

National Gynae-
Oncology Registry

2024 Annual Report

Epithelial Ovarian, Tubal & Peritoneal Cancer
Non-Epithelial Ovarian Cancer
Cervical Cancer



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Abbreviations

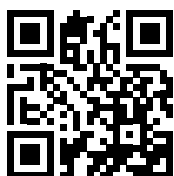
ASGO	Australian Society of Gynaecologic Oncologists	IQR	Interquartile range
ANZGOG	Australia New Zealand Gynaecological Oncology Group	MDM	Multidisciplinary team meeting
BMI	Body Mass Index	MRFF	Medical Research Future Fund
BRCA	Breast cancer gene 1 and 2 (BRCA1, BRCA2)	MRI	Magnetic resonance imaging
BSO	Bilateral salpingo-oophorectomy	NATA	National Association of Testing Authorities
CQI	Clinical quality indicator	NGOR	National Gynae–Oncology Registry
CQR	Clinical quality registry	NMA	National Mutual Acceptance
CT	Computerised tomography	NOS	Not otherwise specified
CT CAP	CT scan of the chest, abdomen and pelvis	OCA	Ovarian Cancer Australia
EBRT	External beam radiotherapy	OCRF	Ovarian Cancer Research Foundation
ECOG	Eastern Cooperative Oncology Group	OTP	Ovarian, tubal and peritoneal
ESGO	European Society of Gynaecological Oncology	PARPi	Poly (ADP–ribose) polymerase inhibitor
FIGO	International Federation of Gynecology and Obstetrics	PET	Positron emission tomography
HRD	Homologous recombination deficiency	PREM	Patient–reported experience measure
HPV	Human papillomavirus	PROM	Patient–reported outcome measure
ICCR	International Collaboration on Cancer Reporting	RCPA	Royal College of Pathologists of Australasia
		SLN	Sentinel lymph node

Executive Summary

The National Gynae–Oncology Registry (NGOR) is a clinical quality registry (CQR) that measures and monitors the quality of care provided to patients newly diagnosed with gynaecological cancer in Australia. Since its inception in 2017, the NGOR has continued to advance national reporting on the standard of care for patients diagnosed with ovarian, tubal, and peritoneal cancer. Recent Medical Research Future Fund (MRFF) funding has enabled the establishment of the NGOR’s Cervical Cancer Module. This report marks the first presentation of clinical quality outcomes for patients diagnosed with cervical cancer in Australia.

Data included in this report are from the NGOR’s Epithelial Ovarian, Tubal and Peritoneal (OTP) Cancer Module, Non–Epithelial Ovarian Cancer Module, and Cervical Cancer Module. Outcomes presented for epithelial OTP cancer **(Section Ia of this report)** and cervical cancer **(Section II of this report)** are from patients diagnosed between **1 January 2024 and 31 December 2024**. Outcomes reported for non–epithelial ovarian cancer are from patients diagnosed between **1 January 2017 and 31 December 2024 (Section Ib of this report)**.

Most outcomes reported are based on clinical quality indicators (CQIs) reflecting optimal patient care. Data presented in funnel plots have been risk–adjusted where appropriate, according to specific risk variables (age at diagnosis, FIGO stage, and/or comorbidities).



For more information about
the NGOR please visit:
<https://ngor.org.au/>



Key Findings

Section Ia- Epithelial OTP Cancer Module

Reporting period: 1 January 2024 to 31 December 2024

Patients



753

Number of eligible patients included



65 years

Median age at diagnosis

At Diagnosis

High grade serous

Most common morphology

FIGO Stage III

Most common FIGO stage at diagnosis

Ovary/ovaries

Most common tumour site

Treatment and Management



95.2 %

of patients were presented at a multidisciplinary team meeting (MDM)



41.9 %

of patients with advanced disease had primary debulking surgery



35.0 %

of patients with advanced disease had interval debulking surgery



82.0 %

of patients receiving first-line chemotherapy received a platinum and taxane doublet



59.5 %

of patients who had stage IV cancer, or were sub-optimally debulked, received first-line chemotherapy (platinum and taxane doublet) and bevacizumab

Surgical Adverse Events



4.3 %

of patients who had surgery experienced an unplanned intraoperative event



4.7 %

of patients who had surgery experienced a serious postoperative adverse event

Targeted Therapy



78.9 %

of patients underwent genetic testing before completing first-line chemotherapy



75.7 %

of patients with advanced high-grade epithelial OTP cancer received homologous recombination deficiency (HRD) testing



76.7 %

of patients with advanced high-grade epithelial OTP cancer who were HRD-positive received poly (ADP-ribose) polymerase inhibitor (PARPi) treatment



46.8 %

of patients with relevant germline or somatic mutations of BRCA1 or BRCA2 genes commenced maintenance PARPi treatment within eight weeks of ceasing chemotherapy

Section Ib- Non-Epithelial Ovarian Cancer Module

Reporting period: 1 January 2017 to 31 December 2024

Patients



310

Number of eligible patients included



48 years

Median age at diagnosis

At Diagnosis

Adult Granulosa Cell Tumour

Most common morphology

FIGO Stage I

Most common FIGO stage at diagnosis

Treatment and Management



95.2 %

of patients were presented at an MDM



72.2 %

of patients with stage II–IV cancer received first-line non-surgical treatment

Surgical Adverse Events



3.9 %

of patients who had surgery experienced at least one unplanned intraoperative event



0.8 %

of patients who had surgery experienced at least one serious postoperative event

Section II- Cervical Cancer Module

Reporting period: 1 January 2024 to 31 December 2024

Patients



439

Number of eligible patients included



48 years

Median age at diagnosis

At Diagnosis

Squamous Cell Carcinoma

Most common morphology

FIGO Stage I

Most common FIGO stage at diagnosis

Treatment and Management



97.9 %

of patients were presented at an MDM



54.5 %

of patients with stage IB cancer underwent radical hysterectomy and lymphadenectomy



85.0 %

of patients had negative surgical margins after simple or radical hysterectomy or trachelectomy



87.1 %

of patients who underwent definitive radiotherapy also received concurrent platinum-based chemotherapy



84.5 %

of patients who underwent definitive radiotherapy completed treatment within 56 days of commencement

Surgical Adverse Events



1.1 %

of patients who had surgery experienced at least one unplanned intraoperative event



2.7 %

of patients who had surgery experienced at least one serious postoperative event

The National Gynae-Oncology Registry

The NGOR is a multi-modular CQR designed to identify and monitor variation in gynaecological cancer care across hospitals in Australia (Figure 1).

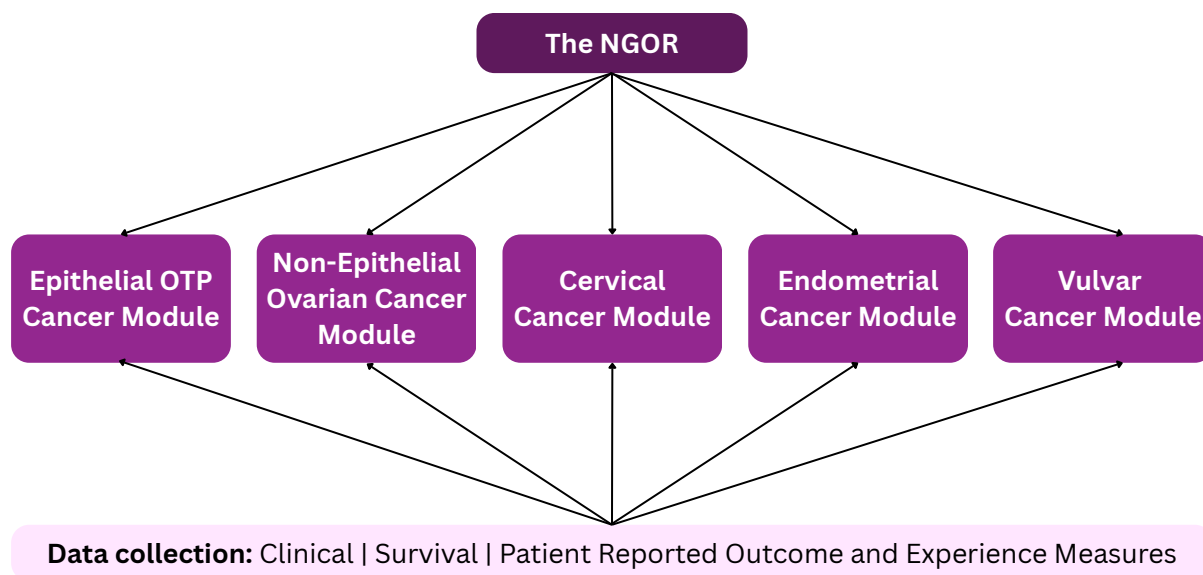


Figure 1: An overview of the National Gynae-Oncology Registry.

Each NGOR module has its own dynamic set of CQIs, tailored to monitor quality of care according to national clinical guidelines (e.g. the Cancer Council's Optimal Care Pathways), published empirical research, and expert consensus. More information about the NGOR, including its governance and reporting structure can be found at: <https://ngor.org.au/>

Acknowledgements and Statement of Funding

The NGOR acknowledges the Traditional Custodians of the lands on which we work and collaborate with registry partners. We also pay our respects to their Elders past and present.

We sincerely thank everyone who has contributed to the NGOR, including our patients participating in the registry, partnering hospitals and their clinical staff, data collectors, and other hospital personnel who significantly contributed towards the registry's success.

We also thank our organisational collaborators, Ovarian Cancer Australia (OCA), the Australian Society of Gynaecologic Oncologists (ASGO), the Australia New Zealand Gynaecological Oncology Group (ANZGOG), and the Ovarian Cancer Research Foundation (OCRF) for their ongoing support of the registry.

Finally, we would like to thank our Steering Committee, Working Groups, Reference Groups, and Stakeholder Group for generously volunteering their time in support of the NGOR.

Funding Statement

The NGOR's Cervical Cancer Module is funded by an Australian Government MRFF Research Data Infrastructure Grant (awarded in 2023). The Epithelial OTP Cancer and Non-Epithelial Ovarian Cancer Modules are funded by an MRFF Ovarian Cancer Research Grant (targeted call, awarded in 2020).

The NGOR has also received funding from ASGO, OCA, The CASS Foundation, the Bertalli family, Epworth Medical Foundation, and other industry collaborators, to support registry activities. Clinical quality indicator development and preliminary setup of the Endometrial, Cervical, and Vulvar Cancer Modules was funded by an Audrey Voss Gynaecological Cancer Research Grant, awarded by the Epworth Medical Foundation.



Registry Overview

Information relating to the collection and interpretation of data included in this report can be found in Appendix A.

Clinical Quality Indicators (CQIs)

Our CQIs (Appendix B–F) reflect best practice in clinical care according to national clinical guidelines, high-quality published research, and expert consensus (e.g. from clinicians, researchers, and patient advocates). NGOR CQIs are dynamic; they are regularly reviewed and updated to ensure the currency of measures used for optimal care.

This report presents CQI data for three NGOR modules:

- Epithelial OTP Cancer (17 CQIs): Covering diagnosis and cancer staging, surgery and related adverse events, chemotherapy, genetic testing, targeted therapies, and participation in clinical research.
- Non-Epithelial Ovarian Cancer (5 CQIs): Covering diagnosis and cancer staging, surgical adverse events, and non-surgical treatment.
- Cervical Cancer (13 CQIs): Covering diagnosis and cancer staging, surgical and related adverse events, radiotherapy, and chemotherapy.

Limitations and Considerations

There are inherent limitations to the interpretation of registry data. Whilst CQRs are useful for capturing population-level data, not all eligible patients are represented. For example, patients treated at non-participating hospitals, those who have chosen to opt-out of the NGOR, or whose data could not be collected within the reporting timeframe due to resource constraints are not included. Information collected by registries may also be limited by the data available in patients’ medical records. Analysis of CQI outcomes over time may be impacted by procedural changes to improve data quality and reporting. In addition, missing data attributed to patients recruited retrospectively to the registry may also impact this analysis.

Patient Reported Outcome and Experience Measures (PROM and PREM)

The routine collection of PROM and PREM data represents a key milestone for the NGOR. Our pilot study evaluating the feasibility and acceptability of integrating a PROM (the European Organisation for the Research and Treatment of Cancer Quality of Life Questionnaire and Ovarian Cancer Module^{1, 2}) and a PREM (Australian Hospital Patient Experience Question Set^{3, 4}) within the Epithelial OTP Cancer Module concluded in 2024. Patients diagnosed with epithelial OTP cancer at six Australian hospitals were recruited to the study. Response rates are outlined in Table 1. Feasibility and acceptability data from the pilot are being prepared for publication.

Preliminary analysis of PROM responses, showed that on average, overall quality of life (scored out of 100, where higher scores indicate better quality of life) was highly consistent across all timepoints: 63 at baseline (n=78), 67 six months post-diagnosis (n=53), and 67 12 months post-diagnosis (n=10). These scores are comparable with average population norms for Australian women (70 out of 100)⁵.

Analysis of PREM data showed that most patients believed the overall quality of treatment and care they received was ‘very good’. Overall, 87% of patients provided this rating at baseline (n=77), 83% at six months (n=52), and 100% at 12 months (n=10).

Whilst these outcomes are encouraging, module-wide implementation of our selected PROM and PREM will facilitate analysis in a larger and more representative patient cohort. Full rollout across the Epithelial OTP and Non-Epithelial Ovarian Cancer Modules is anticipated by the end of 2025.

Table 1: Response rates from the Epithelial OTP Cancer Module PROM and PREM pilot study.

	Baseline	6-Month Follow Up	12-Month Follow Up
Number of surveys sent	172	106	29
Number of surveys completed (%)	77 (45%)	53 (50%)	9 (31%)

Registry Ethics and Governance

The NGOR operates under a National Mutual Acceptance (NMA) ethically approved Operating and Governance Framework (HREC/17/MonH/198). The Registry’s governance structure is consistent with the Australian Commission on Safety and Quality in Health Care’s Australian Framework for National Clinical Quality Registries (2024)⁶. Data collection for all patients commenced after relevant approvals were obtained. Information relating to the collection and interpretation of data included in this report can be found in Appendix A.

Patient Cohort

Patients identified for inclusion in the NGOR are screened by participating hospitals against the criteria below. Eligible patients are then sent information about the Registry, including an explanation of what inclusion involves, and what information is collected. They are given two weeks to ‘opt-out’ of the Registry before data collection can commence. Patients who pass away before recruitment are still considered eligible for data collection through a waiver of consent.

The patient eligibility criteria for our Epithelial OTP Cancer, Non-Epithelial Ovarian Cancer, and Cervical Cancer Modules are listed below.

Inclusion Criteria

- Presented at an NGOR partnering hospital with a confirmed new diagnosis of:
 - A primary malignant epithelial tumour of the ovaries, fallopian tubes, or peritoneum (or ‘female genital tract’ more broadly) (Epithelial OTP Cancer Module).
 - A primary malignant or suspected malignant non-epithelial tumour of the ovaries (Non-Epithelial OTP Cancer Module)^{*,†}.
 - A primary malignant tumour of the cervix (Cervical Cancer Module).
- Are aged ≥18 years at the time of diagnosis.

Exclusion Criteria

- Not informed of their cancer diagnosis at the time of eligibility screening.

^{*} Formerly known as the Rare Ovarian Tumours Module. Patients previously included in the module who had a rare epithelial OTP cancer were reallocated to the Epithelial OTP Cancer Module.

[†] This module may also contain some non-epithelial tumours of the fallopian tubes, peritoneum, and adnexa.



Patient Opt-Outs

Data collection can commence if a patient has not contacted the registry to opt-out within two weeks of the recruitment materials being sent. Two opt-out options are available:

1. **Full opt-out** – Patient is removed from the NGOR. In these cases, their name, date of birth, medical record number, date of diagnosis, and primary treating hospital are retained unless deletion of all data is requested. Retention of these details ensures the patient is not re-recruited via another hospital in the future.
2. **Partial opt-out** – Patient is excluded from any follow-up contact (e.g. PROM/PREM data collection, associated research studies, etc). This option permits the collection and inclusion of their personal and health data in the registry.

Registry Governance

The NGOR is led by a multidisciplinary Steering Committee that provides clinical oversight and strategic guidance. The Steering Committee includes members who represent the following specialities and/or expertise:

- Gynaecological oncology
- Medical oncology
- Radiation oncology
- Palliative care
- Consumers/patient advocacy
- Data management and statistical analysis
- Registry science
- Behavioural science
- Cancer pathology
- Nursing

The NGOR is supported by five clinical Working Groups for: (1) epithelial OTP cancer, (2) non-epithelial ovarian cancer, (3) cervical cancer, (4) endometrial cancer, and (5) vulvar cancer. The primary purpose of the Working Groups is to provide expert consensus on clinical quality indicators reflective of optimal care, and clinical interpretation and review of data, outcomes, and publications. Executive Committees have also been established for our Epithelial OTP, Non-Epithelial Ovarian and Cervical Cancer Modules. These Committees manage funding, deliverables, and timelines related to their specific Modules. Once funding is secured, Executive Committees will be established for our Endometrial and Vulvar Cancer Modules. Finally, a PROM Reference Group provides expert guidance and input on the collection of these data across all NGOR Modules. More information about the NGOR's governance structure can be found on our website: <https://ngor.org.au/>



Registry Engagement

By the end of 2024, the NGOR had secured approvals with 32 health services across Australia. Further expansion efforts to partner with other health services nationally are ongoing. A list of all partnering health services and hospitals is provided in Table 2.

Table 2: Approved health services and hospitals partnering with the NGOR during the reporting period.

Location	Health Service	Hospital
Australian Capital Territory	Healthscope	National Capital Private Hospital
New South Wales	Adventist HealthCare Limited	Sydney Adventist Hospital
	Chris O'Brien Lifehouse	Chris O'Brien Lifehouse
	Healthe Care	Lingard Private Hospital
	Healthscope	Newcastle Private Hospital
		Northern Beaches Hospital
		Prince of Wales Private Hospital
	Hunter New England Local Health District	John Hunter Hospital
	Northern Sydney Local Health District	Royal North Shore Hospital
	Ramsay Health	Lake Macquarie Private Hospital
		North Shore Private Hospital
		St George Private Hospital
		Westmead Private Hospital
South Eastern Sydney Local Health District	South Eastern Sydney Local Health District	Royal Hospital for Women
		St George Hospital
	South Western Sydney Local Health District	Liverpool Hospital
	St Vincent's Health Australia	Mater Hospital North Sydney
	Western Sydney Local Health District	Westmead Hospital
South Australia	Calvary Health Care	Calvary North Adelaide Hospital
	Southern Adelaide Local Health Network	Flinders Medical Centre
	Adelaide Community Healthcare Alliance	Flinders Private Hospital
	Central Adelaide Local Health Network	Royal Adelaide Hospital
Tasmania	Tasmanian Department of Health	Royal Hobart Hospital
	Healthscope	Hobart Private Hospital
Victoria	Cabrini Health	Cabrini Hospital Brighton
		Cabrini Hospital Malvern
	Eastern Health	Eastern Health Angliss
		Eastern Health Box Hill
		Eastern Health Maroondah

Victoria	Epworth HealthCare	Epworth Eastern Hospital
		Epworth Freemasons Hospital
		Epworth Geelong Hospital
		Epworth Richmond Hospital
	Grampians Health	Grampians Health Ballarat
	Latrobe Regional Health	Latrobe Regional Hospital
	Mercy Health	Mercy Hospital for Women
		Werribee Mercy Hospital
	Monash Health	Casey Hospital
		Dandenong Hospital
		Monash Medical Centre
		Moorabbin Hospital
	Peninsula Health	Frankston Hospital
		Rosebud Hospital
Western Australia	Peter MacCallum Cancer Centre	Peter MacCallum Cancer Centre (Bendigo)
		Peter MacCallum Cancer Centre (Box Hill)
		Peter MacCallum Cancer Centre (East Melbourne)
		Peter MacCallum Cancer Centre (Melbourne)
		Peter MacCallum Cancer Centre (Moorabbin)
		Peter MacCallum Cancer Centre (Sunshine)
	Ramsay Health	Frances Perry House
		Warringal Private Hospital
	Royal Women's Hospital	Royal Women's Hospital
	Western Health	Footscray Hospital
		Sunshine Hospital
Queensland	Ramsay Health	Hollywood Private Hospital
	North Metropolitan Health Service	King Edward Memorial Hospital
	St John of God Health Care	St John of God Subiaco Hospital
		St John of God Murdoch Hospital
	Mater Health	Mater Hospital Brisbane
		Mater Private Hospital Brisbane
	Ramsay Health	Pindara Private Hospital
	Metro North Hospital and Health Service	Royal Brisbane and Women's Hospital
	UnitingCare	The Wesley Hospital

The number of hospitals which contributed data for this report: Epithelial OTP Cancer Module (n=34), Non-Epithelial Ovarian Cancer Module (n=31), and Cervical Cancer Module (n=30).

Section I: Ovarian, Tubal, and Peritoneal Cancer Outcomes

Annual Recruitment of Ovarian, Tubal and Peritoneal Cancer Patients

In 2024, 890 patients were deemed eligible for inclusion in the NGOR’s Epithelial OTP Cancer Module. Of these patients, three were uncontactable, and 23 (2.64%) had fully opted-out of the Registry. In total, 864 patients were recruited to the Module within the year (Figure 2).

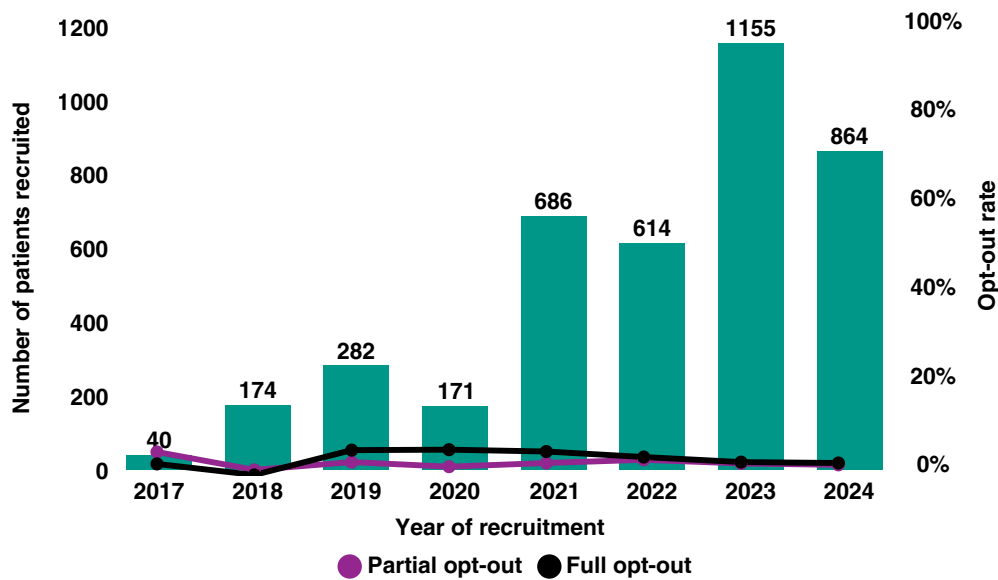


Figure 2: Number of patients recruited and opt-out rates for the Epithelial OTP Cancer Module between 2017 and 2024. Year of recruitment may not always align with year of diagnosis. Higher case numbers in some years may reflect retrospective recruitment.

Sixty-five patients were eligible for inclusion in the NGOR’s Non-Epithelial Ovarian Cancer Module in 2024. No patients contacted the Registry to opt-out (Figure 3).

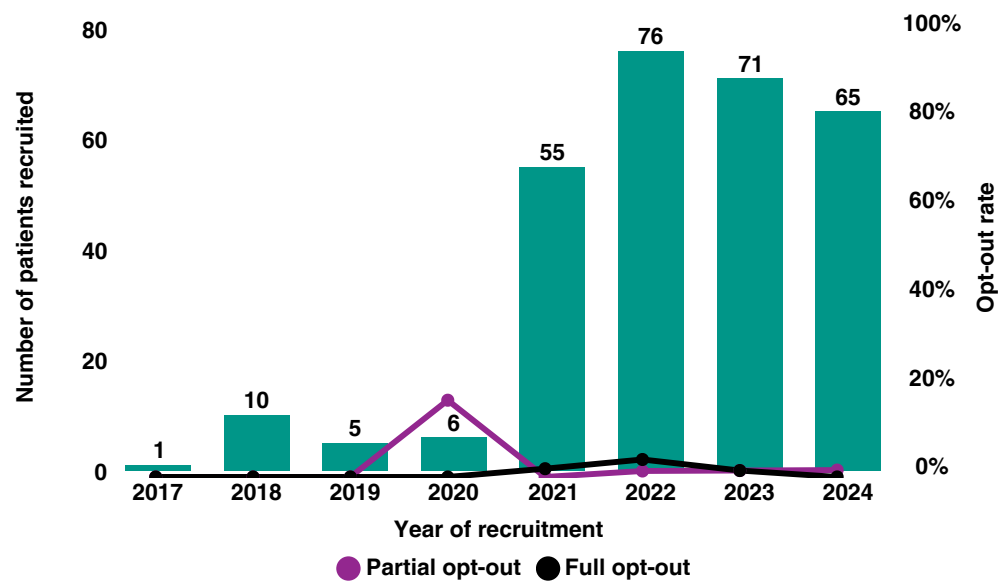


Figure 3: Patient recruitment and opt-out rates for the Non-Epithelial Ovarian Cancer Module between 2017 and 2024. Year of recruitment may not always align with year of diagnosis. Higher case numbers in some years may reflect retrospective recruitment.

Number of Ovarian, Tubal and Peritoneal Cancer Patients Included in the NGOR by Diagnosis Year

Overall, 804 patients newly diagnosed with OTP cancer in 2024 were included in the NGOR (Figure 4). Specifically, 753 patients diagnosed with epithelial OTP cancer and 51 patients diagnosed with non-epithelial ovarian cancer (Table 3).

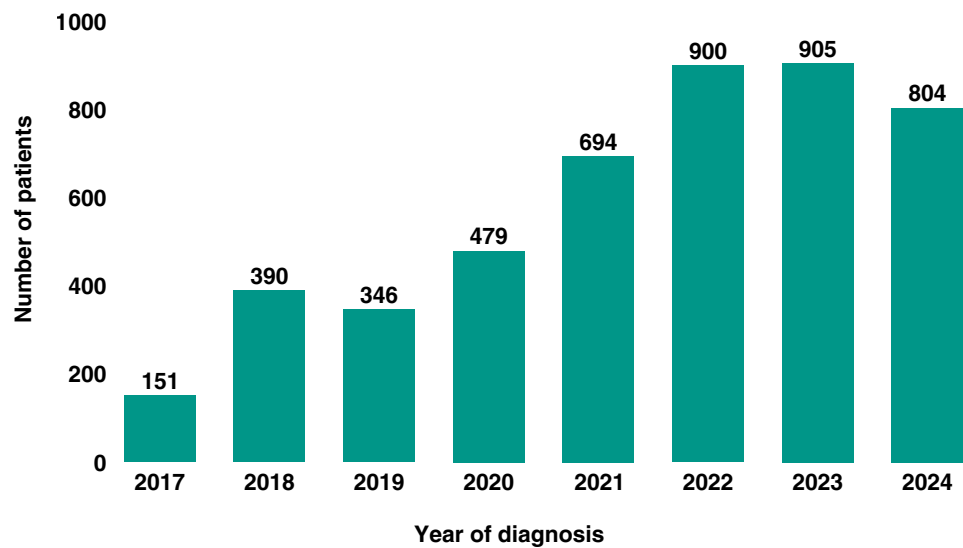


Figure 4: Number of OTP cancer patients included in the NGOR according to diagnosis year. Patients who had opted-out or were uncontactable for recruitment by the Registry were excluded from this count. Higher case numbers in some years may reflect retrospective recruitment.

Table 3: Breakdown of OTP cancer patients included in the NGOR’s Epithelial and Non-Epithelial Ovarian Cancer Modules according to diagnosis year.

Year of diagnosis	Number of epithelial OTP cancer patients	Number of non-epithelial ovarian cancer patients
2017	139	12
2018	365	25
2019	317	29
2020	449	30
2021	645	49
2022	843	57
2023	848	57
2024	753	51
Total	4359	310

Patients who had opted-out or were uncontactable for recruitment by the Registry were excluded from this count.

National case ascertainment of patients newly diagnosed with OTP cancer during the reporting period was unable to be determined as comparative data were unavailable by state and territory cancer registries.

Ovarian, Tubal and Peritoneal Cancer Survival Outcomes

Assessing patient survival is essential for understanding quality of care. This marks the first presentation of survival data for patients included in our Epithelial OTP Cancer and Non-Epithelial Ovarian Cancer Modules (Figure 5). In total, 4,362 patients with epithelial OTP cancer and 310 patients with non-epithelial ovarian cancer were included in this analysis. Mortality data were obtained from state and territory Births, Deaths and Marriages Registries. Cause of death could not be confirmed. Five-year overall survival rates were 52% for patients diagnosed with epithelial OTP cancer, and 94% for patients diagnosed with non-epithelial ovarian cancer (Table 4).

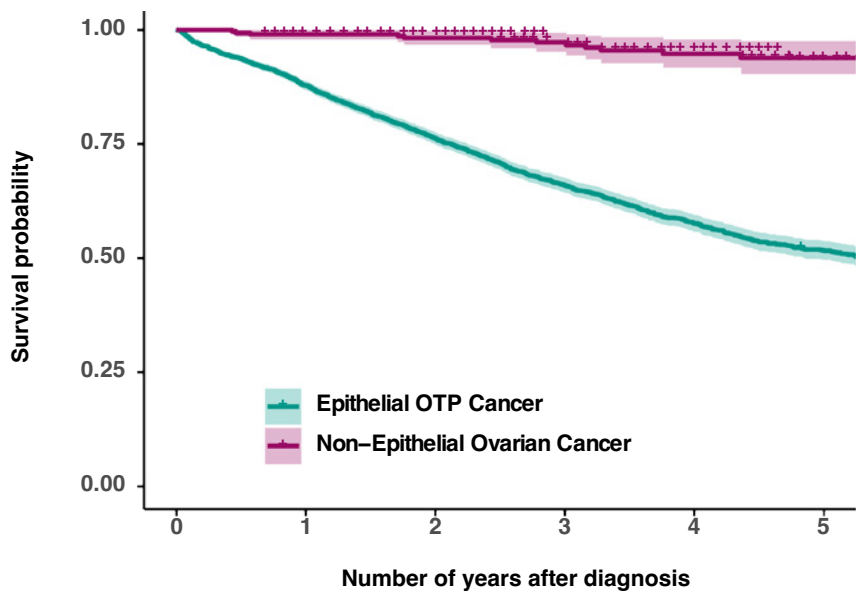


Figure 5: Five-year survival analysis for patients newly diagnosed with epithelial OTP and non-epithelial ovarian cancers between 2017 and 2024.

Table 4: Survival outcomes for patients from the NGOR’s Epithelial OTP and Non-epithelial Ovarian Cancer Modules (one, three and five years).

Timepoints	Epithelial OTP Cancer Percentage Survived (95% CI)	Non-Epithelial Ovarian Cancer Percentage Survived (95% CI)
One-year survival	88% (87%, 89%)	99% (98%, 100%)
Three-year survival	66% (64%, 68%)	97% (95%, 99%)
Five-year survival	52% (50%, 54%)	94% (90%, 98%)

Section Ia: Outcomes from the Epithelial Ovarian, Tubal, and Peritoneal Cancer Module

Epithelial OTP Cancer Descriptive Statistics

In total, 753 patients newly diagnosed with epithelial OTP cancer in 2024 are included in this analysis. Patient data were collected from 34 partnering hospitals. The information provided below describes the characteristics of the patient cohort.

