

**West of Scotland Cancer Network  
Gynaecological Cancer  
Managed Clinical Network**



# **Audit Report**

## **Cervical Cancer Quality Performance Indicators Endometrial Cancer Quality Performance Indicators**

**Clinical Audit Data:  
01 October 2019 to 30 September 2020**

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# Endometrial & Cervical Cancer QPI Overview

Report time frame: October 2019 - September 2020

## Number of Patients

Endometrial - 345

Cervical - 144

## Case Ascertainment

Endometrial - 91.5%

Cervical - 83.2%

## Median Age

Endometrial - 66

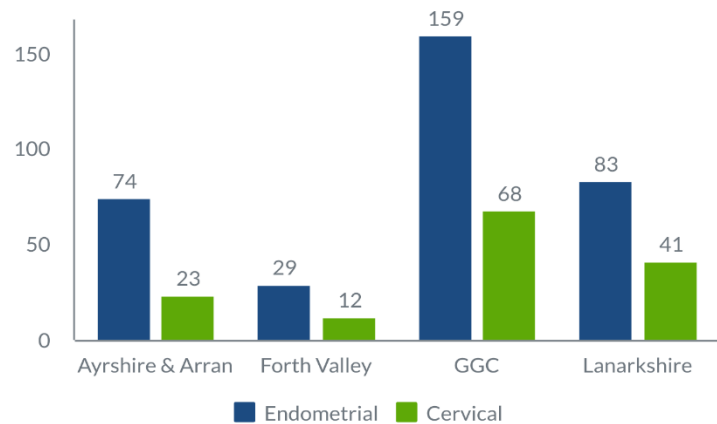
Cervical - 47

## 5 Year Relative Survival

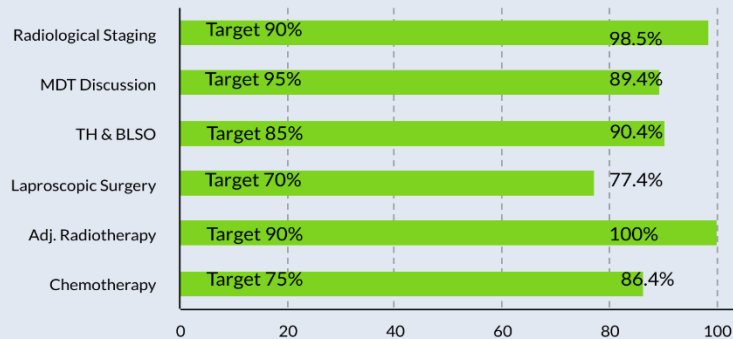
Endometrial - 76.2%

Cervical - 72.1%

## Healthboard of Diagnosis



## WoS QPI Result - Endometrial



## Key Achievements - Endometrial

- Radiological staging - 99% of patients had stage of disease assessed prior to treatment.
- Adjuvant radiotherapy - all 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 for all non surgical patients.
- All patients discussed at a Multidisciplinary Team Meeting (MDT) prior to treatment.
- Chemoradiotherapy - 100% of patients undergoing radical radiotherapy received concurrent platinum based chemotherapy.

## 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 2019 and 30 September 2020.

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 & Cervical Cancer QPIs took place in 2018. With six years of reporting now complete, a second cycle of review is now underway. This clinically led review aims to identify potential refinements to the current QPIs and involves key clinicians from each of the Regional Cancer Networks.

### Results

A summary of the QPI performance for the 2019/20 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. Specific NHS Board actions have been identified to address issues highlighted through data analysis.

Please note actions have been categorised into the following groupings for internal management purposes to allow regional trends to be identified, and co-ordinated regional action across multiple tumour groups where appropriate; MDT, Pathology, Radiology, Other diagnostic, Treatment Decision, Time to Treatment, Surgery, Oncology, Resource, Workforce, Practice and Capacity.

## Endometrial/Cervical Cancer Performance Summary Report

Endometrial Cancer	Performance by Board								
QPI	Target	Year	WoS	A&A	FV	LS	NG	SG	Clyde
<b>QPI 1 - Radiological Staging.</b> 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%	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%
		2017/18	98.3%	96.4%	94.1%	97.1%	100%	100%	100%
<b>QPI 2 - Multidisciplinary Team Meeting (MDT).</b> Patients with endometrial cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.	95%	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%
		2017/18	72.0%	64.2%	61.8%	59.6%	96.6%	92.6%	63.3%
<b>QPI 3 - Total Hysterectomy and Bilateral Salpingo-Oophorectomy.</b> Patients with endometrial cancer should undergo total hysterectomy (TH) and bilateral salpingo-oophorectomy (BSO).	85%	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%
		2017/18	88.6%	81.1%	85.0%	91.2%	94.7%	78.6%	93.8%
<b>QPI 4 - Laparoscopic Surgery (Hosp. of Surgery)</b> Patients with endometrial cancer undergoing definitive surgery should undergo laparoscopic surgery, where clinically appropriate.	70%	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%
		2017/18	75.7%	85.0%	92.9%	94.9%	69.3%	76.7%	54.9%

Endometrial Cancer	Performance by Board								
QPI	Target	Year	WoS	A&A	FV	LS	NG	SG	Clyde
<b>*QPI 5 - Adjuvant Vaginal Brachytherapy.</b> 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%	2019/20	100%	100%	100%	100%	100%	-	-
		2018/19	96.4%	100%	66.7%	100%	100%	100%	-
		2017/18	92.6%	92.3%	100%	83.3%	100%	88.9%	91.7%
<b>*QPI 6 – Chemotherapy.</b> Patients with stage IV endometrial cancer should have SACT or hormone therapy.	75%	2019/20	86.4%	n/a	-	-	100%	-	75.0%
		2018/19	70.4%	-	40.0%	-	80.0%	-	80.0%
		2017/18	55.6%	-	-	-	66.7%	-	-
<b>QPI 7 – 30 Day Mortality Following Surgery.</b> 30 day mortality following surgery for endometrial patients.	<5%	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%
		2017/18	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>QPI 8 – Clinical Trials.</b> Proportion of patients diagnosed with endometrial cancer who are consented for a clinical trial / research study.	15%	2020	0.8%	1.5%	2.2%	0.0%	0.0%		
		2019	1.9%	0.0%	2.4%	2.9%	2.2%		
		2018	2.2%	1.5%	0.0%	7.0%	1.1%		

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

<b>Cervical Cancer</b>	<b>Performance by Board</b>								
<b>QPI</b>	<b>Target</b>	<b>Year</b>	<b>WoS</b>	<b>A&amp;A</b>	<b>FV</b>	<b>LS</b>	<b>NG</b>	<b>SG</b>	<b>Clyde</b>
<b>QPI 1 - Radiological Staging.</b> Patients with cervical cancer should have their stage of disease assessed by magnetic resonance imaging (MRI) prior to definitive treatment.	95%	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%
		2017/18	92.8%	96.3%	87.5%	90.9%	96.4%	100%	85.7%
<b>QPI 2 - Positron Emission Tomography/Computed Tomography (PET/CT).</b> Patients with cervical cancer, for whom primary definitive surgery is not appropriate, should undergo positron emission tomography - computed tomography imaging (PET/CT).	95%	2019/20	100%	100%	-	100%	100%	100%	100%
		2018/19	100%	100%	100%	100%	100%	100%	-
		2017/18	98.5%	100%	100%	100%	100%	100%	-
<b>QPI 3 - Multidisciplinary Team Meeting (MDT).</b> Patients with cervical cancer should be discussed by a multidisciplinary team (MDT) prior to definitive treatment.	95%	2019/20	100%	100%	100%	100%	100%	100%	100%
		2018/19	98.2%	100%	90.9%	100%	100%	93.8%	100%
		2017/18	99.2%	100%	100%	100%	100%	100%	100%
<b>*QPI 4 - Radical Hysterectomy.</b> Patients with stage IB1 cervical cancer should undergo radical hysterectomy.	85%	2019/20	78.6%	-	-	100%	-	-	-
		2018/19	75.0%	87.5%	0.0%	100%	80.0%	0.0%	66.7%
		2017/18	75.0%	66.7%	-	-	75.0%	n/a	60.0%
<b>*QPI 5 - Surgical Margins. (Hosp. of Surgery)</b> Patients with surgically treated cervical cancer should have clear resection margins.	95%	2019/20	95.2%	-	-	-	92.6%	-	100%
		2018/19	97.9%	100%	-	-	100%	-	-
		2017/18	94.3%	-	-	-	97.4%	-	85.7%

Cervical Cancer	Performance by Board								
QPI	Target	Year	WoS	A&A	FV	LS	NG	SG	Clyde
<b>*QPI 6 - 56 Day Treatment Time for Radical Radiotherapy.</b> Treatment time for patients with cervical cancer undergoing radical radiotherapy should be no more than 56 days.	90%	2019/20	95.8%	100%	-	95.0%	87.5%	100%	100%
		2018/19	97.1%	100%	100%	84.6%	100%	100%	100%
		2017/18	97.4%	94.7%	100%	100%	100%	-	88.9%
<b>*QPI 7 – Chemoradiation.</b> Patients with cervical cancer undergoing radical radiotherapy should receive concurrent platinum-based chemotherapy.	70%	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%
		2017/18	89.7%	84.2%	100%	87.0%	100%	-	88.9%
<b>QPI 8 – Clinical Trials.</b> Proportion of patients diagnosed with endometrial cancer who are consented for a clinical trial / research study.	15%	2020	6.4%	19.2%	9.1%	4.9%	2.4%		
		2019	0.6%	0.0%	0.0%	0.0%	1.2%		
		2018	5.3%	15.0%	0.0%	9.5%	2.4%		

*\*\*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)

	Above Target Result
	Below Target Result



## **Conclusions and Action Required**

The development of national QPIs for endometrial and cervical cancer 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 sixth year of data collection for cervical and endometrial cancer QPIs. The results presented in this report demonstrate that patients with cervical and endometrial cancer 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.

