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Quality-Based Procedures Clinical Handbook: Hysterectomy

1.0 Purpose

This clinical handbook has been created to serve as a compendium of the evidence-based rationale and clinical consensus driving the development of the policy framework and implementation approach for Hysterectomy.

This document has been prepared for informational purposes only. This document does not mandate health care providers to provide services in accordance with the recommendations included herein. The recommendations included in this document are not intended to take the place of the professional skill and judgment of health care providers.
2.0 Introduction

Historically, a large portion of health service providers’ funding has been grounded on a base annualized funding (global allocation), which is used to maintain day-to-day operations, such as: staff wages & benefits; overhead costs and service/maintenance contracts and new incremental funding, based on a funding formula, which takes into account demographics and acuity: growth funding targeted at fastest growing communities, hospital type (i.e. small/rural to cover service gaps, academic hospital sites to cover higher cost and acuity).

There needs to be a move to better integrate and align funding mechanisms across sectors to respond to volume and mix of services that meet population need through the pathway of care for patients. By focusing on an enhanced alignment between high quality patient care and funding, reductions in variation in practice across the province can be achieved. The results of such reduction in practice variation facilitate the adoption of best clinical evidence-informed practices, ensuring our patients receive the right care, at the right place and at the right time.

In response to these fiscal challenges, as of April 1, 2012, the Ministry of Health and Long-Term Care (ministry) has implemented Health System Funding Reform (HSFR). Over the fiscal years 2012/13 to 2014/15, HSFR will shift much of Ontario’s health care system funding for hospitals and Community Care Access Centres (CCACs) away from the current global funding allocation towards paying for activity and patient outcomes, to further support quality, efficiency and effectiveness in the health care system.

HSFR is predicated on the tenets of Ontario’s Action Plan for Health Care and is aligned with the four core principles of the Excellent Care for All Act (ECFAA):

- Care is organized around the person to support their health;
- Quality and its continuous improvement is a critical goal across the health system;
- Quality of care is supported by the best evidence and standards of care; and
- Payment, policy and planning support quality and efficient use of resources.

HSFR is comprised of three key components:

1. Organizational-Level funding, which will be allocated as base funding using the Health Based Allocation Model (HBAM);
2. Quality-Based Procedure (QBP) funding, which will be allocated for targeted clinical areas based on a “price x volume” approach premised on evidence-based practices and clinical and administrative data; and
2.1 What are we moving towards?

Prior to the introduction of HSFR, a significant proportion of hospital funding was allocated through a global funding approach, with specific funding for select provincial programs, wait times services and other targeted activities. A global funding approach may not account for complexity of patients, service levels and costs and may reduce incentives to adopt best practices that result in improved patient outcomes in a cost-effective manner.

Under HSFR, provider funding is based on: the types and quantities of patients providers treat, the services they deliver, the quality of care delivered and patient experience/outcomes. Specifically, QBPs provide incentives to health care providers to become more efficient and effective in their patient management by accepting and adopting best practices that ensure Ontarians get the right care, at the right time and in the right place.

The variations in patient care evident in the global funding approach warrant the move towards a system where ‘money follows the patient” (Figure 1).

Internationally, similar models have been implemented since 1983. While Ontario is one of the last leading jurisdictions to move down this path, this puts the province in a unique position to learn from international best practices and pitfalls and create a funding model that is best suited for the province.
2.2 How will we get there?

The ministry has adopted a multi-year implementation strategy to phase in the HSFR strategy and will make modest funding shifts beginning April 2012. A three-year outlook has been provided to the field to support planning for upcoming funding policy changes.

The ministry has released a set of tools and guiding documents to further support the field in adopting the funding model changes. For example, a Quality-Based Procedure (QBP) interim list has been published for stakeholder consultation and to promote transparency and sector readiness. The list is intended to encourage providers across the continuum to analyze their service provision and infrastructure in order to improve clinical processes and where necessary, build local capacity. However, as implementation evolves, the interim List will continue to undergo further refinements pending stakeholder feedback and advice from the QBP Clinical Expert Advisory Groups.

The successful transition from the current, 'provider-centred' funding model towards a 'patient-centred model' will be catalyzed by a number of key enablers and field supports. These enablers translate to actual principles that guide the development of
the funding reform implementation strategy related to QBPs. These principles further translate into operational goals and tactical implementation, as presented in Figure 2.

Figure 2: Principles guiding the implementation of funding reform related to Quality-Based Procedures

<table>
<thead>
<tr>
<th>Principles for developing QBP implementation strategy</th>
<th>Operationalization of principles to tactical implementation (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Cross-Sectoral Pathways</td>
<td>▪ Development of best practice patient clinical pathways through clinical expert advisors and evidence-based analyses</td>
</tr>
<tr>
<td>▪ Evidence-Based</td>
<td>▪ Integrated Quality Based Procedures Scorecard</td>
</tr>
<tr>
<td>▪ Balanced Evaluation</td>
<td>▪ Alignment with Quality Improvement Plans</td>
</tr>
<tr>
<td>▪ Transparency</td>
<td>▪ Publish practice standards and evidence underlying prices for QBPs</td>
</tr>
<tr>
<td>▪ Sector Engagement</td>
<td>▪ Routine communication and consultation with the field</td>
</tr>
<tr>
<td>▪ Knowledge Transfer</td>
<td>▪ Clinical Expert Advisory Groups</td>
</tr>
<tr>
<td></td>
<td>▪ Overall HSFR Governance structure in place that includes key stakeholders</td>
</tr>
<tr>
<td></td>
<td>▪ Technical and clinical engagement sessions</td>
</tr>
<tr>
<td></td>
<td>▪ Applied Learning Strategy/ IDEAS</td>
</tr>
<tr>
<td></td>
<td>▪ Tools and guidance documents</td>
</tr>
<tr>
<td></td>
<td>▪ HSFR Helpline; HSIMI website (repository of HSFR resources)</td>
</tr>
</tbody>
</table>
2.3 What are Quality-Based Procedures?

QBPs are clusters of patients with clinically related diagnoses or treatments that have been identified using an evidence-based framework as providing opportunity for process improvements, clinical re-design, improved patient outcomes, and enhanced patient experience and potential cost savings.

The evidence-based framework uses data from the Discharge Abstract Database (DAD) and National Ambulatory Care Reporting System (NACRS) adapted by the ministry for its HBAM repository. The HBAM Inpatient Grouper (HIG) groups inpatients based on the diagnosis or treatment responsible for the majority of their patient stay. Additional data was used from the Ontario Case Costing Initiative (OCCI), and Ontario Cost Distribution Methodology (OCDM). Evidence such as publications from Canada and other jurisdictions and World Health Organization reports were also used to assist with the patient clusters and the assessment of potential opportunities.

