CANADIAN PARTNERSHIP AGAINST CANCER
PARTENARIAT CANADIEN CONTRE LE CANCER

A Coordinated Approach to Improve Consistency in Surgical Care Across Canada:

Pan-Canadian Standards for Eight Types of Cancer

MARCH 2016

This document has been made possible through a financial contribution from Health Canada, through the Canadian Partnership Against Cancer. The views expressed herein represent the views of the Canadian Partnership Against Cancer.

Suggested citation:
Canadian Partnership Against Cancer. A Coordinated Approach to Improve Consistency in Surgical Care Across Canada: Pan-Canadian Standards for Eight Types of Cancer. Toronto (ON): Canadian Partnership Against Cancer; 2016 Mar.

For more information on this publication, please email:
surgery@partnershipagainstcancer.ca

1 University Avenue, Suite 300
Toronto, Ontario, Canada M5J 2P1

Tel: 416.915.9222
Toll-Free: 1.877.360.1665

partnershipagainstcancer.ca

A Coordinated Approach to Improve Consistency in Surgical Care Across Canada:

Pan-Canadian Standards for Eight Types of Cancer

Table of Contents

Acknowledgements

Surgeons specializing in surgical treatment of cancer from across Canada are acknowledged for their dedicated efforts in developing, piloting and revising the pan-Canadian synoptic surgical reporting standards for eight cancer sites that are described in this report. The pan-Canadian synoptic surgical reporting standards are based on the pioneering work led by Alberta surgeons; Alberta is acknowledged for their generosity and their leadership in pioneering the transformation of narrative operative reports to electronic and synoptic format. In addition, we wish to acknowledge the Alberta, Manitoba, Ontario and Nova Scotia provincial project teams for their commitment and relentless support in implementing the electronic synoptic surgical reporting tool and generating indicator analysis for performance measurement and quality improvement. We also wish to acknowledge Canada Health Infoway for their support in providing funding in 2013 to further advance the implementation of the pan-Canadian standards.

Production and dissemination of this report was led by the Diagnosis & Clinical Care team at the Canadian Partnership Against Cancer which included Dr. Mary Argent-Katwala, Director; Ms. Shaheena Mukhi, Manager; Ms. Beth Dunford, Delivery Manager; Mr. Peter Sirmis, Delivery Manager; Ms. Elaine Maloney, Analyst; Ms. Sherine Althea-Williams, Analyst; Ms. Natasha Camuso, Analyst; and Ms. Julia Williams, Administrative Assistant.

We acknowledge and thank the following staff members for their contributions: Louise Zitzelsberger, Specialist in Evidence-based Processes & Methods, Knowledge Management Strategy and Kerynn Wang, Library Science/Evidence Analyst, Strategy, Knowledge Management and Delivery Management; the Communications team of Lesley Frey, Manager, Corporate Communications, Karen Palmer, Media Relations Officer, and Kris Atterbury, Graphics and Audio Visual Coordinator.

We also acknowledge Dr. Geoff Porter, Senior Scientific Lead, Dr. Rick Nason, Chair of the National Electronic Synoptic Surgery Quality Initiative Network, and the following Expert Review panel members for providing leadership, guidance, clinical expertise and expert advice.

Breast Expert Panel Members

Dr. Kelly Dabbs, Clinical Professor of Surgery, University of Alberta, Edmonton, Alberta

Dr. Pamela Meiers, Surgeon, Saskatchewan Cancer Agency, Regina, Saskatchewan

Dr. Ethel MacIntosh, Surgeon, CancerCare Manitoba, Winnipeg, Manitoba

Dr. Nicole Hodgson, Surgeon, Juravinski Cancer Centre, Hamilton, Ontario

Dr. Ralph George, Medical Director, St. Michael's Hospital, Toronto, Ontario

Dr. Geoff Porter, Clinical Head & National Expert Lead, Cancer Care Nova Scotia, Halifax, Nova Scotia

Dr. Hugh Scarth, Surgeon, Saint John Regional Hospital, Saint John, New Brunswick

Colorectal Expert Panel Members

Dr. Don Buie, Colorectal Surgeon, Alberta Health Services, Edmonton, Alberta

Dr. Jason Park, Attending Surgeon, CancerCare Manitoba, Winnipeg, Manitoba

Dr. Lara Williams, General Surgeon, Ottawa Hospital Cancer Centre, Ottawa, Ontario

Dr. Erin Kennedy, Colorectal Surgeon, Mount Sinai Hospital, Toronto, Ontario

Dr. Nancy Morin, Surgeon, Jewish General Hospital, Montréal, Québec

Thyroid Expert Panel Members

Dr. Janice Pasieka, Clinical Professor of Surgery, Alberta Health Services, Edmonton, Alberta

Dr. Richard Nason, Medical Director & Endocrine Surgeon, Winnipeg Regional Health Authority, Winnipeg, Manitoba

Dr. Samuel Bugis, Clinical Associate Professor & Endocrine Surgeon, University of British Columbia, Vancouver, British Columbia

Dr. Adrienne Melck, Endocrine Surgeon, St. Paul's Hospital, Vancouver, British Columbia

Dr. Todd McMullen, Professor & Division Director of Surgical Oncology, Cross Cancer Institute, Edmonton, Alberta

Dr. Alok Pathak, Head and Neck Surgical Oncologist, CancerCare Manitoba, Winnipeg, Manitoba

Dr. Karen Devon, Endocrine & Thyroid Surgeon, Women's College Hospital, Toronto, Ontario

Dr. Elliot Mitmaker, Endocrine Surgeon, McGill University Health Centre, Montréal, Québec

Lung Expert Panel Members

Dr. Christian Finley, Assistant Professor& Thoracic Surgeon, McMaster University Medical Centre, Hamilton, Ontario

Dr. James Bond, Thoracic Surgeon, False Creek Healthcare, Vancouver, British Columbia

Dr. Scott Johnson, Thoracic Surgeon, Royal Alexandra Hospital, Edmonton, Alberta

Dr. Sadeesh Srinathan, Thoracic Surgeon, Health Sciences Centre Winnipeg, Winnipeg, Manitoba

Dr. Richard Malthaner, Professor of Surgery & Research Director, London Health Sciences Centre, London, Ontario

Dr. Andrew Seely, Scientist, Ottawa Hospital Research Institute, Ottawa, Ontario

Dr. Shona Smith, Thoracic Surgeon, Sudbury Medical Assessment Centre, Sudbury, Ontario

Dr. Rosaire Vaillancourt, Thoracic Surgeon, Laval University Hospital Centre, Québec City, Québec

Dr. Madelaine Plourde, Thoracic Surgeon, QEII Health Sciences Centre, Halifax, Nova Scotia

Genitourinary Expert Panel Members

Dr. Geoff Gotto, Clinical Assistant Professor & Urology Surgeon, University of Calgary, Calgary, Alberta

Dr. Alan So, Staff Surgeon, Vancouver General Hospital, Vancouver, British Columbia

Dr. Darrel Drachenberg, Director of Research (Manitoba Prostate Centre) & Urologic Surgeon, CancerCare Manitoba, Winnipeg, Manitoba

Dr. Jeff Saranchuk, Medical Director, CancerCare Manitoba, Winnipeg, Manitoba

Dr. Stephen Pautler, Urologist, St. Joseph's Health Centre, Toronto, Ontario

Dr. Antonio Finelli, Staff Surgeon, University Health Network, Toronto, Ontario

Dr. Girish Kulkarni, Uro- Oncologist Surgeon, University Health Network, Toronto, Ontario

Dr. Vincent Fradet, Urologist, Hôtel-dieu de Lévis, Lévis, Quebec

Dr. Ricardo Rendon, Professor & Urologic Oncologist, Dalhousie University, Halifax, Nova Scotia

Dr. Chris French, Clinical Assistant Professor of Surgery, Memorial University, St. John's, Newfoundland

Gynecology Expert Panel Members

Dr. Prafull Ghatage, Gynecologist, Alberta Health Services, Winnipeg, Alberta

Dr. Sarah Ferguson, Associate Professor Gynecologic Oncology, Princess Margaret Hospital, Toronto, Ontario

Dr. Barry Rosen, Section Head, Gynecologic Oncology, Beaumont Group, Michigan, USA

Dr. Jessica McAlpine, Surgeon & Assistant Professor, Vancouver General Hospital, Vancouver, British Columbia

Dr. Marie Plante, Chief of the Gynecologic Oncology, CHUQ L'Hôtel-Dieu de Québec City, Québec

Dr. Walley Temple, Chief of the Division of Surgical Oncology, Tom Baker Cancer Centre, Calgary, Alberta

Dr. Christopher Giede, Program Director & Gynecology Surgeon, University of Saskatchewan, Saskatoon, Saskatchewan

Dr. Lesa Dawson, Oncologist, Eastern Health, Mount Pearl, Newfoundland

Dr. Lilian Gien, Gynecologic Oncologist, Sunnybrook Health Sciences Centre, Toronto, Ontario

Dr. Vanessa Samouelian, Gynécologue-Oncologue, CHUM - Hôpital Notre-Dame, Montréal, Québec

Dr. Shannon Salvador, Gynecologic Oncologist, Jewish General Hospital, Montréal, Québec

Executive Summary

Before 2007, national standards for cancer operative reporting were unavailable in Canada. Starting in 2007, the Canadian Partnership Against Cancer (the Partnership) began working with surgeons across Canada to develop, pilot and implement the pan-Canadian Standards to generate electronic synoptic operative (surgery) reporting that provides consistent and comprehensive information to direct patient care.

The pan-Canadian standards for breast, colorectal, lung, prostate, ovarian, endometrial and thyroid cancer provided in this document contain the important aspects of surgery including pre-operative, operative procedures, intra-operative observations, intra-operative pathology, clinical stage findings, complications, and outcomes. These standards have been endorsed by six medical societies (see Section 5) for use in clinical practice to advance excellence in surgical care. The content of the pan-Canadian standards are aligned to clinical guidelines where there is wide consensus formed among surgeons with cancer expertise, and to the work that Alberta initiated originally in 1999.

The two linked components—core set of data elements and quality of care indicators—make up the pan-Canadian synoptic surgery reporting standards. To date, 245 surgeons in Alberta, Manitoba, Nova Scotia and Ontario are using the pan-Canadian content standards to collect data on surgical care, generate electronic operative reports and assess clinical variation in practice. Insights from surgeons suggests that the pan-Canadian standards for eight cancer sites play an important role with decision-making support for clinical management to improve patient care and outcomes. In addition, the implementation experience thus far suggests that pan-Canadian synoptic surgery reporting standards can potentially serve as a solution in Canada to address two key challenges: 1) variation in surgical care across provinces; and 2) the lack of infrastructure to enable benchmark comparative reporting on surgical care interventions and the associate outcomes. The suite of pan-Canadian synoptic surgery reporting standards for eight cancer sites described in this report (in Section 5) offer an example of a solution and a coordinated approach that can help translate evidence into clinical practice, promote and structure dialogue with a continuous quality improvement lens, standardize surgical care across the country; and support clinical accountability to patients, funders, and regulatory bodies. To achieve this goal, it is necessary for surgeons, medical and radiation oncologists, the College of Physicians and Surgeons, the provincial medical associations, the provincial hospital associations, hospital administrators, Accreditation Canada, provincial cancer agencies, provincial e-health agencies and provincial governments to begin a dialogue around: 1) whether the patients and the health system can benefit from the implementation of the pan-Canadian standards for synoptic surgery reporting; and 2) the importance of establishing an infrastructure for performance measurement reporting at the hospital, regional and provincial levels.

Efforts are underway to make the case before the provincial funding agencies about the opportunity cost for not acting now to implement synoptic reporting for surgery, as well as the benefits of considering a system-wide implementation of the pan-Canadian synoptic surgery reporting standards. Benefits include the ability to increase the availability of cancer related surgical care data, to enable performance measurement, and to improve accountability.

Section 1 Overview

This section provides a brief overview about the Partnership and its vision; and the purpose of this document.

1.1 About the Partnership

The Canadian Partnership Against Cancer (the Partnership) is an independent organization funded by the federal government that is charged with implementing the first pan-Canadian Strategy for Cancer Control. The vision of the Partnership is to achieve improvements in Canadian cancer control by leveraging a coordinated approach, bringing together cancer experts, charitable organizations, government cancer agencies, cancer patients and survivors to help reduce the burden of cancer on Canadians and to increase the effectiveness of cancer control in Canada.

1.2 Purpose

This document provides:

- The updated and endorsed pan-Canadian standards for capturing a core set of surgical care data elements and indicators for synoptic reporting related to eight types of cancer;
- Information on the development process involved in updating the pan-Canadian standards; and
- Indicator technical specifications that can be used to measure quality of surgical care.

In addition, this document briefly describes:

1. An overview of the pan-Canadian synoptic reporting standards;
2. The current state in which surgeons are using the pan-Canadian synoptic surgery reporting standards for cancer to collect data and measure surgical care performance;
3. The potential of using pan-Canadian standards as a solution to address current key challenges in Canada related to surgical care;
4. The goal of pan-Canadian surgical synoptic reporting standards;
5. Provincial leadership role and system level enablers; and
6. Future directions.

Section 2: The Pan-Canadian Synoptic Reporting Standards

2.0 Section Overview

This section begins with a description about the pan-Canadian synoptic surgery reporting standards and provides an understanding about how pan-Canadian standards serve as a practical solution to translate evidenced based clinical guidelines into practice seamlessly, promote consistency in surgical care, improve patient outcomes, and support clinical accountability to patients, funders, and regulatory bodies. According to surgeons, their experience highlights a number of value-laden benefits, including the ability to measure guidelines adherence (see Section 2.3). Insights from surgeons suggests that the pan-Canadian standards for breast, colorectal, lung, prostate, ovarian, endometrial, and thyroid cancer plays an important role with decision-making support for clinical management to improve patient care and outcomes. This information is synthesized into the discussion (see Section 2.4) about why pan-Canadian synoptic surgery reporting standards serve as a solution in Canada to address two key challenges: 1) variation in surgical care across provinces; and 2) the lack of infrastructure to enable benchmark comparative reporting on surgical care interventions and outcomes. In closing, this section highlights the goal of the pan-Canadian synoptic surgical reporting standards, the current opportunities and the provincial leadership role.

2.1 The Pan-Canadian Synoptic Reporting Standards

The pan-Canadian synoptic reporting standards contain a core set of evidenced-based data collection elements and indicators that have been developed using clinical guidelines by 70+ surgeons from across Canada. Over the past 10 years, through the implementation of the pan-Canadian standards, selected community and academic hospitals in four Canadian provinces have instituted electronic solutions and are collecting cancer related surgical care data on pre-operative, operative procedures, intra-operative observations, intra-operative pathology, clinical stage findings, complications and outcomes. In Alberta, Manitoba, Nova Scotia and Ontario, the pan-Canadian standards are helping embed evidence-based guidelines into practice and establish standards to guide the electronic capture of consistent and comprehensive information for operative reports, performance measurement and quality improvement initiatives.

The pan-Canadian standards for synoptic surgery reporting for eight cancer sites have recently been updated to incorporate new evidence, guidelines and best practices; and are aligned to safety, quality of care, medial responsibility and clinical indicators. The updated pan-Canadian standards for breast, colon, rectal, prostate, ovary, endometrial, lung and thyroid have received endorsement from professional societies (see Section 5). Both components of the synoptic surgical reporting pan Canadian standards—the minimum data set and quality of care indicators—are made available in this report (see Section 5) for provinces across Canada to adopt and implement. Beginning 2016, Newfoundland Labrador has begun the implementation of pan-Canadian standards while Manitoba and Nova Scotia are upgrading their existing information systems to incorporate the revised pan-Canadian standards to increase the availability of surgical care data for reporting and informing policy initiatives. In Ontario, a coordinated approach is required to spread the adoption of pan-Canadian standards.

2

2.2 History and Experience

Since 2007, surgeons in Alberta, Manitoba, Nova Scotia and Ontario have led efforts to transition away from narrated operative reports to an electronic, synoptic format to capture essential components of the cancer surgery treatment. There are three key reasons for moving towards capturing synoptic data: 1) comprehensiveness; 2) efficiency; and 3) feedback reports to surgeons about surgical care interventions and outcomes. The traditional narrated operative reports for cancer surgery typically provide inconsistent and incomplete information required for patient care while the electronic synoptic operative reporting records consistent and comprehensive information. Furthermore, the turnaround time to complete electronic synoptic reporting is shorter (5 to 15 minutes compared to 5 days for narrative reports); and the transmission of electronic operative reports is rapid (91% to 97% of the reports are transmitted in 1 hour and 24 hours respectively compared to 30 to 90 days for narrative reports). Lastly, capturing operative information electronically and in a standardized, synoptic format is enabling performance measurement of surgical care to assess quality and outcome of surgery. A group of surgeons in multiple jurisdictions (i.e., Alberta, Manitoba, Nova Scotia and Ontario) have begun to draw on their data (captured over the last 10 years) to examine surgical care patterns related to ovarian, colorectal, lung and thyroid cancer. In collaboration with Partnership, surgeons and the project teams are demonstrating the value of using pan-Canadian standards for producing comparative aggregate reporting that can be used by surgeons, regions, and provinces.

Themes of the three initiatives are:

- Evaluating practice variations and outcomes in advanced ovarian cancer
- Informing practice through enhanced feedback and data linkages
- Variations in oncologic surgery in Canada

Information on these performance measurement initiatives will be available publicly in 2017. The electronic capture of the synoptic surgery reporting data is making it possible for surgeons to assess variations in practice and outcomes of surgical care for eight cancer sites. Having an ability to produce feedback reports for surgeons is a key driver of quality improvement initiatives.

2.3 Insights from Surgeons Using the Pan-Canadian Synoptic Surgical Standards

245 surgeons in Alberta, Manitoba, Nova Scotia and Ontario have championed the implementation of the pan-Canadian standards and facilitated a shift from narrative to electronic synoptic operative reporting for specific cancer operations. According to the surgeons, there are a number of benefits for using electronic synoptic surgery reporting in practice; the benefits include:

- "Synoptic surgical reporting allows for the timely creation of more comprehensive operative reports, ensuring that all key information is captured. As a whole, these reports facilitate practice assessment and surgeon self-assessment" (Alberta)
- "As evidenced by improved quality in the surgical pathology reporting with the introduction of synoptic reports, the same benefits will likely be realized with the wider adoption of the synoptic reporting tool. The standardization of reporting will allow further data collection leading to further quality improvements" (Ontario)
- "Synoptic reporting is an excellent way to maintain clinical/surgical standards and consistency for patients undergoing radical prostatectomy. It also can provide a meaningful comparison of surgical data previously not possible by utilizing a common language of recording information regardless of jurisdiction" (Manitoba)
- "Standardized reporting of data is important to identify and understand variations in care which, in turn, can be used to focus on optimizing quality of care, improving patient outcomes and delivering cost-effective treatments" (Ontario)

The electronic operative report is acknowledged as part of the patient medical record (replacing the previous narrative report) and integral to subsequent patient care. As well, surgeons are using electronic reports for quality assurance, billing, medical-legal conflict resolution, research, and performance measurement.

2.4 Pan-Canadian Standards Serving as a Solution to Address Current Challenges

In the current context, surgical care is based on evidence and guidelines formed by experts. Where wide consensus is still being formed on the recommended guidelines, variation in surgical care can exist by hospital, within a province or across provinces. Variation in cancer care may be appropriate in some cases; however, in some cases variation in care may be inappropriate and can potentially compromise quality of care, and can lead to readmissions and recurrence of cancer. A recent study[1] in Canada noted differences between Canadian provinces with regard to the approaches undertaken to provide surgical cancer care. The lack of pan-Canadian standards for the delivery of cancer surgeries and minimal published guidelines across provinces were identified in the report as two areas contributing to variation in surgical care practices; however, these two areas also offer a promising opportunity to systematically consider mobilizing actions that can help standardize high quality care. Evidence suggests that reduction in surgical practice variation can improve quality of care including complication, mortality rates, disease recurrence and readmission for a second surgery.

2.5 Goal of the Pan-Canadian Synoptic Surgery Reporting Standards

The suite of pan-Canadian synoptic surgery reporting standards for eight cancer sites described in this report (in Section 5) offer an example of a solution and a coordinated approach that can help translate evidence into clinical practice, promote and structure dialogue with a continuous quality improvement lens, and standardize surgical care across the country. To achieve this goal, it is necessary for surgeons, medical and radiation oncologists, the College of Physicians and Surgeons, the provincial medical associations, the provincial hospital associations, hospital administrators, Accreditation Canada, provincial cancer agencies, provincial e-health agencies and provincial governments to begin a dialogue around: 1) whether the patients and the health system can benefit from the implementation of the pan-Canadian standards for synoptic surgery reporting; and 2) importance of establishing an infrastructure for performance measurement reporting at the hospital, regional and provincial levels.

2.6 Provincial Leadership and System Level Enablers

To standardize surgical care across eight cancer sites, improve patient outcomes and facilitate quality improvement efforts through reporting back to surgeons, hospitals and regions, there is a key leadership role for provinces to consider. Historically, with the funding support from the provincial government, today hospitals are able to systematically collect essential information and get comparative benchmarking reports on key performance measures, including length of stay, readmission rates and hospital standardized mortality rates through Your Health System tool developed and maintained by the Canadian Institute for Health Information (CIHI). However, with the current infrastructure the hospital information systems are not able to systematically and accurately collect data related to cancer operative procedures, intra-operative observations, intra-operative pathology, clinical stage findings, complications and outcomes (e.g., survival rates). Therefore, this information is not being measured, reported or utilized for self-reflection in clinical practice, and for quality improvement initiatives at the hospital, regional and provincial levels. This gap highlights an opportunity for provinces to consider leveraging existing infrastructure to enable cancer related data collection and coordinate data reporting through a national organization such as CIHI.

1 Finley, C., Schneider, L., and Shakeel, S. Approaches to high-risk, resource intensive cancer surgical care in Canada.

Section 3: Methods for Developing and Updating Pan-Canadian Synoptic Surgical Reporting Standards

3.0 Section Overview

Section 3 provides an overview of the methods undertaken by 70 plus surgeons in collaboration with the Partnership to develop and update the pan-Canadian standards for synoptic surgical reporting. The pan-Canadian synoptic surgical reporting standards includes content that integrates the evidence from literature, clinical guidelines and input from Canadian surgeons with expertise in cancer surgery. The standards presented here have been refined and updated since their initial development in 2007.

The updated suite of pan-Canadian standards include a core set of data elements and quality of care indicators for eight cancer sites. Across the eight cancer sites, the number of data elements vary, ranging from 140 to 243. There are 63 data elements that are common across the eight cancer sites. In addition, when completing a synoptic surgical reporting, a surgeon typically enters 25 to 50 elements per procedure type. Hence, only a sub-set of data elements are selected from the full complement of the core data set to produce a comprehensive operative report.

3.1 Methods for Updating Synoptic Surgery Content Standards for Cancer

In collaboration with 70 plus surgeons across Canada, the Partnership undertook an iterative process to develop pan-Canadian standards for synoptic surgery reporting. The pan-Canadian synoptic reporting standards include two components: core data elements and quality indicators. The development process for the pan-Canadian standards combined information from the literature, clinical guidelines and experts practicing in the field. Through a series of consultations with surgeons during in-person and teleconference meetings, and online survey, a list of mandatory and optional data elements were identified, discussed, and refined. An overview of the total, mandatory and optional data elements by cancer site is provided below in Table 1. Note that although the pan-Canadian standards contain 140 to 234 total data elements (as outlined in Table 1), typically surgeons capture a sub-set of data elements related to the procedure type performed. This means that the total number of data elements highlighted in Table 1 are not all captured at once to produce a synoptic surgical report. Roughly, 25 to 50 items are captured—this is relatively shorter than the narrative report which contains about 2000 words.

Across the eight cancer sites, 63 data elements are common. The common data elements are outlined in Table 2 below under the categories: Administration and ID, procedure planned and performed, pre-operative assessment, pathology and staging, operative procedure and completion elements. This suggests that the proportion of data elements unique to a cancer site ranges from 77 to 171.

In addition, through the Modified Delphi Method a priority list of clinical indicators and domains were selected, developed and refined. A priority list of indicators were confirmed for inclusion in the pan-Canadian standards based on the following criteria: indicators are useful and relevant to support self-reflection in clinical practice, quality improvement initiatives, and cancer system performance measurement and planning. A total of 69 indicators are part of the pan-Canadian standards (see Section 5 for indicator description and specifications).

3

Table 1: Pan-Canadian Synoptic Surgical Reporting Standards Overview

A summary of total number of data elements and indicators per cancer site is provided below.

Cancer Site	Indicators	Total Number of Data Elements	# Mandatory Data Elements	# Optional Data Elements
Breast	16	171	152	19
Colon	4	140	83	57
Rectal	9	162	101	61
Thyroid	9	234	198	36
Lung	9	186	81	105
Prostate	7	161	113	48
Ovary	9	190	133	57
Endometrial	6	148	113	35

Table 2: Common Data Elements

Common data elements across eight cancer sites

Administration and ID Data Elements			
Administration	**Patient Information**	**Provider Details**	**Facility Details**
• Report Date • Report completed by • Report copies to	• Patient Last Name • Patient First Name • Patient Middle Name/ Initial • Patient Date of Birth • Patient ID • Patient ID Type • Patient Gender	• Provider Last Name • Provider First Name • Provider ID • Assistant Last Name • Assistant First Name • Assistant Role • Assistant ID Type • Assistant ID	• Facility Name • Facility ID Code • Facility Type of Services • Room ID • Facility Location Comments
Procedure Planned and Performed			
Current Procedure Administration		**Reoperation and Previous Surgeries**	
• Date of surgery • Pre-operative diagnosis • Surgical indications/Operative urgency • Procedure(s) planned • Procedure(s) performed • Reason for difference in procedure planned/performed		• Reoperation • Type of reoperation • Reason for reoperation	

Table 2: Common Data Elements (cont'd)

Common data elements across eight cancer sites

Pre-Operative Assessment

Clinical Findings (applicable by disease site)	Diagnostic Investigation	Laboratory	Co-morbidity
• Symptoms/signs • Physical findings • Clinically suspicious lymph nodes • Location of clinically suspicious lymph nodes • Recurrent cancer • Functional performance/fitness status measurement scale • Functional performance/fitness status rating • Patient function • Body Mass Index (BMI) • Height • Weight	• Diagnostic imaging test results	• Laboratory test results • Other diagnostic test results	• Co-morbidities • Co-morbidity Index/ Scale

Pathology and Staging (pre-operative pathology and clinical staging)

- Pre-operative Pathology
- Clinical Stage

Operative Procedure

Sign in & Briefing	Incision/Operative Exposure	Operative Details (disease site specific) Intra-operative pathology	Operative Adjuncts Used Wound Closure	Notable events and patient transfer
• Surgical Safety Checklist performed? • Anesthesia • Pre-operative antibiotics • DVT prophylaxis	• Surgical incision	• Frozen Section	• Closure • Drains • Drain type	• Tissue banking • Notable events/ complications • Notable event actions taken • Unit transferred to

Completion Elements

Follow up	Automatic Referral
• Dictation Addendum	• Referral to • Service delivery code

Section 4: Next Steps

4

The Partnership is collaborating with surgeons, e-health leaders, and provincial and national agencies to explore the potential of implementing electronic synoptic surgery reporting on a system-wide scale and of integrating the pan-Canadian standards into existing hospital information systems. To support these objectives, clinical, e-health, provincial and national agency leaders are working together to make a case that implementing synoptic surgical reporting standards can help provinces work with the clinical community, hospital administrators and regional agencies to reduce clinical variation, improve quality of surgical care and patient outcomes; and potentially bend the cost curve. As well, improve the availability of surgical care data to enable performance measurement and improve accountability.

Section 5: Specifications for pan-Canadian Standards: Definitions and Technical Notes

5.0 Section overview

Section 5 details the specifications for the quality of care indicators and the core set of data elements of the pan-Canadian synoptic surgery reporting standards for breast, colorectal, lung, prostate, ovarian, endometrial, and thyroid cancer. Using these specifications, information systems can enable electronic capture of mandatory and optional data elements and facilitate production of feedback reports using indicators described in this section. For each disease site, the mandatory and optional data elements along with the indicators provided in this section have been endorsed by six medical societies for use in clinical practice to promote excellence in surgical cancer care.

Furthermore, Section 5.2.c outlines copyrights associated with the use of the pan-Canadian standards for the eight cancer sites.

5.1 Foundation

Surgeons with expertise in cancer surgeries participated in expert panels to discuss and define the most current evidenced based guidelines for a variety of common procedures that are used as surgical treatment for breast, colon, rectal, lung, prostate, ovarian, endometrial and thyroid cancer. After numerous rounds of discussions, consensus was formed on data elements and indicators that make up the pan-Canadian synoptic surgical reporting standards. As well, numerous medical societies such as the Canadian Association of Thoracic Surgeons, Canadian Urological Association, Society of Gynecologic Oncology of Canada, and the Canadian Association of General Surgeons have endorsed the pan-Canadian standards that are described in this section. The goal of these medical societies is to advance excellence in surgical cancer care. Their endorsement recognizes the value of pan-Canadian standards to support self-reflection in clinical practice, quality improvement initiatives and cancer system performance measurement and planning. A copy of the endorsement letter related to thyroid, lung, prostate, ovary and endometrial pan-Canadian standards is provided in sub-sections 5.5 to 5.9. A letter of endorsement related to colon, rectal & breast pan-Canadian standards is forthcoming from the Canadian Association of General Surgeons, Canadian Society of Surgical Oncology and the Canadian Society of Colon and Rectal Surgeons. Cancer site specific data elements and clinical indicators are described below in sub-sections 5.2 to 5.9 of this Section.

The clinical indicators are designed for use in a variety of ways: 1) to support self-reflection in clinical practice; 2) to inform quality improvement initiatives and 3) measure cancer system performance and direct planning. The data elements and the associated value sets are structured and organized to help develop and produce consistent and comprehensive electronic synoptic operative reports and gather data that can be used to generate feedback reports for surgeons at the hospital or unit level. In several jurisdictions, indicators listed in this document are being generated for reporting back to surgeons. Feedback reports to surgeons is helping foster a culture of quality improvement. In addition, the synoptic surgical reporting data can be leveraged to generate comparative jurisdictional specific or inter-jurisdictional reports to inform policy and program planning. The latter option can be made possible with the province-wide implementation of pan-Canadian synoptic surgical reporting standards.

5.1.a Clinical Indicators

Recognizing the care processes involved in treating patients with cancer, where possible, clinical indicators are paired with the following one of the five domains:

1. Access to Care – Indicators include measures that can point out the availability and/or timeliness of oncology surgical care services
2. Diagnosis & Staging – Indicators include measures that describes pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer and to guide treatment decisions
3. Appropriate Treatment – Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care
4. Surgical Complications – Indicators include measures to assess burden of surgical cancer treatment on patients
5. Utilization – Indicators include measures to describe health service utilization and outcome of the interaction between health professionals and patients. A common measure often expressed and reported is volume of services

Details on each indicator such as indicator name, description, numerator, denominator, calculating methodology, and potential use are provided below in sub-sections 5.2 to 5.9.

5.1.b Data Elements

Cancer site specific data elements, the corresponding description, values, format, and notes are provided below in sub-sections 5.2 to 5.9. Of note, each data element is marked either as mandatory or optional. Mandatory data elements are defined as data elements that are necessary to meet medical, legal and reporting requirements, reflect current standards of practice for surgery, and populate selected indicators. Optional elements are those elements that are recommended by the Expert Panels (list of expert panel members by disease site is found in the Acknowledgement section of this document) for implementation at the discretion of local facilities, or provinces.

5.1.c Usage of Synoptic Surgery Reporting Standards

The synoptic surgery standards are to be used by the physicians (i.e. surgeons) and other healthcare providers for purposes of clinical care documentation, quality assessment and improvement, performance measurement, teaching, and medical research for non-profit purposes. Permitted purposes include (i) reviewing, modifying and printing; (ii) creating and modifying tables, generating reports and reporting tables; (iii) compilation, derivation and analysis of surgical care; or (iv) establishing a system for synoptic reporting. All modified material shall indicate that it has been modified from the original. Any use of the materials shall recognize the source and acknowledge the contributions of the copyright holder in the development of the materials. Any use of these materials outside of the permitted purposes specified above may contravene Canadian and other international copyright laws. In such situation(s), requests may be addressed to the director at the respective copyright holder. Where no copyright holder is listed, enquiries should be addressed to the Canadian Partnership Against Cancer (surgery@partnershipagainstcancer.ca)

5.2 Breast Cancer

Pan-Canadian Standards for breast cancer include 16 clinical indicators and 171 data elements. Of the 171 data elements, 152 are deemed mandatory while 19 data elements are recommended as optional. Endorsement of the breast cancer pan-Canadian standards has been sought from the Canadian Association of General Surgeons (CAGS) and the Canadian Society for Surgical Oncology (CSSO); confirmation is pending at time of this publication.

5.2.a Breast Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 1	
Domain	**Diagnosis and Staging** Indicators include measures that describes pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer and to guide treatment decisions
Indicator Name	% diagnosed by pre-operative core biopsy
Indicator Description	Proportion of operative breast cancer diagnosed via pre-operative core breast biopsy Indicator assessed for patients with: *A. Invasive breast cancer* *B. DCIS*
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number patients for whom core biopsy was used to diagnose and treat invasive breast cancer surgically* *B. Total number patients for whom core biopsy was used to diagnose and treat DCIS surgically* **Note:** Invasive carcinoma and DCIS examined separately, include only the first diagnosis 5.2=invasive carcinoma or DCIS for a given patient **Denominator** Total number patients with surgically-treated breast cancer (calculated separately for invasive breast cancer and DCIS)
Template Data Collection Elements	5.2 Pre-operative diagnosis (per breast) 7.17 How was diagnosis made **Details and Calculation** **Note:** Invasive carcinoma and DCIS examined separately, include only the first diagnosis 5.2=invasive carcinoma or DCIS for a given patient **Numerator** *A. Invasive Carcinoma* 5.2= invasive carcinoma AND 7.17=core (preferred) *B. DCIS* 5.2 = DCIS AND 7.17 core (preferred)

5.2.a Breast Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 2	
Domain	**Diagnosis and Staging** Indicators include measures that describe pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer, and to guide treatment decisions
Indicator Name	% results from core biopsy
Indicator Description	Proportion of patients for whom core biopsy results were used to surgically treat invasive breast cancer. Stratified by: *A. Estrogen Receptor (ER)* *B. Progesterone Receptor (ER)* *C. HER2*
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number patients with invasive breast cancer who underwent breast cancer surgery with estrogen receptor (ER) results from core biopsy* *B. Total number patients with invasive breast cancer who underwent breast cancer surgery with progesterone receptor (PR) results from core biopsy* *C. Total number patients with invasive breast cancer who underwent breast cancer surgery with HER2 results from core biopsy* **Denominator** Denominator to measure numerators A to C is: Total number patients with invasive breast cancer who underwent breast cancer surgery including core biopsy
Template Data Collection Elements	5.2 Pre-operative diagnosis (per breast) 7.17 How was diagnosis made 7.17.2 Estrogen Receptor Results 7.17.4 Progesterone Results 7.17.6 HER2 Results **Details and Calculation** **Numerator** *A. Estrogen Receptor Results* 5.2 = invasive carcinoma AND 7.17 = core (preferred) AND 7.17.2 = positive OR negative *B. Progesterone Receptor Results* 5.2= invasive carcinoma AND 7.17 = core (preferred) AND 7.17.4 = positive OR negative *C. HER2 Results* 5.2= invasive carcinoma AND 7.17 = core (preferred) AND 7.17.6 = positive OR negative

5.2.a Breast Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 3	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% oriented for pathology (stratified by: total, clinical stage)
Indicator Description	Proportion of specimens oriented for pathology Stratified by: *A. Total* *B. Clinical Stage*
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number patients with surgically treated for breast cancer who underwent breast conservation where the specimen was oriented for pathology* *B. Total number patients with surgically treated breast cancer who underwent breast conservation where the specimen was oriented for pathology, stratified by clinical stage* **Denominator** Denominator to measure numerators A and B is: Total number patients with surgically treated breast cancer who underwent breast conservation
Template Data Collection Elements	5.6 Procedure(s) Performed 12.14 Clinical Stage (calculate) 12.41 Specimen oriented for pathology **Details and Calculation** **Numerator** *A. Total* 12.41 = yes AND 5.6= Unilateral Breast Conservation OR Right Mastectomy, Left Breast Conservation OR Left Mastectomy, Right Breast Conservation OR Bilateral Breast Conservation *B. Stratified by clinical stage* 12.41 = yes AND 5.6= Unilateral Breast Conservation OR Right Mastectomy, Left Breast Conservation OR Left Mastectomy, Right Breast Conservation OR Bilateral Breast Conservation AND 12.14 = Clinical stage unknown Stage 0 Stage 1A Stage 1B Stage 2A Stage 2B Stage 3A Stage 3B Stage 3C Stage 4

5.2.a Breast Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 4	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% axillary ultrasonography (stratified: by clinical stage)
Indicator Description	Proportion of patients who received axillary ultrasonography (stratified: by clinical stage)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients who underwent breast surgery who received axillary ultrasonography (stratified by clinical stage) **Denominator** Total number of patients who underwent breast surgery
Template Data Collection Elements	7.23.1 Axillary Ultrasound Performed? 12.14 Clinical Stage (calculate) **Details and Calculation** **Numerator** (stratified by clinical stage) 7.23.1 = yes AND 12.14 = Clinical stage unknown Stage 0 Stage 1A Stage 1B Stage 2A Stage 2B Stage 3A Stage 3B Stage 3C Stage 4

5.2.a Breast Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 5	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% with abnormal axillary ultrasound and Fine Needle Aspirate (FNA) or core biopsy
Indicator Description	Proportion of patients with abnormal axillary ultrasound who underwent Fine Needle Aspirate or core biopsy
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients who underwent breast cancer surgery with abnormal ultrasound who underwent Fine Needle Aspirate or core biopsy **Denominator** Total number of patients who underwent breast cancer surgery with abnormal axillary ultrasound
Template Data Collection Elements	7.23.2 Axillary Ultrasound Finding 7.17 How was diagnosis made **Details and Calculation** **Numerator** 7.23.2 = Suspicious for malignancy and biopsied OR Suspicious for malignancy and not biopsied AND 7.17 = core (preferred) OR FNA

5.2.a Breast Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 6	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% received neoadjuvant therapy (stratified by total and clinical stage)
Indicator Description	Proportion of patients with breast cancer who received neo-adjuvant therapy Stratified by: *A. Total* *B. Clinical stage*
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number of patients with breast cancer who received neo-adjuvant therapy (overall)* *B. Total number of patients with breast cancer who received neo-adjuvant therapy (stratified by clinical stage)* **Denominator** Denominator to measure numerators A and B is: Total number of patients with breast cancer
Template Data Collection Elements	5.2 Pre-operative diagnosis (per breast) 7.25 Pre-operative Treatment 12.14 Clinical Stage (calculate) **Details and Calculation** **Numerator** *A. Total* 5.2 = invasive carcinoma OR DCIS AND 7.25 = yes *B. Stratified by Clinical Stage* 5.2 = invasive carcinoma OR DCIS AND 7.25 = yes AND 12.14=Clinical stage unknown Stage 0 Stage 1A Stage 1B Stage 2A Stage 2B Stage 3A Stage 3B Stage 3C Stage 4

5.2.a Breast Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 7	
Domain	**Diagnosis and Staging** Indicators include measures that describe pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer, and to guide treatment decisions.
Indicator Name	% sentinel lymph node biopsy (SLNB) in clinical stage *N0* patients
Indicator Description	Proportion of sentinel lymph node biopsy (SLNB) in clinical stage *N0* patients
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with clinical stage *N0* breast cancer who underwent a sentinel lymph node biopsy **Denominator** Total number of patients with breast cancer and clinical stage *N0*
Template Data Collection Elements	5.6 Procedures Performed 7.23 Pre-operative axillary node status 7.24 Other nodes at presentation **Details and Calculation** **Numerator** 5.6 = sentinel node dissection AND 7.23 = no clinical axillary node metastases AND 7.24 = none

5.2.a Breast Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 8	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% immediate reconstruction following mastectomy (stratified by: invasive carcinoma; DCIS)
Indicator Description	Proportion of mastectomy patients that underwent immediate reconstruction (stratified by: invasive carcinoma; DCIS)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number patients with invasive carcinoma that underwent mastectomy followed by immediate reconstruction* *B. Total number patients with DCIS that underwent mastectomy followed by immediate reconstruction* **Denominator** Denominators to measure numerators A and B are described below: *A. Total number of patients with surgically treated invasive carcinoma that underwent mastectomy* *B. Total number of patients with surgically treated DCIS that underwent mastectomy*
Template Data Collection Elements	5.2 Pre-operative diagnosis (per breast) 5.6 Procedure Performed 12.20 Immediate Reconstruction done **Details and Calculation** **Numerator** *A. Invasive Carcinoma* 5.2= invasive carcinoma AND 5.6 = Unilateral mastectomy OR Right Mastectomy, Left breast conservation OR Left mastectomy, right breast conservation OR bilateral mastectomy AND 12.20 = YES *B. DCIS* 5.2= DCIS AND 5.6 = Unilateral mastectomy OR Right Mastectomy, Left breast conservation OR Left mastectomy, right breast conservation OR bilateral mastectomy AND 12.20 = YES

5.2.a Breast Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 9	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% unilateral breast cancer patients who underwent contralateral mastectomy (stratified by BRCA status; reconstruction status)
Indicator Description	Proportion of patients with unilateral breast cancer who underwent contralateral mastectomy (Stratified by BRCA status; reconstruction status)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number of patients with unilateral breast cancer surgery who underwent contralateral mastectomy and are BRCA positive* *B. Total number of patients with unilateral breast cancer surgery who underwent contralateral mastectomy and are not BRCA positive* *C. Total number of patients with unilateral breast cancer who underwent contralateral mastectomy with reconstruction* *D. Total number of patients with unilateral breast cancer who underwent contralateral mastectomy without reconstruction* **Denominator** Denominators to measure numerators A to D are described below: *A. Total number of patients with unilateral breast cancer surgery that are BRCA positive* *B. Total number of patients with unilateral breast cancer surgery that are not BRCA positive* *C. Total number of patients with unilateral breast cancer who underwent contralateral mastectomy with reconstruction* *D. Total number of patients with unilateral breast cancer who underwent contralateral mastectomy without reconstruction*
Template Data Collection Elements	5.2 Pre-operative diagnosis (per breast) 5.6 Procedure Performed 7.10 Gene Status 12.20 Immediate reconstruction done **Details and Calculation** **Numerator** *A. BRCA positive* 5.2 = invasive carcinoma OR DCIS AND Prophylactic AND 7.10 = BRCA1 or BRCA2 *B. Not BRCA positive* 5.2 = invasive carcinoma OR DCIS AND Prophylactic AND 7.10 = negative OR other (specify) *C. With reconstruction* 5.2 =invasive carcinoma OR DCIS AND Prophylactic AND 5.6 = bilateral mastectomy AND 12.20 = YES *D. Without reconstruction* 5.2 = invasive carcinoma OR DCIS AND Prophylactic AND 5.6 = bilateral mastectomy AND 12.20 = NO

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
A. Administrative and Identification Data					
1. Administration (overview of key report information)					
1.1	Report Date/Date sent to electronic patient record	Date of report completion - may be different than date of surgery	2001:01:01	M	**Format:** Date YYYY:MM:DD
1.2	Report completed by	Name of person completing report	Dr. Smith	M	**Format:** Alphabetic
1.3	Report copies to	Name of people receiving copies of the report	Dr. Jones	M	**Format:** Alphabetic
1.4	Disease Site	Location of cancer	• Left Breast • Right Breast	M	**Format:** Alphabetic multiple selection
2. Patient Information (key demographic and clinical summary information about the person receiving surgery)					
2.1	Patient Last Name	Represents the patient's legal last name	Jones	M	**Format:** Alphabetic
2.2	Patient First Name	Represents the patient's legal first name	Bill	M	**Format:** Alphabetic
2.3	Patient Middle Name	Represents the patient's legal middle name	John	M	**Format:** Alphabetic
2.4	Patient Date of Birth	Represents the patient's date of birth	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.5	Patient Identifier	Represents a unique identifier assigned to the patient	6611168070NN	M	**Format:** Alphanumeric
2.6	Patient Identifier type	Represents the type of patient Identifier (e.g. Jurisdictional Healthcare Identifier, Passport)	• Health Card Number • Medical Record Number	M	**Format:** Alphanumeric
2.7	Patient Address	Represents the patient's full address	5 Main Street, City, Province X1X 1X1	M	**Format:** Alphanumeric only Postal code in EMR standard
2.8	Patient Gender	Represents a reported gender category of the patient at a given point in time used for administrative purposes	• Male • Female	M	**Format:** Alphabetic value list
3. Provider Details (person(s) performing and/or supporting the surgeon)					
3.1	Provider Last Name	Represents the Provider's legal family name	Smith	M	**Format:** Alphabetic
3.2	Provider First Name	Represents the Provider's legal first name	James	M	**Format:** Alphabetic