No Board specific improvement actions have been identified however the MCN will contribute to the ongoing national Formal Review of QPIs, with a number of recommendations to ensure the QPIs remain clinically relevant.

## **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 2019 and 30 September 2020. 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 website<sup>1</sup>.

Twelve months of data were measured against the endometrial and cervical cancer QPIs for the sixth 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 six years of reporting now complete, a second cycle of review is now underway. This clinically led review aims to identify potential refinements to the current QPIs and involves key clinicians from each of the Regional Cancer Networks.

## **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 840 new cases diagnosed annually. The incidence of endometrial cancer has risen significantly by 18.8% over the last ten years (2009-2019)<sup>3</sup>. This undoubtedly reflects increasing levels of obesity<sup>2</sup> and also an increasingly ageing population. Recently published data highlights that the number of new cases of endometrial cancer is predicted to increase by 55% between 2008-2012 and 2023-2027<sup>2</sup>.

One-year and 5-year net survival rates for endometrial cancer for females diagnosed between 2013 and 2017 are 90.2% and 76.2% respectively<sup>3</sup>. Endometrial cancer is the 8<sup>th</sup> most common death in females from cancer in Scotland with overall mortality rates increasing by 36.4% from 2009 to 2019<sup>3</sup>.

Cervical cancer is noted as being the eleventh most common cancer in women with approximately 350 cases diagnosed each year<sup>3</sup>. The incidence of cervical cancer has increased by 1.7% over the last ten years<sup>3</sup>. Overall mortality rates have decreased by 15% over the past 10 years from 2009 to 2019 and 1-year and 5-year net survival is noted as being 88.4% and 72.1% respectively<sup>3</sup>. Recently published figures indicate that the number of new cases of cervical cancer is predicted to increase by 39.6% between 2008-2012 and 2023-2027<sup>2</sup>.

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. For QPIs that involve small numbers combined 3 year figures are also shown alongside year on year performance.

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.

Specific regional and NHS Board actions have been identified to address issues highlighted through the data analysis.

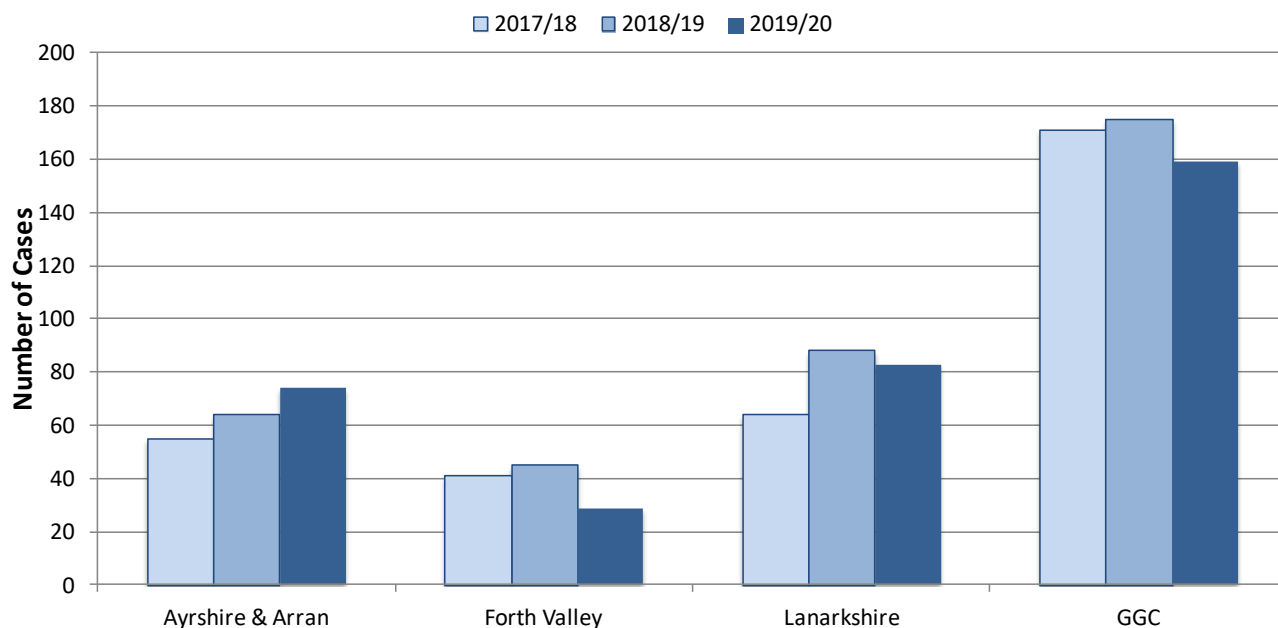
## 4.2. Endometrial Cancer – Quality Performance Indicators

### Introduction

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

There were 345 new diagnoses of endometrial cancer captured by audit in the WoS in Year 6. 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.



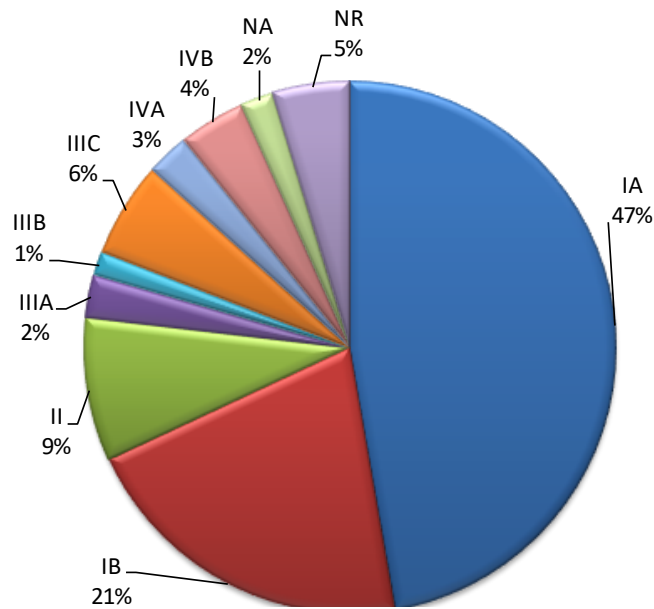
### Location of Diagnosis

	AA	FV	Lan	GGC	WoS
<b>2017/18</b>	55	41	64	171	331
<b>2018/19</b>	64	45	88	175	372
<b>2019/20</b>	74	29	83	159	345

## Endometrial FIGO Stage Distribution

The distribution of endometrial cancer by FIGO stage is presented in Figure 2, which illustrates that 76.8% of patients presented with early stage (I, II) disease and 16.5% 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. There are forthcoming trials which may affect this current Network position. Once the trials have been published then further discussions will take place to ensure ongoing management can take latest evidence into account.

Figure 2: Distribution of endometrial cancer by FIGO stage.



FIGO Stage	IA	IB	II	IIIA	IIIB	IIIC	IVA	IVB	NR	NA
n	163	72	30	9	5	20	9	14	16	7

### 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 treatment<sup>1</sup>. 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 investigation<sup>1</sup>.