The evidence-based framework assessed patients using five perspectives, as presented in Figure 3. This evidence-based framework has identified QBPs that have the potential to improve quality of care, standardize care delivery across the province and show increased cost efficiency.
Practice Variation

The DAD has every Canadian patient discharge (except Quebec), coded and abstracted for over 50 years. This information is used to identify patient transition through the acute care sector, including discharge locations, expected lengths of stay and readmissions for each and every patient, based on their diagnosis and treatment, age, gender, co-morbidities and complexities and other condition specific data. A demonstrated large practice or outcome variance may represent a significant opportunity to improve patient outcomes by reducing this practice variation and focusing on evidence-informed practice. A large number of 'Beyond Expected Length of Stay' and a large standard deviation for length of stay and costs were flags to such variation. Ontario has detailed case costing data from many hospitals, as far back as 1991 for all patients discharged from some case costing hospitals, as well as daily utilization and cost data by department, by day and by admission.
Availability of Evidence

A significant amount of research has been completed both in Canada and across the world to develop and guide clinical practice. Working with the clinical experts, best practice guidelines and clinical pathways can be developed for these QBPs and appropriate evidence-informed indicators can be established to measure the quality of QBP care and help identify areas for improvement at the provider level and to monitor and evaluate the impact of QBP implementation.

Feasibility/ Infrastructure for Change

Clinical leaders play an integral role in this process. Their knowledge of the patients and the care provided or required represents an invaluable component of assessing where improvements can and should be made. Many groups of clinicians have already formed and provided evidence and the rationale for care pathways and evidence-informed practice.

Cost Impact

The selected QBP should have as a guide no less than 1,000 cases per year in Ontario and represent at least one per cent of the provincial direct cost budget. While cases that fall below these thresholds may in fact represent improvement opportunity, the resource requirements to implement a QBP may inhibit the effectiveness for such a small patient cluster, even if there are some cost efficiencies to be found. Clinicians may still work on implementing best practices for these patient sub-groups, especially if it aligns with the change in similar groups. However, at this time, there will be no funding implications. The introduction of evidence into agreed-upon practice for a set of patient clusters that demonstrate opportunity as identified by the framework can directly link quality with funding.

Impact of Transformation

The selected QBPs must align with the government’s transformational priorities including alignment with the tenets of Ontario’s Action Plan for Health Care. In addition, a natural progression and trajectory to assess a QBP’s impact on transformation would be to begin to look at other patient cohorts (e.g. paediatric patient populations), impact on the transition of care from acute-inpatient to community care
setting, significant changes from historical funding models/ approaches, integrated care models etc. QBPs with a lesser cost impact but a large impact on the transformation agenda may still be a high priority for creation and implementation.

2.4 How will QBPs encourage innovation in health care delivery?

QBPs create opportunities for health system change where evidence-informed prices can be used as a financial lever to incent providers to:

- Adopt best practice standards;
- Re-engineer their clinical processes to improve patient outcomes;
- Improve coding and costing practices; and
- Develop innovative care delivery models to enhance the experience of patients.

An integral part of the enhanced focus on quality patient care will be in the development of indicators to allow for the evaluation and monitoring of actual practice and support on-going quality improvement.
3.0 Hysterectomy QBP

3.1 Inter-agency collaboration

The development of the Hysterectomy QBP Clinical Handbook is the result of collaboration between Cancer Care Ontario and Health Quality Ontario, two arms-length agencies of the Ontario government.

3.2 Description of Hysterectomy

Hysterectomy is a surgical procedure performed to partly or totally remove the uterus. There are a number of types of hysterectomies:

- **Partial or supracervical hysterectomy**: Where the uterus is removed and cervix left intact. As the cervix is left intact, recommended cervical cancer screening is still required.

- **Complete or total hysterectomy**: This is the most common hysterectomy procedure where the uterus and cervix are removed.

A total or sub-total hysterectomy may be accompanied by a unilateral or bilateral salpingo-oophorectomy, where one or both ovaries and fallopian tubes are removed.

- **Radical hysterectomy**: where the uterus, cervix, upper part of the vagina and parametrium are removed. This procedure is more extensive and may include salpingo-oophorectomy, pelvic lymphadenectomy (removal of lymph nodes), and omentectomy (removal of the omentum).

Hysterectomy that can be performed using different and combined approaches:

- **Abdominal hysterectomy** involves removal of the uterus through an incision on the lower abdomen.

- **Vaginal hysterectomy** involves removal of the uterus through the vagina with no abdominal incision.

- **Laparoscopic surgery** is a minimal access procedure, where the uterus is removed using a “keyhole” approach. This approach involves inserting a surgical telescope (laparoscope) through a small incision in the abdomen and other instruments inserted through two or three other keyholes. This type of surgery can be combined with a vaginal approach and can also be performed with the use of a surgical robot.

Over 16,000 hysterectomy procedures are performed in Ontario annually to treat a variety of diseases. Table 1 describes the volume of hysterectomy procedures in the
province from 2013 to 2015 combining data from the NACRS for outpatient cases, and the DAD for in patient procedures.

Table 1 Volume of inpatient and outpatient hysterectomy procedures in Ontario between fiscal years 2012 & 2013 to 2014 & 2015

<table>
<thead>
<tr>
<th>Procedure*</th>
<th>2012/13</th>
<th></th>
<th>2013/14</th>
<th></th>
<th>2014/15</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DAD</td>
<td>NACRS</td>
<td>Total</td>
<td>DAD</td>
<td>NACRS</td>
<td>Total</td>
</tr>
<tr>
<td>Partial hysterectomy</td>
<td>1,101</td>
<td>2</td>
<td>1,103</td>
<td>980</td>
<td>25</td>
<td>1,005</td>
</tr>
<tr>
<td>Total hysterectomy</td>
<td>14,478</td>
<td>330</td>
<td>14,808</td>
<td>14,637</td>
<td>555</td>
<td>15,192</td>
</tr>
<tr>
<td>Radical Hysterectomy</td>
<td>264</td>
<td>22</td>
<td>286</td>
<td>309</td>
<td>55</td>
<td>364</td>
</tr>
<tr>
<td>Total</td>
<td>15,843</td>
<td>354</td>
<td>16,197</td>
<td>15,926</td>
<td>635</td>
<td>16,561</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* For a description of Canadian Classification of Health Interventions (CCI) procedure codes included in each procedure grouping, please see Table 2. 

