



Audit Report

Cervical Cancer Quality Performance Indicators Endometrial Cancer Quality Performance Indicators

**Clinical Audit Data:
01 October 2020 to 30 September 2021**

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Endometrial and Cervical Cancer Quality Performance Indicators

Patients Diagnosed: October 2020 - September 2021

Number of Patients

Endometrial - 340

Cervical - 156

Case Ascertainment

Endometrial - 90.4%

Cervical - 96.9%

Median Age

Endometrial - 67

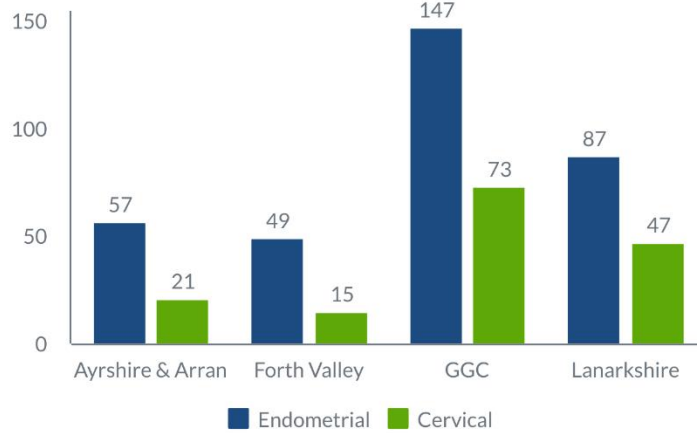
Cervical - 47.5

5 Year Net Survival

Endometrial - 76.2%

Cervical - 72.1%

Healthboard of Diagnosis



WoS QPI Result - Endometrial



Key Achievements - Endometrial

- Radiological staging - 98% of patients had stage of disease assessed prior to treatment.
- Adjuvant radiotherapy - 95% of patients with intermediate risk disease received adjuvant radiotherapy.
- Zero mortality at 30 days following surgery for patients with endometrial cancer.

WoS QPI Result - Cervical



Key Achievements - Cervical

- PET/CT was carried out to inform patient management in 98% of non surgical patients.
- 98% of patients discussed at a Multidisciplinary Team Meeting (MDT) prior to treatment
- All patients with stage IB1 cervical cancer underwent radical hysterectomy.
- Chemoradiotherapy - 94% of patients undergoing radical radiotherapy received concurrent platinum based chemotherapy.
- 99% of patient undergoing radical radiotherapy completed their treatment within 56 days

Executive Summary

Introduction

This report contains an assessment of the performance of West of Scotland (WoS) gynaecology cancer services using clinical audit data relating to patients diagnosed between 1 October 2020 and 30 September 2021.

In order to ensure the success of the National Cancer QPIs in driving quality improvement in cancer care, QPIs continue to be assessed for clinical effectiveness and relevance. The initial formal review of endometrial and cervical cancer QPIs took place in 2018. With seven years of reporting complete, a second cycle of review has been undertaken, involving key clinicians from each of the Regional Cancer Networks. Updated QPI definitions (v4.0) were published in May 2022 and will apply to cases diagnosed from 1 October 2021 onwards.

Results

A summary of the QPI performance for the 2020/21 audit period is presented below, with a more detailed analysis of the results set out in the main report. Data are analysed by location of diagnosis or location of surgery (where appropriate) and illustrate NHS Board performance against each target and overall regional performance for each performance indicator.

Where the number of cases meeting the denominator criteria for any indicator is between one and four, the percentage calculation has not been shown on any associated charts or tables. This is to avoid any unwarranted variation associated with small numbers and to minimise the risk of disclosure. Any charts or tables impacted by this restricted data are denoted with a dash (-). An asterisk (*) is applied to indicate a denominator of zero and to distinguish between this and a 0% performance.

Any commentary provided by NHS Boards relating to the impacted indicators will however be included as a record of continuous improvement. No specific improvement actions have been identified as a result of this data analysis.

Endometrial/Cervical Cancer Performance Summary Report

Endometrial Cancer	Performance by Board								
QPI	Target	Year	WoS	A&A	FV	LS	NG	SG	Clyde
QPI 1 - Radiological Staging. Patients with endometrial cancer should have their stage of disease assessed by magnetic resonance imaging (MRI) and/or computed tomography (CT) prior to definitive treatment.	90%	2020/21	98.4%	97.9%	100%	100%	100%	100%	91.3%
		2019/20	98.5%	98.3%	100%	100%	98.2%	100%	96.3%
		2018/19	97.6%	100%	95.7%	97.5%	97.7%	90.0%	100%
QPI 2 - Multidisciplinary Team Meeting (MDT). Patients with endometrial cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.	95%	2020/21	86.3%	98.1%	62.5%	98.6%	87.1%	90.9%	67.5%
		2019/20	89.4%	97.2%	71.4%	100%	88.6%	89.5%	65.8%
		2018/19	77.3%	83.3%	59.5%	87.2%	80.0%	75.0%	67.9%
QPI 3 - Total Hysterectomy and Bilateral Salpingo-Oophorectomy. Patients with endometrial cancer should undergo total hysterectomy (TH) and bilateral salpingo-oophorectomy (BSO).	85%	2020/21	90.6%	86.8%	95.5%	93.9%	89.2%	100%	79.5%
		2019/20	90.4%	91.5%	92.6%	81.6%	95.1%	95.5%	91.7%
		2018/19	91.8%	88.1%	90.0%	96.4%	93.7%	94.6%	85.7%
QPI 4 - Laparoscopic Surgery (Hosp. of Surgery) Patients with endometrial cancer undergoing definitive surgery should undergo laparoscopic surgery, where clinically appropriate.	70%	2020/21	82.3%	96.9%	82.1%	98.3%	74.0%	65.2%	76.7%
		2019/20	77.4%	82.5%	94.7%	96.0%	61.0%	90.9%	66.7%
		2018/19	81.9%	88.1%	90.0%	95.7%	68.6%	81.3%	80.0%

***Small numbers in some Boards - percentage comparisons over a single year should be viewed with caution.*

‘-‘ Data not shown due to small numbers (denominator less than 5)

Endometrial Cancer	Performance by Board								
QPI	Target	Year	WoS	A&A	FV	LS	NG	SG	Clyde
*QPI 5 - Adjuvant Vaginal Brachytherapy. Patients with intermediate risk (stage IB, grade 1 or 2; or stage IA, grade 3 endometrioid or mucinous) endometrial cancer should be considered for adjuvant radiotherapy.	90%	2020/21	95.0%	90.0%	86.7%	100%	100%	100%	100%
		2019/20	100%	100%	100%	100%	100%	-	-
		2018/19	96.4%	100%	66.7%	100%	100%	100%	-
*QPI 6 – Chemotherapy. Patients with stage IV endometrial cancer should have SACT or hormone therapy.	75%	2020/21	73.9%	-	-	-	83.3%	-	80.0%
		2019/20	86.4%	n/a	-	-	100%	-	75.0%
		2018/19	70.4%	-	40.0%	-	80.0%	-	80.0%
QPI 7 – 30 Day Mortality Following Surgery. 30 day mortality following surgery for endometrial patients.	<5%	2020/21	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		2019/20	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		2018/19	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%

***Small numbers in some Boards - percentage comparisons over a single year should be viewed with caution.*

‘-’ Data not shown due to small numbers (denominator less than 5)

Cervical Cancer	Performance by Board								
QPI	Target	Year	WoS	A&A	FV	LS	NG	SG	Clyde
QPI 1 - Radiological Staging. Patients with cervical cancer should have their stage of disease assessed by magnetic resonance imaging (MRI) prior to definitive treatment.	95%	2020/21	92.7%	84.6%	100%	94.6%	88.9%	100%	100%
		2019/20	97.1%	100%	83.3%	100%	94.7%	92.9%	100%
		2018/19	91.7%	100%	81.8%	88.0%	100%	80.0%	92.9%
QPI 2 - Positron Emission Tomography/Computed Tomography (PET/CT). Patients with cervical cancer, for whom primary definitive surgery is not appropriate, should undergo positron emission tomography - computed tomography imaging (PET/CT).	95%	2020/21	98.2%	100%	100%	100%	93.8%	-	-
		2019/20	100%	100%	-	100%	100%	100%	100%
		2018/19	100%	100%	100%	100%	100%	100%	-
QPI 3 - Multidisciplinary Team Meeting (MDT). Patients with cervical cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.	95%	2020/21	97.5%	100%	100%	97.5%	94.7%	100%	100%
		2019/20	100%	100%	100%	100%	100%	100%	100%
		2018/19	98.2%	100%	90.9%	100%	100%	93.8%	100%
*QPI 4 - Radical Hysterectomy. Patients with stage IB1 cervical cancer should undergo radical hysterectomy.	85%	2020/21	100%	n/a	-	100%	-	n/a	n/a
		2019/20	78.6%	-	-	100%	-	-	-
		2018/19	75.0%	87.5%	0.0%	100%	80.0%	0.0%	66.7%
*QPI 5 - Surgical Margins. (Hosp. of Surgery) Patients with surgically treated cervical cancer should have clear resection margins.	95%	2020/21	91.3%	-	-	100%	90.6%	-	-
		2019/20	95.2%	-	-	-	92.6%	-	100%
		2018/19	97.9%	100%	-	-	100%	-	-

Cervical Cancer	Performance by Board								
QPI	Target	Year	WoS	A&A	FV	LS	NG	SG	Clyde
*QPI 6 - 56 Day Treatment Time for Radical Radiotherapy. Treatment time for patients with cervical cancer undergoing radical radiotherapy should be no more than 56 days.	90%	2020/21	98.6%	100%	100%	95.5%	100%	-	100%
		2019/20	95.8%	100%	-	95.0%	87.5%	100%	100%
		2018/19	97.1%	100%	100%	84.6%	100%	100%	100%
*QPI 7 – Chemoradiation. Patients with cervical cancer undergoing radical radiotherapy should receive concurrent platinum-based chemotherapy.	70%	2020/21	94.3%	100%	100%	90.9%	90.9%	-	100%
		2019/20	87.5%	100%	-	85.0%	81.3%	88.9%	83.3%
		2018/19	86.6%	81.8%	87.5%	84.6%	87.5%	92.3%	83.3%

***Small numbers in some Boards - percentage comparisons over a single year should be viewed with caution.*

'-' Data not shown due to small numbers (denominator less than 5)

Conclusions and Action Required

The development of national QPIs has helped drive continuous quality improvement in the care of patients with endometrial or cervical cancer whilst ensuring that activity at NHS Board/treatment centre level is focussed on those areas that are most important in terms of improving survival and patient outcomes.

West of Scotland NHS Boards have now completed the seventh year of data collection for cervical and endometrial cancer QPIs. The results presented in this report demonstrate that patients continue to receive a consistently high standard of care. Case ascertainment and data capture is of a high standard enabling robust assessment of performance against QPIs, comparison of performance across the country, and the identification of outliers.