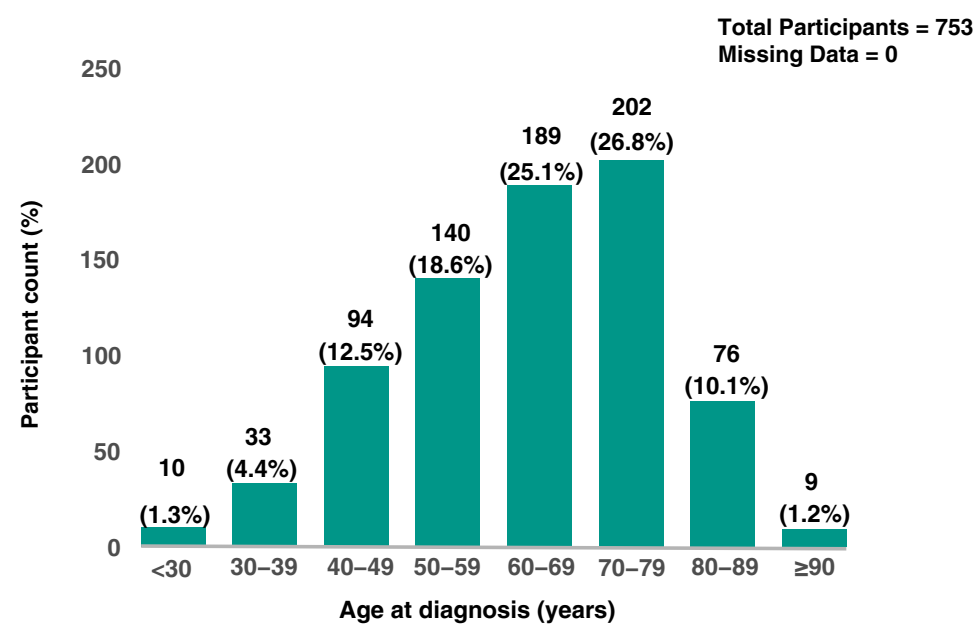


Figure 6: Age at diagnosis. Age at diagnosis for patients newly diagnosed with epithelial OTP cancer in 2024. Median patient age was 65 years.

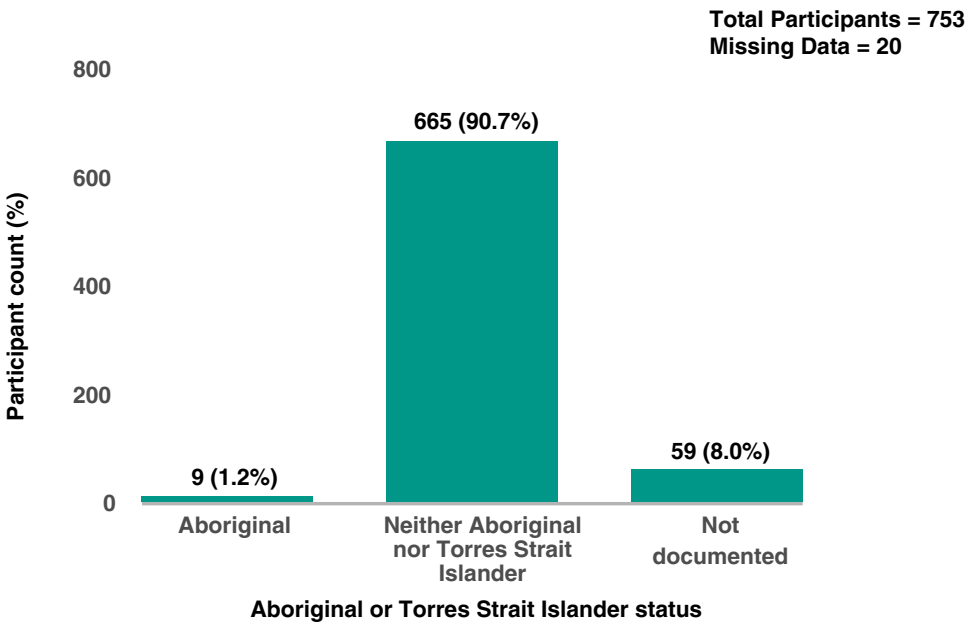


Figure 7: Aboriginal or Torres Strait Islander status. Aboriginal or Torres Strait Islander status for patients newly diagnosed with epithelial OTP cancer in 2024. No patients were recorded as being of Torres Strait Islander descent.

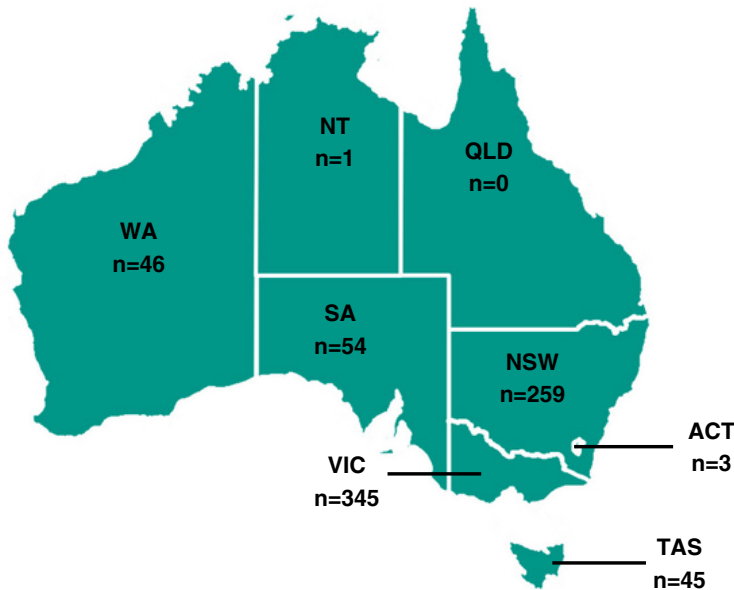


Figure 8: Residential distribution. Australian residential location for patients newly diagnosed with epithelial OTP cancer in 2024. Patients residing in NT received treatment for their cancer at a participating hospital in another state or territory as no data were collected from an NT hospital during the reporting period.

Table 5: Country of birth. Country of birth for patients newly diagnosed with epithelial OTP cancer in 2024.

Country of birth	N (%)
Australia	407 (55.5%)
United Kingdom	45 (6.1%)
China	21 (2.9%)
Philippines	14 (1.9%)
India	13 (1.8%)
New Zealand	12 (1.6%)
Vietnam	12 (1.6%)
South Africa	10 (1.4%)
Other	156 (21.3%)
Not documented	43 (5.9%)

Countries with fewer than ten patients are included in the ‘other’ category. Missing data = 20.

Table 6: Primary language. Primary language for patients newly diagnosed with epithelial OTP cancer in 2024.

Primary language	N (%)
English	662 (89.8%)
Mandarin	10 (1.4%)
Vietnamese	10 (1.4%)
Other	33 (4.5%)
Not documented	22 (3.0%)

Languages with fewer than ten patients are included in the ‘other’ category. Missing data = 16.

Table 7: Body Mass Index (BMI) scores. BMI scores for patients newly diagnosed with epithelial OTP cancer in 2024.

Body Mass Index (BMI) category	N (%)
Underweight	20 (2.7%)
Healthy weight	215 (29.3%)
Overweight	146 (19.9%)
Obese class 1 (Moderate)	88 (12.0%)
Obese class 2 (Severe)	60 (8.2%)
Obese class 3 (Very severe)	39 (5.3%)
Not documented	165 (22.5%)

BMI scores: <18.5= underweight; 18.5–24.99 = healthy weight; 25–29.99 = overweight; 30–34.99 = obese class 1; 35–39.99 = obese class 2; ≥40 = obese class 3. Missing data = 20.

Table 8: Physical functioning Eastern Cooperative Oncology Group (ECOG) scores. ECOG scores for patients newly diagnosed with epithelial OTP cancer in 2024.

Eastern Cooperative Oncology Group (ECOG) score	N (%)
ECOG 0	276 (36.7%)
ECOG 1	155 (20.6%)
ECOG 2	33 (4.4%)
ECOG 3	16 (2.1%)
ECOG 4	5 (0.7%)
Not documented	247 (32.8%)

Scores range from 0–5, with lower scores indicating greater physical health and functioning. Missing data = 21.

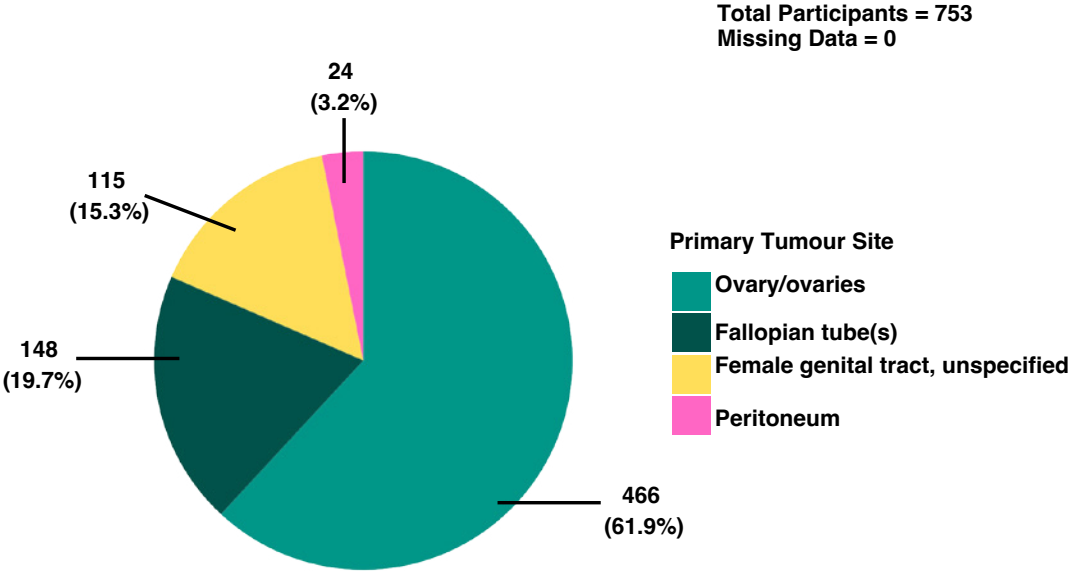


Figure 9: Primary tumour site. Primary tumour site for patients newly diagnosed with epithelial OTP cancer in 2024.

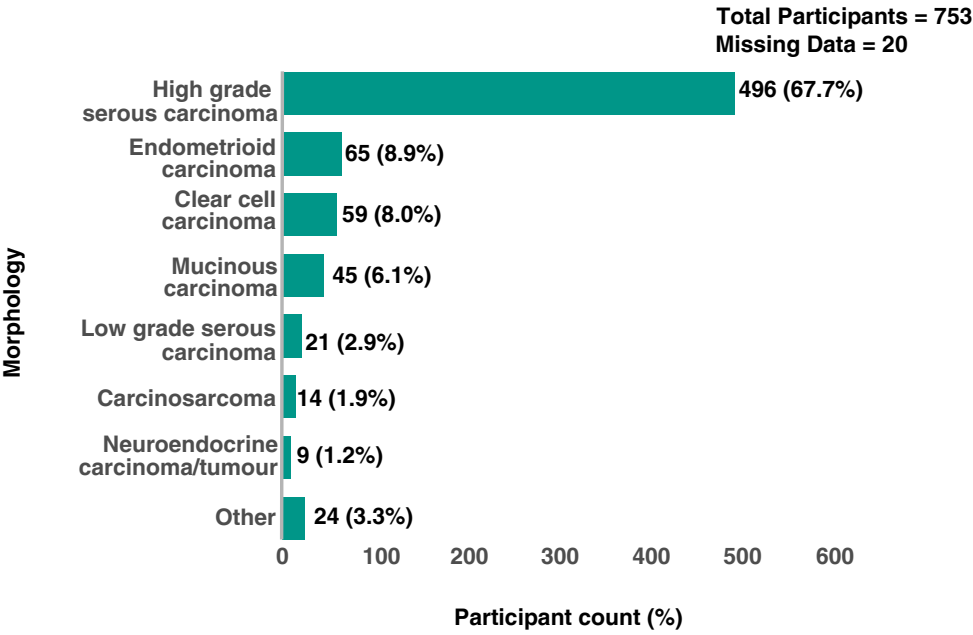


Figure 10: Cancer morphology. Cancer tissue histopathological type or classification for patients newly diagnosed with epithelial OTP cancer in 2024. All cases shown are malignant tumours. 'Neuroendocrine carcinoma/tumour' includes neuroendocrine tumour, grade 1 (carcinoid) (n=6), large cell neuroendocrine carcinoma (n=2), and small cell neuroendocrine carcinoma (n=1). 'Other' includes mixed cell carcinoma and small cell carcinoma of the ovary hypercalcaemic type.

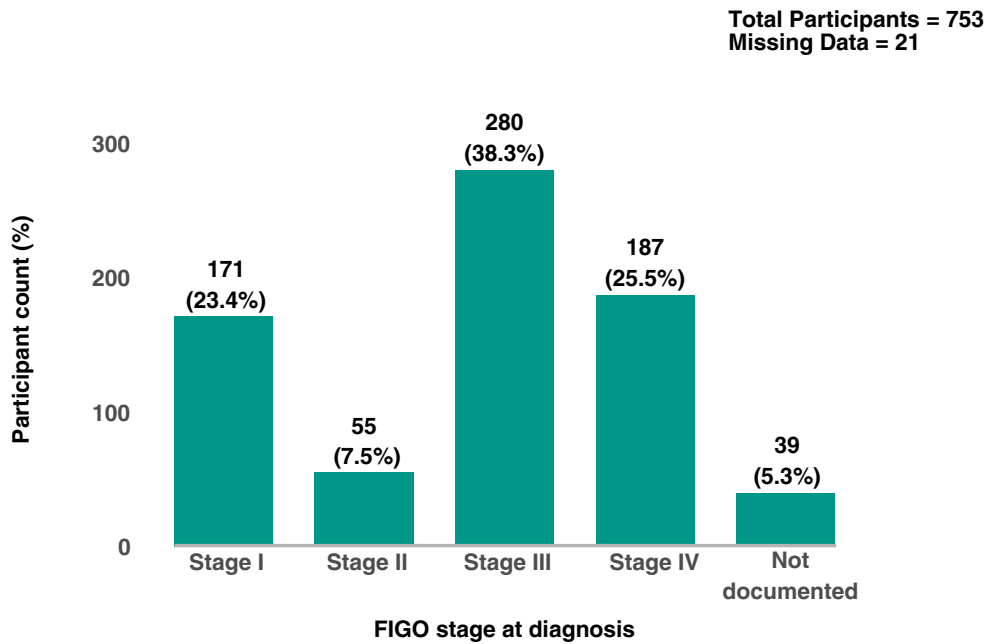


Figure 11: FIGO stage at diagnosis. Cancer stage at diagnosis for patients newly diagnosed with epithelial OTP cancer in 2024. Cancer staging is in accordance with FIGO guidelines, the most frequently used guidelines to stage gynaecological cancers. FIGO stage refers to the spread of the tumour. Higher FIGO stages indicate greater tumour spread.

Time Trends in the Use of Primary vs Interval Cytoreductive Surgery

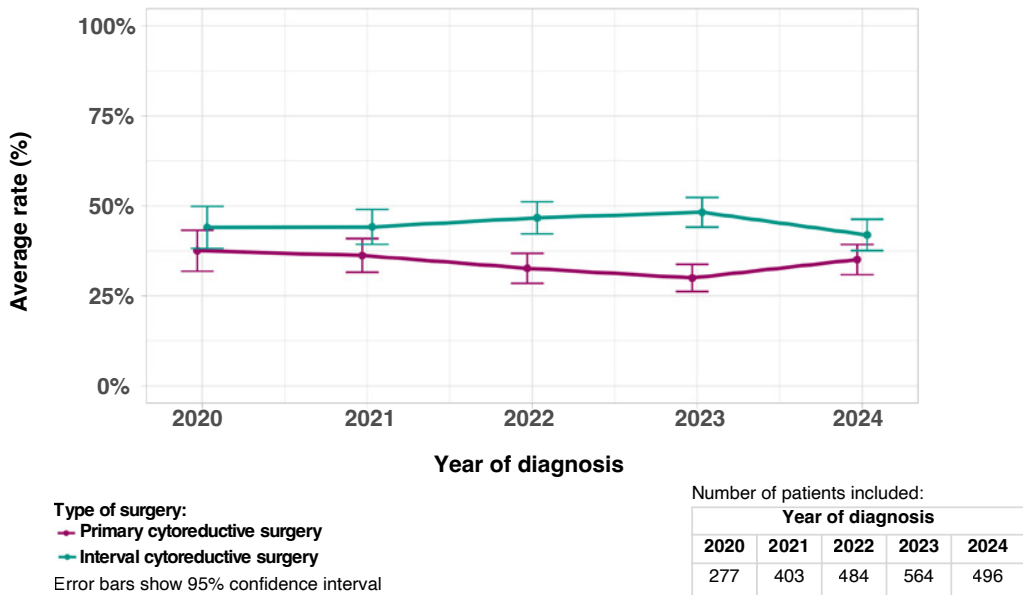


Figure 12: Proportion of patients with newly diagnosed advanced (stage IIB, III and IV) epithelial OTP cancer who underwent primary vs interval cytoreductive surgery between 2020 and 2024.

Time Trends in the Achievement of No Macroscopic Residual Cancer Following Primary vs Interval Cytoreductive Surgery

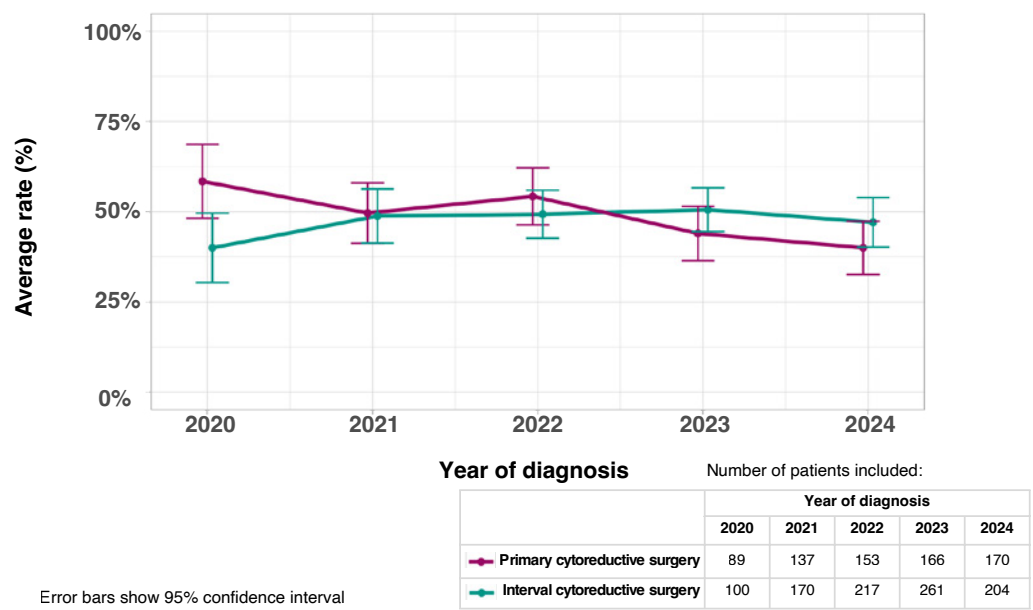


Figure 13: Proportion of patients with newly diagnosed advanced (stage IIB, III and IV) epithelial OTP cancer who underwent primary or interval cytoreductive surgery between 2020 and 2024, and had no macroscopic residual cancer following surgical treatment.

Comparing Optimal Care for Patients with Epithelial OTP Cancer

Quality of care for patients with newly diagnosed epithelial OTP cancer in 2024 was assessed against 17 CQIs covering diagnosis and staging, surgical treatment, chemotherapy, targeted treatments, and participation in clinical trials. Information about these CQIs is detailed in Appendix B.

Diagnosis and Staging

CQI 1: Proportion of patients with newly diagnosed epithelial OTP cancer who are presented at a multidisciplinary team meeting (MDM)

In total, 95.2% of patients with newly diagnosed epithelial OTP cancer were discussed at an MDM (Figure 14). Outliers on this funnel plot may represent incomplete documentation. Risk adjustment was not applicable for this CQI. Overall, average adherence to CQI 1 across hospitals has increased between 2020 (81.7%) and 2024 (95.2%) (Figure 15).

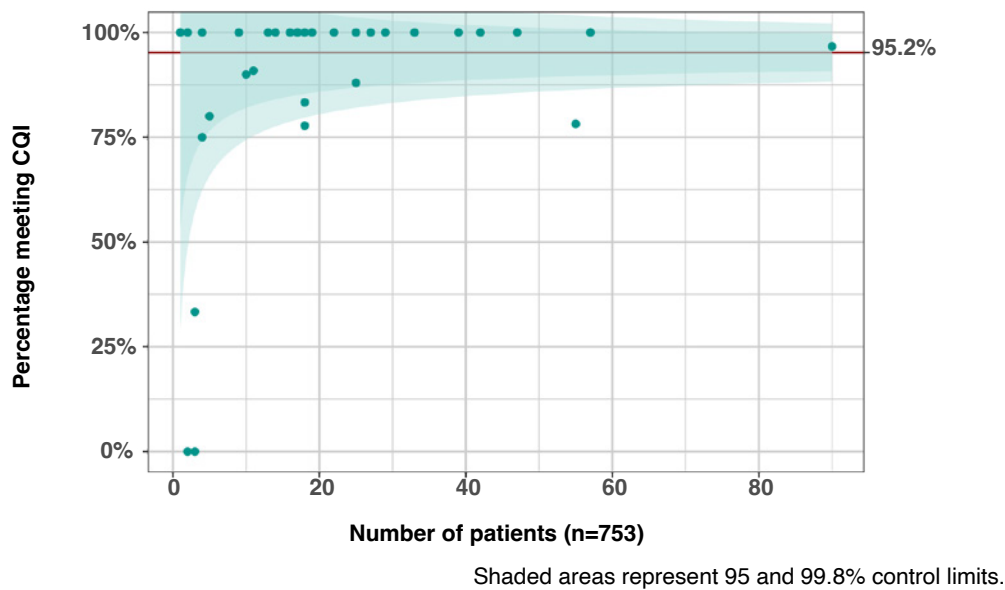


Figure 14: Epithelial OTP Cancer CQI 1. Proportion of patients with newly diagnosed epithelial OTP cancer who were discussed at a multidisciplinary team meeting. Risk adjustment was not applicable for this CQI. Twenty patients had missing data which was considered non-adherence to the CQI.

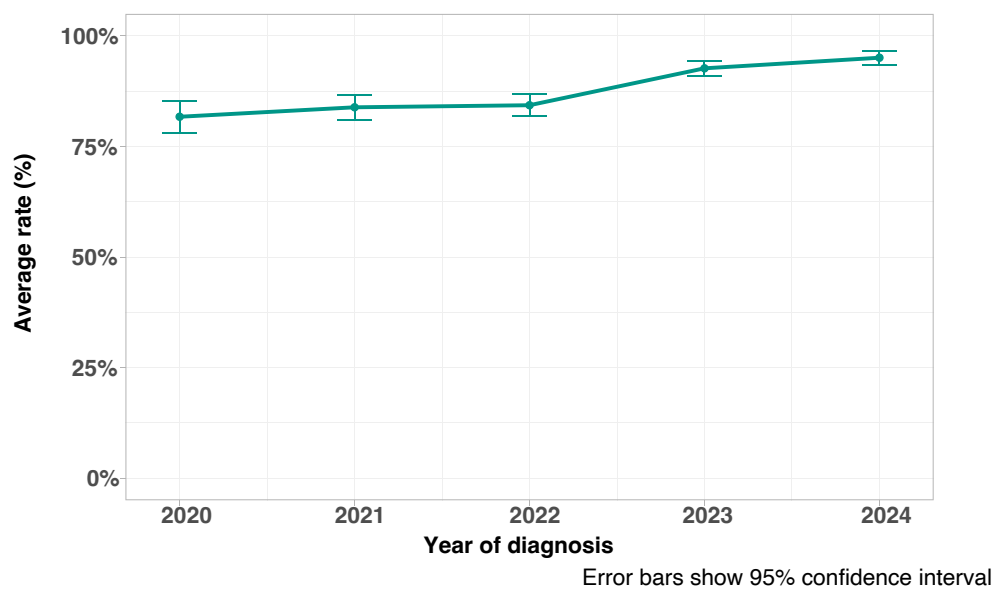


Figure 15: Average adherence to Epithelial OTP Cancer CQI 1 across all hospitals (2020–2024).

CQI 2: Proportion of patients with newly diagnosed epithelial OTP cancer who have any combination of CT/PET/ MRI imaging of their chest, abdomen and pelvis prior to commencing treatment

In total, 59.5% of patients with newly diagnosed epithelial OTP cancer had CT, PET or MRI imaging of their chest, abdomen and pelvis to stage their cancer prior to treatment (Figure 16). Hospitals with lower averages may have used other imaging modalities (e.g. ultrasounds) or have missing data. Risk adjustment was not applicable for this CQI. Overall, average adherence to CQI 2 across all hospitals has increased between 2020 (35.0%) and 2024 (59.5%) (Figure 17).

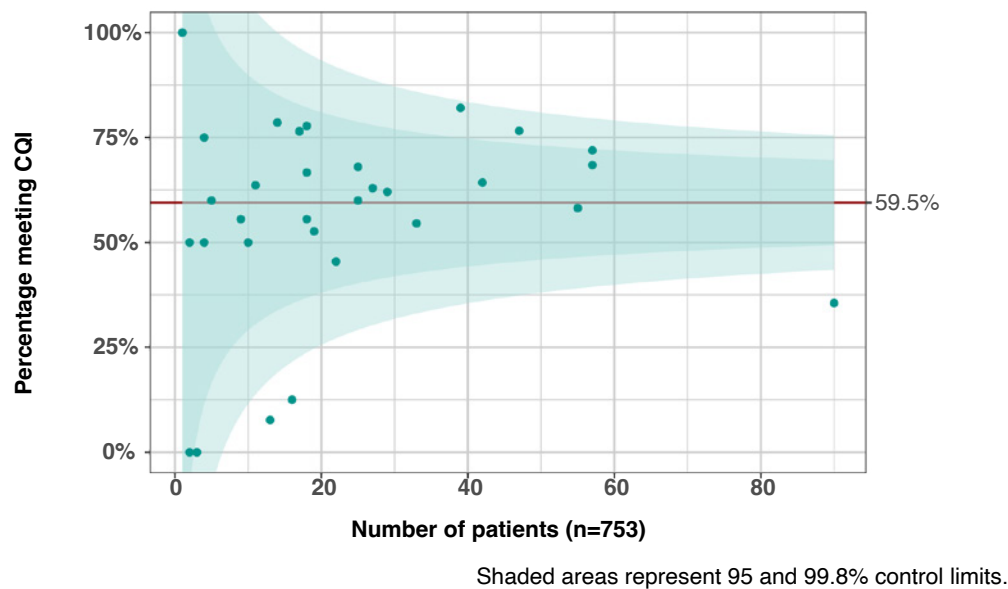


Figure 16: Epithelial OTP Cancer CQI 2. Proportion of patients newly diagnosed with epithelial OTP cancer who had CT, PET or MRI imaging of their chest, abdomen, and pelvis prior to commencing treatment. Risk adjustment was not applicable for this CQI. Forty-nine patients had missing data which was considered non-adherence to the CQI.

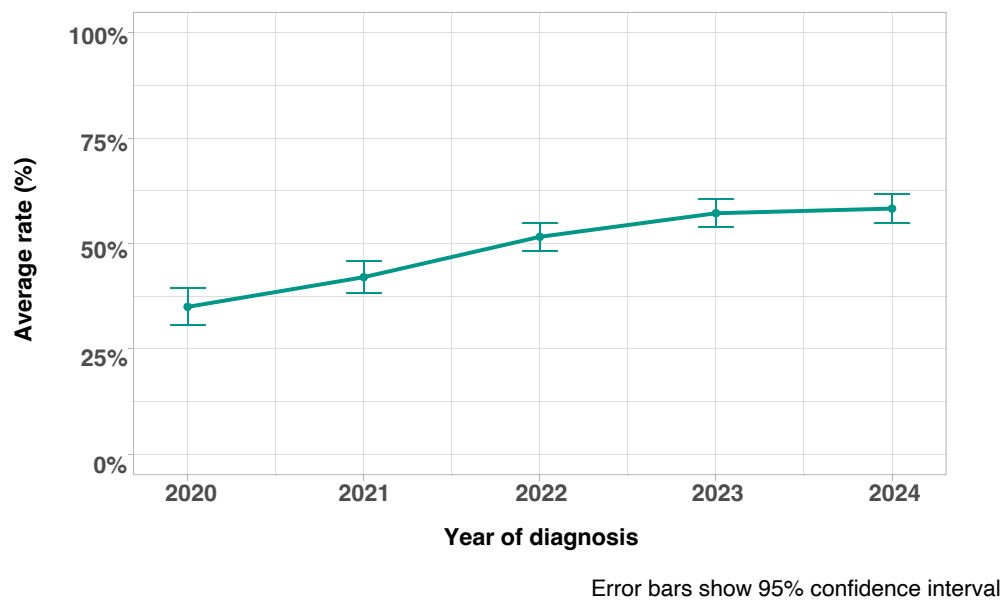


Figure 17: Average adherence to Epithelial OTP Cancer CQI 2 across all hospitals (2020–2024).

CQI 3: Proportion of patients with newly diagnosed epithelial OTP cancer who have histological or cytological confirmation of diagnosis prior to receiving first-line neoadjuvant chemotherapy.

In total, 98.1% of patients with newly diagnosed epithelial OTP cancer had their diagnosis confirmed via histology or cytology prior to commencing first-line neoadjuvant chemotherapy (Figure 18). Risk adjustment was not applicable for this CQI. Hospitals with low averages may have missing data. Overall, average adherence to CQI 3 across all hospitals has remained consistently high between 2020 (89.9%) and 2024 (98.1%) (Figure 19).

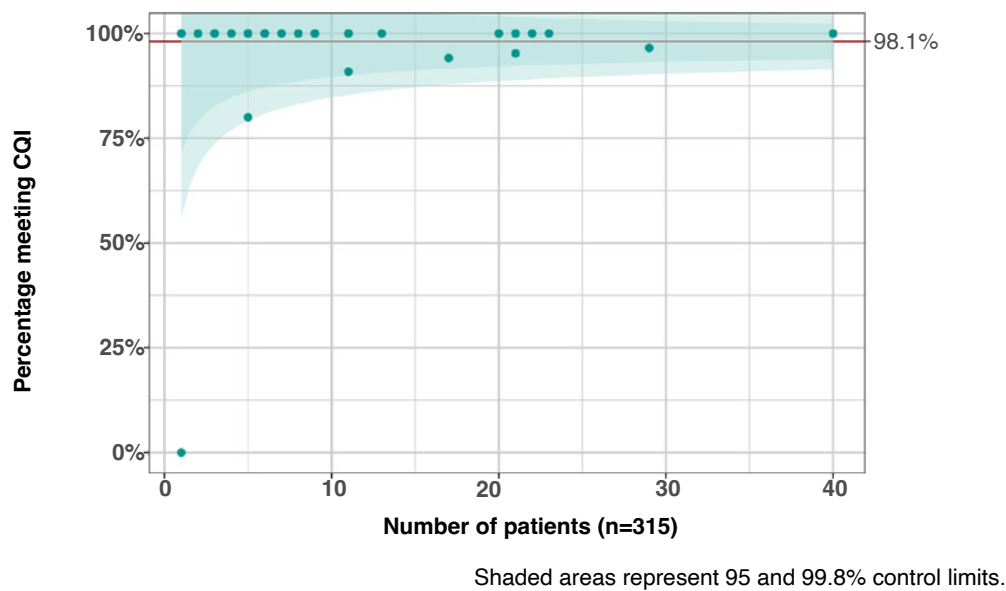


Figure 18: Epithelial OTP Cancer CQI 3. Proportion of patients with newly diagnosed epithelial OTP cancer who had their diagnosis confirmed by histology and/or cytology prior to receiving first-line neoadjuvant chemotherapy. Risk adjustment was not applicable for this CQI. One patient had missing data which was considered non-adherence to the CQI.

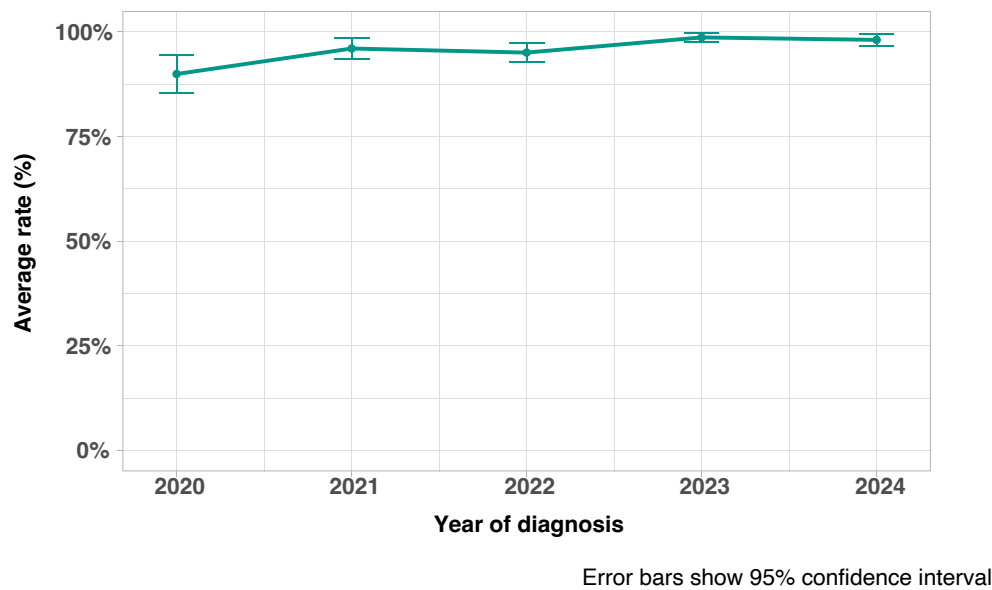


Figure 19: Average adherence to Epithelial OTP Cancer CQI 3 across all hospitals (2020–2024).