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
3.3	Provider Identifier Type	Represents the type of Provider Identifier	Billing Number	M	**Format:** Alphabetic value list
3.4	Provider Identifier	Represents the unique identifier assigned to the Provider	82347484	M	**Format:** Alphanumeric
3.5	Assistant Last Name	Represents the Last name of assistants, residents, fellows and other assistants during the procedure	Smith	O	**Format:** Alphabetic Field can be repeated
3.6	Assistant First Name	Represents the First name of assistants, residents, fellows and other assistants during the procedure	James	O	**Format:** Alphabetic Field can be repeated
3.7	Assistant role	Role of the assistant during the procedure		O	**Format:** Alphabetic Field can be repeated
3.8	Assistant ID type	Represents the type of Provider Identifier		O	**Format:** Alphabetic Field can be repeated
3.9	Assistant ID	Represents the unique identifier assigned to the Provider		O	**Format:** Alphanumeric Field can be repeated
3.10	Anaesthetist Last Name	Represents the Last name of the anaesthetist	Smith	O	**Format:** Alphabetic
3.11	Anaesthetist First Name	Represents the First name of the anaesthetist	James	O	**Format:** Alphabetic
3.12	Anaesthetist Identifier	Represents the unique identifier assigned to the Provider		M	**Format:** Alphanumeric
3.13	Anaesthetist Identifier Type	Represents the type of Provider Identifier		M	**Format:** Alphabetic value list
	4. Service Delivery Location Details (surgery location)				
4.1	Service Delivery Location Name	Represents the name of the Service Delivery Location where the Client received care	Glendale Family Health Clinic	O	**Format:** Alphanumeric
4.2	Service Delivery Location Identifier Code	Represents the unique identifier of the PHC Service Delivery Location where the Client received care	A46B7356743	O	**Format:** Alphanumeric

5.2.B Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
4.3	Service Delivery Type of Services	Represents the type of location where the Client received care. e.g. inpatient facility, outpatient clinic, day surgery unit	Primary Care Clinic Hospital	O	**Format:** Alphabetic value list
4.4	Room Identifier	Represents the type of room the procedure was performed in. e.g. inpatient Operating Room, procedure room	Operating Room #3	O	**Format:** Alphanumeric
B. Procedure Planned and Performed					
5. Current Procedure Administration (current planned and performed procedures and related diagnoses)					
5.1	Date of Surgery	Date that the surgery was performed	2001:01:01	M	**Format:** DATE YYYY:MM:DD
5.2	Pre-operative diagnosis (per breast)	Diagnosis of the patient determined before the surgery	• Invasive carcinoma • DCIS • Pleomorphic LCIS • High Risk Lesions (ADH and lobular neoplasia) • Phyllodes/Fibroepithelial lesion • Paget's • Angiosarcoma • Prophylactic • Other (specify)	M	**Format:** Alphabetic multiple selection Prophylactic only appears as an option for bilateral surgeries
5.4	Post-operative diagnosis (per breast)	The most likely diagnosis of the patient after surgery is completed	• Invasive carcinoma • DCIS • Pleomorphic LCIS • High Risk Lesions (ADH and lobular neoplasia) • Phyllodes/Fibroepithelial lesion • Paget's • Angiosarcoma • Prophylactic • Other (specify)	M	**Format:** Alphabetic multiple selection OR can be derived from 12.7 Prophylactic only appears as an option for bilateral surgeries
5.6	Procedure(s) performed	Describe the procedure that was performed on breast and axilla	• Unilateral Mastectomy • Unilateral Breast Conservation • Right Mastectomy, Left Breast Conservation • Left Mastectomy, Right Breast Conservation • Bilateral Mastectomy • Bilateral Breast Conservation • Axillary Node Dissection • Sentinel Node Dissection • Other (specify)	M	**Format:** Alphabetic multiple selection Or Can be derived from 12.15,12.24,12.44, 12.45

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
5.7	Surgical objectives	What were the objectives of the surgery?	• Palliative • Curative • Diagnostic Intervention • Preventive/Prophylactic • Other (specify)	M	**Format:** Alphabetic value list
5.8	Procedure Administration Comments	Comments on procedure administration		O	**Format:** Text
		6. Reoperation and Previous Surgeries (information about previous surgery for related diagnoses)			
6.1	Past Breast History	Indicate type and side of any previous breast cancer	• None • Ipsilateral Invasive • Ipsilateral DCIS • Contralateral Invasive • Contralateral DCIS • Reduction Mammoplasty • Breast augmentation	M	**Format:** Alphabetic multiple selection
6.2	Did the patient receive radiation	Indicate if the patient received radiation prior to surgery	• Yes • No	M	**Format:** Alphabetic value list If ipsilateral or contralateral selected in 6.1
		C. Pre-Operative Assessment			
		7. Clinical Findings (pre-operative clinical findings)			
7.1	Current Pregnancy	Indicate if the patient is currently pregnant	• Yes • No	M	**Format:** Alphabetic value list
7.2	Height	Represents the patients height as measured	164	M	**Format:** Numeric
7.3	Height unit of measure	Represents the patients height unit of measure captured	• Centimetres • Inches	M	**Format:** Alphabetic value list
7.4	Weight	Represents the patients weight as measured	82	M	**Format:** Numeric
7.5	Weight unit of measure	Represents the patient weight unit of measure captured	• Kilograms • Pounds	M	**Format:** Alphabetic value list
7.6	Body Mass Index (BMI)	Represents patient's body mass index. Calculated automatically using height and weight		M	**Format:** Numeric calculation

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.7	Body Mass Index (BMI) Status	Represents patient's weight status based on body mass index	• Underweight (less than 18.5) • Normal (18.5 - 24.9) • Overweight (25- 29.9) • Obese (30 - 34.9) • Severely Obese (35.0 or greater)	M	**Format:** Alphanumeric value list only if height and weight is not available
7.8	Eligible for genetics counselling	Based on guidelines, is the patient eligible for genetics counselling?	• Yes • No	M	**Format:** Alphabetic value list
7.9	Gene Status Known	Is the gene status of the patient known at this time?	• Yes • No • Pending	M	**Format:** Alphabetic value list
7.10	Gene Status	Indicate the gene status if known	• BRCA1 • BRCA2 • Negative • Other (specify)	M	**Format:** Alphabetic value list if "Yes" to 7.9
7.14	Method of initial detection	Indicate how the was cancer initially detected	• Breast cancer detected by diagnostic imaging • Breast cancer detected by self-examination • Breast cancer detected by clinical examination • Other (specify)	M	**Format:** Alphabetic value list
7.15	Tumor palpable on clinical exam	Is the tumor palpable on a clinical exam?	• Yes • No	M	**Format:** Alphabetic value list
7.16	Diagnostic tools tumor can be seen on	Indicate which diagnostic imaging tools the tumor is visible through	• Mammogram • Ultrasound • Magnetic Resonance Imaging (MRI) • None • Other (specify)	M	**Format:** Alphabetic multiple selection
7.17	How was diagnosis made	Indicate how the breast cancer diagnosis was made	• Core (preferred) • FNA • Punch Biopsy • Open Biopsy	M	**Format:** Alphabetic value list
7.17.1	Estrogen Receptor Done	Were estrogen receptors taken on core biopsy?	• Yes • No	M	**Format:** Alphabetic value list if 7.17="core (preferred)"
7.17.2	Estrogen Receptor Results	Estrogen receptor results from core biopsy	• Positive • Negative • Not yet available	M	**Format:** Alphabetic value list if 7.17.1=Yes
7.17.3	Progesterone Receptors Done	Were progesterone receptors taken on core biopsy	• Yes • No	M	**Format:** Alphabetic value list if 7.17="core (preferred)"

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.17.4	Progesterone Receptor Results	Progesterone receptor results from core biopsy	• Positive • Negative • Not yet available	M	**Format:** Alphabetic value list if 7.17.3=Yes
7.17.5	HER2 Done	Was HER2 testing done on core biopsy?	• Yes • No	M	**Format:** Alphabetic value list if 7.17=“core (preferred)”
7.17.6	HER2 Results	HER2 results from core biopsy	• Positive • Negative • Not yet available	M	**Format:** Alphabetic value list if 7.17.5=Yes
7.18	Why was diagnosis made via “open”	Indicate why diagnosis for breast cancer was made via “open”	• High risk lesion (ADH/ Radial Scar/) • Core non diagnostic • Radiologist states core technically not feasible • Core not available • Other (specify)	M	**Format:** Alphabetic value list if “open” for 7.17
7.20	Distance from nipple	Describe the location of the tumour relative to the nipple	• Retro-areolar • Peripheral • N/A unknown primary	M	**Format:** Alphabetic value list if “open” for 7.17
7.21	Specify distance in centimeters (cm)	Indicate the distance of the tumor from the nipple in centimeters	• Less than 2 • 2 to 5 • Greater than 5	M	if 7.20 = peripheral
7.22	Clock position	Indicate the position of the tumor from the nipple based on the position of a 12-hour clock	• 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • 10 • 11 • 12 • unknown	M	**Format:** Alphabetic value list if 7.20 = peripheral
7.23	Pre-operative axillary node status	Indicate the status of the axillary node prior to surgery	• No clinical axillary node metastases • Clinical axillary node metastases - non-matted • Clinical axillary node metastases - matted	M	**Format:** Alphabetic value list

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.23.1	Axillary Ultrasound Performed?	Was axillary ultrasound done?	• Yes • No	M	**Format:** Alphabetic value list
7.23.2	Axillary Ultrasound Finding	Indicate the results of the axillary ultrasound	• Suspicious for malignancy and biopsied • Suspicious for malignancy and not biopsied • Not suspicious for malignancy	M	**Format:** Alphabetic value list if 7.23.1=yes
7.23.3	Results of Axillary biopsy	Indicate results of axillary biopsy	• Positive • Negative	M	**Format:** Alphabetic value list if 7.23.2=suspicious for malignancy - biopsied
7.24	Other nodes at presentation	Indicates presence of other clinically positive nodes	• None • Supraclavicular • Internal mammary • Infraclavicular	M	**Format:** Alphabetic value list
7.25	Pre-operative treatment	Was any pre-operative treatment given?	• Yes • No	M	**Format:** Alphabetic value list
7.26	Chemotherapy	Was pre-operative chemotherapy given?	• Yes • No • Unknown	M	**Format:** Alphabetic value list if “Yes” to 7.25
7.27	Biologic (for example Herceptin)	Was pre-operative biologic treatment given?	• Yes • No • Unknown	M	**Format:** Alphabetic value list if “Yes” to 7.25
7.28	Radiotherapy	Was pre-operative radiotherapy given?	• Yes • No • Unknown	M	**Format:** Alphabetic value list if “Yes” to 7.25
7.29	Hormonal	Was pre-operative hormonal treatment given?	• Yes • No • Unknown	M	**Format:** Alphabetic value list if “Yes” to 7.25
7.30	Clinical response	What was the response to the pre-operative treatment	• None • Partial • Complete • Progression • Unknown	M	**Format:** Alphabetic value list if “Yes” to 7.25
7.32	Pre-operative assessment comments	Comments on clinical findings		O	**Format:** Text

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		8. Diagnostic Investigations (directed investigations in advance of surgery)			
8.1	Test Ordered	Represents the lab test ordered by the Provider for the Client	• Ultrasound abdomen • Bone Scan • CT abdomen • CT Chest • Other (specify)	M	**Format:** Alphabetic multiple selection
8.2	Test Results	Represents the result of the test		M	**Format:** Text can be multiple
8.3	Test Comments	Comments on diagnostic investigations		O	**Format:** Text
		D. Path & Staging			
		10. Pre-Operative Pathology (results of pre-operative biopsies and pathology investigations – NOT USED FOR THIS DISEASE SITE)			
		11. Pre-Operative Clinical Stage (indicate the clinical stage of patient if applicable)			
11.1	Metastatic work-up	Indicate the results of the metastatic tests	• None • Positive • Negative	M	**Format:** Alphabetic value list
11.2	Metastatic site	Indicate the site of the metastasis	• Bone • Lung • Liver • Brain • Other	M	**Format:** Alphabetic multiple selection
11.3	Comments on Metastases	Comments on metastases		O	**Format:** Text
		E. Operative Procedures			
		12. Operative Procedure (describes elements of operative procedure)			
		Sign In and Briefing			
12.0	Was the side of surgery marked pre operatively	Indicate if side of the surgery site was marked	• Yes • No	M	**Format:** Alphabetic value list
12.1	Surgical Safety Checklist performed?	Indicate whether the surgical safety checklist was completed (includes sign in. timeout, debrief, briefing)	• Yes • No	M	**Format:** Alphabetic value list
12.2	Anesthesia	Indicate type of anesthesia given	• General • Regional • Combined	M	**Format:** Alphabetic value list

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3	Pre-operative antibiotics	Indicate whether antibiotics were given to the patient	• Yes • No • Unknown	M	**Format:** Alphabetic value list
12.4	DVT prophylaxis	Indicate whether Deep Vein Thrombosis Prophylaxis was given to patient	• Fractionated Heparin • Low-molecular-weight Heparin • Sequential calf suppression device (SCDs) • Anti-embolism Compression Stockings (TED)	M	**Format:** Alphabetic multiple selection
		Intra-Operative Assessment & Pathology			
12.5	Specify surgery	Indicate if surgery is on one breast or both	• Unilateral • Bilateral	M	**Format:** Alphabetic value list
12.6	Specify side (unilateral)	If unilateral surgery performed, Indicate breast	• Left • Right	M	**Format:** Alphabetic value list if 12.5=unilateral
12.7	Current Diagnosis	Indicates histologic type	• Invasive carcinoma • DCIS • Pleomorphic LCIS • High Risk Lesions (ADH and lobular neoplasia) • Phyllodes/Fibroepithelial lesion • Paget's • Angiosarcoma • Prophylactic • Other (specify)	M	**Format:** Alphabetic multiple selection if 12.7= angiosarcoma, go to 12.13
12.9	Characteristics of Invasive Cancer	Indicates extent of invasive disease in the breast	• Unifocal • Multifocal- same quadrant • Multicentric-multi quadrant • Inflammatory carcinoma • Edema or ulceration of the skin • Extension to chest wall (rib or intercostal)	M	**Format:** Alphabetic multiple selection if 12.7=invasive carcinoma
12.10	Characteristics of DCIS	Indicates extent of DCIS disease in the breast	• Unifocal • Multifocal- same quadrant • Multicentric-multi quadrant	M	**Format:** Alphabetic value list if 12.7=DCIS
12.11	Characteristics of Phyllodes	Indicates type of Phyllodes	• Benign • Borderline • Malignant	M	**Format:** Alphabetic value list if 12.7=phyllodes/ fibroepithelial lesion

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.12	Characteristics of Paget's	Indicates extent of Paget's disease in the breast	• Confined to nipple • No radiological abnormalities • Not confined to nipple	M	**Format:** Alphabetic value list if 12.7=Paget's
12.13	Size of tumor (cm)	Indicate the tumor size in the breast	• 0 (positive node only) • 0.1 to 0.5 (including microinvasion) • Greater than 0.5 and less than or equal to 2 • 2.1 to 5.0 • 5.1 to 10 • 10.1 or greater	M	**Format:** Alphanumeric value list
12.14	Clinical stage (calculate)	Calculate the clinical stage of the tumor	• Clinical stage unknown • Stage 0 • Stage 1A • Stage 1B • Stage 2A • Stage 2B • Stage 3A • Stage 3B • Stage 3C • Stage 4	M	**Format:** Alphanumeric value list if 12.7=invasive carcinoma or DCIS
		Operative Procedure – Mastectomy			
12.15	Mastectomy - specify breast	Specify which breast the mastectomy was performed on	• Left • Right	M	**Format:** Alphabetic value list
12.16	Indications	Indicates indication for mastectomy	• Primary treatment • Completion following initial breast conservation surgery • Prophylactic • Palliative	M	**Format:** Alphabetic value list
12.16.1	Why no breast conservation	If the patient is not a candidate for breast conservation, indicate why	• Large volume disease • Multicentric • Positive Margins • Previous radiation therapy • Connective tissue disorder • Genetics • Patient Preference • Other (specify)	M	**Format:** Alphabetic multiple selection
12.17	Type of Mastectomy	Describe the incision used for this procedure	• Non-skin sparing • Skin sparing (with nipple preservation) • Skin sparing (without nipple preservation)	M	**Format:** Alphabetic value list
12.18	Incision Details	Description of incision used for skin sparing mastectomy	• Elliptical • Circumareolar • Reduction pattern • Inframammary • Other (specify)	M	**Format:** Alphabetic value list

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.19	Pectoral Muscle resection	Describe the level of resection of the pectoral muscle	• None • Partial • Total	M	**Format:** Alphabetic value list
12.20	Immediate reconstruction done	Indicate if immediate reconstruction surgery was completed	• Yes • No	M	**Format:** Alphabetic value list
12.20.1	Mastectomy Comments	Comments on Mastectomy		O	**Format:** Text
12.21	Right breast mastectomy same as left?	Indicate if the same procedure was completed on both breasts?	• Yes • No	M	**Format:** Alphabetic value list
Operative Procedure – Mastectomy: Immediate Breast Reconstruction (does not include chest wall skin coverage)					
12.22	Flap Type	Indicates type of immediate reconstruction if done	• None • Pedicle TRAM • Free TRAM • DIEP • Latissimus flap • Other (specify)	M	**Format:** Alphabetic value list if 12.20=yes
12.23	Submuscular prosthesis	Indicates presence and type of submuscular prosthesis	• None • Temporary tissue expander • Permanent expander implant • Permanent implant	M	**Format:** Alphabetic value list if 12.20=yes
12.24	Was dermal matrix used	Was dermal matrix used?	• Yes • No • Unknown	M	**Format:** Alphabetic value list if 12.23 does not = none
Operative Procedure – Breast Conservation					
12.24.1	Breast Conservation - specify breast	Specify which breast the surgery was performed on	• Left • Right	M	**Format:** Alphabetic value list
12.25	Indications	Indicates indication for breast conservation	• Primary excision • Re-excision of margins	M	**Format:** Alphabetic value list
12.26	Tumor localization	Indicates presence and type of tumor localization	• None • Needle Localization • Radioactive seed • Intra-operative ultrasound • Other (specify)	M	**Format:** Alphabetic value list
12.27	Specimen imaging performed	Describe if specimen imaging was completed	• Yes • No	M	**Format:** Alphabetic value list if 12.26=needle localization or radioactive seed

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.28	Nipple removed	Indicate if the nipple was removed	• Yes • No	M	**Format:** Alphabetic value list if 12.29=yes
12.29	Skin excision with specimen	Indicates whether breast skin was removed during breast conservation surgery	• Yes • No	M	**Format:** Alphabetic value list
12.30	Depth of resection	Describe the depth of resection for this surgery	• Not to fascia • To fascia • Including fascia • Including muscle	M	**Format:** Alphabetic value list
12.31	Intra-operative margin assessment	Indicates presence and type of intra-operative assessment of margins of breast conservation surgery	• Gross/ radiologic assessment by surgeon • Gross assessment by pathologist • Microscopic assessment by pathologist • Other, specify • Not done	M	**Format:** Alphabetic value list
12.32	If checked	Indicated result of intra-operative margin assessment	• Positive or close • Negative	M	**Format:** Alphabetic value list if 12.31=gross/ radiologic assessment by surgeon
Operative Procedure – Breast Conservation: Re-Excision					
12.33	Re-excision of margins performed	Indicates whether further re-excision was done at time of breast conservation surgery	• Yes • No	M	**Format:** Alphabetic value list if 12.32=positive or close
12.34	Why no re-excision	Indicate why re-excision was not completed		M	**Format:** Text if 12.33=no
12.35	Specify margin re-excision	Indicates the margin that underwent further re-excision at time of breast conservation surgery	• Superior • Inferior • Medial • Lateral • Deep • Superficial/ anterior with skin • Superficial/ anterior without skin • Nipple • Other (Specify)	M	**Format:** Alphabetic multiple selection if 12.32=positive or close

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
			Operative Procedure – Breast Conservation		
12.40	Titanium Clips in segmental site	Were titanium clips used in segmental site	• Yes • No	M	**Format:** Alphabetic value list
12.41	Specimen oriented for pathology	Indicates whether the specimen was oriented for pathology	• Yes • No	M	**Format:** Alphabetic value list
12.42	Closure of segmental site	Describe the closure type	• Primary closure of skin only, no parenchymal closure • Primary closure/ approximation of breast parenchyma & skin, no parenchyma mobilization • Mobilization of breast parenchyma to fill defect • Other (specify)	M	**Format:** Alphabetic value list
			Lymph Node Surgery		
12.44	Laterality of lymph node surgery	Describe the laterality of lymph node surgery completed	• None • Unilateral right • Unilateral left • Bilateral	M	**Format:** Alphabetic value list
12.45	Lymph node surgery	Describe the type of lymph node surgery completed	• Sentinel node • Sentinel node dissection + axillary node dissection • Axillary node dissection	M	**Format:** Alphabetic value list
			Axillary Node Dissection		
12.46	Axillary dissection performed using	Describe the incision used for this procedure	• Separate vertical incision • Separate/ curvilinear transverse incision • Same incision as breast	M	**Format:** Alphabetic value list
12.47	Medial limits of axillary dissection identified	Indicates the most medial limit of the axillary dissection	• Lateral border of pectoralis minor (level 1) • Medial border of pectoralis minor (level 2) • Costcoclavicular ligament (level 3)	M	**Format:** Alphanumeric value list
12.48	Axillary vein seen	Indicate if the Axillary vein was seen	• Yes • No	M	**Format:** Alphabetic value list
12.49	Latissimus dorsi identified	Indicate if the latissimus dorsi was identified	• Yes • No	M	**Format:** Alphabetic value list
12.51	Serratus anterior identified	Indicate if the Serratus anterior was identified	• Yes • No	M	**Format:** Alphabetic value list
12.53	Nerves identified	Indicate which nerves were identified	• None • Intercostal brachial • Thoracodorsal • Long thoracic • Medial pectoral	M	**Format:** Alphabetic multiple selection

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.54	Nerves preserved	Indicate which nerves were preserved	• None • Intercostal brachial • Thoracodorsal • Long thoracic • Medial pectoral	M	**Format:** Alphabetic multiple selection
12.54.1	Clinically suspicious nodal disease	Indicate if clinically suspicious nodal disease has been identified	• Yes • No	M	**Format:** Alphabetic value list
12.54.2	Gross Residual Disease following dissection	Indicate if gross disease following dissection was identified	• Yes • No	M	**Format:** Alphabetic value list
12.54.3	Comments on Axillary dissection	Comments on axillary dissection		O	**Format:** Text
		Sentinel Node Dissection			
12.58	Localization technique used	Indicates the localization technique use for the sentinel node biopsy	• Radionuclide • Blue dye • Other (specify)	M	**Format:** Alphabetic multiple selection
12.59	When was injection done	Indicate when the localization injection was completed	• Day prior to surgery • Day of surgery	M	**Format:** Alphabetic value list
12.60	Node 1	Indicates reason deemed to be a SLN	• Radioactive • Dye Stained • Clinically suspicious	M	**Format:** Alphabetic multiple selection
12.61	Node 2	Indicates reason deemed to be a SLN	• Radioactive • Dye Stained • Clinically suspicious	M	**Format:** Alphabetic multiple selection To be completed only if there is a Node 1 (12.60)
12.62	Node 3	Indicates reason deemed to be a SLN	• Radioactive • Dye Stained • Clinically suspicious	M	**Format:** Alphabetic multiple selection To be completed only if there is a Node 2 (12.61)
12.63	Node 4	Indicates reason deemed to be a SLN	• Radioactive • Dye Stained • Clinically suspicious	M	**Format:** Alphabetic multiple selection To be completed only if there is a Node 3 (12.62)
12.63.1	Additional Sentinel Nodes	Indicate number of additional sentinel nodes above 4	# > 4	M	**Format:** Numeric To be completed only if there is a Node 4 (12.63)
12.64	Background counts assessed and less than 10%	Indicates whether background counts were assessed and less than 10%	• Yes • No	M	**Format:** Alphabetic value list
12.65	Were any non-sentinel nodes removed	Describe if any non-sentinel nodes were removed	• Yes • No	M	**Format:** Alphabetic value list

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.67	Palpation of axilla negative prior to closure	Indicates whether axilla was clinically negative prior to closure	• Yes • No	M	**Format:** Alphabetic value list
12.67.1	Sentinel Node Dissection Comments	Comments on sentinel node dissection		O	**Format:** Text
Sentinel Node Dissection: Intra-Operative Pathology Assessment					
12.68	Intra-operative pathology assessment	Was a Intra-operative pathology assessment completed	• Yes • No	M	**Format:** Alphabetic value list
12.69	Method	Describe how Intra-operative pathology assessment method	• Touch prep • Frozen section • Both touch prep and frozen section • Other (Specify)	M	**Format:** Alphabetic value list
12.70	Result	Describe the result of the Intra-operative pathology assessment	• Positive • Negative • Indeterminate	M	**Format:** Alphabetic value list
Additional Surgery					
12.72	Additional surgery performed	Describe any additional surgeries that were performed	• None • Simultaneous contralateral surgery • Simultaneous ipsilateral reduction mammoplasty • Ipsilateral chest wall coverage (excluding breast reconstruction) • Other (specify)	M	**Format:** Alphabetic value list
12.72.1	Type of Coverage	Describe type of chest wall coverage (excluding breast reconstruction)	• Split thickness skin graft • Rotational flap • Free flap	M	**Format:** Alphabetic value list
12.73	Simultaneous contralateral surgery details	Indicates the type of simultaneous contralateral breast reconstruction	• Reconstruction • Breast biopsy • Reduction mammoplasty • Other (specify)	M	**Format:** Alphabetic value list if 12.72=simultaneous contralateral surgery
12.74	Flap Type - Contralateral Reconstruction	Indicates type of simultaneous contralateral reconstruction	• None • Pedicle TRAM • Free TRAM • DIEP • Latissimus Flap • Other (specify)	M	**Format:** Alphabetic value list if 12.73=reconstruction
12.75	Submuscular prosthesis	Indicated presence and type of submuscular prosthesis in simultaneous contralateral reconstruction	• None • Temporary tissue expander • Permanent expander implant • Permanent implant	M	**Format:** Alphabetic value list if 12.73=reconstruction

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
			Wound Closure		
12.76	Closure by plastics	Was closure completed by plastics	• Yes • No	M	**Format:** Alphabetic value list
12.77	Close suction	Describe where drains were used	• Breast • Axilla • Breast and axilla • None	M	**Format:** Alphabetic value list
12.79	Blood loss (cc) specify	Indicate the amount of blood loss during the procedure	• Less than 50 • 50-500 • Greater than 500	M	**Format:** Numeric
12.83	Incision closure	Describe the closure type	• Absorbable • Non-absorbable • Staples • Other (specify)	M	**Format:** Alphabetic value list
12.84	Sponge count completed and correct	Indicate if sponge count completed and correct	• Yes • No	M	**Format:** Alphabetic value list
12.85	Comment on sponge count	If sponge count not completed or incorrect, Indicate why		M	**Format:** Text if 12.84="No"
12.86	Needle count completed and correct	Indicate if needle count completed and correct	• Yes • No	M	**Format:** Alphabetic value list
12.86.1	Comment on needle count	if needle count not completed or incorrect, indicate why		M	**Format:** Text if 12.86="No"
12.87	Dressing applied	Indicate if dressing was applied	• Yes • No	M	**Format:** Alphabetic value list
12.88	Comment on dressing			M	**Format:** Text
12.88.1	Comments on Wound Closure	Comment on dressing		O	**Format:** Text
			Notable Events and Patient Transfer		
12.89	Patient status	Describe the patient status after surgery	• Stable • Unstable	M	**Format:** Alphabetic value list
12.90	Notable events/ Complications	Identify key events that occurred during surgery		M	**Format:** Text
12.91	Planned Disposition	Indicate if the patient will remain in hospital after the surgery	• Day surgery • Short term • Inpatient	M	**Format:** Alphabetic value list
12.92	Unit transferred to	Indicate where the patient was transferred to after the surgery	• Recovery room • Intensive Care Unit	M	**Format:** Alphabetic value list

5.2.b Breast Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
F. Completion Elements					
13. Follow-Up (description of follow-up plans for the immediate peri-operative event and long-term plan, if applicable)					
13.1	Will you be sending the patient for multidisciplinary assessment (medical/ radiation oncologist)	Identifies if patient will be part of multidisciplinary assessment	• Yes • No • Pending pathology	M	**Format:** Alphabetic value list
13.2	Dictation Addendum	Will an addendum be dictated?	• Yes • No	M	**Format:** Alphabetic value list
13.3	General Comments	General comments on surgery		O	**Format:** Text

5.3 Colon Cancer

Pan-Canadian Standards for colon cancer include 4 clinical indicators and 140 data elements. Of the 140 data elements, 83 are deemed mandatory while 57 data elements are recommended as optional. Both the Canadian Association of General Surgeons (CAGS) and the Canadian Society of Colon and Rectal Surgeons (CSCRS) have endorsed the rectal cancer pan-Canadian standards; a formal letter of endorsement is forthcoming.

5.3.a Colon Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 1	
Domain	**Access to Care** Indicators include measures that can point out the presence and/or timeliness of oncology surgical care services.
Indicator Name	% urgent or emergency surgery
Indicator Description	Proportion of patients with colon cancer who underwent urgent or emergency surgery
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of colon cancer patients who underwent urgent or emergency surgery **Denominator** Total number of patients who underwent colon cancer surgery
Template Data Collection Elements	5.7 Post-operative diagnosis 5.11 Operative urgency 5.12 Emergent procedure indications **Details and Calculation** **Numerator** 5.11 = Urgent (scheduled within same hospital admission) OR Emergent (<48 hours after admission) AND 5.12 = Obstructed OR Perforated OR Hemorrhage OR Other (specify) AND 5.7 = Cancer

5.3.a Colon Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 2	
Domain	**Diagnosis and Staging** Indicators include measures that describe pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer and to guide treatment decisions.
Indicator Name	% pre-treatment imaging with ultrasonography, CT or Chest X-ray
Indicator Description	Proportion of patients with colon cancer who had pre-treatment imaging with ultrasonography, CT or Chest X-ray
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with colon cancer who have pre-treatment imaging with ultrasonography, CT or Chest X-ray **Denominator** Total number of patients who underwent colon cancer surgery
Template Data Collection Elements	5.7 Post-operative diagnosis 8.1 Abdominal Imaging 8.2 Chest Imaging **Details and Calculation** **Numerator** 5.7 = Cancer AND 8.1 = CT Abdomen OR Ultrasound Liver OR 8.2 = Chest X-Ray OR CT Chest

5.3.a Colon Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 3	
Domain	**Diagnosis and Staging** Indicators include measures that describe pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer, and to guide treatment decisions.
Indicator Name	% presented at a multidisciplinary cancer conference (MCC)
Indicator Description	Proportion of patients with colon cancer whose case was presented at a multidisciplinary cancer conference (MCC)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with colon cancer whose case was presented at a multidisciplinary cancer conference (MCC) **Denominator** Total number of patients who underwent colon cancer surgery
Template Data Collection Elements	5.7 Post-operative diagnosis 11.6 Multidisciplinary Cancer Conference (MCC) **Details and Calculation** **Numerator** 11.6 = Yes AND 5.7 = Cancer

5.3.a Colon Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 4	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% laparoscopic colon surgeries converted to open (laparotomy)
Indicator Description	Proportion of patients that underwent laparoscopic colon surgery that were converted to open (laparotomy)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients converted from laparoscopy to laparotomy **Denominator** Total number of patients undergoing colon laparoscopy
Template Data Collection Elements	12.2.1 Surgical Incision 12.4.1 Laparotomy Conversion 5.7 Post-Operative diagnosis **Details and Calculation** **Numerator** 12.4.1 = Yes AND 5.7 = Cancer

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
A. Administrative and Identification Data					
1. Administration (overview of key report information)					
1.1	Report Date	Date of report completion – may be different than date of surgery	2001:01:01	M	**Format:** Date YYYY:MM:DD
1.2	Report completed by	Name of person completing report	Dr. Smith	M	**Format:** Alphabetic
1.3	Report copies to	Name of people receiving copies of the report	Dr. Jones	O	**Format:** Alphabetic
2. Patient Information (key demographic and clinical summary information about the person receiving surgery)					
2.1	Patient Last Name	Represents the patient's legal family name		M	**Format:** Alphabetic
2.2	Patient First Name	Represents the patient's legal first name		M	**Format:** Alphabetic
2.3	Patient Middle Name	Represents the patient's legal middle name		O	**Format:** Alphabetic
2.4	Patient Date of Birth	Represents the patient's date of birth	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.5	Patient ID	Represents a unique identifier assigned to the patient	123456789JG	M	**Format:** Alphanumeric
2.6	Patient ID type	Represents the type of patient Identifier (e.g. Jurisdictional Healthcare Identifier, Passport)	• Health Card Number • Medical Record Number	M	**Format:** Alphanumeric
2.7	Patient Gender	Represents a reported gender category of the patient at a given point in time used for administrative purposes	• Male • Female	M	**Format:** Alphabetic value list
3. Provider Details (person(s) performing and/or supporting the surgery)					
3.1	Provider Last Name	Represents the surgeon's Last name	Smith	M	**Format:** Alphabetic
3.2	Provider First Name	Represents the surgeon's First name	John	M	**Format:** Alphabetic
3.3	Provider Identifier Type	Represents the type of Provider Identifier	MRN	M	**Format:** Alphabetic value list
3.4	Provider ID	Represents the unique identifier assigned to the surgeon	12345697F	M	**Format:** Alphanumeric

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
3.5	Assistant Last Name	Represents the Last name of assistants, residents, fellows and other assistants during the procedure	Smith	O	**Format:** Alphabetic
3.6	Assistant First Name	Represents the First name of assistants, residents, fellows and other assistants during the procedure	John	O	**Format:** Alphabetic
3.7	Assistant title	Title of the assistant who supported the procedure	• Family Physician • Resident • Assistant Surgeon • Second Surgeon	O	**Format:** Alphabetic value list
3.8	Assistant ID type	Represents the type of Provider Identifier		O	**Format:** Alphanumeric value list
3.9	Assistant ID	Represents the unique identifier assigned to the Provider		O	**Format:** Alphanumeric value list
3.10	Anesthetist Last Name	Represents the anesthetist's Last name		O	**Format:** Alphabetic
3.11	Anesthetist First Name	Represents the anesthetist's First name		O	**Format:** Alphabetic
3.12	Provider comments			O	**Format:** Text
		4. Service Delivery Location Details (surgery location)			
4.1	Service Delivery Location Name	Represents the name of the Service Delivery Location here the patient received care	Glendale Family Health Clinic	M	**Format:** Text
4.2	Service Delivery Location Identifier Code	Represents the unique identifier of the PHC Service Delivery Location where the patient received care	A46B7356743	O	**Format:** Alphanumeric
4.3	Service Delivery Type of Services	Represents the type of location where the patient received care	• Inpatient facility • Outpatient clinic • Day surgery unit	O	**Format:** Alphabetic value list
4.4	Room ID	Represents the room number where the procedure was performed	Applicable to service delivery location	O	**Format:** Alphanumeric
4.5	Service Delivery Location comments			O	**Format:** Text

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
B. Procedure Planned and Performed					
5. Current Procedure Administration (current planned and performed procedures and related diagnoses)					
5.1	Date of surgery	Date that the surgery was performed	2001:01:01	M	**Format:** Date YYYY:MM:DD
5.2	Pre-operative diagnosis		• Cancer • Polyp	M	**Format:** Alphabetic value list if polyp, branch to 5.5
5.3	Pre-operative cancer classification		• Primary • Recurrent	M	**Format:** Alphabetic value list if 5.2 = cancer
5.4	Pre-operative diagnosis location		• Appendix • Cecum • Ascending colon • Hepatic Flexure • Transverse Colon • Splenic Flexure • Descending Colon • Sigmoid Colon • Rectosigmoid	M	**Format:** Alphabetic value list completed for cancer or polyp
Polyp (if polyps detected)					
5.5	Polyp Classification	Describe the polyp as with benign or malignant	• Benign • Malignant	M	**Format:** Alphabetic value list if 5.2 = polyp
5.6	Polyp Excision	Describe whether the polyp was removed or not removed	• Removed • Not removed	M	**Format:** Alphabetic value list if 5.2 = polyp
5.7	Post-operative diagnosis		• Cancer • Polyp	M	**Format:** Alphabetic value list
5.8	Post-operative diagnosis location		• Appendix • Cecum • Ascending colon • Hepatic Flexure • Transverse Colon • Splenic Flexure • Descending Colon • Sigmoid Colon • Rectosigmoid	M	**Format:** Alphabetic value list
5.9	Synchronous lesion	Does patient have a synchronous lesion?	• None • Cancer • Polyp	M	**Format:** Alphabetic value list field can be repeated for each response of cancer or polyp in 5.2

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
5.10	Synchronous lesion location	Identify any sites of synchronous lesions a patient has	• Appendix • Cecum • Ascending colon • Hepatic flexure • Transverse colon • Splenic flexure • Descending colon • Rectosigmoid	M	**Format:** Alphabetic value list if 5.9 = cancer or polyp field can be repeated
5.11	Operative Urgency	Optimal timing to perform surgery to prevent serious complications of the disease	• Elective (scheduled) • Urgent (scheduled within same hospital admission) • Emergent (<48 hours after admission)	M	**Format:** Alphabetic value list
5.12	Emergent procedure indications	Indication if Emergent procedure selected	• Obstructed • Perforated • Hemorrhage • Other (specify)	M	**Format:** Alphabetic value list if emergent or urgent selected in 5.11
5.13	Procedure(s) planned	Describe the procedure that was planned	• Right hemicolectomy • Extended right hemicolectomy • Transverse colectomy • Left hemicolectomy • Sigmoid resection • Anterior resection • Subtotal colectomy • Total abdominal colectomy • Other (specify)	M	**Format:** Alphabetic value list
5.14	Procedure(s) performed	Describe the procedure that was performed	• Right hemicolectomy • Extended right hemicolectomy • Transverse colectomy • Left hemicolectomy • Sigmoid resection • Anterior resection • Subtotal colectomy • Total abdominal colectomy • Other (specify)	M	**Format:** Alphabetic value list
5.15	Reason for difference in procedure planned/ performed	An explanation for the delta between the planned and performed procedures.		M	**Format:** Text mandatory only if applicable
5.16	Surgical objectives	What were the objectives of the surgery?	• Palliative • Curative	M	**Format:** Alphabetic value list
5.17	Pre-Op Diversion Procedure	Previous diversion procedure done	• None • Colostomy • Ileostomy • Stent	O	**Format:** Alphabetic value list

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
5.18	Stent Complications	Describe any complications resulting from the stent procedure	• None • Migrated • Perforation • Other (specify)	O	**Format:** Alphabetic value list if Stent selected in 5.17
6. Reoperation and Previous Surgeries (information about previous surgery for related diagnoses) – NOT APPLICABLE					
Re-operative Assessment					
7. Clinical Findings (pre-operative clinical findings)					
7.1	Associated risk factors/ conditions	Describe any risk factors or conditions associated with rectal cancer	• Crohn's • Ulcerative colitis • FAP • HNPCC • Previous pelvic radiation • Other (specify) • None	O	**Format:** Alphabetic multiple selection
7.2	Body Mass Index	Represents patient's body mass index. Calculated automatically using height and weight		O	**Format:** Numeric calculation
7.3	Body Mass Index (Status)	Represents patient's weight status based on body mass index	• Underweight (<18.5) • Normal (18.5 – 24.9) • Overweight (25- 29.9) • Obese (30 – 34.9) • Severely obese (35.0 or greater)	O	**Format:** Alphabetic value list
7.4	Height	Represents the patients height (cm or inches)	164	O	**Format:** Numeric
7.5	Height measurement scale	Indicate if imperial or metric value was used for height	• Centimeters • Inches	O	**Format:** Alphabetic value list
7.6	Weight	Represents the patients weight in kilograms or pounds	82	O	**Format:** Numeric
7.7	Weight measurement scale	Indicate if imperial or metric value was used for weight	• Kilograms • Pounds	O	**Format:** Alphanumeric value list
8. Pre-Operative Staging (directed investigations in advance of surgery)					
Diagnostic Imaging					
8.1	Abdominal Imaging	Represents the diagnostic abdominal imaging test ordered by the Provider for the Client.	• CT Abdomen • Ultrasound Liver • Other (specify) • None	M	**Format:** Alphabetic multiple selection
8.2	Chest Imaging	Represents the diagnostic chest imaging test ordered by the Provider for the Client.	• Chest X-Ray • CT chest • Other (specify) • None	M	**Format:** Alphabetic multiple selection

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
8.3	Distant metastases	Site(s) of distant metastases if present	• None • Liver • Lung • Peritoneum • Non-regional lymph nodes • Unknown • Other (specify)	M	**Format:** Alphabetic multiple selection
8.4	Pre-op Local Invasion (Male)	Describe the location of any local invasion	• None • Abdominal wall • Appendix • Colon – Non Adjacent Colon • Small Intestine • Bladder • Kidney – Left • Kidney – Right • Ureter – Left • Ureter – Right • Duodenum • Pancreas • Spleen • Liver • Other (specify)	O	**Format:** Alphabetic multiple selection
8.5	Pre-op Local Invasion (Female)	Pre-op Local Invasion (Female)	• None • Abdominal wall • Appendix • Colon – Non Adjacent Colon • Small Intestine • Bladder • Kidney – Left • Kidney – Right • Ureter – Left • Ureter – Right • Duodenum • Pancreas • Spleen • Liver • Ovary – Left • Ovary – Right • Uterus • Other (specify)	O	**Format:** Alphabetic multiple selection

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
9. Co-morbidity (existing relevant clinical conditions) – NOT APPLICABLE FOR THIS DISEASE SITE					
Pre-treatment Imaging Stage (indicate the pre-treatment imaging stage of patient, if applicable)					
11.1	Pathology and Staging comments			O	**Format:** Text
11.2	Tx	Description of primary tumor	• Tx • T1 (into sub mucosa) • T2 (into muscularis) • T3 (outside of rectal wall) • T4 (other structures/ Invasion)	O	**Format:** Alphabetic value list
11.3	Nx	Description of regional lymph node involvement	• N0 • N positive • Nx	O	**Format:** Alphabetic value list
11.4	Mx	Description of distant metastases	• M0 – No distant metastasis • M1 – Distant metastasis	O	**Format:** Alphabetic value list
11.5	Clinical Stage/ Stage Calculation	A description of the extent the cancer has spread, based on a value of I-IV depending on the progression of the cancer's spread (Usually based on the TMN guideline for staging)	• Can't Stage • I • II • III • IV	O	**Format:** Alphanumeric value list calculation "can't stage" only if one or more of T, M or N can't be completed Stage I = T1 or T2, N0 or Nx Stage II = T3 or T4, N0 or Nx Stage III = any T, N positive, M0 Stage IV = any T, any N, M1
Pre-Operative Treatment – Neoadjuvant Treatment					
11.6	Multidisciplinary Cancer Conference (MCC)	Was case presented at a multidisciplinary cancer conference (MCC)?	• Yes • No	M	**Format:** Alphabetic value list
11.7	Pre-operative Chemotherapy	Describes if pre-operative chemotherapy was completed	• Yes • No	M	**Format:** Alphabetic value list
11.8	Clinical response	Describe the clinical response of the tumor	• None • Partial • Complete • Unknown	O	**Format:** Alphabetic value list