Hysterectomy is performed for benign diseases as well as for cancer-related procedures. In Ontario, the **four most common diagnoses associated with hysterectomy** (major diagnosis groups defined by Most Responsible Diagnosis in DAD and Main Problem in NACRS) are **heavy bleeding, uterine prolapse, fibroids and cancer** (Figure 1). Cancer-related procedures are most commonly associated with endometrial and ovarian cancer (Figure 2).
Figure 1. Diagnoses associated with hysterectomy procedures, DAD & NACRS combined, 2014 & 2015

* Major diagnosis groups defined by Most Responsible Diagnosis in DAD and Main Problem in NACRS. Bleeding-Related (ICD-10-CA codes: N920, N921, N922, N924, N925, N926, N938, N939); Cancer-related (See section 3.3: ICD-10-CA codes included as part of cancer-related portion of the Hysterectomy QBP); Fibroids (ICD-10-CA codes: D250, D251, D252, D259); Uterine Prolapse (ICD-10-CA codes: N811, N812, N813, N814, N815, N816, N818, N819); Endometriosis (ICD-10-CA codes: N800, N801, N802, N803, N804, N805, N806, N808, N809); Endometrial Hyperplasia (ICD-10-CA codes: N850, N851)
3.3 Hysterectomy QBP population group definition

**Inclusion Criteria**

- Ontario patients with responsibility for payment ‘01’ only (OHIP)
- Elective and urgent/emergent cases
- Inpatient and outpatient cases
- Canadian Classification of Health Interventions (CCI) procedure codes present as the Primary Intervention (DAD) or Main Intervention (NACRS) (Table 2)

**Exclusion criteria:**

- Patients under age of 18/pediatric patients
- Interventions flagged as “abandoned” or “cancelled”
- Out of hospital interventions
Table 2. CCI procedure codes included in the Hysterectomy QBP

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Procedure Code</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partial excision of uterus and surrounding</td>
<td>1.RM.87.DA-GX</td>
<td>Endoscopic (laparoscopic) approach. Using device NEC.</td>
</tr>
<tr>
<td>structures (restricted to those with “SU” or</td>
<td>1.RM.87.CA-GX</td>
<td>Per orifice (transvaginal) approach. Using device NEC.</td>
</tr>
<tr>
<td>subtotal hysterectomy extent attribute)</td>
<td>1.RM.87.LA-GX</td>
<td>Open approach. Using device NEC.</td>
</tr>
<tr>
<td>Total excision of uterus and surrounding</td>
<td>1. RM.89.AA</td>
<td>Using combined laparoscopic and vaginal approach.</td>
</tr>
<tr>
<td>structures</td>
<td>1.RM.89.CA</td>
<td>Using vaginal approach.</td>
</tr>
<tr>
<td></td>
<td>1.RM.89.DA</td>
<td>Using endoscopic (laparoscopic) approach.</td>
</tr>
<tr>
<td></td>
<td>1.RM.89.LA</td>
<td>Using open approach.</td>
</tr>
<tr>
<td>Radical excision of uterus and surrounding</td>
<td>1. RM.91.AA</td>
<td>Using combined laparoscopic and vaginal approach.</td>
</tr>
<tr>
<td>structures</td>
<td>1.RM.91.CA</td>
<td>Using vaginal approach.</td>
</tr>
<tr>
<td></td>
<td>1.RM.91.DA</td>
<td>Using endoscopic (laparoscopic) approach.</td>
</tr>
<tr>
<td></td>
<td>1.RM.91.LA</td>
<td>Using abdominal approach (includes modified radical hysterectomy).</td>
</tr>
</tbody>
</table>

**Hysterectomy QBP population subgroups**

The Hysterectomy QBP will include *all* ICD-10-CA\(^1\) codes associated to the aforementioned CCI procedure codes (Table 2). The Hysterectomy QBP will be further sub-divided into two subgroups:

1. *Procedures related to cancer*

2. *Procedures related to other diagnoses*

The procedures related to cancer subgroup will be defined using a subset of ICD-10-CA codes, in alignment with the Cancer Surgery Agreement (CSA) methodology. Please refer to the Cancer Surgery QBP Clinical Handbook for more information. Any ICD code beginning with Cxx or listed in Table 3 as the Most Responsible Diagnosis in the DAD and Main Problem in the NACRS will be included in the procedures related to cancer subgroup. All other diagnoses will be part of the procedures related to other diagnoses subgroup.

Figure 3 describes the in-scope population definition of the hysterectomy QBP including its two subgroups. In fiscal year 2014/15, the proportion of hysterectomy procedures which would be classified as procedures related to cancer under the criteria described herein was approximately 22%.

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\(^1\) ICD-10-CA: International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Canadian enhancement.
Table 3. ICD-10-CA codes included in the cancer-related procedures subgroup of the Hysterectomy QBP

<table>
<thead>
<tr>
<th>ICD-10-CA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D060</td>
<td>Carcinoma in situ of endocervix</td>
</tr>
<tr>
<td>D061</td>
<td>Carcinoma in situ of exocervix</td>
</tr>
<tr>
<td>D067</td>
<td>Carcinoma in situ of other parts of cervix</td>
</tr>
<tr>
<td>D069</td>
<td>Carcinoma in situ of cervix, unspecified</td>
</tr>
<tr>
<td>D070</td>
<td>Carcinoma in situ of endometrium</td>
</tr>
<tr>
<td>D072</td>
<td>Carcinoma in situ of vagina</td>
</tr>
<tr>
<td>D073</td>
<td>Carcinoma in situ of other and unspecified female genital organs</td>
</tr>
<tr>
<td>D260</td>
<td>Other benign neoplasm of cervix uteri</td>
</tr>
<tr>
<td>D261</td>
<td>Other benign neoplasm of corpus uteri</td>
</tr>
<tr>
<td>D267</td>
<td>Other benign neoplasm of other parts of uterus</td>
</tr>
<tr>
<td>D269</td>
<td>Other benign neoplasm of uterus, unspecified</td>
</tr>
<tr>
<td>D27</td>
<td>Benign neoplasm of ovary</td>
</tr>
<tr>
<td>D281</td>
<td>Benign neoplasm of vagina</td>
</tr>
<tr>
<td>D282</td>
<td>Benign neoplasm of uterine tubes and ligaments</td>
</tr>
<tr>
<td>D287</td>
<td>Benign neoplasm of other specified female genital organs</td>
</tr>
<tr>
<td>D289</td>
<td>Benign neoplasm of female genital organ, unspecified</td>
</tr>
<tr>
<td>D390</td>
<td>Neoplasm of uncertain or unknown behavior of uterus</td>
</tr>
<tr>
<td>D391</td>
<td>Neoplasm of uncertain or unknown behavior of ovary</td>
</tr>
<tr>
<td>D392</td>
<td>Neoplasm of uncertain or unknown behavior of placenta</td>
</tr>
<tr>
<td>D397</td>
<td>Neoplasm of uncertain or unknown behavior of other female genital organs</td>
</tr>
<tr>
<td>D399</td>
<td>Neoplasm of uncertain or unknown behavior of female genital organ, unspecified</td>
</tr>
</tbody>
</table>
3.4 Hysterectomy QBP Implementation Strategy

A phased approach will be taken in order to implement QBP based funding for hysterectomy procedures. This phased approach will be based on the patient journey.