Where QPI targets were not met, NHS Boards have scrutinised cases further and provided detailed clinical feedback. In the main this indicates valid clinical reasons, or that in some cases patient choice or co-morbidities have influenced clinical management.

NHS Boards are encouraged to continue with this proactive approach of reviewing data and addressing issues as necessary, in order to work towards increasingly advanced performance against targets, and demonstration of overall improvement in quality of the care and service provided to patients.

The results indicate that there are no significant challenges for individual Boards or for the Specialist Regional Surgical and Oncology services at present and no specific improvement actions have been identified, although it is recognised that where possible, further improvement should remain a priority for the MCN.

1. Introduction

This report contains an assessment of the performance of West of Scotland (WoS) gynaecology cancer services using clinical audit data relating to patients diagnosed between 1 October 2020 and 30 September 2021. Data analysed and included within this report relate to cervical and endometrial cancers. Regular reporting of activity and performance is a fundamental requirement of a Managed Clinical Network (MCN) to assure the quality of care delivered across the region. Results are measured against the Endometrial and Cervical Cancer Quality Performance Indicators (QPIs). Data definitions and measurability criteria to accompany cancer QPIs are available from the PHS website¹.

Twelve months of data were measured against the endometrial and cervical cancer QPIs for the seventh consecutive year, and previous years' results are presented within this audit report for QPIs where results have remained comparable. Future reports will continue to compare clinical audit data in successive years to further illustrate trend analysis.

In order to ensure the success of the Cancer QPIs in driving quality improvement in cancer care, QPIs will continue to be assessed for clinical effectiveness and relevance. The initial formal review of Endometrial and Cervical Cancer QPIs took place in 2018. With seven years of reporting complete, a second cycle of review has been undertaken. Updated QPI definitions (v4.0) were published in May 2022 and will apply to cases diagnosed from 1 October 2021 onwards.

2. Background

Treatment and care for gynaecological cancer patients is delivered by a single regional multi-disciplinary team (MDT) including professionals from a range of clinical specialities across the region. Complex gynaecological malignancy often requires a multi-modality approach and surgery remains a key component of effective curative management.

2.1. National Context

Endometrial cancer is the most common gynaecological cancer and the fourth most common cancer in women in Scotland with approximately 760 new cases diagnosed annually. The incidence of endometrial cancer has risen by 8.5% over the last ten years (2010-2020)³. This undoubtedly reflects increasing levels of obesity² and also an increasingly ageing population.

One-year and 5-year net survival rates for endometrial cancer for females diagnosed between 2013 and 2017 are 90.2% and 76.2% respectively³. Endometrial cancer is the 9th most common death in females from cancer in Scotland with overall mortality rates increasing by 26.1% from 2010 to 2020³.

Cervical cancer is noted as being the thirteenth most common cancer in women with approximately 270 cases diagnosed each year³. The incidence of cervical cancer has decreased by 9.3% over the last ten years³. Overall mortality rates have decreased by 9.2% over the past 10 years from 2010 to 2020 and 1-year and 5-year net survival is noted as being 88.4% and 72.1% respectively³

Many cervical cancers are detected early due to the well established screening programme introduced in 1988. The Human Papilloma Virus (HPV) vaccine is designed to protect against certain high risk types of HPV that are responsible for approximately 70% of cervical cancer cases. The vaccination programme started in Scotland on 1st September 2008 and aims to protect females by routinely immunising them at 12-13 years of age, through a school based programme. Progression from HPV infection to cervical cancer can take many years; therefore surveillance to monitor the impact of the vaccination programme will be a long term undertaking.

3. Methodology

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

4.1 Results and Action Required

Results for each QPI are shown in detail in the following sections. Data are presented by location of diagnosis or surgery (where appropriate) and illustrate NHS Board or performance against each target and overall regional performance for each performance indicator.

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

No specific regional or NHS Board actions have been identified through this specific data analysis.

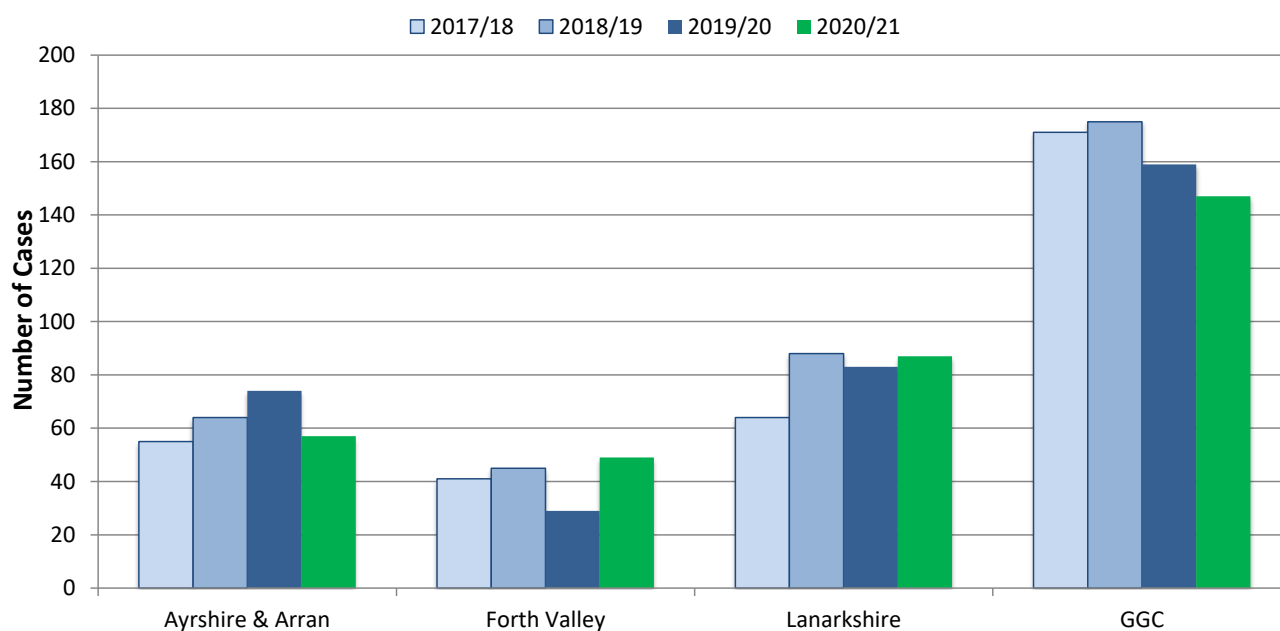
4.2. Endometrial Cancer – Quality Performance Indicators

Introduction

Quality Performance Indicators (QPIs) were implemented for patients diagnosed with endometrial cancer on or after 1st October 2014 and Endometrial Cancer QPIs¹ are reported here for the seventh consecutive year.

There were 340 new diagnoses of endometrial cancer captured by audit in the WoS in Year 7. Distribution by location of diagnosis is shown below in Figure 1.

Figure 1: Number and proportion of patients diagnosed with endometrial cancer by location of diagnosis.



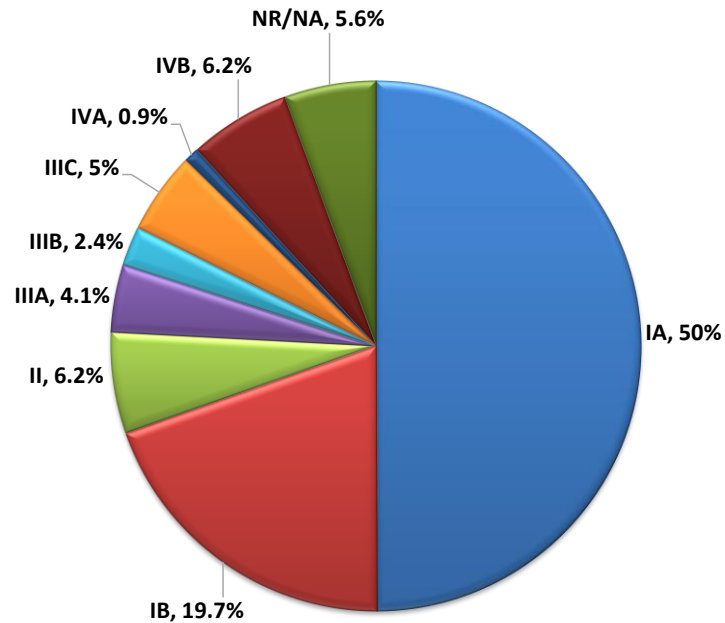
Location of Diagnosis

	AA	FV	Lan	GGC	WoS
2017/18	55	41	64	171	331
2018/19	64	45	88	175	372
2019/20	74	29	83	159	345
2020/21	57	49	87	147	340

Endometrial FIGO Stage Distribution

The distribution of endometrial cancer by FIGO stage is presented in Figure 2, which illustrates that 76% of patients presented with early stage (I, II) disease and 18.6% of patients presented with advanced stage disease (III,IV). However, it should be noted that full surgical staging is not currently undertaken in all endometrial cancers. To date this has been a decision taken by the Network to balance morbidity with benefits.

Figure 2: Distribution of endometrial cancer by FIGO stage.



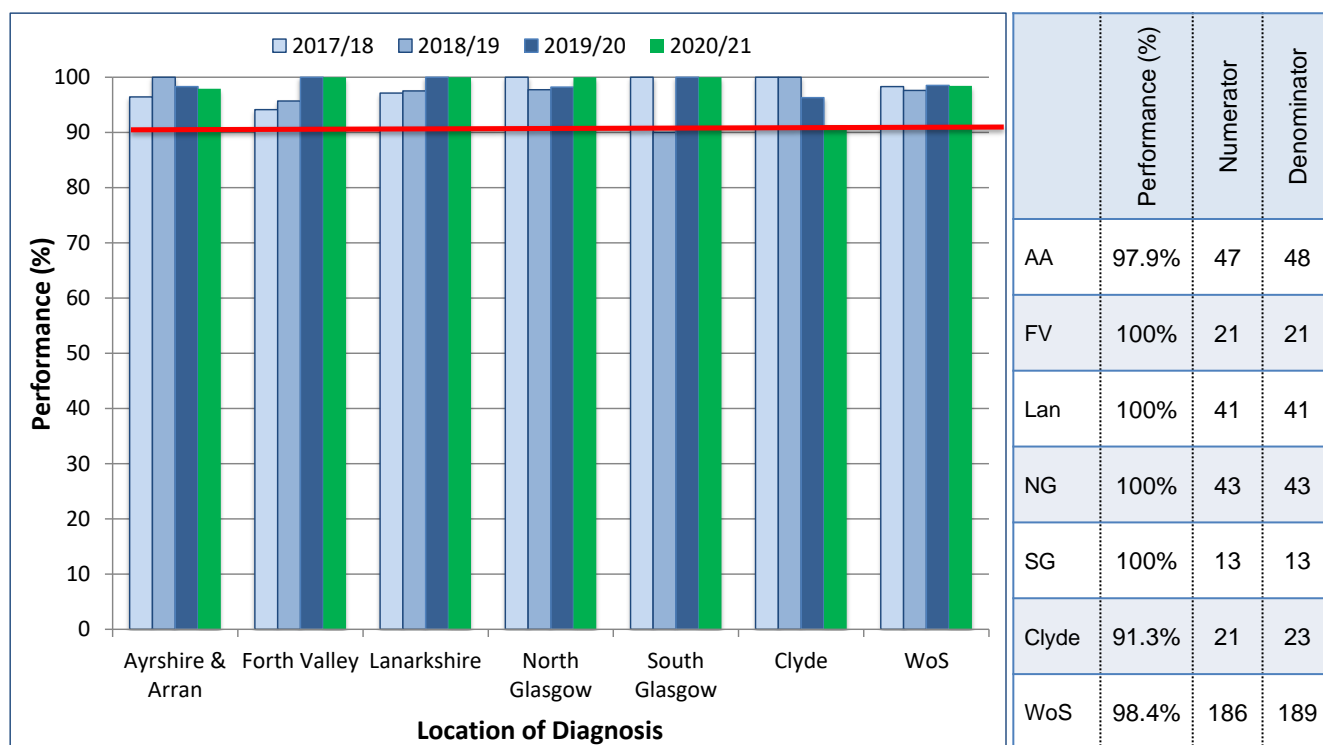
FIGO Stage	IA	IB	II	IIIA	IIIIB	IIIC	IVA	IVB	NR	NA
n	170	67	21	14	8	17	3	21	16	3