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.9	Re-staging	Did patient undergo re-imaging?	• Yes • No	O	**Format:** Alphabetic value list
11.10	Pre-operative treatment and Re-staging Comments			O	**Format:** Text
C. Operative Procedure					
12. Operative Procedure (describes elements of operative procedure)					
5.14 Procedure Performed (pre-populated)					
12.1 Sign In and Briefing					
12.1.1	Surgical Safety Checklist performed?	Indicate whether the surgical safety checklist was completed (includes sign in. timeout, debrief, briefing)	• Yes • No	M	**Format:** Alphabetic value list
12.1.2	Mechanical Bowel Prep	Describes if a mechanical bowel was completed	• Yes • No	O	**Format:** Alphabetic value list
12.1.3	Anesthesia	Indicate type of anesthesia given	• General • Regional • Combined	M	**Format:** Alphabetic value list
12.1.4	Pre-operative antibiotics	Indicate whether antibiotics were given to the patient	• Yes • No	M	**Format:** Alphabetic value list
12.1.5	DVT prophylaxis	Indicate whether Deep Vein Thrombosis Prophylaxis was given to patient	• Yes • No	M	**Format:** Alphabetic value list
12.1.6	Position	Describe the position of the patient	• Prone • Supine • Lithotomy • Lateral Right • Lateral Left • Split Leg	M	**Format:** Alphabetic value list
BRANCHING LOGIC Once 12.1 Is Complete Branch to Operative Approach (12.2)					
12.2 Operative Approach					
12.2.1	Surgical incision	Indicate type of incision for operative exposure	• Midline • Transverse • Laparoscopic • Hand assisted	M	**Format:** Alphabetic value list
12.2.2	Entry Technique	Describe how abdomen entered	• Veress Needle • Open Hassan • Gasless	M	**Format:** Alphabetic value list if laparoscopic or hand assisted selected in 12.2.1

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.2.3	# of ports	Describe number of ports used	3	O	**Format:** Numeric if laparoscopic or hand assisted selected in 12.2.1
12.2.4	Adhesions on laparotomy	Describe amount of adhesions	• None/minimal • Moderate • Dense	O	**Format:** Alphabetic value list
12.2.5	Exteriorization Incision	Describe where specimen was removed	• Right Lower Quadrant (RLQ) • Left Lower Quadrant (LLQ) • Pfannenstiel • Midline • Other (specify)	M	**Format:** Alphabetic value list 12.2.5 should only be completed if response to 12.2.1 does NOT = "midline" or "transverse"
BRANCHING LOGIC Once 12.2 Is Complete Branch to Intra-Operative Evaluation					
12.3 Intra-Operative Evaluation					
12.3.1	Assessment of primary tumor		• Uncomplicated • Locally Invasive • Obstructed • Perforated	M	**Format:** Alphabetic value list
12.3.2	Intra-operative Findings	Indicate the intra-operative findings	• Expected • Unexpected	M	**Format:** Alphabetic value list
12.3.3	Intra-operative findings comment			M	**Format:** Text if 12.3.2=unexpected
12.4 Operative Details					
12.4.1	Laparotomy conversion?	Was laparoscopy converted to laparotomy	• Yes • No	M	**Format:** Alphabetic value list if surgical incision (12.2.1) is "laparoscopic"
12.4.2	Reasons for laparotomy conversion			M	**Format:** Text if "yes" to 12.4.1
12.4.3	Mobilization technique for laparoscopy	Describe the mobilization technique for laparoscopy	• Medial to lateral • Lateral to medial	O	**Format:** Alphabetic value list if surgical incision (12.2.1) is "laparoscopic"
12.4.4	Formal mobilization of the splenic flexure?	Was the splenic flexure mobilized	• Yes • No	O	**Format:** Alphabetic value list **Only applicable for** • Transverse colectomy • Left hemicolectomy • Sigmoid resection • Anterior resection

5.3.B Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.4.5	High ligation of Inferior Mesenteric Vein (IMV) performed	Was high ligation of the inferior mesenteric vein performed?	• Yes • No	O	**Format:** Alphabetic value list
12.4.6	Left Ureter	Describe if the left ureter was preserved and identified	• Identified/preserved • Identified/not preserved • Not identified • Not Applicable	M	**Format:** Alphabetic value list **Only applicable for** • Anterior resection • Sigmoid resection • Left hemicolectomy • Total abdominal colectomy • Subtotal colectomy
12.4.7	Right Ureter	Describe if the right ureter was preserved and identified	• Identified/preserved • Identified/not preserved • Not identified • Not Applicable	M	**Format:** Alphabetic value list **Only applicable for** • Right hemi-colectomy • Extended right hemi-colectomy • Subtotal colectomy • Total abdominal colectomy
12.4.8	Left hypogastric nerve	Describe if the left hypogastric nerve was preserved and identified	• Identified/preserved • Identified/not preserved • Not identified • Not Applicable	M	**Format:** Alphabetic value list **Only applicable for** • Sigmoid resection • Anterior resection • Total abdominal colectomy • Subtotal colectomy
12.4.9	Right hypogastric nerve	Describe if the right hypogastric nerve was preserved and identified	• Identified/preserved • Identified/not preserved • Not identified • Not Applicable	M	**Format:** Alphabetic value list **Only applicable for** • Sigmoid resection • Anterior resection • Total abdominal colectomy • Subtotal colectomy
12.4.10	Resection Completed?	Describe if a segment of the colon was resected. If not, explain why.	• Yes • No – Bypass • No – Palliative Stoma • No – Open/Close	M	**Format:** Alphabetic value list

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		BRANCHING LOGIC (logic based on value selected for 12.4.10) If "Yes" Branch to Segment of Colon Resected (12.4.11) If "No – Bypass'" Branch to Reason for Palliation/Bypass (12.4.19) If "No – Stoma Branch to Stoma – Pre-op Ostomy Marking? (12.7.2) If "No – Open/Close" Branch to General Closure (12.8)			
12.4.11	Segment of Colon resected	Describe the segment(s) of the Colon that were resected	• Cecum • Ascending colon • Hepatic flexure • Proximal transverse • Midtransverse • Distal transverse • Splenic flexure • Left colon • Sigmoid colon • Rectosigmoid junction • Rectum	M	**Format:** Alphabetic multiple selection if rectum selected – instruct to go to rectal template i.e. delete from these options
12.4.12	Resected Blood Vessels	Describe the Blood Vessel(s) that were resected	• Ileocolic • Right colic • Right branch-middle colic • Main branch-middle colic • Left branch-middle colic • Left colic • Inferior mesenteric • Sigmoid • Superior rectal	M	**Format:** Alphabetic multiple selection
12.4.13	Level of transection	Describe the level of transection	High ligation at origin	M	**Format:** Alphabetic multiple selection
12.4.14	Male Structures Resected	Describe male structures resected	• Abdominal wall • Appendix • Colon – Non Adjacent Colon • Small Intestine • Bladder • Kidney – Left • Kidney – Right • Ureter – Left • Ureter – Right • Duodenum • Pancreas • Spleen • Liver • Other (specify)	M	**Format:** Alphabetic multiple selection if 12.3.1 = locally invasive and patient is male

5.3.B Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.4.15	Female Structures Resected	Describe female structures resected	• Abdominal wall • Appendix • Colon – Non Adjacent Colon • Small Intestine • Bladder • Kidney – Left • Kidney – Right • Ureter – Left • Ureter – Right • Duodenum • Pancreas • Spleen • Liver • Ovary – Left • Ovary – Right • Uterus • Other (specify)	M	**Format:** Alphabetic multiple selection if 12.3.1 = locally invasive and patient is female
12.4.16	Resection method		• Individual organs • En bloc	M	**Format:** Alphabetic multiple selection if 12.3.1 = locally invasive
12.4.17	Gross residual disease		• Yes (R2) • No (R0/R1)	M	**Format:** Alphabetic multiple selection
12.4.18	Use of wound protector	Describe if a wound protector was used	• Yes • No	M	**Format:** Alphabetic multiple selection if surgical incision (12.2.1) is "laparoscopic" or "hand assisted"
12.4.19	Reason for Palliation/Bypass			M	**Format:** Text if "No – bypass" selected in 12.4.10
BRANCHING LOGIC Once 12.4 Is Complete Branch to Anastomosis Details (12.5)					
12.5 Anastomosis Details					
12.5.1	Was anastomosis performed?	Describe if an anastomosis was performed	• Yes • No	M	**Format:** Alphabetic value list if no, branch to stoma
12.5.2	Type of anastomosis for laparoscopy	Location of anastomotic technique	• Intracorporeal • Extracorporeal	O	**Format:** Alphabetic value list if surgical incision (12.2.1) is "laparoscopic"

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.5.3	Proximal anastomotic site	Describe the proximal anastomotic site for either resection or by-pass	• Jejunum • Ileum • Cecum • Ascending Colon • Hepatic Flexure • Transverse Colon • Descending Colon • Sigmoid	M	**Format:** Alphabetic value list If yes to 12.5.1
12.5.4	Distal anastomotic site	Describe the distal anastomotic site for either resection or by-pass	• Cecum • Ascending Colon • Hepatic Flexure • Transverse Colon • Descending colon • Sigmoid • Rectosigmoid • Rectum	M	**Format:** Alphabetic value list
12.5.5	Anastomotic Method	Describe the method used to perform Anastomosis	• Hand sewn • Stapled	M	**Format:** Alphabetic value list
12.5.6	Anastomotic Type	Describe the method used to perform Anastomosis	• Side to Side • End to Side • Side to End • End to End	M	**Format:** Alphabetic value list
		BRANCHING LOGIC (logic based on value selected for 12.5.5 & 12.5.6) If "Hand Sewn" Branch to Hand Sewn Anastomosis Details Comments (12.5.7) If "Stapled & Side to Side" or "Stapled & End to Side" or "Stapled & Side to End" Branch to Stapler Used to Complete Anastomosis (12.5.8) If "Stapled & end to end" Branch to Anastomotic Donuts intact (12.6.17)			
12.5.7	Hand sewn anastomosis details Comments			O	**Format:** Text
		BRANCHING LOGIC once 12.5.7 Is Complete			
12.5.8	Stapler used to complete anastomosis		• Linear • Circular	M	**Format:** Alphabetic value list If 12.5.6 is "Stapled (side to side) " or "Stapled (end to side)" or "Stapled (side to end)"
12.5.9	Anastomotic Donuts intact	Describe if the Anastomotic Donuts intact	• Yes • No	O	**Format:** Alphabetic value list if 12.5.8=circular
12.5.10	Anastomotic Stapler Comments			O	**Format:** Text

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		BRANCHING LOGIC Once 12.5.10 Is Complete			
12.5.11	Intra-operative Assessment of anastomosis	Describe the result of the intra-operative anastomosis	• Intact Anastomosis • Bleeding • Air leak • Not performed	M	**Format:** Alphabetic value list
12.5.12	Anastomosis Comments	Describe actions taken to repair anastomosis		M	**Format:** Text 12.5.11 = bleeding or air leak
		12.6 Perforated Colon			
12.6.1	Was the colon perforated during resection	Describe if the colon was perforated during resection	• Yes • No	M	**Format:** Alphabetic value list
12.6.2	Perforated colon Level during resection	Describe where the colon was perforated relative to the tumor	• Proximal to tumor • At tumor • Distal to tumor	M	**Format:** Alphabetic value list if "yes" to 12.6.1
		BRANCHING LOGIC Once 12.6 Is Complete Branch to Stoma Details (12.7)			
		12.7 Stoma Details			
12.7.1	Stoma completed?	Was a stoma completed?	• Yes • No	M	**Format:** Alphabetic value list
12.7.2	Pre-op ostomy marking?	Was the stoma site marked prior to the operation	• Yes • No	M	**Format:** Alphabetic value list if "yes" to 12.7.1
12.7.3	Stoma	Indicate the type of stoma completed	• Jejunum • Ileum • Cecum • Ascending Colon • Hepatic Flexure • Transverse Colon • Descending Colon • Sigmoid	M	**Format:** Alphabetic value list if "yes" to 12.7.1
12.7.4	Stoma Type		• End • Loop	M	**Format:** Alphabetic value list if "yes" to 12.7.1
12.7.5	Stoma Site	Indicate the site of the stoma	• Left lower quadrant (LLQ) • Right lower quadrant (RLQ) • Left upper quadrant (LUQ) • Right upper quadrant (RUQ) • Other (specify)	M	**Format:** Alphabetic value list if "yes" to 12.7.1
12.7.6	Stoma maturation technique	Describe the technique used to mature the stoma site	• Brook • Flush	O	**Format:** Alphabetic value list if "yes" to 12.7.1

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.7.7	Distal limb	Describe management of distal limb	• N/A • Closed with stapler or sutures • Mucous fistula	O	**Format:** Alphabetic value list if 12.7.4 = end
12.7.8	Mucous fistula location		• Left lower quadrant (LLQ) • Right lower quadrant (RLQ) • Left upper quadrant (LUQ) • Right upper quadrant (RUQ) • Other (specify)	O	**Format:** Alphabetic value list if "Mucous fistula" selected in 12.7.7
12.7.9	Comment on stoma site			O	**Format:** Text if yes to 12.7.1
		BRANCHING LOGIC Once 12.7 Is Completed Branch to General/Wound Closure (12.8)			
		12.8 General/Wound Closure			
12.8.1	Estimated Blood Loss (cc)	Describe the estimated blood loss during the operative procedure	1500	M	Numeric
12.8.2	Sponge & Instrument count completed and correct	Indicate if the sponge & Instrument count completed and correct	• Yes • No	M	**Format:** Alphabetic value list
12.8.3	Sponge & Instrument count completed and correct – Comments			M	**Format:** Text if "no" to 12.8.2
12.8.4	Drains	Were drains used during the surgery?	• Yes • No	M	**Format:** Alphabetic value list
12.8.5	Drain type	Describe the drain type used	• Close Suction • Penrose • Other (specify)	O	**Format:** Alphabetic value list if "yes" to 12.8.4
12.8.6	Drain Location	Describe the location of the drain	• Left lower quadrant (LLQ) • Right lower quadrant (RLQ) • Left upper quadrant (LUQ) • Right upper quadrant (RUQ) • Perineal	O	**Format:** Alphabetic value list if "yes" to 12.8.4
12.8.7	Fascia closure of ports greater than 10mm?	Was the fascia closed on laparoscopic ports greater than 10mm	• Yes • No	O	**Format:** Alphabetic value list if surgical incision (12.2.1) is "laparoscopic"

5.3.b Colon Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.8.8	Abdominal wall suture technique	Describe the method used to suture the abdominal wall	• Running • Interrupted	O	**Format:** Alphabetic value list
12.8.9	Abdominal wall suture type	Describe the type of suture used	• Absorbable • Non-absorbable	O	**Format:** Alphabetic value list
12.8.10	Skin closure	Describe elements of incision/wound closure	• Staples • Sutures • Delayed closure	O	**Format:** Alphabetic value list
BRANCHING LOGIC Once 12.8 Is Completed Branch to Notable Events and Patient Transfer (12.9)					
12.9 Notable Events and Patient Transfer					
12.9.1	Notable events/ Complications	Identify key events that occurred during surgery	• No complications • Cardiac arrest • Death • Enterotomy • Major vascular injury • Pre sacral vessel injury • Splenic injury • Stapler Misfire • Other (specify)	M	**Format:** Alphabetic value list
12.9.2	Notable events/ Complications Comments			M	**Format:** Text to be completed for any value other than "no complications" selected in 12.9.1
12.9.3	Unit transferred to	Describe where the patient was transferred to after the surgery	• Recovery room • Intensive Care Unit	M	**Format:** Alphabetic value list
12.9.4	Status of patient	Describe the status of the patient when they left the operating room	• Stable • Unstable	O	**Format:** Alphabetic value list
12.9.5	Other Procedures (Specify)	Describe any other procedures completed during the operation		O	**Format:** Text
12.9.6	General Operative procedure comments			O	**Format:** Text
END Branch to Completion Elements					
Completion Elements					
13. Follow-Up (description of follow-up plans for the immediate peri-operative event and long-term plan if applicable)					
13.1	Dictation addendum	Will there be a dictated addendum?	• Yes • No	O	**Format:** Alphabetic value list
14. Automatic Referrals (identifies routine and specific referrals that need to happen following the operative procedure) – NOT APPLICABLE					

5.4 Rectal Cancer

Pan-Canadian Standards for rectal cancer include 9 clinical indicators and 162 data elements. Of the 162 data elements, 101 are deemed mandatory while 61 data elements are recommended as optional. Both the Canadian Association of General Surgeons (CAGS) and the Canadian Society of Colon and Rectal Surgeons (CSCRS) have endorsed the rectal cancer pan-Canadian standards; a formal letter of endorsement is forthcoming.

5.4.a Rectal Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 1	
Domain	**Diagnosis and Staging** Indicators include measures that describe pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer, and to guide treatment decisions.
Indicator Name	% pre-treatment imaging with ultrasonography, CT or Chest X-ray
Indicator Description	Proportion of patients with rectal cancer who had pre-treatment imaging with ultrasonography, CT or Chest X-ray
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with rectal cancer who had pre-treatment imaging with ultrasonography, CT or Chest X-ray **Denominator** Total number of patients who underwent rectal cancer surgery
Template Data Collection Elements	5.6 Post-operative diagnosis 8.5 Abdominal imaging 8.6 Chest imaging **Details and Calculation** **Numerator** 5.6 = Cancer AND 8.5 = CT Abdomen OR Ultrasound Liver OR 8.6 = Chest X-Ray OR CT Chest

5.4.a Rectal Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 2	
Domain	**Diagnosis and Staging** Indicators include measures that describes pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer and to guide treatment decisions.
Indicator Name	% rectal cancer patients with pelvic imaging Ordered by: *A. MRI* *B. TRUS*
Indicator Description	Proportion of patients who underwent rectal cancer surgery with pre-operative pelvic imaging (ordered by MRI or TRUS)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number of patients with pre-operative pelvic imaging by MRI* *B. Total number of patients with pre-operative pelvic imaging by TRUS* **Denominator** Denominator to measure numerators A and B described below: Total number of patients who underwent rectal cancer surgery
Template Data Collection Elements	5.6 Post-operative diagnosis 8.4 Pelvic Imaging **Details and Calculation** **Numerator** *A. MRI* 5.6 = Cancer AND 8.4 = MRI Pelvis *B. TRUS* 5.6 = Cancer AND 8.4 = TRUS

5.4.a Rectal Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 3	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients.
Indicator Name	% of patients with location of stoma marked pre-operatively
Indicator Description	Proportion of patients who underwent rectal cancer surgery with location of stoma marked pre-operatively
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with stoma marked pre-operatively **Denominator** Total number of patients who underwent rectal cancer surgery with stoma
Template Data Collection Elements	5.6 Post-operative diagnosis 12.11.1 Stoma completed? 12.11.2 Pre-op ostomy marking? **Details and Calculation** **Numerator** 5.6 = Cancer AND 12.11.2 = Yes

5.4.a Rectal Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 4	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% of patients with rectal cancer undergoing abdominal perineal resection (APR) surgery with rationale indicated
Indicator Description	Proportion of patients with rectal cancer who underwent abdominal perineal resection (APR) surgery with rationale indicated
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with APR rationale documented **Denominator** Total number of patients with rectal cancer undergoing APR surgery
Template Data Collection Elements	5.6 Post-operative diagnosis 5.12 Procedure(s) performed 5.16 Reason for performing APR **Details and Calculation** **Numerator** 5.6 = Cancer AND 5.16 = Levator involvement OR Sphincter involvement OR Poor bowel function OR Other (specify) AND 5.12 = Abdominal Perineal Resection (APR)

5.4.a Rectal Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 5	
Domain	**Diagnosis and Staging** Indicators include measures that describe pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer, and to guide treatment decisions.
Indicator Name	% presented at a multidisciplinary cancer conference (MCC)
Indicator Description	Proportion of patients with rectal cancer whose case was presented at a multidisciplinary cancer conference (MCC)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with rectal cancer whose case was presented at a multidisciplinary cancer conference (MCC) **Denominator** Total number of patients who underwent rectal cancer surgery
Template Data Collection Elements	5.6 Post-operative diagnosis 11.5 Multidisciplinary Cancer Conference (MCC) **Details and Calculation** **Numerator** 5.6 = Cancer AND 11.5 = Yes

5.4.a Rectal Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 6	
Domain	**Access to Care** Indicators include measures that can point out the presence and/or timeliness of oncology surgical care services.
Indicator Name	% urgent or emergency surgery
Indicator Description	Proportion of patients with rectal cancer who underwent urgent or emergency surgery
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of rectal cancer patients who underwent urgent or emergency surgery **Denominator** Total number of patients who underwent rectal cancer surgery
Template Data Collection Elements	5.6 Post-operative diagnosis 5.9 Operative Urgency 5.10 Emergent Procedure Indications **Details and Calculation** **Numerator** 5.6 = Cancer AND 5.9 = Urgent (scheduled within same hospital admission) OR Emergent (<48 hours after admission) AND 5.10 = Obstructed OR Perforated OR Hemorrhage OR Other (specify)

5.4.a Rectal Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 7	
Domain	**Diagnosis and Staging** Indicators include measures that describe pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer, and to guide treatment decisions.
Indicator Name	% of patients with rectal cancer who received neo-adjuvant therapy
Indicator Description	Proportion of patients who underwent rectal cancer surgery and received neo-adjuvant therapy
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with rectal cancer who received neo-adjuvant therapy **Denominator** Total number of patients who underwent rectal cancer surgery
Template Data Collection Elements	5.6 Post-operative diagnosis 11.6 Pre-operative chemotherapy 11.7 Pre-operative radiation **Details and Calculation** **Numerator** 5.6 = Cancer AND 11.6 = Yes OR 11.7 = Short course radiation OR Long course radiation OR Brachytherapy

5.4.a Rectal Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 8	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% laparoscopic rectal surgeries converted to open (laparotomy)
Indicator Description	Proportion of patients that underwent laparoscopic rectal surgery that were converted to open (laparotomy)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients converted from laparoscopy to laparotomy **Denominator** Total number of patients undergoing rectal laparoscopy
Template Data Collection Elements	12.2.1 Surgical Incision 12.5.1 Laparotomy Conversion? 5.6 Post-Operative diagnosis **Details and Calculation** **Numerator** 12.5.1 = Yes AND 5.6 = Cancer

5.4.a Rectal Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 9	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% synoptic operative reports with documentation of TME completeness
Indicator Description	Proportion of patients who underwent rectal cancer surgery with completeness of TME documented
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with completeness of TME documented **Denominator** Total number of patients undergoing rectal cancer surgery
Template Data Collection Elements	5.6 Post-operative diagnosis 5.12 Procedure (performed) 12.5.13 TME Completeness **Details and Calculation** **Numerator** 5.6 = Cancer AND 12.5.13 = Complete OR Near Complete OR Incomplete AND 5.12= Low Anterior Resection with colostomy (Hartmann's) OR Abdominal Perineal Resection (APR) OR Low Anterior Resection (LAR) with colorectal anastomosis OR LAR with coloanal anastomosis OR LAR with intersphincteric dissection

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
A. Administrative & Identification Data					
1. Administration (overview of key report information)					
1.1	Report Date	Date of report completion – may be different than date of surgery	2001:01:01	M	**Format:** Date YYYY:MM:DD
1.2	Report completed by	Name of person completing report	Dr. Smith	M	**Format:** Alphabetic
1.3	Report copies to	Name of people receiving copies of the report	Dr. Jones	O	**Format:** Alphabetic
2. Patient Information (key demographic and clinical summary information about the person receiving surgery)					
2.1	Patient Last Name	Represents the patient's legal family name		M	**Format:** Alphabetic
2.2	Patient First Name	Represents the patient's legal first name		M	**Format:** Alphabetic
2.3	Patient Middle Name	Represents the patient's legal middle name		O	**Format:** Alphabetic
2.4	Patient Date of Birth	Represents the patient's date of birth	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.5	Patient ID	Represents a unique identifier assigned to the patient	123456789JG	M	**Format:** Alphanumeric
2.6	Patient ID type	Represents the type of patient Identifier (e.g. Jurisdictional Healthcare Identifier, Passport)	• Health Card Number • Medical Record Number	M	**Format:** Alphanumeric
2.7	Patient Gender	Represents a reported gender category of the patient at a given point in time used for administrative purposes	• Male • Female	M	**Format:** Alphabetic value list
3. Provider Details (person(s) performing and/or supporting the surgery)					
3.1	Provider Last Name	Represents the surgeon's Last name	Smith	M	**Format:** Alphabetic
3.2	Provider First Name	Represents the surgeon's First name	John	M	**Format:** Alphabetic
3.3	Provider Identifier Type	Represents the type of Provider Identifier	MRN	M	**Format:** Alphabetic value list
3.4	Provider ID	Represents the unique identifier assigned to the surgeon	12345697F	M	**Format:** Alphanumeric

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
3.5	Assistant Last Name	Represents the Last name of assistants, residents, fellows and other assistants during the procedure	Smith	O	**Format:** Alphabetic Can be repeated
3.6	Assistant First Name	Represents the First name of assistants, residents, fellows and other assistants during the procedure	John	O	**Format:** Alphabetic Can be repeated
3.7	Assistant title	Title of the assistant who supported the procedure	• Family Physician • Resident • Assistant Surgeon • Second Surgeon	O	**Format:** Alphabetic value list Can be repeated
3.8	Assistant ID type	Represents the type of Provider Identifier		O	**Format:** Alphanumeric value list Can be repeated
3.9	Assistant ID	Represents the unique identifier assigned to the Provider		O	**Format:** Alphanumeric value list Can be repeated
3.10	Anesthetist Last Name	Represents the anesthetist's Last name		O	**Format:** Alphabetic
3.11	Anesthetist First Name	Represents the anesthetist's First name		O	**Format:** Alphabetic
3.12	Provider comments			O	**Format:** Text
		4. Service Delivery Location Details (surgery location)			
4.1	Service Delivery Location Name	Represents the name of the Service Delivery Location here the patient received care	Glendale Family Health Clinic	M	**Format:** Text
4.2	Service Delivery Location Identifier Code	Represents the unique identifier of the PHC Service Delivery Location where the patient received care	A46B7356743	O	**Format:** Alphanumeric
4.3	Service Delivery Type of Services	Represents the type of location where the patient received care	• Inpatient facility • Outpatient clinic • Day surgery unit	O	**Format:** Alphabetic value list
4.4	Room ID	Represents the room number where the procedure was performed	Applicable to service delivery location	O	**Format:** Alphanumeric
4.5	Service Delivery Location comments			O	**Format:** Text

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
B. Procedure Planned and Performed					
5. Current Procedure Administration (current planned and performed procedures and related diagnoses)					
5.2	Pre-operative diagnosis		• Cancer • Polyp	M	**Format:** Alphabetic value list If polyp, branch to 5.4
5.3	Pre-operative cancer classification		• Primary • Recurrent	M	**Format:** Alphabetic value list If 5.2=cancer
Polyp (if polyps detected)					
5.4	Polyp Classification	Describe the polyp as with benign or malignant	• Benign • Malignant	M	**Format:** Alphabetic value list if 5.2 = polyp
5.5	Polyp Excision	Describe whether the polyp was removed or not removed	• Removed • Not removed	M	**Format:** Alphabetic value list if 5.2 = polyp
5.6	Post-operative diagnosis		• Cancer • Polyp	M	**Format:** Alphabetic value list
5.7	Synchronous lesion	Does patient have synchronous lesion?	• None • Cancer • Polyp	M	**Format:** Alphabetic value list Field can be repeated for multiple lesions
5.8	Synchronous lesion location	Identify any sites of synchronous lesions a patient has	• Cecum • Ascending colon • Hepatic flexure • Transverse colon • Splenic flexure • Descending colon • Sigmoid • Rectosigmoid	M	**Format:** Alphabetic multiple selection Field can be repeated for multiple lesions only if 5.7 = cancer or polyp
5.9	Operative Urgency	Optimal timing to perform surgery to prevent serious complications of the disease	• Elective (scheduled) • Urgent within same hospital admission) • Emergent (<48 hours after admission)	M	**Format:** Alphabetic value list
5.10	Emergent procedure indications	Indication if Emergent procedure selected	• Obstructed • Perforated • Hemorrhage • Other (specify)	M	**Format:** Alphabetic value list If emergent or urgent selected in 5.9

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
5.11	Procedure(s) planned	Describe the procedure that was planned	• Low Anterior Resection with colostomy (Hartmann's) • Abdominal Perineal Resection (APR) • Low Anterior Resection (LAR) with colorectal anastomosis • LAR with coloanal anastomosis • LAR with intersphincteric dissection • Local excision • Multi visceral resection • Pelvic Exenteration • Total proctocolectomy • Other (specify)	M	**Format:** Alphabetic value list
5.12	Procedure(s) performed	Describe the procedure that was performed	• Low Anterior Resection with colostomy (Hartmann's) • Abdominal Perineal Resection (APR) • Low Anterior Resection (LAR) with colorectal anastomosis • LAR with coloanal anastomosis • LAR with intersphincteric dissection • Local excision • Multi visceral resection • Pelvic Exenteration • Total proctocolectomy • Other (specify)	M	**Format:** Alphabetic value list
5.13	Type of local excision	Describe the surgical approach taken	• Transanal • Kraske • TEMS • TAMIS • Other (Specify)	M	**Format:** Alphabetic value list
5.14	Reason for Local excision (transanal or TEM)		• Rectal Polyp • T1 low risk • Palliative • Other (specify)	M	**Format:** Alphabetic value list
5.15	Reason for Hartmann's Procedure	Indicate why a Hartmann procedure was selected	• Acute perforation • Obstruction • Hemorrhage • Fecal incontinence • Unstable patient • Other (specify)	M	**Format:** Alphabetic value list If Hartmann's selected

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
5.16	Reason for performing APR		• Levator involvement • Sphincter involvement • Poor bowel function • Other (specify)	M	**Format:** Alphabetic multiple selection If APR selected
5.17	Reason for difference in procedure planned/ performed	An explanation for the delta between the planned and performed procedures		M	**Format:** Text Mandatory only if applicable
5.18	Surgical objectives	What were the objectives of the surgery?	• Palliative • Curative	M	**Format:** Alphabetic value list
5.19	Pre-Op Diversion Procedure	Previous diversion procedure done	• None • Colostomy • Ileostomy • Stent	O	**Format:** Alphabetic value list
5.20	Stent Complications	Describe any complications resulting from the stent procedure	• None • Migrated • Perforation • Other (specify)	O	**Format:** Alphabetic value list If Stent selected in 5.19
	6. Reoperation and Previous Surgeries (information about previous surgery for related diagnoses) – NOT APPLICABLE				
	C. Pre-Operative Assessment				
	7. Clinical Findings (pre-operative clinical findings)				
7.1	Associated risk factors/ conditions	Describe any risk factors or conditions associated with colon cancer	• Crohn's • Ulcerative colitis • FAP • HNPCC • Previous pelvic radiation • Other (specify) • None	M	**Format:** Alphabetic multiple selection
7.2	Body Mass Index (BMI)	Represents patient's body mass index. Calculated automatically using height and weight		O	**Format:** Numeric calculation
7.3	Body Mass Index (BMI) Status	Represents patient's weight status based on body mass index	• Underweight (<18.5) • Normal (18.5 – 24.9) • Overweight (25- 29.9) • Obese (30 – 34.9) • Severely Obese (35.0 or greater)	O	**Format:** Alphanumeric value list
7.4	Height	Represents the patients height (cm or inches)	164	O	**Format:** Numeric
7.5	Height Measurement Scale	Indicate if imperial or metric value was used for height	• Centimeters • Inches	O	**Format:** Alphabetic value list

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.6	Weight	Represents the patients weight in kilograms or pounds	84	O	**Format:** Numeric
7.7	Weight Measurement Scale	Indicate if imperial or metric value was used for weight	• Kilograms • Pounds	O	**Format:** Alphabetic value list
		8. Pre-Operative Staging (directed investigations in advance of surgery)			
		Other Diagnostic Investigations			
8.1	Digital Rectal Examination	Describe results of digital rectal examination	• Mobile • Tethered • Fixed • Not Palpable • Not Done	O	**Format:** Alphabetic value list
8.2	Distance from anal verge (cm) to distal extent of tumor	Describe the distance from anal verge (cm) to distal extent of tumor	3	M	**Format:** Numeric
8.3	Circumferential Position	Describes the position of the tumor	• Anterior • Left lateral • Right lateral • Posterior • Circumferential	M	**Format:** Alphabetic multiple selection
		Diagnostic Imaging			
8.4	Pelvic Imaging	Represents the diagnostic pelvic imaging test ordered by the Provider for the Client	• MRI Pelvis • TRUS • Other (specify) • None	M	**Format:** Alphabetic multiple selection
8.5	Abdominal Imaging	Represents the diagnostic abdominal imaging test ordered by the Provider for the Client.	• CT • Ultrasound Liver • Other (specify) • None	M	**Format:** Alphabetic multiple selection
8.6	Chest Imaging	Represents the diagnostic chest imaging test ordered by the Provider for the Client.	• Chest X-Ray • CT Chest • Other (specify) • None	M	**Format:** Alphabetic multiple selection
8.7	Distant metastases	Site(s) of distant metastases if present	• None • Liver • Lung • Peritoneum • Non-regional lymph nodes • Unknown • Other (specify)	M	**Format:** Alphabetic multiple selection

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
8.8	Pre-op Local Invasion (Male)	Describe the location of any local invasion	• None • Colon • Small Intestine • Bladder • Ureter – Left • Ureter – Right • Sacrum • Pelvic Side Wall • Right seminal vesicle • Left seminal vesicle • Prostate • Other (specify)	O	**Format:** Alphabetic multiple selection
8.9	Pre-op Local Invasion (Female)	Describe the location of any local invasion	• None • Colon • Small Intestine • Bladder • Ureter – Left • Ureter – Right • Sacrum • Pelvic Side Wall • Ovary – Left • Ovary – Right • Uterus • Vagina • Other (specify)	O	**Format:** Alphabetic multiple selection
		9. Co-Morbidity (existing relevant clinical conditions) – NOT APPLICABLE			
		D. Pre-Operative Pathology & Staging			
		11. Pre-Treatment Imaging Stage (indicate the pre-treatment imaging stage of patient if applicable)			
11.1	Tx	Description of primary tumor	• Tx • T1 (into sub mucosa) • T2 (into muscularis) • T3 (outside of rectal wall) • T4 (other structures/ Invasion)	O	**Format:** Alphabetic value list
11.2	Nx	Description of regional lymph node involvement	• N0 • N positive • Nx	O	**Format:** Alphabetic value list
11.3	Mx	Description of distant metastases	• M0 – No distant metastasis • M1 – Distant metastasis	O	**Format:** Alphabetic value list

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.4	Clinical Stage/ Stage Calculation	A description of the extent the cancer has spread, based on a value of I-IV depending on the progression of the cancer's spread (Usually based on the TMN guideline for staging)	• Can't Stage • I • II • III • IV	O	**Format:** Alphabetic value list **Calculation** "can't stage" only if one or more of T, M or N can't be completed Stage I = T1 or T2, N0 or Nx Stage II = T3 or T4, N0 or Nx Stage III = any T, N positive, M0 Stage IV = any T, any N, M1
		Pre-Operative Treatment – Neoadjuvant Treatment			
11.5	Multidisciplinary Cancer Conference (MCC)	Was case presented at a multidisciplinary cancer conference (MCC)?	• Yes • No	M	**Format:** Alphabetic value list
11.6	Pre-operative Chemotherapy	Describes if pre-operative chemotherapy was completed	• Yes • No	M	**Format:** Alphabetic value list
11.7	Pre-operative Radiation	Describes the type of radiation (if any) that was completed pre-operatively	• Short course radiation • Long course radiation • Brachytherapy • None	M	**Format:** Alphabetic value list
11.8	Clinical response	Describe the clinical response of the tumor	• None • Partial • Complete • Unknown	O	**Format:** Alphabetic value list
11.9	Re-staging	Did patient undergo re-imaging?	• Yes • No	O	**Format:** Alphabetic value list
11.10	Pre-operative treatment and Re-staging Comments			O	**Format:** Text

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
E. Operative Procedure					
12. Operative Procedure (describes elements of operative procedure)					
5.12 Procedure Performed (pre-populated)					
12.1 Sign In and Briefing					
12.1.1	Surgical Safety Checklist performed?	Indicate whether the surgical safety checklist was completed (includes sign in. timeout, debrief, briefing)	• Yes • No	M	**Format:** Alphabetic value list
12.1.2	Mechanical Bowel Prep	Describes if a mechanical bowel was completed	• Yes • No	O	**Format:** Alphabetic value list
12.1.3	Anesthesia	Indicate type of anesthesia given	• General • Regional • Combined	M	**Format:** Alphabetic value list
12.1.4	Pre-operative antibiotics	Indicate whether antibiotics were given to the patient	• Yes • No	M	**Format:** Alphabetic value list
12.1.5	DVT prophylaxis	Indicate whether Deep Vein Thrombosis Prophylaxis was given to patient	• Yes • No	M	**Format:** Alphabetic value list
12.1.6	Position	Describe the position of the patient	• Prone • Supine • Lithotomy • Lateral Right • Lateral Left • Split Leg	M	**Format:** Alphabetic value list
12.2 Operative Approach					
12.2.1	Surgical incision	Indicate type of incision for operative exposure	• Midline • Transverse • Laparoscopic • Hand assisted • Local Excision	M	**Format:** Alphabetic value list

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		'BRANCHING LOGIC (logic based on response to surgical incision) If Local Excision, Branch to Local Excision per Anus Operative Details Section 12.14 (do not complete any other sections except for LE details) For Laparoscopic or Hand Assisted Go to Entry Technique (12.2.2) For Transverse or Midline, Go to Adhesions on Laparotomy (12.2.5)			
		12.3 Local Excision per Anus Operative Details			
12.3.1	Closest (narrowest) mucosal margin	Describe the closest (narrowest) mucosal margin in mm	5	O	**Format:** Numeric
12.3.2	Technique	Describes the technique used to perform the operation	• Full thickness • Partial thickness • Full thickness entry into peritoneum	O	**Format:** Alphabetic value list
12.3.3	Specimen integrity	Describes the integrity of the specimen collected	• Intact • Piecemeal	M	**Format:** Alphabetic value list
12.3.4	Closure	Describes the type of closure completed	• Not done • Complete • Partial	M	**Format:** Alphabetic value list
		End Branch to Completion Elements Branch to 12.13 Patient Transfer			
12.2.2	Entry Technique	Describe how abdomen entered	• Veress Needle • Open Hassan • Gasless	M	**Format:** Alphabetic value list if laparoscopic or hand assisted selected in 12.2.1
12.2.3	# of ports	Describe number of ports used	3	O	**Format:** Numeric if laparoscopic or hand assisted selected in 12.2.1
12.2.4	Adhesions	Describe amount of adhesions	• None/minimal • Moderate • Dense	O	**Format:** Alphabetic value list
12.2.5	Exteriorization Incision	Describe where specimen was removed	• Right Lower Quadrant (RLQ) • Left Lower Quadrant (LLQ) • Pfannenstiel • Midline • Other (specify)	M	**Format:** Alphabetic value list 12.2.5 should only be completed if response to 12.2.1 does NOT = "midline" or "transverse"

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		BRANCHING LOGIC Once 12.2 Is Complete Branch to Intra-Operative Evaluation (12.4)			
		12.4 Intra-Operative Evaluation			
12.4.1	Rectal Cancer location	Describe location of tumor	• Above peritoneal reflection • At peritoneal reflection • Below peritoneal reflection	M	**Format:** Alphabetic value list
12.4.2	Assessment of Primary Tumor		• Uncomplicated • Locally Invasive • Obstructed • Perforated	M	**Format:** Alphabetic multiple selection
12.4.3	Intra-operative Findings	Indicate the intra-operative findings	• Expected • Unexpected	M	**Format:** Alphabetic value list
12.4.4	Intra-operative findings comments			M	**Format:** Text if 12.4.3=unexpected
		BRANCHING LOGIC After Section 12.4 Complete (logic based on value selected for Procedure performed in 5.12) For "Stoma" – Branch to Synchronous Colon Surgery (12.10) For "APR, Hartman, LAR, PE" – Branch to Operative Details (section 12.5)			
		12.5 Operative Detail (not applicable to stoma)			
12.5.1	Laparotomy conversion?	Was laparoscopy converted to laparotomy	• Yes • No	M	**Format:** Alphabetic value list if surgical incision (12.2.1) is "laparoscopic"
12.5.2	Reasons for laparotomy conversion			M	**Format:** Text if "yes" to 12.5.1
12.5.3	Mobilization technique for laparoscopy	Describe the mobilization technique for laparoscopy	• Medial to lateral • Lateral to medial	O	**Format:** Alphabetic value list if surgical incision (12.2.1) is "laparoscopic"
12.5.4	Formal mobilization of the splenic flexure?	Was the splenic flexure mobilized	• Yes • No	O	**Format:** Alphabetic value list
12.5.5	High ligation of Inferior Mesenteric Vein (IMV) performed	Was high ligation of the inferior mesenteric vein performed?	• Yes • No	O	**Format:** Alphabetic value list

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.5.6	Left Ureter	Describe if the left ureter was preserved and identified	• Identified/preserved • Identified/not preserved • Not identified • Not applicable	M	**Format:** Alphabetic value list
12.5.7	Right Ureter	Describe if the right ureter was preserved and identified	• Identified/preserved • Identified/not preserved • Not identified • Not applicable	O	**Format:** Alphabetic value list
12.5.8	Left hypogastric nerve	Describe if the left hypogastric nerve was preserved and identified	• Identified/preserved • Identified/not preserved • Not identified • Not applicable	M	**Format:** Alphabetic value list
12.5.9	Right hypogastric nerve	Describe if the right hypogastric nerve was preserved and identified	• Identified/preserved • Identified/not preserved • Not identified • Not applicable	M	**Format:** Alphabetic value list
12.5.10	Level of arterial resection/ vessels taken	Describe the vessels taken during the procedure	• Low ligation (distal left colic) • High ligation (proximal left colic)	M	**Format:** Alphabetic value list
12.5.11	Level of proximal bowel resection	Describe the level of proximal bowel resection	• Descending colon • Proximal sigmoid • Mid sigmoid • Distal sigmoid • Other (specify)	M	**Format:** Alphabetic value list
12.5.12	Mesorectal Excision	Describe type of mesorectal excision	• Not done • Subtotal (not to levators)/Tumor Specific • Total to levators • Total with intersphincteric dissection • Total with extra levator dissection (only applicable for APR or Pelvic Exent)	M	**Format:** Alphabetic value list
12.5.13	TME Completeness	Describe the completeness of the TME	• Complete • Near Complete • Incomplete	M	**Format:** Alphabetic value list
12.5.14	Clinical margins – distal (cm)	Describe the clinical margins past the tumor (cm)	• Not assessed • Less than 1 • 1 to 2 • 2.1 to 5 • Greater than 5	M	**Format:** Alphanumeric value list
12.5.15	Resection Completed?	Describe if a segment of the colon was resected. If not, explain why	• Yes • No – Bypass • No – Palliative Stoma • No – Open/Close	M	**Format:** Alphabetic value list

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.5.16	Male Structures Resected	Describe male structures resected	• Colon • Small Intestine • Bladder • Ureter – Left • Ureter – Right • Sacrum • Pelvic Side Wall • Right seminal vesicle • Left seminal vesicle • Prostate • Other (specify)	M	**Format:** Alphabetic multiple selection if 12.4.2 = locally invasive and patient is male
12.5.17	Female Structures Resected	Describe female structures resected	• Colon • Small Intestine • Bladder • Ureter – Left • Ureter – Right • Sacrum • Pelvic Side Wall • Ovary – Left • Ovary – Right • Uterus • Vagina • Other (specify)	M	**Format:** Alphabetic multiple selection if 12.4.2 = locally invasive and patient is female
12.5.18	Sacral segments removed	Describes the sacral segments removed (select all that apply)	• Coccyx • 5 • 4 • 3 • 2	M	**Format:** Alphanumeric multiple selection if sacrum chosen in 12.5.17
12.5.19	Resection method	Describe the method used to resect structures	• Individual organs • En bloc	M	**Format:** Alphabetic value list if 12.4.2= locally invasive
12.5.20	Gross residual disease	Describe the amount of tumor left behind	• Yes (R2) • No (R0/R1)		**Format:** Alphabetic value list
12.5.21	Use of wound protector	Describe if a wound protector was used	• Yes • No	M	**Format:** Alphabetic value list if laparoscopic or hand assisted selected in 12.3.1
12.5.22	Exteriorization Incision	Describe where specimen was removed	• Right Lower Quadrant (RLQ) • Left Lower Quadrant (LLQ) • Pfannenstiel • Midline • Other (specify)	M	**Format:** Alphabetic value list if laparoscopic or hand assisted selected in 12.2.1