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

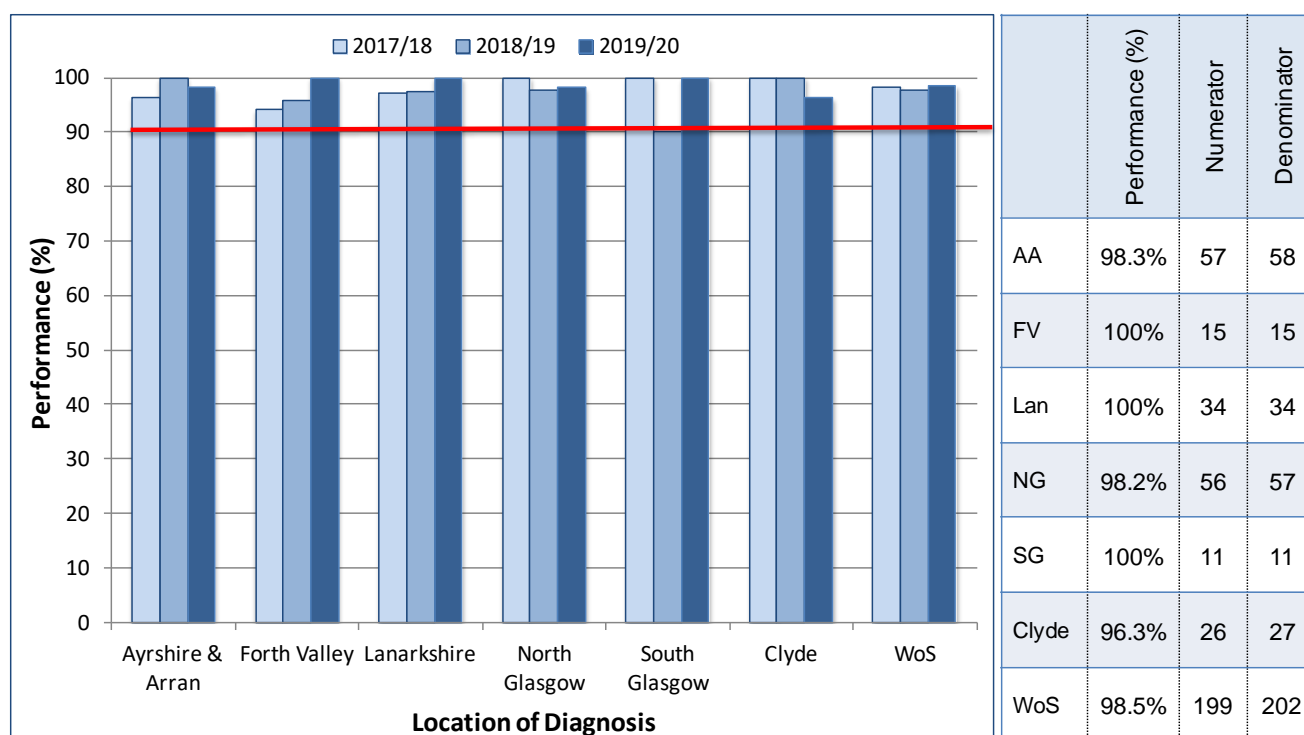


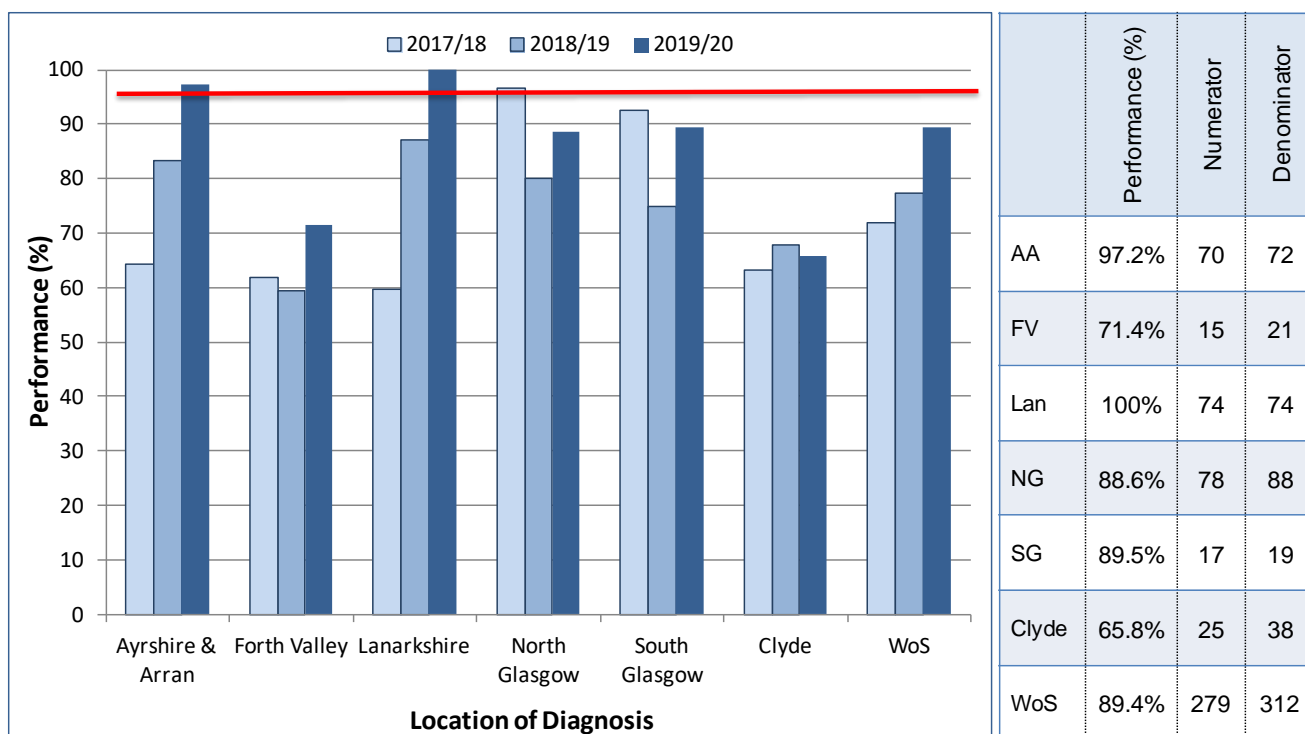
Figure 3 demonstrates excellent results across all Boards over the three years of QPI reporting with all units consistently achieving the QPI target year on year; overall regional performance in the WoS was noted as 98.5%.

## 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 care<sup>1</sup>.

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

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



Previous definitions excluded those cases with Grade I endometrioid or mucinous carcinoma on pre-operative biopsy. During formal review it was agreed that the exclusions should be removed. This change meant that all G1 endometrial cancers should be discussed at the MDT. It is anticipated that this will be amended at the formal review which is now underway.

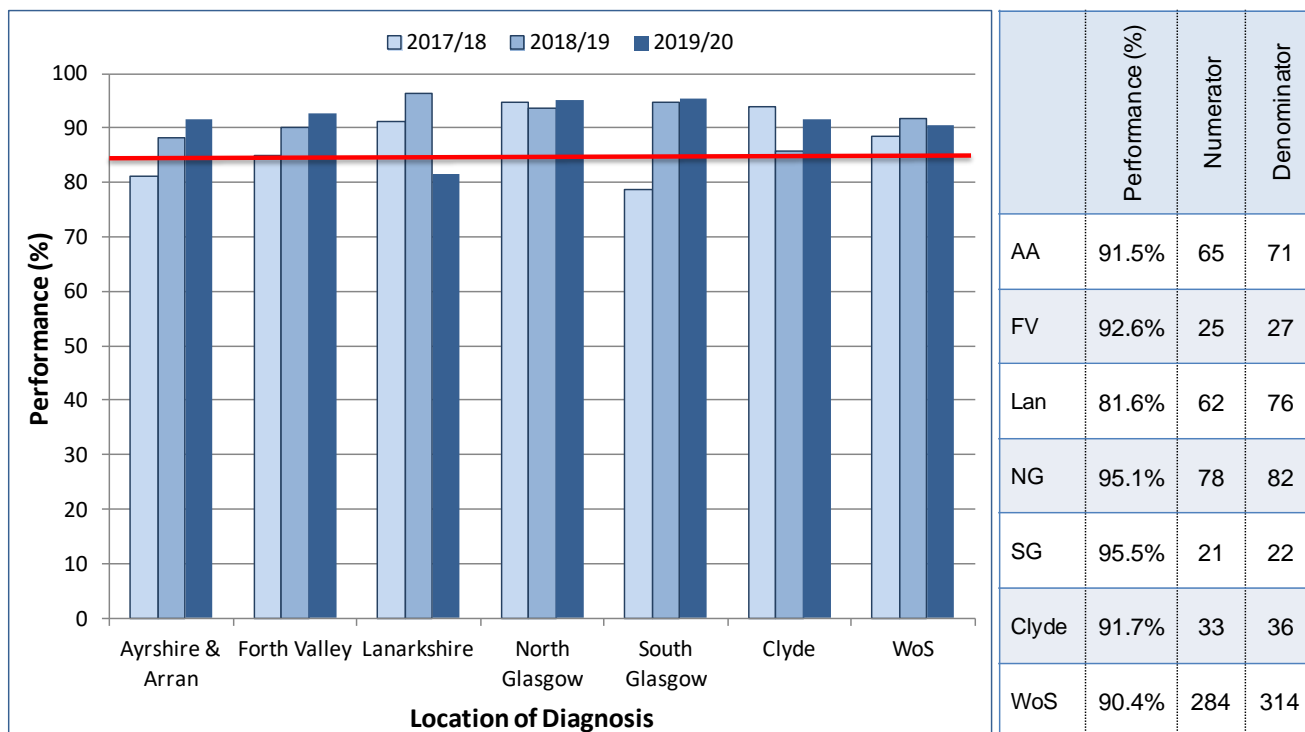
Overall performance in the WoS was 89.4% against the 95% target with 279 of 312 patients being discussed by the MDT prior to definitive treatment. Only NHS AA and NHS Lanarkshire achieved the QPI target however the majority of units all showed improved performance on the previous years results. All Boards reviewed cases not discussed at MDT and Board feedback indicated that the majority were G1 tumours, which are not routinely discussed pre-treatment in the WoS.

### 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)<sup>1</sup>. 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 intervention<sup>1</sup>.