QPI 1: Radiological Staging

It is necessary to fully image the pelvis and abdomen prior to starting first treatment in order to establish the extent of disease and minimise unnecessary or inappropriate treatment¹. The target for this QPI is set at 90% with the tolerance level designed to account for situations where patients require urgent treatment before imaging has been performed or where endometrial cancer is an incidental finding at hysterectomy. It also allows for those patients who are deemed unfit for investigation¹.

Title:	Patients with endometrial cancer should have their stage of disease assessed by MRI and/or CT prior to definitive treatment.
Numerator:	Number of patients with endometrial cancer having a MRI and/or CT scan of the abdomen and pelvis carried out prior to definitive treatment.
Denominator:	All patients with endometrial cancer.
Exclusions:	Patients with Grade 1 endometrioid or mucinous carcinoma on pre-operative biopsy. Patients with atypical hyperplasia on pre-operative biopsy.
Target:	90%

Figure 3: Proportion of patients with endometrial cancer who have an MRI and/or CT scan of the abdomen and pelvis performed prior to definitive treatment.



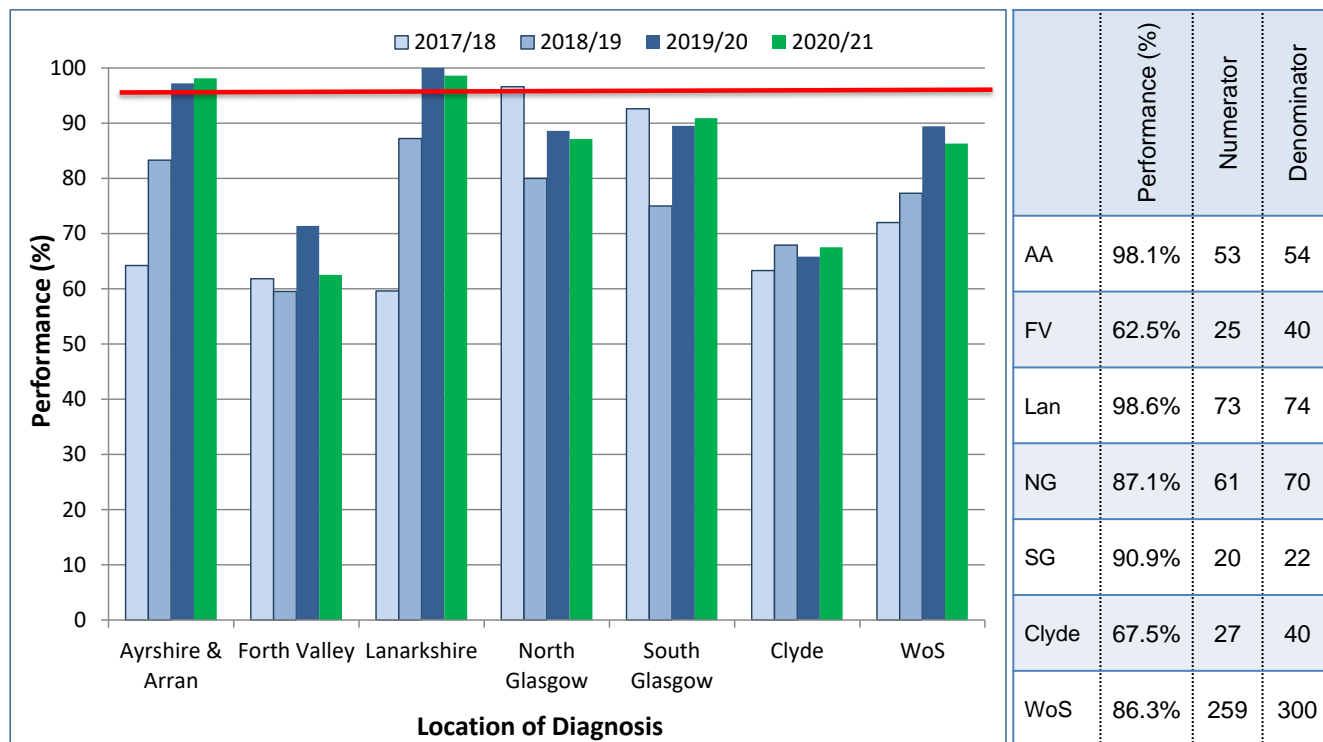
The overall performance against QPI 1 for the WoS was 98.4%, with all boards meeting the 90% target.

QPI 2: Multidisciplinary Team Meeting (MDT)

Evidence suggests that patients with cancer managed by a multidisciplinary team have a better outcome. There is also evidence that the multidisciplinary management of patients increases their overall satisfaction with their care¹.

Title:	Patients with endometrial cancer should be discussed by a multidisciplinary team prior to definitive treatment.
Numerator:	Number of patients with endometrial cancer discussed at MDT prior to definitive treatment.
Denominator:	All patients with endometrial cancer.
Exclusions:	Patients with atypical hyperplasia on pre-operative biopsy. Patients who died before first treatment.
Target:	95%

Figure 4: Proportion of patients with endometrial cancer who are discussed at a MDT meeting before definitive treatment.



Overall performance in the WoS was 86.3% against the 95% target with 259 of 300 patients being discussed by the MDT prior to definitive treatment. Only NHS AA and NHS Lanarkshire achieved the QPI target.

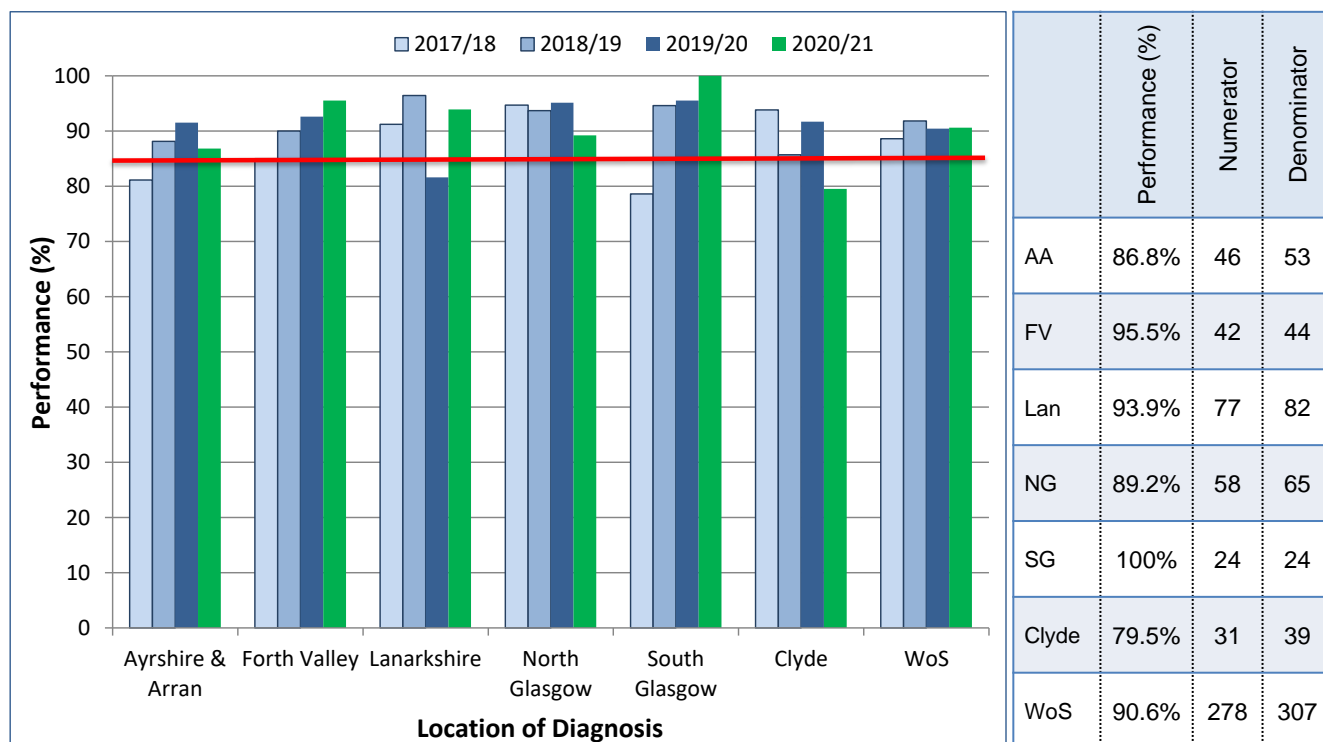
The majority of patients not meeting the QPI are noted as being Grade 1. Historically the network has not mandated that these patients are discussed at the MDT preoperatively. However there has been recent communication from the WOSCAN Clinical Lead to clinicians to remind them that all patients with endometrial cancer should be discussed at the MDT prior to definitive treatment. It is anticipated that there will be an improvement next year.

QPI 3: Total Hysterectomy and Bilateral Salpingo-Oophorectomy

Total Hysterectomy and Bilateral Salpingo-Oophorectomy for endometrial cancer is associated with best long term survival (compared to primary radiotherapy or hormonal treatment)¹. The target for this QPI is 85% with the tolerance designed to account for patients having fertility conserving treatment and those patients who are not fit for surgical intervention¹.

Title:	Patients with endometrial cancer should undergo total hysterectomy and bilateral salpingo-oophorectomy.
Numerator:	Number of patients with endometrial cancer who undergo total hysterectomy/bilateral salpingo-oophorectomy.
Denominator:	All patients with endometrial cancer.
Exclusions:	Patients with FIGO Stage IV. Patients who decline surgical treatment. Patients having neo-adjuvant chemotherapy.
Target:	85%

Figure 5: Proportion of patients with endometrial cancer who undergo total hysterectomy/bilateral salpingo-oophorectomy.