**Scope of Patient Journey**

The patient journey scope refers to the patients’ experience before, during and after hysterectomy. This is described as:

- **Consult / Pre-Treatment Assessment:** The disease of a patient is assessed and alternative treatment options are considered. For example, hormonal treatments such as oral contraceptives or intrauterine devices may be considered for patients with abnormal uterine bleeding. Before the surgical approach is selected, the surgeon will conduct an assessment to understand the extent of the disease and if the patient is a surgical candidate. For suspected cancer cases, this assessment may include diagnostic imaging and biopsy including pathology assessment, a multidisciplinary consult or multidisciplinary cancer conference. These activities may occur within a hospital or physician’s office.

- **Treatment:** This phase refers to the surgical procedure performed within an operating room. By definition, the current in scope cases of the Hysterectomy QBP occur within the hospital setting. It begins at the pre-admission visit (approximately 1 week before the surgical procedure) and ends when the patient is discharged from the hospital. This phase includes inpatient and outpatient surgeries.
• **Follow up**: Once the surgical procedure is completed, a patient will require follow up. The goal of this follow up for cancer-related procedures includes monitoring recurrence of the disease. The frequency of visits and tests required are dependent upon the disease. This activity may occur in or out of the hospital setting.

**NOTE**: The initial phase for Hysterectomy QBP implementation will focus on the treatment phase.

### Quality Standards
Health Quality Ontario is in the process of developing a series of Quality Standards which are concise evidence-based statements that describe key components of excellent care in Ontario for a particular condition or service area. These Quality Standards will be developed in alignment with the best practices outlined in the QBP Clinical Handbooks. Although the initial best practice recommendations for the hysterectomy QBP will be focusing on the treatment phase, Quality Standards in the same topic area may be addressing a broader scope.

The development of a Quality Standard for heavy menstrual bleeding is underway. Best practices of care for women presenting with heavy menstrual bleeding should be adopted in alignment with the forthcoming Quality Standard, as well as those described in this Handbook for candidates who will receive surgery.

### 3.5 Data collection process & clinical documentation

The Hysterectomy QBP will be documented using data inputs from the DAD for inpatient cases and the NACRS for cases occurring in day surgery.
No new data elements will be required and clinical documentation will not change. Continued efforts to document and code hospital activity in a consistent, accurate and complete manner is required, given the nature of this outcome and volume based payment model and to allow for valid comparison of data between providers and institutions.

3.6 Hysterectomy QBP Clinical Engagement

This Clinical Handbook has been developed by the Hysterectomy QBP Clinical Expert Advisory Group (CEAG). For support around the technical specifications of the in scope cases, additional input was provided by the Cancer Surgery Technical Working Group on an ad hoc basis. The Hysterectomy QBP Steering Committee endeavoured to create a balanced table of stakeholders who represent the professions accountable for hysterectomy quality in Ontario by region, facility-type, and professional background. Members of the CEAG participate as individuals, and not as formal representatives of a particular organization. Members are clinical and administrative experts from relevant health professions such as gynecology and obstetrics, gynecologic oncology, nursing, anaesthesia, and administration. CEAG decisions were made by general consensus. See section 11.0 for the list of Steering Committee and CEAG members.

4.0 Best practices\(^2\) guiding the implementation of Hysterectomy

Relevant Documents

- Guidelines to the Practice of Anesthesia, Revised Edition 2015
- Venous Thromboembolism Prophylaxis and Treatment in Patients with Cancer: American Society of Clinical Oncology Clinical Practice Guideline Update 2014
- Prevention of VTE in Non-orthopedic Surgical Patients, 9\(^{th}\) Edition: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines

Pathway development process

To develop the best practice care pathway for Hysterectomy a literature scan was conducted. In addition, the CEAG members were asked to provide common practices and care paths in use at their facilities as well as any other key scientific literature or collaborative guideline of importance. These inputs were consolidated to form a

\(^2\) Best practice refers to a combination of best available evidence and clinical consensus as recommended by the Clinical Expert Advisory Groups
comprehensive best practice care path that was subsequently reviewed and abridged by three separate CEAG working groups, each reviewing a specific phase of the care path. Expert consensus on the final care path was obtained with the CEAG. The best practices described in this section have been categorized according to three phases:

1. Pre-Surgical Assessment and Day Before Surgery
2. Day of Surgery: Pre-Operative Care Unit (POCU); Operating Room; Post-Anesthetic Care Unit (PACU)
3. Day after Surgery, Post-Operative Day 1+ (day after OR)

The care path described herein contains some information specific to cancer-related procedures. Please note that these points are highlighted by an asterisk.

The best practice care path focused on identifying and implementing evidence-informed practice driven by clinical consensus. The pathway reflects current available evidence, however it is recognized that changes to the evidence may occur between review cycles.

The pathway is intended to represent care for patients receiving hysterectomy either in day surgery or in-patient surgery.

- **Day Surgery** includes the *Pre-Surgical Assessment* phase to the *Day of Surgery – PACU* phase
- **In-Patient** includes the entire pathway from the *Pre-Surgical Assessment* phase to the *Post-operative Day 1+ Onwards* phase.

### Final recommendations

**Pre-Surgical Assessment and Day Before Surgery**

<table>
<thead>
<tr>
<th>Pre-Surgical Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Test:</strong></td>
</tr>
<tr>
<td>▪ Group and screen</td>
</tr>
<tr>
<td>▪ Complete blood count</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If applicable:</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Na, K, Cl, creatinine, glucose</td>
</tr>
<tr>
<td>▪ Cross and type</td>
</tr>
<tr>
<td>▪ Liver function tests (ALT, alkaline phosphate, GGT, albumin, total and direct bilirubin)</td>
</tr>
<tr>
<td>▪ PT/PTT/INR if patient has liver disease or the patient is on anti-coagulants</td>
</tr>
<tr>
<td>▪ Pregnancy test (urine BHCG) if pregnancy possible</td>
</tr>
<tr>
<td>▪ ECG if patient is over the age of 65, has heart disease, diabetes or other risk factors for cardiac condition</td>
</tr>
<tr>
<td>▪ Chest x-ray if signs of lower respiratory infection</td>
</tr>
<tr>
<td>▪ Urinalysis if signs of urinary tract infection</td>
</tr>
<tr>
<td>▪ Urodynamic testing</td>
</tr>
<tr>
<td>▪ Ultrasound as ordered</td>
</tr>
<tr>
<td>▪ Sleep apnea assessment for women at risk</td>
</tr>
</tbody>
</table>
▪ More extensive imaging if required*

Assessments:
▪ Pre-admission assessment (e.g. vital signs, O₂ saturation, BMI (weight in kilograms divided by the square of the height in meters, kg/m²))

If applicable:
▪ Preoperative assessment by nurse, surgeon and anesthesiologist
▪ Pre-operative questionnaire (e.g. patient history and physical form)
▪ Assess the potential need for a higher level bed

Consults:
▪ Anesthesiology*

If applicable:
▪ Discharge planning (social work or appropriate health professional)
▪ Anesthesiology/pain management
▪ Internal medicine
▪ Fertility*