CQI 4: Proportion of patients with newly diagnosed, clinically apparent stage I or II epithelial OTP cancer who undergo surgical staging procedures

Overall, 219 patients newly diagnosed with stage I or II epithelial OTP cancer in 2024 underwent surgical staging. The most common procedures performed were omentum sampling (86.8%), bilateral salpingo-oophorectomy (BSO; 85.8%), and hysterectomy (83.6%). About 1 in 5 (21.5%) patients had pelvic lymphadenectomy, and 1 in 25 had para-aortic lymph-node sampling (Figure 20).

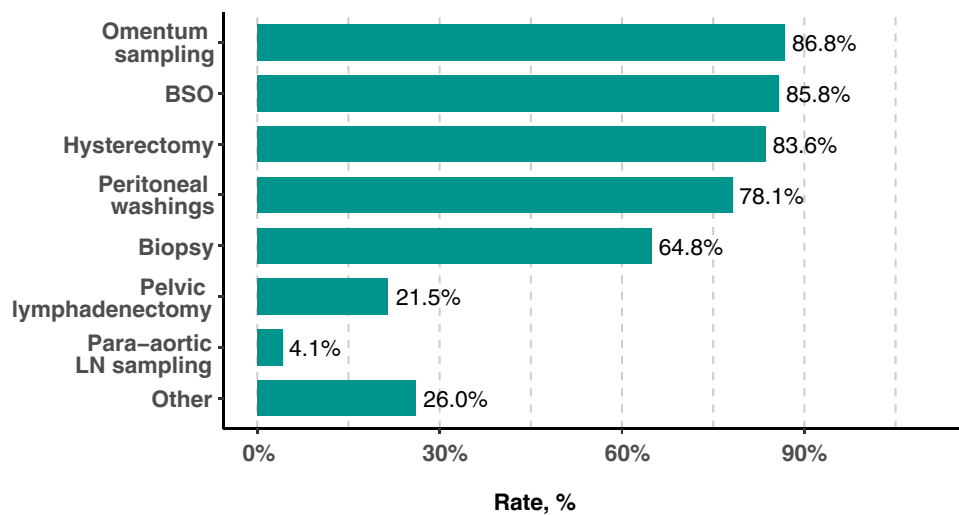


Figure 20: Epithelial OTP Cancer CQI 4. Proportion of patients with clinically apparent early stage (stage I or II) epithelial OTP cancer who underwent surgical staging procedures. ‘Other’ refers to various surgical procedures that are not considered standard for epithelial OTP cancer staging. These include adhesiolysis, bilateral ureterolysis, bladder peritonectomy, diaphragmatic resection, and bowel or rectum resection. LN = Lymph node; BSO = Bilateral salpingo-oophorectomy.

CQI 9: Proportion of patients with newly diagnosed epithelial OTP cancer whose pathology report is structured as per the RCPA and ICCR guidelines

In total, 701 (93.1%) epithelial OTP cancer patients were diagnosed via histopathology. Of these patients, 94.2% had a pathology report that was structured according to the RCPA and ICCR guidelines (Figure 21). Hospitals with low averages may have missing data. Risk adjustment was not applicable for this CQI. Overall, average adherence to CQI 9 across all hospitals has remained consistently high between 2020 (93.3%) and 2024 (94.2%) (Figure 22).

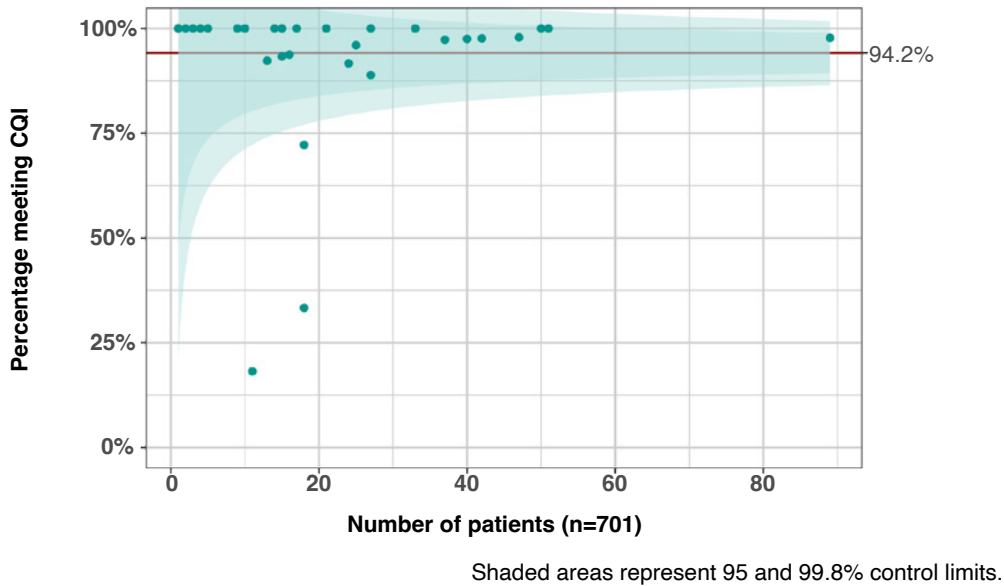


Figure 21: Epithelial OTP Cancer CQI 9. Proportion of patients with newly diagnosed epithelial OTP cancer whose pathology report is structured as per the RCPA and ICCR guidelines. Risk adjustment was not applicable for this CQI. Thirty-six patients had missing data which was considered non-adherence to the CQI.

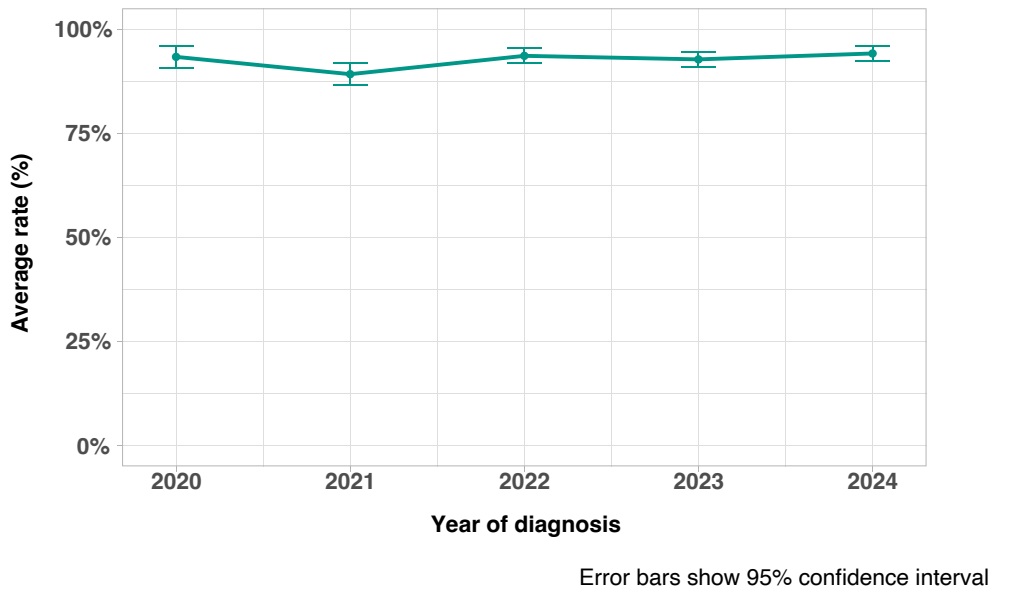


Figure 22: Average adherence to Epithelial OTP Cancer CQI 9 across all hospitals (2020–2024).

Surgical Treatment

CQI 5: Proportion of patients with newly diagnosed advanced (stage IIB, III and IV) epithelial OTP cancer who have (a) no macroscopic residual cancer or (b) ≤ 1 cm of macroscopic residual cancer following primary cytoreductive surgery

Overall, 170 patients newly diagnosed with advanced (stage IIB, III or IV) epithelial OTP cancer underwent primary cytoreductive surgery. Of these patients, 68 (40.0%) had no macroscopic residual cancer (Figure 23), and 35 (20.6%) had ≤ 1 cm macroscopic residual cancer after surgical treatment (Figure 24). These two outcomes should be interpreted together.

Achieving no residual cancer can depend on patients' age, cancer stage, and/or comorbidities. Of these factors, only comorbidity score significantly impacted the result for CQI 5a and was applied for risk adjustment. None of these risk factors significantly impacted the result for CQI 5b therefore no risk adjustment was applied to this outcome.

Overall, average achievement of CQI 5a across all hospitals has reduced between 2020 (58.4%) and 2024 (40.0%) (Figure 25). Time trend analysis of CQI 5b could not be performed as our definition of optimal debulking was updated in 2023 from <1 cm of residual cancer to ≤ 1 cm of residual cancer, in line with international sources^{7,8}. This analysis will be included in future reports.

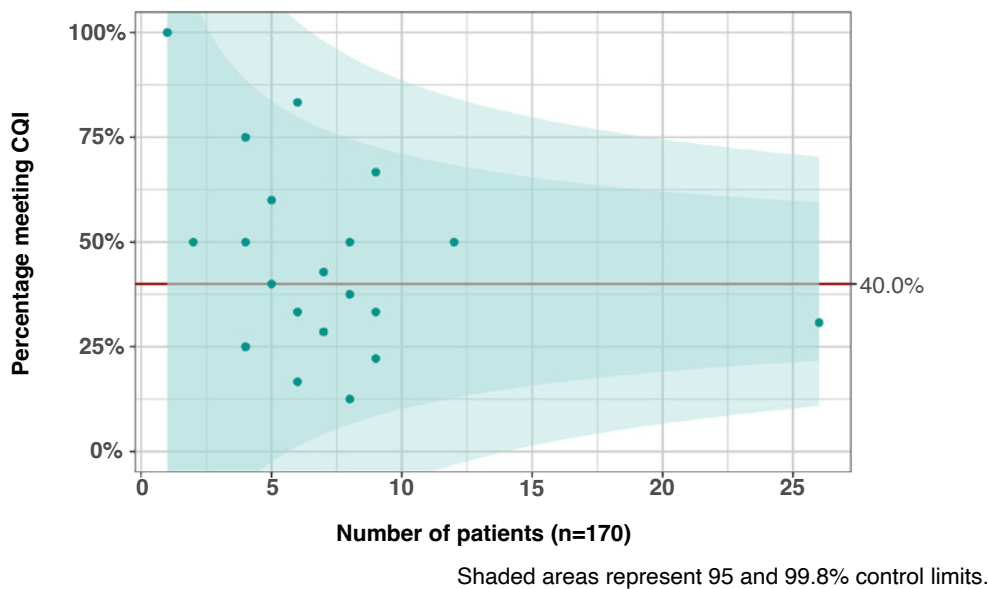


Figure 23: Epithelial OTP Cancer CQI 5a. Proportion of patients with advanced epithelial OTP cancer who underwent primary cytoreductive surgery and had no macroscopic residual cancer. Risk adjustment for comorbidity score was applied for this CQI. Thirty-six patients had missing data which was considered as though the CQI was not achieved.

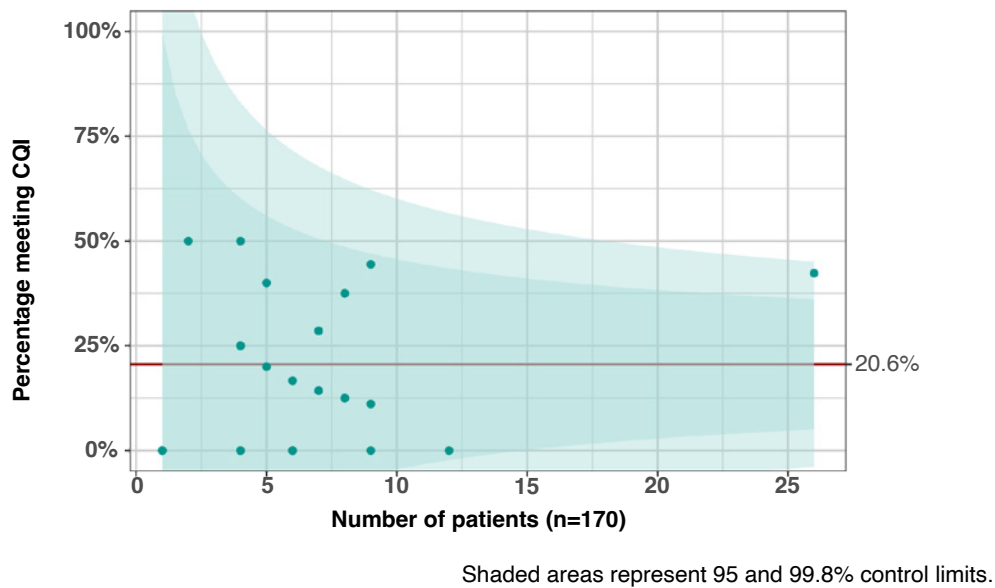


Figure 24: Epithelial OTP Cancer CQI 5b. Proportion of patients with advanced epithelial OTP cancer who underwent primary cytoreductive surgery and had macroscopic residual cancer of ≤ 1 cm. Patients who had no residual cancer are excluded from these results. No identified risk adjustment variables had a statistically significant impact on this CQI. Forty-seven patients had missing data which was considered as though the CQI was not achieved.

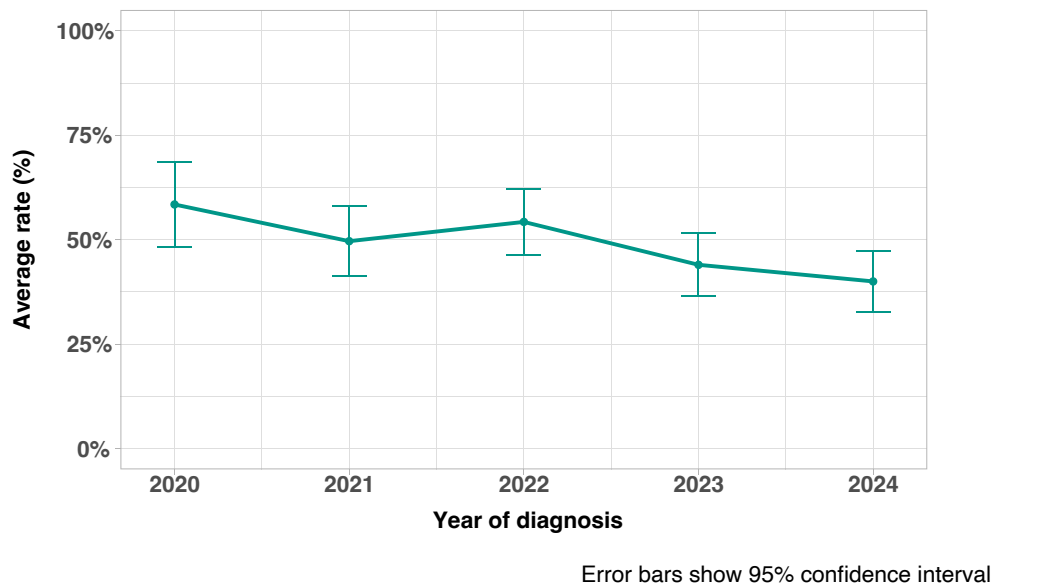


Figure 25: Average adherence to Epithelial OTP Cancer CQI 5a across all hospitals (2020–2024).

CQI 6: Proportion of patients with newly diagnosed advanced (stage IIB, III and IV) epithelial OTP cancer who have (a) no macroscopic residual cancer or (b) ≤ 1 cm of macroscopic residual cancer following interval cytoreductive surgery

Overall, 204 patients newly diagnosed with advanced (stage IIB, III or IV) epithelial OTP cancer underwent interval cytoreductive surgery. Of these patients, 96 (47.1%) had no macroscopic residual cancer (Figure 26). Fifty-nine (28.9%) had ≤ 1 cm of macroscopic residual cancer after surgical treatment (Figure 27). These two outcomes should be interpreted together.

Achieving no residual cancer can depend on patients’ age, cancer stage, and/or comorbidities. None of these risk factors significantly impacted the results for CQIs 6a and 6b therefore no risk adjustment was applied to these results.

Overall, average achievement of CQI 6a across all hospitals has increased slightly between 2020 (40.0%) and 2024 (47.1%) (Figure 28). Similar to CQI 5b, time trend analysis of CQI 6b could not be performed as our definition of optimal debulking was updated in 2023 from <1 cm of residual cancer to ≤ 1 cm of residual cancer, in line with international sources^{7,8}. This analysis will be included in future reports.

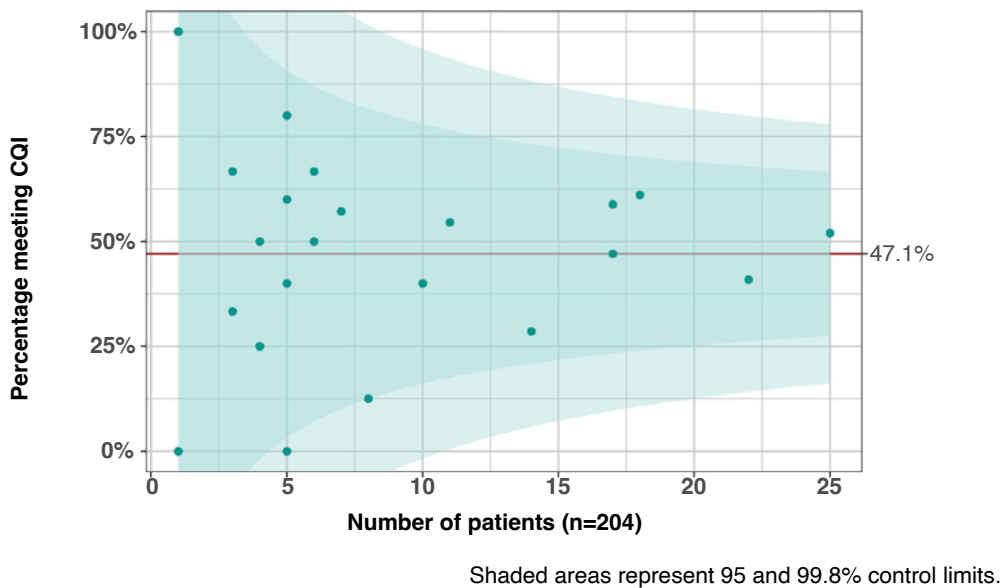


Figure 26: Epithelial OTP Cancer CQI 6a. Proportion of patients with advanced epithelial OTP cancer who underwent interval cytoreductive surgery and had no macroscopic residual cancer. No identified risk adjustment variables had a statistically significant impact on this CQI. Twenty-three patients had missing data which was considered as though the CQI was not achieved.

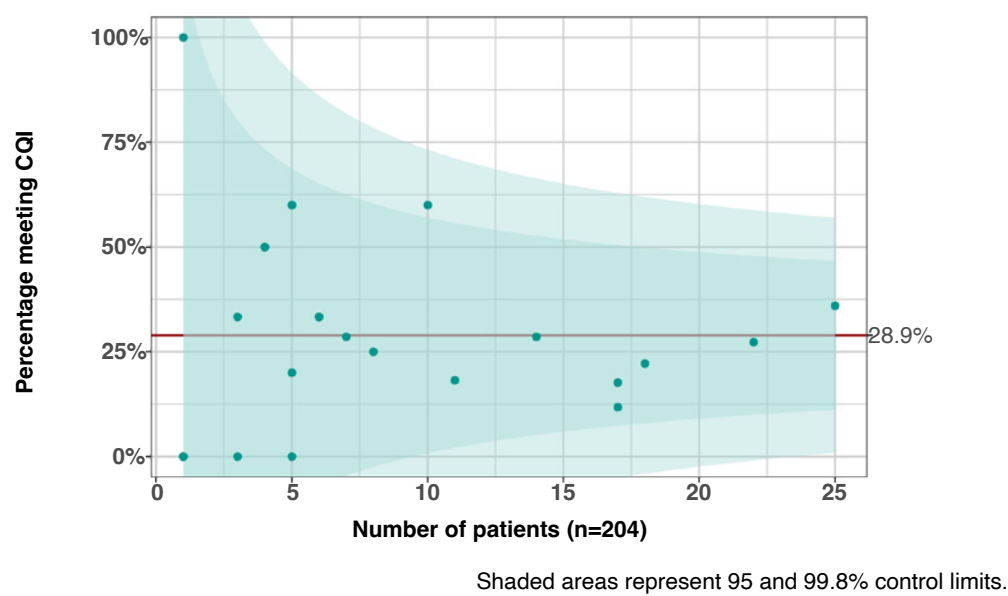


Figure 27: Epithelial OTP Cancer CQI 6b. Proportion of patients with advanced epithelial OTP cancer who underwent interval cytoreductive surgery and had macroscopic residual cancer of ≤ 1 cm. Patients who had no residual cancer are excluded from these results. No identified risk adjustment variables had a statistically significant impact on this CQI. Thirty-two patients had missing data which was considered as though the CQI was not achieved.

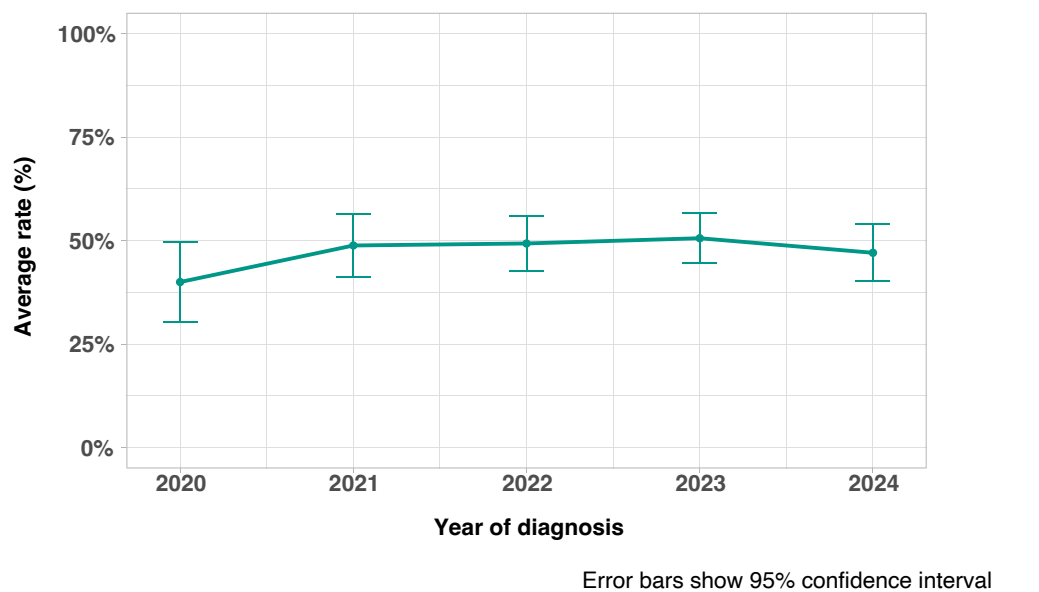


Figure 28: Average adherence to Epithelial OTP Cancer CQI 6a across all hospitals (2020–2024).

CQI 7: Proportion of patients with newly diagnosed epithelial OTP cancer who experience one or more unplanned intraoperative events during surgical treatment

In total, 25 patients (4.3%) newly diagnosed with epithelial OTP cancer had at least one unplanned intraoperative event during surgical treatment (Figure 29). The types of events that occurred are detailed in Figure 30.

The occurrence of unplanned intraoperative events may depend on patients’ age, cancer stage, and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied. Overall, the average outcome for CQI 7 across all hospitals reduced between 2020 (10.2%) and 2024 (4.3%) (Figure 31).

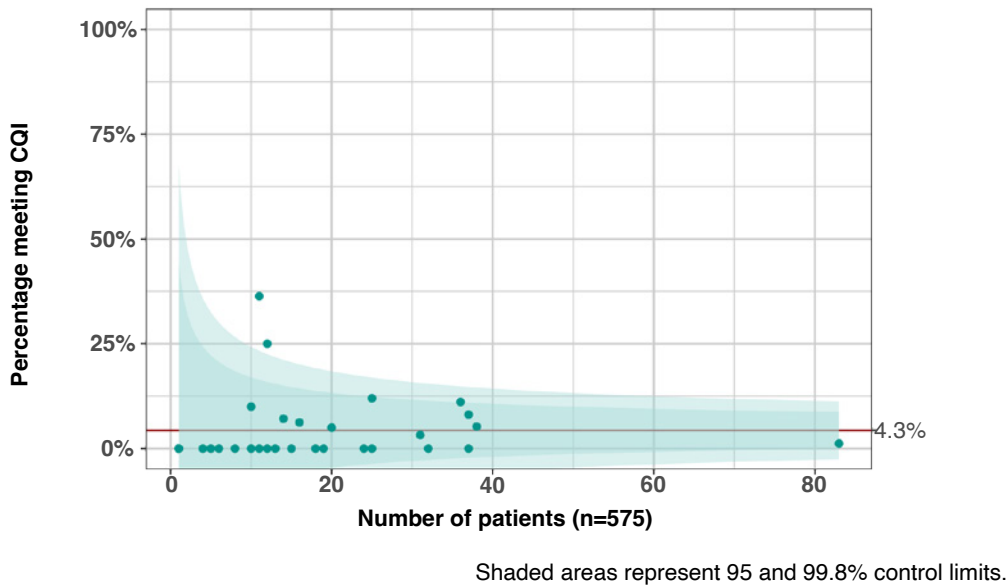


Figure 29: Epithelial OTP Cancer CQI 7. Proportion of patients with newly diagnosed with epithelial OTP cancer who experienced at least one unplanned intraoperative event during surgical treatment (primary or interval). No identified risk adjustment variables had a statistically significant impact on this CQI. Thirty-five patients had missing data and were assumed not to have had an unplanned intraoperative event.

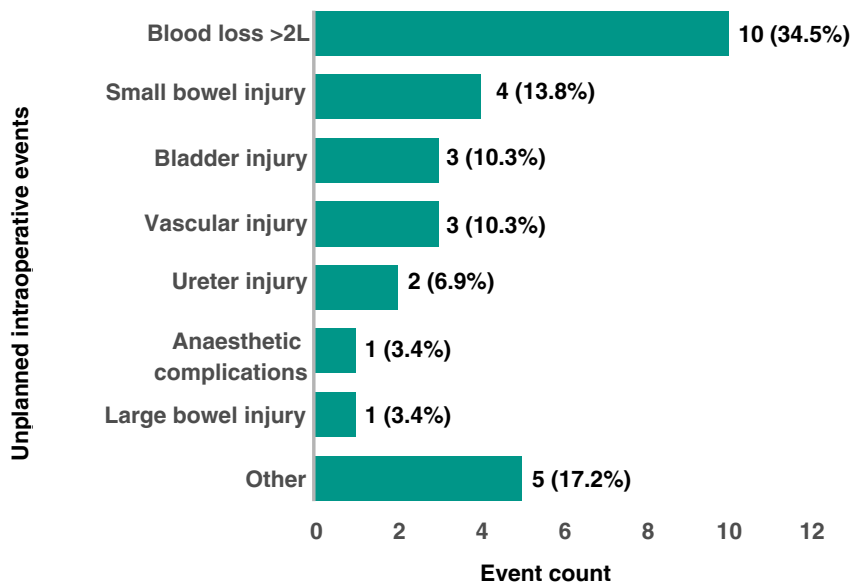


Figure 30: Types of Unplanned Intraoperative Events. Types of unplanned intraoperative events experienced by patients newly diagnosed epithelial OTP cancer who underwent surgical treatment (primary or interval). Some patients may have experienced more than one event during their surgery/ surgeries. ‘Other’ intraoperative events includes splenic laceration, pelvic collection, and pneumothorax.

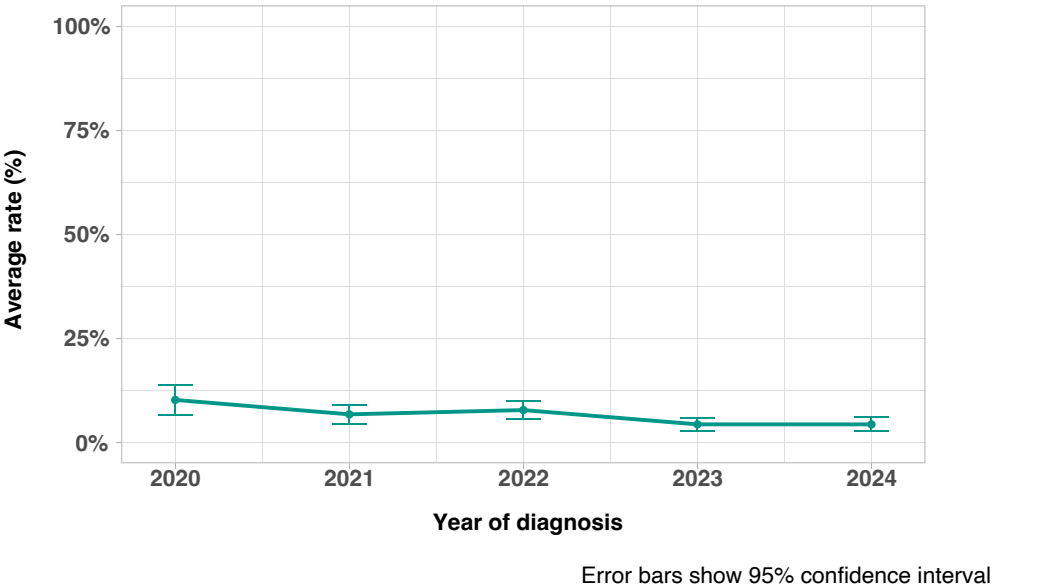


Figure 31: Average outcome for Epithelial OTP Cancer CQI 7 across all hospitals (2020–2024).

CQI 8: Proportion of patients with newly diagnosed epithelial OTP cancer who experience one or more serious adverse events (Clavien–Dindo ≥ Grade III) in the first 30 days following surgical treatment

In total, 27 (4.7%) patients newly diagnosed with epithelial OTP cancer experienced at least one serious adverse event within 30 days of surgical treatment (Figure 32). Four of these patients experienced more than one serious adverse event.

The types of events that occurred and outcomes from these events are detailed in Figure 33 and Figure 34, respectively. The occurrence of serious adverse events post–surgery can depend on patients’ age, cancer stage, and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied. Overall, the average outcome for CQI 8 across all hospitals has remained consistently low between 2020 (3.3%) and 2024 (4.7%) (Figure 35).

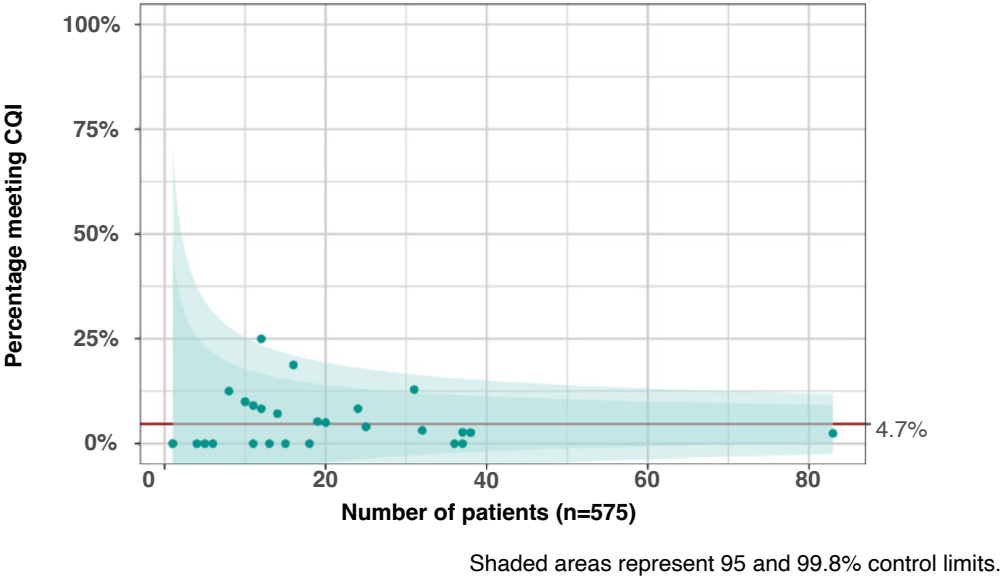


Figure 32: Epithelial OTP Cancer CQI 8. Proportion of patients newly diagnosed with epithelial OTP cancer who experienced at least one serious (Clavien–Dindo ≥ Grade III) adverse events within the first 30 days post–surgical treatment (primary or interval). No identified risk–adjustment variables had a statistically significant impact on this CQI. Thirty–three patients had missing data and were assumed not to have had a serious postoperative adverse event.