For QPI 3, the 85% target was met at a regional level and 5 of the 6 units.

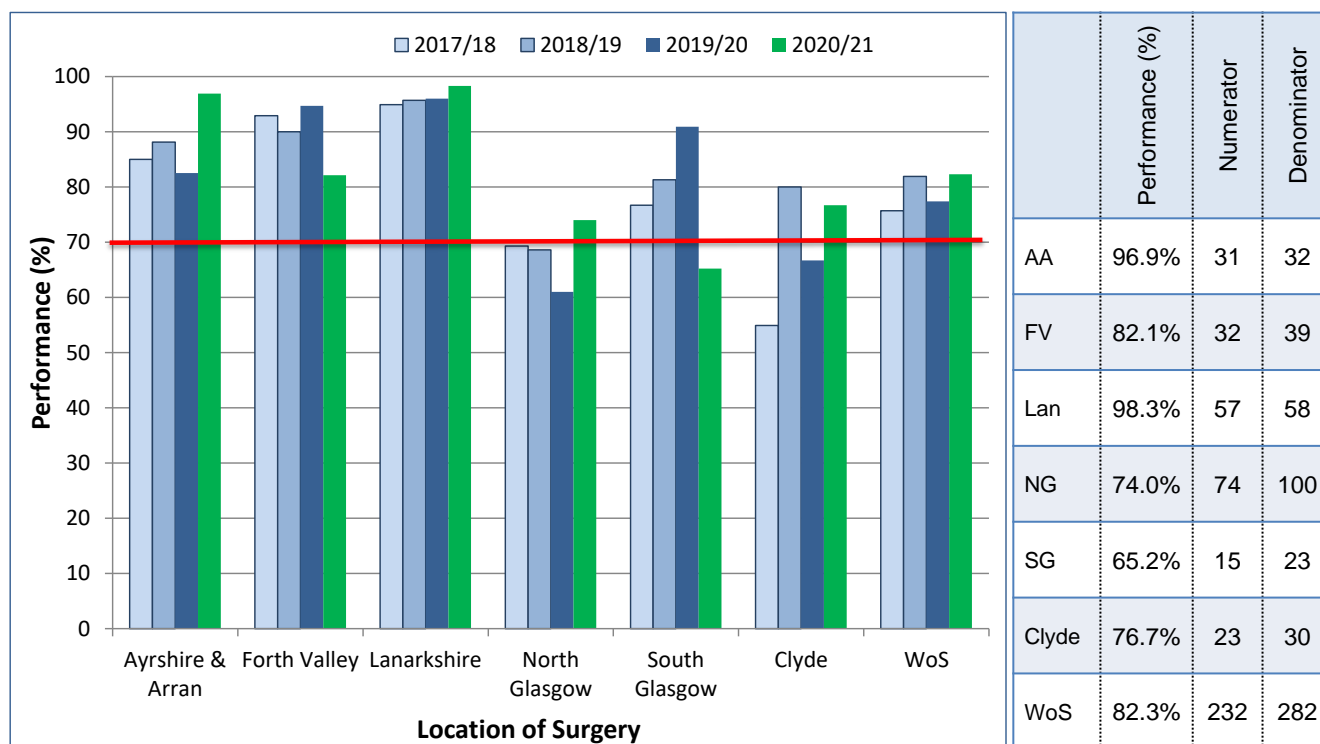
Clyde achieved 79.5% against the 85% target and provided detailed feedback. The majority of cases not meeting the QPI were assessed to be not fit for surgical treatment.

QPI 4: Laparoscopic Surgery

Laparoscopic surgery, by appropriately trained surgeons, is recommended for patients with endometrial cancer as it has been found to be feasible and surgically safe with reduced post-operative complications and length of stay¹. The target for this QPI is set at 70% which reflects the fact that some patients may not be clinically suitable for laparoscopic surgery.

Title:	Patients with endometrial cancer undergoing definitive surgery should undergo laparoscopic surgery, where clinically appropriate.
Numerator:	Number of patients with endometrial cancer undergoing definitive surgery who undergo laparoscopic surgery.
Denominator:	All patients with endometrial cancer undergoing definitive surgery.
Exclusions:	No exclusions.
Target:	70%

Figure 6: Proportion of patients with endometrial cancer undergoing definitive surgery who undergo laparoscopic surgery.



Performance across the WoS was 82.3% against the 70% QPI target with 232 of 282 patients with endometrial cancer undergoing definitive surgery receiving laparoscopic surgery. All units achieved the target with the exception of South Glasgow who achieved 65.2% against the 70% target.

The South Glasgow sector reported that all cases have been reviewed. In all but two cases, open surgery was appropriate due to clinical factors and in the majority was the mandated approach at the MDT.

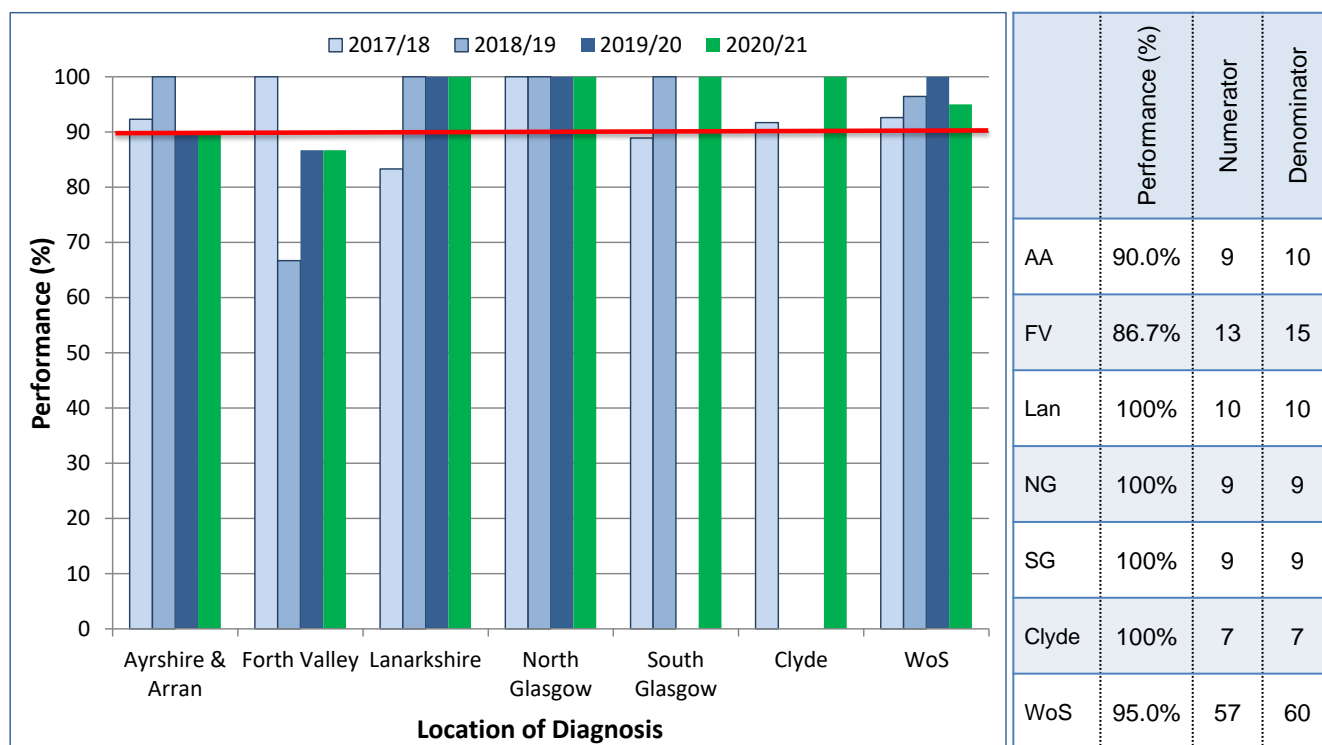
The advent of robotic assisted surgery is planned to further increase the minimal access surgery rates within NHS GGC. It is also planned that enhanced staging procedures for all cases in the region will commence and particularly complex regional surgical cases can benefit from access to Robotic assisted surgery"

QPI 5: Adjuvant Radiotherapy

For stage IB grade 1-2 brachytherapy has been shown to improve local control rates without the toxicity associated with external beam radiotherapy. Other types of radiotherapy such as adjuvant EBRT (External Beam Radiation Therapy) is also recommended to decrease pelvic recurrence in high-intermediate risk patients with LVSI (lymphovascular space invasion) positive tumours where no surgical nodal staging has been performed¹.

Title:	Patients with stage IB, grade 1 or 2, or stage IA, grade 3 endometrioid or mucinous endometrial cancer should be considered for adjuvant radiotherapy.
Numerator:	All patients with stage IB, grade 1 or 2, or stage IA, grade 3 endometrioid or mucinous endometrial cancer receiving adjuvant radiotherapy.
Denominator:	All patients with stage IB, grade 1 or 2, or stage IA, grade 3 endometrioid or mucinous endometrial cancer.
Exclusions:	Patients who decline brachytherapy or radiotherapy.
Target:	90%

Figure 7: Proportion of patients with stage IB, grade 1 or 2, or stage IA, grade 3 endometrioid or mucinous endometrial cancer having adjuvant radiotherapy.



The numbers of patients included within this QPI are low and this can have a considerable effect on proportions, therefore comparisons between sites should be made with caution. Overall in the WoS 57 out of 60 cases received adjuvant radiotherapy which equates to 95% which exceeds the 90% target.