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

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



Of the 299 patients diagnosed with endometrial cancer, 265 underwent total hysterectomy and bilateral salpingo-oophorectomy resulting in a WoS of performance of 90.4% against the 85% QPI target. Five of the six units met the target with performance ranging from 81.6% in NHS Lanarkshire to 95.5% in South Glasgow.

NHS Lanarkshire commented that all cases have been reviewed. Reasons provided for patients not meeting the QPI included; patients that were assessed and deemed not fit for surgical treatment who subsequently received either hormone therapy or were for best supportive care only, patient choice, patients who had disease progression while awaiting recovery from COVID 19. The majority of patients had their diagnoses within 4 weeks of their referral.

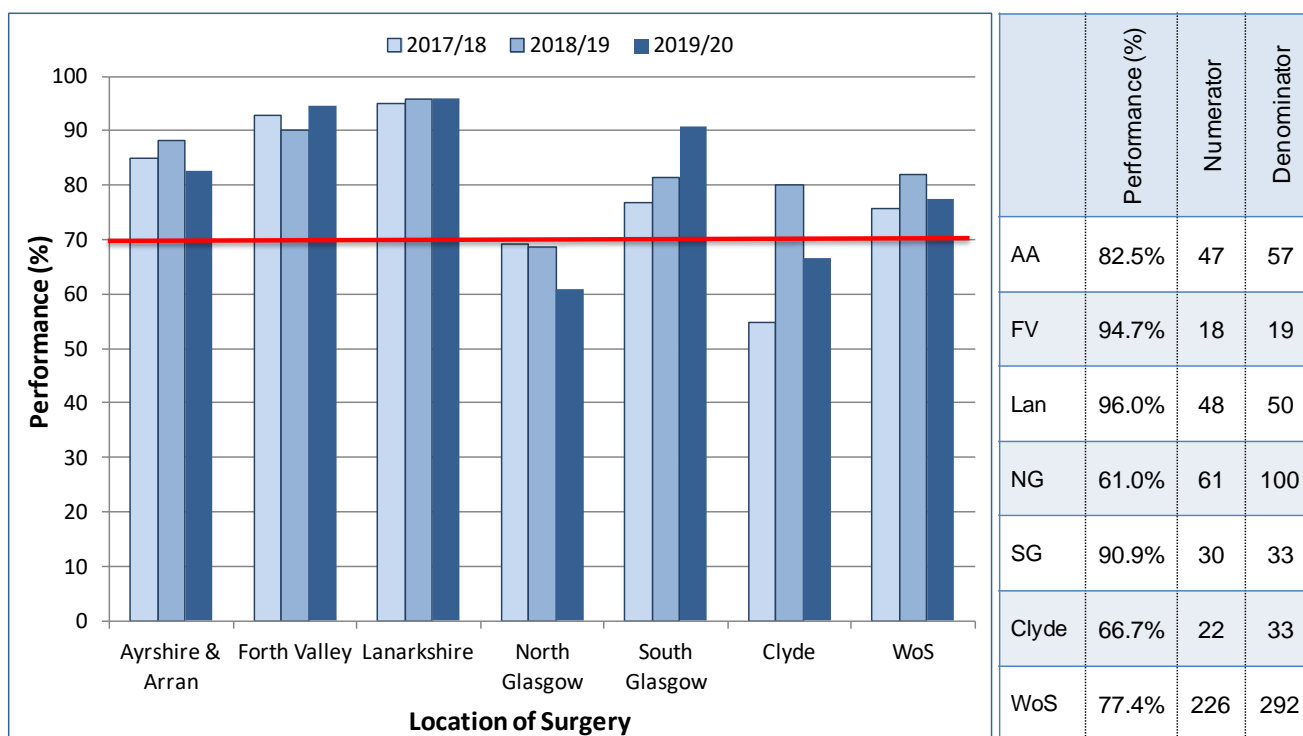


#### QPI 4: Laparoscopic Surgery

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 stay<sup>1</sup>. The target for this QPI is set at 70% which reflects the fact that some patients may not be clinically suitable for laparoscopic surgery.

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

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



Performance across the WoS was 77.4% against the 70% QPI target with 226 of 292 patients with endometrial cancer undergoing definitive surgery receiving laproscopic surgery. Four of the six units achieved the target with performance ranging from 61% in North Glasgow to 96% in NHS Lanarkshire.

North Glasgow and Clyde sectors did not meet the QPI target. Review of the cases which did not meet this QPI has highlighted that the majority of cases who failed were not clinically appropriate to have laparoscopic surgery for reasons such as advanced disease or the requirement for para-aortic lymph node dissection (PALND). This decision was often made at the MDT by the Gynaecology Oncology surgeons based on clinical information. At present WoS Boards are unable to offer PALND through the minimally invasive route however with the current progression to robotic surgery within the Gynaecology Oncology department in Glasgow Royal Infirmary, this will change. In addition during

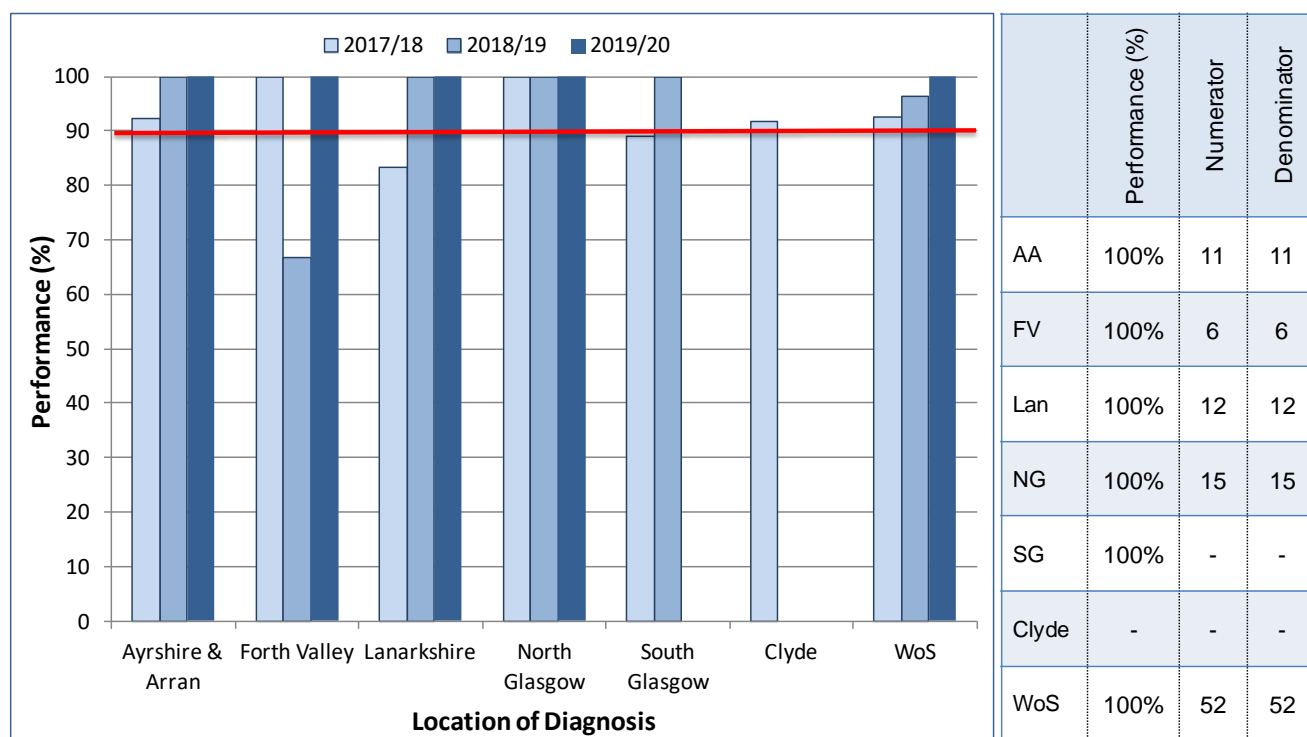
this timeframe, in the early stages of the COVID 19 pandemic, laparoscopic surgery was temporarily suspended. There were only 2 cases in whom it is not clear why laparoscopic surgery was not attempted.