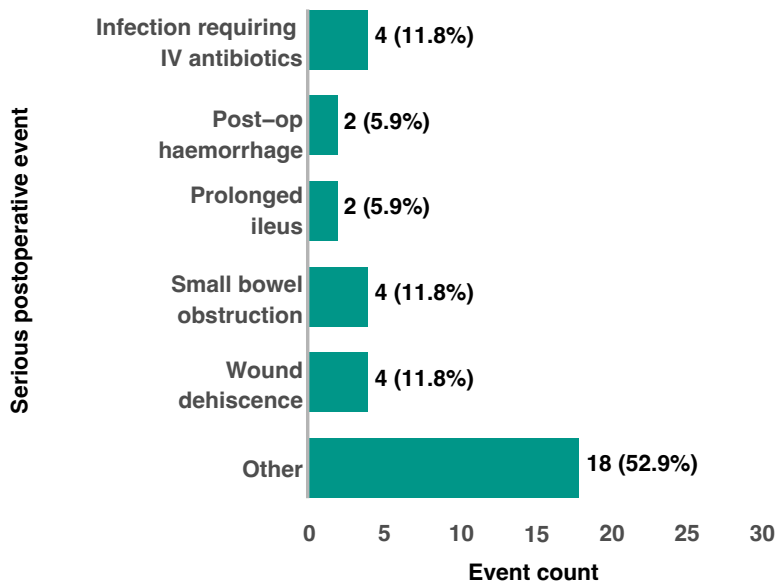


Figure 33: Types of 30-Day Serious Postoperative Adverse Events. Types of 30-day serious (Clavien–Dindo ≥ Grade III) postoperative adverse events experienced by newly diagnosed epithelial OTP cancer patients who underwent surgical treatment (primary or interval). Some patients may have experienced more than one event after their surgery/surgeries. ‘Other’ includes perforated diverticulum and sepsis, abdominal haematoma, and incarcerated internal hernia.

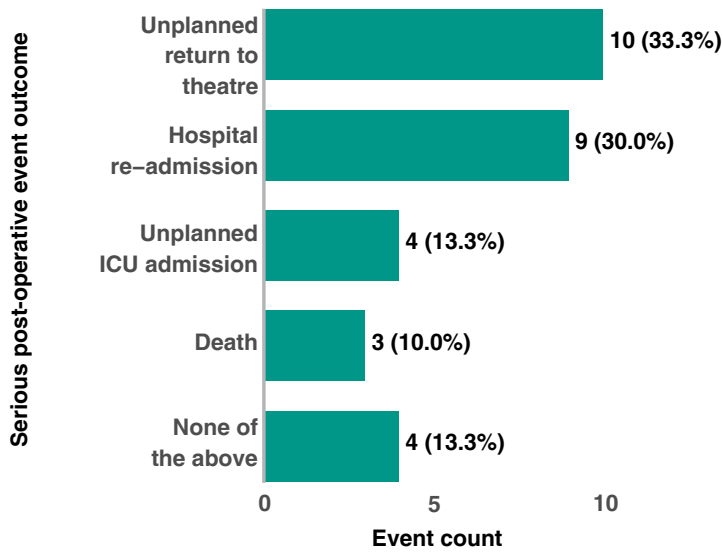


Figure 34: Outcomes from 30-day Serious Postoperative Adverse Events. Outcomes from 30-day serious (Clavien–Dindo ≥ Grade III) postoperative adverse events experienced by newly diagnosed epithelial OTP cancer patients who underwent surgical treatment (primary or interval).

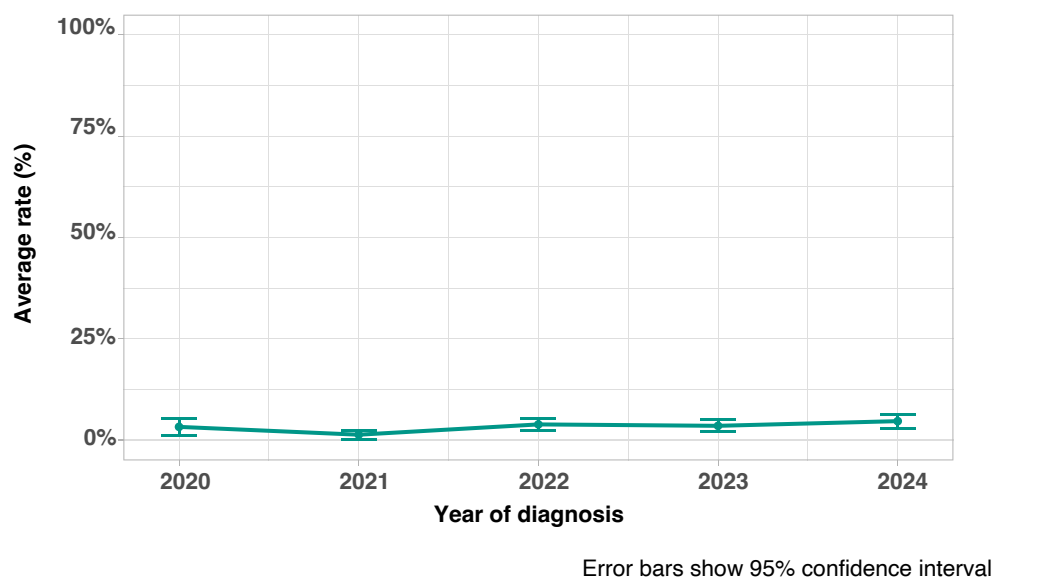


Figure 35: Average outcome for Epithelial OTP Cancer CQI 8 across all hospitals (2020–2024).

Chemotherapy

CQI 10: Proportion of patients with newly diagnosed epithelial OTP cancer who receive first-line chemotherapy with a platinum and taxane doublet

In total, 82.0% of epithelial OTP cancer patients who received first-line chemotherapy were administered a platinum and taxane doublet (Figure 36). Patients with a contraindication to this form of chemotherapy (e.g. those with a taxane allergy), may be included in the denominator as such information may not be clearly documented in their medical records. Older patients, or those with severe comorbidities are typically only given single-agent chemotherapy due to side-effect burden. Only patient age significantly impacted the result for this CQI and was applied for risk adjustment. Hospitals with low averages may have missing data. Overall, average adherence to CQI 10 across all hospitals has remained consistently high between 2020 (85.0%) and 2024 (82.0%) (Figure 37).

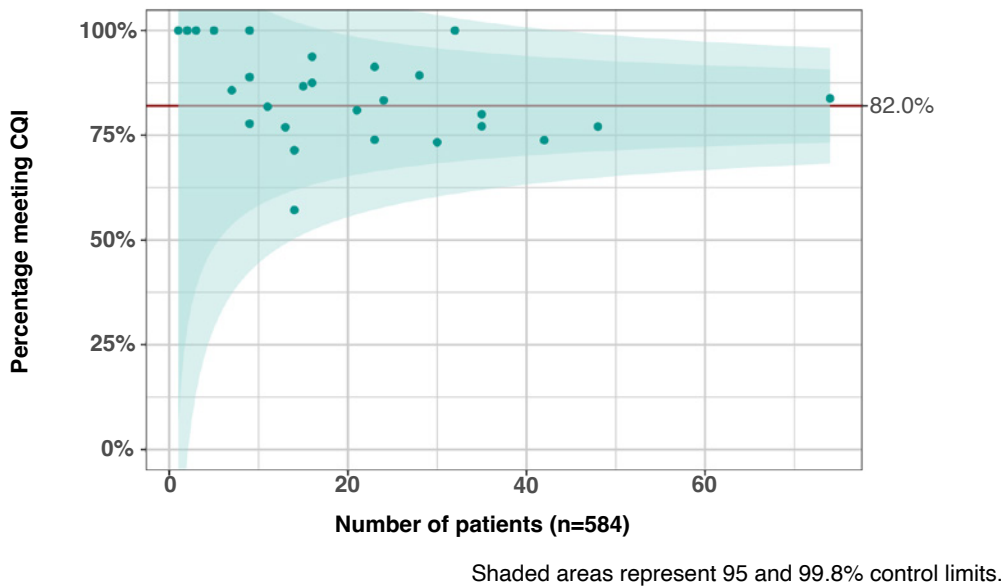


Figure 36: Epithelial OTP Cancer CQI 10. Proportion of patients with newly diagnosed epithelial OTP cancer who received first-line chemotherapy with a platinum and taxane doublet. Patient age was applied as a risk adjustment variable. Seventeen patients had missing data which was considered non-adherence to this CQI

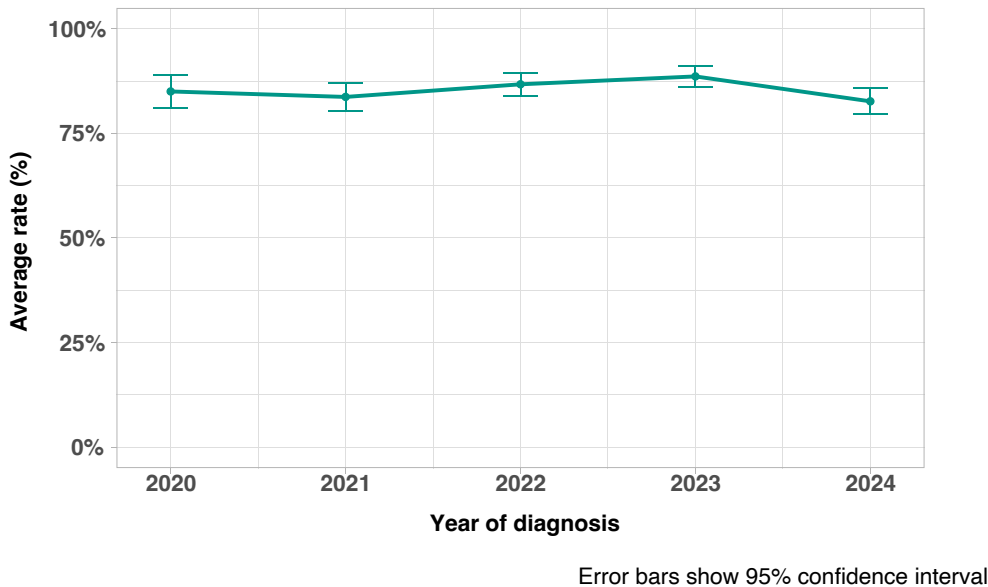


Figure 37: Average adherence to Epithelial OTP Cancer CQI 10 across all hospitals (2020–2024).

CQI 11: Proportion of patients with newly diagnosed sub-optimally debulked epithelial OTP cancer (residual disease >1cm), or newly diagnosed stage IV epithelial OTP cancer, who receive first-line chemotherapy with a platinum and taxane doublet and bevacizumab

Overall, 59.5% of patients with newly diagnosed sub-optimally debulked epithelial OTP cancer, or newly diagnosed stage IV epithelial OTP cancer received first-line platinum and taxane doublet chemotherapy, and bevacizumab (Figure 38). Low adherence for this CQI may reflect the provision of bevacizumab after data collection was completed. Also, patients with a contraindication to this form of chemotherapy (e.g. those with a taxane allergy) or bevacizumab, may be included in the denominator as such information may not be clearly documented in their medical records. Patients' age and/or comorbidities may impact the provision of first-line chemotherapy and bevacizumab. Only comorbidity score significantly impacted the result for this CQI and was applied for risk adjustment.

As with CQIs 5b and 6b, time trend analysis of adherence to this CQI could not be performed due to changes in our definition of optimal debulking. This analysis will be included in future reports.

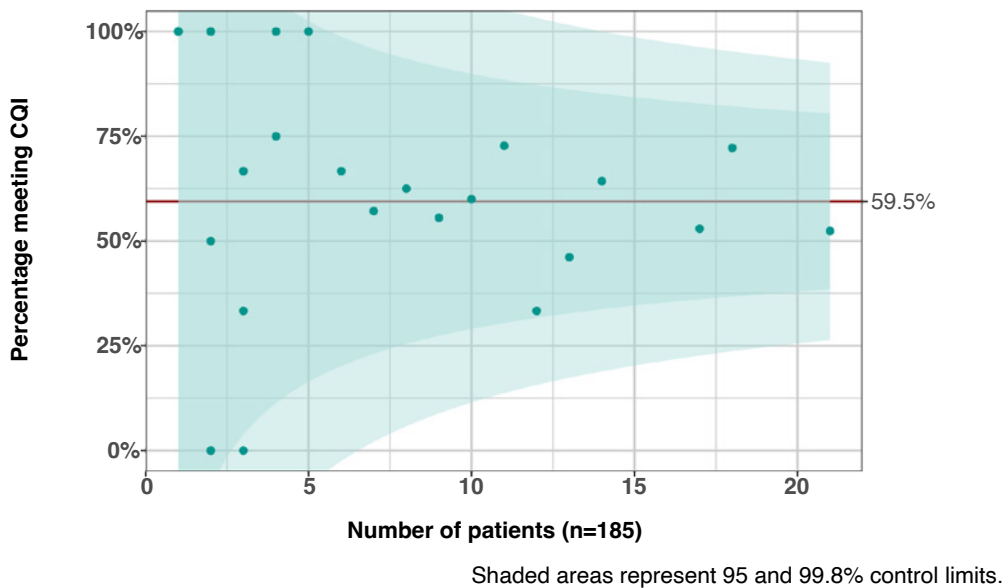


Figure 38: Epithelial OTP Cancer CQI 11. Proportion of patients with sub-optimally debulked epithelial OTP cancer (residual cancer >1cm) or stage IV epithelial OTP cancer who received first-line platinum and taxane doublet chemotherapy and bevacizumab. Patient comorbidity score was applied as a risk adjustment variable. Nine patients had missing data which was considered non-adherence to this CQI.

CQI 12: Proportion of patients with newly diagnosed epithelial OTP cancer who commenced (a) first-line adjuvant chemotherapy within 28 days of surgical treatment or (b) first-line neoadjuvant chemotherapy within 28 days of diagnosis

Overall, 35.5% of patients newly diagnosed with epithelial OTP cancer commenced adjuvant chemotherapy within 28 days of surgery (Figure 39). The median time between surgical treatment and adjuvant chemotherapy was 34 days (IQR: 25–46 days). For some patients, post-surgical complications and/or slow recovery may delay the commencement of adjuvant chemotherapy after surgical treatment.

Also, starting chemotherapy within 28 days of surgery may depend on patients’ age, cancer stage, and/or comorbidities. Only cancer stage significantly impacted the result for this CQI and was applied for risk adjustment.

Most patients (69.2%) newly diagnosed with epithelial OTP cancer who received neoadjuvant chemotherapy commenced their treatment within 28 days of diagnosis (Figure 40). The median time between diagnosis and receiving neoadjuvant chemotherapy was 21 days (IQR: 12–30 days). Risk adjustment was not applicable for CQI 12b.

Overall, average adherence to CQI 12a across all hospitals has remained consistent between 2020 (37.7%) and 2024 (35.5%) (Figure 41). Average adherence to CQI 12b across all hospitals has also remained consistent between 2020 (72.2%) and 2024 (69.2%) (Figure 42).

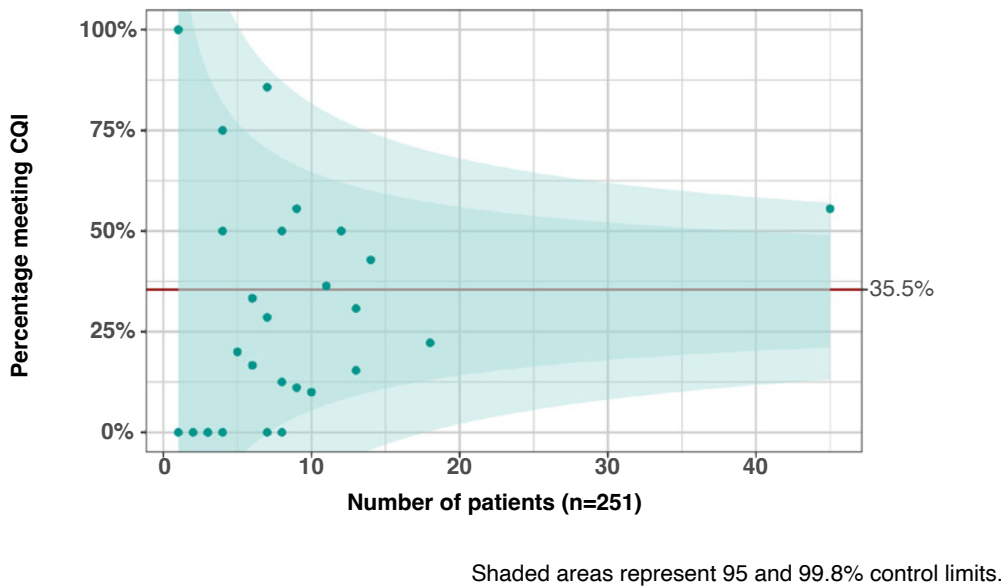


Figure 39: Epithelial OTP Cancer CQI 12a. Proportion of patients with newly diagnosed epithelial OTP cancer who commenced first-line adjuvant chemotherapy within 28 days of surgery. Cancer stage was applied as a risk adjustment variable for this CQI. No patients had missing data for this outcome.

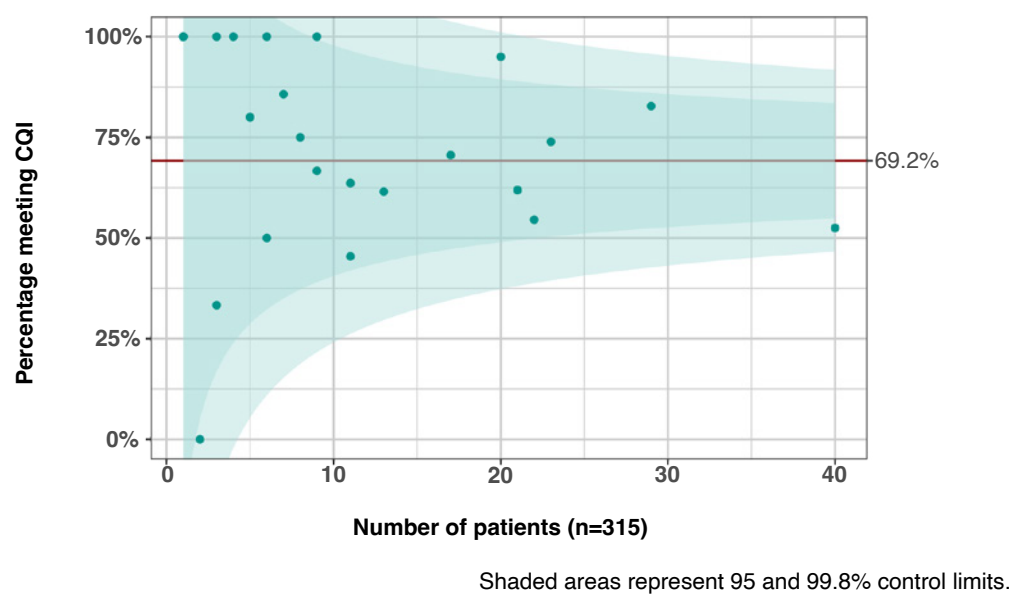


Figure 40: Epithelial OTP Cancer CQI 12b. Proportion of patients with newly diagnosed epithelial OTP cancer who commenced first-line neoadjuvant chemotherapy within 28 days of diagnosis. Risk adjustment was not applicable for this CQI. One patient had missing data which was considered non-adherence to this CQI.

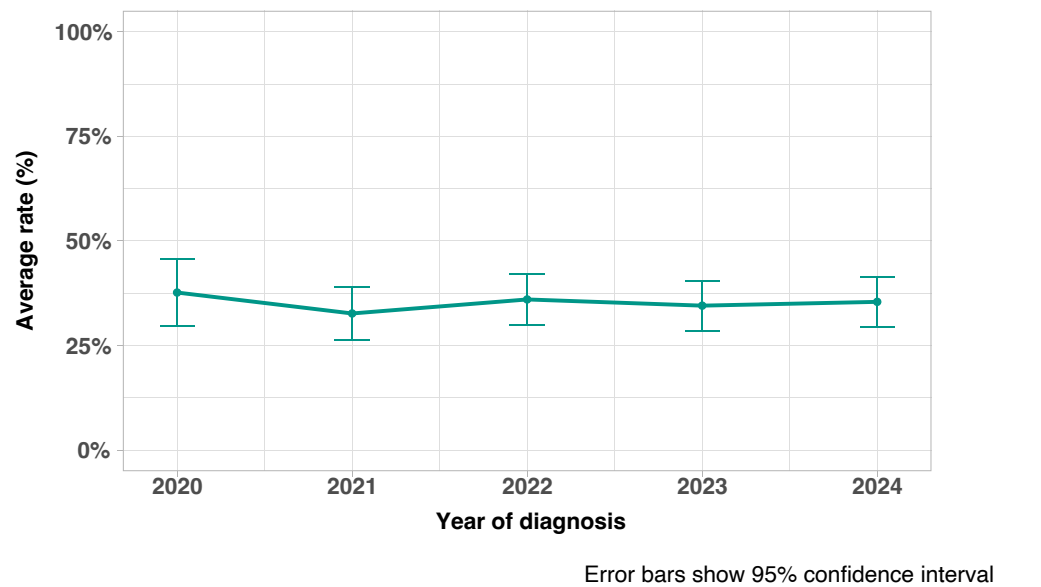


Figure 41: Average adherence to Epithelial OTP Cancer CQI 12a across all hospitals (2020–2024).

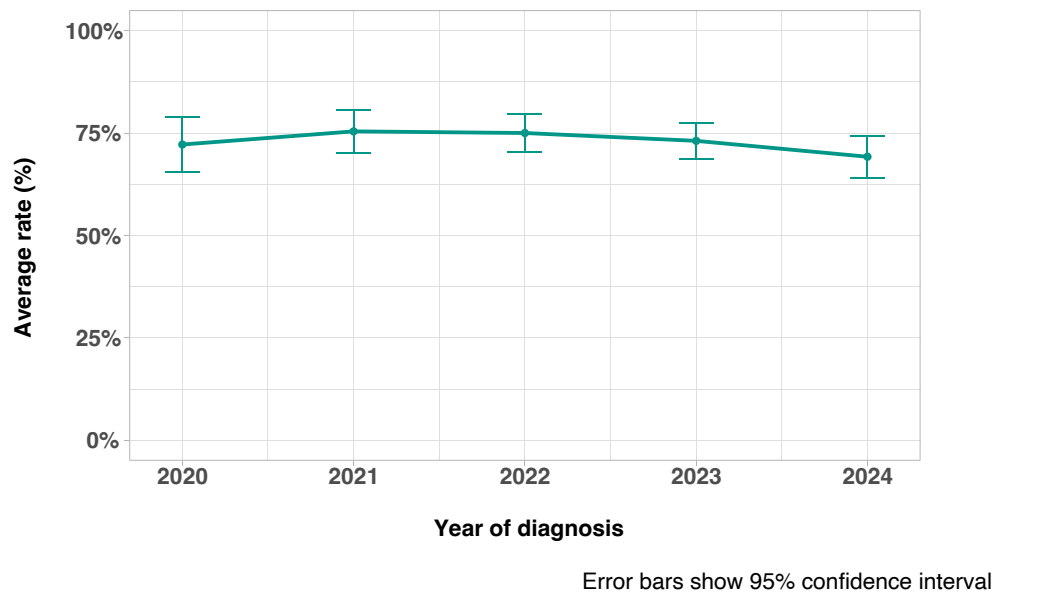


Figure 42: Average adherence to Epithelial OTP Cancer CQI 12b across all hospitals (2020–2024).

Targeted Therapies

CQI 13: Proportion of patients with newly diagnosed epithelial OTP cancer who have germline or somatic testing to identify a BRCA mutation before completing first-line chemotherapy

Overall, 78.9% of patients newly diagnosed with epithelial OTP cancer who received first-line chemotherapy had germline or somatic testing for genetic mutations (including BRCA1 and BRCA2) prior to completing their chemotherapy treatment (Figure 43).

Low adherence may reflect difficulties obtaining information about genetic testing due to patient confidentiality or the information not being transferred into the hospital medical record. Risk adjustment was not applicable for this CQI. Time trend analysis of adherence to this CQI could not be performed due to changes in our data collection protocol to more accurately capture genetic testing rates. This analysis will be included in future reports.

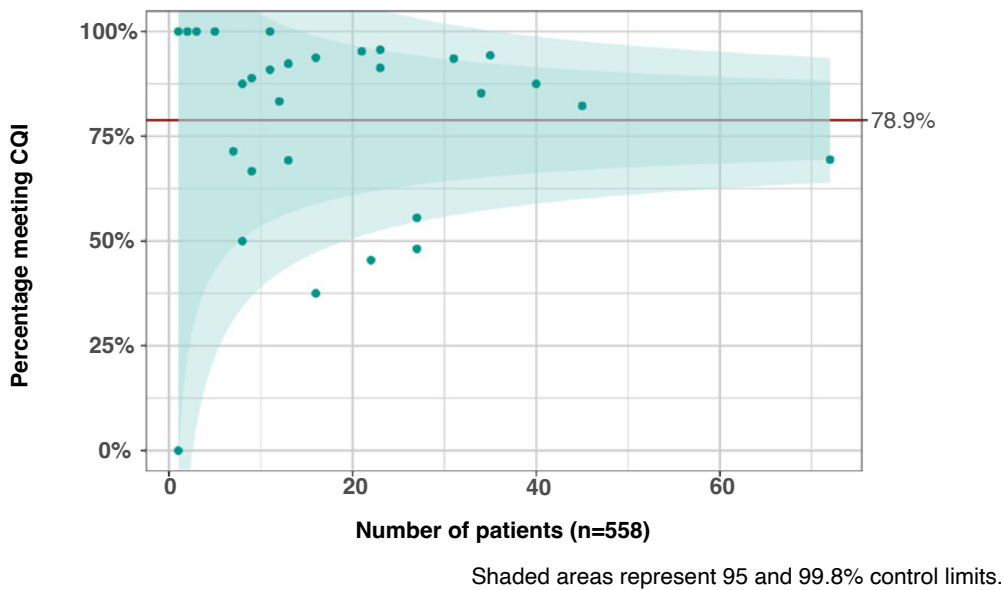


Figure 43: Epithelial OTP Cancer CQI 13. Proportion of patients newly diagnosed with epithelial OTP cancer who had germline or somatic testing for BRCA1, BRCA2 and/or other relevant mutations before completing first-line chemotherapy. Risk adjustment was not applicable for this CQI. Seventy-six patients had missing data which was considered non-adherence to the CQI.

CQI 14: Proportion of patients with newly diagnosed, advanced (stage III–IV), high-grade epithelial OTP cancer who receive HRD testing

This is the first presentation of data for this CQI. Overall, 75.7% of patients newly diagnosed with stage III–IV high-grade epithelial OTP cancer received homologous recombination deficiency (HRD) testing (Figure 44). Risk adjustment was not applicable for this CQI.

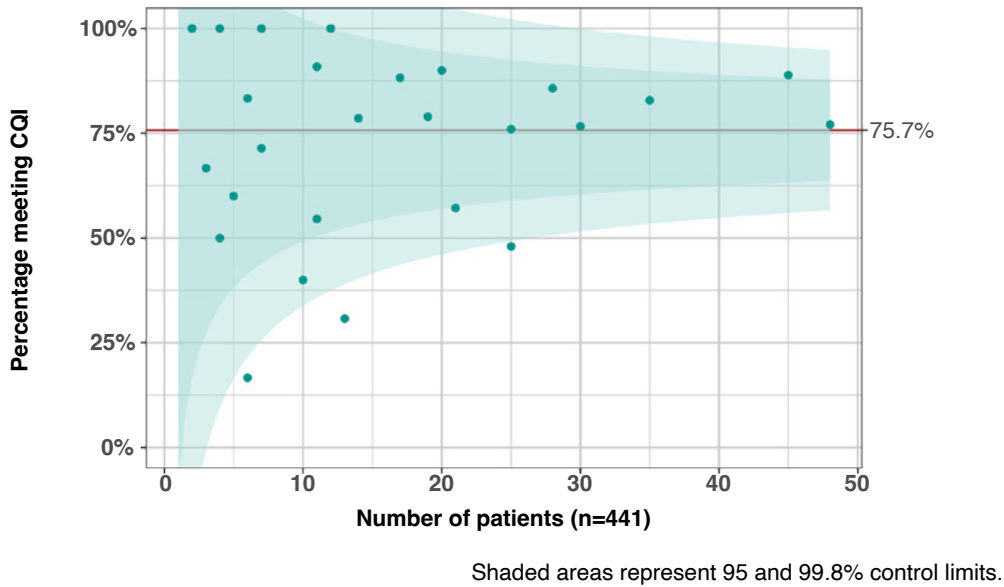


Figure 44: Epithelial OTP Cancer CQI 14. Proportion of patients newly diagnosed with stage III–IV high-grade epithelial OTP cancer who received HRD testing. Risk adjustment was not applicable for this CQI. Seven patients had missing data which was considered non-adherence to this CQI.

CQI 15: Proportion of patients with newly diagnosed, advanced (stage III–IV), high-grade epithelial OTP cancer who are HRD-positive that receive PARPi therapy

This is the first presentation of data for this CQI. Overall, 76.7% of patients newly diagnosed with stage III–IV high-grade epithelial OTP cancer who were HRD-positive received poly (ADP-ribose) polymerase inhibitor (PARPi) therapy (Figure 45). Fifty-seven (42.9%) patients who were HRD-positive received bevacizumab in addition to PARPi therapy. Risk adjustment was not applicable for this CQI.

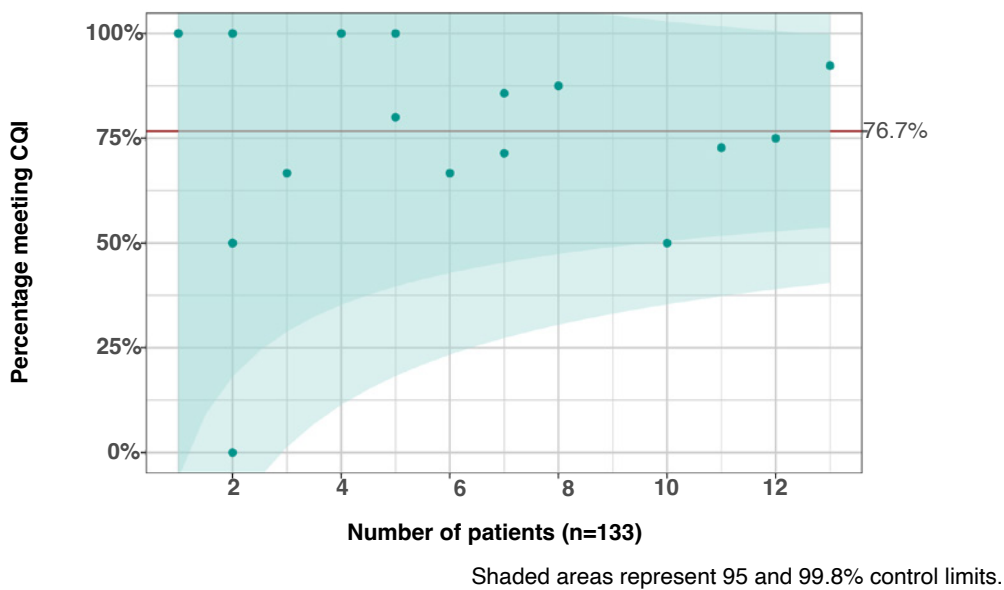


Figure 45: Epithelial OTP Cancer CQI 15. Proportion of patients newly diagnosed with stage III–IV high-grade epithelial OTP cancer who were HRD-positive and received PARPi therapy. Risk adjustment was not applicable for this CQI. Five patients had missing data which was considered non-adherence to the CQI.