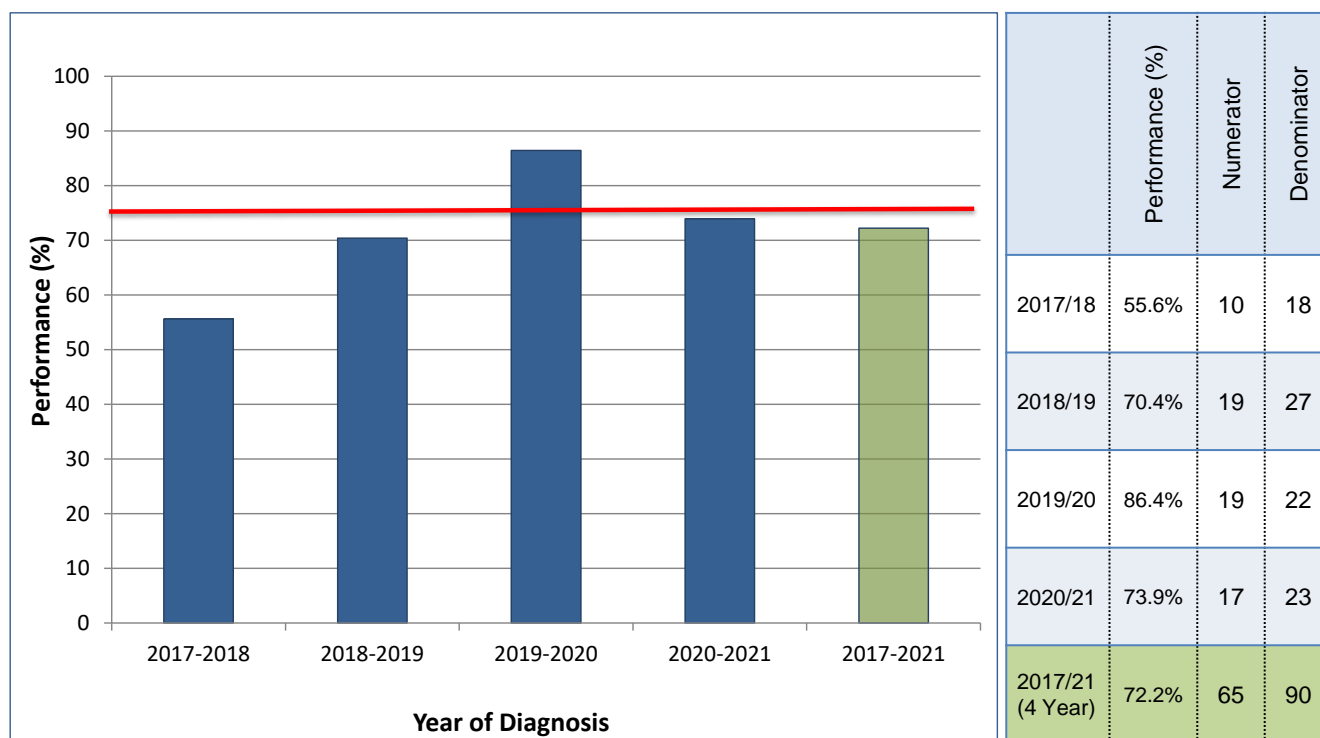
NHS Forth Valley commented that the clinical lead has reviewed the cases that missed the target. Reasons provided include one case that was not recorded and one case that was not for adjuvant therapy.

QPI 6: Systemic Anti-Cancer Treatment/Hormone Therapy

Hormonal therapy and chemotherapy play an important role in the management of advanced endometrial cancer. Platinum chemotherapy can improve progression free survival in patients with stage IV endometrial cancer. The use of chemotherapy should be considered for patients with stage IV disease or those with stage III disease plus residual disease at the completion of surgery. Hormonal therapy is indicated for patients with advanced endometrial cancer and endometriod histology¹.

Title:	Patients with stage IV endometrial cancer should have SACT or Hormone Therapy.
Numerator:	All patients with stage IV endometrial cancer receiving SACT or Hormone Therapy.
Denominator:	All patients with stage IV endometrial cancer.
Exclusions:	Patients who refuse any SACT or hormone therapy.
Target:	75%

Figure 8: Proportion of patients with stage IV endometrial cancer receiving SACT or hormone therapy.



Due to the small numbers meeting the denominator criteria in each year of analysis individual unit results cannot be presented therefore Figure 8 shows overall WoS results.

Of the 23 patients with stage IV endometrial cancer, 17 received SACT or hormone therapy resulting in a WoS performance of 73.9% against the 75% QPI target. All boards reviewed cases not meeting the QPI and commented that the majority of patients not meeting the QPI were not fit for SACT or hormone therapy. Four year performance is noted as 72.2% against the 75% target.

QPI 11: 30 Day Mortality

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

QPI Title:	30 day mortality following surgery for endometrial cancer.
Numerator:	Number of patients with endometrial cancer who undergo surgery who die within 30 days of treatment.
Denominator:	All patients with endometrial cancer who undergo surgery.
Exclusions:	No exclusions.
Target:	<5%

Across the WoS, in 2020/21 there were no deaths (0/281) within 30 days of surgery for endometrial cancer.

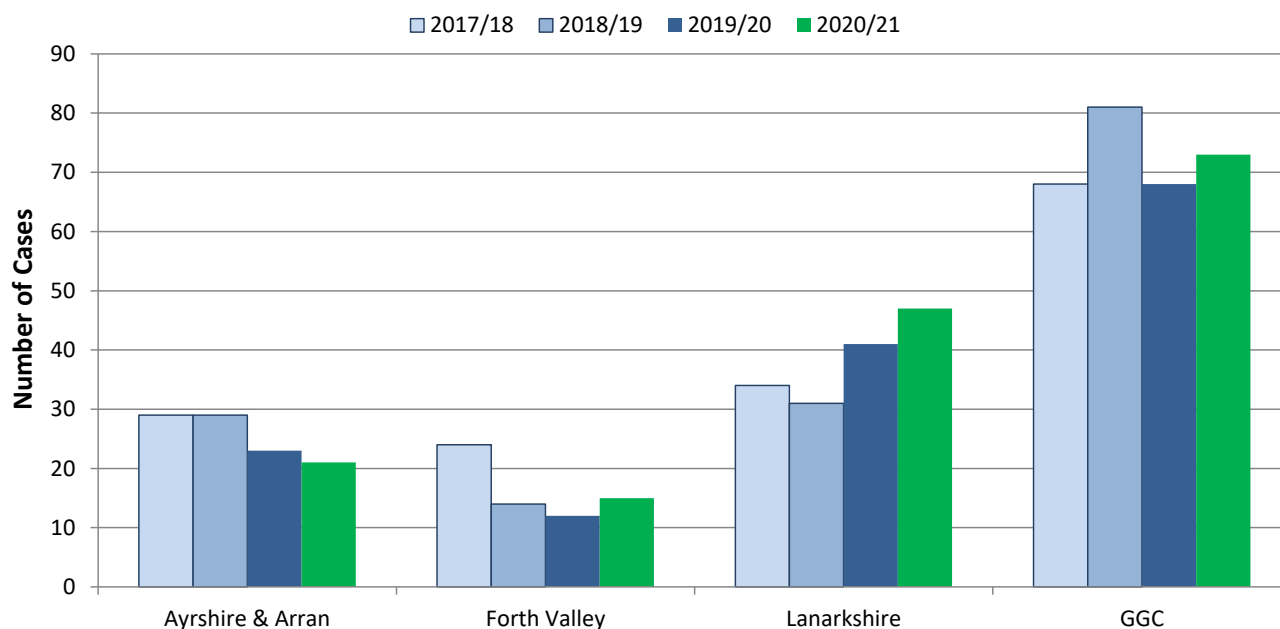
4.3. Cervical Cancer – Quality Performance Indicators

Introduction

Quality Performance Indicators (QPIs) were implemented for patients diagnosed with cervical cancer on or after 1st October 2014 and Cervical Cancer QPIs¹ are reported here for the seventh consecutive year.

There were 156 new diagnoses of cervical cancer captured by audit in the WoS in Year7. Distribution by location of diagnosis is shown below in Figure 9.

Figure 9: Number and proportion of patients diagnosed with cervical cancer by location of diagnosis.



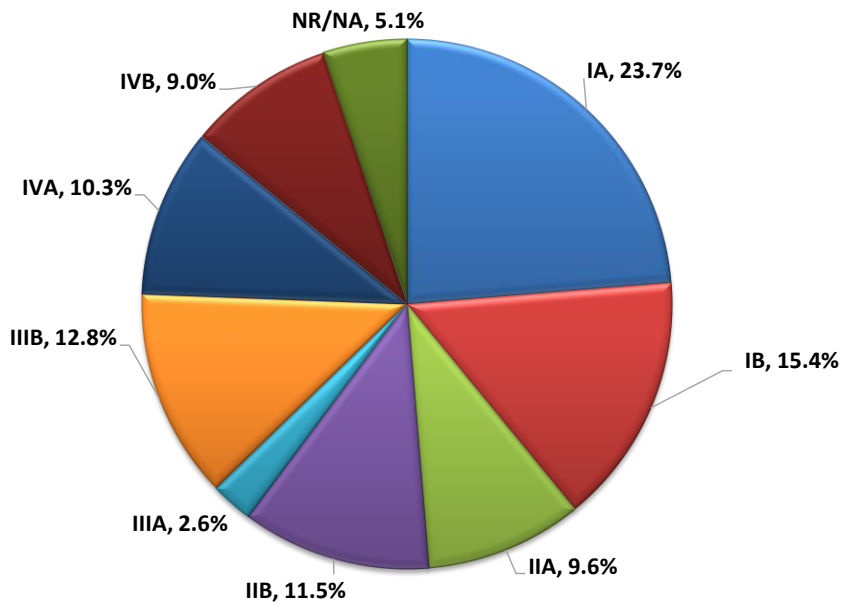
Location of Diagnosis

	AA	FV	Lan	GGC	WoS
2017/18	29	24	35	68	156
2018/19	29	14	31	81	155
2019/20	23	12	41	68	144
2020/21	21	15	47	73	156

Cervical FIGO Stage Distribution

The distribution of cervical cancer by FIGO stage is presented in Figure 10, which illustrates that 71% of patients presented with early stage (I, II) disease and 23.6% of patients presented with advanced stage disease (III,IV).

Figure 10: Distribution of cervical cancer by FIGO stage.



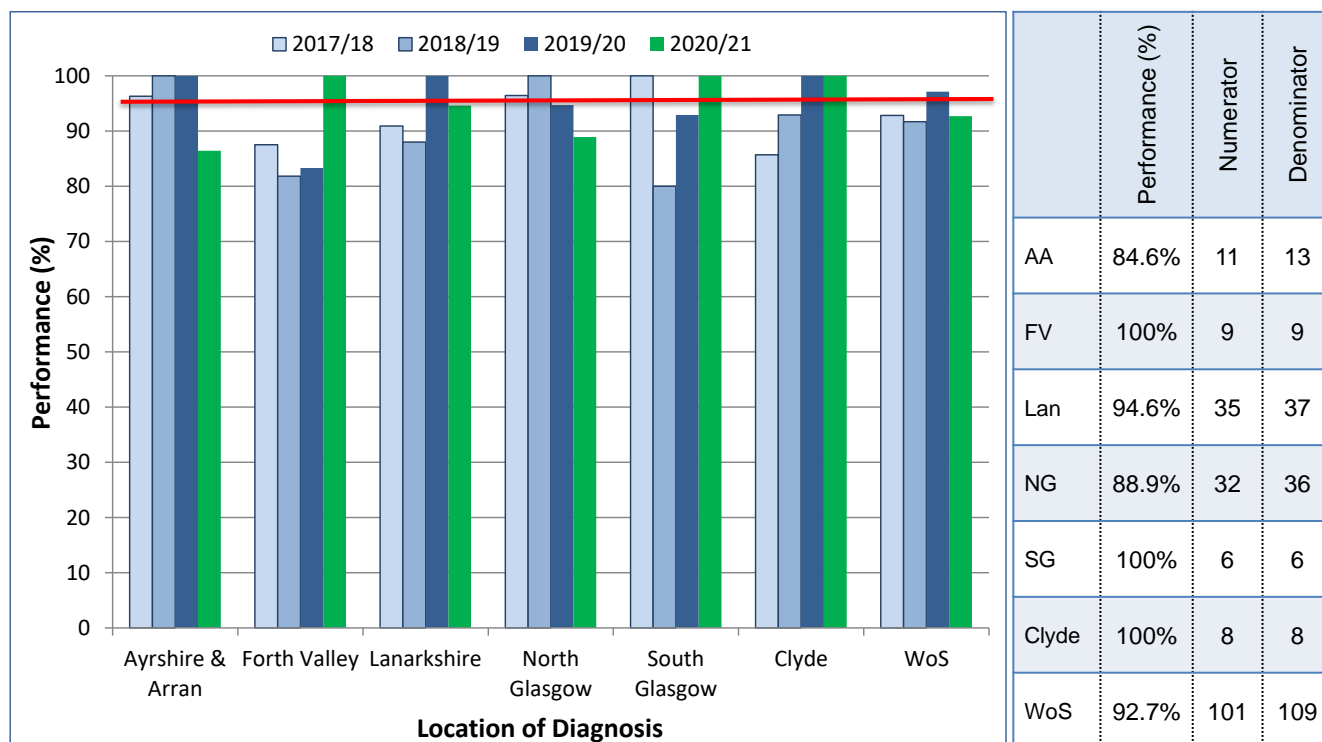
FIGO Stage	IA	IB	IIA	IIB	IIIA	IIIB	IVA	IVB	NR	NA
n	37	24	15	18	4	20	16	14	7	1