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
BRANCHING LOGIC After Section 12.5 Is Complete (logic based on procedure performed in 5.12) For HARTMANN'S – Go to Hartmann's Operative Details (12.8) For Low Anterior Resection (LAR) – Go to LAR Operative Details (12.6) For Abdominal Perineal Resection (APR) or Pelvic Exenteration (PE) or Total proctocolectomy – Go to APR/PE/TP Operative Details (12.7)					
12.6 LAR Operative Details					
12.6.1	Reconstruction	Describe the method used for construction during the LAR	• J Pouch • Straight • Side to end • Coloplasty	M	**Format:** Alphabetic value list
12.6.2	Anastomosis Method	Describe the anastomosis method used	• Stapled • Hand-sewn	M	**Format:** Alphabetic value list
12.6.3	Anastomotic Circular Stapler	Size of circular stapler	• 25 • 28 • 29 • 31 • 33	M	**Format:** Numeric value list if 12.6.2 = stapled
12.6.4	Anastomosis Donuts intact	Were the anastomosis donuts intact after the procedure	• Yes • No	M	**Format:** Alphabetic value list if 12.6.2 = stapled
12.6.5	Level of anastomosis above anal verge on sigmoidoscopy (cm)	Describe the level of anastomosis above anal verge on sigmoidoscopy (cm)	3	O	**Format:** Numeric
12.6.6	Intra-operative Assessment of anastomosis	Describe the result of the intra-operative anastomosis	• Intact Anastomosis • Bleeding • Air leak • Not performed	M	**Format:** Alphabetic value list
12.6.7	Anastomosis comments	Describe actions taken to repair anastomosis		M	**Format:** Text if 12.6.6 = bleeding or air leak
BRANCHING LOGIC Once 12.6 Is Complete Branch to Perforated Rectum (12.9)					
12.7 APR & PE & TP Operative Details					
12.7.1	Second Surgeon for Perineal Dissection (PD)	Was a second surgeon required for this procedure	• Yes • No	O	**Format:** Alphabetic value list
12.7.2	Position for Perineal Dissection (PD)	Describe the position of the patient at the time of the PD	• Lithotomy • Prone	M	**Format:** Alphabetic value list
12.7.3	Levators excision	Describe where levators divided	• Flush with rectum • With cuff • Extra Levator (lateral pelvic side wall)	M	**Format:** Alphabetic value list

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.7.4	Perineal Closure Type	Describe the type of perineal closure completed	• Primary • Flap	M	**Format:** Alphabetic value list
12.7.5	Layers Closed		• Levator ani • Ischiorectal fat • Other (specify)	O	**Format:** Alphabetic multiple selection if "primary" chosen for 12.7.4
12.7.6	Pedicle Flap Details	Describe flap type	• Omental • Rectus • Gracilis • Other (specify)	M	**Format:** Alphabetic value list if "flap" chosen for 12.7.4
12.7.7	Skin closure	Describes the type of skin closure	• Staple • Absorbable suture • Non-absorbable suture • Pack open • Other (specify)	M	**Format:** Alphabetic value list if "primary" chosen for 12.7.4
12.7.8	Closure Comments			O	**Format:** Text
		BRANCHING LOGIC Once 12.7 Is Complete Branch to Perforated Rectum (12.9)			
		12.8 Hartmann's Operative Detail			
12.8.1	Level of rectal closure	Describe the location of the closure	• Above peritoneal Reflection • Below peritoneal Reflection • At levators	M	**Format:** Alphabetic value list
12.8.2	Rectal Closure Type	Describe the type of closure used for the rectum	• Staple • Suture	O	**Format:** Alphabetic value list
12.8.3	Rectal stump marking	Was stump marked	• Yes • No	O	**Format:** Alphabetic value list
		BRANCHING LOGIC Once 12.8 Is Completed Branch to Perforated Rectum (12.9)			
		12.9 Perforated Rectum			
12.9.1	Was the rectum perforated	Describe if the rectum was perforated	• Yes • No	M	**Format:** Alphabetic value list
12.9.2	Perforated Rectum Level	Describe where the rectum was perforated relative to the tumor	• Above tumor • At tumor • Below tumor	M	**Format:** Alphabetic value list if yes to 12.9.1

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		BRANCHING LOGIC Once 12.9 Is Complete Branch to Synchronous Colon Surgery (12.10)			
		12.10 Synchronous Colon Surgery			
12.10.1	Synchronous Colon surgery required	Was synchronous colon surgery required during this rectal procedure?	• Yes • No	M	**Format:** Alphabetic value list
12.10.2	Procedure performed	Describe the colon procedure that was performed	• Right hemicolectomy • Extended right hemicolectomy • Transverse colectomy • Left hemicolectomy • Sigmoid resection	M	**Format:** Alphabetic value list if "yes" to 12.10.1
		BRANCHING LOGIC Once 12.10 Is Completed If Value in 12.10.1 Is "Yes" – Branch to Colon template If Value in 12.10.1 is "No" – Branch to 12.11			
		12.11 Stoma Operative Details			
12.11.1	Stoma completed?	Was a stoma completed?	• Yes • No	M	**Format:** Alphabetic value list
12.11.2	Pre-op ostomy marking?	Was the stoma site marked prior to the operation	• Yes • No	M	**Format:** Alphabetic value list if "yes" to 12.11.1
12.11.3	Stoma		• Jejunum • Ileum • Cecum • Ascending Colon • Hepatic Flexure • Transverse Colon • Descending Colon • Sigmoid	M	**Format:** Alphabetic value list if "yes" to 12.11.1
12.11.4	Stoma Type	Indicate the type of stoma completed	• End • Loop	M	**Format:** Alphabetic value list if "yes" to 12.11.1
12.11.5	Stoma Site	Indicate the site of the stoma	• Left lower quadrant (LLQ) • Right lower quadrant (RLQ) • Left upper quadrant (LUQ) • Right upper quadrant (RUQ) • Other (specify)	M	**Format:** Alphabetic value list if "yes" to 12.11.1

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.11.6	Stoma maturation technique	Describe the technique used to mature the stoma site	• Brook • Flush	O	**Format:** Alphabetic value list if "yes" to 12.11.1
12.11.7	Ileal Conduit Stoma Type	Describe the type of Ileal Conduit Stoma completed	• Ileostomy • Colostomy	M	**Format:** Alphabetic value list If Bladder (Complete) chosen as structures resected in 12.5.16 or 12.5.17
12.11.8	Ileal Conduit Stoma Site	Describe the site of the Ileal Conduit Stoma	• Left lower quadrant (LLQ) • Right lower quadrant (RLQ) • Left upper quadrant (LUQ) • Right upper quadrant (RUQ)	M	**Format:** Alphabetic value list If Bladder (Complete) chosen as structures resected in 12.5.16 or 12.5.17
12.11.9	Comment on stoma site			O	**Format:** Text if "yes" to 12.11.1
		BRANCHING LOGIC Once 12.11 Is Completed Branch to General/Wound Closure (12.12)			
		12.12 General/Wound Closure			
12.12.1	Estimated Blood Loss (cc)	Describes the estimated blood loss during the operative procedure	• 1500	M	**Format:** Numeric
12.12.2	Sponge & Instrument count completed and correct	Indicate if the sponge & Instrument count completed and correct	• Yes • No	M	**Format:** Alphabetic value list
12.12.3	Sponge & Instrument count completed and correct – Comments			M	**Format:** Text if "no" to 12.12.2
12.12.4	Drains	Were drains used during the surgery?	• Yes • No	M	**Format:** Alphabetic value list
12.12.5	Drain type	Describe the drain type used	• Closed Suction • Penrose • Other (specify)	O	**Format:** Alphabetic multiple selection if "yes" to 12.12.4
12.12.6	Drain Location	Describe the location of the drain	• Perineal • Left lower quadrant (LLQ) • Right lower quadrant (RLQ) • Left upper quadrant (LUQ) • Right upper quadrant (RUQ)	O	**Format:** Alphabetic value list

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.12.7	Fascia closure of ports greater than 10mm?	Was the fascia closed on laparoscopic ports greater than 10mm	• Yes • No	O	**Format:** Alphabetic value list if surgical incision (12.2.1) is "laparoscopic"
12.12.8	Abdominal wall suture technique	Describe the method used to suture the abdominal wall	• Running • Interrupted	O	**Format:** Alphabetic value list
12.12.9	Abdominal wall suture type	Describe the type of suture used	• Absorbable • Non-absorbable	O	**Format:** Alphabetic value list
12.12.10	Skin closure	Describes elements of incision/wound closure	• Staples • Sutures • Delayed closure	O	**Format:** Alphabetic value list
BRANCHING LOGIC Once 12.12 Is Completed Branch to Notable Events and Patient Transfer (12.13)					
12.13 Notable Events and Patient Transfer					
12.13.1	Notable events/ Complications	Identify key events that occurred during surgery	• No complications • Cardiac arrest • Death • Enterotomy • Major vascular injury • Pre sacral vessel injury • Splenic injury • Ureteric injury • Stapler Misfire • Other (Specify)	M	**Format:** Alphabetic value list
12.13.2	Notable events/ Complications Comments			O	**Format:** Text to be completed for any value other than "no complications" selected in 12.13.1
12.13.3	Unit transferred to	Indicate where the patient was transferred to after the surgery	• Recovery room • Intensive Care Unit	O	**Format:** Alphabetic value list
12.13.4	Status of patient	Describe the status of the patient when they left the operating room	• Stable • Unstable	O	**Format:** Alphabetic value list
12.13.5	Other Procedures (Specify)	Describe any other procedures completed during the operation		O	**Format:** Text
12.13.6	General Operative procedure comments			O	**Format:** Text

5.4.b Rectal Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
END Branch to Completion Elements Branch to 12.13 Patient Transfer					
F. Completion Elements					
13. Follow-Up (description of follow-up plans for the immediate peri-operative event and long-term plan if applicable)					
13.1	Dictation addendum	Will there be a dictated addendum?	• Yes • No	O	**Format:** Alphabetic value list

5.5 Thyroid Cancer

Pan-Canadian Standards for thyroid cancer include 9 clinical indicators and 234 data elements. Of the 234 data elements, 198 are deemed mandatory while 36 data elements are recommended as optional. In 2012, thyroid synoptic surgery data elements were acknowledged by the American Thyroid Association as essential elements of communication for peri-operative information for patients undergoing thyroid surgery. Endorsement of the thyroid standards was received from the Alberta Thyroid/Endocrine Group. The Canadian Association of General Surgeons (CAGS) has endorsed the contents of these standards, a formal letter is forthcoming. A copy of the endorsement letter from the Alberta Thyroid/Endocrine Group is noted below.

CANADIAN PARTNERSHIP AGAINST CANCER
PARTENARIAT CANADIEN CONTRE LE CANCER

November 24, 2015

Dr. Mary Argent-Katwala
Director, Diagnosis & Clinical Care
Canadian Partnership Against Cancer
1 University Avenue, Suite 300
Toronto, Ontario M5J 2P1

Dear Dr. Argent-Katwala:

This letter confirms our endorsement of the Thyroid Cancer Synoptic Standards set forth by the Canadian Partnership Against Cancer on behalf of Endocrine Surgeons and Head and Neck Surgeons of Canada. The Alberta Thyroid I Endocrine Group endorses the pan-Canadian Thyroid Cancer Synoptic Standards and strongly supports that defining standards and continued improvement of quality is vital to providing the best possible care for our patients and achieving desirable outcomes. We look forward, as a Society, to working with you in the future.

Sincerely,

Dr. Dean Ruether

Dr. Janice Pasieka

1 University Avenue, Suite 300, Toronto, ON M5J 2P1
Telephone: 416-915-9222 Facsimile: 416-915-9224
partnershipagainstcancer.ca

1, avenue University, bureau 300, Toronto (Ontario) M5J 2P1
Téléphone : 416-915-9222 Télécopieur : 416-915-9224
partenariatcontrelecancer.ca

5.5.a Thyroid Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 1	
Domain	**Access to Care** Indicators include measures that can point out the presence and/or timeliness of oncology surgical care services.
Indicator Name	% time to surgery >90 days
Indicator Description	Proportion of patients who experience a wait time greater than 90 days between date of consent to treatment to date of thyroid cancer surgery
Potential Use	• Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients who underwent thyroid surgery where interval from date of consent to treatment to date of surgery is >90 days **Denominator** Total number of patients who underwent thyroid cancer surgery
Template Data Collection Elements	5.2 Time to surgery 10.3 FNA (Bethesda Classification) **Details and Calculation** **Numerator** 5.2 = >90 days AND 10.3 = Cancer OR suspicion of cancer

5.5.a Thyroid Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 2	
Domain	**Diagnosis and Staging** Indicators include measures that describe pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer, and to guide treatment decisions.
Indicator Name	% of malignant/suspicious malignant diagnosis with radiographic lymph node assessment
Indicator Description	Proportion of patients with a diagnosis of malignant/suspicious malignant thyroid disease who underwent radiographic lymph node assessment
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with cancer or suspicion of cancer who underwent radiological imaging for lymph node assessment (ultrasound, CT or MRI) **Denominator** Total number of patients with a diagnosis of cancer or suspicion of cancer
Template Data Collection Elements	7.24 Pre-operative ultrasound 7.30 Status of Lymph Nodes 7.36 Other pre-operative imaging 10.3 FNA (Bethesda Classification) **Details and Calculation** **Numerator** 7.24 = radiologist directed OR surgeon directed OR radiologist and surgeon directed AND 7.30 = negative OR suspicious OR 7.36 = CT Scan OR MRI AND 10.3 = cancer OR suspicion of cancer

5.5.a Thyroid Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 3	
Domain	**Diagnosis and Staging** Indicators include measures that describe pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer, and to guide treatment decisions.
Indicator Name	% patients that went to operating room with non-diagnostic/unsatisfactory Fine Needle Aspirate (FNA)
Indicator Description	Proportion of patients that went to the operating room with non-diagnostic/unsatisfactory fine needle aspirate biopsy results
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with non-diagnostic/unsatisfactory cytology results from fine needle aspirate biopsy **Denominator** Total number of patients who underwent a thyroidectomy and had a fine needle aspirate biopsy
Template Data Collection Elements	5.11 Procedure Planned 10.1 FNA Thyroid 10.3 FNA (Bethesda Classification) **Details and Calculation** **Numerator** 10.3 = non-diagnostic/unsatisfactory AND 5.11 = Near total/total thyroidectomy OR Subtotal thyroidectomy AND 10.1 = yes

5.5.a Thyroid Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 4	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% total thyroidectomy with diagnosis of cancer (per Bethesda classification)
Indicator Description	Proportion of patients who underwent a total thyroidectomy with a diagnosis of cancer (per Bethesda classification)
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with cancer who underwent a total thyroidectomy **Denominator** Total number of patients with thyroid cancer
Template Data Collection Elements	5.16 Procedures performed 10.3 FNA (Bethesda classification) **Details and Calculation** **Numerator** 5.16 = near total/total thyroidectomy AND 10.3 = cancer

5.5.a Thyroid Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 5	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% pre-operative vocal cord assessment
Indicator Description	Proportion of patients who underwent surgery for thyroid cancer and received a pre-operative vocal cord assessment
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with a pre-operative vocal cord assessment **Denominator** Total number of patients who underwent thyroid surgery for cancer
Template Data Collection Elements	7.19.1 Vocal Cord Assessment 10.3 FNA (Bethesda classification) **Details and Calculation** **Numerator** 7.19.1 = yes AND 10.3 = cancer OR suspicion of cancer

5.5.a Thyroid Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 6	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% frozen section thyroid nodule
Indicator Description	Proportion of patients that had a frozen section taken of a thyroid nodule
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients who had a frozen section of a thyroid nodule taken **Denominator** Total number of patients who underwent a thyroidectomy
Template Data Collection Elements	12.71 Was an intra-operative frozen section done 12.76 Thyroid Nodule 5.11 Procedure Planned **Details and Calculation** **Numerator** 12.71 = yes AND 12.76 = yes

5.5.a Thyroid Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 7	
Domain	**Diagnosis and Staging** Indicators include measures that describes pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer and to guide treatment decisions
Indicator Name	% central compartment assessment (intra-operative)
Indicator Description	Proportion of patients who underwent thyroid surgery that had an intra-operative clinical assessment of the Central Compartment (Levels VI, VII)
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients who underwent an intra-operative clinical assessment of the Central Compartment (Levels VI, VII) **Denominator** Total number of patients who have thyroid cancer or suspicion of thyroid cancer
Template Data Collection Elements	12.27 Central Compartment (Levels VI, VII) 12.45 Central Compartment (Levels VI, VII) 10.3 FNA (Bethesda classification) **Details and Calculation** **Numerator** 12.27 = intra-operative assessment OR paratracheal node sampling OR dissection AND/OR 12.45 = intra-operative assessment OR paratracheal node sampling OR dissection

5.5.a Thyroid Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 8	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% undergoing prophylactic lymph node dissection
Indicator Description	Proportion of patients who underwent prophylactic lymph node dissection
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with surgically treated cancer (or suspicion of cancer) who have had a central compartment dissection **Denominator** Total number of patients with surgically treated cancer (or suspicion of cancer) with no clinical or radiologic evidence of central compartment lymph nodes
Template Data Collection Elements	7.30 Status of Lymph Nodes (ultrasound) 7.43 Status of Lymph Nodes (other pre-operative imaging) 10.3 FNA (Bethesda classification) 12.27 Central Compartment (Levels VI, VII) 12.45 Central Compartment (Levels VI, VII) **Details and Calculation** **Numerator** 12.27 = dissection AND/OR 12.45 = dissection AND 10.3 = cancer OR suspicious for cancer AND 7.30 = negative OR 7.43 = negative

5.5.a Thyroid Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 9	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% lateral compartment neck dissection with clinical/radiologic evidence positive nodes
Indicator Description	Proportion of patients who had clinical/radiological evidence of positive lymph nodes and who underwent a lateral compartment neck dissection
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients who underwent lateral compartment neck dissection and who had clinical /radiological evidence of positive nodes **Denominator** Total number of patients with clinical/radiological evidence of positive nodes
Template Data Collection Elements	5.19 Procedure Performed – Lateral Neck (Levels I-V) 7.16 Physical Findings – Neck 7.17 If Yes- Specify Compartment 7.30 Status of Lymph Nodes (ultrasound) 7.31 Left lymph nodes, specify level(s) 7.32 Right lymph nodes, specify level(s) 7.43 Status of Lymph Nodes (Other Pre-operative Imaging) 7.44 If suspicious nodes left side, specify level(s) 7.45 If suspicious nodes right side, specify level(s) **Details and Calculation** **Numerator** 5.19 = left neck dissection OR right neck dissection OR bilateral dissection AND 7.16 = yes AND 7.17 = lateral OR 7.30 = suspicious AND 7.31 = VI, VII OR 7.32 = VI, VII OR 7.43 = suspicious AND 7.44 = VI, VII OR 7.45 = VI, VII **Note:** Can use 5.14 Procedure Planned – Lateral Neck instead of 5.19 if procedure planned and performed are the same in 5.20

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
A. Administrative and Identification Data					
1. Administration (overview of key report information)					
1.1	Report Date	Date of report completion – may be different than date of surgery	2001:01:01	M	**Format:** Date YYYY:MM:DD
1.2	Report completed by	Name of person completing report	Dr. Smith	M	**Format:** Alphabetic
1.3	Report copies to	Name of people receiving copies of the report	Dr. Jones	M	**Format:** Alphabetic
2. Patient Information (key demographic and clinical summary information about the person receiving surgery)					
2.1	Patient Last Name	Represents the patient's legal family name	Jones	M	**Format:** Alphabetic
2.2	Patient First Name	Represents the patient's legal first name	Bill	M	**Format:** Alphabetic
2.3	Patient Middle Name/ Initial	Represents the patient's legal middle name	John	M	**Format:** Alphabetic
2.4	Patient Date of Birth	Represents the patient's date of birth	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.5	Patient ID	Represents a unique identifier assigned to the patient	6611168070NN	M	**Format:** Alphanumeric
2.6	Patient ID type	Represents the type of patient Identifier (e.g. Jurisdictional Healthcare Identifier, Passport)	• Health Card Number • Medical Record Number	M	**Format:** Alphanumeric
2.7	Patient Gender	Represents the patient's gender	• Male • Female	M	**Format:** Alphabetic
2.8	Body Mass Index (BMI)	Represents patient's body mass index. Calculated automatically using height and weight		M	**Format:** Calculation
2.9	Height	Represents the patient's height as measured	164	M	**Format:** Numeric
2.10	Height unit of measure	Represents the patient height unit of measure captured	• Centimetres • Inches	M	**Format:** Alphabetic value list
2.11	Weight	Represents the patient's weight as measured	82	M	**Format:** Numeric
2.12	Weight unit of measure	Represents the patient weight unit of measure captured	• Kilograms • Pounds	M	**Format:** Alphabetic value list
2.13	Patient Address	Represents the patient's full address	• 5 Main Street, City, Province, X1X 1X1	M	**Format:** Alphanumeric

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
	3. Provider Details (person(s) performing and/or supporting the surgery)				
3.1	Provider Last Name	Represents the Provider's legal family name	Smith	M	**Format:** Alphabetic
3.2	Provider First Name	Represents the Provider's legal first name	James	M	**Format:** Alphabetic
3.3	Provider Middle Name/Initial	Represents the Provider's legal middle name(s)		M	**Format:** Alphabetic
3.4	Provider Identifier Type	Represents the unique identifier assigned to the Provider	82347484	M	**Format:** Alphanumeric
3.5	Provider ID	Represents the type of Provider Identifier	Billing Number	M	**Format:** Alphabetic value list list
3.6	Assistant Last Name	Represents the last name of assistants, residents, fellows and other assistants during the procedure	Smith	O	**Format:** Alphabetic
3.7	Assistant First Name		James	O	**Format:** Alphabetic
3.8	Assistants Middle Name/Initial		T.	O	**Format:** Alphabetic
3.9	Assistant role			O	**Format:** Alphabetic
3.10	Assistant ID type			O	**Format:** Alphabetic
3.11	Assistant ID			O	**Format:** Alphabetic
3.12	Anaesthetist Last Name		Smith	O	**Format:** Alphabetic
3.13	Anaesthetist First Name		James	O	**Format:** Alphabetic
3.14	Anaesthetist Middle Name		Robert	O	**Format:** Alphabetic
3.15	Anaesthetist Identifier			M	**Format:** Alphanumeric
3.16	Anaesthetist Identifier type			M	**Format:** Alphabetic value list
3.17	Provider comments			O	**Format:** Alphanumeric

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		4. Service Delivery Location Details (surgery location)			
4.1	Service Delivery Location Name	Represents the name of the Service Delivery Location where the patient received care	• Glendale Family Health • Clinic	M	**Format:** Alphanumeric
4.2	Service Delivery Location Identifier Code	Represents the unique identifier of the PHC Service Delivery Location where the patient received care	A46B7356743	O	**Format:** Alphanumeric
4.3	Service Delivery Type of Services	Represents the type of location where the patient received care. e.g. inpatient facility, outpatient clinic, day surgery unit	• Primary Care Clinic • Hospital	O	**Format:** Alphabetic value list
4.4	Room ID	Represents the type of room the procedure was performed in. e.g. inpatient Operating Room, procedure room	Operating Room #3	O	**Format:** Alphanumeric
4.5	Service Delivery Location comments			O	**Format:** Alphabetic
		B. Procedure Planned and Performed			
		6. Current Procedure Administration (current planned and performed procedures and related diagnoses)			
5.1	Date of surgery	Date that the surgery was performed	2001:01:01	M	**Format:** Date YYYY:MM:DD
5.2	Time to surgery	Interval from date of consent to treatment to date of surgery (in days)	• 0-30 • 31-60 • 61-90 • greater than 90	M	**Format:** Alphabetic value list
5.3	Reason for surgery delay	Surgery delay defined as greater than 90 days	• Preop treatment delay OR availability • Surgeon availability • Patient preference • Diagnostic test delay • Not applicable/ Unknown • Other (specify)	M	**Format:** Alphabetic multiple selection if 5.2=greater than 90

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
5.4	Pre-operative diagnosis	Diagnosis of the patient determined before the surgery	• Cancer – Papillary • Cancer – Medullary • Cancer – Anaplastic • Cancer – Lymphoma • Follicular/Hurthle Neoplasm • Hyperfunction • Suspicious for cancer • Goiter • Other (specify)	M	**Format:** Alphabetic value list
5.6	Post-operative diagnosis	The most likely diagnosis of the patient after surgery is completed	• Cancer – Papillary • Cancer – Medullary • Cancer – Anaplastic • Cancer – Lymphoma • Follicular/Hurthle Neoplasm • Hyperfunction • Suspicious for cancer • Goiter • Other (specify)	M	**Format:** Alphabetic value list
5.8	Post-operative Diagnosis same as Pre-operative Diagnosis	Was the post-operative diagnosis the same as the pre-operative diagnosis	• Yes • No	M	**Format:** Alphabetic value list
5.9	Surgical Indications	Timeframe for which the surgery was scheduled	• Elective/Scheduled (less than 42 days) • Urgent (less than 14 days) • Emergent (less than 24 hours)	M	**Format:** Alphabetic value list
5.10	If urgent/ emergent, was airway obstructed?	If urgent or emergent surgery was performed, was airway obstructed?	• Yes • No	M	**Format:** Alphabetic value list
5.11	Procedure(s) Planned	Operative procedure planned on the thyroid	• Thyroid lobectomy • Thyroid lobectomy & Isthmusectomy • Near total/total thyroidectomy • Subtotal thyroidectomy • No thyroidectomy • Other (specify)	M	**Format:** Alphabetic multiple selection
5.12	Procedure Planned – Central Compartment (Levels VI, VII)	Indicate planned procedure for the central compartment (levels VI, VII)	• Not applicable • Intra-operative assessment • Paratracheal node sampling • Ipsilateral dissection • Contralateral dissection • Bilateral dissection	M	**Format:** Alphabetic value list

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
5.13	Parathyroid Transplant	Indicate planned procedure for the central compartment (levels VI, VII)	• Yes • No	M	**Format:** Alphabetic value list
5.14	Procedure Planned – Lateral Neck (Levels I – V)	Indicate planned procedure for the lateral neck (levels I – V)	• No neck dissection • Left neck dissection • Right neck dissection • Bilateral neck dissection	M	**Format:** Alphabetic value list
5.15	Operative findings consistent with pre-operative diagnosis	Indicate if operative findings consistent with the pre-operative diagnosis	• Yes • No	M	**Format:** Alphabetic value list
5.16	Procedure(s) performed	Procedures performed on the Thyroid	• Thyroid lobectomy • Thyroid lobectomy & Isthmusectomy • Near total/total thyroidectomy • Subtotal thyroidectomy • No thyroidectomy • Other (specify)	M	**Format:** Alphabetic multiple selection
5.17	Procedure Performed – Central Compartment (Levels VI, VII)	Indicate procedure(s) performed on the central compartment (levels VI, VII)	• Not applicable • Intra-operative assessment • Paratracheal node sampling • Ipsilateral dissection • Contralateral dissection • Bilateral dissection	M	**Format:** Alphabetic multiple selection
5.18	Parathyroid Transplant	Indicate if parathyroid transplant was performed	• Yes • No	M	**Format:** Alphabetic value list
5.19	Procedure Performed – Lateral Neck (Levels I – V)	Indicate dissection procedure performed on the lateral neck (levels I-V)	• No neck dissection • Left neck dissection • Right neck dissection • Bilateral neck dissection	M	**Format:** Alphabetic value list
5.20	Planned procedure same as performed	Indicate if the procedure performed the same as was planned	• Yes • No	M	**Format:** Alphabetic value list
5.21	If no, why?	Reason for difference between procedure planned and procedure performed	• Positive/suspicious lymph nodes • Couldn't find parathyroids • Cancer detected • Complications (specify) • Difficulty finding recurrent laryngeal nerve • Other (specify)	M	**Format:** Alphabetic multiple selection if 5.20=no
5.23	Current procedure comments	General comments about current procedure		O	**Format:** Text

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		7. Reoperation and Previous Surgeries (information about previous surgery for related diagnoses)			
6.1	Reoperation	Is this procedure a reoperation?	• Yes • No	M	**Format:** Alphabetic value list
6.2	Reoperation interval	What is the interval of time between this operation and the previous operation for a related diagnosis?	• 1-3 mos • 3-6 mos • 6-12 mos • 1-3 yrs • >3 yrs	M	**Format:** Alphanumeric value list if 6.1=yes
6.3	Type of reoperation planned	Specify type of reoperation planned	• Completion Thyroidectomy • Revision Thyroidectomy • Revision Neck Dissection • Other (specify)	M	**Format:** Alphabetic multiple selection if 6.1=yes
6.5	Reoperation and previous surgery comments			M	**Format:** Text if 6.1=yes
		C. Pre-Operative Assessment			
		8. Clinical Findings (pre-operative clinical findings)			
7.1	Presentation	What was the presentation of the pre-operative clinical findings	• Neck mass • Incidental radiologic finding • Recurrent tumor • Palpable nodule • Distant Metastasis • Other (specify)	M	**Format:** Alphabetic value list
7.3	Incidental Radiologic Findings	Specify the Imaging Modality for incidental radiologic findings	• Ultrasound • Carotid Doppler • PET Scan • CT Scan • MRI	M	**Format:** Alphabetic multiple selection if 7.1=incidental radiologic finding
7.4	Incidental Imaging Findings	Indicate results of any incidental imaging findings	• Solitary nodule • Multiple nodules • Right lobe involved • Left lobe involved • Isthmus • Suspicious lymph nodes central compartment • Suspicious lymph nodes right lateral neck • Suspicious lymph nodes left lateral neck • Other (specify)	M	**Format:** Alphabetic multiple selection if 7.1=incidental radiologic finding

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.6	Recurrent Cancer	Indicate if patient has recurrent cancer	• Yes • No	M	**Format:** Alphabetic value list if 7.1=recurrent tumor
7.7	Site(s) of recurrent cancer	Specify site(s) of recurrent cancer	• Central compartment – thyroid bed • Central compartment – lymph nodes • Ipsilateral neck • Contralateral neck • Distant metastases • Rising thyroglobulin • Other (specify)	M	**Format:** Alphabetic multiple selection if 7.6=yes
7.9	Symptoms	Specify symptoms of patient	• Asymptomatic • Hoarseness • Dysphagia • Pressure Symptoms • Stridor • Hyperthyroidism • Other (specify)	M	**Format:** Alphabetic multiple selection
7.11	Size of index nodule(s)	Indicate size of index nodule in centimeters	• Not applicable (nonpalpable) • Not measured/ documented • <1 cm • 1-2 cm • 2-3 cm • 3-4 cm • 4-5 cm • > 5 cm	M	**Format:** Alphabetic value list
7.12	Specify size (cm)	Record specific size of index nodule in cm		M	**Format:** Numeric
7.13	Specify site(s)	Specify location of the index nodule	• Left lobe • Right lobe • Isthmus • Pyramidal lobe • Bilateral disease • Not applicable	M	**Format:** Alphabetic multiple selection
7.14	Evidence of extra thyroidal extension	Is there evidence of extra thyroidal extension?	• Yes • No	M	**Format:** Alphabetic value list if 7.14=yes
7.15	If present – describe	If extra thyroidal extension is present, describe		M	**Format:** Text
7.16	Physical Findings – Neck	Were clinically suspicious lymph nodes found?	• Yes • No	M	**Format:** Alphabetic value list

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.17	If yes – specify compartment	If clinically suspicious lymph nodes were found, specify compartment	• Lateral • Central	M	**Format:** Alphabetic value list if 7.16=yes
7.18	Levels right neck	Specify level(s) of the right neck where clinically suspicious nodes were found	• Level I (submandibular) • Level II (upper jugular) • Level III (mid jugular) • Level IV (lower jugular) • Level V (posterior triangle) • Level VI (central compartment) • Level VII (anterior superior mediastinum)	M	**Format:** Alphanumeric value list if 7.17=lateral
7.19	Levels left neck	Specify level(s) of the left neck where clinically suspicious nodes were found	• Level I (submandibular) • Level II (upper jugular) • Level III (mid jugular) • Level IV (lower jugular) • Level V (posterior triangle) • Level VI (central compartment) • Level VII (anterior superior mediastinum)	M	**Format:** Alphanumeric value list if 7.17=lateral
7.19.1	Vocal cord assessment	Amount of vocal cord mobility	• Yes • No	M	**Format:** Alphabetic value list
7.19.2	Method of vocal cord assessment	How was vocal cord assessment done?	• Direct Laryngoscopy • Indirect Laryngoscopy • Ultrasound • Combination	M	**Format:** Alphabetic value list
7.21	Cord function	What is the cord function of the patient?	• Normal • Left abnormal • Right abnormal • Both abnormal • Done – not visualized	M	**Format:** Alphabetic value list if 7.19.2=direct or indirect laryngoscopy
7.22	If not done – comment	What is the cord function of the patient?	• Lack of Access • Training • Other (specify)	M	**Format:** Alphabetic value list if 7.19.2=direct or indirect laryngoscopy
7.23	Comments clinical presentation	Comments on clinical presentation		O	**Format:** Text

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7. Diagnostic Investigation					
Imaging					
7.24	Pre-operative Ultrasound	Who directed the pre-operative ultrasound?	• Not done • Radiologist directed • Surgeon directed • Radiologist and surgeon	M	**Format:** Alphabetic value list
7.25	Specify laterality of index nodule(s)	Specify laterality of index nodule(s)	• Left • Right • Isthmus	M	**Format:** Alphabetic value list
7.26	Specify status of nodule(s)	Indicate status of the index nodule	• Solitary • Multinodular	M	**Format:** Alphabetic value list
7.27	Specify size of index nodule/ goitre (cm)	Indicate size of index nodule/goitre in centimeters	• < 1 cm • 1-2 cm • > 2-3 cm • > 3-4 cm • > 4-5 cm • > 5 cm	M	**Format:** Alphanumeric value list
7.28	Specify size (cm)	Record specific size of index nodule/goitre in cm		M	**Format:** Numeric
7.29	Ultrasound features	Indicate ultrasound features of nodule	• Benign • Suspicious for malignancy • Indeterminate	M	**Format:** Alphabetic value list
7.30	Status of lymph nodes	Status of lymph nodes as determined by pre-operative ultrasound	• Negative • Suspicious • Not assessed	M	**Format:** Alphabetic value list
7.31	Left lymph nodes, specify level(s)	Specify level of suspicious lymph node for left side, as identified from pre-operative ultrasound	• Level I (submandibular) • Level II (upper jugular) • Level III (mid jugular) • Level IV (lower jugular) • Level V (posterior triangle) • Level VI (central compartment) • Level VII (anterior superior mediastinum)	M	**Format:** Alphanumeric multiple selection
7.32	Right lymph nodes, specify level(s)	Specify level of suspicious lymph node for right side, as identified from pre-operative ultrasound	• Level I (submandibular) • Level II (upper jugular) • Level III (mid jugular) • Level IV (lower jugular) • Level V (posterior triangle) • Level VI (central compartment) • Level VII (anterior superior mediastinum)	M	**Format:** Alphanumeric multiple selection

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.33	Thyroid Nuclear Scan	Was a Thyroid Nuclear Scan performed	• Yes • No	O	**Format:** Alphabetic value list
7.34	If yes, results	What are results of Thyroid Nuclear Scan	• Hot • Cold • Warm	O	**Format:** Alphabetic value list if 7.33=yes
7.35	If yes – did this add to the diagnosis	Did results of Thyroid Nuclear Scan add to the diagnosis	• Yes • No	O	**Format:** Alphabetic value list if 7.33=yes
7.36	Other pre-operative imaging	What other pre-operative imaging procedures were performed	• None • Chest x-ray • CT Scan • MRI • PET Scan • Other (specify)	M	**Format:** Alphabetic multiple selection if 7.24=not done, this question is mandatory; optional if ultrasound was performed
7.38	Reason for test	Specify reason for pre-operative imaging/ testing	• Locally advanced • Medullary thyroid • Recurrence • Clinically suspicious regional/distant disease • Required peri-operative test • Other (specify)	M	**Format:** Alphabetic multiple selection
7.40	Results	Specify results of pre-operative imaging	• Normal • Evidence of Invasion/ Extra Thyroidal Extension • Regional Disease • Metastatic Disease	M	**Format:** Alphabetic value list
7.41	Site(s) of positive findings – thyroid	Indicate site(s) of positive findings for thyroid	• Right lobe • Isthmus • Left lobe • Right thyroid bed/ paratracheal • Left thyroid bed/ paratracheal • Other (specify) • None	M	**Format:** Alphabetic value list if 7.40=Evidence of Invasion/Extra Thyroidal Extension, Regional Disease, Metastatic Disease
7.43	Status of lymph nodes	Status of lymph nodes as determined by other pre-operative imaging (CT Scan, PET Scan, MRI)	• Negative • Suspicious	M	**Format:** Alphabetic value list

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.44	If suspicious nodes left side, specify level(s)	Specify the level(s) for which suspicious lymph nodes were found on the left side	• Level I (submandibular) • Level II (upper jugular) • Level III (mid jugular) • Level IV (lower jugular) • Level V (posterior triangle) • Level VI (central compartment) • Level VII (anterior superior mediastinum)	M	**Format:** Alphaneumeric multiple selection
7.45	If suspicious nodes right side, specify level(s)	Specify the level(s) for which suspicious lymph nodes were found on the right side	• Level I (submandibular) • Level II (upper jugular) • Level III (mid jugular) • Level IV (lower jugular) • Level V (posterior triangle) • Level VI (central compartment) • Level VII (anterior superior mediastinum)	M	**Format:** Alphabetic multiple selection
7.46	Distant metastases	Are distant metastases present	• Yes • No	M	**Format:** Alphabetic value list
7.47	If yes, specify site	Specify site(s) of distant metastases	• Bone • Lung • Liver • Brain • Other (specify) • Unknown	M	**Format:** Alphabetic multiple selection if 7.46=yes
7.49	Comments – imaging			O	**Format:** Text
		Laboratory Investigations			
7.50	TSH function	Specify results of Thyroid Stimulating Hormone (TSH) function	• Elevated • Normal • Suppressed • Unknown • Not Done	M	**Format:** Alphabetic value list
7.51	Calcium levels	Specify results of calcium levels	• Elevated • Normal • Low • Unknown • Not Done	M	**Format:** Alphabetic value list
7.52	Calcitonin levels (medullary cancer only)	Specify results of calcitonin levels (medullary cancer only)	• N/A • Elevated • Normal • Unknown • Not Done	M	**Format:** Alphabetic value list if 5.6=Cancer – medullary

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.53	If elevated, specify level	Specify results of Carcinoembryonic Antigen (CEA) levels (medullary cancer only)		M	**Format:** Numeric if 7.52=elevated
7.54	CEA levels (medullary cancer only)	Specify results of Carcinoembryonic Antigen (CEA) levels (medullary cancer only)	• N/A • Elevated • Normal • Unknown • Not Done	M	**Format:** Alphabetic value list if 5.6=Cancer – medullary
7.55	If elevated, specify level	Specify CEA levels in MCG/L, if elevated		M	**Format:** Numeric if 7.54=elevated
7.56	Metanephrine Levels	Specify results of metanephrine levels	• N/A • Elevated • Normal • Unknown • Not Done	M	**Format:** Alphabetic value list if 5.6=Cancer – medullary
7.56	Comments Laboratory Investigations			O	**Format:** Text
		Other Investigations/Information			
7.57	History of radiation exposure	Does patient have history of radiation exposure	• Yes • No • Unknown	M	**Format:** Alphabetic value list
7.58	If yes, specify	If history of radiation exposure, indicate reasons	• Benign childhood illness • Previous cancer • Occupational exposure • Nuclear fallout exposure • Other (specify)	M	**Format:** Alphabetic multiple selection if 7.57=yes
7.60	History of previous radioactive iodine therapy?	Does patient have history of previous radioactive iodine therapy	• Yes • No • Unknown	M	**Format:** Alphabetic value list
7.61	If yes, reasons	Reasons for previous radioactive iodine therapy	• Hyperthyroidism • Multinodular goiter • Previous thyroid cancer • Unknown • Other (specify)	M	**Format:** Alphabetic multiple selection if 7.60=yes
7.63	Family history of thyroid cancer	Does patient have family history of thyroid cancer	• Yes • No • Unknown	M	**Format:** Alphabetic value list

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.64	Genetic syndrome testing	Has patient received genetic syndrome testing	• Yes • No • Unknown	M	**Format:** Alphabetic value list
7.65	If yes, specify	Specify results from genetic syndrome testing	• Positive • Negative • Pending • Not Done	M	**Format:** Alphabetic value list if 7.64=yes
7.66	If positive, specify syndromes	Indicate which genetic syndrome(s) patient tested positive for	• MEN2a • MEN2b • MENT2c • Li-Fraumeni • PTEN • COWDEN • Familial polyposis • Familial PTC • Familial Follicular • Familial Medullary • Hirschprung's Disease • Other (specify)	M	**Format:** Alphabetic multiple selection if 7.65=positive
7.67	Comments Other Investigations	Comments on other investigations		M	**Format:** Text
		Co-Morbidity (existing relevant clinical conditions)			
		D. Pre-Operative Pathology & Staging			
		10. Pre-Operative Pathology (results of pre-operative biopsies and pathology investigations)			
10.1	FNA Thyroid	Was a Fine Needle Aspirate (FNA) performed on the thyroid	• Yes • No	M	**Format:** Alphabetic value list
10.2	FNA Ultrasound Guided	Was an ultrasound used to obtain the Fine Needle Aspirate (FNA)	• Yes • No	M	**Format:** Alphabetic value list
10.3	FNA (Bethesda Classification)	Result of the Fine Needle Aspirate, according to the Bethesda Classification	• Nondiagnostic/ Unsatisfactory • Benign • Atypia of undetermined significance/FLUS • Follicular Neoplasm • Hurthle Cell Neoplasm • Suspicious for cancer • Cancer	M	**Format:** Alphabetic value list
10.4	If cancer, specify	Specify type of cancer detected from fine needle aspirate	• Papillary • Hurthle • Medullary • Anaplastic • Lymphoma • Suspicious for Cancer • Other (specify)	M	**Format:** Alphabetic value list

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
10.6	If non-diagnostic then repeated?	If Fine Needle Aspirate (Bethesda classification) was non-diagnostic, was the test repeated	• Yes • No	M	**Format:** Alphabetic value list if 10.3=non-diagnostic/ unsatisfactory
10.7	Recurrent tumor – indicate previous pathology	Indicate previous pathology for recurrent tumor		M	**Format:** Text
10.8	Pathology and Staging comments	Comments on pathology and staging		O	**Format:** Text
		11. Pre-Operative Clinical Stage (indicate the clinical stage of patient if applicable)			
11.1	Operative MACIS Score (calculation)	Specify operative MACIS score	• Group 1 (<6.0) • Group 2 (6.0-6.99) • Group 3 (7.0-7.99) • Group 4 (>8)	M	**Format:** Alphanumeric value list If 5.4= Cancer – Anaplastic Follicular/Hurthle Neoplasm Suspicious for cancer
11.2	Staging and Prognosis comments	Comments on Staging and Prognosis		O	**Format:** Text
		D. Operative Procedure			
		12. Operative Procedure (describes elements of operative procedure)			
		Sign In and Briefing			
12.1	Was the side of surgery marked pre operatively	Was the surgery site was marked pre-operatively	• Yes • No	M	**Format:** Alphabetic value list
12.2	Surgical Safety Checklist performed?	Indicate whether the surgical safety checklist was completed (includes sign in. timeout, debrief, briefing)	• Yes • No	M	**Format:** Alphabetic value list
12.3	Surgical safety checklist sign in and briefing performed	Indicate whether the surgical safety checklist sign in and briefing were performed	• Yes • No	M	**Format:** Alphabetic value list
12.4	Anesthesia	Indicate type of anesthesia given	• General • Combined • Regional	O	**Format:** Alphabetic value list

