

DEVELOPING A CLINICAL QUALITY REGISTRY FOR GYNAECOLOGICAL CANCERS

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Introduction

Clinical quality registries (CQR) are designed to monitor and drive improvements in the quality of care provided to patients with a disease or condition of interest (Figure 1).

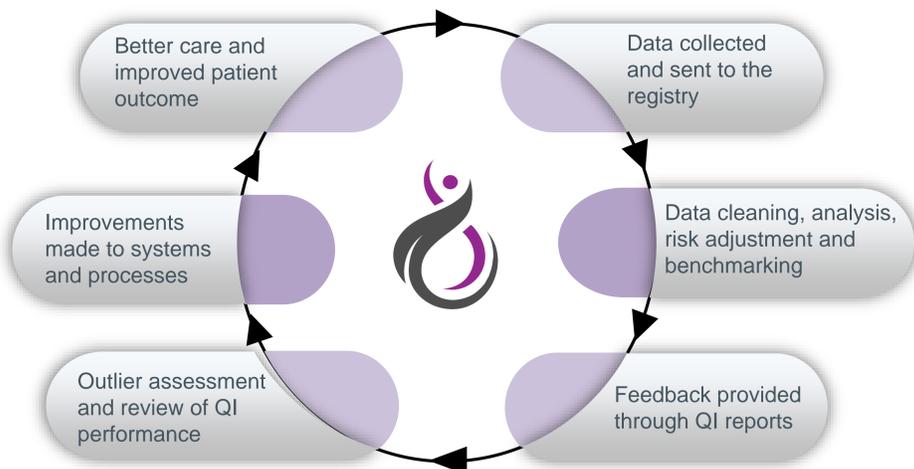


Figure 1. The process of a clinical quality registry, adapted from the Australian Commission on Safety and Quality; <https://www.safetyandquality.gov.au/our-work/information-strategy/clinical-quality-registries/>

The National Gynae-Oncology Registry (NGOR) operates a CQR within the Cancer Research Program (CRP) at Monash University. It aims to capture clinical data on newly-diagnosed cancers of the uterus; ovary, fallopian tubes, peritoneum (OTP); cervix and vulva and vagina in Australia. In 2019, funds from the Audrey Voss Gynecological Research Grant, resulted in an expansion from original OTP cancer module to three registry modules for endometrial, cervical and vulvar-vaginal cancers, with the aim of developing a suite of quality indicators (QIs) and a minimum dataset for the three cancer types. Once developed, pilot data collection will begin for at least one of the modules.

The expansion project will utilise the NGORs existing infrastructure and methodology from the OTP cancer module. In that module, the NGOR Steering Committee developed nine QIs (measures of adherence to best practice care), based upon existing evidence-based guidelines and current literature. The OTP module has now recruited over 675 registrants and published its first QI report in March 2020. The OTP pilot showed that use of existing databases had the potential to reduce time and costs associated with primary data collection. However, it also became apparent that variation between databases (including definitions, differing data formats and missing data), meant that the registry did not have the required information for risk adjustment. The registry has addressed these challenges so that the NGOR can achieve its aim of improving quality of care.

Aims

1. To establish a set of appropriate quality indicators and data sets for the three of the tumour site modules (endometrial cancer, cervical cancer and vulvo-vaginal cancer).
2. To pilot data collection in a step-wise fashion for each of these tumour site modules.
3. To demonstrate the effectiveness of a CQR in monitoring the quality of care in the management of these gynaecological cancers.

Methodology



Preliminary phase: Establish three working groups of clinical experts - gynaecological oncologists, and radiation and medical oncologists with interest and expertise in managing gynaecological cancers.

Phase 1: Conduct a literature review for each cancer type, reviewing guidelines, optimal care pathways and published literature on quality indicators.

Phase 2: Convene meetings of each working group (often virtual or via email) to define a set of key quality Indicators for each of the three tumour site modules.

Phase 3: Pilot data collection for at least one of the tumour modules to demonstrate that the QIs are appropriately defined and data capture is feasible, rather than aspirational.

Pilot Data Collection

Endometrial cancer is the focus of the pilot study as this is the most common gynaecological cancer. A limited number of institutions (including Epworth) will participate in the pilot study. The data collection methodology has received ethical approval under the National Mutual Acceptance scheme.

Results

The Endometrial Working Group has met "virtually" on several occasions. Data managers have been involved in the QI development process to assess feasibility of data collection. Thirteen QIs have been identified, discussed and refined through online discussions (Table 1). Several are still under discussion. Once finalised, the numerators, denominators and exclusions for each will be defined.

Table 1: Endometrial Cancer Quality Indicators

- 1 **Multidisciplinary Team Discussion:** Proportion of patients with newly diagnosed endometrial cancer whose case is discussed at an MDT at which a management plan is made
- 2 **Imaging for Staging:** Proportion of all patients with high-grade endometrial cancer who have imaging to stage their disease
- 3 **Medical Details*:** Proportion of patients for whom the following medical details for risk adjustment are recorded (BMI, ASA SCORE, ECOG/WHO performance status, co-morbidities, Charlson score)
- 4 **Surgery:** Proportion of patients who underwent primary first-line surgery for endometrial cancer which includes a hysterectomy
- 5 **Surgery:** Proportion of patients who are at risk for spread (because of high risk histology and/or stage) who had surgical staging at the time of primary surgery
- 6 **Intraoperative Events:** Proportion of patients who had an unplanned intraoperative event.
- 7 **Surgery Record*:** Proportion of patients who have an operative record that contains all minimum required elements
- 8 **Pathology Report:** Proportion of patients who have a pathology report that contains all minimum required elements
- 9 **Surgery:** Proportion of patients who had adverse events (Clavien-Dindo \geq G3) in the first 30-days after primary surgery for endometrial cancer
- 10 **Adjuvant treatment:** Proportion of patients with histologic high-risk stage IA, IB, II and all stage III disease who received postoperative adjuvant treatment
- 11 **Timeliness of radiotherapy*:** Proportion of patients undergoing radiotherapy for whom the wait time from hysterectomy to start of treatment is $>$ 60 days
- 12 **Genetic testing:** Proportion of patients found to have loss of staining for mismatch repair gene proteins who were referred for genetic testing where appropriate
- 13 **Clinical Trials*:** Proportion of patients with endometrial cancer who are enrolled in an interventional clinical trial or translational research

* QI under discussion

Conclusion

The NGOR is making steady progress, and the Expert Working Groups for each of the tumour modules are progressing well within their work. The most common gynaecological cancer is endometrial cancer for which thirteen QIs have been identified as being relevant and feasible, and these are currently being refined.

An increasing number of clinicians and units in VIC, NSW, SA and Tasmania participating in the project. Ongoing funding will be sought in order to continue support for this project and expand it to all states.

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