CQI 16: Proportion of patients with newly diagnosed epithelial OTP cancer who have germline or somatic mutations of BRCA1 or BRCA2 and commence maintenance PARPi therapy within eight weeks of ceasing first-line chemotherapy

Overall, there were 77 patients newly diagnosed with epithelial OTP cancer who completed first-line chemotherapy, and had BRCA1 or BRCA2 germline or somatic mutations. Of these patients, 36 (46.8%) commenced maintenance PARPi therapy within eight weeks of completing their chemotherapy treatment (Figure 46).

Low adherence may reflect limited access or missing information in patient medical records about chemotherapy end dates or PARPi provision, or that some patients may have received PARPi therapy after the 8-week timeframe. The median time between the completion of first-line chemotherapy and PARPi therapy was 51 days (7.3 weeks; IQR: 37–62 days). Risk-adjustment was not applicable for this CQI.

Time trend analysis of adherence to this CQI could not be performed due to changes in our data collection protocol. This analysis will be included in future reports.

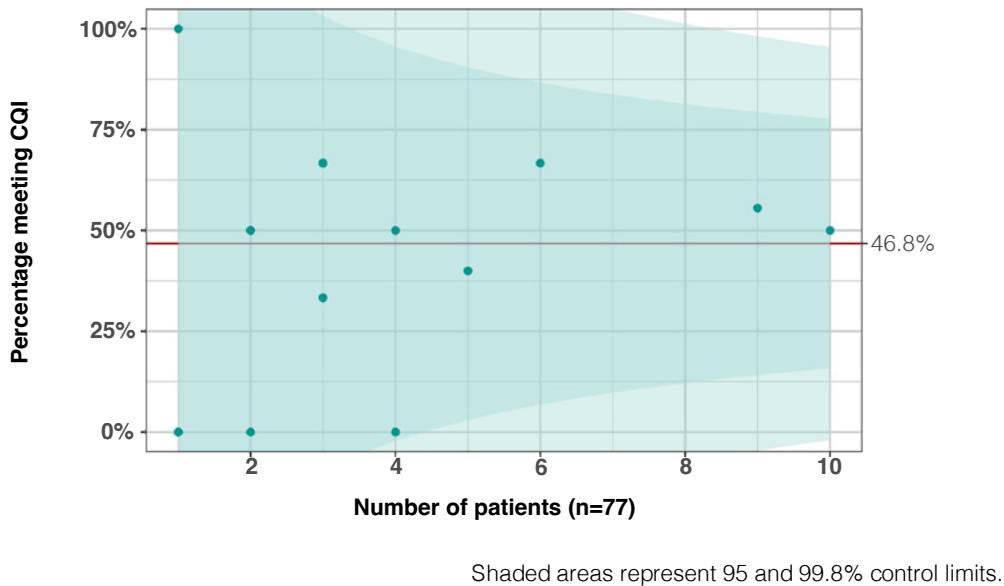


Figure 46: Epithelial OTP Cancer CQI 16. Proportion of patients newly diagnosed with epithelial OTP cancer who had BRCA1 or BRCA2 germline or somatic mutations, and received PARPi therapy within eight weeks of completing first-line chemotherapy. Risk adjustment was not applicable for this CQI. Seven patients had missing data which was considered non-adherence to this CQI.

Participation in Clinical Trials and Translational Research

CQI 17: Proportion of patients with newly diagnosed epithelial OTP cancer who are enrolled in an interventional clinical trial of first-line treatment and/or translational research

In total, 3.6% of patients with newly diagnosed epithelial OTP cancer were enrolled in an interventional clinical trial and/or translational research (Figure 47).

Low adherence for this CQI may represent incomplete documentation, or enrolment into research after data collection was completed. Participation in clinical or translational research may not be possible where patients are too unwell, have comorbidities that render them ineligible, or decline to be involved. Some hospitals may not have the capacity or resources to conduct this type of research which is heavily reliant on funding. In addition, there is limited availability of first-line clinical trials for patients with epithelial OTP cancer to participate in.

Average adherence to CQI 17 across all hospitals has decreased between 2020 (12.7%) and 2024 (3.6%) (Figure 48).

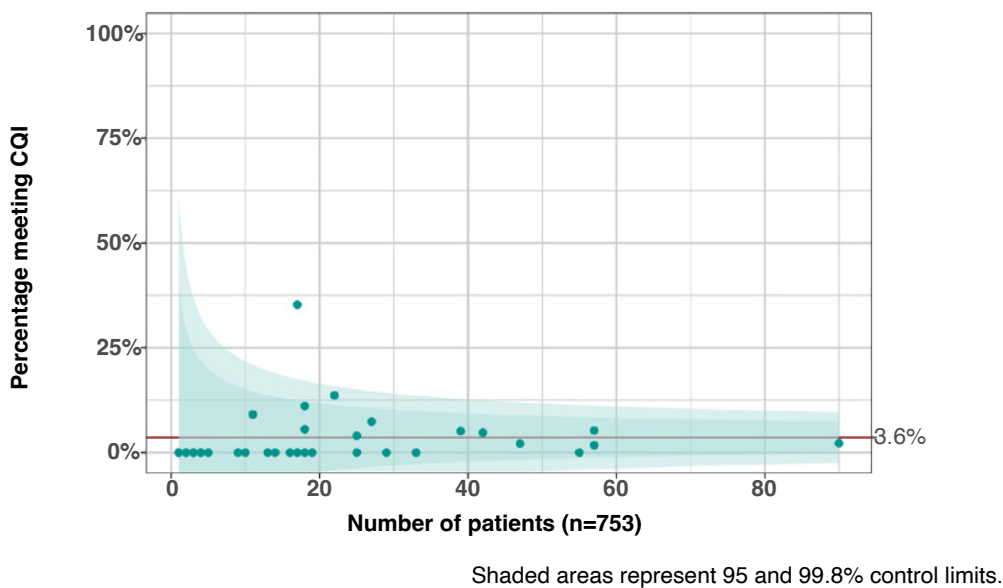


Figure 47: Epithelial OTP Cancer CQI 17. Proportion of patients newly diagnosed with epithelial OTP cancer enrolled in an interventional clinical trial or translational research. Risk adjustment was not applicable for this CQI. Forty-four patients had missing data which was considered non-adherence.

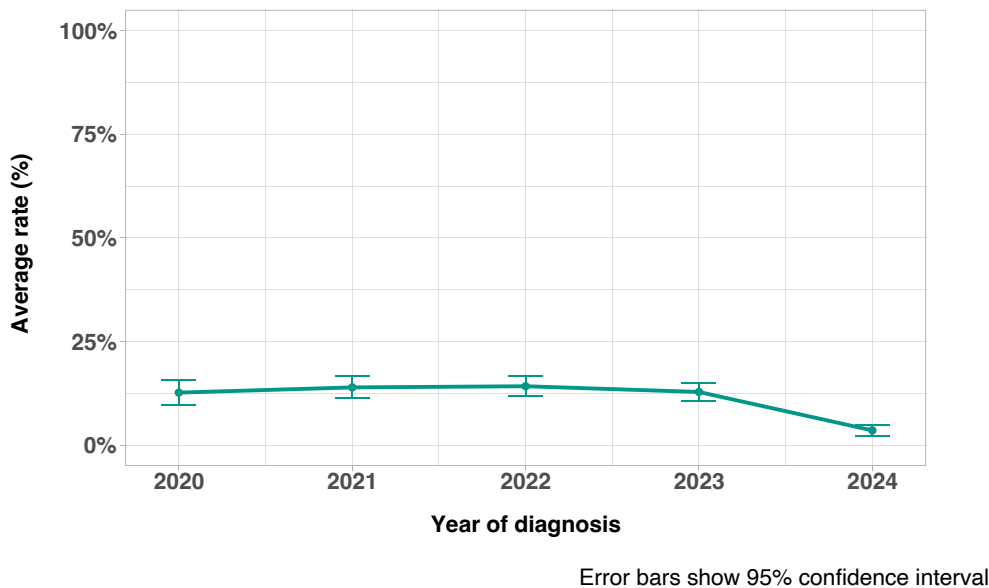


Figure 48: Average adherence to Epithelial OTP Cancer CQI 17 across all hospitals (2020–2024).

Section Ib: Outcomes from the Non-Epithelial Ovarian Cancer Module

Non-Epithelial Ovarian Cancer Descriptive Statistics

In total, 310 patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024 are included in this analysis. Data relating to these patients were provided from 31 partnering hospitals. The information provided below describes the characteristics of the patient cohort.

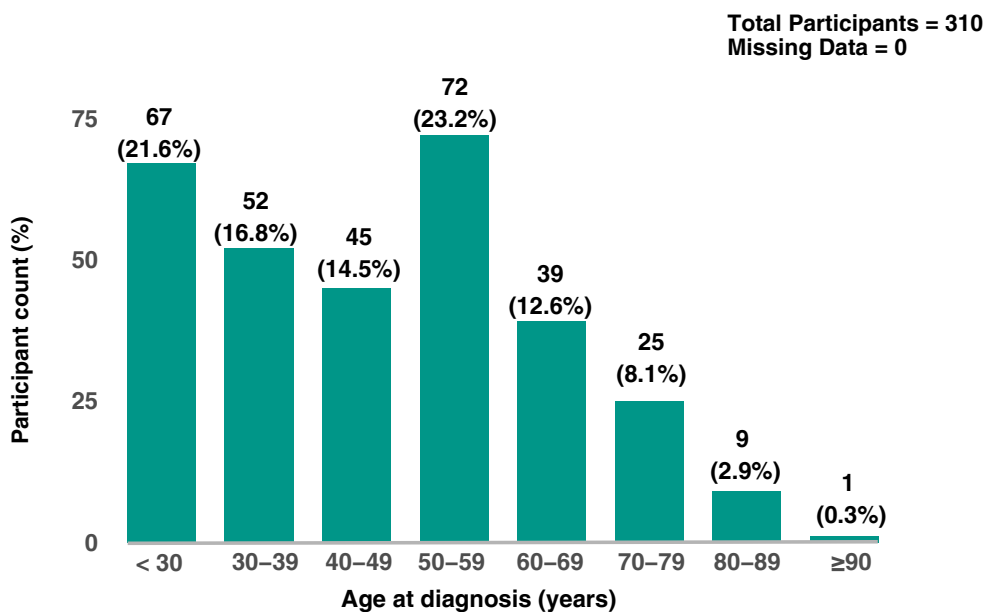


Figure 49: Age at diagnosis. Age at diagnosis for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024. Median patient age was 48 years.

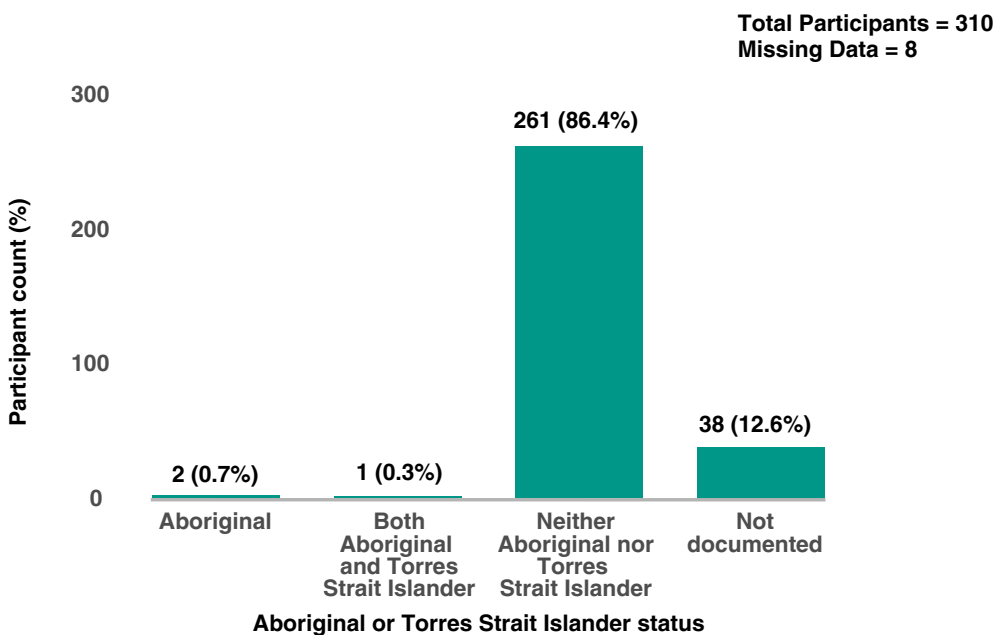


Figure 50: Aboriginal or Torres Strait Islander status. Aboriginal or Torres Strait Islander status for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024. No patients were recorded as being solely of Torres Strait Islander descent.

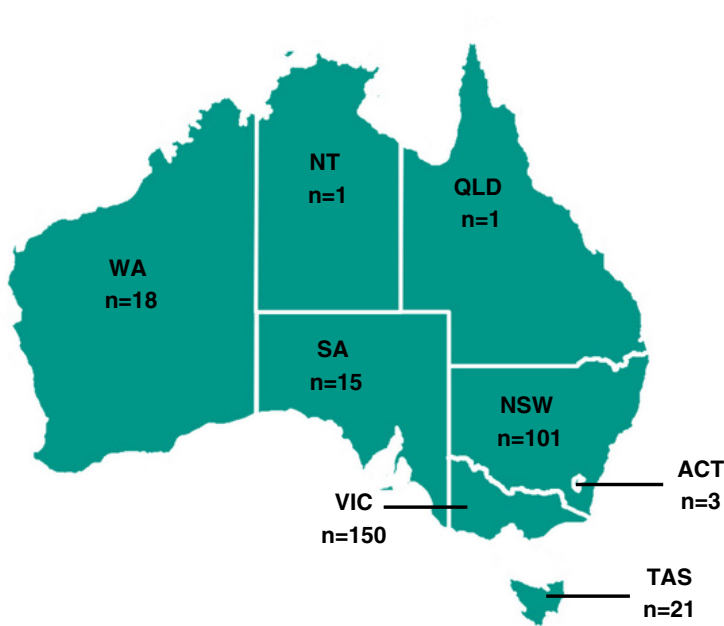


Figure 51: Residential distribution. Australian residential location for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024. Patients residing in the NT received treatment for their cancer at a participating hospital in another state/territory as no data were collected from an NT hospital during the reporting period.

Table 9: Country of birth. Country of birth for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024.

Country of birth	N (%)
Australia	159 (57.8%)
India	15 (5.5%)
United Kingdom	10 (3.6%)
China	6 (2.2%)
Sri Lanka	5 (1.8%)
Other	57 (20.7%)
Not documented	23 (8.4%)

Countries with fewer than five patients are included in the ‘other’ category. Missing data=35.

Table 10: Primary language. Primary language for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024.

Primary language	N (%)
English	259 (84.4%)
Arabic	5 (1.6%)
Other	26 (8.5%)
Not documented	17 (5.5%)

Languages with fewer than five patients are included in the ‘other’ category. Missing data=3.

Table 11: Body Mass Index (BMI) scores. BMI scores for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024.

Body Mass Index (BMI) category	N (%)
Underweight	6 (2.0%)
Healthy weight	79 (26.4%)
Overweight	55 (18.4%)
Obese class 1 (Moderate)	49 (16.4%)
Obese class 2 (Severe)	25 (8.4%)
Obese class 3 (Very severe)	22 (7.4%)
Not documented	63 (21.0%)

BMI scores: <18.5= underweight; 18.5–24.99 = healthy weight; 25–29.99 = overweight; 30–34.99 = obese class 1; 35–39.99 = obese class 2; ≥40 = obese class 3. Missing data=11.

Table 12: Physical functioning Eastern Cooperative Oncology Group (ECOG) scores. ECOG scores for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024.

Eastern Cooperative Oncology Group (ECOG) score	N (%)
ECOG 0	161 (53.7%)
ECOG 1	35 (11.7%)
ECOG 2	4 (1.3%)
ECOG 3	1 (0.3%)
Not documented	99 (33.0%)

ECOG scores range from 0–5, with lower scores indicating greater physical health and functioning. Missing data=10.

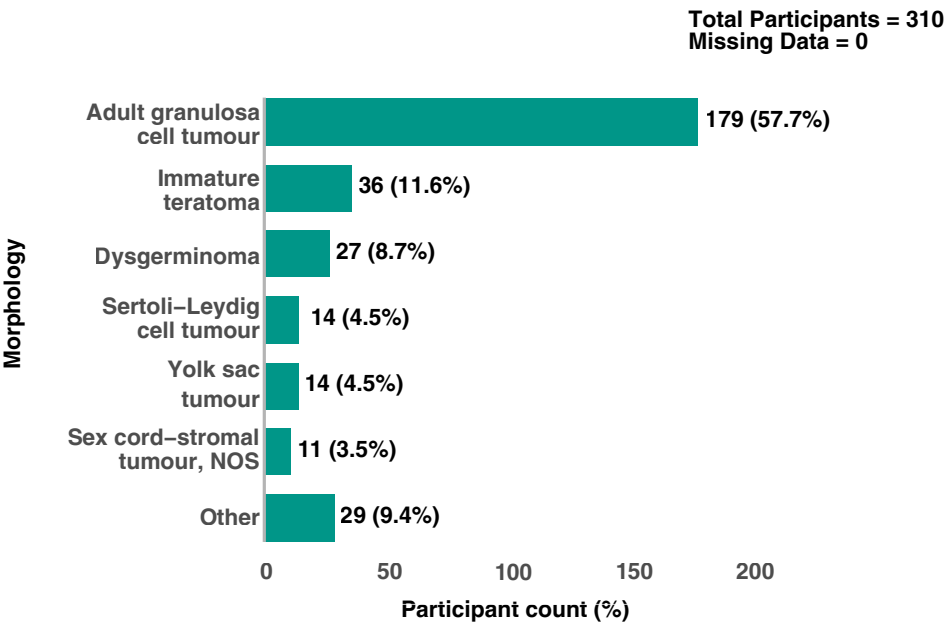


Figure 52: Cancer morphology. Cancer tissue histopathological type or classification for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024. All cases shown are malignant or suspected malignant. ‘Other’ includes mixed germ cell tumour and steroid cell tumour.

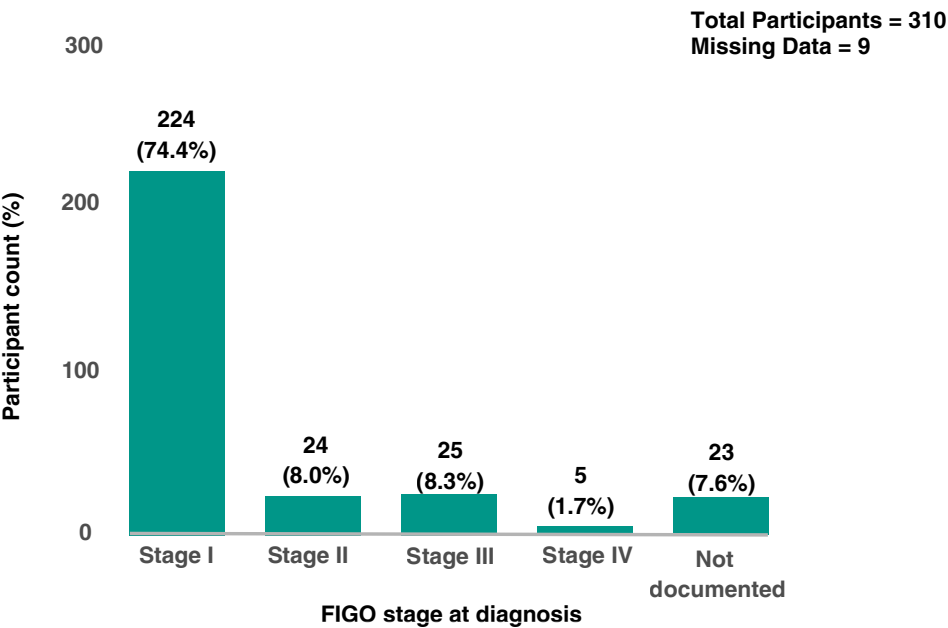


Figure 53: FIGO stage at diagnosis. Cancer stage at diagnosis for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024. FIGO stage refers to the spread of the tumour. Higher FIGO stages indicate greater tumour spread.

Comparing Optimal Care for Patients with Non-Epithelial Ovarian Cancer

Quality of care for patients with newly diagnosed non-epithelial ovarian cancer between 2017 and 2024 was assessed against five CQIs covering diagnosis, surgical treatment, and non-surgical treatment. Information about these CQIs is detailed in Appendix C.

Time trend analysis of average CQI adherence by diagnosis year is not presented for patients with non-epithelial ovarian cancer due to low annual case numbers.

Diagnosis

CQI 1: Proportion of patients with newly diagnosed non-epithelial ovarian cancer who are presented at an MDM

Between 2017 and 2024, almost all (95.2%) patients newly diagnosed with non-epithelial ovarian cancer were discussed at an MDM (Figure 54). Outliers on this funnel plot may represent missing data or incomplete documentation in medical records. Risk adjustment was not applicable for this CQI.

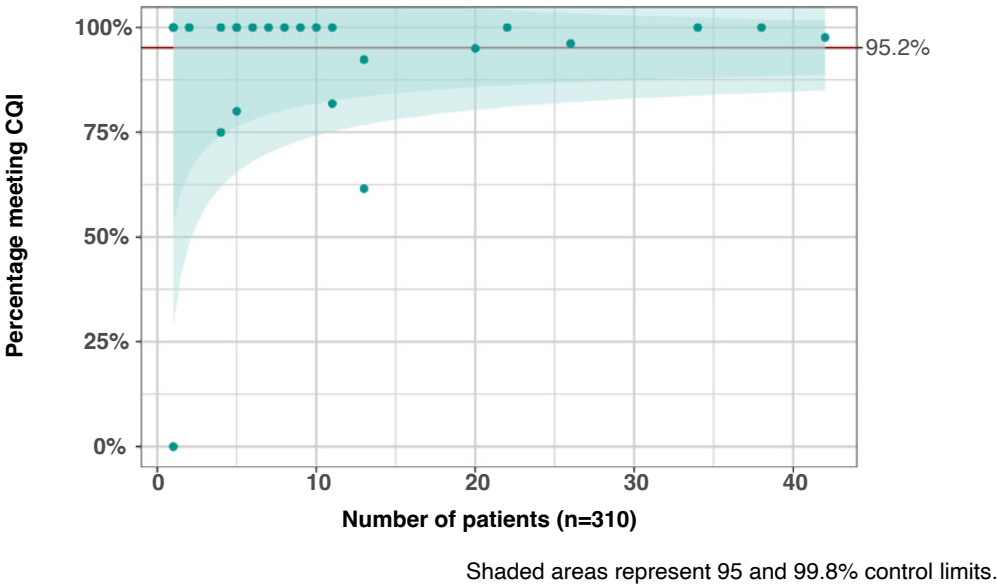


Figure 54: Non-Epithelial Ovarian Cancer CQI 1. Proportion of patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024 who were discussed at a multidisciplinary team meeting. Risk adjustment was not applicable for this CQI. Nine patients had missing data which was considered non-adherence to this CQI.

CQI 2: Proportion of patients with newly diagnosed non-epithelial ovarian cancer who have a histologically confirmed diagnosis

Between 2017 and 2024, almost all (97.7%) patients newly diagnosed with non-epithelial ovarian cancer received a histological confirmation of their diagnosis (Figure 55). Outliers on this funnel plot may represent missing data. Risk adjustment was not applicable for this CQI.

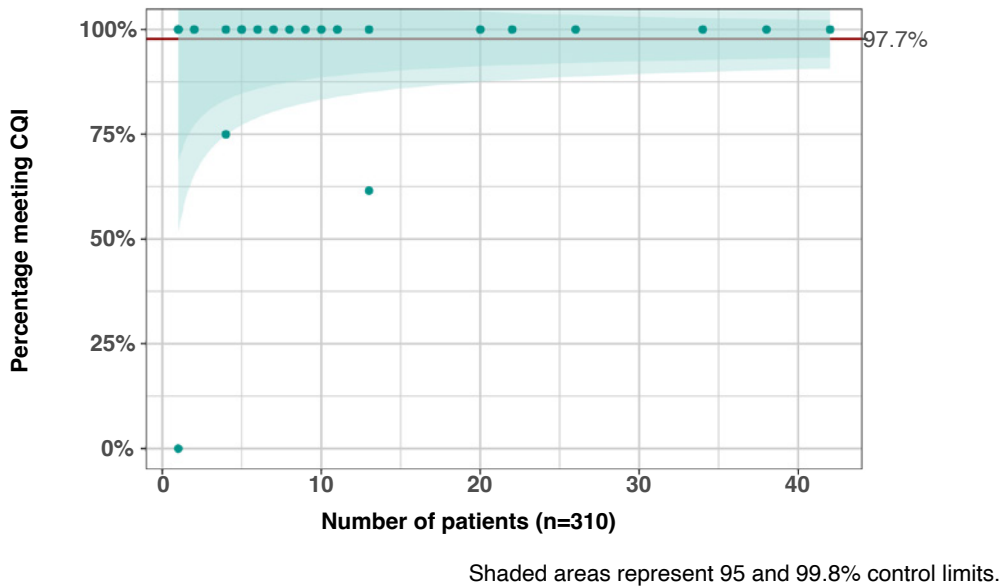


Figure 55: Non-Epithelial Ovarian Cancer CQI 2. Proportion of patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024 who had a histologically confirmed diagnosis. Risk adjustment was not applicable for this CQI. Seven patients had missing data which was considered non-adherence to this CQI.

Surgical Treatment

CQI 3: Proportion of patients with newly diagnosed non-epithelial ovarian cancer who experience one or more unplanned intraoperative events during surgical treatment

Between 2017 and 2024, 10 (3.9%) patients newly diagnosed with non-epithelial ovarian cancer had at least one unplanned intraoperative event during surgical treatment (Figure 56). The occurrence of these events may depend on patients’ age, cancer stage, and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied. The types of intraoperative events that occurred are detailed in Figure 57.

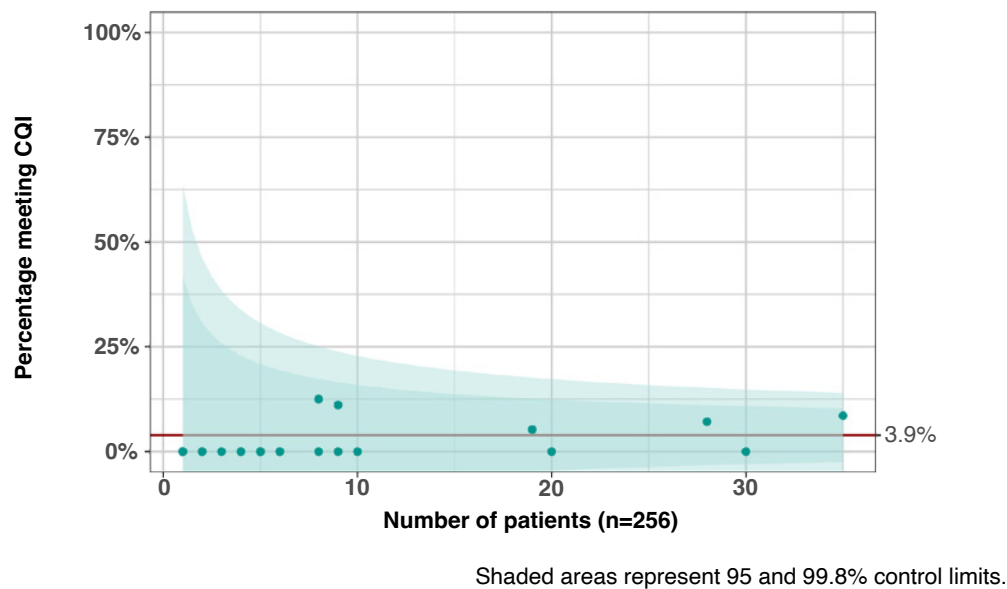


Figure 56: Non-Epithelial Ovarian Cancer CQI 3. Proportion of patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024 who experienced one or more unplanned intraoperative events during surgical treatment. No risk adjustment variables had a statistically significant impact on this outcome. Twenty-one patients had missing data for this CQI and were assumed not to have had an unplanned intraoperative event.



Figure 57: Types of Unplanned Intraoperative Events. Types of unplanned intraoperative events that occurred during surgical treatment for patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024. ‘Other’ includes hypertension, haemoperitoneum from rupture of lesion, and aspiration pneumonia.

CQI 4: Proportion of patients with newly diagnosed non-epithelial ovarian cancer who experience one or more serious adverse events (Clavien-Dindo $\geq$ Grade III) in the first 30 days following surgical treatment

Between 2017 and 2024, two (0.8%) patients newly diagnosed with non-epithelial ovarian cancer experienced at least one serious adverse event within 30 days of their surgery (Figure 58). One of these patients experienced more than one serious post-operative adverse event. In total, four events were reported across both patients: prolonged ileus, respiratory complications, renal failure, and hemoperitoneum. The occurrence of serious adverse events 30-days post-surgery can depend on patients' age, cancer stage, and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied.

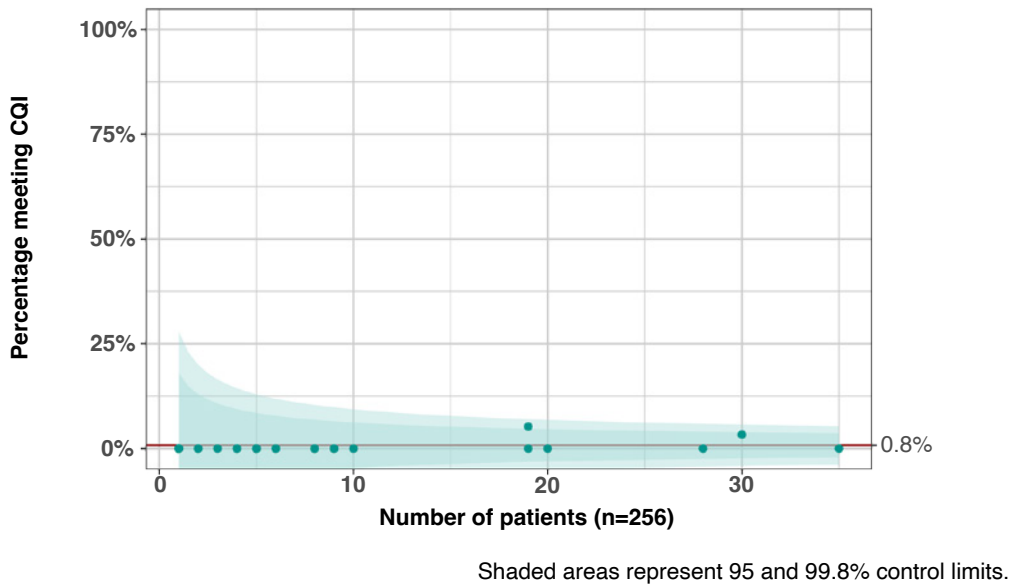


Figure 58: Non-Epithelial Ovarian Cancer CQI 4. Proportion of patients newly diagnosed with non-epithelial ovarian cancer between 2017 and 2024 who experienced one of more serious (Clavien-Dindo $\geq$ Grade III) adverse events within the first 30 days post-surgery. No risk adjustment variables had a statistically significant impact on this outcome. Twenty patients had missing data for this CQI and were assumed not to have had a 30-day serious postoperative adverse event.

Non-Surgical Treatment

CQI 5: Proportion of patients with newly diagnosed stage II–IV non-epithelial ovarian cancer who receive first-line non-surgical treatment

Due to the variation in non-epithelial ovarian cancer subtypes and corresponding treatment pathways⁹, this CQI is presented as a bar chart illustrating the frequency of each type of non-surgical treatment undertaken by cancer subtype.

Between 2017 and 2024, 54 patients were diagnosed with a stage II–IV non-epithelial ovarian cancer. Most patients with sex-cord stromal tumours received either chemotherapy or did not have any non-surgical treatment. All germ cell tumour patients received chemotherapy only. Most patients diagnosed with other non-epithelial ovarian tumours, received at least one type of non-surgical treatment (Figure 59).