QPI 1: Radiological Staging

It is necessary to fully image the pelvis prior to definitive treatment in order to establish the extent of disease and minimise unnecessary or inappropriate treatment¹.

Title:	Patients with cervical cancer should have their stage of disease assessed by MRI prior to definitive treatment.
Numerator:	All patients with cervical cancer having MRI of the pelvis carried out prior to definitive treatment.
Denominator:	All patients with cervical cancer.
Exclusions:	Patients with histopathological FIGO stage 1A1 disease. Patients unable to undergo MRI due to contraindications. Patients with histopathological FIGO stage IVB disease. Patients who refuse MRI investigation.
Target:	95%

Figure 11: Proportion of patients with cervical cancer who have an MRI of the pelvis performed prior to first treatment.



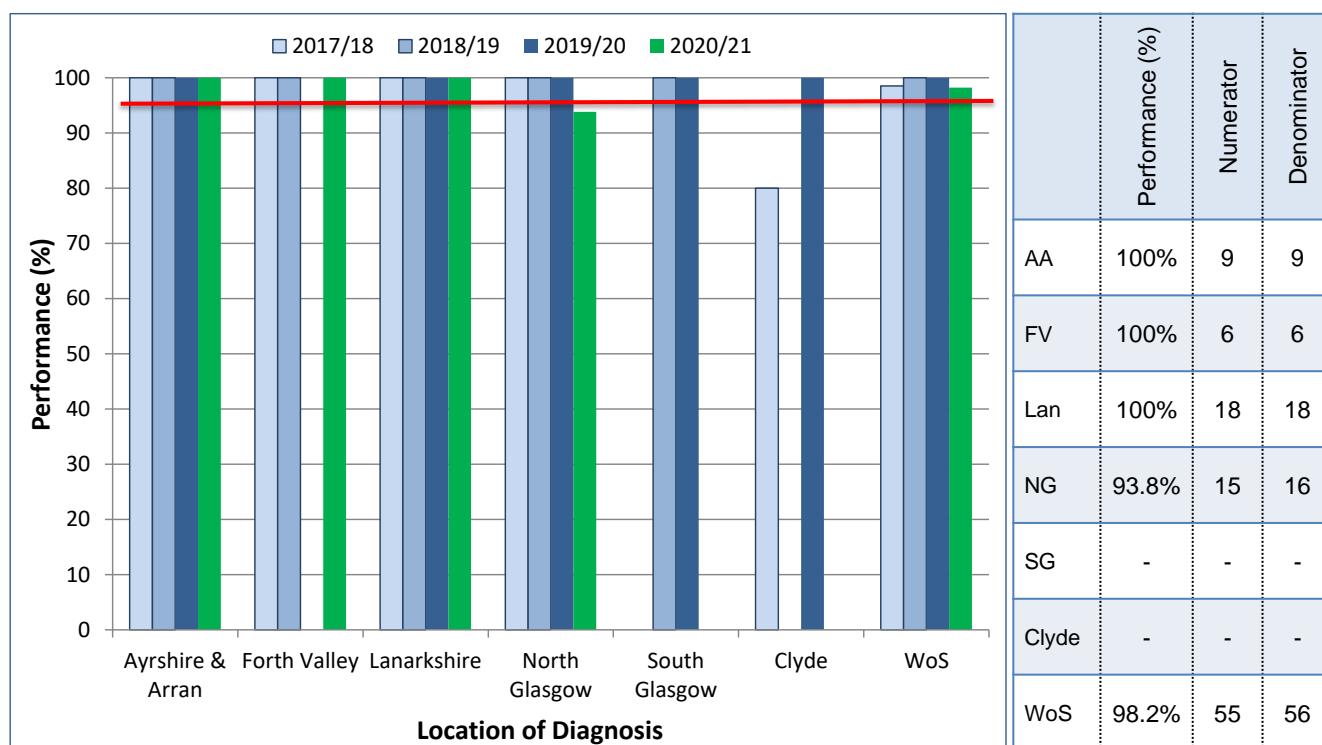
The 95% target for QPI 1 was not achieved for patients diagnosed with cervical cancer in WoS in Year 7. Of the 109 patients, 101 had a MRI of the pelvis performed prior to first treatment resulting in a WoS performance of 92.7%. Not all units met this target, this was often due to patients presenting with advanced disease or significant co-morbidities and an MRI was not deemed to add any clinical information to assist in treatment planning.

QPI 2: Positron Emission Tomography/Computed Tomography (PET/CT)

Patients not suitable for surgery and being considered for radical radiotherapy (+/- concurrent chemotherapy) are recommended to undergo PET/CT because of the significant risk of extra pelvic disease which if detected will change patient management¹.

Title:	Patients with cervical cancer for whom primary definitive surgery is not appropriate, should undergo PET/CT.
Numerator:	All patients with cervical cancer undergoing primary radical radiotherapy who have PET/CT imaging prior to starting treatment.
Denominator:	All patients with cervical cancer undergoing primary radical radiotherapy.
Exclusions:	No exclusions.
Target:	95%

Figure 12: Proportion of patients with cervical cancer, for whom primary definitive treatment is radical radiotherapy, who have PET/CT imaging prior to starting treatment.



Across WoS, 98.2% of patients diagnosed with cervical cancer who received primary radical radiotherapy had PET/CT imaging prior to starting treatment. This exceeds the 95% QPI target. Five of the six units met the 95% QPI target however it should be noted that numbers are low and this can have a greater effect on proportions. Comparison across years should also be made with caution. Figures for South Glasgow and Clyde have been restricted due to having a denominator of less than 5.

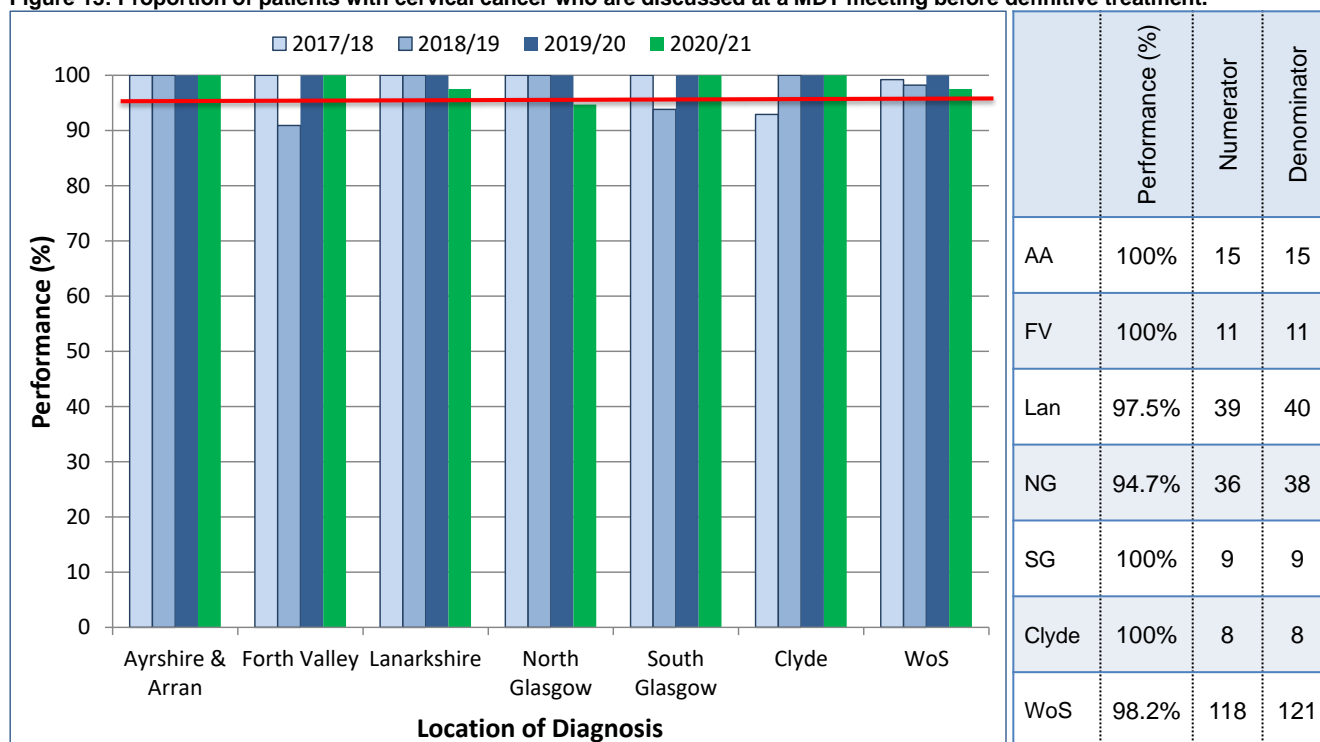
North Glasgow did not meet the target with performance of 93.8%, however it should be noted that, due to small numbers, this represents one case which was an incidental finding.

QPI 3: Multidisciplinary Team Meeting (MDT)

Evidence suggests that patients with cancer managed by a multi-disciplinary team have a better outcome. There is also evidence that the multidisciplinary management of patients increases their overall satisfaction with their care¹.

Title:	Patients with cervical cancer should be discussed by a MDT prior to definitive treatment.
Numerator:	All patients with cervical cancer discussed at the MDT before definitive treatment.
Denominator:	All patients with cervical cancer.
Exclusions:	Patients with histopathological FIGO stage 1A1 disease. Patients who died before treatment.
Target:	95%

Figure 13: Proportion of patients with cervical cancer who are discussed at a MDT meeting before definitive treatment.