Medication:
▪ Review of current medication and best medication record by pharmacist or nurse
▪ Note allergies and intolerances (penicillin allergies should be reviewed)
▪ Prescribe iron to patient or arrange iron transfusion pre-operatively to decrease transfusion rates (consideration of menstrual suppression agents to increase iron)
▪ Provide information about discontinuation of NSAIDS/antiplatelet agents/anticoagulants if applicable
▪ Ensure pre-emptive analgesics and prophylactic antibiotics are ordered to be administered in Surgical Daycare Unit
▪ Consider VTE prophylactics (VTE prophylaxis guidelines)

Patient/Family Teaching:
▪ Educate patient on the surgical procedure
▪ Obtain informed consent (discuss risks, benefits, and alternatives prior to obtaining signed consent)
▪ Inform patient about blood transfusion
▪ Educate patient on enhanced recovery after surgery (Nelson G, 2014)
  ▪ Review pre-operative and post-operative events and expectations (e.g. pre-op fasting guidelines)
  ▪ Review plan for pain management and anesthetics (including the possibility of spinal, regional anesthesia and blocks)
  ▪ Review recovery exercises and self-care measures to prevent post-op complications
  ▪ Discuss early mobilization (i.e. walk from PACU to bed; sit in chair for meals; walk to washroom independently)
  ▪ Review length of stay expectations (refer to section 4.1 for recommended LOS according to specific surgical approaches)
- Discuss presence of a support person to help patients with post-op management at home
- Review patient education booklets, pamphlets, online modules, etc.
- Deep breathing exercises
- Constipation prevention/management

**If applicable:**
- Trainee involvement explained to patient
- Educate on VTE prophylaxis post-operatively

### Discharge Planning:
- Review discharge plan with the patient including discharge time and issues that could delay discharge
- Patient must have transportation and be accompanied by a responsible adult at the time of discharge
- Discuss available supports on discharge
- Post-operative voiding management and instructions (e.g. clean intermittent self-catheterization or indwelling foley catheter)
- Ensure patient understands the need for follow-up with the Gynecologist or Gynecologic Oncologist to discuss pathology results, post-operative concerns, and further appointments.

### Day Before Surgery

#### Assessments:
- Ensure medications have been taken or held as directed

#### Patient/Family Teaching:
- Review the patient’s understanding of pre-operative and post-operative routine
- Clarify any patient questions

### Day of Surgery: Pre-Operative Care Unit (POCU); Operating Room; Post-Anesthetic Care Unit (PACU)

#### Day of Surgery - POCU

#### Tests:
- Group and screen‡

**If applicable:**
- BHCG for women of reproductive age‡
- Complete blood count and cross match blood for patients at high risk for bleeding
- Other blood work as required‡
- Other test as required‡
Assessments:
- Pre-operative assessment by nurse, surgeon and anesthesiologist
- Ensure appropriate pathology review*

Medication:
- Gram-negative anaerobic antibiotic for abscess or bowel surgery
- NSAIDs
- Acetaminophen
- VTE prophylaxis administered in the POCU or operating room should be considered for at risk patients (i.e. high Caprini score or other risk factors) (VTE Guidelines)
- Surgical site infection prophylaxis should be considered when appropriate

Nutrition:
- Clear liquids up to 2 hours prior to surgery/induction of anesthesia
- Solids up to 6 hours before anesthesia
- Carbohydrate supplementation: encourage 8oz. of clear carbohydrate drink (e.g. apple juice, cranberry juice, electrolyte athletic drink)

Operating Room

Note: For operating room timing of cases, please follow hospital specific guidance.

Assessments:
- Complete surgical checklist

Treatments:
- Hysterectomy and associated procedures
- Ensure all resources are present (OR nurse, surgeon, anesthesiologist) and relevant equipment
- Goal directed fluid therapy or <8ml/Kg/h
- Perioperative normothermia >36.0°C (warming blanket, fluid warming)
- Abdominal skin prep with chlorhexidine alcohol solution
- Vaginal prep (Betadine, Baxedine)
- Avoidance of prophylactic drains and tubes

Medication:
- SSI prophylaxis (SSI guidelines)
- VTE prophylaxis (VTE guidelines)
- Antiemetic prophylaxis with dexamethasone
- For laparoscopic surgery, consider infiltrating wounds with local anesthetics
- For open hysterectomy, spinal anesthesia with intrathecal morphine, transversus abdominis plane (TAP) block, IV lidocaine
**Post Anesthetic Care Unit (PACU)**

**Assessments:**
- Post-operative assessment by nurse, surgeon and anesthesiologist (system and pain)
- Patient recovery

**Consults:**
*If applicable:*
- Adequate pain control (e.g. Acute Pain Service)

**Treatments:**
- Monitor patient recovery (e.g. intake and output, pain, nausea, wound dressings)
- Wean off O2

*If applicable:*
- Discontinue urinary catheter within 24 hours of surgery
- Empty drain

**Medication:**
- Patient specific medication
- NSAIDS
- Acetaminophen
- Antiemetic, as needed

**Activity:**
- Ambulation/activity as tolerated. Encourage ambulation as early as possible

**Nutrition:**
- Diet as tolerated
- Gum chewing

---

**Day after surgery- Post Operative Day 1+**

**Day after surgery, post-operative day 1 +**

**Tests:**
*If applicable:*
- Complete blood count and differential
- Electrolytes, creatinine

**Assessments:**
- Discharge assessment by nurse and/or surgeon (system, pain, recovery)
- Assess vital signs
- Assess level of sedation
- Assess abdomen, monitor incision
- Minimal to small amount of vaginal bleeding
- Urinary catheter to straight drainage
- Fluid intake and urinary output prior to catheter removal
- Assess voiding 4 hours post foley removal
- Effective deep breathing and coughing/ respiratory assessment

**If applicable:**
- Remove foley catheter as soon as clinically indicated (some radical hysterectomies and pelvic organ prolapse will require prolonged catheterization)
- Remove vaginal packing if in place

**Consults:**
**If applicable:**
- CCAC
- Adequate pain control (e.g. Acute Pain Service)
- Physiotherapy

**Treatments:**
**If applicable:**
- Mechanical VTE Prophylaxis: thromboembolic deterrent stockings (TEDs), remove for 1 hour q12h
- Staple removal per physician orders
- If discharged before staples are removed then give staple remover to patient for removal by surgeon

**Medication:**
- Patient specific medication
- Medication reconciliation updated and completed on discharge
- Pain medication
  - Analgesics (e.g. acetaminophen)
  - Opioids (e.g. hydromorphone)
- NSAIDs
- Antiemetic/ nausea management
- Consider post-operative VTE prophylaxis (VTE Guidelines)
- IV therapy
- Stool softeners/bowel movement

**Activity:**
- Activity as tolerated; encourage early ambulation
- Deep breathing exercises

**Nutrition:**
- Diet as tolerated
- Gum chewing
**Patient/Family Teaching:**
- Review patient information
- Review signs and symptoms of wound infection
- Patient understands signs and symptoms of urinary tract infection, excessive vaginal bleeding, and when to call the surgeon’s office
- Review home management of wound
- Review prescription and medication protocol including pain management
- Proper technique for mobilization and progression of activity
- Work leave expectations

**If applicable:**
- Staple removal instructions

**Discharge Planning:**
- Discuss discharge preparation
- Ensure patient meets clinical indicators to be discharged (regular diet, no nausea, PV scant to none, etc.)
- Review discharge plan with patient and family
- Inform patients of follow-up appointments
- Adequate documentation for follow up to primary care given (e.g. discharge note)
- Provide patient with medication prescription if necessary (hormone replacement, pain medication, etc.)