### 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 performed<sup>1</sup>.

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



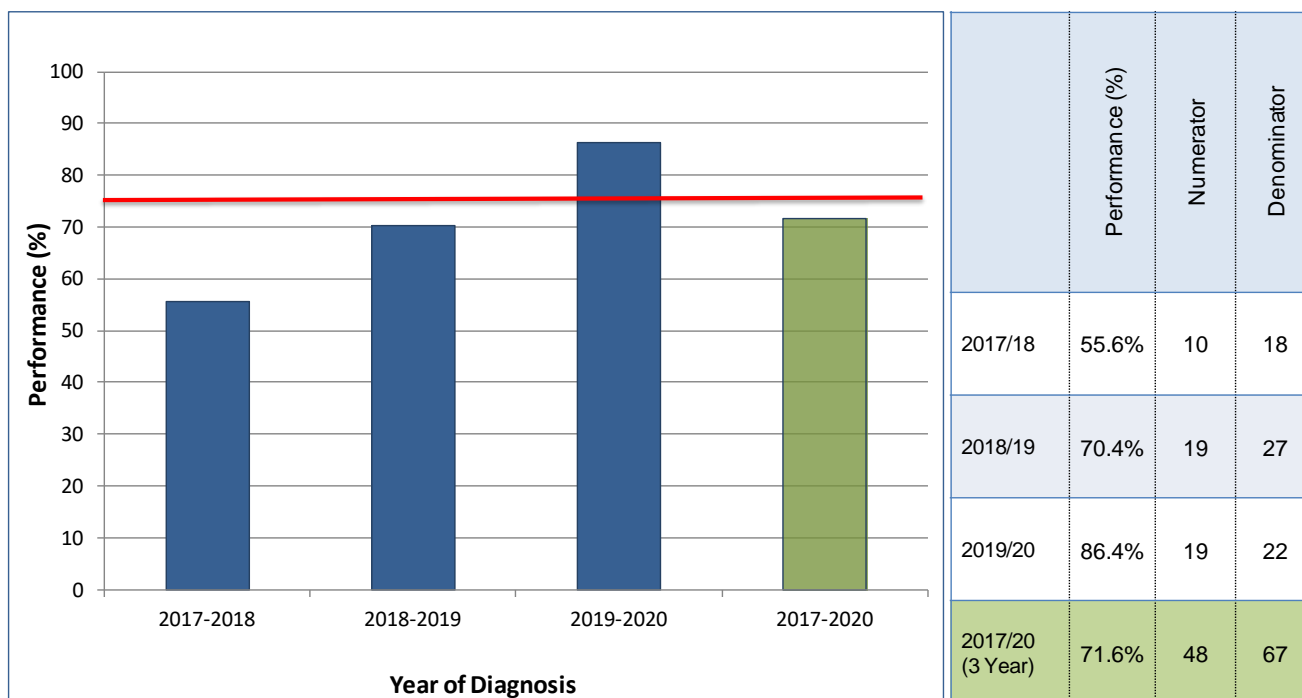
It should be noted that numbers of patients are low and therefore comparisons between units should be made with caution. Overall, 100% of patients with stage IB, grade 1 or 2, or stage IA, grade 3 endometrioid or mucinous endometrial cancer received adjuvant radiotherapy.

### 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 histology<sup>1</sup>.

<b>Title:</b>	Patients with stage IV endometrial cancer should have SACT or Hormone Therapy.
<b>Numerator:</b>	All patients with stage IV endometrial cancer receiving SACT or Hormone Therapy.
<b>Denominator:</b>	All patients with stage IV endometrial cancer.
<b>Exclusions:</b>	Patients who refuse any SACT or hormone therapy.
<b>Target:</b>	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 22 patients with stage IV endometrial cancer, 19 patients are recorded as having received SACT or hormone therapy resulting in a WoS performance of 86.4% against the 75% QPI target. WoS year on year improvement is noted.

### **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).

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

Across the WoS, in 2019/20 there were no deaths within 30 days of surgery for endometrial cancer.

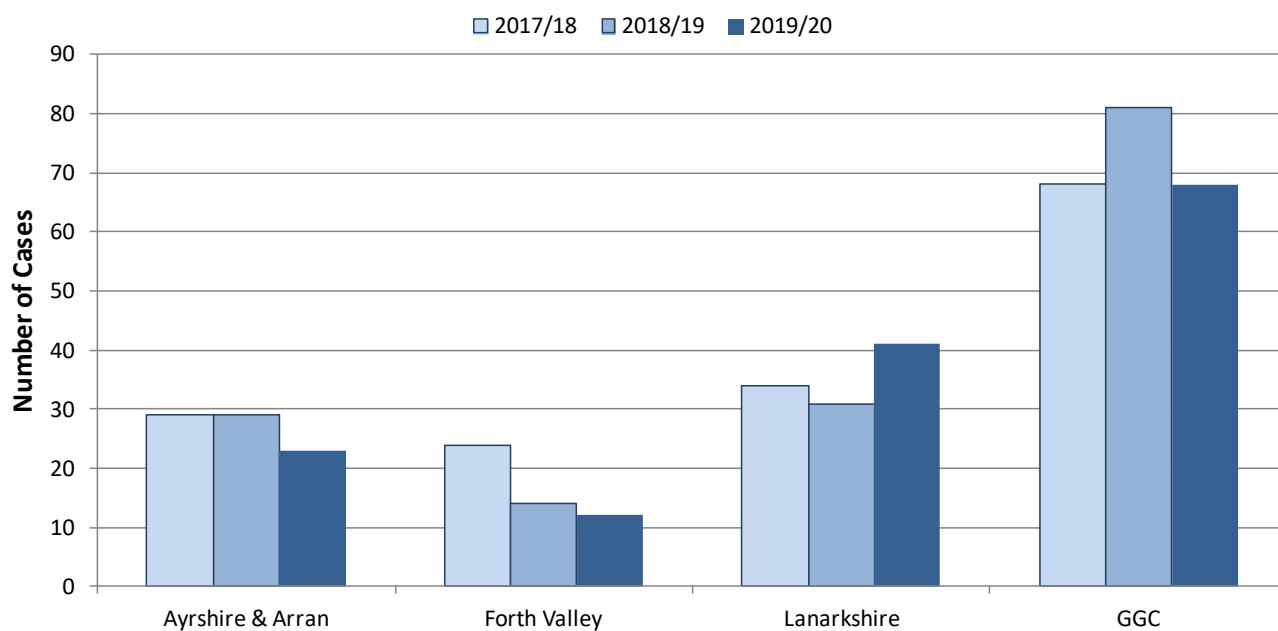
### 4.3. Cervical Cancer – Quality Performance Indicators

#### Introduction

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

There were 144 new diagnoses of cervical cancer captured by audit in the WoS in Year 6. 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.

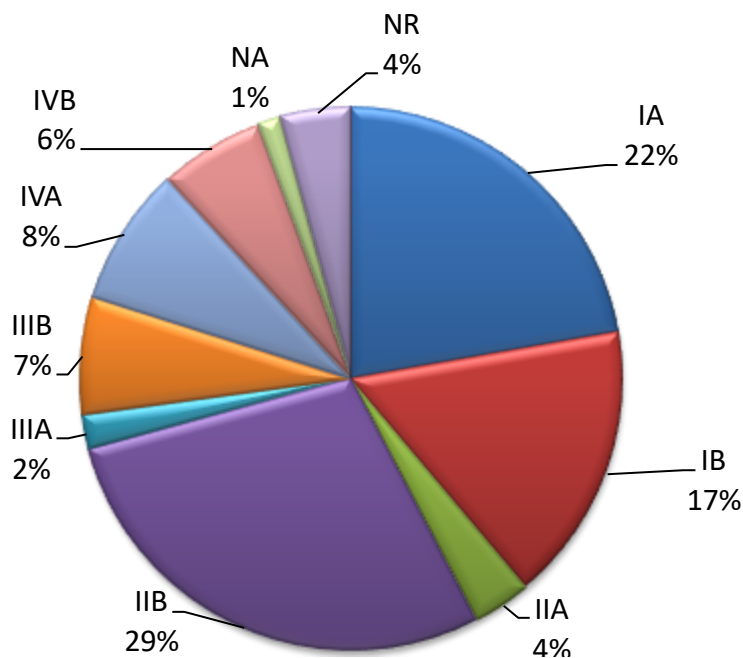


	Location of Diagnosis				WoS
	AA	FV	Lan	GGC	
2017/18	29	24	35	68	156
2018/19	29	14	31	81	155
2019/20	23	12	41	68	144

### 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.



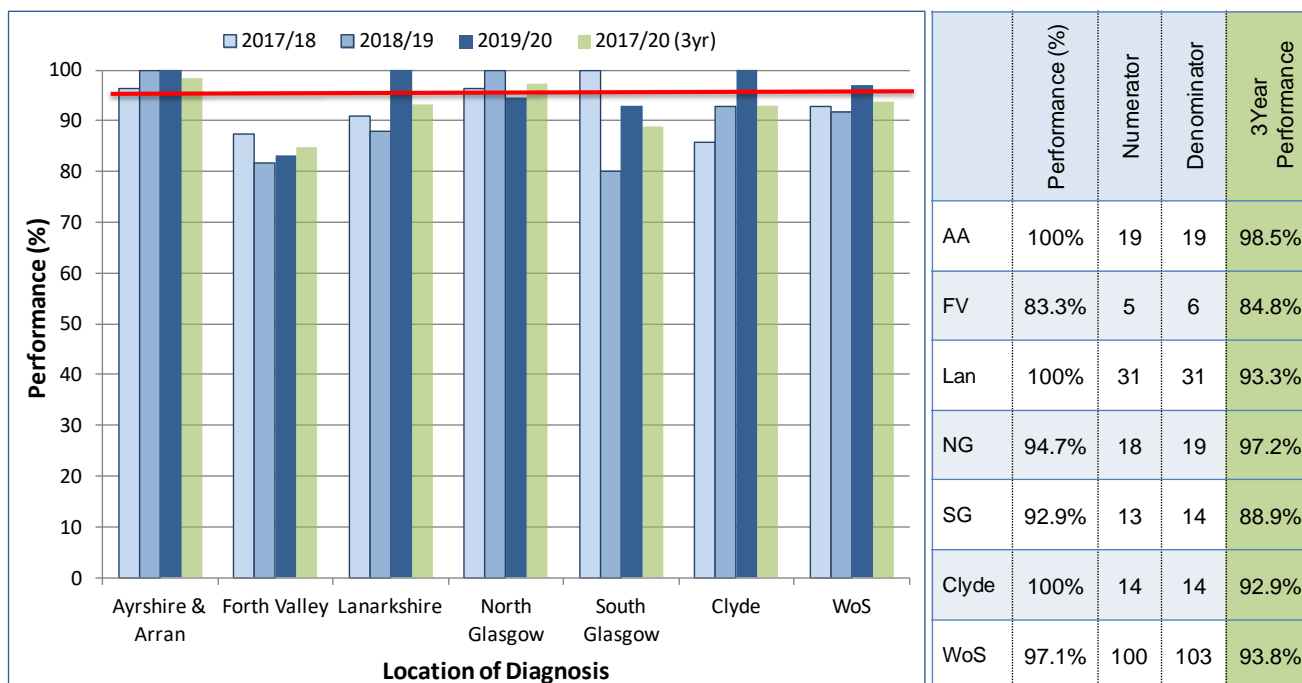
FIGO Stage	IA	IB	IIA	IIB	IIIA	IIIB	IVA	IVB	NR	NA
n	32	24	5	41	3	10	12	9	6	2