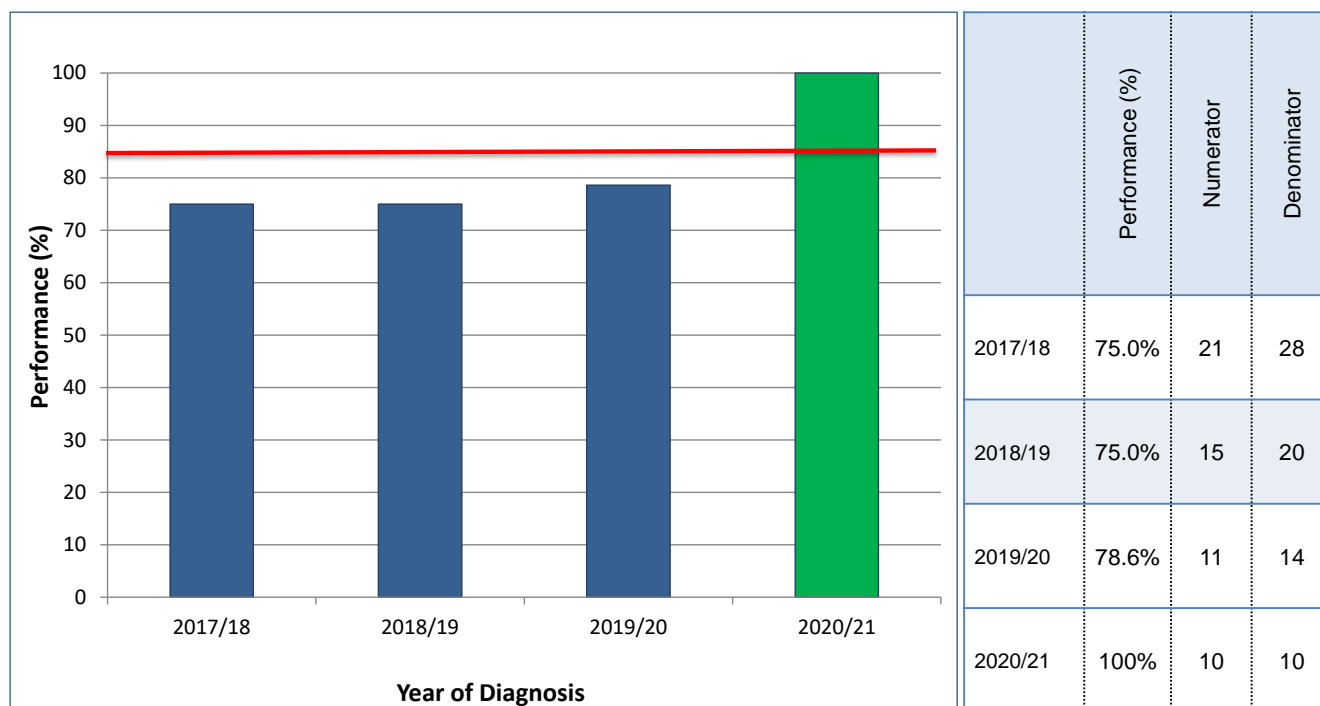
Of the 121 patients diagnosed with cervical cancer, 118 were discussed by MDT prior to definitive treatment, resulting in a WoS performance of 98.2% against the 95% QPI target.

QPI 4: Radical Hysterectomy

Radical surgery is recommended for FIGO stage IB1 disease if there are no contraindications to surgery. Patients with tumours <4 cm in diameter are less likely to have metastatic spread and benefit most from radical hysterectomy. In young women quality of life is less impaired after radical hysterectomy than following chemo-radiation therapy¹.

Title:	Patients with FIGO stage IB1 cervical cancer should undergo radical hysterectomy
Numerator:	All patients with FIGO stage IB1 cervical cancer who undergo radical hysterectomy.
Denominator:	All patients with FIGO stage IB1 cervical cancer.
Exclusions:	Patients who decline surgery. Patients who undergo fertility conserving treatment. Patients who have neo-adjuvant chemotherapy. Patients enrolled into surgical trials.
Target:	85%

Figure 14: Proportion of patients with stage IB1 cervical cancer (as defined by radiology and/or histopathology) who undergo radical hysterectomy.



Due to the small numbers meeting the denominator criteria in each year of analysis individual unit results cannot be presented therefore Figure 15 shows WoS yearly results.

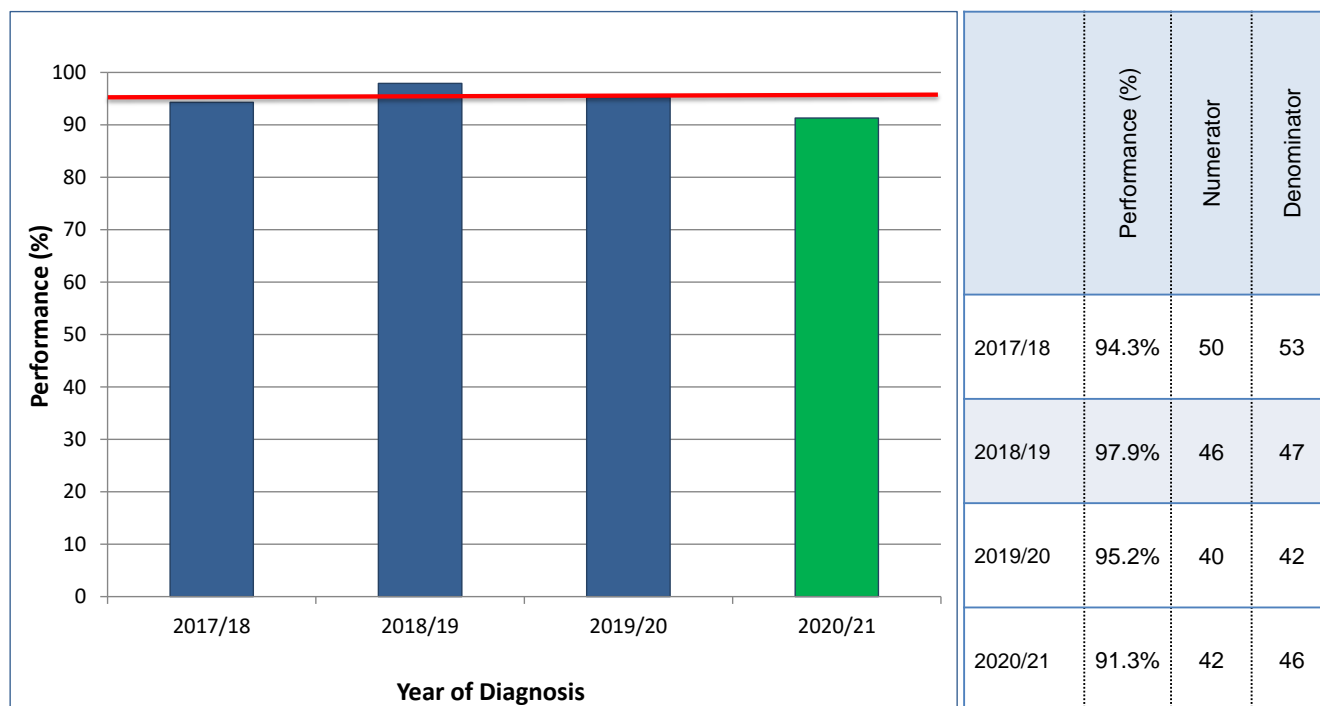
At a regional level, data shows that 100% patients with stage IB1 cervical cancer underwent radical hysterectomy

QPI 5: Surgical Margins

The quality of radical surgery for cervical cancer has an important influence on local control of the tumour and ultimately survival. Therefore, it is important to optimise and ensure the quality of surgical care for cervical cancer patients¹. QPI 5 is analysed by location of surgery rather than location of diagnosis.

Title:	Patients with surgically treated cervical cancer should have clear resection
Numerator:	All patients with cervical cancer who undergo surgery where surgical margins are clear of tumour.
Denominator:	All patients with cervical cancer who undergo surgery.
Exclusions:	Patients who decline surgery. Patients who undergo fertility conserving treatment. Patients enrolled into surgical trials.
Target:	95%

Figure 15: Proportion of patients with cervical cancer who have surgical margins clear of tumour following hysterectomy.



Due to the majority of operations taking place in the centre (North Glasgow) the numbers for other individual units are low therefore Figure 16 shows WoS yearly results.

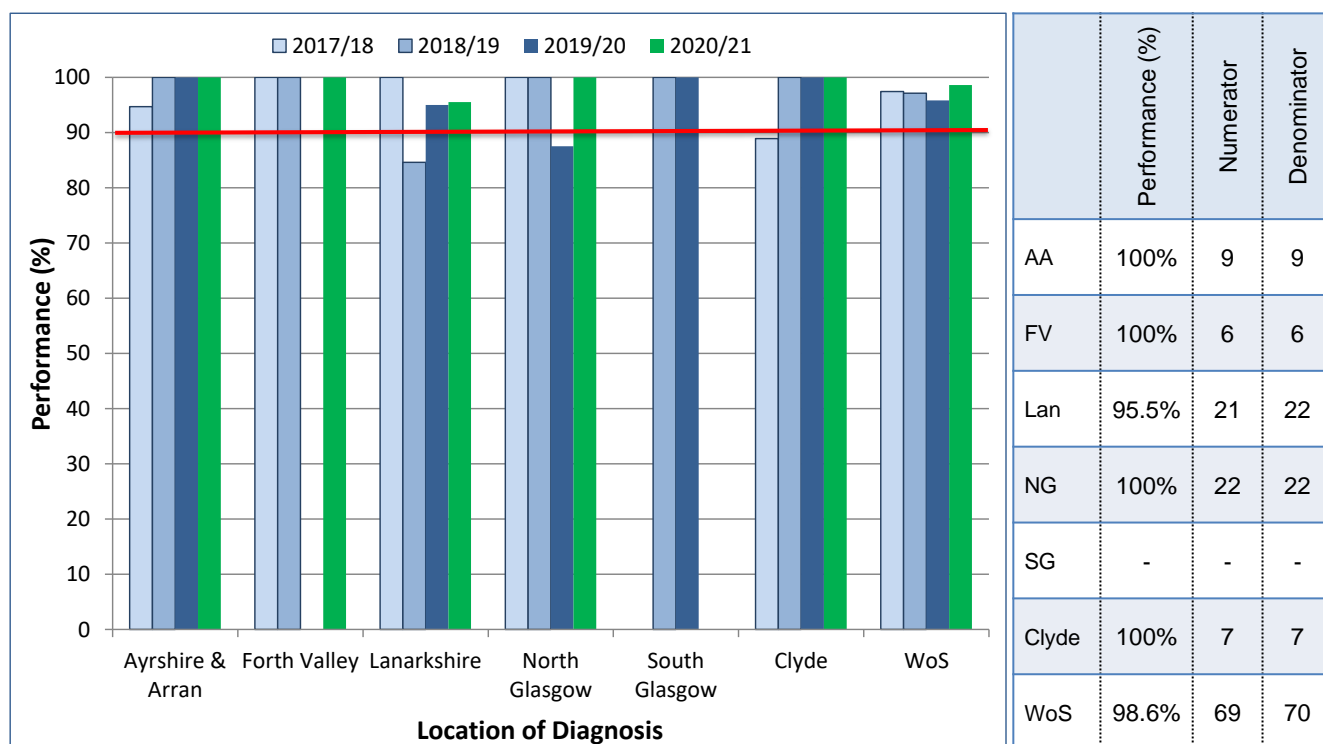
Overall in the WoS in Year 7, 91.3% of patients with cervical cancer had surgical margins clear of tumour following hysterectomy, which is below the 95% QPI target. The four patients not meeting the QPI have been reviewed and detailed clinical commentary provided. All were appropriately managed.