*Bullet points followed by an asterisk are specific to gynecological oncology patients*

## 4.1 Hysterectomy Length of Stay

**Analysis**

Length of stay is derived from the DAD and is the difference, in days, between Admission Date and Discharge Date. If the difference is 0 (Admission Date equals the Discharge Date), the calculated length of stay is 1. (Canadian Institute for Health Information, 2015) Length of stay analysis was conducted for the in-scope inpatient cohort over the most recent timeframe available. Descriptive statistics including volume, mean, standard deviation and range are provided.

Preliminary analyses demonstrated that the LOS was driven by the surgical approach (i.e. laparoscopic, vaginal, vs. open approach) rather than the by surgical intervention itself (i.e. subtotal, total, vs. radical hysterectomy). In consequence, Table 4 shows the data grouped according to surgical approach and the LOS recommendations are made accordingly.
Table 4. Length of stay of hysterectomy according to surgical approach

<table>
<thead>
<tr>
<th>Surgical Approach*</th>
<th>2013/14</th>
<th>2014/15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Endoscopic/Laparoscopic Approach</strong> (1.RM.87.DA-GX; 1.RM.89.DA; 1.RM.91.DA)</td>
<td>Mean (±SD)</td>
<td>1.3 (1.0)</td>
</tr>
<tr>
<td></td>
<td>Median (range)</td>
<td>1 (1-16)</td>
</tr>
<tr>
<td><strong>Vaginal approach</strong> (1.RM.87.CA-GX; 1.RM.89.CA; 1.RM.91.CA)</td>
<td>Mean (±SD)</td>
<td>1.9 (3.3)</td>
</tr>
<tr>
<td></td>
<td>Median (range)</td>
<td>2 (1-189)</td>
</tr>
<tr>
<td><strong>Combined laparoscopic and vaginal approach</strong> (1RM.89.AA; 1.RM.91.AA)</td>
<td>Mean (±SD)</td>
<td>1.5 (1.0)</td>
</tr>
<tr>
<td></td>
<td>Median (range)</td>
<td>1 (1-20)</td>
</tr>
<tr>
<td><strong>Open approach</strong> (1.RM.87.LA-GX; 1.RM.89.LA)</td>
<td>Mean (±SD)</td>
<td>3.3 (3.1)</td>
</tr>
<tr>
<td></td>
<td>Median (range)</td>
<td>3 (1-100)</td>
</tr>
<tr>
<td><strong>Open approach</strong> (1.RM.91.LA)</td>
<td>Mean (±SD)</td>
<td>8.57 (13.5)</td>
</tr>
<tr>
<td></td>
<td>Median (range)</td>
<td>5 (1 to 174)</td>
</tr>
</tbody>
</table>

*See Table 2 for a description of included procedures. Note: 1.RM.87.^^ procedure codes are restricted to those with “SU” extent attribute.

The CEAG agreed that the LOS for hysterectomy using a vaginal approach with no accompanying procedures is of 1 day, whereas the LOS for a hysterectomy using vaginal approach with accompanying procedure, such as anterior and posterior vaginal repair, sub-urethral sling procedures, vault suspension procedures (sacrospinous or sacropexy) is of 2 days.

Furthermore, data analyses demonstrated that the length of stay for radical hysterectomy using an open approach was significantly different from the partial and total hysterectomies using an open approach (Wilcoxon rank sum test, data not shown). Therefore, the LOS for this procedure and approach is shown separately. In 2014/15, approximately 90% of radical hysterectomies using an open approach were performed for cancer-related diagnoses and the LOS ranged from 4.4 days to 10.9 days depending on the diagnosis group examined. In consideration of the small number of cases (n=223 in 2013/14 and n=217 in 2014/15), the variability of associated diagnoses observed, and the variability of LOS observed, the CEAG agreed that no LOS be recommended for radical excision of the uterus using an open approach.
Recommendation

<table>
<thead>
<tr>
<th>Surgical Approach</th>
<th>Best Practice Length of Stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endoscopic/Laparoscopic Approach</td>
<td>1 day</td>
</tr>
<tr>
<td>Vaginal approach, hysterectomy alone</td>
<td>1 day</td>
</tr>
<tr>
<td>Vaginal approach, hysterectomy with accompanying procedure*</td>
<td>2 days</td>
</tr>
<tr>
<td>Combined laparoscopic and vaginal approach</td>
<td>1 day</td>
</tr>
</tbody>
</table>
| Open approach  
Subtotal and total hysterectomy | 3 days |
| Open approach  
Radical hysterectomy | See comment above |

*For example, anterior and posterior vaginal repair, sub-urethral sling procedures, vault suspension procedures (sacrospinous or sacropexy).

5.0 Implementation of best practices

The Hysterectomy QBP funding model is based on the following principles, ensuring the implementation of best practices:

- Align funding framework development with Ontario’s Excellent Care for All Act & Patient-Based Payment policy
- Address in-hospital care phase initially with expansion to the pre-treatment and follow up care phases
- Ensure clinical best practices remain current with existing evidence
- Ensure model development process is transparent, multi-disciplinary and collaborative
- Promote high quality care close to home as appropriate
- Promote timely access to care
- Support decreased practice variation
- Promote value for money and improve efficiency (i.e., track and evaluate money spent by outcomes achieved)
- Improve outcome measurement and accountability for reported outcomes
- Balance implementation of funding framework with financial risk to organizations
- Ensure that ongoing governance structure (including clinical oversight) is supported by transparent dispute resolution processes
Establish ongoing monitoring, reporting and evaluation of processes/quality indicators/outcomes
Establish recognized and transparent performance management cycle and funding agreements
Respond to and incorporate new evidence and support new models of care

5.1 Knowledge Transfer and Exchange of Best Practice Care

Communicating the defined best practice for surgery procedures is critical to the implementation of the Hysterectomy QBP. CCO, HQO and the MOHLTC will work collaboratively with the LHINs and hospital administrators and clinicians for successful implementation of the best practices described in this Clinical Handbook.

6.0 What does it mean for multi-disciplinary teams?

Successful implementation of the new funding model for hysterectomy requires collaboration on the part of all those involved in the patients' care delivery. Obstetricians and gynecologists, gynecologic oncologists, pathologists, radiation oncologists, radiologist, medical oncologists, anaesthesiologists, nurses and physiotherapists should be aware of and contribute to the best practice. Clerical staff ensure accurate data entry and coding for reimbursement and quality indicator measurement. Administrative staff need to be aware of best practice in regards of performance management and quality indicator reporting.