## 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 treatment<sup>1</sup>.

<b>Title:</b>	Patients with cervical cancer should have their stage of disease assessed by MRI prior to definitive treatment.
<b>Numerator:</b>	All patients with cervical cancer having MRI of the pelvis carried out prior to definitive treatment.
<b>Denominator:</b>	All patients with cervical cancer.
<b>Exclusions:</b>	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.
<b>Target:</b>	95%

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



Overall in the WoS 97.1% of cervical cancer patients received an MRI of the pelvis performed prior to first treatment, achieving the 95% QPI target. Year on year improvement is also noted in the majority of Boards.

Cases not meeting the QPI were reviewed and in the majority of cases patients presented with advanced disease or significant co-morbidities and a MRI was not deemed to add any clinical information to assist in treatment planning.

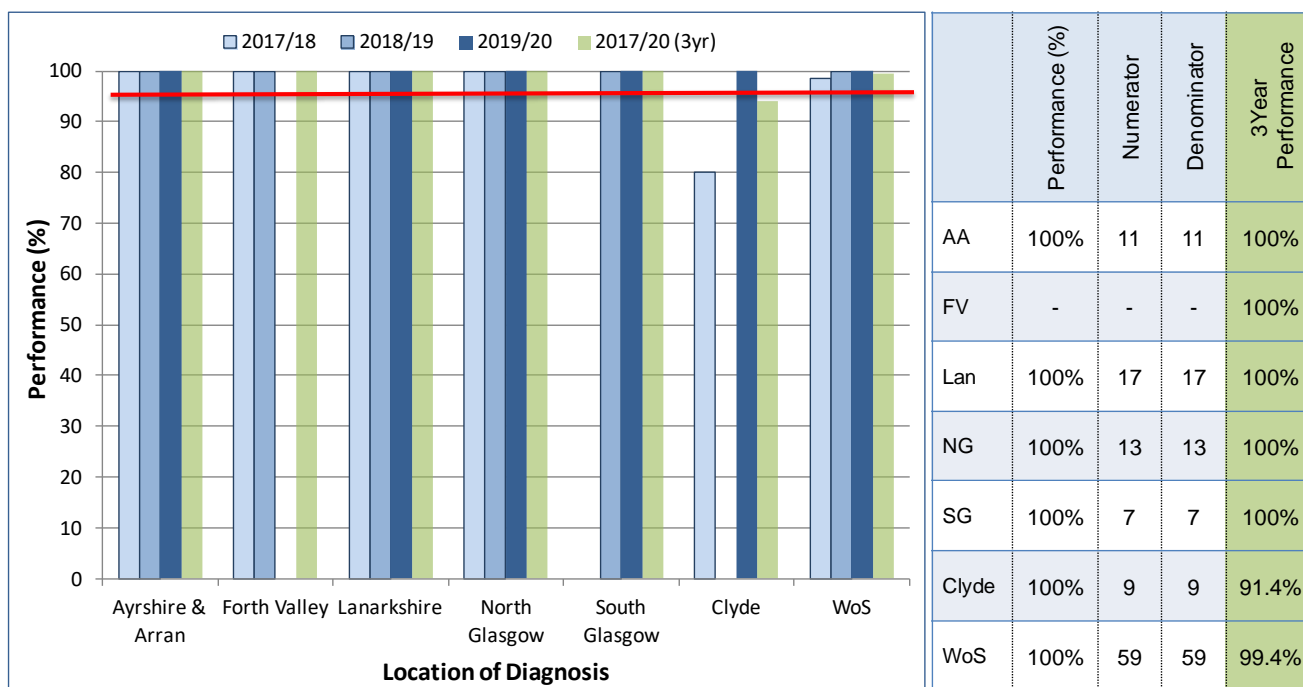


## QPI 2: Positron Emission Tomography/Computed Tomography (PET/CT)

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 management<sup>1</sup>.

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

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



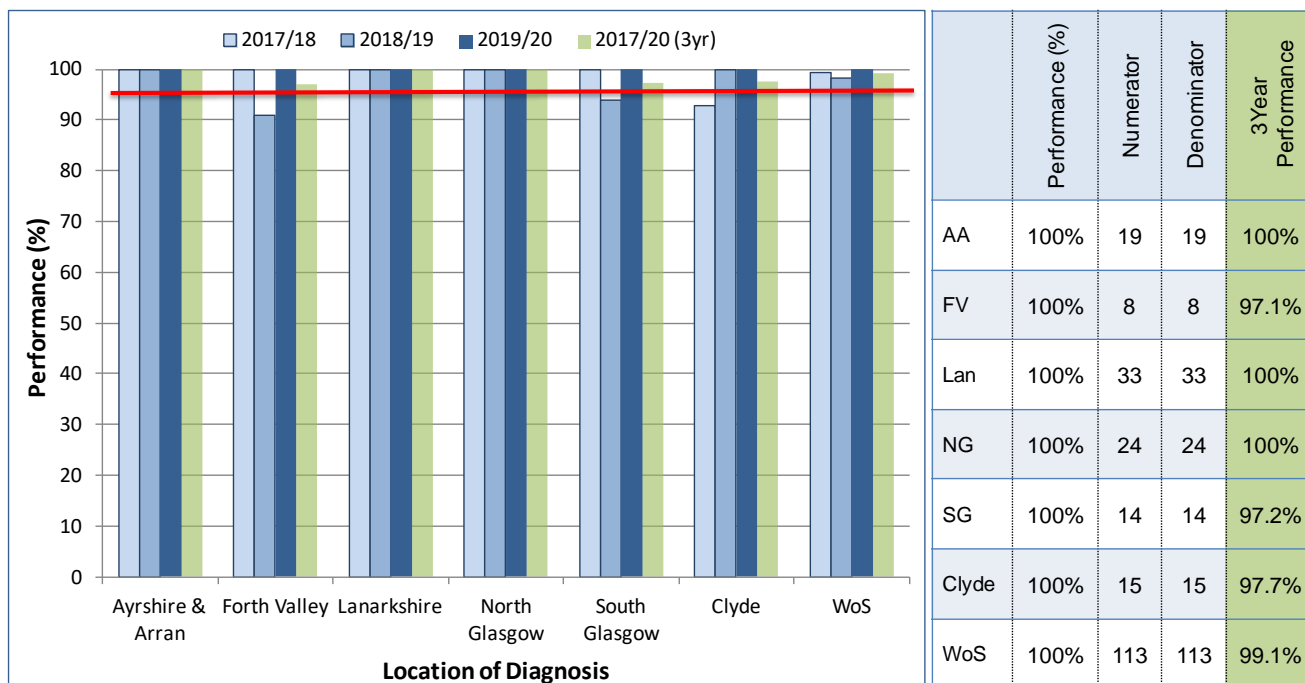
Across WoS, 100% of patients diagnosed with cervical cancer who received primary radical radiotherapy had PET/CT imaging prior to starting treatment. This exceeds the 95% QPI target for the third consecutive year. All units met the 95% QPI target however it should be noted that numbers are low and this can have a greater effect on proportions. Comparison across years should also be made with caution. Figures for NHS FV have been restricted due to having a denominator of less than five.