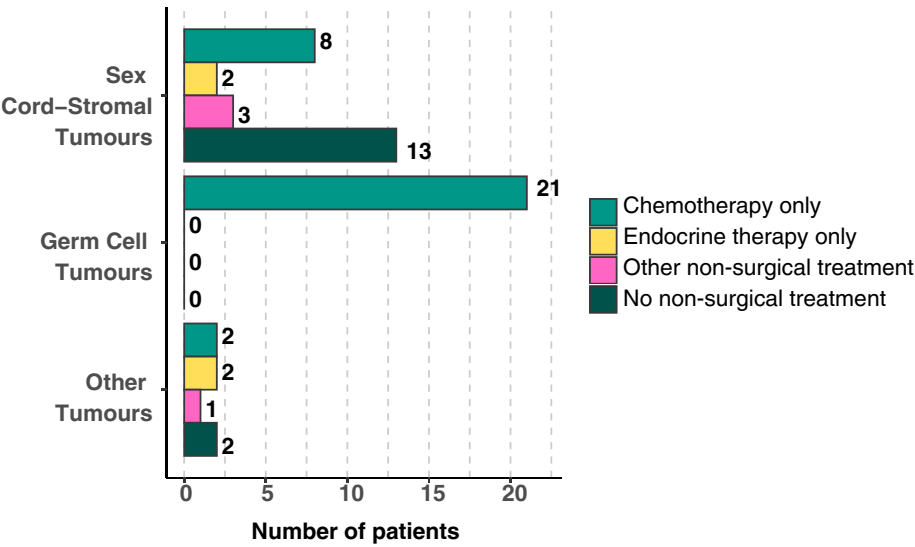


Figure 59: Non-Epithelial Ovarian Cancer CQI 5. Proportion of patients newly diagnosed with non-epithelial ovarian cancer who received first-line non-surgical treatment by cancer subtype. Sex cord-stromal tumours include granulosa cell tumours, Sertoli-Leydig cell tumours, and steroid cell tumours. Germ cell tumours include dysgerminomas, yolk sac tumours, and immature teratomas. The other tumour group is highly heterogenous and includes ovarian sarcomas.

Section II: Outcomes from the Cervical Cancer Module

Overview of the Cervical Cancer Module

In 2023, the National Strategy for the Elimination of Cervical Cancer in Australia was released, with the aim for Australia to be the first country globally to eliminate cervical cancer¹⁰. Whilst there tends to be fewer than 1,000 new cervical cancer diagnoses each year in Australia¹¹, this disease remains one of inequity, disproportionately affecting underserved communities¹⁰. The Strategy outlines three pillars of elimination: (1) human papillomavirus (HPV) vaccination, (2) regular cervical screening, and (3) optimal care for diagnosed patients. The third pillar advocates for 95% of all eligible people to receive optimal treatment for pre-cancerous lesions and invasive cervical cancer in a 'leave no one behind' approach. The NGOR's Cervical Cancer Module (launched in September 2024) is designed to support progress towards achieving pillar three by measuring and benchmarking the quality of care provided to patients with cervical cancer in Australia. This report marks the first time, CQI data reflecting optimal care for patients newly diagnosed with cervical cancer in Australia are presented.

Cervical Cancer Patient Recruitment

Overall, 452 patients newly diagnosed with cervical cancer in 2024 were deemed eligible for inclusion in the NGOR's Cervical Cancer Module. Of these patients, five were uncontactable and eight opted out of the registry. Data for 439 patients newly diagnosed with cervical cancer from 30 hospitals nationally are included in this report.

National case ascertainment of patients newly diagnosed with cervical cancer during the reporting period was unable to be determined as comparative data were unavailable by state and territory cancer registries.

Descriptive Statistics

The information provided below describes the characteristics of the patient cohort.

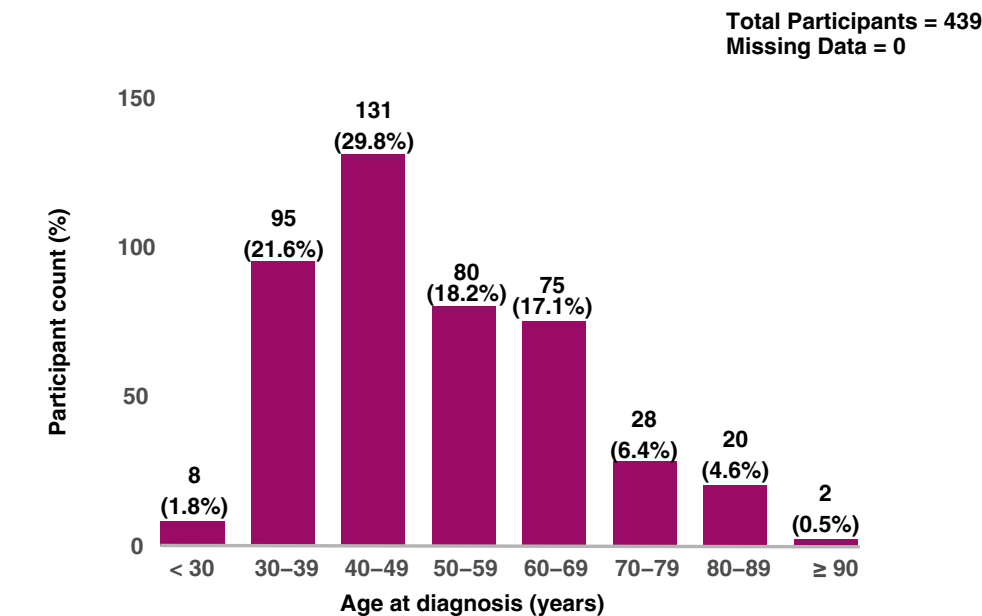


Figure 60: Age at diagnosis. Age at diagnosis for patients newly diagnosed with cervical cancer in 2024. Median patient age was 48 years.

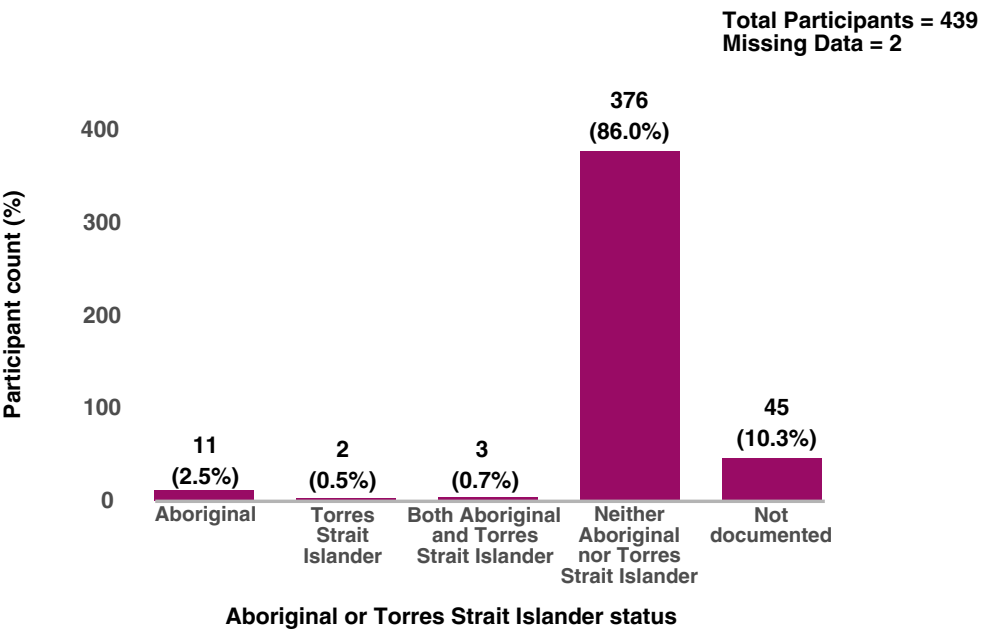


Figure 61: Aboriginal or Torres Strait Islander status. Aboriginal or Torres Strait Islander status for patients newly diagnosed with cervical cancer in 2024.

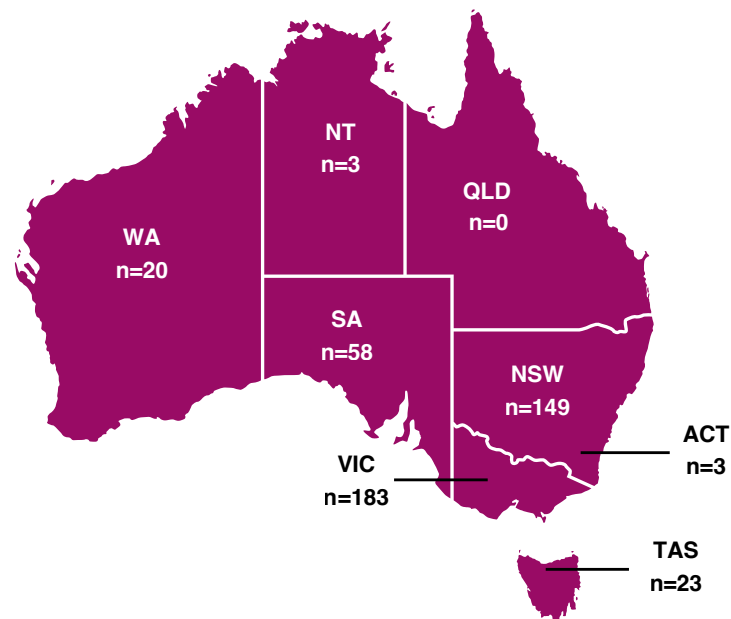


Figure 62: Residential distribution. Australian residential location for patients newly diagnosed with cervical cancer in 2024. Patients residing in the NT received treatment for their cancer at a participating hospital in another state/territory as no data were collected from an NT hospital during the reporting period.

Table 13: Country of birth. Country of birth for patients newly diagnosed with cervical cancer in 2024.

Country of birth	N (%)
Australia	239 (54.7%)
China	21 (4.8%)
United Kingdom	14 (3.2%)
Philippines	11 (2.5%)
Vietnam	11 (2.5%)
Thailand	10 (2.3%)
India	9 (2.1%)
New Zealand	7 (1.6%)
Hong Kong	5 (1.1%)
Malaysia	5 (1.1%)
Other	67 (15.3%)
Not documented	38 (8.7%)

Countries with fewer than five patients are included in the ‘other’ category. Missing data=2.

Table 14: Primary language. Primary language for patients newly diagnosed with cervical cancer in 2024.

Primary language	N (%)
English	357 (81.7%)
Mandarin	14 (3.2%)
Vietnamese	7 (1.6%)
Thai	6 (1.4%)
Other	27 (6.2%)
Not documented	26 (5.9%)

Languages with fewer than five patients are included in the ‘other’ category. Missing data=2.

Table 15: Body Mass Index (BMI) scores. BMI scores for patients newly diagnosed with cervical cancer in 2024.

Body Mass Index (BMI) category	N (%)
Underweight	23 (5.3%)
Healthy weight	140 (32.0%)
Overweight	94 (21.5%)
Obese class 1 (Moderate)	55 (12.6%)
Obese class 2 (Severe)	25 (5.7%)
Obese class 3 (Very severe)	20 (4.6%)
Not documented	80 (18.3%)

BMI scores: <18.5= underweight; 18.5–24.99 = healthy weight; 25–29.99 = overweight; 30–34.99 = obese class 1; 35–39.99 = obese class 2; ≥40 = obese class 3. Missing data=2.

Table 16: Physical functioning Eastern Cooperative Oncology Group (ECOG) scores. ECOG scores for patients newly diagnosed with cervical cancer in 2024.

Eastern Cooperative Oncology Group (ECOG) score	N (%)
ECOG 0	276 (36.7%)
ECOG 1	201 (46.0%)
ECOG 2	77 (17.6%)
ECOG 3	16 (3.7%)
ECOG 4	3 (0.7%)
Not documented	1 (0.2%)

Range from 0–5, with lower scores indicating greater physical health and functioning. Missing data=2.

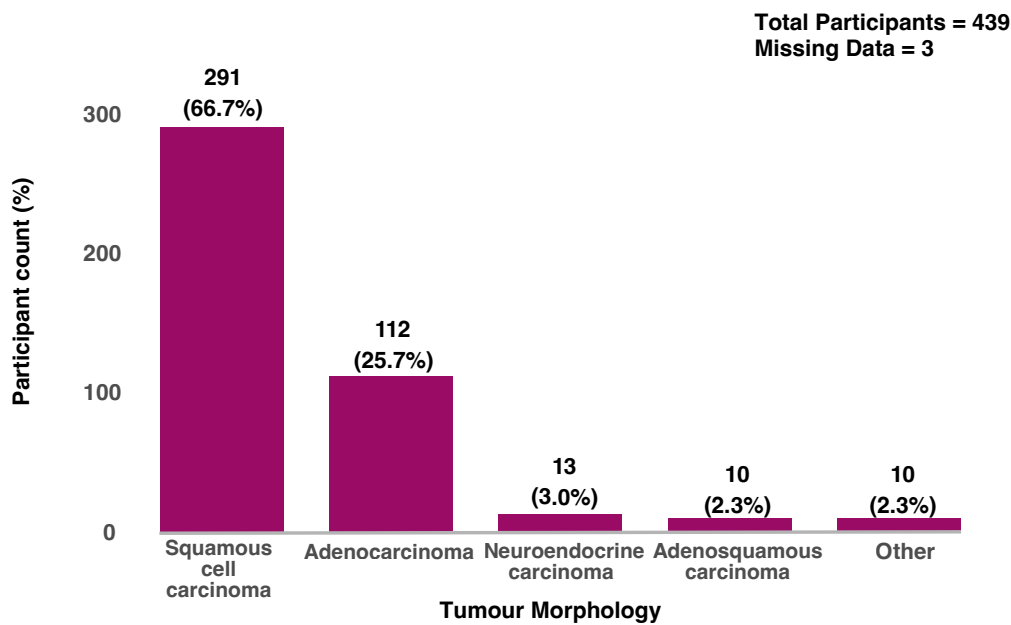


Figure 63: Cancer morphology. Cancer tissue histopathological type or classification for patients newly diagnosed with cervical cancer in 2024. All cases shown are malignant tumours. ‘Neuroendocrine carcinoma’ includes large cell neuroendocrine carcinoma (n=4) and small cell neuroendocrine carcinoma (n=9). ‘Other’ includes adenoid basal carcinoma and carcinosarcoma.

Table 17: Squamous cell carcinoma and adenocarcinoma subtypes. Squamous cell carcinoma and adenocarcinoma histopathological subtypes for patients newly diagnosed with cervical cancer in 2024.

Squamous cell carcinoma subtypes (n=291)	
	N (%)
HPV-associated	212 (72.9%)
HPV-independent	15 (5.2%)
Not otherwise specified	64 (22.0%)

Adenocarcinoma (n=112)	
	N (%)
HPV-associated	85 (75.9%)
HPV-independent, gastric type	12 (10.7%)
HPV-independent, clear cell type	4 (3.6%)
HPV-independent, mesonephric type	2 (1.8%)
HPV-independent, not otherwise specified	7 (6.3%)
Not otherwise specified	2 (1.8%)

All cases shown are malignant tumours.

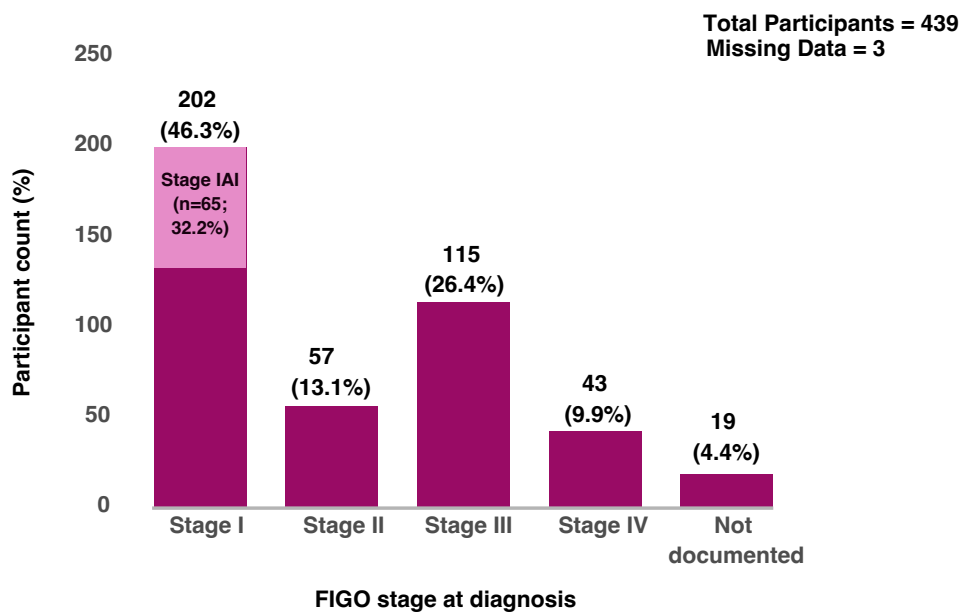


Figure 64: FIGO stage at diagnosis. Cancer stage at diagnosis for patients newly diagnosed with cervical cancer in 2024. FIGO stage refers to the spread of the tumour. Higher FIGO stages indicate greater tumour spread. Sixty-five (32.2%) stage I cancers were sub-stage IA1.

Table 18: HPV vaccination and cervical cancer screening status. HPV vaccination and cervical cancer screening status for patients newly diagnosed with cervical cancer in 2024.

Received HPV vaccination N (%)	
Yes	20 (4.6%)
No	68 (15.6%)
Not documented	349 (79.9%)

Time since last cervical cancer screening test N (%)	
<5 years ago	326 (76.5%)
≥5 years ago	23 (5.4%)
No previous screening	21 (4.9%)
Not documented	56 (13.1%)

These data were collected from patients’ medical records. Cervical screening tests may have been performed as part of patients’ diagnostic procedures. Missing data: HPV vaccination status (n=2); time since last cervical cancer screening test (n=13).

Comparing Optimal Care for Patients with Cervical Cancer

This is the first presentation of data relating to quality of care for patients newly diagnosed with cervical cancer in 2024. Quality of care was measured using 13 CQIs. As these CQIs are being presented for the first time, detailed explanations are provided below and in Appendix D.

Diagnosis and Staging

CQI 1: Proportion of patients with newly diagnosed cervical cancer who are presented at a multidisciplinary team meeting

Multidisciplinary meetings (MDMs) are a collaborative approach where healthcare professionals from different specialties come together to develop comprehensive and patient-centred treatment and management plans. Evidence suggests that cancer patients who are managed by a multidisciplinary team are more likely to have complete investigations, staging, and active treatments, and better survival outcomes compared to those who are not managed by a multidisciplinary team¹².

Almost all (97.9%) patients with newly diagnosed cervical cancer were discussed at an MDM (Figure 65). Outliers on this funnel plot may represent incomplete documentation. Risk adjustment was not applicable for this CQI.

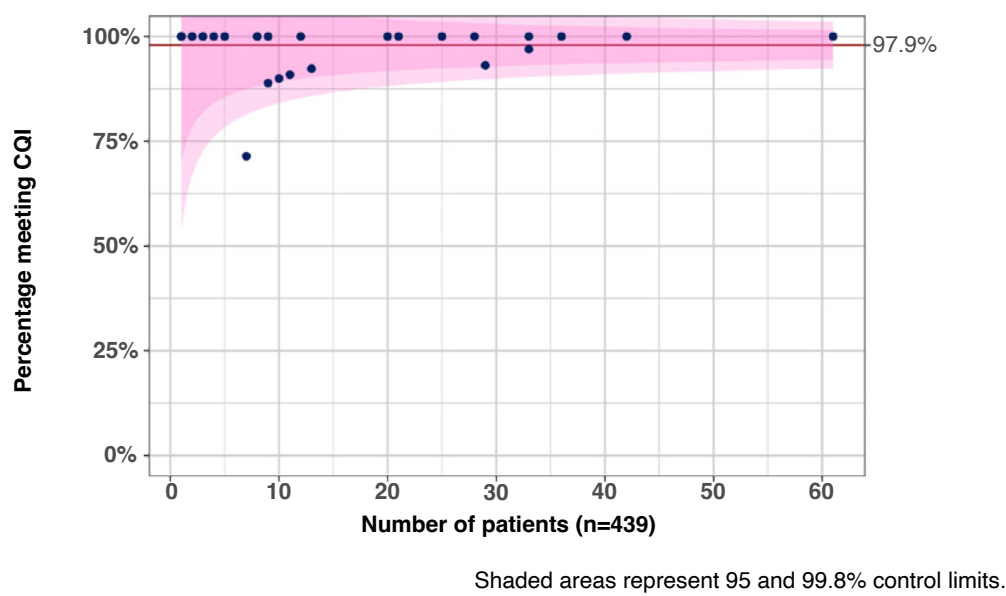


Figure 65: Cervical Cancer CQI 1. Proportion of patients with newly diagnosed cervical cancer in 2024 who were discussed at an MDM. Risk adjustment was not applicable for this CQI. Five patients had missing data which was considered non-adherence to this CQI.

CQI 2: Proportion of patients with newly diagnosed cervical cancer who have imaging (CT/PET/MRI) to stage their cancer prior to commencing treatment

Imaging is essential to inform treatment planning as it provides information on cancer size and spread. There is currently no national best practice guideline for imaging cervical cancer patients, therefore this CQI is presented as a bar graph showing the frequency of each method used.

Overall, 371 patients newly diagnosed with cervical cancer had imaging to stage their cancer prior to treatment. Figure 66 shows the most common types of imaging performed were PET scan (74%) and MRI scan of the pelvis (70%). Less than half of patients had a CT scan of the pelvis (44%), abdomen (44%) or chest (37%). The least common imaging methods used were ultrasound of the abdomen (2%) and x-ray of the chest (2%).

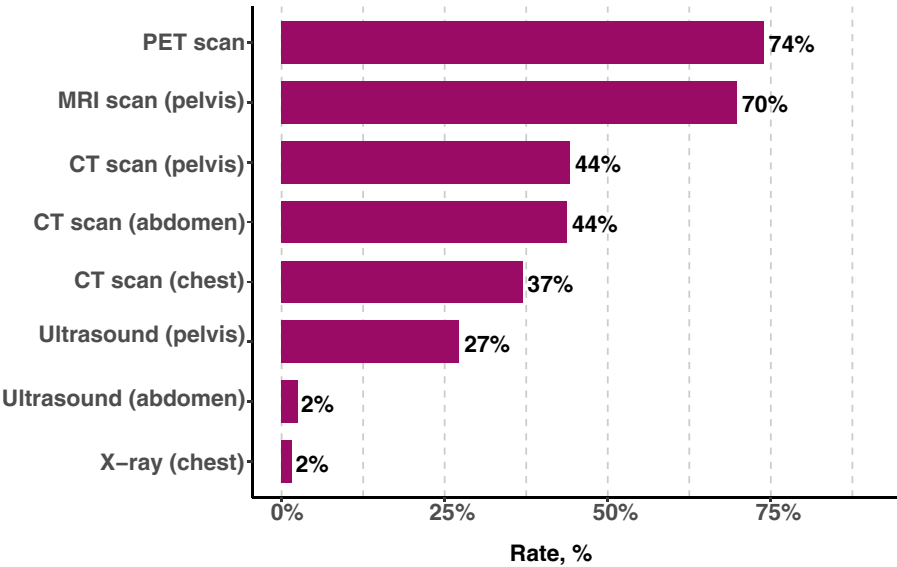


Figure 66: Cervical Cancer CQI 2. Proportion of patients newly diagnosed with cervical cancer in 2024 who had imaging to stage their cancer prior to commencing treatment. Risk adjustment was not applicable for this CQI. Some patients may have received more than one type of imaging.

CQI 6: Proportion of patients with newly diagnosed cervical cancer whose pathology report contains the core elements defined by the ICCR and the RCPA

The ICCR has developed a structured pathology reporting template for primary cervical cancers¹³. This template has been endorsed by the RCPA¹⁴, and is required by the National Association of Testing Authorities (NATA) for the accreditation of pathology laboratories in Australia. The template contains core elements essential for the clinical management, staging, and prognosis of cervical cancer. Combined, these elements are considered to be the minimum reporting standard for cervical cancer¹³.

Overall, 15.7% of patients newly diagnosed with cervical cancer who underwent surgical treatment had a pathology report that contained all core elements required by the ICCR and RCPA (Figure 67). Pathology reports needed to include all core elements to meet this CQI. Risk-adjustment was not applicable for this CQI.

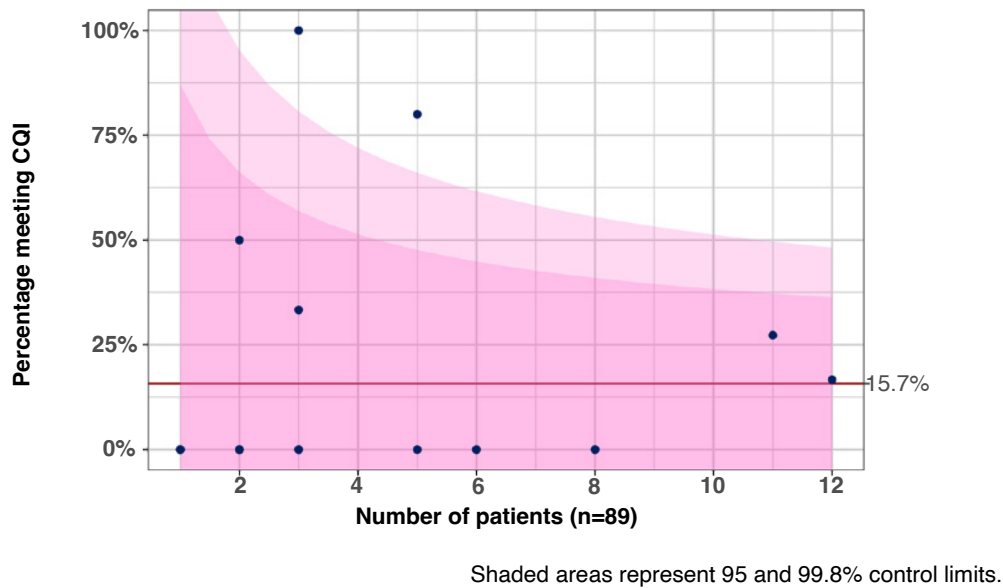


Figure 67: Cervical Cancer CQI 6. Proportion of patients newly diagnosed with cervical cancer in 2024 whose pathology report contained the core elements defined by the ICCR and the RCPA. Pathology reports needed to include all core elements to meet this CQI. Risk-adjustment was not applicable for this CQI. Six patients had missing data which was considered non-adherence to this CQI.

Surgical Treatment

CQI 3: Proportion of patients with newly diagnosed stage IB (including sub-stages) cervical cancer who undergo radical hysterectomy and pelvic lymphadenectomy

Radical hysterectomy and pelvic lymphadenectomy are recommended treatments for patients with stage IB cervical cancer¹⁵. Overall, 54.5% of patients newly diagnosed with stage IB cervical cancer underwent radical hysterectomy and pelvic lymphadenectomy (Figure 68). The outcome for this CQI may depend on patient risk factors such as age and/or comorbidities. Neither factor significantly impacted the result for this CQI, therefore, no risk adjustment was applied.

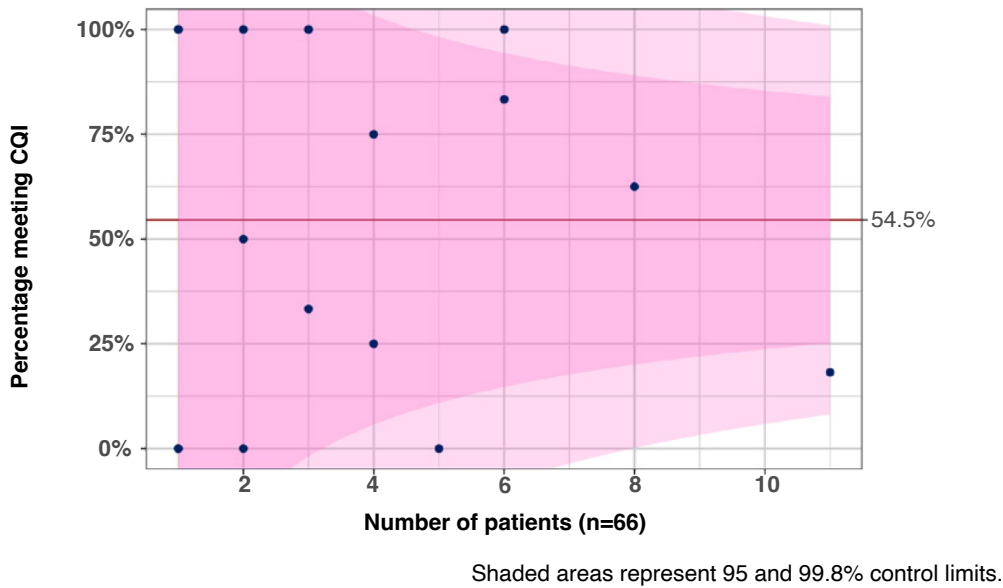


Figure 68: Cervical Cancer CQI 3. Proportion of patients newly diagnosed with stage IB (including sub-stages) cervical cancer in 2024 who underwent radical hysterectomy and pelvic lymphadenectomy. Patients who had a lymph node procedure separate to a hysterectomy are excluded from this analysis. No risk-adjustment variables had a statistically significant impact on this outcome. No patients had missing data for this CQI.

CQI 4: Proportion of patients undergoing surgical treatment for newly diagnosed cervical cancer who also undergo bilateral sentinel lymph node biopsy

Sentinel lymph node (SLN) biopsies enable clinicians to assess cancer spread, providing more precise staging information to guide treatment decisions. Evidence shows that lymph node sampling using blue dye and radiocolloid or indocyanine green is associated with less morbidity compared to a full lymphadenectomy^{16, 17}.

Overall, 27.7% of patients newly diagnosed with cervical cancer who underwent surgical treatment also had a bilateral SLN biopsy (Figure 69). The outcome for this CQI may depend on patient risk factors such as age, cancer stage, and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied.

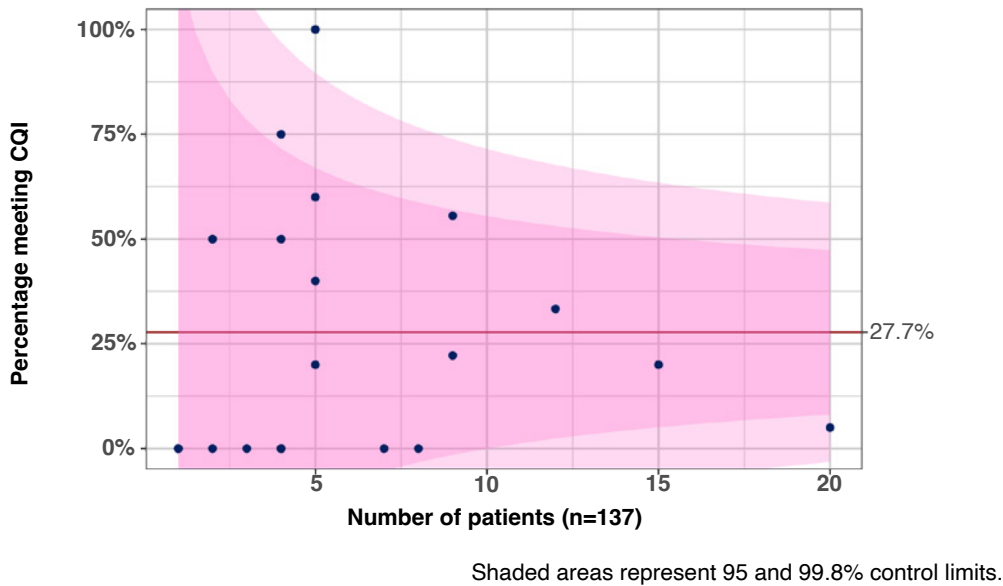


Figure 69: Cervical Cancer CQI 4. Proportion of patients newly diagnosed with cervical cancer in 2024 who had surgical treatment and also underwent bilateral SLN biopsy. Patients who had a lymph node procedure separate to their surgical treatment are excluded from this analysis. No identified risk-adjustment variables had a statistically significant impact on this outcome. Two patients had missing data which was considered non-adherence to this CQI.

CQI 5: Proportion of patients with newly diagnosed cervical cancer whose surgical margins are negative for cancer following simple or radical hysterectomy or trachelectomy

Positive surgical margins are defined by the presence of cancer cells at the edge of resected tissue and are linked to a higher likelihood of disease recurrence¹⁸. Achieving negative surgical margins is an indicator of preoperative assessment, imaging, and surgery quality. Patients with positive surgical margins typically require adjuvant therapy. The European Society of Gynaecological Oncology (ESGO) target for negative surgical margins is $\geq 97\%$ ¹⁹.

Overall, 85.0% of patients newly diagnosed with cervical cancer had negative surgical margins following simple or radical hysterectomy or trachelectomy (Figure 70). The outcome for this CQI may depend on patient risk factors such as age, cancer stage, and/or comorbidities. Only cancer stage significantly impacted the result for this CQI and was applied for risk adjustment.

