from ISD (2017-21)	74	63	263	106	506
	Case ascertainment	125.7%	112.7%	99.2%	106.6%	106.3%

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