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.5	Pre-operative antibiotics	Indicate whether pre-operative antibiotics were given to the patient	• Yes • No	O	**Format:** Alphabetic value list
12.6	DVT prophylaxis	Indicate whether Deep Vein Thrombosis (DVT) Prophylaxis was given to patient	• Yes • No	O	**Format:** Alphabetic value list
12.7	Body Mass Index (BMI)		Calculation field	M	
			Time Out		
12.8	Surgical safety checklist timeout performed	Indicate whether surgical safety checklist timeout was performed	• Yes • No	M	**Format:** Alphabetic value list
			Intra-Operative Assessment & Pathology		
			Operative Exposure		
12.9	Surgical Incision	Indicate type of incision for operative exposure	• Cervical • Utility (hockey stick) • McFee • Other (specify)	M	**Format:** Alphabetic value list
12.11	Comments operative exposure	Comments on operative exposure		O	**Format:** Text
			Operative Findings		
12.12	Specify Side of Index Lesion	Indicate laterality of index lesion	• Left • Right • Bilateral • Isthmus/Pyramidal Lobe	M	**Format:** Alphabetic value list
12.13	Size of index nodule/goitre (cm)	Indicate size of index nodule/goitre in cm	• Not Done/Not Applicable • Unknown • ≤1cm • >1-2cm • >2-3cm • >3-4cm • >4-5cm • >5cm	M	**Format:** Alphabetic value list
12.14	Size of indexed lesion (cm)	Specify size of indexed lesion in centimeters		M	**Format:** Numeric
12.15	Evidence of involved lymph nodes	Indicate if evidence of involved lymph nodes is found during surgery	• Yes • No	M	**Format:** Alphabetic value list

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.16	Describe (if different from pre-op assessment)	Is the evidence of involved lymph nodes different from the pre-operative assessment?		M	**Format:** Text
12.17	Extra thyroidal extension (malignancy)	Is there evidence of extra thyroidal extension (malignant lesions)?	• Yes • No	M	**Format:** Alphabetic value list
12.18	Strap Muscles	Specify side if site of extra thyroidal extension	• Right • Left	M	**Format:** Alphabetic value list if 12.17=yes
12.19	Trachea	Specify side if site of extra thyroidal extension	• Right • Left	M	**Format:** Alphabetic value list if 12.17=yes
12.20	Esophagus	Specify side if site of extra thyroidal extension	• Right • Left	M	**Format:** Alphabetic value list if 12.17=yes
12.21	Recurrent Laryngeal Nerve	Specify side if site of extra thyroidal extension	• Right • Left	M	**Format:** Alphabetic value list if 12.17=yes
12.22	Invasion into other	Is there extrathyroidal extension to any other sites?	• Yes • No	M	**Format:** Alphabetic value list
12.23	Specify other	Specify location of other extra thyroidal extension		M	**Format:** Text if 12.23=yes
12.24	Comments operative findings	Comments on operative findings		O	**Format:** Text
Operative Procedure – Thyroidectomy – Index/First Side					
12.25	Specify side	Specify side of index lesion	• Left • Right	M	**Format:** Alphabetic value list
12.26	Procedure performed	Indicate procedures performed on the index side	• Thyroid lobectomy • Thyroid lobectomy & isthmusectomy • Near total lobectomy • Near total lobectomy & isthmusectomy • Subtotal thyroidectomy • No thyroidectomy	M	**Format:** Alphabetic multiple selection
12.26.1	Retrosternal Component		• Yes • No	O	**Format:** Alphabetic value list

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.27	Central Compartment (Levels VI,VII)	Indicate procedures performed on the central compartment for the index side	• Not applicable • Intra-operative assessment • Paratracheal node sampling • Dissection	M	**Format:** Alphabetic value list
12.28	Parathyroid Transplant	Was parathyroid transplant completed on the index side?	• Yes • No	M	**Format:** Alphabetic value list
12.29	Lateral Neck (Levels I-V)	Indicate procedure performed on the lateral neck (levels I-V) for the index side	• No neck dissection • Left neck dissection • Right neck dissection • Bilateral neck dissection	M	**Format:** Alphabetic value list
12.30	Strap Muscles	Indicate status of the strap muscles on the index side	• Preserved • Divided • Enbloc resection	M	**Format:** Alphabetic value list
12.31	RLN	Indicate status of the Recurrent Laryngeal Node (RLN) on the index side	• Identified/preserved • Not identified • Damaged • Intentionally resected	M	**Format:** Alphabetic value list
12.32	EXT SLN	Indicate status of Superior Laryngeal Nerve External Branch on the index side	• Identified/preserved • Not identified • Damaged • Intentionally resected	M	**Format:** Alphabetic value list
12.33	Pyramidal lobe	Indicate status of pyramidal lobe on the index side	• Not present • Identified & included • Not included	M	**Format:** Alphabetic value list
12.34	Completion resection achieved?	Was complete resection of the tumour on the index side achieved?	• Yes • No	M	**Format:** Alphabetic value list
12.35	If no, residual tumour left	Location of residual tumour for the index side	• Trachea • RLN • Esophagus • Mediastinum • Other	M	**Format:** Alphabetic value list if 12.34=no
12.36	Site(s) of residual tumour	Specify site(s) of residual tumour for the index side	• Right • Left • Anterior	M	**Format:** Alphabetic multiple selection if 12.34=no
12.37	Specify other	Specify location of “other” residual tumour for index side		M	**Format:** Text if 12.35=other
12.38	If subtotal resection estimate residual	Estimate percent of residual tumour remaining from subtotal resection on the index side	• Post capsule 10-40% • 50% of lobe • > 50% of lobe	M	**Format:** Alphanumeric value list if 12.26=subtotal thyroidectomy

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		Management of Parathyroids			
12.39	Superior parathyroid – ipsilateral	Indicate status of the superior parathyroid on the ipsilateral (index) side	• Identified/preserved in situ • Not Identified • Removed and transplanted	M	**Format:** Alphabetic value list
12.40	Inferior parathyroid – ipsilateral	Indicate status of the inferior parathyroid on the ipsilateral (index) side	• Identified/preserved in situ • Not Identified • Removed and transplanted	M	**Format:** Alphabetic value list
12.41	Site of parathyroid transplant	Indicate site of parathyroid transplant for the index side	• SCM right • SCM left • Forearm right • Forearm left • Other	M	**Format:** Alphabetic value list if 12.39=removed and transplanted OR 12.40=removed and transplanted
12.42	Specify other/ Indicate identification with suture/clip			M	**Format:** Text if 12.41=other
		Operative Procedure – Thyroidectomy – Contralateral/Second Side			
12.43	Specify side	Specify side of contralateral lesion	• Left • Right	M	**Format:** Alphabetic value list
12.44	Contralateral Procedure performed	Indicate procedures performed on contralateral side	• Thyroid lobectomy • Thyroid lobectomy & isthmusectomy • Near total lobectomy • Near total lobectomy & isthmusectomy • Subtotal thyroidectomy • No thyroidectomy	M	**Format:** Alphabetic multiple selection
12.45	Central Compartment (Levels VI,VII)	Procedures completed on the central compartment for the contralateral side	• Not applicable • Intra-operative assessment • Paratracheal node sampling • Dissection	M	**Format:** Alphabetic value list
12.46	Parathyroid Transplant	Was a parathyroid transplant performed on the contralateral side?	• Yes • No	M	**Format:** Alphabetic value list
12.47	Lateral Neck (Levels I-V)	Indicate procedures performed on the lateral neck (levels I-V) for the contralateral side	• No neck dissection • Left neck dissection • Right neck dissection • Bilateral neck dissection	M	**Format:** Alphabetic value list
12.48	Strap Muscles	Indicate status of the strap muscles on the contralateral side	• Preserved • Divided • Enbloc resection	M	**Format:** Alphabetic value list

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
13.49	RLN	Indicate status of the Recurrent Laryngeal Node (RLN) on the contralateral side	• Identified/preserved • Not identified • Damaged • Intentionally resected	M	**Format:** Alphabetic value list
12.50	EXT SLN	Indicate status of Superior Laryngeal Nerve External Branch on the contralateral side	• Identified/preserved • Not identified • Damaged • Intentionally resected	M	**Format:** Alphabetic value list
12.51	Pyramidal lobe	Indicate status of pyramidal lobe on the contralateral side	• Not present • Identified & included • Not included	M	**Format:** Alphabetic value list
12.52	Completion resection achieved?	Was complete resection of the tumour on the contralateral side achieved?	• Yes • No	M	**Format:** Alphabetic value list
12.53	If no, residual tumour left	Location of residual tumour for the contralateral side	• Trachea • RLN • Esophagus • Mediastinum • Other (specify)	M	**Format:** Alphabetic value list if 12.52=no
12.54	Site(s) of residual tumour	Specify site(s) of residual tumour for the contralateral side	• Right • Left • Anterior	M	**Format:** Alphabetic multiple selection if 12.52=no
12.55	Specify other	Specify location of “other” residual tumour for contralateral side		M	**Format:** Text if 12.53=other
12.56	If subtotal resection, estimate residual	Estimate percent of residual tumour remaining from subtotal resection on the contralateral side	• Post capsule 10-40% • 50% of lobe • >50% of lobe	M	**Format:** Alphanumeric value list
		Management of Parathyroids			
12.57	Superior parathyroid – contralateral	Indicate status of the superior parathyroid on the contralateral side	• Identified/preserved in situ • Not Identified • Removed and transplanted	M	**Format:** Alphabetic value list
12.58	Inferior parathyroid – contralateral	Indicate status of the inferior parathyroid on the contralateral side	• Identified/preserved in situ • Not Identified • Removed and transplanted	M	**Format:** Alphabetic value list
12.59	Site of parathyroid transplant	Indicate site of parathyroid transplant for the contralateral side	• SCM right • SCM left • Forearm right • Forearm left • Other	M	**Format:** Alphabetic value list if 12.57= removed and transplanted, or if 12.58=removed and transplanted

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.60	Specify other/ Indicate identification with suture/clip			M	**Format:** Text
12.61	Comments Thyroidectomy	Comments on thyroidectomy for contralateral side		M	**Format:** Text
Operative Procedure – Neck Dissection – Index/First Side					
12.62	Specify side	Specify side of neck dissection for the index/ first side	• Left • Right	M	**Format:** Alphabetic value list
12.63	Levels dissected	Indicate which level(s) were dissected during neck dissection of the index/first side	• Level I (submandibular) • Level II (upper jugular) • Level III (mid jugular) • Level IV (lower jugular) • Level V (posterior triangle) • Level VI (central compartment) • Level VII (anterior superior mediastinum)	M	**Format:** Alphabetic multiple selection
12.64	Structures identified	Indicate which structures were identified during neck dissection of the index/first side	• Right superior parathyroid • Thymus • Carotid sheath • Ramus mandibularis • Lingual nerve • Hypoglossal nerve • Submandibular gland • Digastric muscle • Great auricular nerve • Sternocleidomastoid muscle • Jugular vein • Ext. branch of carotid • Facial vein • Facial artery • Ansa cervicalis • Central lymph node compartment • Recurrent laryngeal nerve • Left inferior parathyroid • Right inferior parathyroid • Vagus nerve • Thoracic duct • Spinal Accessory Nerve	M	**Format:** Alphabetic multiple selection

5.5.B Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.65	Structures removed/ transected	Specify which structures were removed/transected on the index/first side	• Central lymph node compartment • Recurrent laryngeal nerve • Left inferior parathyroid • Right inferior parathyroid • Left superior parathyroid • Right superior parathyroid • Thymus • Carotid sheath • Ramus mandibularis • Lingual nerve • Hypoglossal nerve • Submandibular gland • Digastric muscle • Great auricular nerve • Sternocleidomastoid muscle • Jugular vein • Ext. branch of carotid • Facial vein • Facial artery • Ansa cervicalis • Vagus nerve • Thoracic duct • Spinal accessory nerve	M	**Format:** Alphabetic multiple selection

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
Operative Procedure – Neck Dissection – Contralateral/Second Side					
12.66	Specify side	Specify side of neck dissection for the contralateral/second side	• Left • Right	M	**Format:** Alphabetic value list
12.67	Levels dissected	Indicate which level(s) were dissected during neck dissection of contralateral/second side	• Level I (submandibular) • Level II (upper jugular) • Level III (mid jugular) • Level IV (lower jugular) • Level V (posterior triangle) • Level VI (central compartment) • Level VII (anterior superior mediastinum)	M	**Format:** Alphabetic multiple selection
12.68	Structures identified	Indicate which structures were identified during neck dissection of the contralateral/second side	• Central lymph node compartment • Recurrent laryngeal nerve • Left inferior parathyroid • Right inferior parathyroid • Left superior parathyroid • Right superior parathyroid • Thymus • Carotid sheath • Ramus mandibularis • Lingual nerve • Hypoglossal nerve • Submandibular gland • Digastric muscle • Great auricular nerve • Sternocleidomastoid muscle • Jugular vein • Ext. branch of carotid • Facial vein • Facial artery • Ansa cervicalis • Vagus nerve • Thoracic duct • Spinal accessory nerve	M	**Format:** Alphabetic multiple selection

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.69	Structures removed/ transected	Specify which structures were removed/transected on the contralateral/ second	• Central lymph node compartment • Recurrent laryngeal nerve • Left inferior parathyroid • Right inferior parathyroid • Left superior parathyroid • Right superior parathyroid • Thymus • Carotid sheath • Ramus mandibularis • Lingual nerve • Hypoglossal nerve • Submandibular gland • Digastric muscle • Great auricular nerve • Sternocleidomastoid muscle • Jugular vein • Ext. branch of carotid • Facial vein • Facial artery • Ansa cervicalis • Vagus nerve • Thoracic duct • Spinal accessory nerve	M	**Format:** Alphabetic multiple selection
12.70	Comments neck dissection	Comments on neck dissection for contralateral/second side		O	**Format:** Text
		Intra-Operative Pathology – Frozen Section			
12.71	Was an intra-operative frozen section done?	Was an intra-operative pathology frozen section completed	• Yes • No	M	**Format:** Alphabetic value list
12.72	Parathyroid	Indicate status of parathyroid from intra-operative frozen section	• Confirmed/Present • Confirmed/Residual transplanted • Not present • Other (specify)	M	**Format:** Alphabetic value list if 12.71=yes
12.74	Lymph nodes	Indicate status of lymph nodes from intra-operative frozen section	• Benign • Malignant	M	**Format:** Alphabetic value list if 12.71=yes
12.75	If malignant, specify	If malignancy found in frozen section of lymph nodes, specify type	• Papillary • Follicular • Anaplastic • Lymphoma • Hurthle • Medullary	M	**Format:** Alphabetic value list if 12.74=malignant

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.76	Thyroid Nodule	Was a frozen section taken on a thyroid nodule intra-operatively?	• Yes • No	M	**Format:** Alphabetic value list
12.77	If yes, indicate reason for frozen section	Indicate reason for intra-operative frozen section of thyroid nodule		M	**Format:** Text if 12.76=yes
12.78	Results	Indicate results of intra-operative frozen section from thyroid nodule	• Cancer • Hurthle cell neoplasm • Follicular neoplasm • Consistent with benign • Deferred to final pathology	M	**Format:** Alphabetic value list if 12.76=yes
12.79	Did the frozen section change management?	Did results of frozen section change management?	• Yes • No	M	**Format:** Alphabetic value list if 12.75=yes
12.80	Comments frozen section	Comments on frozen section		O	**Format:** Text
		Operative Adjuncts Used			
12.81	Adjunctive techniques used	Describe any techniques/ procedures unique to procedure	• RLN Monitor • Nerve Stimulator (accessory nerve) • Robotics • Video assist • Ligasure • Harmonic scalpel • Other (specify)	M	**Format:** Alphabetic value list
12.83	Comments adjunctive techniques	Comments on adjunctive techniques		O	**Format:** Text
		Wound Closure			
12.84	Specify closure	Specify location of wound closure	• Strap muscles • Platysma	M	**Format:** Alphabetic value list
12.85	Drains	Were drains used during the surgery?	• Yes • No	M	**Format:** Alphabetic value list
12.86	Specify drains used	Specify the type of drains used	• Jackson Pratt • Blake • Hemovac • Other	M	**Format:** Alphabetic value list if 12.85=yes
12.87	Skin closure	Specify method(s) of skin closure	• Staple • Suture • Dermabond	M	**Format:** Alphabetic multiple selection
12.88	Comments wound closure	Comments on wound closure		O	**Format:** Text

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
			De-briefing		
12.89	Surgical safety checklist de-briefing performed	Indicate if surgical safety checklist de-briefing performed?	• Yes • No	M	**Format:** Alphabetic value list
12.90	Sponge count completed and correct	Indicate if Sponge count completed and correct	• Yes • No	M	**Format:** Alphabetic value list
12.91	Estimated Blood loss (cc)	Indicate the amount of blood loss during the procedure	• < 50 • 50 – 250 • > 250	M	**Format:** Alphanumeric value list
12.92	Blood replaced	Indicate if blood was replaced	• Yes • No • Unknown	M	**Format:** Alphabetic value list
			Notable Events and Patient Transfer		
12.93	Patient status	Describe the patient status after surgery	• Stable • Unstable	M	**Format:** Alphabetic value list
12.94	Unit transferred to	Indicate where the patient was transferred to after the surgery	• Recovery room • Intensive Care Unit	M	**Format:** Alphabetic value list
12.95	If ICU transfer specify	Specify reason if transferred to intensive care unit (ICU)		M	**Format:** Text if 12.94=Intensive Care Unit
12.96	Post-operative concerns	Indicate any post-operative concerns	• None • Recurrent Laryngeal Node (RLN) injury • Devascularization of all parathyroids • Bleeding • Cardiovascular event • Other (specify)	M	**Format:** Alphabetic multiple selection
12.98	Comments De-briefing	Comments on de-briefing		O	**Format:** Text
			Comments Operative Procedure		
12.99	Comments operative procedure	Comments on operative procedure		M	**Format:** Text

5.5.b Thyroid Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
13. Follow-Up (description of follow-up plans for the immediate peri-operative event and long-term plan if applicable)					
13.1	Immediate follow-up by	Indicate the name of the individual who will be performing the first post-operative visit		M	**Format:** Alphabetic value list
13.2	Time to post-operative visit(weeks)	Indicate the suggested time interval in weeks to first post-operative visit		M	**Format:** Numeric
13.3	Long-term follow-up	Identify the individual/ service who will coordinate care/ treatment/follow-up after first post-operative visit		M	**Format:** Alphabetic value list
13.4	Dictated addendum	Will there be a dictated addendum?	• Yes • No	M	**Format:** Alphabetic value list
13.5	Will you be sending the patient for multidisciplinary assessment (medical/ radiation oncologist)	Identifies if patient will be part of multidisciplinary assessment	• Yes • No • Pending Pathology	M	**Format:** Alphabetic value list
14. Automatic Referrals (identifies routine and specific referrals that need to happen following the operative procedure)					
14.1	Referral to	Identify the individual/ service to receive a referral		M	**Format:** Alphabetic value list
14.2	Referral service code	Specify the type of service required for the patient		M	**Format:** Alphanumeric value list
14.3	Completion element comments	Comments on completion elements (follow-up and automatic referrals)		O	**Format:** Text

5.6 Lung Cancer

Pan-Canadian Standards for lung cancer include 9 clinical indicators and 186 data elements. Of the 186 data elements, 81 are deemed mandatory while 105 data elements are recommended as optional. Endorsement of the lung cancer standards was received from the Canadian Association of Thoracic Surgeons (CATS). A copy of the endorsement letter is noted below.

Canadian Association of Thoracic Surgeons

October 16th, 2015

Ms. Mary Argent-Katwala
Director, Diagnosis & Clinical Care
Canadian Partnership Against Cancer
1University Avenue, Suite 300
Toronto, Ontario MSJ 2PI

Dear Ms. Argent-Katwala:

This letter will confirm our endorsement of the lung cancer synoptic standards set forth by CPAC. The Canadian Association of Thoracic Surgeons feels strongly that defining standards and continued improvement of quality is vital to providing the best possible care for our patients.

We look forward, as an Association, to working with you in the future.

Sincerely,

Dr. Drew Bethune
President

Dr. Christian Finley
Head of Research

421 Gilmour St., Suite 300 Ottawa, ON K2P OR5 613-882-6510
www.Canadianthoracicsurgeons.ca

5.6.a Lung Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 1	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients.
Indicator Name	% serious intra-operative events
Indicator Description	Proportion of patients who underwent lung cancer surgery and experienced at least one serious intra-operative event
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients experiencing at least one of the listed serious intra-operative events **Denominator** Total number patients with surgically-treated lung cancer
Template Data Collection Elements	5.7 Post-operative diagnosis 11.6.5 Intra-operative events **Details and Calculation** **Numerator** 5.7 = Primary Lung Cancer OR Mediastinal Tumor OR Tracheal Tumor OR Malignant Mesothelioma OR Chest Wall Neoplasm OR Lung Metastases AND 11.6.5 = CVA OR Cardiac Arrest OR Death OR Major vascular injury OR Injury to airway OR Injury to esophagus OR Other (specify)

5.6.a Lung Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 2	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients.
Indicator Name	% intra-operative bleeding requiring transfusion
Indicator Description	Proportion of patients who underwent surgery for lung cancer and experienced intra-operative bleeding requiring transfusion
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of intra-operative bleeding events requiring transfusion **Denominator** Total number patients with surgically-treated lung cancer
Template Data Collection Elements	5.7 Post-operative diagnosis 11.6.6 Bleeding requiring blood transfusion **Details and Calculation** **Numerator** 11.6.6 = yes AND 5.7 = Primary Lung Cancer OR Mediastinal Tumor OR Tracheal Tumor OR Malignant Mesothelioma OR Chest Wall Neoplasm OR Lung Metastases

5.6.a Lung Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 3	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	Inability to complete resection as planned
Indicator Description	Proportion of patients who underwent lung cancer surgery whose resection was unable to be completed as planned
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients who did not proceed to planned resection **Denominator** Total number patients who underwent lung resection
Template Data Collection Elements	11.2.49.0 Inability to complete resection as planned 11.2.15 Procedures Performed – Lung **Details and Calculation** **Numerator** 11.2.49.0 = yes AND 11.2.15 = Wedge resection single OR Wedge resection multiple OR Segmentectomy OR Lobectomy OR Bilobectomy OR Pneumonectomy standard OR Pneumonectomy completion OR Pneumonectomy extrapleural OR Pneumonectomy intrapericardial OR Pneumonectomy carinal

5.6.a Lung Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 4	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% surgical safety checklist completed
Indicator Description	Proportion of patients with surgically treated lung cancer where the surgical safety checklist was completed for their operation
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number patients with Surgical Safety Checklist completed over the course of operation **Denominator** Total number patients with surgically-treated lung cancer
Template Data Collection Elements	5.7 Post-operative diagnosis 11.1.4 Surgical safety checklist performed? **Details and Calculation** **Numerator** 11.1.4 = yes AND 5.7 = Primary Lung Cancer OR Mediastinal Tumor OR Tracheal Tumor OR Malignant Mesothelioma OR Chest Wall Neoplasm OR Lung Metastases

5.6.a Lung Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 5	
Domain	**Access to Care** Indicators include measures that can point out the presence and/or timeliness of oncology surgical care services.
Indicator Name	Wait time to lung cancer surgery
Indicator Description	Proportion of patients experiencing a wait time greater than 90 days *A. Between date of consultation to date of surgery* *B. Between date of referral to date of surgery*
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Proportion of patients experiencing a wait time greater than 90 days *A. Between date of consultation to date of surgery* *B. Between date of referral to date of surgery* **Denominator** Denominator to measure A and B is: Total number of patients who underwent lung cancer surgery
Template Data Collection Elements	2.14.1 Date of consult 2.14.2 Date of referral 5.1 Date of Surgery **Details and Calculation** **Numerator** *A. Number of patients with interval between date of consultation to treatment and date of lung surgery greater than 90 days* 5.1 Date of Surgery – 2.14.1 Date of consult = wait time to lung surgery *B. Number of patients with interval between date of referral and date of lung surgery greater than 90 days* 5.1 Date of Surgery – 2.14.2 Date of referral = wait time to lung surgery

5.6.a Lung Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 6	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% pre-operative antibiotics given
Indicator Description	Proportion of patients with surgically treated lung cancer who received pre-operative antibiotics
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number patients who received pre-operative antibiotics **Denominator** Total number patients with surgically-treated lung cancer
Template Data Collection Elements	5.7 Post-operative diagnosis 11.1.8 Pre-operative antibiotics **Details and Calculation** **Numerator** 11.1.8 = yes AND 5.7 = Primary Lung Cancer OR Mediastinal Tumor OR Tracheal Tumor OR Malignant Mesothelioma OR Chest Wall Neoplasm OR Lung Metastases

5.6.a Lung Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 7	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% lung resection with pre-operative imaging by PET or CT Scan
Indicator Description	Proportion of patients with lung cancer that underwent a lung resection who have pre-operative imaging by PET or CT Scan
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Number of patients with lung cancer with pre-operative PET or CT Scan **Denominator** Total number of patients with lung cancer who underwent lung resection
Template Data Collection Elements	8.1 Pre-operative Imaging done? 11.2.15 Procedures Performed Lung 5.7 Post-operative diagnosis **Details and Calculation** **Numerator** 8.1 = CT Head OR CT Chest OR CT Abdomen OR PET Scan AND 11.2.15 = Wedge resection single OR Wedge resection multiple OR Segmentectomy OR Lobectomy OR Bilobectomy OR Pneumonectomy standard OR Pneumonectomy completion OR Pneumonectomy extrapleural OR Pneumonectomy intrapericardial OR Pneumonectomy carinal AND 5.7 = Primary Lung Cancer OR Mediastinal Tumor OR Tracheal Tumor OR Malignant Mesothelioma OR Chest Wall Neoplasm OR Lung Metastases

5.6.a Lung Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 8	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care
Indicator Name	% patients with clinical stage IB or above who received mediastinal staging
Indicator Description	Proportion of patients with clinical stage 1B or above who received mediastinal staging
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Number of patients with clinical stage IB or above who underwent mediastinal staging **Denominator** Number of patients with clinical stage IB or above
Template Data Collection Elements	10.2 Pre-operative biopsy/staging 11.3 Clinical Stage **Details and Calculation** **Numerator** 11.3 = IB OR IIA OR IIB OR IIIA OR IIIB OR IV AND 10.2 = Bronchoscopy OR EBUS OR VATS biopsy OR Percutaneous Transthoracic Needle biopsy OR Mediastinsocopy OR Endoscopic ultrasound (EUS)

5.6.a Lung Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 9	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% clinical stage 1B or above who have undergone mediastinal staging with minimum three lymph nodes sampled
Indicator Description	Proportion of patients with clinical stage IB or above that have undergone mediastinal staging and have a minimum of three lymph nodes sampled (ispilateral, contralateral and station 7 lymph node)
Proposed Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Number of patients with a minimum three lymph nodes sampled (ipsilateral, contralateral and station 7 lymph node) who are clinical stage IB or above and underwent mediastinal staging **Denominator** Number of patients with clinical stage IB or above who underwent mediastinal staging
Template Data Collection Elements	10.2 Pre-operative biopsy/staging 11.2.46 Which lymph nodes taken as separate specimens 11.3 Clinical Stage **Details and Calculation** **Numerator** 11.2.46 = 7 – Carinal AND 2R Upper Paratracheal (right) OR 4R – Lower Paratracheal (right) AND 2L – Upper Paratracheal (left) OR 4L – Lower Paratracheal (left) AND 11.3 = IB OR IIA OR IIB OR IIIA OR IIIB OR IV AND 10.2 = Bronchoscopy OR EBUS OR VATS biopsy OR Percutaneous Transthoracic Needle biopsy OR Mediastinsocopy OR Endoscopic ultrasound (EUS)

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
A. Administrative & Identification Data					
1. Administration (overview of key report information)					
1.1	Report Date	Date of report completion – may be different than date of surgery	2001:01:01	M	**Format:** Date YYYY:MM:DD
1.2	Report completed by	Name of person completing report	Dr. Smith	M	**Format:** Alphabetic
1.3	Report copies to	Name of people receiving copies of the report	Dr. Jones	M	**Format:** Alphabetic
2. Patient Information (key demographic information about the person receiving surgery)					
2.1	Patient Last Name	Represents the patient's legal family name	Smith	M	**Format:** Alphabetic
2.2	Patient First Name	Represents the patient's legal first name	John	M	**Format:** Alphabetic
2.3	Patient Middle Name	Represents the patient's legal middle name	David	O	**Format:** Alphabetic
2.4	Patient Date of Birth	Represents the patient's date of birth	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.5	Patient ID	Represents a unique identifier assigned to the Patient.		M	**Format:** Alphanumeric
2.6	Patient ID type	Represents the type of Patient Identifier (e.g. Jurisdictional Healthcare Identifier, Medicare number)	Health Card Number	M	**Format:** Alphanumeric
2.7	Patient hospital number	Represents the patient number given by the hospital		M	**Format:** Numeric
2.8	Patient Gender	Represents a reported gender category of the Patient at a given point in time used for administrative purposes	Male Female	M	**Format:** Alphabetic value list
2.9	Date of Admission	Represents the date that the patient was admitted to the hospital for this procedure	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.10	Patient Street Address	Represents the patient's home address (street and civic number)	5 Main Street	O	**Format:** Alphanumeric

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
2.14	Date of Referral	Date patient was referred to the surgeon	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.14.1	Date of Consult	Date when surgeon saw the patient	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.14.2	Date of Decision to Treat		2001:01:01	M	**Format:** Date YYYY:MM:DD
2.15	Is patient a trial participant	Describe whether the patient is participating in a clinical trial	• Yes • No	O	**Format:** Alphabetic value list
		3. Provider Details (person(s) performing and/or supporting the surgery)			
3.1	Provider Last Name	Represents the surgeon's last name	Smith	M	**Format:** Alphabetic
3.2	Provider First Name	Represents the surgeon's first name	John	M	**Format:** Alphabetic
3.3	Provider Identifier Type	Represents the type of Provider Identifier		M	**Format:** Alphanumeric value list
3.4	Provider ID	Represents the unique identifier assigned to the provider		M	**Format:** Alphanumeric value list
3.5	Assistant Last Name	Represents the Last name of assistants, residents, fellows and other assistants during the procedure	Smith	O	**Format:** Alphabetic Can be repeated
3.6	Assistant First Name	Represents the First name of assistants, residents, fellows and other assistants during the procedure	John	O	**Format:** Alphabetic Can be repeated
3.7	Anesthesiologist Last Name	Represents the Last name of Anesthesiologist for the procedure	Smith	O	**Format:** Alphabetic
3.8	Anesthesiologist First Name	Represents the First name of Anesthesiologist for the procedure	John	O	**Format:** Alphabetic
3.9	Other Involved Physicians Last Name	Represents the last name of other physicians involved with the patient's care	Smith	O	**Format:** Alphabetic Can be repeated

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
3.10	Other Involved Physicians First Name	Represents the first name of other physicians involved with the patient's care	John	O	**Format:** Alphabetic Can be repeated
3.11	Other Involved Physicians role	Role of the assistant during the procedure	• Respirologist • Oncologist • Patient family doctor • Referring Physician • Admitting Physician • Other (specify)	O	**Format:** Alphabetic value list Can be repeated
		4. Service Delivery Location Details (surgery location)			
4.1	Service Delivery Location Name	Represents the name of the Service Delivery Location here the patient received care	Glendale Family Health Clinic	M	**Format:** Alphanumeric value list
4.2	Service Delivery Location Identifier Code	Represents the unique identifier of the Primary Health Care (PHC) Service Delivery Location where the patient received care	A46B7356743	M	**Format:** Alphanumeric value list
		B. Procedure Planned and Performed			
		Current Procedure Administration (procedure administration and Diagnosis details)			
5.1	Date of surgery	Date that the surgery was performed	2001:01:01	M	**Format:** Date YYYY:MM:DD
5.2	Operative Urgency	Condition or situation in which to perform surgery as the best possible treatment or to prevent serious complications of the disease	• Elective • Urgent/Emergent	M	**Format:** Alphabetic value list
5.2	Surgical objectives		• Palliative • Curative • Diagnostic Intervention • Staging • Other (specify)	O	**Format:** Alphabetic value list
5.4	Pre-Operative diagnosis (Indication for surgery)	Diagnosis of the patient determined before the surgery	• Lung Primary Cancer • Mediastinal tumor • Tracheal tumor • Malignant Mesothelioma • Chest Wall neoplasm • Lung Metastases • Bronchopleural Fistula • Pleura Empyema • Pleural Effusion • Lymphadenopathy • Solitary pulmonary nodule • Other (specify)	M	**Format:** Alphabetic multiple selection

5.6.B Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
5.5	Pre-Operative preamble	Short statement identifying key patient characteristics and staging		O	**Format:** Text
5.6	Post-Operative diagnosis same as per-operative diagnosis	Was the post-operative diagnosis the same as the pre-operative diagnosis?	• Yes • No	M	**Format:** Alphabetic value list if "no" in 5.6
5.7	Post-Operative diagnosis	If different diagnosis from pre-operative diagnosis, identify post-op diagnosis	• Lung Primary Cancer • Mediastinal tumor • Tracheal tumor • Malignant Mesothelioma • Chest Wall neoplasm • Lung Metastases • Bronchopleural Fistula • Pleura Empyema • Pleural Effusion • Lymphadenopathy • Solitary pulmonary nodule • Other (specify)	M	**Format:** Text
		6. Reoperation and Previous Surgeries (information about previous surgery for related diagnoses)			
6.1	Reoperation	Is this a reoperation on a previously operated side?	• Yes • No	O	**Format:** Alphabetic value list
		C. Pre-Operative Assessment			
		7. Clinical Findings (pre-operative clinical findings)			
7.1	Body Mass Index (BMI)	Represents patient's body mass index	• Very severely underweight (less than 15.0) • Severely underweight (15.0 to <16.0) • Underweight (16.0 to <18.5) • Normal (18.5 to <25) • Overweight (25 to <30) • Moderately obese (30 to <35) • Severely obese (35 to 40) • Very severely obese (over 40)	O	**Format:** Alphanumeric value list
7.2	Means of presentation	Were the symptoms asymptomatic or symptomatic	• Asymptomatic • Symptomatic	O	**Format:** Alphabetic value list

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.3	Symptoms	Major symptoms at presentation (pre-op)	• SVC Syndrome • Hemoptysis • Horner's • Weight Loss • Hemoptysis • Dysphagia • Cough • Shortness of breath • Voice change • Pain (chest) • Other (specify)	O	**Format:** Alphabetic multiple selection
7.5	Active Smoker	Describe if patient is an active or recent smoker	• Yes • No • Quit within 30 days	O	**Format:** Alphabetic value list
7.6	Was pre-operative chemotherapy given for this malignancy?	Indicate if pre-op chemotherapy was given for this malignancy	• Yes No	O	**Format:** Alphabetic value list
7.7	Was pre-operative radiotherapy given for this malignancy?	Indicate if pre-op radiotherapy given for this malignancy	• Yes No	O	**Format:** Alphabetic value list
7.8	Dose of pre-op radiation given	Doses in Gray (Gy)	24	O	**Format:** Numeric If "Yes" selected in 7.7
7.9	Pre-operative chemotherapy or radio therapy description	Describe the chemotherapy or radiotherapy treatment, reasons and results		O	**Format:** Text If "Yes" selected in 7.6 or 7.7
		7.8 Pre-op Physiologic Workup			
7.8.0	FEV 1 obtained pre-op	Was pre-operative (Forced Expiratory Volume) FEV1% obtained	• Yes • No • Not applicable	O	**Format:** Alphabetic value list
7.8.1	FEV1% predicted pre-op	Indicate the Forced expiratory volume in 1 second predicted for the patient	• % • Unable to obtain	O	**Format:** Alphanumeric
7.8.2	FEV1% predicted pre-op	State the value of the predicted FEV1 absolute predicted result	Litres per minute	M	**Format:** Numeric

5.6.B Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.8.3	FVC% predicted pre-op	Indicate the Forced vital capacity predicted for the patient	%	O	**Format:** Numeric
7.8.4	Corrected DLCO% predicted pre-op	Indicate the corrected diffusing capacity predicted for the patient	• % • Unable to obtain	O	**Format:** Alphanumeric
7.8.5	VO2max pre-op	Indicate if pre-op VO2max test was completed	• Yes • No	O	**Format:** Alphabetic value list
7.8.6	VO2max pre-op result	Maximum capacity of an individual's body to transport and use oxygen during incremental exercise, which reflects the physical fitness of the individual	ml/kg/min	O	**Format:** Numeric (ml/kg/min) If "Yes" selected in 7.8.5
7.8.7	ABG pre-op	Was an Arterial Blood Gas test completed?	• Yes • No	O	**Format:** Alphabetic value list
7.8.8	Pre-op ABG PaO_2 result	State the value of the pre-operative PaO2 result	mmHg	O	**Format:** Numeric If "Yes" selected in 7.8.7
7.8.9	Pre-op ABG $PaCo_2$ result	State the value of the pre-operative $PaCO_2$ result	mmHg	O	**Format:** Numeric If "Yes" selected in 7.8.7
7.8.10	Other ABG Results	Describe other findings of the Arterial Blood Gas (ABG) testing		O	**Format:** Text if "yes" to 7.8.7
7.8.11	Quantitative VQ pre-op	Was a ventilation/ perfusion lung scan completed?	• Yes • No	O	**Format:** Alphabetic value list
7.8.12	Result of pre-op Quantitative VQ test	Describe any pertinent results of the pre-operative Quantitative VQ test		O	**Format:** Text If "Yes" selected in 7.8.11
7.8.13	Post-op predicted FEV1	Was post-operative predicted FEV1 measured?	• Yes • No	O	**Format:** Alphabetic value list
7.8.14	Result of post-op predicted FEV1	State the value of post-operative predicted FEV1	Litres per minute	O	**Format:** Numeric If "Yes" selected in 7.8.13

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.8.15	Post-op predicted DLCO%	Was post-operative predicted DLCO% measured?	• Yes • No	O	**Format:** Alphabetic value list
7.8.16	Result of post-op predicted DLCO%	State the value of post-operative predicted DLCO%	%	O	**Format:** Numeric If "Yes" selected in 7.8.15
7.8.17	Other post-op physiologic results	Describe other findings relating to post-operative predictive physiological testing		O	**Format:** Text
7.8.18	6 minute walk pre-op	Was a 6 minute walk test completed?	• Yes • No	O	**Format:** Alphabetic value list
7.8.19	Results of pre-op 6 minute walk	State distance walked in pre-operative 6 minute walk in meters	Metres	O	**Format:** Numeric If "Yes" selected in 7.8.18
7.8.20	Patient discussed at multi-disciplinary meeting	Indicate if the patient's case discussed at a multi-disciplinary meeting/ tumor board	• Yes • No • Not indicated	O	**Format:** Alphabetic value list
		8. Diagnostic Investigations (directed investigations in advance of surgery)			
8.1	Pre-operative imaging done?	Select which diagnostic investigations were done in advance of surgery	• CT Head • CT Chest • CT Abdomen • MRI Head • PET Scan • Bone Scan • Other (Specify)	M	**Format:** Alphabetic multiple selection
8.3	Description of Findings	Describe any other findings including potentially invaded structures		O	**Format:** Text

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		9. Co-Morbidity (existing relevant clinical conditions)			
9.1	Pertinent Co-morbidities	Either the presence of one or more disorders (or diseases) in addition to a primary disease or disorder/ associated risk factors or conditions	• Bronchiectasis • Chronic obstructive pulmonary disease • Pulmonary fibrosis • Tuberculosis • Asthma • Diabetes • Liver disease • Connective tissue disease • Other tumors (benign) • Other cancers • Leukemia/Lymphoma • Metastatic cancer • Previous trauma requiring surgery • Congestive heart failure • Coronary artery disease • Peripheral vascular disease • History of cerebrovascular disease • Renal failure • Renal failure requiring dialysis • Hypertension • Interstitial fibrosis • Myocardial infarct • Peptic ulcer disease • Hemiplegia • HIV/AIDS • Dementia • Other (specify)	O	**Format:** Alphabetic multiple selection
		D. Pre-Operative Pathology & Staging			
		10. Pre-Operative Pathology (results of pre-operative biopsies and pathology investigations)			
10.1	Pathology attained?	Describe if pathology results were attained pre-operatively	• Yes • No • Non-Diagnostic	M	**Format:** Alphabetic value list
10.2	Pre-operative biopsy/staging	Describe the pre-operative biopsies or staging procedures that were completed	• Bronchoscopy • EBUS • VATS biopsy • Percutaneous • Transthoracic Needle • Biopsy • Mediastinoscopy • Pleural Fluid Analysis • Endoscopic ultrasound (EUS) • Other (specify) • None	M	**Format:** Alphabetic multiple selection

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
10.4	Pathology Diagnosis Comments	Describe any relevant pathology findings		M	**Format:** Text
			11. Clinical Stage		
11	T stage		Tx – Primary tumor cannot be assessed, or tumor proven by the presence of malignant cells in sputum or bronchial washings but not visualized by imaging or bronchoscopy T0 – No evidence of primary tumor Tis – Carcinoma in situ T1 Tumor 3 cm or less in greatest dimension, surrounded by lung of visceral pleura, without bronchoscopic evidence of invasion more proximal than the lobar bronchus (for example, not in the main bronchus) T1a – Tumor 2 cm or less in greatest dimension T1b – Tumor more than 2 cm but 3 cm or less in greatest dimension T2 – Tumor with more than 3 cm but 7 cm or less or tumor with any of the following features (T2 tumors with these features are classified T2a if 5 cm or less); Involves main bronchus, 2cm o more distal to the carina; invades visceral pleura (PL1 or PL2); associated the atelectasis or obstructive pneumonitis that extends to the hilar region but does not involve the entire lung T2a – Tumor more than 3cm but 5 cm or less in greatest dimension T2b – Tumor more than 5 cm but 7 cm or less in greatest dimension	M	**Format:** Alphabetic value list

5.6.B Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11 (cont'd)			T3 – Tumor more than 7 cm or one that directly invades any of the following: parietal pleura (PL3), chest wall (including superior sulcus tumors), diaphragm, phrenic nerve, mediastinal pleura, parietal pericardium; or tumor in the main bronchus less than 2 cm distal to the carina but without involvement of the carina; or associated atelectasis or obstructive pneumonitis of the entire lung or a separate tumor nodule(s) in the same lobe T4 – Tumor of any size that invades any of the following: mediastinum, heart, great vessels, trachea, recurrent laryngeal nerve, esophagus, vertebral body, carina, separate tumor nodule(s) in a different ipsilateral lobe		
11.1	N stage		• Nx – Regional lymph nodes cannot be assessed • N0 – No regional lymph node metastases • N1 – Metastasis in ipsilateral peribronchial and/or ipsilateral hilar nodes and intrapulmonary nodes including involvement by direct extension • N2 – Metastasis in ipsilateral mediastinal and/or subcarinal lymph node(s) • N3 – Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene, or supraclavicular lymph node(s)	M	**Format:** Alphabetic value list

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2	M stage		• M0 – No distant metastasis • M1 – Distant metastasis • M1a – Separate tumor nodule(s) in a contralateral lobe, tumor with pleural nodules or malignant pleural (or pericardial) effusion • M1b – Distant metastasis (in extrathoracic organs)	M	**Format:** Alphabetic value list
11.3	Clinical stage		• Occult Carcinoma • Stage 0 • Stage IA • Stage IB • Stage IIA • Stage IIB • Stage IIIA • Stage IIIB • Stage IV	M	**Format:** Alphabetic value list
11.4	Clinical Staging Version (AJCC)		7	O	**Format:** Alphanumeric value list (updated as versions change)
E. Operative Procedure					
11. Operative Procedure (describes elements of operative procedure)					
11.1 Sign In and Briefing					
11.1.1	Consent for treatment obtained	Indicate if treatment options, risks, benefits, and complications were discussed with the patient and was consent to surgery signed?	• Yes • No	O	**Format:** Alphabetic value list
11.1.2	Time of surgery start	Represents the start time of the procedure (skin cut)	13:30	O	**Format:** 24 hour clock value
11.1.3	Time of surgery end	Represents the end time of the procedure (surgery end time)	14:50	O	**Format:** 24 hour clock value
11.1.4	Surgical Safety Checklist performed?	Describes whether the surgical safety checklist was completed	• Yes • No	M	**Format:** Alphabetic value list
11.1.5	Were any pressure point protection procedures performed?	Describe if pressure point protection procedures were completed	• Yes • No	O	**Format:** Alphabetic value list