QPI 6: 56 Day Treatment for Radical Radiotherapy

Overall treatment time for locally advanced cervical cancer should be as short as possible. Radiotherapy for squamous carcinoma should be completed within 56 days¹.

Title:	Treatment time for patients with cervical cancer undergoing radical radiotherapy should be no more than 56 days.
Numerator:	All patients with cervical cancer undergoing radical radiotherapy (external beam or brachytherapy) whose overall treatment time, from start to the end of treatment, is not more than 56 days.
Denominator:	All patients with cervical cancer undergoing radical radiotherapy (external beam or brachytherapy).
Exclusions:	No exclusions.
Target:	90%

Figure 16: Proportion of patients with cervical cancer undergoing radical radiotherapy whose overall treatment time, from the start to the end of treatment, is not more than 56 days.



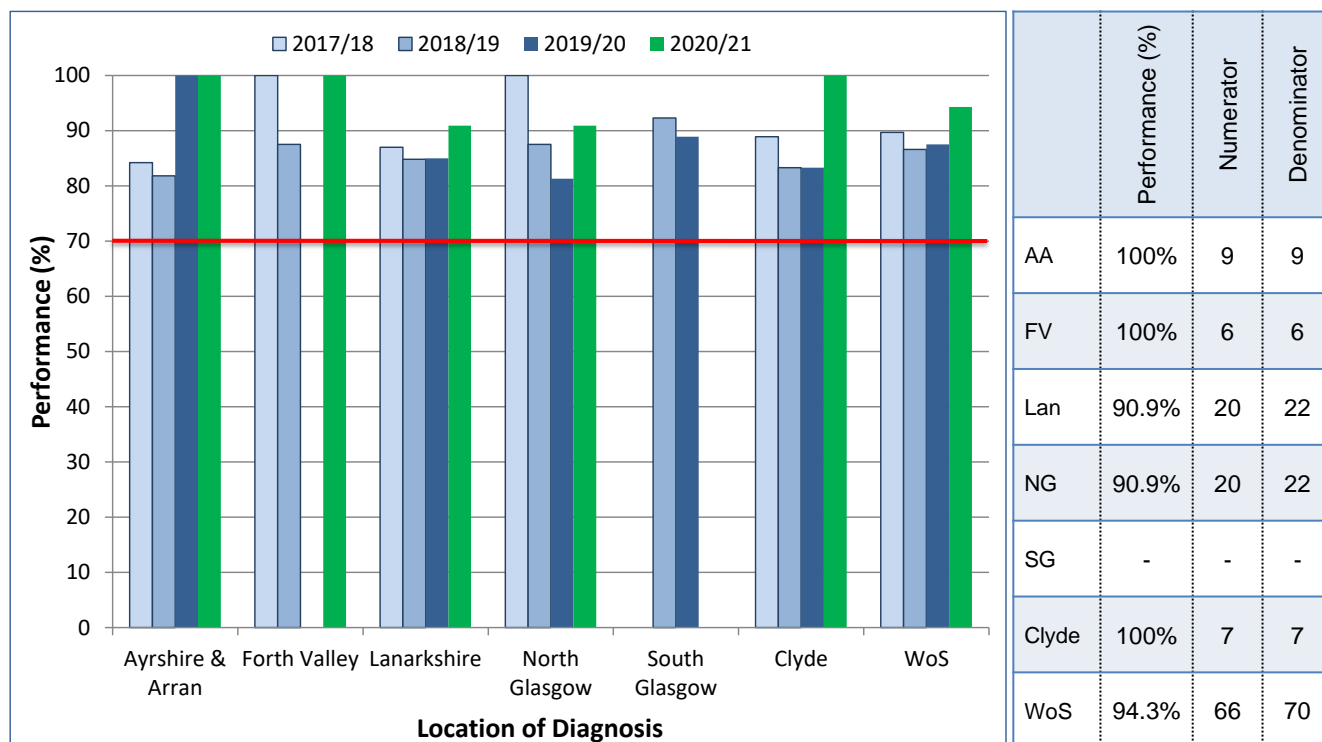
All units exceeded the 90% target set for QPI 7 resulting in an overall WoS performance of 98.6%. Figures for South Glasgow have been restricted due to a denominator of less than 5.

QPI 7: Chemoradiation

Any patient with cervical cancer considered suitable for radical radiotherapy treatment should have concurrent chemoradiotherapy with a platinum based chemotherapy, if fit for treatment¹.

Title:	Patients with cervical cancer undergoing radical radiotherapy should receive concurrent platinum-based chemotherapy.
Numerator:	All patients with cervical cancer undergoing radical radiotherapy who receive concurrent chemotherapy.
Denominator:	All patients with cervical cancer who undergo radical radiotherapy.
Exclusions:	No exclusions.
Target:	70%

Figure 17: Proportion of patients with cervical cancer undergoing radical radiotherapy who receive concurrent chemotherapy.



Performance across the WoS was 94.3% against the 70% target with 66 of 70 patients diagnosed with cervical cancer undergoing radical radiotherapy receiving concurrent chemotherapy. All units met the target. Data is restricted for South Glasgow due to small numbers.

5. Next Steps

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

Acknowledgements

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

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

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

Abbreviations

BWoSCC	Beatson West of Scotland Cancer Centre
BSO	Bilateral Salpingo-Oophorectomy
CT	Computed Tomography
eCASE	Electronic Cancer Audit Support Environment
FIGO	Federation of Gynaecological Oncologists
GRI	Glasgow Royal Infirmary
HIS	Healthcare Improvement Scotland
ISD	Information Services Division
MCN	Managed Clinical Network
MDT	Multidisciplinary Team
MRI	Magnetic resonance imaging
NCQSG	National Cancer Quality Steering Group
NHSGGC	NHS Greater Glasgow and Clyde
PET	Positron Emission Tomography
QPI	Quality Performance Indicator
RCAG	Regional Cancer Advisory Group
RMI	Risk of Malignancy Index
TAH	Total Abdominal Hysterectomy
WoS	West of Scotland
WoSCAN	West of Scotland Cancer Network

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1. Information Services Division. Endometrial & Cervical Cancer: Data Definitions, Measurability and Data Validations [Accessed on: 25th May 2022]. Available at: <http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/>
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3. Information Services Division, Cancer Statistics, Summary statistics for female genital organ cancers. [Accessed on: 25th May 2022]. Available at: <http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Statistics/Female-Genital-Organ/>

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Appendix 1: Meta Data

Report Title	Cancer Audit Report: Endometrial & Cervical Cancer Quality Performance Indicators																																																		
Time Period	Patients diagnosed between 01 October 2020 to 30 September 2021																																																		
Data Source	Cancer Audit Support Environment (eCASE). A secure centralised web-based database which holds cancer audit information in Scotland.																																																		
Data extraction date	2200 hrs on 18 May 2022																																																		
Methodology	<p>Analysis was performed centrally for the region by the WoSCAN Information Team. The timescales agreed took into account the patient pathway to ensure that a complete treatment record was available for the majority of patients.</p> <p>Initial results were provided to Boards to check for inaccuracies, inconsistencies or obvious gaps and a subsequent download taken upon which final analysis was carried out.</p> <p>The final data analysis was disseminated for NHS Board verification in line with the regional audit governance process to ensure that the data was an accurate representation of service in each area. Please see info graphic in appendix 2 for a more detailed look at the reporting process.</p>																																																		
Data Quality	<p>Audit data completeness can be assessed by estimating the proportion of expected patients that have been identified through audit compared to the number reported by the National Cancer registry (provided by ISD, National Services Division); this is known as case ascertainment. Figures should only be used as a guide as it is not possible to compare the same exact cohort from each data source. Note that a 5 year average is taken for cancer registry cases to take account of annual fluctuations in incidence within NHS Boards.</p> <p>Endometrial Cancer</p> <table border="1"> <thead> <tr> <th>Health Board of diagnosis</th> <th>(01/10/2020-30/09/21) Audit</th> <th>Cancer Reg 2016-2020</th> <th>Case Ascertainment</th> </tr> </thead> <tbody> <tr> <td>Ayrshire & Arran</td> <td>57</td> <td>69</td> <td>82.6%</td> </tr> <tr> <td>GGC</td> <td>147</td> <td>183</td> <td>80.3%</td> </tr> <tr> <td>Forth Valley</td> <td>49</td> <td>41</td> <td>119.5%</td> </tr> <tr> <td>Lanarkshire</td> <td>87</td> <td>83</td> <td>104.8%</td> </tr> <tr> <td>WoS Total</td> <td>340</td> <td>376</td> <td>90.4%</td> </tr> </tbody> </table> <p>Cervical Cancer</p> <table border="1"> <thead> <tr> <th>Health Board of diagnosis</th> <th>(01/10/20-30/09/21) Audit</th> <th>Cancer Reg 2016-2020</th> <th>Case Ascertainment</th> </tr> </thead> <tbody> <tr> <td>Ayrshire & Arran</td> <td>21</td> <td>24</td> <td>87.5%</td> </tr> <tr> <td>GGC</td> <td>73</td> <td>77</td> <td>94.8%</td> </tr> <tr> <td>Forth Valley</td> <td>15</td> <td>20</td> <td>75.0%</td> </tr> <tr> <td>Lanarkshire</td> <td>47</td> <td>40</td> <td>117.5%</td> </tr> <tr> <td>WoS Total</td> <td>156</td> <td>161</td> <td>96.9%</td> </tr> </tbody> </table>			Health Board of diagnosis	(01/10/2020-30/09/21) Audit	Cancer Reg 2016-2020	Case Ascertainment	Ayrshire & Arran	57	69	82.6%	GGC	147	183	80.3%	Forth Valley	49	41	119.5%	Lanarkshire	87	83	104.8%	WoS Total	340	376	90.4%	Health Board of diagnosis	(01/10/20-30/09/21) Audit	Cancer Reg 2016-2020	Case Ascertainment	Ayrshire & Arran	21	24	87.5%	GGC	73	77	94.8%	Forth Valley	15	20	75.0%	Lanarkshire	47	40	117.5%	WoS Total	156	161	96.9%
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Appendix 2: Cancer Audit Timeline