### 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 care<sup>1</sup>.

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

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



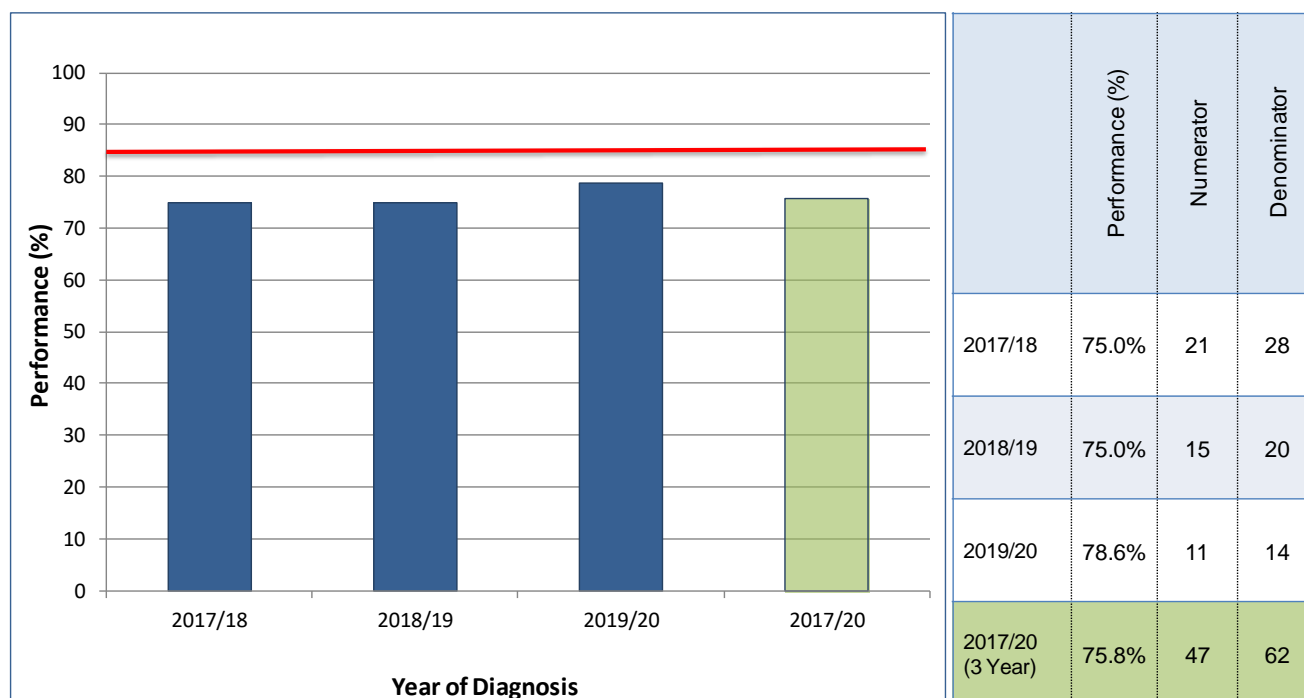
Overall in the WoS 100% of patients diagnosed with cervical cancer were discussed at MDT prior to definitive treatment achieving the 95% QPI target.

#### 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 therapy<sup>1</sup>.

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

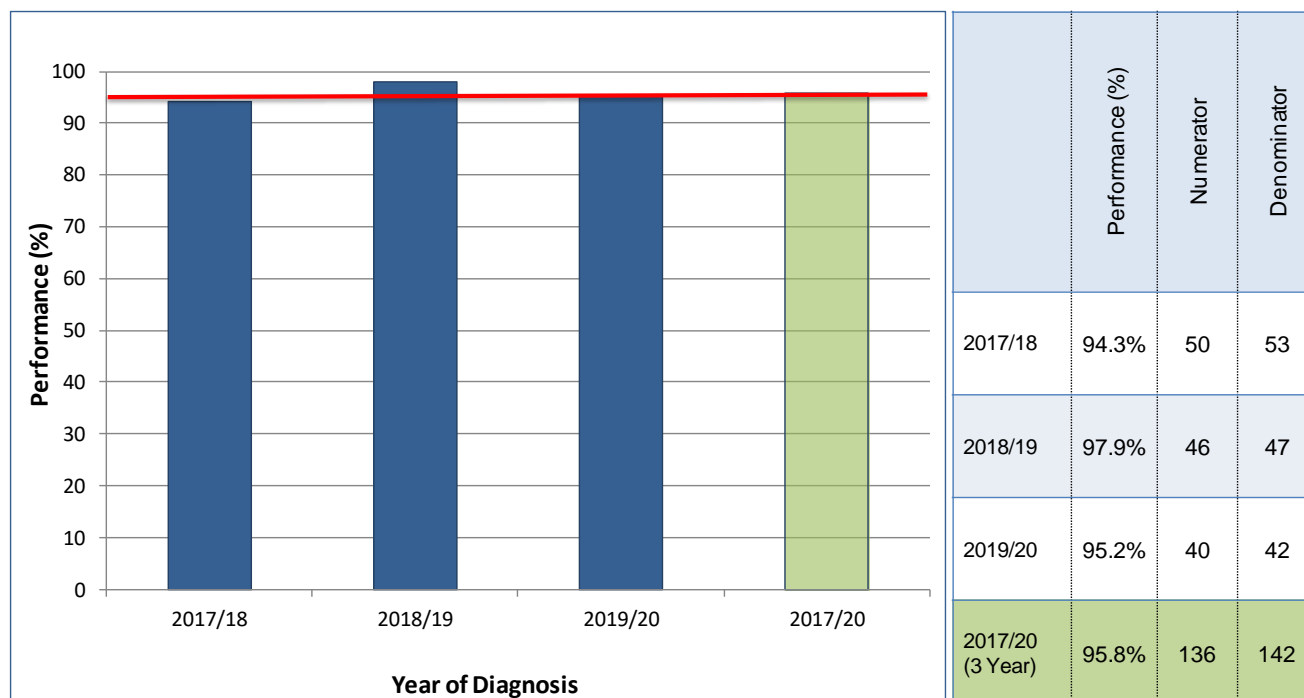
At a regional level, data shows that 11 of 14 patients with stage IB1 cervical cancer underwent radical hysterectomy resulting in a performance of 78.6% against the 85% target. At unit level four of the six units achieved the target. Boards reviewed cases not meeting the QPI criteria and noted that in some cases using the more up to date FIGO staging the patients would not fall into the QPI denominator. It is anticipated that FIGO 2018 staging will be introduced during the formal review process.

## 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 patients<sup>1</sup>. QPI 5 is analysed by location of surgery rather than location of diagnosis.

<b>Title:</b>	Patients with surgically treated cervical cancer should have clear resection
<b>Numerator:</b>	All patients with cervical cancer who undergo surgery where surgical margins are clear of tumour.
<b>Denominator:</b>	All patients with cervical cancer who undergo surgery.
<b>Exclusions:</b>	Patients who decline surgery. Patients who undergo fertility conserving treatment. Patients enrolled into surgical trials.
<b>Target:</b>	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 6, 95.2% of patients with cervical cancer had surgical margins clear of tumour following hysterectomy, which meets the 95% QPI target.

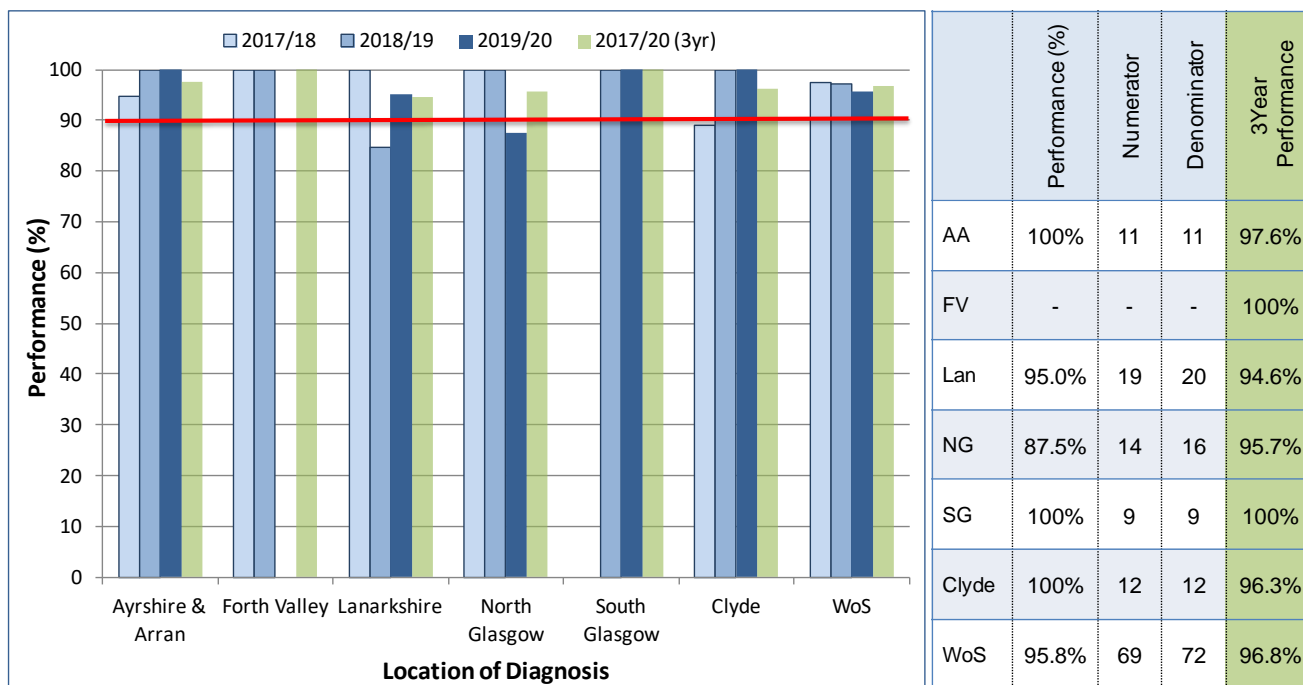
NHSGGC commented that the cases not meeting the target were reviewed and were incidental findings and appropriately managed pre-operatively.