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.1.6	Patient Position	Describe the patient position during the procedure	• Supine • Left Lateral • Right Lateral • Prone • Lithotomy • Other (specify)	M	**Format:** Alphabetic value list
11.1.8	Pre-operative antibiotics	Indicate whether antibiotics were given to the patient	• Yes • No • Not indicated	M	**Format:** Alphabetic value list
11.1.9	Was intra-operative Deep Vein Thrombosis (DVT) prophylaxis given?	Indicate if intra-operative DVT Prophylaxis were given to the patient intra-operatively	• Unfractionated heparin • Low-molecular-weight heparin • Sequential calf-compression device (SCDs) • None • Not indicated	M	**Format:** Alphabetic multiple selection
11.1.10	Will post-operative Deep Vein Thrombosis (DVT) prophylaxis given?	Indicate if post-operative DVT prophylaxis will be given to the patient post-operatively	• Unfractionated heparin • Low-molecular-weight heparin • Sequential calf-compression device (SCDs) • None • Not indicated	M	**Format:** Alphabetic multiple selection
11.1.11	Use of warming	Describes if warming was used	• Yes • No	O	**Format:** Alphabetic value list
11.1.12	Intubation type	Describe the method used for intubation	• Single • Double • Blocker • Other	M	**Format:** Alphabetic value list
11.1.13	Ventilation Type	Type of ventilation used	• Positive Pressure Ventilation • Spontaneous • Jet Ventilation • Cross-field • Intermittent Apnea • Other (specify)	O	**Format:** Alphabetic value list
11.1.15	Central IV Access obtained in operating room?	Was central intravenous (IV) access obtained in the OR?	• Yes • No	O	**Format:** Alphabetic value list
11.1.16	Regional Pain Control	Describes the type of pain control method used during the surgery	• Wound Infiltration • Intercostal Block • Paravertebral Block • Paravertebral Catheter • Epidural catheter • None	M	**Format:** Alphabetic multiple selection

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.1.17	Arterial Access	Location of the arterial line	• Left Radial • Right Radial • Left Femoral • Right Femoral • Left Brachial • Right Brachial • None • Other (specify)	O	**Format:** Alphabetic value list
11.1.18	Skin prep procedures	Describe the type of skin prep	• Chlorhexidine-based • Iodine-based • None	O	**Format:** Alphabetic multiple selection
			11.2 Operative Details		
11.2.1	Side of surgery	Describes the side of the patient on which the surgery was performed	• Right Side • Left Side • Bi-lateral • Midline	M	**Format:** Alphabetic value list
11.2.2	Surgical approach	Describes the approach taken for the operative procedure	• VATS • VATS converted to Thoracotomy • Thoracotomy – posterolateral divide serratus & latissimus • Thoracotomy – posterolateral divide latissimus • Thoracotomy – posterolateral no division of muscle • Thoracotomy – anterolateral • Transaxillary • Median sternotomy • Partial sternotomy • Transverse sternotomy (clamshell) • Hemi-Clamshell • Transcervical • Mediastinoscopy • Anterior mediastinoscopy • Extended cervical mediastinoscopy • Other (specify)	M	**Format:** Alphabetic multiple selection
11.2.4	Specify rib space	Indicate rib space accessed for operative procedure	1-12	M	**Format:** Numeric If “thoracotomy” or “hemiclamshell” selected in 11.2.2

5.6.B Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.5	Number of Ports	Indicate the number of ports used	1 – ∞	M	**Format:** Numeric if "VATS" in 11.2.2
11.2.6	Access incision used	Indicate if an access incision was used	• Yes • No	M	**Format:** Alphabetic value list if "VATS" in 11.2.2
11.2.7	Rib excised, notched or fractured	Describes if the rib was excised, notched or fractured during the operative procedure	• Excised • Notched • Fractured • None	O	**Format:** Alphabetic value list if "Thoracotomy" chosen in 11.2.2
11.2.8	Use of rib spreaders	Describes if rib separators were used during the operative procedure	• Yes • No	O	**Format:** Alphabetic value list if "Thoracotomy" chosen in 11.2.2
11.2.9	Procedures Performed – Diaphragm/ Phrenic Nerve	Describe the Diaphragm procedure that was performed (if any)	• Not applicable • Resection of diaphragm • Primary repair of diaphragm • Reconstruction of diaphragm • Phrenic nerve resected • Phrenic nerve crushed • Other (specify)	M	**Format:** Alphabetic multiple selection to be completed if procedure performed on diaphragm/phrenic nerve
11.2.11	Procedures Performed – Chest/Abdominal Wall	Describe the chest/ abdominal wall procedure that was performed (if any)	• Not applicable • Rib resection (single) • Chest wall resection • Chest wall reconstruction • Sternectomy complete • Sternectomy partial • Thoracic window • Closure thoracic window • Latissimus muscle flap • Intercostal muscle flap • Serratus anterior muscle flap • Pericardial fat flap • Omentum flap • Other (specify)	M	**Format:** Alphabetic multiple selection to be completed if procedure performed on chest/ abdominal wall
11.2.13	Procedures Performed – Pleura	Describe the pleura procedure that was performed (if any)	• Not applicable • Evacuation of Pleural Effusion • Pleural tent • Pleura biopsy • Pleurodesis • Pleurectomy • Decortication • Tunneled catheter insertion • Tunneled catheter removal • Other (specify)	M	**Format:** Alphabetic multiple selection to be completed if procedure performed on pleura

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.15	Procedures Performed – Lung	Describe the lung procedure that was performed (if any)	• Not applicable • Wedge resection single • Wedge resection multiple • Segmentectomy • Lobectomy • Bilobectomy • Pneumonectomy standard • Pneumonectomy completion • Pneumonectomy extrapleural • Pneumonectomy intrapericardial • Pneumonectomy carinal • Bronchial sleeve • Pulmonary Arterial Sleeve • Other (specify)	M	**Format:** Alphabetic multiple selection to be completed if procedure performed is lung
11.2.17	Lobe resected		• Right upper • Right middle • Right lower • Left upper • Left lower • Completion lobectomy	M	**Format:** Alphabetic multiple selection If “lobectomy”, “bilobectomy” or any pneumonectomies options selected in 11.2.15
11.2.18	Anatomic segment resected		• Right – Apical • Right – Anterior • Right – Posterior • Right – Medial • Right – Lateral • Right – Superior • Right – Anterior basal • Right – Posterior basal • Right – Medial basal • Right – Lateral basal • Left – Apicoposterior • Left – Anterior • Left – Superior lingular • Left – Inferior lingular • Left – Superior segmental • Left – Anteromedial basal • Left – Posterior basal • Left – Lateral basal	M	**Format:** Alphabetic multiple selection If “Segmentectomy” selected 11.2.15

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.19	Wedge resected		• Right upper • Right middle • Right lower • Left upper • Left lower	M	**Format:** Alphabetic multiple selection If "Wedge Single" or "Wedge multiple" selected 11.2.15
11.2.20	Procedures Performed – Mediastinum/ Neck	Describe the mediastinum/neck procedure that was planned (if any)	• Not applicable • Biopsy mediastinal mass • Mediastinal lymph node biopsy • Resection mediastinal mass • Transcervical extended mediastinal lymphadenectomy (TEMLA) • Neck node biopsy • Thymectomy • EBUS – Transbronchial Biopsy Lymph Node • EBUS – Transbronchial Biopsy Lung Mass • Other (specify) • EUS	O	**Format:** Alphabetic multiple selection to be completed if procedure performed on mediastinum/neck
11.2.22	Procedures Performed – Heart/ Pericardium/ Vascular	Describe the heart/ pericardium/vascular procedure that was performed (if any)	• Not applicable • Pericardial window • Pericardiectomy • Repair/ reconstruction SVC • Repair/ reconstruction of innominate vein • Repair/ reconstruction pulmonary artery • Repair/ reconstruction pulmonary vein • Division of azygous vein • Other (specify)	M	**Format:** Alphabetic multiple selection to be completed if procedure performed is heart/ pericardium/vascular

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.24	Procedures Performed – Tracheobronchial	Describe the tracheobronchial procedure that was performed (if any)	• Not applicable • Removal of foreign body • Broncho-alveolar lavage (BAL) • Sleeve bronchial resection (only) • Tracheostomy – open • Tracheostomy – Percutaneous • Tracheostomy – Urgent • Tracheal repair • Tracheal tumor resection • Carinal resection • Bronchotomy • Bronchial repair • Bronchoplasty • TE fistula repair • Bronchial stent • Trachea stent • Montgomery T-tube • Removal, tracheobronchial stent including Montgomery • Cricotracheal resection • Laryngo/fissure • PDT • Other (specify)	M	**Format:** Alphabetic multiple selection to be completed if procedure performed tracheobronchial
11.2.24.1	Procedures Performed – Endoscopy		• None • Flexible bronchoscopy • Rigid bronchoscopy • Laser endobronchial lesion	M	**Format:** Alphabetic value list to be completed if procedure performed is endoscopy
11.2.24.2	Endoscopy Findings			O	**Format:** Text
11.2.25	Other tracheobronchial procedures performed	Describe other tracheobronchial procedures performed		O	**Format:** Text If "Other" selected in 11.2.24
11.2.26	Veins Ligated	Describe which veins were ligated	• Right Upper • Right Middle • Right Lower • Left Upper • Left Lower	M	**Format:** Alphabetic multiple selection to be completed if pneumonectomy and lobectomy
11.2.27	Technique of vein ligation	Describe the technique of vein ligation	• Suture Ligation • GIA Stapler • Endo GIA Stapler • Transverse Stapler	M	**Format:** Alphabetic multiple selection Must be done for each vein ligated

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.28	Vein ligation Staple Color	Describes the color of staples	• Covidien White • Covidien Blue • Covidien Green • Covidien Tan • Covidien Grey • Covidien Purple • Covidien Black • Ethicon White • Ethicon Blue • Ethicon Green • Ethicon Gold • Ethicon Grey • Ethicon Purple • Ethicon Black • Other (specify)	O	**Format:** Alphabetic value list Must be done for each vein ligated If “Stapler” selected in 11.2.27
11.2.29	Pulmonary arteries ligated	Describe which arteries were ligated	• Right – Truncus Anterior • Right – Truncus Anterior – Apical Branch • Right – Truncus Anterior – Anterior Branch • Right – Truncus Anterior – Posterior Branch • Right – Posterior Ascending Artery • Right – Middle Lobe Artery • Right – Superior Segmental Artery • Right – Common Basal Artery • Right – Common Basal Artery – medial basal • Right – Common Basal Artery – anterior basal • Right – Common Basal Artery – lateral basal • Right – Common Basal Artery – posterior basal • Right – Other Branch • Left – Anterior • Left – Apicoposterior Branch • Left – Lingular Branch • Left – Superior Segmental • Left – Common Basal Artery • Left – Common Basal Artery – anteromedial basal • Left – Common Basal Artery – lateral basal • Left – Common Basal Artery – posterior basal • Left – Other Branch	O	**Format:** Alphabetic multiple selection On interface, must have branching to weed out inapplicable options based on earlier selections

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.31	Technique of pulmonary artery ligation	Describe the technique of artery ligation	• Suture Ligation • Tie • GIA Stapler • Stapler • Metallic clip • Locking clip • Energy device • Other (specify)	M	**Format:** Alphabetic multiple selection must be done for each artery ligated
11.2.33	Pulmonary artery ligation Staple Color	describes the color of staples	• Covidien White • Covidien Blue • Covidien Green • Covidien Tan • Covidien Grey • Covidien Purple • Covidien Black • Ethicon White • Ethicon Blue • Ethicon Green • Ethicon Gold • Ethicon Grey • Ethicon Purple • Ethicon Black • Other (specify)	O	**Format:** Alphabetic value list must be done for each artery ligated If “Stapler” selected in 11.2.31
11.2.34	Was the fissure opened	Describe if the fissure was opened	• Yes • No • Not applicable (complete fissure)	O	**Format:** Alphabetic value list
11.2.35	How was the fissure divided	Describe how the fissure was divided	• GIA Stapler • Endo GIA Stapler • Transverse Stapler • Cautery • Other (specify) • None	M	**Format:** Alphabetic multiple selection if 11.2.34=yes
11.2.36	Was the middle lobe fixed?	Describe if the lobe was fixed	• Yes • No	O	**Format:** Alphabetic value list
11.2.37	Method of fixing middle lobe	Describe the method used to fix lobe	• Suture • GIA Stapler • Transverse Stapler • Other (specify)	O	**Format:** Alphabetic multiple selection If “Yes” selected in 11.2.36

5.6.B Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.38	Which bronchi were divided	Describe which bronchus were divided	• None • Right Mainstem Bronchus • Right Upper Lobe Bronchus • Right Upper Lobe – Apical • Right Upper Lobe – Anterior • Right Upper Lobe Posterior • Right Middle Lobe • Bronchus • Right Middle Lobe – Medial • Right Middle Lobe – Lateral • Bronchus Intermedius • Right Lower Lobe Bronchus • Right Lower Lobe – Superior Segmental • Right Lower Lobe – Common Basal • Right Lower Lobe – Common Basal – anterior • Right Lower Lobe – Common Basal – medial basal • Right Lower Lobe – Common Basal – lateral basal • Right Lower Lobe – Common basal – posterior basal	M	**Format:** Alphabetic value list On interface, must have branching to weed out inapplicable options based on earlier selections i.e./ if a RUL lobectomy was selected, only applicable branches will be options)
11.2.39	How were the bronchi closed	Describe how the bronchi were closed	• Suture • GIA Stapler • Transverse Stapler Other (specify)	M	**Format:** Alphabetic value list
11.2.40	Bronchus closure Staple Color	Describes the color of staples	• Covidien White • Covidien Blue • Covidien Green • Covidien Tan • Covidien Grey • Covidien Purple • Covidien Black • Ethicon White • Ethicon Blue • Ethicon Green • Ethicon Gold • Ethicon Grey • Ethicon Purple • Ethicon Black • Other (specify)	O	**Format:** Alphabetic value list If “Stapler” selected in 11.2.39
11.2.41	Were any bronchi covered?	Indicate if any of the bronchi were covered	• Yes • No	O	**Format:** Alphabetic value list

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.42	Which bronchi were covered	Describe which bronchi were covered	• Right Mainstem Bronchus • Right Upper Lobe Bronchus • Right Upper Lobe – Apical • Right Upper Lobe – Anterior • Right Upper Lobe – Posterior • Right Middle Lobe Bronchus • Right Middle Lobe – Medial • Right Middle Lobe – Lateral • Bronchus Intermedius • Right Lower Lobe Bronchus • Right Lower Lobe – Superior • Segmental • Right Lower Lobe – Common Basal • Right Lower Lobe – Common • Basal – anterior • Right Lower Lobe – Common Basal – medial basal • Right Lower Lobe – Common Basal – lateral basal • Right Lower Lobe – Common Basal – posterior basal • Left Mainstem Bronchus • Left Upper Lobe Bronchus • Left Upper Lobe – Apicoposterior • Left Upper Lobe – Anterior • Left Upper Lobe – Lingula • Left Upper Lobe – Lingula – Superior • Left Upper Lobe – Lingula – Inferior • Left Lower Lobe Bronchus • Left Lower Lobe – Superior • Segmental • Left Lower Lobe – Common Basal • Left Lower Lobe – Common Basal – anteromedial basal • Left Lower Lobe – Common Basal – lateral basal • Left Lower Lobe – Common Basal – posterior basal	O	**Format:** Alphabetic multiple selection If "Yes" was selected in 11.2.41 and based on response in 11.2.38

5.6.B Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.43	What was the bronchus covered with	Describe what was the bronchus covered with	• Intercostal • Pericardium • Pericardial Fat • Serratus • Latissimus • Pleura • Other (specify)	O	**Format:** Alphabetic value list If "Yes" was selected in 11.2.41. Interface will require a response for each branch selected in 11.2.42
11.2.44	Lung expansion tested	Was remaining lung expansion tested prior to firing stapler?	• Yes • No	O	**Format:** Alphabetic value list
11.2.45	How was the mediastinal lymph nodes evaluated during the operation	Describe how were the mediastinal lymph nodes evaluated at the time of operation	• Mediastinal lymphandectomy • Lymph node sampling • Not done • Other (Specify)	M	**Format:** Alphabetic value list
11.2.46	Which lymph nodes taken as separate specimens	Describes which lymph nodes were taken as distinct, separate specimens at the time of operation	• 1 – Low Cervical • 1 – Supraclavicular • 1 – Sternal Notch Nodes • 2R – Upper Paratracheal (right) • 2L – Upper Paratracheal (left) • 3a – Pre-vascular • 3p – Retrotracheal • 4R – Lower Paratracheal (right) • 4L – Lower Paratracheal (left) • 5 – Subaortic • 6 Para-aortic (ascending aorta or phrenic) • 7 – Subcarinal • 8 – Paraesophageal • 9 – Pulmonary ligament • 10 – Hilar • 11 – Interlobar • 12 – Lobar • 13 – Segmental • 14 – Subsegmental	M	**Format:** Alphabetic multiple selection
11.2.47	How were the lymph nodes processed for pathology	Indicates whether each section was a frozen or permanent section	• Permanent section • Frozen section	M	**Format:** Alphabetic value list For each lymph node selected in 11.2.46

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2.48	Intra-operative frozen section lymph node results	Indicate whether the frozen sections were tested to be positive or negative	• Positive • Negative	M	**Format:** Alphabetic value list For each frozen lymph node selected in 11.2.47
11.2.49	Inability to complete resection as planned	Was there an inability to complete resection as planned? (that is, was a futile thoracotomy performed)?	• Yes • No	M	**Format:** Alphabetic value list
11.2.49.1	Were there unexpected procedures	Were any procedures completed that were not planned pre-operatively	• Yes • No	M	**Format:** Alphabetic value list
11.2.50	Explain unplanned procedures	Describes the reason for any critical or unique steps		M	**Format:** Text Only anything other than “No” selected in 11.2.49.1
11.2.51	Parenchymal air leak at end of operation?	After completion of the case, was there an occurrence of a parenchymal air leak?	• Yes • No	O	**Format:** Alphabetic value list
11.2.52	Parenchymal air leak size		Text description	O	**Format:** Text If “Yes” selected in 11.2.51
11.2.53	Parenchymal air leak control measures	Describe any air leak control measures that were completed	• No air leak control measures used • Sutures • Fibrin glue • Pericardial strips • Lung Sealant • Restapled	O	**Format:** Alphabetic value list If “Yes” selected in 11.2.51
11.2.54	Was there a bronchial stump air leak?	Describes if there was bronchial stump air leak check or if none was performed	• Yes • No • Not checked	O	**Format:** Alphabetic value list
11.2.55	What was done to control bronchial air leak?	Describes actions taken to control air leak		O	**Format:** Text If “Yes” selected in 11.2.54
11.2.56	Evaluation of margins/Ability to completely resect tumor	Indicate the perception of the ability to complete tumor resection margins	• R0 • R1 • R2 • Not applicable	M	**Format:** Alphabetic value list
11.2.57	Procedure details	Describe any additional details regarding the procedure performed		M	**Format:** Text

5.6.B Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		11.3 Intra-Operative Observations			
11.3.1	Description of lung		• Unremarkable • Remarkable	O	**Format:** Alphabetic value list
11.3.2	Description of remarkable lung elements	Description of anything remarkable in the lung including color and texture		O	**Format:** Text If "Remarkable" selected in 11.3.1
11.3.3	Description of pleura and pleural plaques		• Unremarkable • Remarkable	O	**Format:** Alphabetic value list
11.3.4	Description of remarkable pleura elements	Description of anything remarkable in the pleura including color and texture		O	**Format:** Text If "Remarkable" selected in 11.3.3
11.3.6	Description of mediastinum		• Unremarkable • Remarkable	O	**Format:** Alphabetic value list
11.3.7	Description of remarkable mediastinum elements	Description of anything remarkable in the mediastinum including color and texture		O	**Format:** Text If "Remarkable" selected in 11.3.6
11.3.8	Tumor and involved structures description	Describe the tumor including size, location, color, texture, location and involved structures		O	**Format:** Text
11.3.9	Additional surgeon involved in the procedure	Was an additional surgeon required during the procedure	• Yes • No	M	**Format:** Alphabetic value list
11.3.10	Reason for additional surgeon reason	Indicate why an additional physician was required	• Planned • Additional technical assistance • Opinion • Other (specify)	M	**Format:** Alphabetic value list If "Yes" selected in 11.3.9
11.3.12	Equipment issues	Were there any issues with the equipment during the operative procedure?	• Yes • No	O	**Format:** Alphabetic value list
11.3.13	Equipment issues – Comments	Describes any issues with the equipment during the operative procedure (e.g. Staple misfire)		O	**Format:** Text If "Yes" selected in 11.3.12

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.3.14	Use of intra-operative imaging	Describes if intra-operative imaging was used	• Yes • No	O	**Format:** Alphabetic value list
11.3.15	Intra-operative imaging type	Describe the type of intra-operative imaging used	• Ultrasound • Fluoroscopy • Other (specify)	O	**Format:** Alphabetic value list If "Yes" selected in 11.3.14
11.3.16	Intra-operative imaging result	Describe the result of the intra-operative imaging		O	**Format:** Text If "Yes" selected in 11.3.14
		11.4 Intra-Operative Pathology			
14.1	Other frozen samples sent to pathology & rationale & results	Describes if frozen samples (other than nodes) were sent for pathology	• Yes • No	M	**Format:** Alphabetic value list
14.2	Explanation of what other frozen samples were taken to pathology	Explain what samples were sent (other than nodes)		M	**Format:** Text If "Yes" selected in 11.4.1
14.3	Intra-operative pathology report (if possible)/ Pathology confirmed diagnosis	Describes if pathology reports were able to confirm diagnosis during the procedure		M	**Format:** Text If "Yes" selected in 11.4.1
		11.5 Wound Closure			
11.5.1	Number of chest tubes	Indicate the number of drains used		M	**Format:** Numeric
11.5.2	Chest Tube size	Indicate the chest tube size	• Not applicable • 14 • 16 • 18 • 20 • 22 • 24 • 26 • 28 • 32	O	**Format:** Alphabetic multiple selection 28 to be default entry
11.5.3	Chest Tube Type	Describe the type of drain used	• Curved • Straight • Other (specify)	O	**Format:** Alphabetic value list

5.6.B Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.5.5	Sternal closure technique	Indicate sternal technique	• Wires • Plates • Other (specify) • None	O	**Format:** Alphabetic value list If "Median sternotomy", "Partial sternotomy", or "Transverse sternotomy (clamshell)" selected in 11.2.2
11.5.6	Protection of Neurovascular Bundle	Indicate if the Neurovascular bundle was protected	• Yes • No	O	**Format:** Alphabetic value list
11.5.7	Details of neurovascular bundle protection	Describe how you protected the neurovascular bundle	• Free text	O	**Format:** Alphabetic value list If "yes" selected in 11.5.6
11.5.8	Rib closure	Was rib closure completed	• Not Done • Suture	O	**Format:** Alphabetic value list If any thoracotomy approach selected in 11.2.2
11.5.9	Rib closure suture type	Describe the suture type	• Dexon • Maxon • Silk • Vicryl • Polysorb • PDS • Other (specify)	O	**Format:** Alphabetic value list If "Suture" selected in 11.5.8
11.5.10	Muscle closure suture type	Describe the suture type	• Dexon • Maxon • Silk • Vicryl • Polysorb • PDS • Other (specify) • Not done	O	**Format:** Alphabetic value list
11.5.11	Fat closure suture type	Describe the suture type	• Dexon • Maxon • Silk • Vicryl • Polysorb • PDS • Other (specify) • Not done	O	**Format:** Alphabetic value list
11.5.12	Skin closure	Was rib closure completed	• Suture • Stapler • Skin Stapler • Not done	O	**Format:** Alphabetic value list

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.5.13	Skin closure suture type	Describe the suture type	• Dexon • Maxon • Silk • Vicryl • Polysorb • PDS • Stapler • Other (specify)	O	**Format:** Alphabetic value list If "Suture" selected in 11.5.12
11.5.14	Sponge and Instrument counts correct	Describes if a sponge and instrument count was correct	• Yes • No • Not done	O	**Format:** Alphabetic value list
		11.6 Outcomes, Complications and Patient Transfer			
11.6.1	Patient stability throughout case in OR	Describes the patients stability during the operative procedure	• Stable • Unstable	O	**Format:** Alphabetic value list
11.6.2	Unstable patient details (in OR)	Describe any relevant information regarding the patient's stability during the procedure		O	**Format:** Text If "Unstable" selected in 11.6.1
11.6.3	Patient condition when leaving OR	Describes the patients stability after the operative procedure	• Stable • Unstable	O	**Format:** Alphabetic value list If "Unstable" selected in 11.6.1
11.6.4	Unstable patient details (leaving OR)	Describe any relevant information regarding the patient's stability when leaving the OR		O	**Format:** Text If "Unstable" selected in 11.6.3
11.6.5	Intra-operative events	Identify complications or notable events that occurred during surgery	• CVA • Bleeding requiring transfusion • Myocardial ischemia • Staple misfire • Unstable arrhythmia • Cardiac Arrest • Death • Major Vascular injury • Injury to airway • Injury to esophagus • Loss of normal thermia (less than 35 degrees) • None • Other (specify)	M	Alphabetic Multiple Selection
11.6.6	Bleeding requiring blood transfusion	Indicate if a blood transfusion was used to treat blood loss	• Yes • No	M	**Format:** Alphabetic value list If "bleeding requiring transfusion" was selected in 11.6.5

5.6.b Lung Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.6.8	Actions taken to address events	Actions taken to address events		M	**Format:** Text If anything other than "None" selected in 11.6.5
11.6.9	Summary statement of procedure	Blank data field for surgeon notes after operative procedure		O	**Format:** Text
11.6.10	Patient estimated blood loss (cc)	Estimated ccs of blood loss during the procedure		O	**Format:** Numeric
11.6.11	Extubation in OR?	Did extubation occur in the OR	• Yes • No	O	**Format:** Alphabetic value list
11.6.12	Unit transferred to	Indicate where the patient was transferred to after the surgery	• Recovery room • Intensive Care Unit • Other (specify)	O	**Format:** Alphabetic value list

5.7 Prostate Cancer

Pan-Canadian Standards for prostate cancer include 7 clinical indicators and 161 data elements. Of the 161 data elements, 113 are deemed mandatory while 48 data elements are recommended as optional. Endorsement of the prostate cancer standards was received from the Canadian Urology Association. A copy of the endorsement letter is noted below.

Canadian Urological Association
The Voice of Urology in Canada

Association des urologues du Canada
La voix de l'urologie au Canada

Officers of the CUA
Dirigeants de L'AUC

President
Président
Dr. Michael Leonard
Ottawa, ON
president@cua.org

President-Elect
Président désigné
Dr. Curtis Nickel
Kingston, ON
president-elect@cua.org

Past President
Président sortant
Dr. Stuart Oake
Ottawa, ON
past-president@cua.org

Vice-President
Vice-président
Dr. Gerald Brock
London, ON
vice-president@cua.org

Vice-President Education
Vice-président Éducation
Dr. Alan So
Vancouver, BC
vpeducation@cua.org

Secretary
Secrétaire
Dr. Karen Psooy
Winnipeg, MB
secretary@cua.org

Treasurer
Trésorier
Dr. Ricardo Rendon
Halifax, NS
treasurer@cua.org

Vice-President Communications
Vice-président Communications
Dr. Wassim Kassouf
Montréal, QC
vpcommunications@cua.org

Executive Director
Directrice exécutive
Tiffany Pizioli
Montréal, QC
tiffany.pizioli@cua.org

Dr. Geoffrey Gotto, MD, MPH, FRCSC
GU Expert Panel Chair
Canadian Partnership Against Cancer
Assistant Professor, Department of Surgery and Department of Oncology
The University of Calgary
#6638 – 7007 14th Street SW
Calgary, AB
T2V 1P9

January 11, 2016

Dear Dr. Gotto,

On behalf of the CUA Endorsement Committee and CUA Secretary, Dr. Karen Psooy, we are delighted to inform you that the CUA's endorsement of the Pan-Canadian Prostate Cancer Operative Reporting Content Standards has been approved.

You may use the CUA logo and the statement, *"Reviewed and endorsed by the Canadian Urological Association, January 2016".*

Regards,

Tiffany Pizioli, MBA
Executive Director, Directrice Exécutive
185 Dorval, #401, Dorval, QC – H9S 5J9
C: (514) 813-8850 – T: (514) 395-0376 ext.44 – F: (514) 395-1664
tiffany.pizioli@cua.org www.cua.org

Corporate Office / Bureau corporatif
185 Dorval Avenue, Suite 401 • Dorval (QC) Canada H9S 5J9
Tel: (514) 395-0376 • Fax/Téléc: (514) 395-1664
www.cua.org

5.7.a Prostate Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 1	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients
Indicator Name	Intra-operative bleeding requiring transfusion
Indicator Description	Proportion of patients who underwent prostate cancer surgery with intra-operative bleeding requiring transfusion
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels
Specifications	**Numerator** Total number of intra-operative bleeding events requiring transfusion **Denominator** Total number patients undergoing prostate surgery
Template Data Collection Elements	12.7.8 Intra-operative Complications **Details and Calculation** **Numerator** 12.7.8= bleeding requiring transfusion

5.7.A Prostate Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 2	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	Pelvic Lymph Node Dissection (PLND) during radical prostatectomy
Indicator Description	Proportion of patients undergoing PLND during radical prostatectomy Stratified by: *A. Intermediate Risk* *B. High Risk*
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Number of patients undergoing pelvic lymph node dissection Stratified by: *A. Intermediate risk* *B. High risk* **Denominator** Denominator to measure numerators A and B is described below: Number of patients who underwent radical prostatectomy
Template Data Collection Elements	5.3 Procedure Performed 11.4 D'Amico Risk Stratification **Details and Calculation** **Numerator** *A. Intermediate Risk and lymph node dissection and pelvic lymph node dissection* 11.4= Intermediate risk AND 5.3= Bilateral nerve sparing prostatectomy OR left nerve sparing prostatectomy OR right nerve sparing prostatectomy OR non nerve sparing prostatectomy AND 5.3=Pelvic lymph node dissection OR Pelvic lymph node dissection – extended *B. High Risk and lymph node dissection and pelvic lymph node dissection* 11.4= High risk AND 5.3= Bilateral nerve sparing prostatectomy OR left nerve sparing prostatectomy OR right nerve sparing prostatectomy OR non nerve sparing prostatectomy AND 5.3=Pelvic lymph node dissection OR Pelvic lymph node dissection – extended

5.7.a Prostate Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 3	
Domain	**Utilization** Indicators include measures to describe health service utilization and outcome of the interaction between health professionals and patients. A common measure often expressed and reported is volume of services
Indicator Name	Radical prostatectomy surgeries performed (by institution, region, province) per calendar month
Indicator Description	Number of radical prostatectomies performed (by institution, region, province) in a calendar month
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total Number of Prostatectomies Performed in a calendar month **Denominator** Total number of prostatectomies performed
Template Data Collection Elements	4.1 Service Delivery Location Name 5.1 Date for Surgery 5.3 Procedure Performed **Details and Calculation** **Numerator** 5.3 = Bilateral Nerve Sparing Prostatectomy OR Left Nerve Sparing Prostatectomy OR Right Nerve Sparing Prostatectomy AND 5.1 = (current calendar month) **Exclusions** 5.2 Procedure Planned = Salvage Prostatectomy OR 5.3 Procedure Performed = Salvage Prostatectomy

5.7.A Prostate Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 4	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	Active Surveillance
Indicator Description	*A. Proportion of patients meeting criteria for active surveillance (criteria defined as: Gleason <6, <3 cores, <50% of any given core involved) undergoing prostate cancer surgery* *B. Proportion of patients with Gleason 6 score undergoing prostate cancer surgery*
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Number of patients meeting criteria for active surveillance (criteria defined as: Gleason <6, <3 cores, <50% of any given core involved) undergoing prostate cancer surgery* *B. Number of patients with Gleason score 6 undergoing prostate cancer surgery* **Denominator** Denominator to measure numerators A and B is described below: Number of patients with prostate cancer who underwent prostate cancer surgery
Template Data Collection Elements	10.7 Gleason score 10.10 Total cores positive left 10.11 Total cores positive right 10.12 % maximal core length involved **Details and Calculation** **Numerator A** 10.7=<6 AND Sum of 10.10 and 10.11 is <3 AND 10.12=<50% **Numerator B** 10.7=6

5.7.a Prostate Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 5	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients
Indicator Name	Serious intra-operative events
Indicator Description	Proportion of patients who underwent prostate cancer surgery and experienced at least one serious intra-operative event
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients experiencing at least one serious intra-operative complication Stratified by: *A. at least one intra-operative event* *B. technical complications* *C. medical complications* *D. other complications* **Denominator** Denominator to measure numerators A to D is described below: Total number of patients undergoing prostate surgery
Template Data Collection Elements	12.7.8 Complications (intra-operative) **Details and Calculation** **Numerator** *A. At least one intra-operative event* 12.7.8 = Obturator Nerve Injury OR Rectal Injury OR Ureteric Injury OR Anaesthetic OR Hypoxemia OR Hypotension OR Myocardial ischemia OR CVA OR Arrhythmia OR Cardiac Arrest OR Death OR Unresectable disease OR Instrument Issues *B. Technical Complications* 12.7.8 = Obturator Nerve Injury OR Rectal Injury OR Ureteric Injury *C. Medical Complications* 12.7.8 = Anaesthetic OR Hypoxemia OR Hypotension OR Myocardial ischemia OR CVA OR Arrhythmia OR Cardiac Arrest OR Death *D. Other Complications* 12.7.8 = Unresectable disease OR Instrument Issues OR Other (specify)

5.7.A Prostate Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 6	
Domain	**Diagnosis and Staging** Indicators include measures that describes pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer and to guide treatment decisions
Indicator Name	CT or bone scan for staging prior to surgery for prostate cancer
Indicator Description	Proportion of patients with prostate cancer who have undergone a CT or bone scan for staging Stratified by: *A. Low risk* *B. Intermediate risk* *C. High risk*
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Number of patients with CT or bone scan for staging Stratified by: *A. Low risk* *B. Intermediate risk* *C. High risk* **Denominator** Denominator to measure numerators A to C is described below: Number of patients who have undergone prostate cancer surgery
Template Data Collection Elements	8.1 Diagnostic Imaging Test Completed 11.4 D'Amico Risk Stratification **Details and Calculation** **Numerator** *A. Low Risk* 8.1 = bone scan OR Computed Tomography (CT) Scan AND 11.4 = Low risk (PSA <10ng/ml and Gleason <=6) *B. Intermediate risk* 8.1 = bone scan OR Computed Tomography (CT) Scan AND 11.4 = Intermediate risk *C. High Risk* 8.1 = bone scan OR Computed Tomography (CT) Scan AND 11.4 = High risk (Gleason =>8 or PSA >20)

5.7.a Prostate Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 7	
Domain	**Diagnosis and Staging** Indicators include measures that describes pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer and to guide treatment decisions
Indicator Name	Documentation of pre-treatment urinary and sexual function
Indicator Description	Proportion of patients who have undergone prostate cancer surgery with documentation of pre-treatment urinary and sexual function using a validated questionnaire (ex. IEFF, SHIM)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels
Specifications	**Numerator** Number of patients with documentation of pre-treatment urinary and sexual function **Denominator** Number of patients who have undergone prostate cancer surgery
Template Data Collection Elements	7.9.0 Urinary Function Questionnaire Administered 7.9.2.1 Sexual Function Questionnaire Administered **Details and Calculation** **Numerator** 7.9.0 = yes AND 7.9.2.1 = yes

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
A. Administrative and Identification Data					
1. Administration (overview of key report information)					
1.1	Report Date	Date of report completion – may be different than date of surgery	2001:01:01	M	**Format:** Date YYYY:MM:DD
1.2	Report completed by	Name of person completing report	Dr. Smith	M	**Format:** Alphabetic
1.3	Report copies to	Name of people receiving copies of the report	Dr. Jones	M	**Format:** Alphabetic
2. Patient Information (key demographic and clinical summary information about the person receiving surgery)					
2.1	Patient Last Name	Represents the patient's legal family name	Smith	M	**Format:** Alphabetic
2.2	Patient First Name	Represents the patient's legal first name	John	M	**Format:** Alphabetic
2.3	Patient Middle Name	Represents the patient's legal middle name	Doe	O	**Format:** Alphabetic
2.4	Patient Date of Birth	Represents the patient's date of birth	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.5	Patient ID	Represents a unique identifier assigned to the patient	123456789JG	M	**Format:** Alphanumeric
2.6	Patient ID type	Represents the type of patient Identifier (e.g. Jurisdictional Healthcare Identifier, Passport)	• Health Card Number • Medical Record Number	M	**Format:** Alphanumeric
3. Provider Details (person(s) performing and/or supporting the surgery)					
3.1	Provider Last Name	Represents the surgeon's Last name	Doe	M	**Format:** Alphabetic
3.2	Provider First Name	Represents the surgeon's First name	Jane	M	**Format:** Alphabetic
3.3	Provider Identifier Type	Represents the type of Provider Identifier		M	**Format:** Alphanumeric
3.4	Provider ID	Represents the unique identifier assigned to the surgeon	12345697F	M	**Format:** Alphanumeric

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
3.5	Assistant Last Name	Represents the Last name of assistants, residents, fellows and other assistants during the procedure	Smith	O	**Format:** Alphabetic can be repeated
3.6	Assistant First Name	Represents the First name of assistants, residents, fellows and other assistants during the procedure	John	O	**Format:** Alphabetic can be repeated
3.7	Assistant title	Title of the assistant who supported the procedure	• Family Physician • Resident • Assistant Surgeon • Second Surgeon	O	**Format:** Alphabetic value list can be repeated
3.8	Assistant ID type	Represents the type of Provider Identifier		O	**Format:** Alphabetic value list can be repeated
3.9	Assistant ID	Represents the unique identifier assigned to the Provider		O	**Format:** Alphabetic value list can be repeated
3.10	Anesthetist Last Name	Represents the anesthetist's Last name	Doe	O	**Format:** Alphabetic
3.11	Anesthetist First Name	Represents the anesthetist's First name	Jane	O	**Format:** Alphabetic
		4. Service Delivery Location Details (surgery location)			
4.1	Service Delivery Location Name	Represents the name of the Service Delivery Location here the patient received care	Glendale Family Health Clinic	M	**Format:** Text
4.2	Service Delivery Location Identifier Code	Represents the unique identifier of the PHC Service Delivery Location where the patient received care	A46B7356743	O	**Format:** Alphanumeric
4.3	Service Delivery Type of Services	Represents the type of location where the patient received care	• Inpatient facility • Outpatient clinic • Day surgery unit	O	**Format:** Alphabetic value list

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
B. Procedure Planned and Performed					
5. Current Procedure Administration (current planned and performed procedures and related diagnoses)					
5.1	Date of surgery	Date that the surgery was performed	2001:01:01	M	**Format:** Date YYYY:MM:DD
5.2	Procedure planned	Describe the procedure that was planned	• Salvage Prostatectomy • Bilateral Nerve Sparing Prostatectomy • Left Nerve Sparing Prostatectomy • Right Nerve Sparing Prostatectomy • Non Nerve Sparing Prostatectomy • Pelvic lymph node dissection – Standard • Pelvic lymph node dissection – Extended • Extra radical/ radical radical • Other (Specify)	M	**Format:** Alphabetic multiple selection
5.3	Procedure performed	Describe the procedure that was performed	• Salvage Prostatectomy • Bilateral Nerve Sparing Prostatectomy • Left Nerve Sparing Prostatectomy • Right Nerve Sparing Prostatectomy • Non Nerve Sparing Prostatectomy • Pelvic lymph node dissection – Standard • Pelvic lymph node dissection – Extended • Extra radical/ radical radical • Other (Specify)	M	**Format:** Alphabetic multiple selection
5.4	Reason for difference in procedure planned/ performed	An explanation for the delta between the planned and performed procedures.		M	**Format:** Text if 5.2 and 5.3 contain different values
5.5	Surgical Technique	Was the procedure laparoscopic or robotic assisted or open	• Open • Robotic • Laparoscopic	M	**Format:** Alphabetic value list
5.6	Patient involved in clinical trial?	Indicate if the patient is involved in a clinical trial?	• Yes • No	O	**Format:** Alphabetic value list
5.7	Clinical Trial Comments	Provide details regarding the clinical trial		O	**Format:** Text if “yes” to 5.5

5.7.B Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		6. Previous Therapies and Relevant Previous Surgeries (information about previous surgery for related diagnoses)			
6.1	Active Surveillance	Was active surveillance (observation and regular monitoring without invasive treatment) completed	• Yes • No	M	**Format:** Alphabetic value list
6.2	Active Surveillance Details		If Yes – trigger for surgical intervention – patient decision, PSA level, grade progression, volume progression	M	if yes to 6.1
6.7	Previous pelvic surgery	Was a previous pelvic surgery performed	• Yes • No	M	**Format:** Alphabetic value list
6.8	Previous pelvic surgery type	Describe the type of pelvic surgery that was performed	• Cryosurgery • High-intensity focused ultrasound • Colon surgery • TURP • Microwave • Hernia • Diverticular surgery • Other (specify)	M	**Format:** Alphabetic multiple selection
6.10	Previous pelvic radiation	Was a previous pelvic radiation conducted?	• Yes • No	M	**Format:** Alphabetic value list
6.11	Previous pelvic radiation type	Describe the type of pelvic radiation that was performed	• Brachytherapy • External Beam • Other	M	**Format:** Alphabetic value list if yes in 6.10
6.13	Previous therapy	Was previous therapy performed?	• Yes • No	M	**Format:** Alphabetic value list
6.14	Previous therapy type	Describe the type of therapy performed	• Chemotherapy • Hormonal Therapy	M	**Format:** Alphabetic multiple selection if yes in 6.13
		C. Pre-Operative Assessment			
		7. Clinical Findings (pre-operative clinical findings)			
7.1	Clinical presentation	Trigger for diagnosis or indication for investigation/ assessment	• PSA • DRE • LUTS • Other	M	**Format:** Alphabetic value list
7.2	ASA Score	Functional performance/ fitness status rating (ASA Score)	• 1 • 2 • 3 • 4 • 5	O	**Format:** Numeric value list
7.7	Physical findings (based on Digital Rectal Exam)	Physical findings as a result of a DRE	• Normal • Abnormal – Right • Abnormal – Left • Abnormal – Bilateral	O	**Format:** Alphabetic multiple selection

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.8	PSA	Provide the Prostate-specific antigen (PSA) score		M	**Format:** Numeric
7.9	PSA Time taken	Indicate when the PSA was taken	• At diagnosis • Latest preceding surgery	O	**Format:** Alphabetic value list
7.9.0	Urinary Function questionnaire administered	Was urinary function questionnaire administered?	• Yes • No	M	**Format:** Alphabetic value list
7.9.1	Urinary Function	Indicate function test(s) performed	• International Prostate Symptom Score (IPSS) • IPSS – QOL • Other (specify) • None	O	**Format:** Alphabetic value list
7.9.2	Urinary Function Results	Record score/result of urinary function test		O	**Format:** Text Result recorded for each urinary function test performed in 7.9.1 IPSS values (0-7 – mildly symptomatic; 8-19 – moderately symptomatic; 20-35 – severely symptomatic) IPSS – QOL values (maximum score of 6)
7.9.2.1	Sexual Function questionnaire administered	Was sexual function questionnaire administered?	• Yes • No	M	**Format:** Alphabetic value list
7.9.3	Sexual Function	Indicate sexual function test performed	• Potency • IEEF • None	O	**Format:** Alphabetic multiple selection
7.9.4	Sexual Function Results	Record score/result of sexual function test		O	**Format:** Text Result recorded for each sexual function test performed in 7.9.3 Potency values (normal; potency impaired on meds; impotent) IEEF values (number between 5 and 25)
7.10	Discussion of risks and complications associated with surgery occurred (intra-op)	Indicate if the patient was made aware of the risks and complications of the procedure/ may focus on unique risks related to this patient	• Blood loss • Risk of transfusion • Anaesthetic risk • Obturator injury • Rectal injury • Ureteric injury • Other (Specify)	M	**Format:** Alphabetic multiple selection

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.11	Discussion of risks and complications associated with surgery occurred (early post-op)	Were the short-term risks and complications associated with surgery discussed with the patient	• Risk of DVT/PE • Wound dehiscence • Persistent drainage from drain • Lymphocele development • Wound infection • Death • Other (Specify)	M	**Format:** Alphabetic multiple selection
7.12	Discussion of risks and complications associated with surgery occurred (long term pre-op)	Were the long-term risks and complications associated with surgery discussed with the patient	• Bladder neck contracture • Erectile dysfunction • Incontinence • Hernia • Other (Specify)	M	**Format:** Alphabetic multiple selection
7.13	Height	Represents the patients height (cm or inches)		O	**Format:** Numeric
7.14	Height Measurement Scale	Indicate if imperial or metric value was used for height	• Imperial • Metric	O	**Format:** Alphabetic value list
7.15	Weight	Represents the patients weight in kilograms or pounds		O	**Format:** Numeric
7.16	Weight Measurement Scale	Indicate if imperial or metric value was used for weight	• Imperial • Metric	O	**Format:** Alphabetic value list
7.17	Body Mass Index (BMI)	Represents patient's body mass index. Calculated automatically using height and weight		O	**Format:** Numeric calculation based on height (7.13) and weight (7.15)
7.18	Body Mass Index (BMI)Status	Represents the Body Mass Index (BMI) classification of the patient	• Underweight (<18.5) • Normal (18.5-24.9) • Overweight (25-29.9) • Obese (30-34.9) • Severely Obese (35 or greater)	O	**Format:** Alphanumeric value list
7.19	Pre-operative Comments			O	**Format:** Text
	8. Diagnostic Investigations (directed investigations in advance of surgery)				
	Diagnostic Imaging				
8.1	Diagnostic Imaging Test Completed	Represents the diagnostic imaging test ordered by the Provider for the patient	• None • Bone Scan • Computed Tomography (CT) Scan • Other (Specify)	M	**Format:** Alphabetic multiple selection