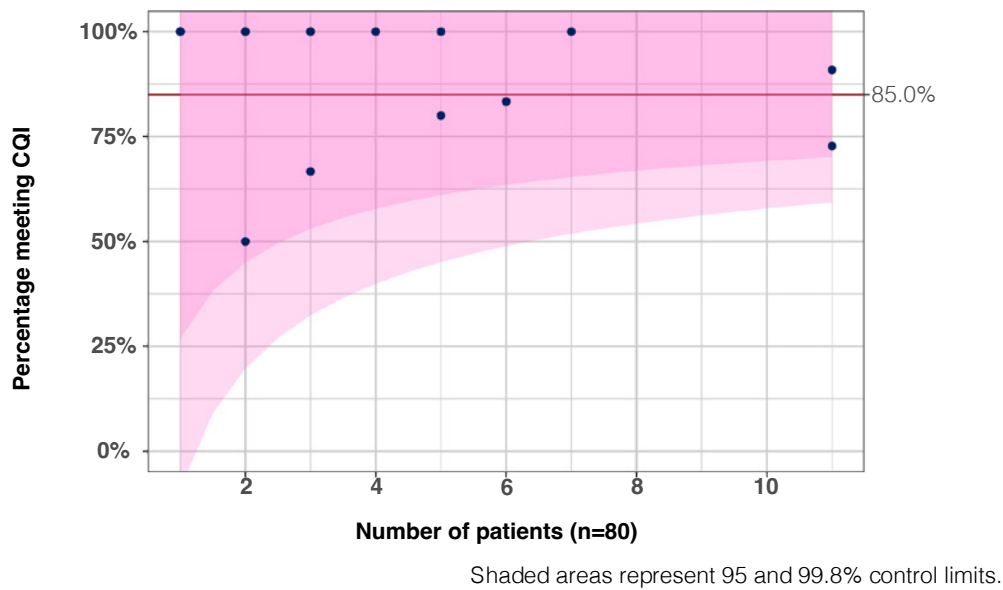


Figure 70: Cervical Cancer CQI 5. Proportion of patients newly diagnosed with cervical cancer in 2024 whose surgical margins were negative for cancer following simple or radical hysterectomy or trachelectomy. Risk-adjustment for cancer stage was applied for this CQI. Three patients had missing data which was considered non-adherence to this CQI.

CQI 7: Proportion of patients with newly diagnosed cervical cancer who experience one or more unplanned intraoperative events during surgical treatment

Unplanned intraoperative events refer to negative events that occur during surgery which were unanticipated. Overall, two (1.1%) patients newly diagnosed with cervical cancer had an unplanned intraoperative event during surgical treatment (Figure 71). These events were nerve injury and ureter injury. The occurrence of unplanned intraoperative events may depend on patients’ age, cancer stage, and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied.

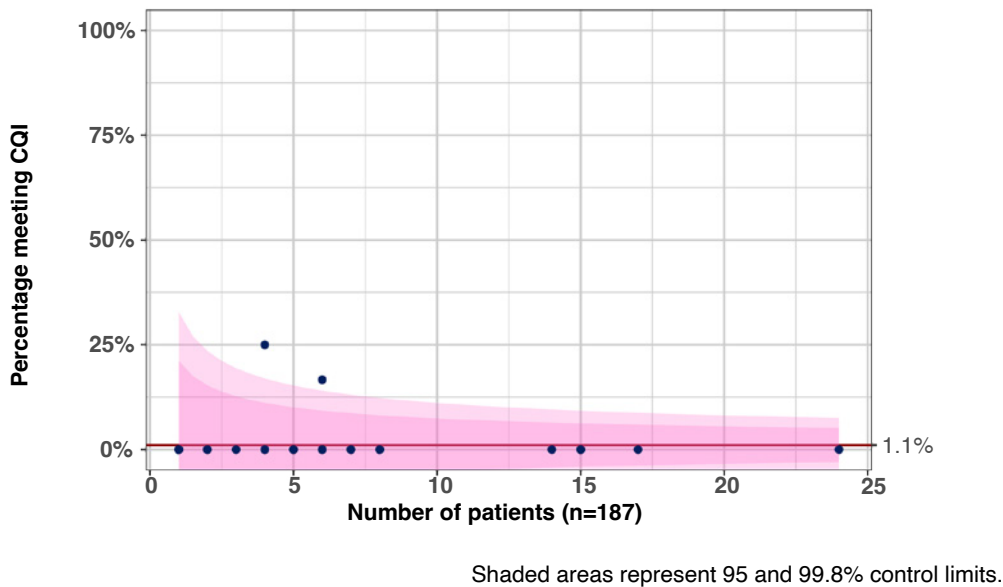


Figure 71: Cervical Cancer CQI 7. Proportion of patients newly diagnosed with cervical cancer in 2024 who experienced one or more unplanned intraoperative events during surgical treatment. No identified risk-adjustment variables had a statistically significant impact on this outcome. Eight patients had missing data for this CQI and were assumed not to have had an intraoperative event.

CQI 8: Proportion of patients with newly diagnosed cervical cancer who experience one or more serious adverse events (Clavien–Dindo ≥ Grade III) in the first 30 days following surgical treatment

The Clavien–Dindo Classification system²⁰ is used to categorise postoperative adverse events. The five–grade system grades surgical complications from Grade I (any deviation from normal postoperative course, not requiring further treatment other than antiemetics, antipyretics, analgesics, diuretics/electrolytes, and physiotherapy) to Grade V (patient death). Clavien–Dindo Grade III includes postoperative events that require surgical, endoscopic or radiological intervention. Across all NGOR modules, serious postoperative adverse events are considered Clavien–Dindo Grades III–V.

Overall, five (2.7%) patients newly diagnosed with cervical cancer experienced one serious adverse event each within 30 days of their surgery (Figure 72). Event types and outcomes are presented in Figure 73 and Figure 74 respectively. The occurrence of serious adverse events post–surgery can depend on patients’ age at diagnosis, cancer stage, and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied.

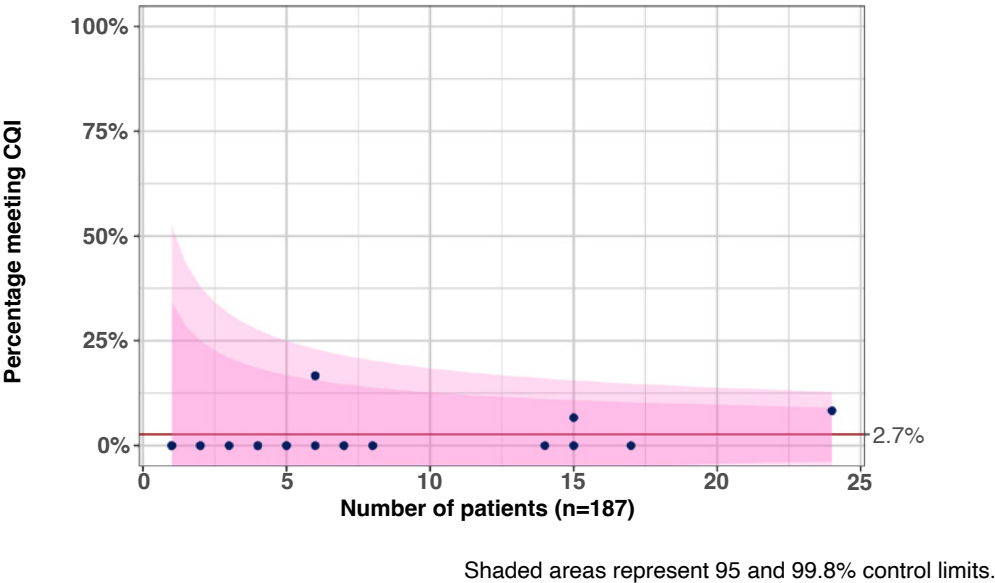


Figure 72: Cervical Cancer CQI 8. Proportion of patients newly diagnosed with cervical cancer in 2024 who experienced one or more serious (Clavien–Dindo ≥ Grade III) adverse events within the first 30 days post–surgery. No identified risk–adjustment variables had a statistically significant impact on this outcome. Nine patients had missing data for this CQI and were assumed not to have had a serious postoperative adverse event.

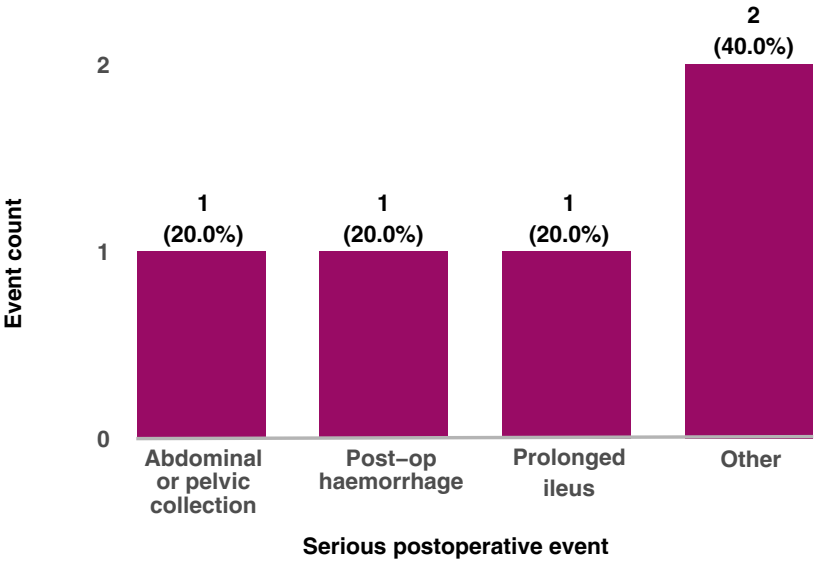


Figure 73: Types of serious postoperative adverse events. Types of serious (Clavien–Dindo ≥ Grade III) 30–day postoperative adverse events experienced by patients newly diagnosed with cervical cancer in 2024 who underwent surgical treatment. ‘Other’ includes laparoscopy for the removal of a retained drainage tube, and frank haematuria postop.

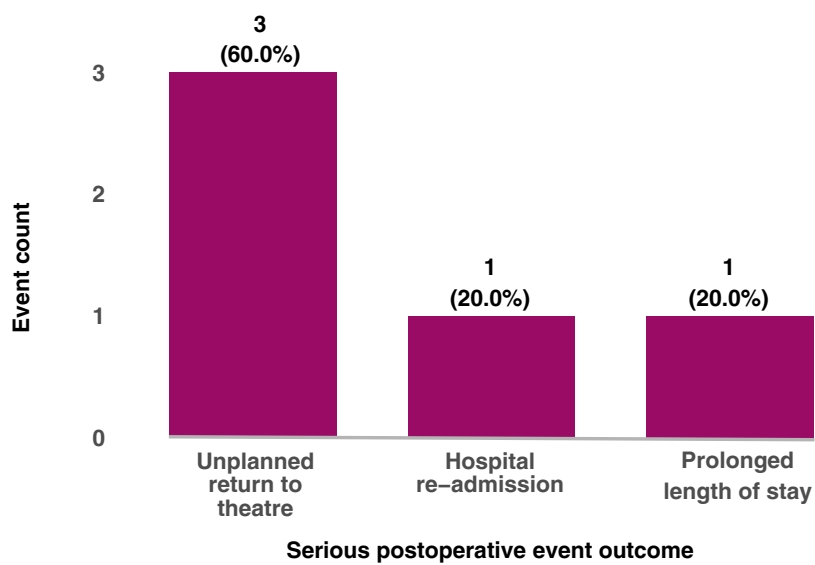


Figure 74: Outcomes from serious postoperative adverse events. Outcomes from serious (Clavien–Dindo ≥ Grade III) 30-day postoperative adverse events experienced by patients newly diagnosed with cervical cancer in 2024.

Non-Surgical Treatment

CQI 9: Proportion of patients with newly diagnosed cervical cancer undergoing definitive radiotherapy who receive concurrent platinum-based chemotherapy

Several clinical trials have shown significantly better progression-free and overall survival for patients who receive radiotherapy with concurrent chemotherapy compared to radiotherapy alone²¹.

Overall, 87.1% of patients newly diagnosed with cervical cancer underwent concurrent definitive radiotherapy and platinum-based chemotherapy (Figure 75). The outcome for this CQI may depend on patient risk factors such as age, cancer stage and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied.

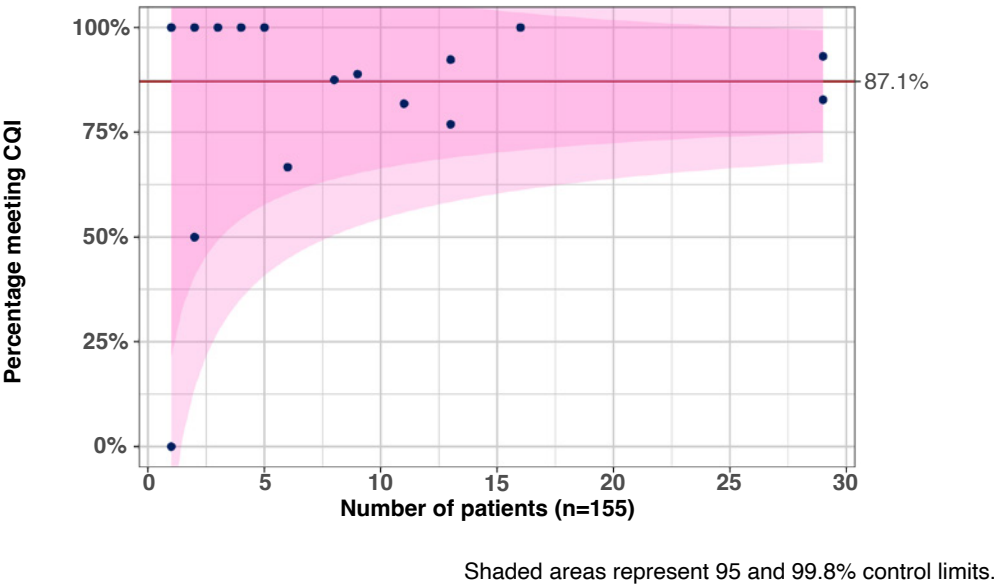


Figure 75: Cervical Cancer CQI 9. Proportion of patients newly diagnosed with cervical cancer in 2024 who underwent definitive radiotherapy and also received concurrent platinum-based chemotherapy. No identified risk-adjustment variables had a statistically significant impact on this outcome. Six patients had missing data which was considered non-adherence to this CQI.

CQI 10: Proportion of patients with newly diagnosed cervical cancer whose definitive radiotherapy is completed within 56 days of commencement

For patients newly diagnosed with cervical cancer, completion of radiotherapy within 56 days of commencement is recommended for optimal treatment outcomes, including tumour control and survival^{22, 23}.

Overall, 84.5% of patients newly diagnosed with cervical cancer completed radiotherapy within 56 days of commencement (Figure 76). The outcome for this CQI may depend on patient risk factors such as age, cancer stage, and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied. Median time to complete definitive radiotherapy was 46 days (IQR: 43–52 days). Overall, 58.7% of patients completed their treatment within 49 days of commencement.

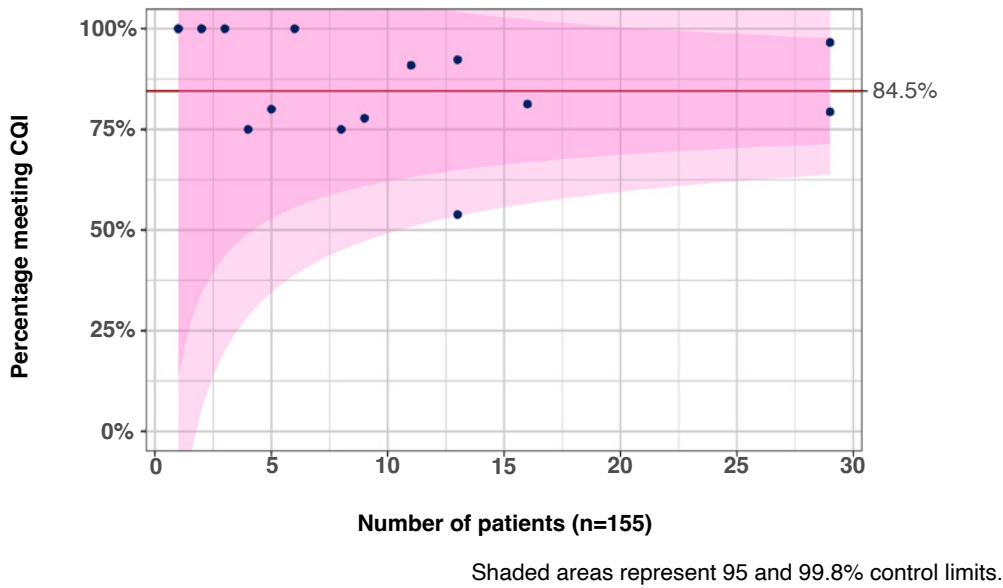


Figure 76: Cervical Cancer CQI 10. Proportion of patients newly diagnosed with cervical cancer in 2024 whose definitive radiotherapy was completed within 56 days of commencement. No identified risk-adjustment variables had a statistically significant impact on this outcome. Two patients had missing data which was considered non-adherence to this CQI.

CQI 11: Proportion of patients with newly diagnosed cervical cancer having definitive external beam radiotherapy who also have brachytherapy boost

For some patients newly diagnosed with cervical cancer, such as those with locally advanced disease, the standard of care generally involves external beam radiotherapy (EBRT) and brachytherapy boost²⁴.

Overall, 90.3% of patients newly diagnosed with cervical cancer who had definitive EBRT, also had brachytherapy boost (Figure 77). The outcome for this CQI may depend on patient risk factors such as age, cancer stage and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied.

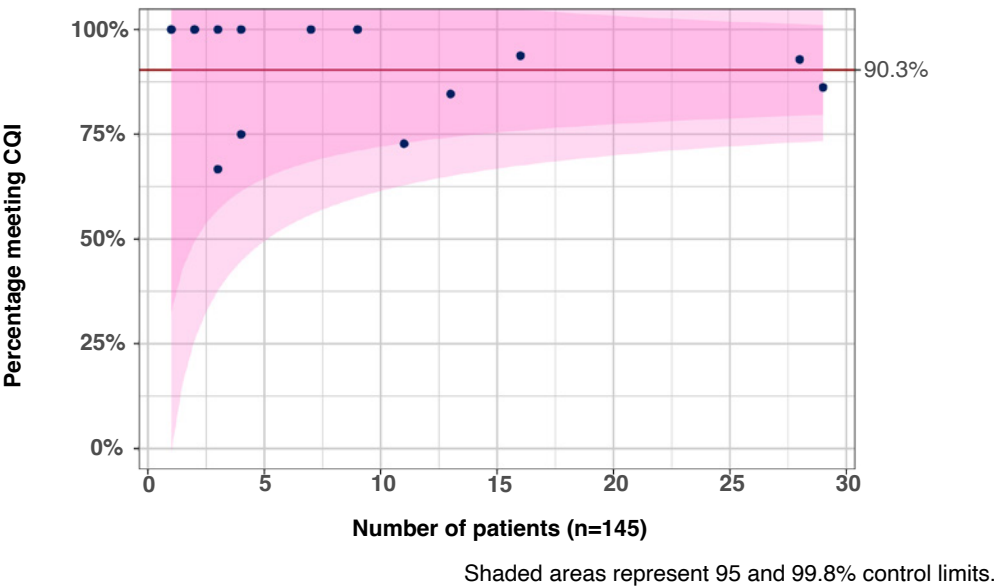


Figure 77: Cervical Cancer CQI 11. Proportion of patients newly diagnosed with cervical cancer in 2024 who had definitive EBRT and brachytherapy boost. No identified risk-adjustment variables had a statistically significant impact on this outcome. No patients had missing data for this CQI.

CQI 12: Proportion of patients with newly diagnosed cervical cancer who receive adjuvant treatment (radiotherapy either with or without concurrent chemotherapy) after radical hysterectomy and pelvic lymphadenectomy

The use of adjuvant treatment after surgery should be avoided where possible because of a higher risk of complications after combined treatment¹⁹. While the NGOR has not defined a specific target for this CQI, ESGO have recommended a benchmark of <15%¹⁹.

Overall, 26.2% of patients newly diagnosed with cervical cancer received adjuvant treatment after radical hysterectomy and pelvic lymphadenectomy (Figure 78). The outcome for this CQI may depend on patient risk factors such as age, cancer stage and/or comorbidities. These factors did not significantly impact the result for this CQI, therefore, no risk adjustment was applied.

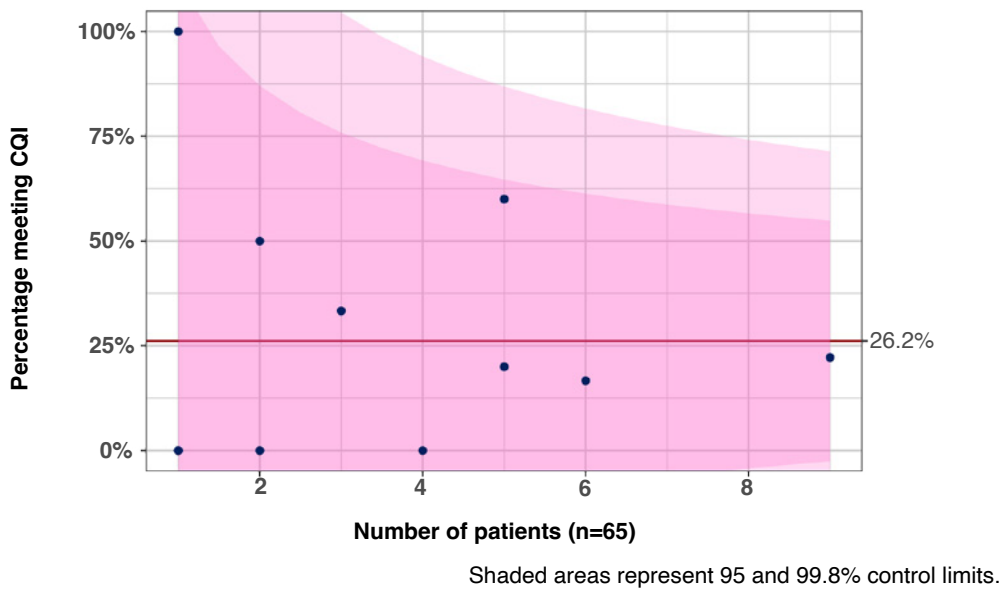


Figure 78: Cervical Cancer CQI 12. Proportion of patients newly diagnosed with cervical cancer in 2024 who received adjuvant treatment (radiotherapy either with or without concurrent chemotherapy) after radical hysterectomy and pelvic lymphadenectomy. No identified risk-adjustment variables had a statistically significant impact on this outcome. Two patients had missing data which was interpreted as the patient not receiving adjuvant treatment after a hysterectomy and pelvic lymphadenectomy.

CQI 13: Proportion of patients with newly diagnosed stage IVB cervical cancer, who are treated with carboplatin, paclitaxel, bevacizumab and pembrolizumab

The addition of pembrolizumab to platinum-based chemotherapy and bevacizumab has been shown to significantly improve progression-free and overall survival in metastatic cervical cancer patients, without adversely affecting quality of life^{25, 26}.

Overall, 36.0% of patients newly diagnosed with stage IVB cervical cancer were treated with carboplatin, paclitaxel, bevacizumab and pembrolizumab (Figure 79). Risk adjustment was not assessed for this CQI due to the small number of patients in the denominator.

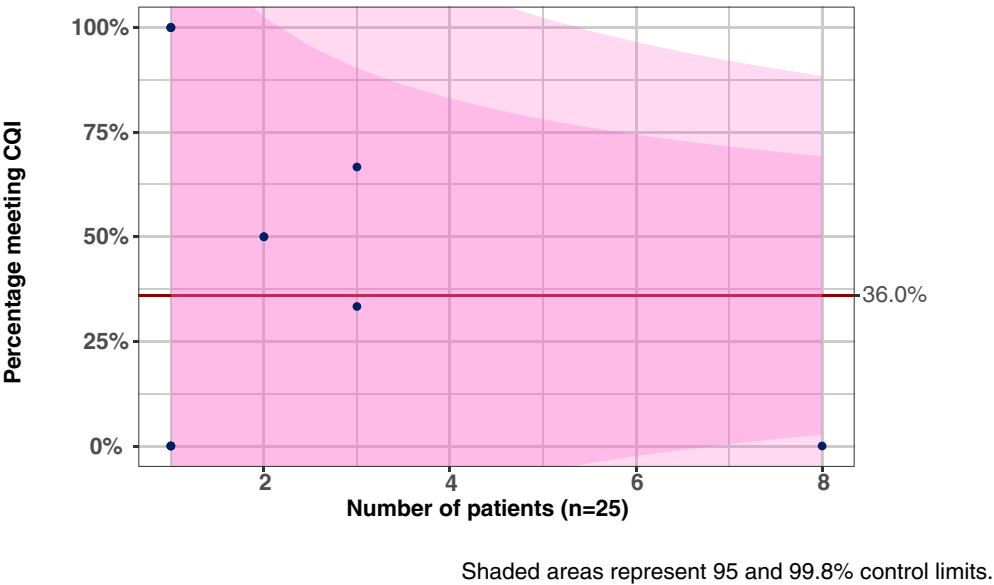


Figure 79: Cervical Cancer CQI 13. Proportion of patients newly diagnosed with stage IVB cervical cancer in 2024 who were treated with carboplatin, paclitaxel, bevacizumab and pembrolizumab. Risk-adjustment was not applied to this CQI. No patients had missing data for this CQI.

Future Directions

A key priority for the NGOR will be to further strengthen our Cervical Cancer Module. Ongoing work will focus on improving national case ascertainment and enhancing the completeness of data capture, by increasing our partnerships with relevant hospitals around Australia (including radiotherapy centres), and establishing linkage with key government datasets. These changes will enable more robust reporting and better inform on the safety, quality, and equity of care received by patients nationally. The NGOR will also undertake work to identify PROMs and PREMs that are suitable for implementation into the Cervical Cancer Module. This process will be guided by cervical cancer patients to ensure that selected measures are meaningful and acceptable to them.

Data collection and reporting for the Epithelial OTP and Non-Epithelial Ovarian Cancer Modules will continue, with ongoing efforts to also enhance national case ascertainment and strengthen the completeness of reporting, consistent with the approach that will be undertaken for the Cervical Cancer Module. The full

rollout of PROMs and PREMs across both ovarian cancer modules will support nationwide collection of patient-reported quality-of-life and experience data. Further work will focus on understanding how stakeholders wish to utilise these insights to inform service delivery and quality improvement initiatives. As major funding for the Epithelial OTP and Non-Epithelial Ovarian Cancer Modules concludes, securing sustainable funding will be essential to ensure continued operation and ongoing reporting.

The NGOR will continue to cultivate strong partnerships with gynaecological oncology and patient advocacy organisations, including OCA, ANZGOG, ASGO and OCRF. These organisations have provided substantial support to the NGOR, and ongoing collaboration with them will remain essential for advancing the Registry's objectives and impact.

Finally, routine data collection for the Endometrial Cancer Module and Vulvar Cancer Module will commence when funding is secure.



Glossary of Terms

Adjuvant treatment: Non-surgical first-line treatment occurring after surgery or other primary treatment modality.

Brachytherapy: A form of high-dose internal radiotherapy which allows delivery of radiation to a localised area while minimising exposure to surrounding healthy tissues.

Breast Cancer Gene 1 (BRCA 1): A gene on chromosome 17 that normally helps to suppress cell growth. A person who inherits certain mutations (changes) in the BRCA1 gene has a higher risk of getting breast, ovarian, prostate, and other types of cancer.

Breast Cancer Gene 2 (BRCA 2): A gene on chromosome 13 that normally helps to suppress cell growth. A person who inherits certain mutations (changes) in the BRCA2 gene has a higher risk of getting breast, ovarian, prostate, and other types of cancer.

Charlson comorbidity score: A numeric score derived from the Charlson Comorbidity Index – a method of weighting a patient's comorbid conditions based on mortality risk.

Chemo-radiotherapy: A treatment regimen concurrently combining chemotherapy and radiotherapy.

Clavien-Dindo Grade: A therapy-oriented grading system that rates any deviation from the normal postoperative course across five grades (I–V). Events graded from III–V require at least surgical or radiological intervention and may be considered serious postoperative adverse events.

Clinical quality indicator (CQI): An agreed-upon measure of optimal clinical care.

Clinical quality registry (CQR): A system which collects, reports and analyses patient information, with the intention of driving improvements in quality of care and patient outcomes.

Cytology: The examination of a single cell type, as often found in fluid specimens.

Cytoreductive surgery: Describes surgery which aims to reduce the size of tumour deposits (and the overall tumour burden) to the smallest possible size. The terms optimal (≤ 1 cm residual tumour) and complete (no visible or palpable residual tumour) cytoreductive surgery are commonly used for OTP cancer surgery.

Definitive treatment: Treatment with a curative intent.

Eastern Cooperative Oncology Group (ECOG) score: A measure of patient's level of functioning in terms of their ability to care for themselves, daily activity and physical ability. The score ranges from 0 (no impairment of function) to 5 (deceased).

External beam radiotherapy (EBRT): A method of delivering high-energy x-rays or particles from outside the body to a tumour site.

Histology: The examination of tissues and cells under a microscope.

Homologous Recombination Deficiency (HRD): A state where cells are unable to effectively repair DNA double-strand breaks. Tumours with HRD may be more sensitive to PARP inhibitors and platinum-based chemotherapy.

Germline testing: Genetic testing of non-cancerous cells, usually through a blood test.

Interval cytoreductive surgery: Surgery that occurs after 2 to 4 cycles of neoadjuvant treatment.

Missing data: Information required to determine adherence to a CQI was unavailable. Missing data could mean the information was not clearly documented in patient medical records, the data collector was unable to access it, or the information had yet to be entered into the NGOR database.

Multidisciplinary team meeting (MDM): A meeting of professionals from multiple clinical disciplines who together make decisions regarding the recommended treatment of individual patients.

Negative surgical margins: The absence of cancer cells in the outer edges of tissue removed during surgical treatment.

Neoadjuvant treatment: Non-surgical treatment occurring prior to surgery or another first-line treatment modality.

Ovarian, tubal and peritoneal (OTP) cancer: These are typically considered a collective group of malignancies.

Poly (ADP-ribose) polymerase (PARP) inhibitor (PARPi): A class of cancer drugs that target PARP, a cell protein that helps to repair damaged DNA.

Platinum-based chemotherapy: A category of chemotherapy treatments that include platinum-containing compounds, such as cisplatin or carboplatin.

Primary cytoreductive surgery: Surgery that occurs prior to any other adjuvant treatment.

Radical hysterectomy: Surgical removal of the uterus, tissue surrounding the uterus, cervix, and the top part of the vagina.

Residual disease: Cancer cells that remain after cancer treatments. This term applies to the largest deposit of tumour after cytoreductive surgery.

Risk adjustment: A statistical technique which aims to mitigate differences in patient groups that may impact a hospital's ability to meet certain clinical quality indicators.

Somatic testing: Genetic testing of cancer cells, usually through a biopsy.

Surgical staging: The process of determining the extent of tumour at laparotomy (open) or laparoscopic (minimally invasive) surgery. For OTP cancer, it involves obtaining specimens such as free intraperitoneal fluid or ascites for cytology, and biopsies from common areas of spread including the omentum, peritoneal surfaces, dense adhesions, areas of induration and the retroperitoneal nodes in the pelvis or para-aortic region.

Surgical treatment: Removal of gynaecological organs which may include other surgical staging procedures. Diagnostic procedures alone are excluded.

Trachelectomy: Surgical removal of the cervix whilst preserving the uterus.

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Appendix A

Data Collection and Interpretation

How we Collect Patient Data

Demographic and clinical data presented in this report are primarily collected from hospital medical records and clinical databases by trained clinicians and/or data collectors. This is in accordance with relevant ethics and governance approvals. Some data are acquired through data linkage with relevant State/Territory government databases.

How to Interpret This Report

Most CQI data are represented as funnel plots to illustrate comparative performance across hospitals (see the following section for an explanation). Outcomes are risk-adjusted (where appropriate) for relevant risk factors: Charlson Comorbidity Score, patient age at diagnosis, and FIGO stage. This is to account for expected variation in care that can arise between hospitals due to patient-related factors (e.g. illness severity) which can affect how patients are treated and managed by their hospital. Information about risk adjustment is provided with each funnel plot.

During this comparative process, a hospital may be found to be an 'outlier'. The interpretation of outliers depends on the CQI measured. In some instances, an outlier may be preferred (e.g. where a hospital shows significantly fewer intraoperative complications compared to other hospitals). Hospitals with outliers that might suggest poorer outcomes are encouraged to review and confirm the accuracy and completeness of their data provided to the NGOR.