### 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 days<sup>1</sup>.

<b>Title:</b>	Treatment time for patients with cervical cancer undergoing radical radiotherapy should be no more than 56 days.
<b>Numerator:</b>	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.
<b>Denominator:</b>	All patients with cervical cancer undergoing radical radiotherapy (external beam or brachytherapy).
<b>Exclusions:</b>	No exclusions.
<b>Target:</b>	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.



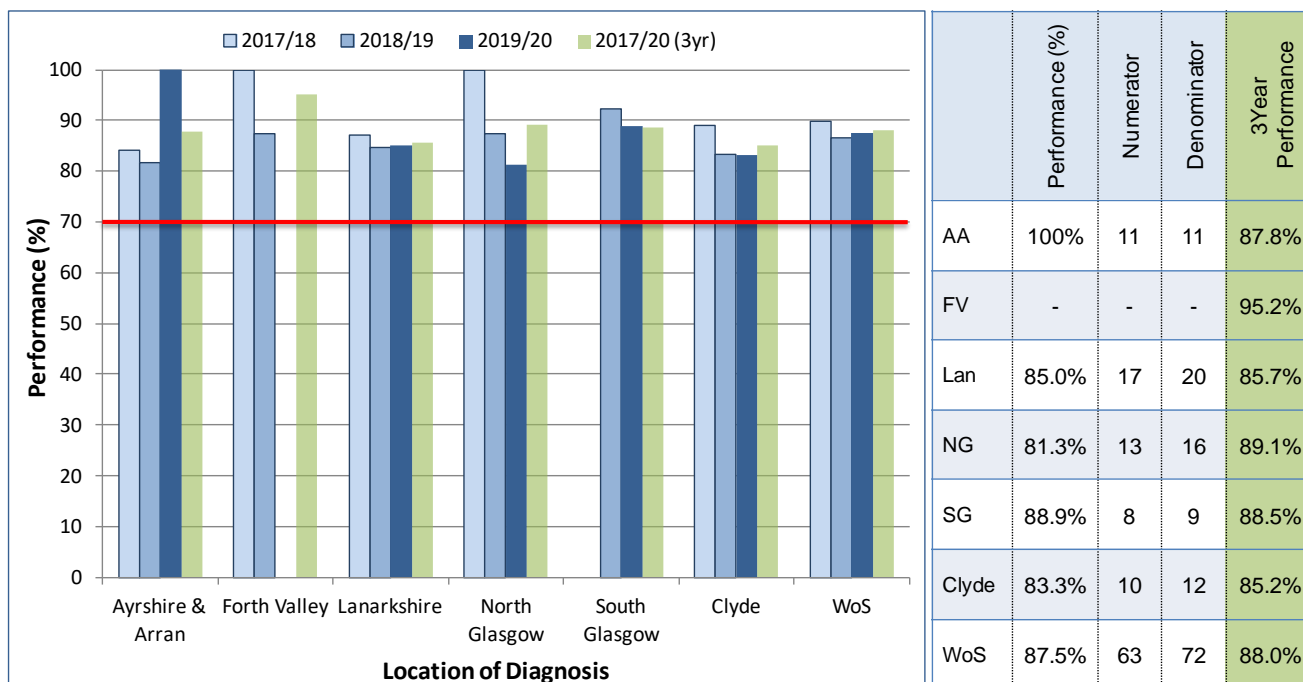
Five of the six units exceeded the 90% target set for QPI 6 resulting in an overall WoS performance of 95.8%. North Glasgow were just below target with 87.9%, however this represented two cases that had an overall treatment time of 58 and 59 days.

## 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 treatment<sup>1</sup>.

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

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



Performance across the WoS was 87.5% against the 70% target with 63 of 72 patients diagnosed with cervical cancer undergoing radical radiotherapy receiving concurrent chemotherapy. All units met the target with performance ranging from 81.3% in North Glasgow to 100% in NHS AA and NHS FV. Data is restricted for NHS FV due to small numbers.

## Clinical Trial Access

Clinical trials are necessary to demonstrate the efficacy of new therapies and other interventions. Furthermore, evidence suggests improved patient outcomes when hospitals are actively recruiting patients into clinical trials<sup>1</sup>. Data definitions and measurability criteria to accompany the Clinical Trial QPI are available from the HIS website<sup>1</sup>.

The clinical trials QPI is measured utilising Scottish Cancer Research Network (SCRN) data and ISD incidence data, as is the methodology currently utilised by the Chief Scientist Office (CSO) and National Cancer Research Institute (NCRI). Utilising SCRN data allows for comparison with CSO published data and ensures capture of all clinical trials recruitment, not solely first line treatment trials, as contained in the clinical audit data. Given that a significant proportion of clinical trials are for relapsed disease this is felt to be particularly important in driving quality improvement. This methodology utilises incidence as a proxy for all patients with cancer. This may slightly over, or underestimate, performance levels, however this is an established approach currently utilised by NHS Scotland<sup>1</sup>.

<b>QPI Title:</b>	All patients should be considered for participation in available clinical trials/research studies wherever eligible.
<b>Numerator:</b>	Number of patients diagnosed with endometrial or cervical cancer consented for a clinical trial/research study.
<b>Denominator:</b>	All patients with diagnosed with endometrial or cervical cancer.
<b>Exclusions:</b>	No exclusions.
<b>Target:</b>	15%

Table 1: Proportion of patients diagnosed with endometrial or cervical who are consented\* for a clinical trial / research study in 2019.

NHS Board of Residence	Consented - QPI Target 15%			Recruited		
	N	D	%	N	D	%
Ayrshire & Arran	0	90	0.0%	0	90	0.0%
Forth Valley	1	66	1.5%	1	66	1.5%
GGC	5	268	1.9%	4	268	1.5%
Lanarkshire	2	112	1.8%	0	112	0.0%
WoS	8	536	1.5%	6	536	1.1%

Overall for patients in WoS diagnosed with cervical or endometrial cancer, 8 patients consented for a clinical trial/research study resulting in a WoS performance of 1.5% against the 15% target. The target was not met by any of the NHS Boards.

## 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

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

## References

1. Information Services Division. Endometrial & Cervical Cancer: Data Definitions, Measurability and Data Validations [Accessed on: 8<sup>th</sup> June 2021]. Available at: <http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/>
2. Information Services Division. Cancer in Scotland, June 2004 (updated July2020) [Accessed on: 8<sup>th</sup> June 2021]. Available at: <http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Statistics/>
3. Information Services Division, Cancer Statistics, Summary statistics for female genital organ cancers. [Accessed on: 8<sup>th</sup> June 2021]. 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 2019 to 30 September 2020																																																		
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 19 May 2021																																																		
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>(01/10/2019-30/09/20) Audit</th> <th>Cancer Reg 2015-19</th> <th>Case Ascertainment</th> </tr> </thead> <tbody> <tr> <td>Ayrshire &amp; Arran</td> <td>74</td> <td>68</td> <td>108.8%</td> </tr> <tr> <td>GGC</td> <td>159</td> <td>187</td> <td>85.0%</td> </tr> <tr> <td>Forth Valley</td> <td>29</td> <td>45</td> <td>64.4%</td> </tr> <tr> <td>Lanarkshire</td> <td>83</td> <td>77</td> <td>107.8%</td> </tr> <tr> <td>WoS Total</td> <td>345</td> <td>377</td> <td>91.5%</td> </tr> </tbody> </table> <p>Cervical Cancer</p> <table border="1"> <thead> <tr> <th>Health Board of diagnosis</th> <th>(01/10/2019-30/09/20) Audit</th> <th>Cancer Reg 2015-19</th> <th>Case Ascertainment</th> </tr> </thead> <tbody> <tr> <td>Ayrshire &amp; Arran</td> <td>23</td> <td>26</td> <td>88.5%</td> </tr> <tr> <td>GGC</td> <td>68</td> <td>84</td> <td>81.0%</td> </tr> <tr> <td>Forth Valley</td> <td>12</td> <td>22</td> <td>54.5%</td> </tr> <tr> <td>Lanarkshire</td> <td>41</td> <td>41</td> <td>100%</td> </tr> <tr> <td>WoS Total</td> <td>144</td> <td>173</td> <td>83.2%</td> </tr> </tbody> </table>			Health Board of diagnosis	(01/10/2019-30/09/20) Audit	Cancer Reg 2015-19	Case Ascertainment	Ayrshire & Arran	74	68	108.8%	GGC	159	187	85.0%	Forth Valley	29	45	64.4%	Lanarkshire	83	77	107.8%	WoS Total	345	377	91.5%	Health Board of diagnosis	(01/10/2019-30/09/20) Audit	Cancer Reg 2015-19	Case Ascertainment	Ayrshire & Arran	23	26	88.5%	GGC	68	84	81.0%	Forth Valley	12	22	54.5%	Lanarkshire	41	41	100%	WoS Total	144	173	83.2%
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## Appendix 2: Cancer Audit Timeline