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		Diagnostic Imaging Results			
8.3	Prostate Volume available?	Indicate if the prostate volume was available	• Yes • No	M	**Format:** Alphabetic value list
8.4	Prostate Volume	Size of prostate as per imaging in ml		M	**Format:** Numeric
		D. Pre-Operative Pathology and Staging			
		10. Pre-Operative Pathology (results of pre-operative biopsies and pathology investigations)			
10.1	Pathology Diagnosis	Indicate the Pathology diagnosis	• Adenocarcinoma • Other (specify)	O	**Format:** Text
10.3	Type of biopsy guidance	Method to take cores	• Ultrasound • Digital guided • Both • Other (specify)	O	**Format:** Alphabetic value list
10.4	Gleason Grade – Primary Grade	Primary grade is the most common pattern. Provide details related to the majority of tumor (has to be greater than 50% of the total pattern seen)	• Pattern 1 – Small, uniform glands • Pattern 2 – More space between glands • Pattern 3 – Infiltration of cells from glands are margins • Pattern 4 – Irregular masses of cells with few glands • Pattern 5 – Lack of glands, sheets of cells	M	**Format:** Alphabetic value list
10.5	Gleason Grade – Secondary Grade	Provide details related to the minority of the tumor (has to be less than 50%, but at least 5%, of the pattern of the total cancer observed)	• Pattern 1 – Small, uniform glands • Pattern 2 – More space between glands • Pattern 3 – Infiltration of cells from glands are margins • Pattern 4 – Irregular masses of cells with few glands • Pattern 5 – Lack of glands, sheets of cells	M	**Format:** Alphabetic value list
10.7	Gleason Score	Indicate the Gleason Score	• Not Completed • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • 10	Calculated	Auto calculated based on answers in 10.4 and 10.5
10.8	Cores taken	Indicate if samples taken during biopsy	• Yes • No • Not available	M	**Format:** Alphabetic value list

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
10.9	Number of cores taken	Total number of samples taken during biopsy		M	**Format:** Numeric if "yes" to 10.8
10.10	Total cores positive left	The number of positive or cancerous, samples taken during biopsy		M	**Format:** Numeric if "yes" to 10.8
10.11	Total cores positive right	The number of positive or cancerous, samples taken during biopsy		M	**Format:** Numeric if "yes" to 10.8
10.12	% maximal core length involved	Describe the % maximal core length involved		M	**Format:** Numeric if "yes" to 10.8
10.13	Total linear distance	Describe the total linear distance of biopsy area		O	**Format:** Numeric if "yes" to 10.8
10.14	% positive cores	The percentage of positive cores taken during biopsy		O	**Format:** Numeric if "yes" to 10.8 (auto calculated)
		11. Clinical Stage & Risk Stratification (indicate the clinical stage of patient if applicable)			
11.1	T Status (pre-op)	Description of primary tumor	• TX – Primary tumor cannot be assessed • T0 – No evidence of primary tumor • T1a – Less than 5 percent of the prostate is affected by the tumor • T1b – More than 5 percent of the prostate is affected by the tumor • T1c – Tumor identified by needle biopsy, PSA elevated • T2a – Tumor affects one-half of one lobe or less • T2b – Tumor affects more than one-half of one lobe but not both lobes • T2c – Tumor affects both lobes • T3a – Tumor extends beyond the prostate capsule • T3b – Tumor invades seminal vesicle(s) • T4 – Tumor is fixed or invades surrounding areas	M	**Format:** Alphabetic value list

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
11.2	N Status (pre-op)	Description of regional lymph node involvement	• NX – Regional lymph nodes were not assessed • N0 – Tumor has not spread to regional lymph nodes • N1 – Tumor has spread to regional lymph nodes	M	**Format:** Alphabetic value list
11.3	M Status (pre-op)	Description of distant metastases	• MX – Distant metastasis cannot be assessed • M0 – No distant metastasis • M1 – Distant metastasis	M	**Format:** Alphabetic value list
11.4	D'Amico Risk Stratification	Provide the D'Amico risk stratification to estimate the biologic aggressiveness of the prostate cancer	• Low risk (PSA < 10ng/ml and Gleason <= 6) • Intermediate risk • High risk (Gleason => 8 or PSA > 20)	M	**Format:** Alphabetic value list
E. Operative Procedure					
12. Operative Procedure (describe elements of operative procedure)					
12.1 Sign In and Briefing					
12.1.1	Time of surgery start	Represents the start time of the procedure – from incision	13:30	O	**Format:** 24 hour clock value
12.1.2	Time of surgery end	Represents the end time of the procedure – at close	14:50	O	**Format:** 24 hour clock value
12.1.4	Surgical Safety Checklist performed?	Describes whether the surgical safety checklist was completed (includes sign in. timeout, debrief, briefing)	• Yes • No	M	**Format:** Alphabetic value list
12.1.5	Patient Position	Describe the patient position during the procedure	• Supine • Trendelenburg • Other	O	**Format:** Alphabetic value list
12.1.6	Pre-operative antibiotics	Indicate whether antibiotics were given to the patient	• Yes • No	M	**Format:** Alphabetic value list
12.1.7	Type of Deep Vein Thrombosis (DVT) prophylaxis	Indicate the type of Deep Vein Thrombosis Prophylaxis was given to patient	• None • Unfractionated heparin • Low-molecular-weight heparin • Sequential calf-compression device (SCDs) • Anti-Embolism Compression Stockings (TED)	M	**Format:** Alphabetic multiple selection

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.1.8	Anaesthesia Type	Describes the type of anaesthesia given	• General • Regional • Combined	M	**Format:** Alphabetic value list
12.1.9	Regional Pain Control	Describes the type of pain control method used during the surgery	• Tap block • Intrathecal • Epidural use	O	**Format:** Alphabetic value list
12.1.12	Surgical Technique	Was the procedure laparoscopic or robotic assisted or open	• Laparoscopic • Robotic assisted • Open	M	**Format:** Alphabetic value list
		BRANCHING LOGIC Once 12.1.12 Is Completed If 5.5 Is "Laparoscopic" or "Robotic Assisted", Branch to 12.2 If 5.5 Is "Open" Branch to 12.3			
		12.2 Operative Details – Laparoscopic or Robotic Assisted Will Branch from Procedure Selected			
12.2.1	Intraperitoneal vs. extra peritoneal	Was the surgery intraperitoneal or extra peritoneal	• Intraperitoneal • Trans peritoneal	M	**Format:** Alphabetic value list
12.2.2	Entry Technique	Describe the entry technique	• Veress Needle • Open Hassan • Gasless	M	**Format:** Alphabetic value list
12.2.6	Final Foley catheter size	Describe the final Foley catheter size (in French)		M	**Format:** Numeric
12.2.7	Description of location of ports	Describe the location of the port	• Umbilical • Lower midline • Right lower quadrant • Left lower quadrant • Superpubic	M	**Format:** Alphabetic multiple selection
12.2.9	Port size	Describe the port size in mm		M	**Format:** Numeric Complete one for each port (repeated based on port location in 12.2.7)
12.2.10	Port closure	Was the port closed?	• Yes • No	M	**Format:** Alphabetic value list Complete one for each port (repeated based on location in 12.2.7)
12.2.11	Direction of approach	Operative approach for dissection of the prostate	• Antegrade • Retrograde	M	**Format:** Alphabetic value list
12.2.11.1	Extent of approach	Extent of approach for dissection of the prostate	• Radical • Extra radical	M	**Format:** Alphabetic value list Connected to element 5.2 when Extra radical/radical is selected

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.2.12	Lymph node dissection	Was a lymph node dissection completed	• Yes • No	M	**Format:** Alphabetic value list
12.2.13	Extent of Lymph node dissection	If a Lymph node dissection was completed, how extensive was it?	• Hypogastric • Obturator • External iliac • Common iliac • Other	M	**Format:** Alphabetic multiple selection
12.2.14	Enlarged Lymph Nodes	Were enlarged lymph nodes noted?	• Yes • No	O	**Format:** Alphabetic value list if 12.2.12=yes
12.2.17	Bladder neck sparing?	Was bladder neck sparing completed?	• Yes • No	M	**Format:** Alphabetic value list
12.2.18	Median lobe present	Presence of median lobe of prostate	• Yes • No	M	**Format:** Alphabetic value list
12.2.22	Nerve sparing procedure performed on the right side	Describe the nerve sparing procedure performed on the right side	• Complete • Partial • None	M	**Format:** Alphabetic value list
12.2.24	Nerve sparing procedure performed on the left side	Describe the nerve sparing procedure performed on the left side	• Complete • Partial • None	M	**Format:** Alphabetic value list
12.2.26	Management of pedicles	Blood supply stemming method	• Clips – titanium • Clips – hemolock • Energy – bipolar • Energy – monopolar • Energy – ligasure • Energy- harmonic • Other (specify)	M	**Format:** Alphabetic multiple selection
12.2.27	Seminal vesicle dissection	Indicate if the seminal vesicle tips were spared	• Yes • No	M	**Format:** Alphabetic value list
12.2.28	Dorsal Venus Complex (DVC) control	Was dorsal venous complex control completed?	• Yes • No	M	**Format:** Alphabetic value list Autofill to yes
12.2.29	Ease of Apical Dissection	Ease of dissection of the prostate apex	• Normal • Difficult	O	**Format:** Alphabetic value list
12.2.36	Bladder-urethral anastomosis	Describe the bladder closure method	• Running • Interrupted • Both	M	**Format:** Alphabetic value list
12.2.67	Number of interrupted stitches	Record the number of interrupted stitches	Enter numeric value	O	**Format:** Numeric if 12.2.36 = interrupted or both
12.2.37	Suture type	Material used to close bladder	• Dexon • Maxon • Silk • Vicryl • PDS • Monocryl	M	**Format:** Alphabetic value list

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.2.40	Posterior repair/ ROCCO	Reinforcing sutures	• Yes • No	O	**Format:** Alphabetic value list
12.2.42	Bladder-urethral anastomosis was watertight	Indicate if the bladder was watertight	• Yes • No	O	**Format:** Alphabetic value list
12.2.43	Conversion	Did you convert from laparo to open?	• Yes • No	M	**Format:** Alphabetic value list
12.2.44	Why Conversion	Why was the conversion done?	• Failure to Progress • Blood Loss • Rectal Injury • Adjacent Organ Injury • Other (specify)	M	**Format:** Alphabetic value list
		BRANCHING LOGIC Once 12.2.40 Is Completed If 12.2.43 is "Yes", Branch to 12.3.1 If 12.2.43 is "No" Branch to 12.46			
12.2.46	Drainage used	Were drains used in the procedure	• Yes • No	M	**Format:** Alphabetic value list
12.2.47	Number of drains	Indicate the number of drains used		M	**Format:** Numeric If "yes" to 12.2.44
12.2.48	Drain type	Indicate the type of drain used	• Jackson-Pratt • Blake • Penrose	M	**Format:** Alphabetic value list If "yes" in 12.2.44
12.2.48.1	Fascia Closure	Describe how the fascia was closed	• Running • Interrupted • Other (specify)	M	**Format:** Alphabetic value list
12.2.49	Specimen extraction	Specific removal from patient	• Bag • Other (specify)	M	**Format:** Alphabetic value list
12.2.50	Site of specimen extraction	Describe the site of specimen extraction	• Umbilical • Other (specify)	M	**Format:** Alphabetic value list
12.2.51	Lapro/robo assisted comments	Provide any additional comments if required		O	**Format:** Text
		BRANCHING LOGIC Once 12.2.51 Is Completed Branch to 12.4			
12.3.1	Site of incision	Describe the site of incision	• Midline • Pfannestiel • Perineal	M	**Format:** Alphabetic value list
12.3.2	Lymph node dissection	Was a lymph node dissection completed	• Yes • No	M	**Format:** Alphabetic value list
12.3.3	Extent of Lymph node dissection	If a Lymph node dissection was completed, how extensive was it?	• Hypogastric • Obturator • External iliac • Common iliac • Other (specify)	M	**Format:** Alphabetic multiple selection if "yes" selected in 12.3.2

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.4	Pelvic lymph node description	Describe if the pelvic lymph nodes were palpably normal or not	• Palpably Normal • Other (specify)	M	**Format:** Alphabetic value list if "yes" selected in 12.3.2
12.3.6	Pelvic Lymph-adenectomy Preformed	Indicate if a pelvic lymphadenectomy was performed	• Yes • No	M	**Format:** Alphabetic value list
12.3.7	Pelvic Lymph-adenectomy Comments	Provide comments on the pelvic lymphadenectomy		M	**Format:** Text if "yes" selected in 12.3.6
12.3.9	Dissection of the prostate	Was the prostate dissected	• Yes – Easy to perform • Yes – Difficult due to desmoplastic reaction • No	M	**Format:** Alphabetic value list
12.3.12	Nerve sparing procedure performed on the right side	Describe the nerve sparring procedure performed on the right side	• Complete • Partial • None	M	**Format:** Alphabetic value list
12.3.14	Nerve sparring procedure performed on the left side	Describe the nerve sparring procedure performed on the left side	• Complete • Partial • None	M	**Format:** Alphabetic value list
12.3.17	Seminal vesicle dissection	Indicate if the seminal vesicle tips were spared	• Yes • No	M	**Format:** Alphabetic value list
12.3.18	Dorsal Venus Complex (DVC) control	Was dorsal venous complex control completed?	• Yes • No	M	**Format:** Alphabetic value list Autofill to yes
12.3.26	Suture type	Describe the type of suture used	• Dexon • Maxon • Silk • Vicryl • PDS • Monocryl	M	**Format:** Alphabetic value list
12.3.27	Number of sutures used for vesicoureteral anastomosis	Describe the number of radially placed sutures during the vesicoureteral anastomosis		M	**Format:** Numeric
12.3.28	Fascia closure	Describe how the fascia was closed	• Running • Interrupted • Other (specify)	M	**Format:** Alphabetic value list
12.3.30	Drainage used	Were drains used in the procedure	• Yes • No	M	**Format:** Alphabetic value list
12.3.31	Drain type	Indicate the type of drain used	• Jackson-Pratt • Blake • Penrose	M	**Format:** Alphabetic value list If "yes" to 12.3.30

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.32	skin closure	Describe how the skin was closed	• Metal clips • Subcuticular Absorbable • Other (specify)	M	**Format:** Alphabetic value list
12.3.34	Infiltration of local anaesthetic	Local anaesthesia applied to incision	• Yes • No	O	**Format:** Alphabetic value list
12.3.35	Infiltration of local anaesthetic – comments	Provide comments regarding the infiltration of local anaesthetic		O	**Format:** Text If yes to 12.3.33
		BRANCHING LOGIC Once 12.3.35 Is Completed Branch to 12.4			
		12.4 Intra-Operative Observations			
12.4.1	Tumor palpable?	Could the tumor be touched or felt?	• Yes • No	M	**Format:** Alphabetic value list
12.4.2	Tumor with suspected extracapsular extension	Prostate cancer spread beyond prostate capsule	• Yes – Right • Yes – Left • Yes – Bilateral • No	M	**Format:** Alphabetic value list
12.4.5	Accessory vessels	Unanticipated blood vessels in surgical field	• Yes • No	O	**Format:** Alphabetic value list
12.4.6	Accessory vessels preserved	Were the accessory vessels preserved	• Yes • No	O	**Format:** Alphabetic value list If “yes” to 12.4.5
12.4.7	Unexpected findings	Provide comments of any unexpected findings		M	**Format:** Text
12.4.8	Intra-operative consultation	Was an additional surgeon required during the procedure	• Yes • No	M	**Format:** Alphabetic value list
12.4.9	Reason for consult	Describe why a second surgeon was required		M	**Format:** Text If “yes” selected in 12.4.8
		12.6 Closure			
12.6.1	Sponge and instrument counts done	Describes if a sponge and instrument count was completed after closure	• Yes • No	M	**Format:** Alphabetic value list
12.6.2	Counts correct	Describes if a sponge and instrument count was correct	• Yes • No	M	**Format:** Alphabetic value list
12.6.3	Debrief Completed	Indicate if the debriefing was completed	• Yes • No	M	**Format:** Alphabetic value list

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		12.7 Outcomes, Complications and Patient Transfer			
12.7.1	Patient stability throughout case in OR	Describes the patients stability during the operative procedure	• Stable • Unstable	M	**Format:** Alphabetic value list
12.7.2	Unstable patient details (in OR)	Describe any relevant information regarding the patient's stability during the procedure		M	**Format:** Text If unstable in 12.7.1
12.7.3	Patient condition when leaving OR	Describes the patients stability after the operative procedure	• Stable • Unstable	M	**Format:** Alphabetic value list
12.7.4	Unstable patient details (leaving OR)	Describe any relevant information regarding the patient's stability when leaving the OR		M	**Format:** Text If unstable in 12.7.3
12.7.5	Patient estimated blood loss (cc)	Estimated units of blood loss during the procedure		M	**Format:** Numeric
12.7.6	Number of units received	Indicate the amount of blood received by the patient during surgery		M	**Format:** Numeric
12.7.7	Type of blood received	Indicate the type of blood received	• Autologous • Banked	M	**Format:** Alphabetic multiple selection
12.7.8	Complications (Intra-operative)	Identify complications that occurred during surgery	• None • Bleeding requiring transfusion • Anaesthetic • Obturator nerve injury • Rectal injury • Ureteric injury • Hypoxemia • Hypotension • Unresectable disease • Myocardial ischemia • CVA • Arrhythmia • Instrument issues • Cardiac Arrest • Death • Other (specify)	M	**Format:** Alphabetic multiple selection
12.7.9	Actions taken to address complications and results	Describe the actions taken to address complications and results of those actions		O	**Format:** Text If 12.7.7. has any value other than "None"
12.7.11	Unit transferred to	Indicate where the patient was transferred to after the surgery	• Recovery room • Intensive Care Unit • Other (Specify)	O	**Format:** Alphabetic value list
12.7.12	Operative Procedure comments	Additional comments on operative procedure		O	**Format:** Text

5.7.b Prostate Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
F. Completion Elements					
13. Follow-Up (description of follow-up plans for the immediate peri-operative event and long-term plan if applicable)					
13.4	Dictation addendum	Will there be a dictated addendum?	• Yes • No	M	**Format:** Alphabetic value list

5.8 Ovarian Cancer

Pan-Canadian Standards for ovarian cancer include 9 clinical indicators and 190 data elements. Of the 190 data elements, 133 are deemed mandatory while 57 data elements are recommended as optional. The Canadian Society of Gynecologic Oncology has endorsed the ovarian cancer pan-Canadian standards. A copy of the endorsement letter is noted below.

GOC THE SOCIETY OF GYNECOLOGIC ONCOLOGY OF CANADA | LA SOCIÉTÉ DE GYNÉCO-ONCOLOGIE DU CANADA

January 25, 2016

Dr. Mary Argent-Katwala
Director, Diagnosis & Clinical Care
Canadian Partnership Against Cancer
1 University Avenue, Suite 300
Toronto, Ontario M5J 2P1

Dear Dr. Argent-Katwala:

This letter confirms our endorsement of the Ovarian and Endometrial Cancer Synoptic Standards set forth by the Canadian Partnership Against Cancer on behalf of the Society of Gynecologic Oncology of Canada (GOC). GOC endorses the pan-Canadian Ovarian and Endometrial Cancer Synoptic Standards and strongly supports that defining standards and continued improvement of quality is vital to providing the best possible care for our patients and achieving desirable outcomes.

We look forward, as a Society, to working with you in the future.

Sincerely,

Dr. Paul Hoskins
President

Dr. Shannon Salvador
GOC representative on the CPAC Ovarian and Endometrial Cancer Synoptic OR Committee

780 promenade Echo Drive, Ottawa, Ontario, K1S 5R7
Tel./Tél. : 613-730-4192 ext. 250 or/ou 1-800-561-2416 ext. 250
Fax/Téléc. : 613-730-4314 WEB : WWW.G-O-C.ORG

5.8.a Ovarian Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 1	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients.
Indicator Name	*A. % intra-operative bleeding requiring transfusion* *B. % intra-operative bleeding requiring transfusion during aggressive surgery*
Indicator Description	Proportion of patients who experienced intra-operative bleeding requiring transfusion Stratified by: *A. Total* *B. Aggressive surgery*
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number of patients with ovarian/fallopian tube cancer who experienced intra-operative bleeding requiring transfusion* *B. Total number of patients with ovarian/fallopian tube cancer who experienced intra-operative bleeding requiring transfusion and who underwent aggressive surgery* **Denominator** Denominators to measure numerators A and B are described below: *A. Total number of patients with surgically-treated ovarian/fallopian tube cancer* *B. Total number of patients with ovarian/fallopian tube cancer who were treated through aggressive surgery*
Template Data Collection Elements	12.4.3 Abdominal procedures performed 12.4.6 Bowel procedures performed 12.4.7 Palliative procedures performed 12.9.3 Complications (Intra-operative) **Details and Calculation** **Numerator** *A. 12.9.3 = Bleeding requiring transfusion* *B. 12.9.3 = Bleeding requiring transfusion* AND any one of the following values: 12.4.3= Left diaphragm stripping OR Right diaphragm stripping OR *Left diaphragm resection OR Right diaphragm resection OR Splenectomy OR 12.4.6=low anterior resection of rectum OR 12.4.7=large bowel resection*

5.8.a Ovarian Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 2	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% patients with ovarian/fallopian tube cancer treated with neoadjuvant chemotherapy
Indicator Description	Proportion of patients with ovarian/fallopian tube cancer treated with neoadjuvant chemotherapy
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with ovarian/fallopian tube cancer treated with neoadjuvant chemotherapy **Denominator** Total number of patients with pre-operative diagnosis of ovarian/fallopian tube cancer
Template Data Collection Elements	5.2 Pre-operative diagnosis 7.17 Pre-op chemo **Details and Calculation** **Numerator** 7.17=yes AND 5.2=ovarian/fallopian tube cancer

5.8.a Ovarian Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 3	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients.
Indicator Name	% serious intra-operative complications
Indicator Description	Proportion of patients with ovarian/fallopian tube cancer and serious intra-operative complications
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with ovarian/fallopian tube cancer who experienced at least one serious intra-operative complication **Denominator** Total number of patients who underwent surgery for ovarian/fallopian tube cancer
Template Data Collection Elements	12.9.3 Complications (intra-operative) **Details and Calculation** **Numerator** 12.9.3 = Bleeding requiring transfusion OR Injury to ureter OR Injury to blood vessels OR Injury to liver OR Injury to spleen OR Cardiac Arrest OR Death

5.8.a Ovarian Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 4	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% of patients with ovarian/fallopian tube cancer that received prophylactic antibiotics
Indicator Description	Proportion of patients with ovarian/fallopian tube cancer that received prophylactic antibiotics
Potential Use	Support self-reflection in clinical practice Inform quality improvement initiatives at hospital and community levels
Specifications	**Numerator** Total number of patients with ovarian/fallopian tube cancer who received prophylactic antibiotics **Denominator** Total number of patients with ovarian/fallopian tube cancer who underwent surgery
Template Data Collection Elements	12.1.9 Antibiotics given 5.2 Pre-Operative diagnosis **Details and Calculation** **Numerator** 12.1.9 = yes AND 5.2 = ovarian/fallopian tube cancer

5.8.a Ovarian Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 5	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% patients with ovarian/fallopian tube cancer who received Deep Vein Thrombosis (DVT) prophylaxis
Indicator Description	Proportion of patients with ovarian/fallopian tube cancer who received DVT prophylaxis
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with ovarian/fallopian tube cancer who received DVT prophylaxis **Denominator** Total number of patients with ovarian/fallopian tube cancer who underwent surgery
Template Data Collection Elements	12.1.8 DVT prophylaxis 5.2 Pre-Operative diagnosis **Details and Calculation** **Numerator** 12.1.8 = Heparin OR Preinduction OR Ted Stockings OR Pneumatic Compression OR IVC filter OR Deltaparin OR Fragmin AND 5.2 = ovarian/fallopian tube cancer

5.8.a Ovarian Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 6	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% residual disease of ovarian/fallopian tube cancer
Indicator Description	Proportion of patients with ovarian/fallopian tube cancer undergoing surgery Stratified by amount of residual disease: *A. no gross residual disease (microscopic)* *B. <1cm* *C. ≥1cm*
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number of patients with ovarian/fallopian tube cancer who have no gross residual disease (microscopic)* *B. Total number of patients with ovarian/fallopian tube cancer who have residual disease of <1cm* *C. Total number of patients with ovarian/fallopian tube cancer who have residual disease ≥1cm* **Denominator** Denominator to measure numerators A to C is described below: Total number of patients with ovarian/fallopian tube cancer
Template Data Collection Elements	5.2 Pre-operative diagnosis 12.7.3 Specify residual disease size **Details and Calculation** **Numerator** *A. no gross residual disease (microscopic)* 5.2 = ovarian/fallopian tube cancer AND 12.7.3 = no gross residual disease (microscopic) *B. residual disease <1cm* 5.2 = ovarian/fallopian tube cancer AND 12.7.3 = <1 cm *C. residual disease ≥1cm* 5.2 = ovarian/fallopian tube cancer AND 12.7.3 = ≥1 cm

5.8.a Ovarian Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 7	
Domain	**Diagnosis and Staging** Indicators include measures that describes pre-operative or operative procedures commonly used to determine the diagnosis and/or stage of a cancer and to guide treatment decisions.
Indicator Name	% patients with advanced ovarian/fallopian tube cancer that underwent pre-operative investigations (CT Scan, CA-125)
Indicator Description	Proportion of patients with advanced ovarian/fallopian tube cancer that underwent pre-operative investigations (CT Scan, CA-125)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with advanced ovarian/fallopian tube cancer who underwent pre-operative investigation (CT Scan, CA-125) **Denominator** Total number of patients with advanced ovarian/fallopian tube cancer
Template Data Collection Elements	5.2 Pre-operative diagnosis 8.1 Pre-Op Tests and procedures (imaging) 7.22.1 CA-125 (before neoadjuvant chemotherapy) 12.6.1 Intra-operative Stage **Details and Calculation** **Numerator** 5.2 = ovarian/fallopian tube cancer AND 12.6.1 = Stage 2 OR Stage 3 OR Stage 4 AND 8.1= CT – abdominal OR CT – Pelvic OR CT – PET OR CT – Thorax OR 7.22.1= normal OR abnormal OR unknown* *when these values are reported

5.8.a Ovarian Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 8	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% patients with early stage ovarian/fallopian tube cancer that underwent comprehensive staging operation
Indicator Description	Proportion of patients with early stage ovarian/fallopian tube cancer that underwent comprehensive staging operation
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with early stage ovarian/fallopian tube cancer who underwent comprehensive staging operation **Denominator** Total number of patients with early stage ovarian/fallopian tube cancer
Template Data Collection Elements	12.6.1 Intra-operative Stage 12.4.4 = Lymph Node Procedure Performed **Details and Calculation** **Numerator** 12.6.1 = Stage 1 AND 12.4.1 = Left pelvic Lymphadenectomy (includes obturator nodes) OR Right pelvic Lymphadenectomy (includes obturator nodes) OR Left para-aortic Lymphadenectomy (up to IMA) OR Right para-aortic Lymphadenectomy (up to IMA) OR Left para-aortic Lymphadenectomy (up to left renal artery) OR Right para-aortic Lymphadenectomy (up to right renal artery)

5.8.a Ovarian Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 9	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients
Indicator Name	% repeat surgery after incomplete primary surgery for ovarian/fallopian tube cancer
Indicator Description	Proportion of ovarian/fallopian tube cancer patients who underwent repeat surgery after incomplete primary surgery
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of ovarian/fallopian tube cancer patients who underwent repeat laparotomy after incompletely staged primary surgery **Denominator** Total number of ovarian/fallopian tube cancer patients who underwent surgery
Template Data Collection Elements	5.2 Pre-operative diagnosis 5.7 Surgical indications and purpose **Details and Calculation** **Numerator** 5.2 = ovarian/fallopian tube cancer AND 5.7 = reoperation (staging, debulking)

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
A. Administrative and Identification Data					
1. Administration (overview of key report information)					
1.1	Report Date	Date of report completion – may be different than date of surgery	2001:01:01	M	**Format:** Date YYYY:MM:DD
1.2	Report completed by	Name of person completing report	Dr. Smith	M	**Format:** Alphabetic
1.3	Report copies to	Name of people receiving copies of the report	Dr. Jones	O	**Format:** Alphabetic
2. Patient Information (key demographic and clinical summary information about the person receiving surgery)					
2.1	Patient Last Name	Represents the patient's legal family name	Smith	M	**Format:** Text
2.2	Patient First Name	Represents the patient's legal first name	John	M	**Format:** Text
2.3	Patient Middle Name	Represents the patient's legal middle name	Doe	O	**Format:** Text
2.4	Patient Date of Birth	Represents the patient's date of birth	2001:01:01	M	**Format:** Date YYYY:MM:DD
2.5	Patient ID	Represents a unique identifier assigned to the patient	123456789JG	M	**Format:** Alphanumeric
2.6	Patient ID type	Represents the type of Patient Identifier (e.g. Jurisdictional Healthcare Identifier, Passport)	• Health Card Number • Medical Record Number	M	**Format:** Alphabetic value list
3. Provider Details (person(s) performing and/or supporting the surgery)					
3.1	Provider Last Name	Represents the surgeon's Last name.	Doe	M	**Format:** Text
3.2	Provider First Name	Represents the surgeon's First name.	Jane	M	**Format:** Text
3.3	Provider ID	Represents the unique identifier assigned to the surgeon	12345697F	M	**Format:** Alphanumeric
3.4	Assistant Last Name	Represents the Last name of assistants, residents, fellows and other assistants during the procedure	Smith	O	**Format:** Text can be repeated
3.5	Assistant First Name	Represents the First name of assistants, residents, fellows and other assistants during the procedure	John	O	**Format:** Text can be repeated

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
3.6	Assistant title	Title of the assistant who supported the procedure	• Family Physician • Resident • Assistant Surgeon • Second Surgeon	O	**Format:** Alphabetic value list can be repeated
3.7	Assistant ID type	Represents the type of Provider Identifier		O	**Format:** Alphanumeric value list can be repeated
3.8	Assistant ID	Represents the unique identifier assigned to the Provider		O	**Format:** Alphanumeric value list can be repeated
3.9	Anesthetist Last Name	Represents the anesthetist's Last name	Doe	O	**Format:** Text
3.10	Anesthetist First Name	Represents the anesthetist's First name	Jane	O	**Format:** Text
		4. Service Delivery Location Details (surgery location)			
4.1	Service Delivery Location Name	Represents the name of the Service Delivery Location here the patient received care	• Glendale Family Health • Clinic	M	**Format:** Text
4.2	Service Delivery Location Identifier Code	Represents the unique identifier of the PHC Service Delivery Location where the patient received care	A46B7356743	O	**Format:** Alphanumeric
4.3	Service Delivery Type of Services	Represents the type of location where the patient received care	• Inpatient facility • Outpatient clinic • Day surgery unit	O	**Format:** Alphabetic value list
4.4	Room ID	Represents the room number where the procedure was performed	Applicable to service delivery location	O	**Format:** Alphanumeric
		B. Procedure Planned and Performed			
		5. Current Procedure Administration (current planned and performed procedures and related diagnoses)			
5.1	Date of surgery	Date that the surgery was performed	20010101	M	**Format:** Date YYYY:MM:DD
5.2	Pre-operative diagnosis	Diagnosis of the patient determined before the surgery	• Ovarian/Fallopian tube Cancer • Pelvic Mass • BRCA (prophylactic surgery) • Lynch Syndrome • Other (specify)	M	**Format:** Alphabetic multiple selection

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
5.4	Post-operative diagnosis	The most likely diagnosis of the patient after surgery is completed	• Ovarian/Fallopian tube Cancer • Pelvic Mass • BRCA (prophylactic surgery) • Lynch Syndrome • Other (specify)	M	**Format:** Alphabetic multiple selection
5.6	Operative Urgency	Condition or situation in which to perform surgery as the best possible treatment or to prevent serious complications of the disease	• Elective/Urgent (>24 hours) • Emergent (<24 hours)	O	**Format:** Alphabetic value list
5.7	Surgical Indications and purpose	Indicate reason for operating on the patient	• Primary cytoreduction • Secondary cytoreduction • Delayed primary surgery (neo-adjuvant, Surgery) • Interval debulking (Surgery, Chemotherapy, Surgery, 2nd Surgery) • Incidental • Surgery for Recurrence • Palliative • Complications of previous surgery • Reoperation surgery (staging, debulking) • Small bowel obstruction • Large bowel obstruction • Other (Specify)	M	**Format:** Alphabetic value list
		6. Re-operation and Previous Surgeries (information about previous surgery for related diagnoses)			
6.1	Previous Surgery(ies)	Indicate the type of gynecologic surgeries the patient underwent in the past	• None • Subtotal Hysterectomy • Hysterectomy • Left Oophorectomy • Right Oophorectomy • Left Salpingectomy • Right Salpingectomy • Caesarian Section • Hernia • Bowel Resection • Other (specify)	M	**Format:** Alphabetic multiple selection
6.4	Comments	Comments on procedures planned and performed		O	**Format:** Text

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
C. Pre-Operative Assessment					
		7. Clinical Findings (pre-operative clinical findings)			
7.2	Tubal Ligation	Indicate if the patient has undergone tubal ligation	• Yes • No • Unknown	O	**Format:** Alphabetic value list
7.8	Family history related BRCA1/2 (breast cancer genes 1 or 2) or HNPCC (Hereditary nonpolyposis colorectal cancer)	Family history of hereditary cancer (breast, pancreas, bladder, prostate, Colon, Ovarian)	• Yes • No	O	**Format:** Alphabetic value list
7.10	Performance Status – ECOG (Eastern Cooperative Oncology Group)	Indicate ECOG performance rating to describe the performance status of the patient prior to surgery	• 1 • 2 • 3 • 4	M	**Format:** Numeric value list
7.11	Previous pelvic/ abdominal radiotherapy	Indicate whether a patient has previously undergone radiotherapy	• Yes • No • Radiation note	O	**Format:** Alphabetic value list
7.12	Height	Represents the patients height as measured	164	O	**Format:** Numeric
7.13	Height unit of measure	Represents the Client height unit of measure captured	• Centimetres • Inches	O	**Format:** Alphabetic value list
7.14	Weight	Represents the patients weight as measured	82	O	**Format:** Numeric
7.15	Weight unit of measure	Represents the Client weight unit of measure captured	• Kilograms • Pounds	O	**Format:** Alphabetic value list
7.15.1	Body Mass Index (BMI)	Represents the patient's body mass index. Calculated automatically using height and weight		M	**Format:** Numeric calculation calculation based on height (7.12) and weight (7.14)
7.16	Body Mass Index (BMI) Status	Represents patient's weight status based on body mass index	• Underweight (<18.5) • Normal (18.5 – 24.9) • Overweight (25- 29.9) • Obese (30 – 34.9) • Severely Obese (>35)	M	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.16.0	Body Mass Index (BMI)>45	Is Patient's body mass index (BMI) >45?	• Yes • No • Unknown	M	**Format:** Alphabetic value list based on response to 7.15.1
7.16.1	Cancer Antigen 125 (CA-125) – at surgery	Lab results of CA-125 that was drawn prior to surgery	• Normal • Abnormal • Unknown • Not Done	M	**Format:** Alphabetic value list
7.16.2	CA-125 (u/mL) (at surgery) – Range	Lab results of CA-125 that was drawn prior to surgery	• <35 • 35-99 • 100 – 500 • >500	M	**Format:** Numeric If 7.1=normal or abnormal Can be completed if exact value not available
7.16.3	Ca-125 (u/mL) (at surgery) – Amount	Specify exact value of CA-125 that was drawn prior to surgery		O	**Format:** Numeric if 7.16.1=normal or abnormal
		Pre-op Neo-adjuvant Chemotherapy			
7.17	Pre-op chemotherapy	Indicate whether neo-adjuvant chemotherapy was given to the patient pre-operatively	• Yes • No	M	**Format:** Alphabetic value list
7.18	How was the diagnosis obtained	Indicate which tests were performed to confirm the initial diagnosis of the patient	• Not Done • Cytology • Operative Cytology • Histology • Paracentesis • FNA/Biopsy • Laparoscopy • Laparotomy • Thoracentesis	O	**Format:** Alphabetic multiple selection if "yes" to 7.17
7.19	Number of neoadjuvant cycles	Number of neo-adjuvant chemotherapy cycles given pre-operatively		M	**Format:** Numeric if "yes" to 7.17
7.20	Date cytology or histology obtained	What date was histology or cytology obtained	2001:01:01	O	**Format:** DATE YYYYMM month and year only if yes above if "yes" to 7.17
7.21	Clinical response to neoadjuvant chemotherapy	Patient's response to neoadjuvant chemotherapy	• Complete Response • Partial Response • Stable Disease • Progressive Disease • No Response • Not evaluable • Unknown	M	**Format:** Alphabetic value list if "yes" to 7.17

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.22.0	CA-125 (before neo-adjuvant chemotherapy)	Lab results of CA-125 that was drawn prior to neoadjuvant chemotherapy	• Normal • Abnormal • Unknown • Not done	M	
7.22	CA-125 before neo adjuvant chemotherapy (u/mL)	Lab results of CA-125 that was drawn prior to the first cycle of neoadjuvant chemotherapy	• <35 • 35-99 • 100 – 500 • >500	M	**Format:** Alphabetic value list if "yes" to 7.17
7.22.1	CA-125 (u/mL) before neoadjuvant chemotherapy	Exact value of CA-125 that was drawn prior to the first cycle of neoadjuvant chemotherapy		O	**Format:** Numeric if "yes" to 7.17
		8. Diagnostic Investigations (directed investigations in advance of surgery)			
		Diagnostic Investigations			
8.1	Pre-Op Tests and procedures (imaging)	Indicate type of imaging done pre-operatively	• CT – Abdominal • CT – Pelvic • CT – PET • CT – Thorax • Ultrasound – Abdominal • Ultrasound – Pelvic • Ultrasound – Transvaginal Pelvic • MRI – Pelvic • X-Ray – Chest • Other (specify)	O	**Format:** Alphabetic multiple selection
8.3	Specify GI studies done	Indicate whether the patient had any GI studies/tests.	• None • Small bowel follow through • H20 soluble enema • Barium enema • Colonoscopy • Gastroscopy • Other (specify)	O	**Format:** Alphabetic multiple selection
		Diagnostic Results			
8.4	Results of diagnostic tests	Describe the results of the diagnostic tests performed		O	**Format:** Text complete for each test completed in 8.1, 8.3
8.5	Imaging showed pleural effusion	Indicate whether patient presented with clinical evidence of pleural effusion prior to surgery	• Yes • No • Unknown	M	**Format:** Alphabetic value list
8.6	Results of thoracentesis	If the patient presented with pleural effusion, indicate whether thoracentesis was performed and what the results were	• Positive for malignancy • Negative for malignancy • Not done	M	**Format:** Alphabetic value list if "yes" to 8.5 or "Thoracentesis" selected in 8.2

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
8.8	Parenchymal liver disease	Indicate whether patient presented with clinical evidence of parenchymal liver metastasis prior to surgery	• Yes • No	O	**Format:** Alphabetic value list
8.10	Other pre-op metastatic disease		• None • Bone • Brain • Lung • Peritoneum • Other (specify)	O	**Format:** Alphabetic multiple selection
	9. Co-morbidity (existing relevant clinical conditions) – NOT APPLICABLE FOR THIS DISEASE SITE				
	D. Pre-Operative Pathology and Staging				
	10. Pre-Operative Pathology (results of pre-operative biopsies and pathology investigations)				
10.1	Histopathology of tumor	Pathology diagnosis	• Yes • No	M	**Format:** Alphabetic value list only if reoccurrence
10.2	Histopathology of tumor – Description	Provide a description of the results		M	**Format:** Text only if reoccurrence
	11. Clinical Stage (indicate the clinical stage of patient if applicable) – NOT APPLICABLE FOR THIS DISEASE SITE				
	E. Operative Procedure				
	12. Operative Procedure (describes elements of operative procedure)				
	12.1 Sign In and Briefing				
12.1.1	Time of surgery start	represents the start time of the procedure (skin incision)	13:30	O	**Format:** 24 hour clock value
12.1.2	Time of surgery end	represents the end time of the procedure (skin closure)	14:50	O	**Format:** 24 hour clock value
12.2.3.1	Duration of surgery	Duration of surgery in absolute minutes		O	**Format:** Numeric
12.1.3	Surgical safety checklist completed	Indicate whether the surgical safety checklist was completed	• Yes • No • Not instituted/ implemented at this time	M	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.1.4	ASA (American Society of Anesthesiologists Physical Status Classification System)	Indicate the American Society of Anesthesiologists Physical Status Classification System (ASA) rating of the patient's risk of adverse events during a surgical procedure	• 1 • 2 • 3 • 4 • 5 • 6	O	**Format:** Numeric value list
12.1.5	General anesthetic	Indicate if anesthesia given and type	• General • Regional • Combined	M	**Format:** Alphabetic value list
12.1.6	Foley catheter placed in bladder	Indicate whether the patient had a urinary catheter inserted	• Yes • No	M	**Format:** Alphabetic value list
12.1.7	Patient position	Indicate the patient's position (surgical requirement)	• Supine • Lithotomy • Other	M	**Format:** Alphabetic value list
12.1.8	Deep Vein Thrombosis (DVT) prophylaxis	Indicate the type(s) of DVT prophylaxis used	• Heparin • Preinduction • Ted Stockings • Pneumatic compression • IVC filter • Deltaparin • Fragmin • Not used	M	**Format:** Alphabetic multiple selection
12.1.9	Antibiotics given	Indicate if antibiotics were given	• Yes • No	M	**Format:** Alphabetic value list
		12.2 Operative Details			
12.2.1	Surgical approach	Indicates how the patient's abdomen was opened by the surgeon during the surgery, either by laparoscopy, laparotomy, or both.	• Laparotomy • Laparoscopic • Laparoscopy followed by Laparotomy • Robotic • Robotic followed by Laparotomy	M	**Format:** Alphabetic value list
12.2.1.1	Reasons for "followed by laparotomy"	Reasons for converting surgical approach	• Unexpected Advanced Disease • Poor Surgical Exposure • Anesthetic Concerns • Surgical Complication(s) • Adhesions • Technical/Equipment Issues • Other (specify)	M	**Format:** Alphabetic multiple selection if "Followed by Laparotomy" in any response in 12.2.1
12.2.2	Laparoscopy Technique	Indicate the Laparoscopy technique used	• Open • Closed • Under direct vision	M	**Format:** Alphabetic value list if "Laparoscopic" chosen in 12.2.1