Missing data means that some of the information required to determine adherence to a CQI was unavailable. This could be because the information was not clearly documented in a patient's medical record, or it was inaccessible by the data collector.

Funnel Plots

Funnel plots are recommended for benchmarking hospital data²⁷, as they account for statistical variation that comes with low patient numbers. It is important that outcomes assessed with a small number of patients are interpreted with caution.

Each dot on the funnel plot represents an individual hospital. The x-axis shows the number of patients, and the y-axis shows the percentage of patients that met the CQI.

Each funnel plot has an inner funnel (darker shaded area), an outer funnel (lighter shaded area), and a horizontal line representing the mean CQI adherence across all hospitals. Dots (hospitals) within the inner funnel indicate those hospitals' performance is within 95% (two standard deviations) of the mean. Dots within the outer funnel indicate those hospitals' performance is within 99.7% (three standard deviations) of the mean. Dots outside the shaded funnels are considered 'outliers' as their performance is outside three standard deviations from the mean.

An example funnel plot is shown below (Figure 80). Here, the mean for all hospitals is 55%. Of the 16 hospitals represented as dots, 12 are within 95% (two standard deviations) of the mean, and two (with less than 30 patients) are within 99.7% (three standard deviations) of the mean. A further two hospitals are outliers.



Figure 80: An example funnel plot. The darker shaded area represents the 95% limits (two standard deviations from the mean). The lighter shaded area represents the 99.7% limits (three standard deviations from the mean). Hospitals are represented as dots on the graph. Any hospital that is outside the lighter shaded funnel is considered an outlier. The orange line represents the average number of patients meeting the CQI across all hospitals.

Appendix B

Epithelial OTP Cancer Module Clinical Quality Indicators

No.	Description	Purpose
1	Proportion of patients with newly diagnosed epithelial OTP cancer who are presented at a multidisciplinary team meeting. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who are presented at a multidisciplinary team meeting. Denominator: All patients with newly diagnosed epithelial OTP cancer. Exclusions: None. Considerations: None.	Multidisciplinary meetings (MDMs) are a collaborative approach where healthcare professionals from different specialties come together to develop patient treatment and management plans that are comprehensive and patient-centred. Cancer patients managed by a multidisciplinary team are more likely to have complete investigations, staging, and active treatments, and better survival outcomes compared to those who are not managed by a multidisciplinary team¹².
2	Proportion of patients with newly diagnosed epithelial OTP cancer who have any combination of CT/PET/MRI imaging of their chest, abdomen and pelvis prior to commencing treatment. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who have any combination of CT/PET/MRI imaging of the chest, abdomen and pelvis prior to commencing treatment. Denominator: All patients with newly diagnosed epithelial OTP cancer. Exclusions: None. Considerations: None.	Diagnostic imaging allows clinicians to detect and determine the spread of epithelial OTP cancer prior to treatment. This is important to inform treatment plans. Computed tomography (CT) scans are effective for detecting epithelial OTP cancers including its spread to other organs²⁸. CT scans of the chest are typically performed to detect tumour spread to the lungs²⁸. Positron emission tomography (PET) scans with CT imaging are useful to detect cancer spread particularly when the exact site of the spread is unknown. Magnetic resonance imaging (MRI) is also effective for determining cancer size and spread but is less frequently used²⁸⁻³⁰.
3	Proportion of patients with newly diagnosed epithelial OTP cancer who have histological or cytological confirmation of diagnosis prior to receiving first-line neoadjuvant chemotherapy. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who have histological or cytological confirmation of diagnosis prior to receiving first-line neoadjuvant chemotherapy. Denominator: All patients with newly diagnosed epithelial OTP cancer who receive first-line neoadjuvant chemotherapy. Exclusions: None. Considerations: Neoadjuvant chemotherapy includes patients who did not go on to have surgical treatment.	Obtaining a cancer diagnosis by assessing a sample of cells via histopathology or cytopathology is necessary to mitigate the risk of misdiagnosis and sub-optimal approaches to treatment.

4	Proportion of patients with newly diagnosed, clinically apparent Stage I or II epithelial OTP cancer who undergo surgical staging procedures. Numerator: Number of patients with newly diagnosed Stage I or II epithelial OTP cancer who undergo surgical staging procedures. Denominator: All patients with newly diagnosed apparent Stage I or II epithelial OTP cancer who undergo surgical treatment. Exclusions: None. Considerations: None.	Surgical staging provides information about cancer size and spread that is necessary to understand a patient's prognosis and guide treatment decision-making. Surgical staging procedures can vary but include any of the following: peritoneal washings, omentum sampling, biopsies of suspicious and normal tissue, and appendectomy (for mucinous tumours)^{7, 30}. Pelvic and para-aortic lymph node sampling is also recommended as epithelial OTP cancer can spread to nearby lymph nodes³¹. Hysterectomy and bilateral salpingo-oophorectomy are usually performed but not always required particularly where fertility sparing treatment is intended.
5A	Proportion of patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who have no macroscopic residual cancer following primary cytoreductive surgery. Numerator: Number of patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who have no macroscopic residual cancer following primary cytoreductive surgery. Denominator: All patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who undergo primary cytoreductive surgery. Exclusions: None. Considerations: None.	An outcome of no macroscopic residual cancer or residual cancer $\leq 1\text{cm}$ is associated with better patient prognosis compared to sub-optimal debulking (residual cancer of $>1\text{cm}$ remaining after surgery)^{32, 33}.
5B	Proportion of patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who have $\leq 1\text{cm}$ macroscopic residual cancer following primary cytoreductive surgery. Numerator: Number of patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who have $\leq 1\text{cm}$ macroscopic residual cancer following primary cytoreductive surgery. Denominator: All patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who undergo primary cytoreductive surgery. Exclusions: Patients who have no macroscopic residual cancer after primary cytoreductive surgery were excluded from this CQI (see CQI 5A). Considerations: None.	See description for CQI 5A.
6A	Proportion of patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who have no macroscopic residual cancer following interval cytoreductive surgery. Numerator: Number of patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who have no macroscopic residual cancer following interval cytoreductive surgery. Denominator: All patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who undergo interval cytoreductive surgery. Exclusions: None. Considerations: None.	See description for CQI 5A.

6B	Proportion of patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who have ≤1cm macroscopic residual cancer following interval cytoreductive surgery. Numerator: Number of patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who have ≤1cm macroscopic residual cancer following interval cytoreductive surgery. Denominator: All patients with newly diagnosed advanced (Stage IIB, III and IV) epithelial OTP cancer who undergo interval cytoreductive surgery. Exclusions: Patients who have no macroscopic residual cancer after interval cytoreductive surgery were excluded from this CQI (see CQI 6A). Considerations: None.	See description for CQI 5A.
7	Proportion of patients with newly diagnosed epithelial OTP cancer who experience one or more unplanned intraoperative events during surgical treatment. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who experience one or more unplanned intraoperative events during surgical treatment. Denominator: All patients with newly diagnosed epithelial OTP cancer who undergo surgical treatment. Exclusions: None. Considerations: None.	Unplanned intraoperative events refer to adverse events that occur during surgery which were unanticipated. This includes excessive bleeding or damage to an adjacent internal organ.
8	Proportion of patients with newly diagnosed epithelial OTP cancer who experience one or more serious adverse events (Clavien–Dindo ≥ Grade III) in the first 30 days following surgical treatment. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who experience one or more serious adverse events (Clavien–Dindo ≥ Grade III) in the first 30 days following surgical treatment. Denominator: All patients with newly diagnosed epithelial OTP cancer who undergo surgical treatment. Exclusions: None. Considerations: None.	The Clavien–Dindo Classification system ³⁴ is used to categorise postoperative adverse events. The five–grade system defines and grades surgical complications, ranging from Grade I (any deviation from the normal postoperative course, not requiring further treatment other than antiemetics, antipyretics, analgesics, diuretics/electrolytes, and physiotherapy) to Grade V (patient death). Clavien–Dindo Grade III reflects postoperative events that require surgical, endoscopic or radiological intervention. Across all NGOR modules, serious postoperative complications are considered Clavien–Dindo Grade III–V.
9	Proportion of patients with newly diagnosed epithelial OTP cancer whose pathology report is structured as per the RCPA and ICCR guidelines. Numerator: Number of patients with newly diagnosed epithelial OTP cancer whose pathology report is structured as per the RCPA and ICCR guidelines. Denominator: All patients with newly diagnosed epithelial OTP cancer who have histopathology. Exclusions: None. Considerations: None.	Comprehensive pathology reports outlining key information about surgically extracted tissue samples, follow the structure defined by the Royal College of Pathologists of Australasia (RCPA) ³⁵ and the International Collaboration on Cancer Reporting (ICCR) ³⁶ . This structure includes having sections for: clinical information, macroscopic findings, microscopic findings, and a synthesis/overview.

10	Proportion of patients with newly diagnosed epithelial OTP cancer who receive first-line chemotherapy with a platinum and taxane doublet. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who receive first-line chemotherapy with a platinum and taxane doublet. Denominator: All patients with newly diagnosed epithelial OTP cancer who receive first-line chemotherapy. Exclusions: Patients with neuroendocrine, carcinoid, small cell, adenosquamous, squamous cell, and mesonephric-like OTP cancer are excluded from this CQI. Considerations: Patients with a taxane allergy may be included in the denominator.	‘First-line’ chemotherapy is the first round of chemotherapy administered for the new cancer. This can occur before or after primary surgery. Guidelines by Cancer Australia³⁷, state that first-line chemotherapy to treat epithelial OTP cancer should include a platinum compound, which should be administered in the form of a doublet with taxane.
11	Proportion of patients with newly diagnosed sub-optimally debulked epithelial OTP cancer (residual disease >1cm), or newly diagnosed Stage IV epithelial OTP cancer, who receive first-line chemotherapy with a platinum-taxane doublet and bevacizumab. Numerator: Number of patients with newly diagnosed sub-optimally debulked epithelial OTP cancer (residual disease >1cm), or newly diagnosed Stage IV epithelial OTP cancer, who receive first-line chemotherapy with a platinum-taxane doublet and bevacizumab. Denominator: All patients with newly diagnosed sub-optimally debulked epithelial OTP cancer (residual disease >1cm), or newly diagnosed Stage IV epithelial OTP cancer, who receive first-line chemotherapy. Exclusions: Patients with neuroendocrine, carcinoid, small cell, adenosquamous, squamous cell and mesonephric-like OTP cancer are excluded from this CQI. Considerations: Completion of data collection before bevacizumab treatment begins may contribute to low adherence. Patients with a taxane allergy or bevacizumab contraindication may be included in the denominator. Patients who receive bevacizumab as maintenance treatment after ceasing first-line chemotherapy are included in this CQI.	In cases where epithelial OTP cancer is sub-optimally debulked (i.e. >1cm of residual cancer remaining after surgery) or categorised as Stage IV, targeted therapies can be administered alongside first-line chemotherapy to improve patient outcomes. Bevacizumab is an effective targeted therapy given alongside chemotherapy with a platinum-taxane doublet.
12A	Proportion of patients with newly diagnosed epithelial OTP cancer who commence first-line adjuvant chemotherapy within 28 days of surgical treatment. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who commence first-line adjuvant chemotherapy within 28 days of surgical treatment. Denominator: All patients with newly diagnosed epithelial OTP cancer who receive adjuvant chemotherapy. Exclusions: None. Considerations: None.	Longer wait times between surgery and the start of adjuvant chemotherapy are associated with poorer survival rates for patients with epithelial OTP cancer³⁸⁻⁴¹. In addition, delays to chemotherapy commencement even for patients with no residual cancer after surgery can lead to earlier cancer recurrence³⁹. Optimal care guidelines state that adjuvant chemotherapy should commence within 28 days of surgery for patients with epithelial OTP cancer⁴². This is consistent with research indicating that overall survival is significantly compromised for patients who have sub-optimal debulking and commence adjuvant chemotherapy more than 28 days after surgery³⁸.

12B	Proportion of patients with newly diagnosed epithelial OTP cancer who commence first-line neoadjuvant chemotherapy within 28 days of diagnosis. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who commence first-line neoadjuvant chemotherapy within 28 days of diagnosis. Denominator: All patients with newly diagnosed epithelial OTP cancer who receive neoadjuvant chemotherapy. Exclusions: None. Considerations: Neoadjuvant chemotherapy includes patients who did not go on to have surgical treatment.	For some Stage III or IV epithelial OTP cancers, chemotherapy may commence prior to surgery (neoadjuvant chemotherapy) or be provided as the only treatment (e.g. where the patient is too unwell, or the disease is too advanced for the surgery to be successful). Neoadjuvant chemotherapy should commence within 28 days of diagnosis⁴².
13	Proportion of patients with newly diagnosed epithelial OTP cancer who have germline or somatic testing to identify a BRCA mutation before completing first-line chemotherapy. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who have germline or somatic testing to identify a BRCA mutation before completing first-line chemotherapy. Denominator: All patients with newly diagnosed epithelial OTP cancer who receive first-line chemotherapy. Exclusions: Patients with Grade 1 epithelial OTP cancer, or mucinous, neuroendocrine, carcinoid, small cell, adenosquamous, squamous cell, and mesonephric-like OTP cancer are excluded from this CQI. Considerations: None.	For epithelial OTP cancer, genetic testing is recommended to identify germline (hereditary) or somatic (tumour originating) mutations in the BRCA1 and BRCA2 genes. Research suggests the risk of developing ovarian cancer is 44% for patients with BRCA1 mutations and 17% for those with BRCA2 mutations up to the age of 80 years⁴³. It is generally recommended that all patients with epithelial OTP cancer are offered genetic counselling and testing for BRCA1 and BRCA2 mutations; however, in Australia funding is only available for patients with high grade non-mucinous epithelial cancers^{42, 44, 45}.
14	Proportion of patients with newly diagnosed, advanced (FIGO Stage III–IV), high-grade epithelial OTP cancer who receive HRD testing. Numerator: Number of patients with newly diagnosed, advanced (FIGO Stage III–IV), high-grade epithelial OTP cancer who receive HRD testing. Denominator: All patients with newly diagnosed, advanced (FIGO Stage III–IV), high-grade epithelial OTP cancer. Exclusions: Patients with neuroendocrine, carcinoid, small cell, adenosquamous, squamous cell and mesonephric-like OTP cancer are excluded from this CQI. Considerations: None.	Homologous recombination repair deficiency (HRD) is a common feature of high-grade serous epithelial OTP cancers. Patients newly diagnosed with advanced, high grade serous OTP cancer are recommended receive HRD testing to determine the likely benefit of PARPi therapy^{46, 47}.

15	Proportion of patients with newly diagnosed, advanced (FIGO Stage III–IV), high-grade epithelial OTP cancer who are HRD-positive that receive PARPi therapy. Numerator: Number of patients with newly diagnosed, advanced (FIGO Stage III–IV), high-grade epithelial OTP cancer who are HRD-positive and receive PARPi therapy. Denominator: All patients with newly diagnosed, advanced (FIGO Stage III–IV), high-grade epithelial OTP cancer who are HRD-positive. Exclusions: Patients who do not have a serous or endometrioid OTP cancer are excluded from this CQI. Considerations: Current standard of care in Australia for these patients typically involves PARPi and bevacizumab but there is no evidence that this regimen is better practice.	Patients diagnosed with advanced epithelial OTP cancer who receive PARPi treatment alone or in combination with Bevacizumab are shown to have significantly improved progression-free survival^{48, 49}.
16	Proportion of patients with newly diagnosed epithelial OTP cancer who have germline or somatic mutations of BRCA1 or BRCA2 and commence maintenance PARPi therapy within eight weeks of ceasing first-line chemotherapy. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who have germline or somatic mutations of BRCA1 or BRCA2 and commence maintenance PARPi therapy within eight weeks ceasing first-line chemotherapy. Denominator: All patients with newly diagnosed epithelial OTP cancer who have germline or somatic mutations of BRCA1 or BRCA2 who completed first-line chemotherapy. Exclusions: Patients initially diagnosed with Stage I or II OTP cancer, or neuroendocrine, carcinoid, small cell, adenosquamous, squamous cell, and mesonephric-like OTP cancer are excluded from this CQI. Considerations: None.	Poly (ADP-ribose) polymerase inhibitors (PARPi) target BRCA1 and BRCA2 gene mutations to further prevent or slow DNA repair, leading to tumour cell death⁵⁰. PARPi are typically only prescribed to patients with a known BRCA mutation. ‘Maintenance treatment’ refers to the administration of PARPi after chemotherapy is complete. It is recommended that the time between completing chemotherapy and commencing PARPi therapy is no longer than eight weeks⁵¹.
17	Proportion of patients with newly diagnosed epithelial OTP cancer who are enrolled in an interventional clinical trial of first-line treatment and/or translational research. Numerator: Number of patients with newly diagnosed epithelial OTP cancer who are enrolled in an interventional clinical trial or translational research. Denominator: All patients with newly diagnosed epithelial OTP cancer. Exclusions: None. Considerations: Patient enrolment into a clinical trial or translational research after completion of data collection may contribute to low adherence.	The general purpose of clinical trials and translational research is to assess new treatments to determine whether they are safe and effective. Specifically, clinical trials are used to assess the safety and efficacy of new interventions (e.g. treatments and procedures) for improving patient outcomes. Translational research aims to convert clinical research and basic science into practice. Some argue that one of the factors influencing better outcomes in epithelial OTP cancer treatment is patient participation in clinical trials⁵².

Appendix C

Non-Epithelial Ovarian Cancer Module Clinical Quality Indicators

No.	Description	Purpose
1	Proportion of patients with newly diagnosed non-epithelial ovarian cancer who are presented at a multidisciplinary team meeting Numerator: Number of patients with newly diagnosed non-epithelial ovarian cancer who are presented at a multidisciplinary team meeting. Denominator: All patients with newly diagnosed non-epithelial ovarian cancer. Exclusions: None. Considerations: None.	Multidisciplinary meetings (MDMs) are a collaborative approach where healthcare professionals from different specialties come together to develop patient treatment and management plans that are comprehensive and patient-centred. Evidence suggests that patients with cancer who are managed by a multidisciplinary team are more likely to have complete investigations, staging, and active treatments, and better survival outcomes compared to those who are not managed by a multidisciplinary team¹².
2	Proportion of patients with newly diagnosed non-epithelial ovarian cancer who have a histologically confirmed diagnosis. Numerator: Number of patients with newly diagnosed non-epithelial ovarian cancer who have a histologically confirmed diagnosis. Denominator: All patients with newly diagnosed non-epithelial ovarian cancer. Exclusions: None. Considerations: None.	Non-epithelial ovarian cancers are diverse with varying histological features and treatment pathways. Diagnosis of these tumours is complex and cytopathology is not adequate for accurate differentiation of these subtypes from the more common epithelial OTP cancers. Obtaining a cancer diagnosis via histopathology is necessary to mitigate the risk of misdiagnosis and suboptimal approaches to treatment⁹.
3	Proportion of patients with newly diagnosed non-epithelial ovarian who experience one or more unplanned intraoperative events during surgical treatment. Numerator: Number of patients with newly diagnosed non-epithelial ovarian cancer who experience one or more unplanned intraoperative events during surgical treatment. Denominator: All patients with newly diagnosed non-epithelial ovarian cancer undergoing surgical treatment. Exclusions: None. Considerations: None.	Unplanned intraoperative events refer to adverse events that occur during surgery which were unanticipated. This includes excessive bleeding or damage to an adjacent internal organ.

4	Proportion of patients with newly diagnosed non-epithelial ovarian cancer who experience one or more serious adverse events (Clavien–Dindo $\geq$ Grade III) in the first 30 days following surgical treatment. Numerator: Number of patients with newly diagnosed non-epithelial ovarian cancer who experience one or more serious adverse events (Clavien–Dindo $\geq$ Grade III) in the first 30 days following surgical treatment. Denominator: All patients with newly diagnosed non-epithelial ovarian cancer who undergo surgical treatment. Exclusions: None. Considerations: None.	The Clavien–Dindo Classification system²⁰ is used to categorise postoperative adverse events. The five-grade system defines and grades surgical complications, ranging from Grade I (any deviation from the normal postoperative course, not requiring further treatment other than antiemetics, antipyretics, analgesics, diuretics/electrolytes, and physiotherapy) to Grade V (patient death). Clavien–Dindo Grade III reflects postoperative events that require surgical, endoscopic or radiological intervention. Across all NGOR modules, serious postoperative complications are considered Clavien–Dindo Grade III–V.
5	Proportion of patients with newly diagnosed Stage II–IV non-epithelial ovarian cancer who receive first-line non-surgical treatment. Numerator: Number of patients with newly diagnosed Stage II–IV non-epithelial ovarian cancer who receive first-line chemotherapy, endocrine therapy, immunotherapy, targeted therapy, or radiotherapy Denominator: All patients with newly diagnosed Stage II–IV non-epithelial ovarian cancer. Exclusions: None. Considerations: None.	Surgical and non-surgical interventions are recommended for patients diagnosed with Stage II–IV non-epithelial ovarian cancer⁹. Non-surgical interventions include chemotherapy, endocrine therapy, and other non-surgical treatments (e.g. radiotherapy, immunotherapy and targeted therapy etc).

Appendix D

Cervical Cancer Module Clinical Quality Indicators

No.	Description	Purpose
1	Proportion of patients with newly diagnosed cervical cancer who are presented at a multidisciplinary team meeting. Numerator: Number of patients with newly diagnosed cervical cancer who are presented at a multidisciplinary team meeting. Denominator: All patients with newly diagnosed cervical cancer. Exclusions: None. Considerations: None.	Multidisciplinary meetings (MDMs) are a collaborative approach where healthcare professionals from different specialties come together to develop comprehensive and patient-centred treatment and management plans. Evidence suggests that cancer patients who are managed by a multidisciplinary team are more likely to have complete investigations, staging, and active treatments, and better survival outcomes compared to those who are not managed by a multidisciplinary team¹².
2	Proportion of patients with newly diagnosed cervical cancer who have imaging (CT/PET/MRI) to stage their cancer prior to commencing treatment. Numerator: Number of patients with newly diagnosed cervical cancer who have imaging (CT/PET/MRI) to stage their cancer prior to treatment. Denominator: All patients with newly diagnosed cervical cancer. Exclusions: Patients diagnosed with Stage 1A1 cervical cancer. Considerations: May include patients unable to have imaging due to claustrophobia, poor renal function, etc.	Imaging is essential to inform treatment planning as it provides information on cancer size and spread. There is currently no national best practice guidelines for imaging cervical cancer patients, therefore this CQI is presented as a bar graph showing the frequency of each method used.
3	Proportion of patients with newly diagnosed Stage IB (including sub-stages) cervical cancer who undergo radical hysterectomy and pelvic lymphadenectomy. Numerator: Number of patients with newly diagnosed Stage IB (including sub-stages) cervical cancer who undergo radical hysterectomy and pelvic lymphadenectomy. Denominator: All patients with newly diagnosed Stage IB (including sub-stages) cervical cancer. Exclusions: Patients whose surgical treatment is documented as fertility-sparing. Considerations: May include patients whose surgical treatment is intended to be fertility-sparing but this is not documented.	Radical hysterectomy and pelvic lymphadenectomy are recommended as treatment for patients with stage IB cervical cancer¹⁵.

4	Proportion of patients undergoing surgical treatment for newly diagnosed cervical cancer who also undergo bilateral sentinel lymph node biopsy. Numerator: Number of patients undergoing surgical treatment for newly diagnosed cervical cancer who also undergo bilateral sentinel lymph node biopsy. Denominator: All patients undergoing surgical treatment for newly diagnosed cervical cancer. Exclusions: Patients with stage IA1 disease at diagnosis. Considerations: None.	Sentinel lymph node (SLN) biopsies enable clinicians to assess cancer spread, providing more precise staging information to guide treatment decisions. Evidence shows that lymph node sampling using blue dye and radiocolloid or indocyanine green is associated with less morbidity compared to a full lymphadenectomy^{16, 17}.
5	Proportion of patients with newly diagnosed cervical cancer whose surgical margins are negative for cancer following simple or radical hysterectomy or trachelectomy. Numerator: Number of patients with newly diagnosed cervical cancer whose surgical margins are negative for cancer following simple or radical hysterectomy or trachelectomy. Denominator: All patients with newly diagnosed cervical cancer who undergo simple or radical hysterectomy or trachelectomy. Exclusions: None. Considerations: None.	Positive surgical margins are defined by the presence of cancer cells at the edge of resected tissue and are linked to a higher likelihood of disease recurrence¹⁸. Achieving negative surgical margins is an indicator of preoperative assessment, imaging, and surgery quality. Patients with positive surgical margins typically require adjuvant therapy. The European Society of Gynaecological Oncology (ESGO) target for negative margins is $\geq 97\%$¹⁹.
6	Proportion of patients with newly diagnosed cervical cancer whose pathology report contains the core elements defined by the ICCR and the RCPA. Numerator: Number of patients with newly diagnosed cervical cancer whose surgical treatment pathology report contains the core elements developed by the RCPA and the ICCR. Denominator: All patients with newly diagnosed cervical cancer who undergo surgical treatment. Exclusions: Patients whose pathology from the surgical treatment procedure is benign. Considerations: None.	The International Collaboration on Cancer Reporting (ICCR) has developed a structured pathology reporting template for primary cervical cancers¹³. This template has been endorsed by the Royal College of Pathologists of Australasia (RCPA)¹⁴, and is required by the National Association of Testing Authorities (NATA) for the accreditation of pathology laboratories in Australia. The template contains core elements essential for the clinical management, staging, and prognosis of cervical cancer. Combined, these elements are considered to be the minimum reporting standard for cervical cancer¹³.
7	Proportion of patients with newly diagnosed cervical cancer who experience one or more unplanned intraoperative events during surgical treatment. Numerator: Number of patients with newly diagnosed cervical cancer who experience one or more unplanned intraoperative events during surgical treatment. Denominator: All patients with newly diagnosed cervical cancer undergoing surgical treatment. Exclusions: None. Considerations: None.	Unplanned intraoperative events refer to negative events that occur during surgery which were unanticipated.

8	Proportion of patients with newly diagnosed cervical cancer who experience one or more serious adverse events (Clavien–Dindo $\geq$ Grade III) in the first 30 days following surgical treatment. Numerator: Number of patients with newly diagnosed cervical cancer who experience one or more serious adverse events (Clavien–Dindo $\geq$ Grade III) in the first 30 days following surgical treatment. Denominator: All patients with newly diagnosed cervical cancer undergoing surgical treatment. Exclusions: None. Considerations: None.	The Clavien–Dindo Classification system²⁰ is used to categorise postoperative adverse events. The five-grade system grades surgical complications from Grade I (any deviation from normal postoperative course, not requiring further treatment other than antiemetics, antipyretics, analgesics, diuretics/electrolytes, and physiotherapy) to Grade V (patient death). Clavien–Dindo Grade III is defined as postoperative events that require surgical, endoscopic or radiological intervention. Across all NGOR modules, serious postoperative complications are considered Clavien–Dindo Grades III–V.
9	Proportion of patients with newly diagnosed cervical cancer undergoing definitive radiotherapy who receive concurrent platinum-based chemotherapy. Numerator: Number of patients with newly diagnosed cervical cancer undergoing definitive radiotherapy who receive concurrent platinum-based chemotherapy. Denominator: All patients with newly diagnosed cervical cancer undergoing definitive radiotherapy, who do not have surgical treatment. Exclusions: None. Considerations: None.	Several clinical trials have shown significantly better progression-free and overall survival for patients who receive radiotherapy with concurrent chemotherapy compared to radiotherapy alone²¹.
10	Proportion of patients with newly diagnosed cervical cancer whose definitive radiotherapy is completed within 56 days of commencement. Numerator: Number of patients with newly diagnosed cervical cancer whose definitive radiotherapy is completed within 56 days of commencement. Denominator: All patients with newly diagnosed cervical cancer undergoing definitive radiotherapy, who do not have surgical treatment. Exclusions: None. Considerations: None.	For patients newly diagnosed with cervical cancer, completion of radiotherapy within 56 days of commencement is recommended for optimal treatment outcomes, including tumour control and survival^{22, 23}.
11	Proportion of patients with newly diagnosed cervical cancer having definitive EBRT who also have brachytherapy boost. Numerator: Number of patients with newly diagnosed cervical cancer undergoing EBRT who also have brachytherapy boost. Denominator: All patients with newly diagnosed cervical cancer undergoing EBRT, who do not have surgical treatment. Exclusions: Patients receiving palliative radiotherapy. Considerations: This includes all patients +/- concurrent chemotherapy.	For some patients newly diagnosed with cervical cancer, such as those with locally advanced disease, the standard of care generally involves EBRT and brachytherapy boost²⁴.

12	Proportion of patients with newly diagnosed cervical cancer who receive adjuvant treatment (radiotherapy either with or without concurrent chemotherapy) after radical hysterectomy and pelvic lymphadenectomy	The use of adjuvant treatment after surgery should be avoided where possible because of a higher risk of complications after combined treatment¹⁹. While the NGOR has not defined a specific target for this CQI, ESGO have recommended a benchmark of <15%¹⁹.
	Numerator: Number of patients with newly diagnosed cervical cancer who receive adjuvant radiotherapy (with or without concurrent chemotherapy) after radical hysterectomy and pelvic lymphadenectomy. Denominator: All patients with newly diagnosed cervical cancer who undergo radical hysterectomy and pelvic lymphadenectomy. Exclusions: None. Considerations: None.	
13	Proportion of patients with newly diagnosed Stage IVB cervical cancer, who are treated with carboplatin, paclitaxel, bevacizumab and pembrolizumab.	The addition of pembrolizumab to platinum-based chemotherapy and bevacizumab has been shown to significantly improve progression-free and overall survival in metastatic cervical cancer patients, without adversely affecting quality of life^{25, 26}.
	Numerator: Number of patients with newly diagnosed Stage IVB cervical cancer who are treated with carboplatin, paclitaxel, bevacizumab and pembrolizumab. Denominator: All patients with newly diagnosed Stage IVB cervical cancer. Exclusions: None. Considerations: None.	

Appendix E

Endometrial Cancer Module Clinical Quality Indicators

No.	Description
1	Proportion of patients with newly diagnosed endometrial cancer whose case is discussed at a multidisciplinary team meeting. Numerator: Number of patients with newly diagnosed endometrial cancer who are discussed at a multidisciplinary team meeting. Denominator: All newly diagnosed patients with endometrial cancer. Exclusions: None. Considerations: None.
2	Proportion of patients with newly diagnosed endometrial cancer who have imaging to stage their cancer prior to starting treatment. Numerator: Number of patients with newly diagnosed endometrial cancer who have imaging to stage prior to surgery. Denominator: All newly diagnosed patients with endometrial cancer. Exclusions: Imaging that occurs after the start of treatment is excluded. Considerations: None.
3	Proportion of patients undergoing primary surgery for endometrial cancer which includes a hysterectomy as initial treatment. Numerator: Number of patients having a hysterectomy as primary treatment for their endometrial cancer. Denominator: All patients having primary surgery for endometrial cancer. Exclusions: None. Considerations: None.
4	Proportion of patients who are at risk for spread because of high-risk histology and/or stage who have surgical staging at the time of primary surgery. Numerator: Number of patients having a hysterectomy as primary treatment for their endometrial cancer. Denominator: All patients undergoing primary surgery for endometrial cancer. Exclusions: None. Considerations: None.
5	Proportion of patients undergoing primary surgery for endometrial cancer who experience one or more unplanned intraoperative events. Numerator: Number of patients who experience one or more unplanned intraoperative events. Denominator: All patients having primary surgery for endometrial cancer. Exclusions: None. Considerations: None.

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- 6 **Proportion of patients who experience one or more serious adverse events which are Clavien–Dindo $\geq$ Grade III severity in the first 30 days after primary surgery for endometrial cancer.**
- Numerator:** Number of patients experience one or more serious adverse events which are Clavien–Dindo $\geq$ grade III severity in the first 30 days after primary surgery for endometrial cancer.
- Denominator:** All patients having primary surgery for endometrial cancer.
- Exclusions:** None.
- Considerations:** None.
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- 7 Proportion of patients with endometrial cancer whose pathology report contains the minimum required elements.
- Numerator:** Number of patients with a pathology report which contains the minimum required elements such as those defined by the RCPA or the ICCR.
- Denominator:** All patients with endometrial cancer who had histopathology.
- Exclusions:** None.
- Considerations:** None.
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Appendix F

Vulvar Cancer Module Clinical Quality Indicators

This module will be activated once the CQIs have been finalised and funding is secured.



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Epithelial Ovarian, Tubal and Peritoneal Cancer (OTP)
Non-Epithelial Ovarian Cancer
Cervical Cancer