As the initial implementation of the Hysterectomy QBP only addresses the surgical procedure, the impact on some of the members of the multi-disciplinary team will be minimal. In the future, further expansion of the QBP to include the Consult/Pre-Treatment Assessment or Follow-up phases will have a greater impact on the multidisciplinary team.

6.1 How does Hysterectomy as a QBP align with clinical practice?
The implementation of previous QBPs and evidence informed practices have resulted in improved patient experiences, better outcomes and a streamlined length of stay for patients. QBPs align with clinical practice by encouraging the adoption of best practices in order to maximize system capacity and use of available resources with the aim of improving patient satisfaction and quality of care.

6.2 What are the implications for clinicians?

The changes associated with the QBPs focus on identifying and implementing evidence-informed practice driven by clinical consensus. Clinicians will be tasked with identifying within their own expertise best practice protocols and identifying where there are variances from such practice. Collaboration with hospital administration will assist the clinicians in identifying the challenges within the service, as well as opportunities and the feasibility for changes to the best practice.

Clinicians will continue to play an essential role in guiding hospitals to meet the needs of their patient population and ensuring that the highest quality care is provided for all their patients.

At this time, physician payment models and OHIP fee schedules, as they relate to QBPs will remain unchanged. Physicians currently working under fee-for-service will continue to submit claims to OHIP for consultations, treatment and follow-up.

6.3 Will this change current practice?

The hysterectomy QBP funding framework and its associated recommended perioperative best practice care pathway may create change in current practice for some clinicians and hospitals in Ontario.

7.0 Service capacity planning

For the capacity planning of procedures related to cancer subgroup of this QBP, CCO will continue to build on existing processes that are in place with the Cancer Surgery Agreements (CSA). Hospitals will be required to maintain their volumes therefore resulting in minimal impact or change in service capacity. For procedures related to other diagnoses, the MOHLTC and LHINS will continue service capacity planning.

8.0 Performance evaluation and feedback
In introducing the QBPs the ministry has a strong interest in:

- Supporting monitoring and evaluation of the impact (intended and unintended) of the introduction of QBPs
- Providing benchmark information for clinicians and administrators that will enable mutual learning and promote on-going quality improvement
- Providing performance-based information back to Expert Panels to evaluate the impact of their work and update as required in real time

There was recognition that reporting on a few system-level indicators alone would not be sufficient to meet the ministry’s aim of informing and enabling quality improvement initiatives at the provider-level. Therefore measures meaningful to hospitals and clinicians that are interpretable and have demonstrable value in improving the quality of care provided to patients are also of utmost importance.

To guide the selection and development of relevant indicators for each QBP, the ministry, in consultation with experts in evaluation and performance measurement, developed an approach based on the policy objectives of the QBPs and a set of guiding principles. This resulted in the creation of an integrated scorecard with the following six quality domains:

- Effectiveness (including safety)
- Appropriateness
- Integration
- Efficiency
- Access
- Patient-centeredness

The scorecard is based on the following guiding principles:

- **Relevance** – the scorecard should accurately measure the response of the system to introducing QBPs
- **Importance** – to facilitate improvement, the indicators should be meaningful for all potential stakeholders (patients, clinicians, administrators, LHINs and the ministry)
- **Alignment** – the scorecard should align with other indicator-related initiatives where appropriate
- **Evidence** – the indicators in the integrated scorecard need to be scientifically sound or at least measure what is intended and accepted by the respective community (clinicians, administrators and/or policy-decision makers)

A set of evaluation questions was identified for each of the QBP policy objectives outlining what the ministry would need to know in order to understand the intended and
unintended impact of the introduction of QBPs. These questions were translated into key provincial indicators resulting in a QBP scorecard (see table below).

Table 5 Quality domains and associated key provincial indicators of the MOHLTC’s QBP integrated scorecard

<table>
<thead>
<tr>
<th>Quality Domain</th>
<th>What is being measured?</th>
<th>Key provincial indicators</th>
</tr>
</thead>
</table>
| **Effectiveness** | What are the results of care received by patients and do the results vary across providers that cannot be explained by population characteristics as well as is care provided without harm? | 1. Proportion of QBPs that improved outcomes  
2. Proportion of QBPs that reduced variation in outcome  
3. Proportion of (relevant) QBPs that reduced rates of adverse events and infections |
| **Appropriateness** | Is patient care being provided according to scientific knowledge and in a way that avoids overuse, underuse or misuse? | 4. Proportion of QBPs that reduced variation in utilization  
5. Proportion of (relevant) QBPs that saw a substitution from inpatient to outpatient/day surgery  
6. Proportion of (relevant) QBPs that saw a substitution to less invasive procedures  
7. Increased rate of patients being involved in treatment decision  
8. Proportion of (relevant) QBPs that saw an increase in discharge dispositions into the community |
| **Integration** | Are all parts of the health system organized, connected and work with another to provide high quality care? | 9. Reduction in 30-day readmissions rate (if relevant)  
10. Improved access to appropriate primary and community care including for example psychosocial support (e.g. personal, family, financial, employment and/or social needs)  
11. Coordination of care (TBD)  
12. Involvement of family (TBD) |
| **Efficiency** | Does the system make best use of available resources to yield maximum benefit ensuring that the system is sustainable for the long term? | 13. Actual costs vs. QBP price |
| **Access** | Are those in need of care able to access services when needed? | 14. Increase in wait times for QBPs / for specific populations for QBP  
15. Increase in wait times for other procedures  
16. Increase in distance patients have to travel to receive the appropriate care related to the QBP  
17. Proportion of providers with a significant change in resource intensity weights (RIW) |
### Quality Domain

**Patient-Centeredness**

*to be further developed*

<table>
<thead>
<tr>
<th>What is being measured?</th>
<th>Key provincial indicators</th>
</tr>
</thead>
</table>
| Is the patient/user at the center of the care delivery and is there respect for and involvement of patients' values, preferences and expressed needs in the care they receive? (TBC) | 18. Increased rate of patients being involved in treatment decision  
19. Coordination of care (TBD)  
20. Involvement of family (TBD) |

It should be noted that although not explicitly mentioned as a separate domain, the equity component of quality of care is reflected across the six domains of the scorecard and will be assessed by stratifying indicator results by key demographic variables and assessing comparability of findings across sub-groups. Where appropriate, the indicators will be risk-adjusted for important markers of patient complexity so that they will provide an accurate representation of the quality of care being provided to patients.

The ministry and experts recognized that to be meaningful for clinicians and administrators, it is important to tie indicators to clinical guidelines and care standards. Hence, advisory groups that developed the best practices were asked to translate the provincial-level indicators into QBP-specific indicators. In consulting the advisory groups for this purpose, the ministry was interested in identifying indicators both for which provincial data is readily available to calculate and those for which new information would be required. Measures in the latter category are intended to guide future discussion with ministry partners regarding how identified data gaps might be addressed.

In developing the integrated scorecard approach, the ministry recognized the different users of the indicators and envisioned each distinct set of measures as an inter-related cascade of information. That is, the sets of indicators each contain a number of system or provincial level measures that are impacted by other indicators or driving factors that are most relevant at the Local Health Integration Networks (LHINs), hospital or individual clinician level. The indicators will enable the province and its partners to monitor and evaluate the quality of care and allow for benchmarking across organizations and clinicians. This will in turn support quality improvement and enable target setting for each QBP to ensure that the focus is on providing high quality care, as opposed to solely reducing costs.

It is important to note that process-related indicators selected by the expert panels will be most relevant at the provider level. The full list of these measures is intended to function as a ‘menu’ of information that can assist administrators and clinicians in identifying areas for quality improvement. For example, individual providers can review patient-level results in conjunction with supplementary demographic, financial and other
statistical information to help target care processes that might be re-engineered to help ensure that high-quality care is provided to patients.

Baseline reports and regular updates on QBP specific indicators will be included as appendices to each QBP Clinical Handbook. Reports will be supplemented with technical information outlining how results were calculated along with LHIN and provincial-level results that contextualize relative performance. Baseline reports will also be accompanied by facility-level information that will facilitate sharing of best practices and target setting at the provider-level.

The ministry recognizes that the evaluation process will be on-going and will require extensive collaboration with researchers, clinicians, administrators and other relevant stakeholders to develop, measure, report, evaluate and, if required, revise and/or include additional indicators to ensure that the information needs of its users are met.

9.0 Hysterectomy QBP Quality Indicators

Measuring the quality of care provided to Ontarians is a significant aspect of the QBP funding initiative. The Hysterectomy QBP indicators will be aligned with the MOHLTC’s QBP Integrated Scorecard. The following approach was used to identify Hysterectomy-specific quality indicators:

- Literature review of peer reviewed scientific articles
- Review of existing guidelines as published by key specialty gynecology societies and other authoritative bodies
- As suggested throughout the Hysterectomy QBP CEAG perioperative care path working groups
- Review of the Cancer Surgery QBP Quality Indicators

<table>
<thead>
<tr>
<th>Quality Domain</th>
<th>Description</th>
<th>Quality Indicators Applicable to All In Scope Cases</th>
<th>Quality Indicators Applicable to Procedures Related to Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>What are the results of care received by patients and do the results vary across providers that cannot be explained by population</td>
<td>Proportion of patients re-operated on within 30 days after hysterectomy</td>
<td></td>
</tr>
<tr>
<td>Quality Domain</td>
<td>Description</td>
<td>Quality Indicators Applicable to All In Scope Cases</td>
<td>Quality Indicators Applicable to Procedures Related to Cancer</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Appropriateness</td>
<td>Is patient care being provided according to scientific knowledge and in a way that avoids overuse, underuse or misuse?</td>
<td>Proportion of patients receiving an injury of the bladder, ureter or bowel</td>
<td>Discipline participation in a high-quality Multidisciplinary Cancer Conference (MCC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proportion of patients receiving an unplanned blood transfusion</td>
<td>Proportion of patients receiving a radiation or medical oncology consultation prior to surgery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Proportion of surgeries for cancer-related cases which involve morcellation</td>
</tr>
<tr>
<td>Integration</td>
<td>Are all parts of the health system organized, connected and work with another to provide high quality care?</td>
<td>Proportion of patient readmissions within 30 days of discharge</td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td>Does the system make best use of available resources to yield maximum benefit ensuring that the system is sustainable for the long term?</td>
<td>Average length of stay for a patient receiving a hysterectomy</td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>Are those in need of care able to access services when needed?</td>
<td>Proportion of hysterectomy patients that received surgery (Wait 2) within the priority target</td>
<td></td>
</tr>
<tr>
<td>Patient-Centeredness (to be further developed)</td>
<td>Is the patient/user at the center of the care delivery and is there respect for and involvement of patients' values, preferences and expressed needs in the care they receive? (TBC)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
10.0 Support for Change

The ministry, in collaboration with its partners, will deploy a number of field supports to assist with the adoption of the funding policy. CCO in collaboration with HQO will also continue to work with various stakeholders across the province to educate all multidisciplinary teams impacted by the new Hysterectomy Funding Model. Currently, CCO works with numerous clinical specialists that will provide the necessary support for clinical knowledge transfer and exchange (KTE).

These supports include:

- **Committed clinical engagement** with representation from cross-sectoral health sector leadership and clinicians to champion change through the development of standards of care and the development of evidence-informed patient clinical pathways for the QBPs.

- **Dedicated multidisciplinary clinical expert group** that seek clearly defined purposes, structures, processes and tools which are fundamental for helping to navigate the course of change.

- **Strengthened relationships with ministry partners and supporting agencies** to seek input on the development and implementation of QBP policy, disseminate quality improvement tools, and support service capacity planning.

- **Alignment with quality levers such as the Quality Improvement Plans (QIPs).** QIPs strengthen the linkage between quality and funding and facilitate communication between the hospital board, administration, providers and public on the hospitals’ plans for quality improvement and enhancement of patient-centered care.

- **Deployment of a Provincial Scale Applied Learning Strategy known as IDEAS (Improving the Delivery of Excellence Across Sectors).** IDEAS is Ontario’s investment in field-driven capacity building for improvement. Its mission is to help build a high-performing health system by training a cadre of health system change agents that can support an approach to improvement of quality and value in Ontario.

We hope that these supports, including this Clinical Handbook, will help facilitate a sustainable dialogue between hospital administration, clinicians, and staff on the underlying evidence guiding QBP implementation. The field supports are intended to complement the quality improvement processes currently underway in your organization.
11.0 Frequently Asked Questions

There have been no frequently asked questions identified to date.
# 12.0 Membership

## Hysterectomy QBP Steering Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Title &amp; Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irene Blais</td>
<td>Director, Funding Unit, Cancer Care Ontario</td>
</tr>
<tr>
<td>Dr. Adrian Brown</td>
<td>Hysterectomy CEAG Co-Chair, Obstetrics &amp; Gynecology, North York General Hospital</td>
</tr>
<tr>
<td>Dr. Laurie Elit</td>
<td>Hysterectomy CEAG Co-Chair, Gynecologic Oncology, Hamilton Health Sciences Centre</td>
</tr>
<tr>
<td>Erik Hellsten</td>
<td>Manager, Quality Standards Strategy, Health Quality Ontario</td>
</tr>
<tr>
<td>Pascale Lajoie</td>
<td>Senior Specialist, Funding Unit, Cancer Care Ontario</td>
</tr>
</tbody>
</table>

## Hysterectomy QBP Clinical Expert Advisory Group

<table>
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<th>Title &amp; Organization</th>
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<tr>
<td>Name</td>
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