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.2.3	Site of Initial Entry	Indicate the site of the Veress needle	• Peri umbilical • Right upper quadrant (RUQ) • Right lower quadrant (RLQ) • Left upper quadrant (LUQ) • Left lower quadrant (LLQ) • Suprapubic	M	**Format:** Alphabetic value list if "open" in 12.2.2
12.2.4	Surgical incision	Indicate type incision that was made to enter the patient's abdomen	• Vertical Midline • Transverse/Pfannenstiel • Paramedian • Other (specify)	M	**Format:** Alphabetic value list if "Laparotomy" chosen in 12.2.1
12.2.5	Number of Ports	Indicate the number of ports		M	**Format:** Numeric
12.2.5.1	Port Placement		• Right Upper Quadrant (RUQ) • Left Upper Quadrant (LUQ) • Right Lower Quadrant (RLQ) • Left Lower Quadrant (LLQ) • Suprapubic quadrant	M	**Format:** Alphabetic multiple selection if 12.2.1 = "Robotic" or "Laparoscopy"
12.2.5.2	Port Size		• 5mm • 8mm (robotic) • 10-12mm (disposable) • 10mm	M	**Format:** Alphabetic value list
12.2.5.3	Camera Placement – port site		• Peri-umbilical • Supra umbilical • Supra pubic • Other (specify)	O	**Format:** Alphabetic multiple selection
12.2.5.4	Camera placement – port size		• 5mm • 8mm (robotic) • 10-12mm (disposable) • 10mm	O	**Format:** Alphabetic value list
12.2.5.5	Camera placement – details			M	**Format:** Text
12.2.6	Uterine Mobilizer used	Indicate whether a uterine mobilizer was used	• Vcare R • Rumi TM • Colpo Probe TM • EEA TM Sizer • Sponge on a Stick • HOHL • Other (specify)	O	**Format:** Alphabetic value list
12.2.9	Exam under anesthesia performed	Indicate if an exam under anesthesia was preformed	• Yes • No	O	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
			12.3 Intra-Operative Observations		
12.3.1	Visible sites of disease upon opening	Indicate whether there were visible sites of disease upon opening	• Yes • No visible palpable disease • Unknown	M	**Format:** Alphabetic value list
12.3.2	Visible sites of disease details – location	Indicate the location of the visible sites of disease upon opening	• Uterus • Left ovary/adnexa • Right ovary/adnexa • Left fallopian tube • Right fallopian tube • Cul de sac • Left pelvic sidewall peritoneum • Right pelvic sidewall peritoneum • Sigmoid colon serosa • Sigmoid colon mesentery • Small bowel serosa • Small bowel mesentery • Appendix • Ascending colon • Transverse colon • Descending colon • Anterior abdominal wall • Liver serosa • Liver parenchyma • Supracolic omentum • Infracolic omentum • Spleen • Stomach • Lesser sac • Left paracolic gutter • Right paracolic gutter • Left diaphragm • Right diaphragm • Porta hepatic • Gall bladder	M	**Format:** Alphabetic multiple selection

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.3	Visible sites of disease details – Location Adherent to		• Uterus • Left ovary/adnexa • Right ovary/adnexa • Left fallopian tube • Right fallopian tube • Cul de sac • Left pelvic sidewall peritoneum • Right pelvic sidewall peritoneum • Sigmoid colon serosa • Sigmoid colon mesentery • Small bowel serosa • Small bowel mesentery • Appendix • Ascending colon • Transverse colon • Descending colon • Anterior abdominal wall • Liver serosa • Liver parenchyma • Supracolic omentum • Infracolic omentum • Spleen • Stomach • Lesser sac • Left paracolic gutter • Right paracolic gutter • Left diaphragm • Right diaphragm • Porta hepatic • Gall bladder • Left kidney peritoneum • Right kidney peritoneum • Large bowel mesentery • Bladder peritoneum • Distal small bowel mesentery • Other (specify)	M	**Format:** Alphabetic multiple selection Complete for each site selected in 12.3.2
12.3.4	Visible sites of disease details – Largest single diameter in cm	Describe the largest single diameter in cm of the tumour in the disease site		M	**Format:** Numeric Complete for each site selected in 12.3.2
12.3.5	Visible sites of disease details – description	Describe the tumor in the disease site	• Abnormal • Unremarkable	M	**Format:** Alphabetic value list Complete for each site selected in 12.3.2

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.6	Visible sites of disease details – Tumor Resected	Indicate the tumour resection completed for the disease site	• Not resected • Partial resection • Complete resection	M	**Format:** Alphabetic value list Complete for each site selected in 12.3.2
12.3.7	Visible sites of disease upon opening: Lymph nodes	Indicate visible sites of disease on the lymph nodes	• Left pelvic lymph nodes • Right pelvic lymph nodes • Para-aortic lymph nodes • Left Para-aortic lymph nodes • Right Para-aortic lymph nodes • Inguinal lymph nodes • None • Unknown	M	**Format:** Alphabetic multiple selection
12.3.8	Visible sites of disease upon opening: Lymph nodes – size	Describe the tumor size within the lymph node in cm	• Microscopic • <1 • 1-2 • >2-5 • >5	M	**Format:** Alphabetic value list Complete for each site selected in 12.3.7
12.3.9	Visible sites of disease upon opening: Lymph nodes – resection	Provide resection details for the tumor in the lymph node	• Not resected • Partial resection • Complete resection	O	**Format:** Alphabetic value list Complete for each site selected in 12.3.7
12.3.10	Visible sites of disease upon opening: Lymph nodes – Inguinal	Describe the lymph nodes in inguinal area	• Normal • Abnormal • Removed partially • Removed completely	O	**Format:** Alphabetic multiple selection Complete for each site selected in 12.3.7
12.3.11	Ascites present	Indicate whether ascites was found upon entering the abdomen	• Yes • No	M	**Format:** Alphabetic value list
12.3.12	Amount of ascites	Indicate amount of ascites found in ml	• Less than 100 • 100 to 500 • Greater than 500	M	**Format:** Alphabetic value list if "yes" to 12.3.11
12.3.13	Ascites sent for cytology	Indicate whether ascites was sent to cytology for examination	• Yes • No	M	**Format:** Alphabetic value list if "yes" to 12.3.11
12.3.14	Cytology obtained from washings	If no ascites, cytology obtained from washings?	• Yes • No	M	**Format:** Alphabetic value list if "yes" to 12.3.11
12.3.15	Ovarian mass	Indicate whether an ovarian mass is present and its location	• Not present • Left only • Right only • Bilateral	M	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.16	Ovarian mass – comment	If no mass, comment		M	**Format:** Text if "Not Present" in 12.3.15
12.3.17	Size of ovarian mass	Indicate the size of the ovarian mass (in cm)	• Less than 2 • 2 to 5 • 5 to 10 • Greater than 10	M	**Format:** Alphabetic value list if mass was present in 12.3.15
12.3.18	Surface excrescences, ovary	Indicate whether surface excrescences were found on the ovary	• Yes • No • Unknown	M	**Format:** Alphabetic value list
12.3.19	Pelvic mass Ruptured	Indicate if the pelvic mass was ruptured	• Yes – intra-operative • Yes – pre-operative • No	M	**Format:** Alphabetic value list if "yes" to 12.3.18
12.3.20	Para-ovarian adhesions	Indicate if there is para-ovarian adhesions	• Yes • No	M	**Format:** Alphabetic multiple selection
12.3.21	Site of para ovarian adhesions	Indicate the site of the para ovarian adhesions	• Uterine • Other Pelvic Organs • Abdomen	M	**Format:** Alphabetic value list if 12.3.20=yes
12.3.22	Adhesions biopsied?	Indicate whether the adhesions were biopsied	• Yes • No	M	**Format:** Alphabetic value list if 12.3.20=yes
12.3.23	Other tumor findings	Indicate the tumor findings if applicable	• Carcinomatosis • Endometriosis • Other (specify) • Not applicable	M	**Format:** Alphabetic multiple selection
12.3.25	Other tumor findings – Size	Indicate the tumor size		M	**Format:** Numeric Complete for each value selected in 12.3.23
12.3.26	Other tumor findings – Location	Indicate the tumor location		M	**Format:** Text Complete for each value selected in 12.3.23
12.3.27	Other tumor findings – Details	Provide comments regarding the tumor		M	**Format:** Text Complete for each value selected in 12.3.23
12.3.28	Left Ureter	Comment/Indicate the relevant information regarding the Left Ureter	• Identified • Not identified • Ureterolysis • Ureter damaged	O	**Format:** Alphabetic value list
12.3.29	Right Ureter	Comment/Indicate the relevant information regarding the Right Ureter	• Identified • Not identified • Ureterolysis • Ureter damaged	O	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
			12.4 Operative Procedure		
12.4.1	Primary Pelvic procedure performed	Indicate the pelvic procedures performed on the patient. If applicable	• Laparoscopic assisted vaginal hysterectomy • Total laparoscopic hysterectomy • Laparoscopic subtotal hysterectomy • Radical laparoscopic assisted vaginal hysterectomy • Radical total laparoscopic hysterectomy • Robotic assisted vaginal hysterectomy • Total robotic assisted hysterectomy • Radical robotic assisted vaginal hysterectomy • Radical total robotic assisted hysterectomy • Abdominal Hysterectomy • Radical abdominal hysterectomy • Subtotal hysterectomy • Debulking • Left oophorectomy • Right oophorectomy • Left salpingectomy • Right salpingectomy • Left ureterolysis • Right ureterolysis • Omental biopsy • Omentetomy infracolic • Omentectomy supracolic • Appendectomy • Other (specify)	M	**Format:** Alphabetic multiple selection

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.4.3	Abdominal Procedures performed	Indicate the abdominal procedures performed on the patient. If applicable	• Debulking • Omentectomy • Infracolic omentectomy • Supracolic omentectomy • Left diaphragm stripping • Right diaphragm stripping • Left diaphragm resection • Right diaphragm resection • Splenectomy • Left hypogastric artery ligation • Right hypogastric artery ligation • Gastrostomy tube • Cholecystectomy • Partial distal pancreatectomy • Liver surface/serosa resection • Resection of liver • Porta Hepatis	M	**Format:** Alphabetic multiple selection
12.4.4	Lymph node procedures performed	Indicate the relevant lymph node procedures performed on the patient. If applicable	• Left pelvic Lymphadenectomy (includes obturator nodes) • Right pelvic Lymphadenectomy (includes obturator nodes) • Left para-aortic Lymphadenectomy (up to IMA) • Right para-aortic Lymphadenectomy (up to IMA) • Left para-aortic Lymphadenectomy (up to left renal artery) • Right para-aortic Lymphadenectomy (up to right renal artery) • Left Pelvic Lymph node sampling • Right Pelvic Lymph node sampling • Left para-aortic lymph node sampling • Right para-aortic lymph node sampling	M	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.4.5	Para-aortic lymphadenectomy details	Specify whether the para-aortic lymphandectomy will be trans peritoneal or extra peritoneal	• Trans peritoneal • Extra peritoneal	O	**Format:** Alphabetic value list if "para-aortic Lymphadenectomy" selected in 12.4.4.
12.4.6	Bowel Procedures performed	Indicate the abdominal procedures performed on the patient. If applicable	• Low anterior resection of rectum • Left hemicolectomy • Right hemicolectomy • Hartmann's procedure • Large bowel resection • Small bowel resection • Ileocolic anastomosis • Loop colostomy • End colostomy • Loop ileostomy • Formation of mucous fistula	M	**Format:** Alphabetic value list
12.4.7	Palliative Procedures performed	Indicate the palliative procedures performed on the patient. If applicable	• Gastrostomy tube • Bypass for gastrointestinal tract • Small bowel resection • Large bowel resection • Ileostomy • Colostomy • Procedure aborted • Enteroenterostomy • Formation of mucous fistula • Laparoscopic insertion of gastrostomy tube • Debulking of tumor for symptom relief • Other (specify)	M	**Format:** Alphabetic value list if surgical intent = palliative
12.4.9	Small bowel resection	Indicate whether the patient had a small bowel resection	• None • Yes – Duodenum • Yes – Ileum • Yes – Jejunum	M	**Format:** Alphabetic multiple selection
12.4.10	Amount removed (cm)	If the patient had a small bowel resection, indicate the amount removed		M	Numeric Complete for each value selected in 12.4.9
12.4.11	Anastomosis	Indicate closure if anastomosis was performed	• Stapled • Hand sewn (sutured) • N/A	M	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.4.12	Comment on anastomosis	If the patient had anastomosis, comment		M	**Format:** Text if "hand sewn" or "staple" selected in 12.4.11
12.4.13	If second and third bowel resection, comment	Comment if the patient had a second, or third resection		M	**Format:** Text if "yes" in 12.4.9
12.4.14	Colon Resection	Indicate whether the patient had a colon resection.	• None • Yes – Cecum • Yes – Ascending Colon • Yes – Hepatic flexure • Yes – Proximal transverse colon • Yes – Distal transverse colon • Yes – Splenic flexure • Yes – Descending colon • Yes – Sigmoid • Yes – Rectum	M	**Format:** Alphabetic multiple selection
12.4.15	Specify amount of colon removed (part of Colon resection)	If the patient had a colon resection, indicate the amount removed in cm		M	numeric Complete for each value selected in 12.4.14
12.4.16	Colon resection comments (part of Colon resection)	Comment on the colon resection (if applicable)		M	**Format:** Text Complete if any value other than "none" selected in 12.4.14
12.4.17	If second and third colon resection, comment (part of Colon resection)	Comment if the patient had a second, or third resection		M	**Format:** Text Complete if any value other than "none" selected in 12.4.14
12.4.18	Small bowel and Colon closure (part of Colon resection)	Indicate how the Small bowel and Colon were closed (if applicable. Re: resections)	• Linear cutting • Transverse Curve Cutting stapler • Transverse stapler circular	M	**Format:** Alphabetic multiple selection Complete if any value other than "none" selected in 12.4.14

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.4.19	Linear cutting (part of Colon resection)	Indicate the type of Cutting tool used. (if applicable)	• Ethicon TLC • Autosuture	M	**Format:** Alphabetic value list Complete if any value other than "none" selected in 12.4.14
12.4.20	Transverse Curve Cutting Stapler: select type of bowel suture (part of Colon resection)	Indicate the type of bowel suture used (if applicable)	• Contour – CS40B • Contour – CS40G • Contour – CS40B/G	M	**Format:** Alphabetic value list Complete if any value other than "none" selected in 12.4.14
12.4.21	Transverse stapler: select type of bowel suture (part of Colon resection)	Indicate the type of bowel suture used (if applicable)	• Ethicon – TL30/TL30H • Ethicon – TL60/TL60H • Ethicon – TL90 • Autosuture – TA30 • Autosuture – TA45 • Autosuture – TA60 • 3M – Pi30 3.5mm • 3M – Pi30 4.8mm • 3M – Pi55 3.5mm • 3M – Pi55 4.8mm	O	**Format:** Alphabetic value list Complete if any value other than "none" selected in 12.4.14
12.4.22	Circular stapler: select type of bowel suture	Indicate the type of bowel suture used (if applicable)	• Ethicon CDH • Ethicon SDH • Autosuture CEEA	O	**Format:** Alphabetic value list Complete if any value other than "none" selected in 12.4.14
12.4.23	Staging biopsy	Indicate if a biopsy was performed for staging purposes on:	• Not Indicated • Cul de sac peritoneum • Bladder peritoneum • Left pelvic sidewall peritoneum • Right pelvic sidewall peritoneum • Left paracolic gutter • Right paracolic gutter • Large bowel mesentery • Large bowel serosa • Small bowel serosa • Small bowel mesentery • Left diaphragm • Right diaphragm	M	

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.4.24	Stoma	Indicate whether the patient had a stoma created	• None • Loop sigmoid • End sigmoid • Loop transverse • Loop ileostomy • Divided Loop • Other (specify)	M	**Format:** Alphabetic value list
12.4.25	Stoma site	Indicate the site of the stoma. If applicable.	• Left lower quadrant (LLQ) • Right lower quadrant (RLQ) • Right upper quadrant (RUQ) • Left upper quadrant (LUQ) • None	M	**Format:** Alphabetic value list Complete if any value other than "none" selected in 12.4.24
12.4.26	Incontinent urinary pouch, comment	Comment on the incontinent urinary pouch (if applicable)		M	**Format:** Text
12.4.27	Continent urinary pouch, comment	Comment on the continent urinary pouch (if applicable)		M	**Format:** Text
12.4.28	Site of urinary pouch stoma	Indicate the site of the urinary pouch stoma (if applicable)	• Left lower quadrant (LLQ) • Right lower quadrant (RLQ) • Right upper quadrant (RUQ) • Left upper quadrant (LUQ) • Umbilicus • Other (specify) • None	M	**Format:** Alphabetic value list
12.4.29	Type of suture (if yes to 'Site of urinary pouch stoma')	Indicate the type of suture used	• Dexon • Maxon • PDS • Vicryl • Silk	M	**Format:** Alphabetic value list Complete if any value other than "none" selected in 12.4.34

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.4.30	Suture Size (if yes to 'Site of urinary pouch stoma')	Indicate the suture size	• 4-0 • 3-0 • 2-0 • 0	M	**Format:** Alphabetic value list Complete if any value other than "none" selected in 12.4.34
12.4.31	Procedure completed?	Indicate whether the patients procedure was completed	• Completed • Aborted	M	**Format:** Alphabetic value list
12.4.32	Reasons for aborting procedure	If the patient's procedure was aborted, please indicate the reason	• Performance Status • Patient's Age • Multiple Co-morbidities • Intra-operative Complications • Unresectable Disease • Multiple radical procedures required for optimal cytoreduction • Other (specify)	M	**Format:** Alphabetic value list if "aborted" selected in 12.4.37
12.4.32.1	Comments on aborted procedure	Aborted procedure comments		M	**Format:** Text
12.4.33	Vaginal Closure – Suture Type	Indicate the relevant information on how the vagina was closed	• None • Continuous • Interrupted sutures • Other (specify)	O	**Format:** Alphabetic value list
12.4.34	Vaginal Closure – Suture Brand	Indicate the relevant information on how the vagina was closed	• Monocryl • Vicryl • PDS • V-lock • Endostitch • Other (specify)	O	**Format:** Alphabetic value list
12.4.35	Vaginal Closure – Suture Size	Indicate the relevant information on how the vagina was closed	• 2-0 • 1-0 • 0 • 1 • 2	O	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
			12.5 Intra-Operative Pathology		
12.5.1	Frozen section in OR, ovary	Indicate if a Frozen section of the ovary was carried out	• Yes – Cancer • Yes – No Cancer • No	M	**Format:** Alphabetic value list
12.5.2	Frozen section results	If the patient had a frozen section, indicate it's results	• LMP tumor • Adenocarcinoma • Serous adenocarcinoma • Endometrioid adenocarcinoma • Mucinous carcinoma • Clear cell carcinoma • Bowel primary • Endometriosis • Inconclusive • Benign • High grade tumor • Low grade tumor • Other primary carcinoma (specify)	M	**Format:** Alphabetic multiple selection
12.5.4	Frozen section results (cancer) – comments	If the patient had a frozen section, provide comments		M	**Format:** Text
			12.6 Clinical Stage		
12.6.1	Intra-operative Stage	Indicate to the best of your ability, based on the surgery, what the clinical stage of patient is (FIGO staging system)	• Stage 1 • Stage 2 • Stage 3 • Stage 4	O	**Format:** Alphabetic value list
			12.7 Residual Disease		
12.7.1	Residual disease	Describe if the patient had residual disease	• Yes • No • Unknown	M	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.7.2	Specify residual disease site	If the patient had residual disease please indicate the location	• Left paracolic gutter • Right paracolic gutter • Anterior abdominal wall • Left diaphragm • Right diaphragm • Supracolic omentum • Infracolic omentum • Spleen • Liver serosa • Liver parenchyma • Porta hepatis • Appendix • Stomach • Lesser sac • Gallbladder • Left kidney peritoneum • Right kidney peritoneum • Proximal small bowel serosa • Proximal small bowel mesentery • Distal small bowel serosa • Distal small bowel mesentery • Ascending colon • Transverse colon • Descending colon • Sigmoid colon serosa • Sigmoid colon mesentery • Cul-de-sac • Rectum • Bladder peritoneum • Left pelvic sidewall peritoneum • Right pelvic sidewall peritoneum • Left ovary/adnexa • Right ovary/adnexa • Left fallopian tube • Right fallopian tube • Uterus • Left pelvic lymph node • Right pelvic lymph node • Para-aortic lymph node	M	**Format:** Alphabetic multiple selection if “yes” in 12.7.1
12.7.3	Specify residual disease size	If the patient had residual disease please indicate the size (cm)	• No gross residual disease (microscopic) • <1 cm • ≥1 cm	M	**Format:** Alphanumeric value list Complete for each site selected in 12.7.2
12.7.4	Specify residual disease details	If the patient had residual disease please provide comments		M	**Format:** Text Complete for each site selected in 12.7.2

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.7.5	Reasons for sub-optimally debulking	If the patient was sub-optimally debulked, specify the reason(s)	• Performance Status • Patient's age • Multiple co-morbidities • Intra-operative complications • Unresectable disease • Multiple radical procedures required for optimal cytoreduction • Unresectable porta hepatic • Unresectable mesenteric disease • Unresectable significant lymph node disease • Unresectable significant intrahepatic disease • Other • Not applicable	M	**Format:** Alphabetic multiple selection if "gross-residual" in 12.7.5
12.7.6	Was IP porta catheter inserted?	Indicate whether an IP porta catheter was inserted (if applicable)	• Yes • No	M	**Format:** Alphabetic value list
			12.8 Closure		
12.8.1	Hemostasis agent used	Indicate the type of Hemostasis agent used, if applicable	• None • Gelfoam • Surgicel • Surgical SNoW • Instat • Tisseel • Coseel • Hemostase • Floseel • Fibrillar surgiflo • Other (specify)	M	**Format:** Alphabetic multiple selection
12.8.2	Hemostasis agent location	Specify the agent location		M	**Format:** Text
12.8.3	Sponge and instrument counts correct	Describes if a sponge and instrument count was completed after closure	• Yes • No	M	**Format:** Alphabetic value list
12.8.4	Sponge and instrument counts incorrect – X-ray completed?	If sponge and instrument count was incorrect indicate if an X-Ray was done	• Yes • No	M	**Format:** Alphabetic value list if "no" to 12.8.3
12.8.5	Sponge and instrument counts incorrect – X-ray outcome	If sponge and instrument count was incorrect indicate the outcome		M	**Format:** Text if "no" to 12.8.3
12.8.6	Patient estimated blood loss (cc)	Estimated units of blood loss during the procedure		O	**Format:** Numeric
12.8.6.1	Was patient transfused	Did patient receive a blood transfusion?	• Yes • No	M	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.8.7	Number ofUnits of RBC replaced	Indicate the number of units of Units of RBC replaced		M	**Format:** Numeric if 12.8.6.1=yes
12.5.7.1	Number of units of Units of FFP replaced	Indicate the number of units of Units of FFP replaced		M	**Format:** Numeric if 12.8.6.1=yes
12.5.7.2	Number of units of Units of platelets replaced	Indicate the number of units of Units of platelets replaced		M	**Format:** Numeric if 12.8.6.1=yes
12.8.8	Fascial closure technique	Indicate the fascial closure technique	• Running • Interrupted • Smead-Jones • Not done	M	**Format:** Alphabetic value list
12.8.9	Fascial closure suture type	Indicate the fascial closure suture type	• Dexon • Maxon • PDS • Silk • Vicryl • Prolene • Nylon • Loop PDS • Merislene • Novafil • Vicryl #1	M	**Format:** Alphabetic value list
12.8.10	Fascial suture size	Indicate the fascial suture size	• 2-0 • 1-0 • 0 • 1 • 2	O	**Format:** Alphabetic value list
12.8.11	Subcutaneous drain type		• Not used • Jackson-Pratt • Hemovac • Davol • Blake • Other (specify) • Unknown	O	**Format:** Alphabetic value list
12.8.12	Drain Location	Indicate the subcutaneous drain location	• Left Lower Quadrant (LLQ) • Right Lower Quadrant (RLQ) • Right Upper Quadrant (RUQ) • Left Upper Quadrant (LUQ)	O	**Format:** Alphabetic value list

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.8.13	Subcutaneous closure	Indicate subcutaneous closure technique	• Approximated with suture • Not sutured • Interrupted • Running	O	**Format:** Alphabetic value list
12.8.14	Skin closure technique – staples	Indicate if staples were used for skin closure	• Yes • No	M	**Format:** Alphabetic value list
12.8.14.1	Skin Closure technique – sutures	Indicate relevant information regarding skin closure technique	• Yes – absorbable • Yes – non-absorbable • No	M	**Format:** Alphabetic value list
12.8.14.2	Suture Size			M	**Format:** Text (if yes to 12.8.14.1)
12.8.14.3	Delayed Closure		• Yes • No	M	**Format:** Alphabetic value list
12.8.14.4	Skin Closure Technique – sub-circular running		• Yes • No	M	**Format:** Alphabetic value list
12.8.14.3	Delayed Closure		• Yes • No	M	**Format:** Alphabetic value list
		12.9 Outcomes, Complications and Patient Transfer			
12.9.1	Patient condition when leaving OR	Describes the patients stability after the operative procedure	• Stable • Unstable	M	**Format:** Alphabetic value list
12.9.2	Unstable patient details (leaving OR)	Describe any relevant information regarding the patient's stability when leaving the OR		M	**Format:** Text if unstable in 12.8.3
12.9.3	Complications (Intra-operative)	Identify complications that occurred during surgery	• Bleeding requiring transfusion • Enterotomy • Injury to bladder • Injury to ureter • Injury to blood vessels • Injury to liver • Injury to gallbladder • Injury to spleen • Injury to diaphragm • Staple misfire • Arrhythmia • Cardiac Arrest • Death • Other (specify) • None	M	**Format:** Alphabetic multiple selection

5.8.b Ovarian Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.9.4	Enterotomy details	Indicate whether an enterotomy was performed on the patient	• None • Single • Multiple – 2 • Multiple – 3 • Multiple – 4 • Multiple – 5	M	**Format:** Alphabetic value list
12.9.5	Multiple enterotomies comments	If multiple enterotomies were performed provide a comment.		M	**Format:** Text if "multiple" in 12.8.4
12.9.6	Enterotomy closed with	If an enterotomy was performed, indicate how it was closed.	• Sutured • Stapled	M	**Format:** Text if "single" or "multiple" in 12.8.4
12.9.7	Enterotomy comments	Write out comments regarding the patient's enterotomy (if applicable).		M	**Format:** Text if "single" or "multiple" in 12.8.4
12.9.8	Actions taken to address complications and results	Describe the actions taken to address complications and results of those actions		M	**Format:** Text if 12.8.3. has any value other than "None"
12.9.9	Intra-operative Consult	Indicate whether an intra-operative consult was requested and carried out and the type of consult	• No consultation Required • Gynecology • Urologist • Vascular Surgeon • General Surgeon • Other (specify)	M	**Format:** Alphabetic value list
12.9.10	Summary statement of procedure	Blank data field for surgeon notes after operative procedure		M	**Format:** Text
12.6.10.1	Change of disposition	Was there a noticeable change in the patient's disposition after the procedure	• Yes • No	O	**Format:** Alphabetic value list
12.9.11	Unit transferred to	Indicate where the patient was transferred to after the surgery	• Recovery room • Intensive Care Unit	O	**Format:** Alphabetic value list
F. Completion Elements					
13. Follow-Up (description of follow-up plans for the immediate peri-operative event and long-term plan if applicable)					
13.1	Dictation addendum	Will there be a dictated addendum?	• Yes • No	O	**Format:** Alphabetic value list

5.9 Endometrial Cancer

Pan-Canadian Standards for endometrial cancer include 6 clinical indicators and 148 data elements. Of the 148 data elements, 113 are deemed mandatory while 35 data elements are recommended as optional. Endorsement of the endometrial cancer standards was received from the Canadian Society of Gynecologic Oncology. A copy of the endorsement letter is noted below.

GOC THE SOCIETY OF GYNECOLOGIC ONCOLOGY OF CANADA | LA SOCIÉTÉ DE GYNÉCO-ONCOLOGIE DU CANADA

January 25, 2016

Dr. Mary Argent-Katwala
Director, Diagnosis & Clinical Care
Canadian Partnership Against Cancer
1 University Avenue, Suite 300
Toronto, Ontario M5J 2P1

Dear Dr. Argent-Katwala:

This letter confirms our endorsement of the Ovarian and Endometrial Cancer Synoptic Standards set forth by the Canadian Partnership Against Cancer on behalf of the Society of Gynecologic Oncology of Canada (GOC). GOC endorses the pan-Canadian Ovarian and Endometrial Cancer Synoptic Standards and strongly supports that defining standards and continued improvement of quality is vital to providing the best possible care for our patients and achieving desirable outcomes.

We look forward, as a Society, to working with you in the future.

Sincerely,

Dr. Paul Hoskins
President

Dr. Shannon Salvador
GOC representative on the CPAC Ovarian and Endometrial Cancer Synoptic OR Committee

780 promenade Echo Drive, Ottawa, Ontario, K1S 5R7
Tel./Tél. : 613-730-4192 ext. 250 or/ou 1-800-561-2416 ext. 250
Fax/Téléc. : 613-730-4314 WEB : WWW.G-O-C.ORG

5.9.a Endometrial Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 1	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% patients with early stage endometrial cancer who underwent minimally invasive surgery
Indicator Description	Proportion of patients with early stage endometrial cancer who underwent minimally invasive surgery
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with early stage endometrial cancer who underwent minimally invasive surgery **Denominator** Total number of patients with early stage endometrial cancer
Template Data Collection Elements	5.2 Pre-operative diagnosis 11.2 Intra-operative Stage 12.2.4 Surgical Approach **Details and Calculation** **Numerator** 12.2.4 = laparoscopy OR robotic AND 11.2 = stage 1 AND 5.2 = endometriod adenocarcinoma OR uterine sarcoma OR uterine mass OR papillary serous carcinoma OR clear cell carcinoma

5.9.a Endometrial Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 2	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients
Indicator Name	% laparotomy conversions
Indicator Description	Proportion of patients converted to laparotomy
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with endometrial cancer who underwent surgery that were converted to laparotomy **Denominator** Total number of patients with endometrial cancer who underwent minimally invasive surgery
Template Data Collection Elements	12.2.4 Surgical Approach 5.2 Pre-Operative diagnosis **Details and Calculation** **Numerator** 12.2.4 = Laparoscopy followed by Laparotomy OR Robotic followed by Laparotomy AND 5.2 = adenocarcinoma OR uterine sarcoma OR uterine mass OR papillary serous carcinoma OR clear cell carcinoma

5.9.a Endometrial Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 3	
Domain	**Surgical Complications** Indicators include measures to assess burden of surgical cancer treatment on patients
Indicator Name	% intra-operative complications
Indicator Description	Proportion of patients with serious intra-operative complications
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with endometrial cancer with at least one of the listed intra-operative complications **Denominator** Total number of patients with endometrial cancer who underwent endometrial surgery
Template Data Collection Elements	12.6.5 Complications (intra-operative) 5.2 Pre-Operative diagnosis **Details and Calculation** **Numerator** 12.6.5 = Bleeding requiring transfusion OR Injury to bladder OR Injury to ureter OR Injury to blood vessels OR Arrest OR Death AND 5.2 = endometriod adenocarcinoma OR uterine mass OR papillary serous carcinoma OR clear cell carcinoma

5.9.a Endometrial Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 4	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% prophylactic antibiotics
Indicator Description	Proportion of patients that received prophylactic antibiotics
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with endometrial cancer who received prophylactic antibiotics **Denominator** Total number of patients with endometrial cancer who underwent endometrial surgery
Template Data Collection Elements	12.1.9 Antibiotics given 5.2 Pre-Operative diagnosis **Details and Calculation** **Numerator** 12.1.9 = yes AND 5.2 = endometriod adenocarcinoma OR uterine mass OR papillary serous carcinoma OR clear cell carcinoma

5.9.a Endometrial Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 5	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care.
Indicator Name	% complete nodal dissection
Indicator Description	Proportion of patients with endometrial cancer that underwent complete nodal dissection
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** Total number of patients with endometrial cancer that underwent complete nodal dissection **Denominator** Total number of patients with endometrial cancer who underwent endometrial surgery
Template Data Collection Elements	12.3.16 Procedures Performed 5.2 Pre-Operative diagnosis **Details and Calculation** **Numerator** 12.3.16 Procedure Performed = Bilateral Para-Aortic Lymphadenectomy up to IMA OR Bilateral Para-Aortic Lymphadenectomy up to Renal Vein OR Bilateral Pelvic Lymphadenectomy (including obturator nodes) OR Bilateral Common Iliac Lymphadenectomy AND 5.2 = endometriod adenocarcinoma OR uterine mass OR papillary serous carcinoma OR clear cell carcinoma

5.9.a Endometrial Cancer Pan-Canadian Standards–Quality of Care Indicator Specifications

Indicator 6	
Domain	**Appropriate Treatment** Indicators include measures to describe type of surgical procedures used to treat cancer. This information may highlight common trends in clinical practice or may suggest variations in clinical care
Indicator Name	% Body Mass Index (BMI) >45
Indicator Description	Proportion of patients with Body Mass Index (BMI) >45 stratified by surgical approach (stratified by: robotic, minimally invasive, open)
Potential Use	• Support self-reflection in clinical practice • Inform quality improvement initiatives at hospital and community levels • Inform cancer system performance measurement and planning
Specifications	**Numerator** *A. Total number of patients with BMI >45 who underwent robotic surgery* *B. Total number of patients with BMI >45 who underwent minimally invasive surgery* *C. Total number of patients with BMI >45 who underwent open surgery* **Denominator** The denominator for each numerator above is calculated for the total number of patients with endometrial cancer who: *A. Underwent robotic surgery* *B. Underwent minimally invasive surgery* *C. Underwent open surgery*
Template Data Collection Elements	7.11 Body Mass Index (BMI) 12.2.4 Surgical Approach 5.2 Pre-Operative diagnosis **Details and Calculation** **Numerator** *A. Robotic* *5.2= endometriod adenocarcinoma OR uterine mass OR papillary serous carcinoma OR clear cell carcinoma* *AND* 7.11 = >45 AND 12.2.4 = Robotic OR Robotic followed by Laparotomy *B. Minimally invasive* *5.2= endometriod adenocarcinoma OR uterine mass OR papillary serous carcinoma OR clear cell carcinoma* *AND* 7.11 = >45 AND 12.2.4 = Laparoscopy OR Laparoscopy followed by Laparotomy *C. Open* *5.2 = endometriod adenocarcinoma OR uterine mass OR papillary serous carcinoma OR clear cell carcinoma* *AND* 7.11 = >45 AND 12.2.4 = Laparotomy

5.9.B Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
A. Administrative and Identification Data					
1. Administration (overview of key report information)					
1.1	Report Date	Date of report completion – may be different than date of surgery	2001:01:01	M	**Format:** DATE YYYY:MM:DD
1.2	Report completed by	Name of person completing report	Dr. Smith	M	**Format:** Alphabetic
1.3	Report copies to	Name of people receiving copies of the report	Dr. Jones	O	**Format:** Alphabetic
2. Patient Information (key demographic and clinical summary information about the person receiving surgery)					
2.1	Patient Last Name	Represents the patient's legal family name	Smith	M	**Format:** Text
2.2	Patient First Name	Represents the patient's legal first name	John	M	**Format:** Text
2.3	Patient Middle Name	Represents the patient's legal middle name	Doe	O	**Format:** Text
2.4	Patient Date of Birth	Represents the patient's date of birth	2001:01:01	M	**Format:** DATE YYYY:MM:DD
2.5	Patient ID	Represents a unique identifier assigned to the patient	123456789JG	M	**Format:** Alphanumeric
2.6	Patient ID type	Represents the type of patient Identifier (e.g. Jurisdictional Healthcare Identifier, Passport)	• Health Card Number • Medical Record Number	M	**Format:** Alphabetic value list
3. Provider Details (person(s) performing and/or supporting the surgery)					
3.1	Provider Last Name	Represents the surgeon's Last name	Doe	M	**Format:** Text
3.2	Provider First Name	Represents the surgeon's First name	Jane	M	**Format:** Text
3.3	Provider ID	Represents the unique identifier assigned to the surgeon	12345697F	M	**Format:** Alphanumeric

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
3.4	Assistant Last Name	Represents the Last name of assistants, residents, fellows and other assistants during the procedure	Smith	O	**Format:** Text Can be repeated
3.5	Assistant First Name	Represents the First name of assistants, residents, fellows and other assistants during the procedure	John	O	**Format:** Text
3.6	Assistant title	Title of the assistant who supported the procedure	• Family Physician • Resident • Assistant Surgeon • Second Surgeon	O	**Format:** Alphabetic value list
3.7	Assistant ID type	Represents the type of Provider Identifier		O	**Format:** Alphanumeric value list
3.8	Assistant ID	Represents the unique identifier assigned to the Provider		O	**Format:** Alphanumeric value list
3.9	Anesthetist Last Name	Represents the anesthetist's Last name	Doe	O	**Format:** Text
3.10	Anesthetist First Name	Represents the anesthetist's First name	Jane	O	**Format:** Text
		4. Service Delivery Location Details (surgery location)			
4.1	Service Delivery Location Name	Represents the name of the Service Delivery Location here the patient received care	• Glendale Family Health • Clinic	M	**Format:** Text
4.2	Service Delivery Location Identifier Code	Represents the unique identifier of the PHC Service Delivery Location where the patient received care	A46B7356743	O	**Format:** Alphanumeric
4.3	Service Delivery Type of Services	Represents the type of location where the patient received care	• Inpatient facility • Outpatient clinic • Day surgery unit	O	**Format:** Alphabetic value list
4.4	Room ID	Represents the room number where the procedure was performed	• Applicable to service delivery location	O	**Format:** Alphanumeric

5.9.B Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
B. Procedure Planned and Performed					
Current Procedure Administration (current planned and performed procedures and related diagnoses)					
5.1	Date of surgery	Date that the surgery was performed	2001:01:01	M	**Format:** DATE YYYY:MM:DD
5.2	Pre-operative diagnosis	Diagnosis of the patient determined before the surgery	• Endometrioid Adenocarcinoma • Suspected Uterine Cancer • Atypical Endometrial Hyperplasia • Uterine Sarcoma • Uterine Mass • Papillary Serous Carcinoma • Clear Cell Carcinoma • Carcinosarcoma • Lynch Syndrome • Other (specify)	M	**Format:** Alphabetic value list
5.4	Post-operative diagnosis	The most likely diagnosis of the patient after surgery is completed	• Endometrioid Adenocarcinoma • Suspected Uterine Cancer • Atypical Endometrial Hyperplasia • Uterine Sarcoma • Uterine Mass • Papillary Serous Carcinoma • Clear Cell Carcinoma • Carcinosarcoma • Lynch Syndrome • Other (specify)	M	**Format:** Alphabetic value list
5.6	Operative Urgency	Condition or situation in which to perform surgery as the best possible treatment or to prevent serious complications of the disease	• Elective/Urgent (>24 hours) • Emergent (<24 hours)	O	**Format:** Alphabetic value list
5.7	Surgical Indications and purpose	Indicate reason for operating on the patient	• Primary Surgery with Surgical Staging • Primary Surgery without Surgical Staging • Primary Cytoreduction • Re-Operation for staging • Surgery for recurrence/Secondary Cytoreduction • Incidental • Delayed Primary/Interval Debulking Surgery • EmergencyPalliative Surgical staging	M	**Format:** Alphabetic value list

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		6. Re-operation and Previous Surgeries (information about previous surgery for related diagnoses)			
6.1	Previous Surgery(ies)	Indicate the type of gynecologic surgeries the patient underwent in the past	• None • Left Oophorectomy • Right Oophorectomy • Hysterectomy • Subtotal Hysterectomy • Pelvic Lymphadenectomy • Para-aortic Lymphadenectomy • Omenectomy • Caesarian Section • Bowel Reconstruction • Hernia • Other (specify)	M	**Format:** Alphabetic multiple selection
6.3	Is this a reoperation for a previous cancer surgery?	Indicarte if this a reoperation for a previous cancer surgery at the same site	• Yes • No	M	**Format:** Alphabetic value list
6.4	Comments	Comments on procedures planned and performed		O	**Format:** Text
		C. Pre-Operative Assessment			
		7. Clinical Findings (pre-operative clinical findings)			
7.1	Date of diagnosis of cancer	The date that correlates with the first diagnosis	2001:01:01	O	**Format:** DATE YYYY:MM:DD If 6.3=”yes”
7.2	Ca-125 (at surgery)	Lab results of CA-125 that was drawn prior to surgery	• Normal • Abnormal • Unknown • Not Done	O	**Format:** Numeric
7.2.1	Ca-125 (u/mL) (at surgery) – Range	Lab results of CA-125 that was drawn prior to surgery	• <35 • 35-99 • 100 – 500 • > 500	M	**Format:** Numeric if 7.2 is “normal” or “abnormal” Can be completed if exact value not available
7.3	Ca-125 (u/mL) (at surgery) – Amount	Exact value of CA-125 that was drawn prior to surgery		O	**Format:** Numeric if 7.2 is “normal” or “abnormal”
7.4	Progestin/ Anti-estrogen Therapy	Indicate if progestin/ anti-estrogen therapy was used	• Yes • No • Unknown	M	**Format:** alphabetic value list
7.5	Progestin/ Anti-estrogen Therapy – Duration	Specify the duration of progestin/anti-estrogen therapy in months		M	**Format:** Numeric if 7.4 is “yes”

5.9.B Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.6	Surgical purpose	Specify the purpose of the procedure	• Primary Surgery with Surgical Staging • Primary Surgery without Surgical Staging • Primary Cytoreduction • Re-Operation for staging • Surgery for recurrence/Secondary Cytoreduction • Incidental • Delayed Primary/Interval Debulking Surgery • Emergency • Palliative • Surgical staging	M	**Format:** Alphabetic value list
7.7	Neoadjuvant chemo	Did the patient have neoadjuvant chemo	• Yes • No	M	**Format:** Alphabetic value list
7.8	Clinical response to neo adjuvant chemotherapy	Patient's response to neo-adjuvant chemotherapy	• Complete Response • Partial Response • Stable Disease • Progressive Disease • No Response • Not evaluable • Unknown	O	**Format:** Alphabetic value list if 7.7 = "yes"
7.9	Number of neoadjuvant cycles	Number of neo-adjuvant chemotherapy cycles given pre-operatively	• 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • Not applicable • Unknown	O	**Format:** Alphanumeric
7.10	Previous pelvic/ abdominal radiotherapy	Indicate whether a patient has previously undergone radiotherapy	• No • Yes – Abdominal • Yes – Pelvis • Yes – Brachytherapy • Yes – Other • Unknown	O	**Format:** Alphabetic value list
7.10.1	Performance Status – ECOG	Indicate ECOG performance rating to describe the performance status of the patient prior to surgery	• 1 • 2 • 3 • 4	M	**Format:** Numeric value list
7.11	Body Mass Index (BMI)	Represents patient's body mass index. Calculated automatically using height and weight		M	**Format:** Numeric calculation calculation based on height (7.13) and weight (7.15)

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
7.12	Body Mass Index (BMI) Status	Represents the BMI classification of the patient.	• Underweight (<18.5) • Normal (18.5 – 24.9) • Overweight (25- 29.9) • Obese (30 – 34.9) • Severely Obese (>35)	M	**Format:** Alphanumeric
7.12.1	Body Mass Index (BMI) >45	Is Patient's BMI >45?	• Yes • No • Unknown	M	**Format:** Alphabetic value list based on response to 7.11
7.13	Height	Represents the patients height (cm or inches)		M	**Format:** Numeric
7.14	Height Measurement Scale	Indicate if imperial or metric value was used for height	• Centimeters • Inches	M	**Format:** Alphabetic value list
7.15	Weight	Represents the patients weight in kilograms or pounds		M	**Format:** Numeric
7.16	Weight Measurement Scale	Indicate if imperial or metric value was used for weight	• Kilograms • Pounds	M	**Format:** Alphabetic value list
D. Pre-Operative Pathology & Staging					
10. Pre-Operative Pathology (results of pre-operative biopsies and pathology investigations)					
10.1	Initial Pathology (FIGO Staging)	Record initial pathology using FIGO staging for Carcinoma of Endometrium or Uterine Sarcomas (Leiomyosarcoma, Endometrial Stromal Sarcoma, and Adenosarcoma)	• Stage IA • Stage IB • Stage II • Stage IIA • Stage IIB • Stage IIIA • Stage IIIB • Stage IIIC • Stage IIIC1 • Stage IIIC2 • Stage IVA • Stage IVB	O	**Format:** Alphabetic multiple selection
10.2	Pathology Reviewed	Was the pathology reviewed prior to the operation?	• Yes • No	M	**Format:** Alphabetic value list
10.3	Revised Pathology results (FIGO Staging)	Record revised pathology results using FIGO staging for Carcinoma of Endometrium or Uterine Sarcomas (Leiomyosarcoma, Endometrial Stromal Sarcoma, and Adenosarcoma)	• Stage IA • Stage IB • Stage II • Stage IIA • Stage IIB • Stage IIIA • Stage IIIB • Stage IIIC • Stage IIIC1 • Stage IIIC2 • Stage IVA • Stage IVB	O	**Format:** Alphabetic multiple selection

5.9.B Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		11. Intra-Operative Stage (indicate the intra-operative stage of patient if applicable)			
11.2	Intra-operative Stage		• Stage 1 • Stage 2 • Stage 3 • Stage 4	M	**Format:** alphanumeric value
		E. Operative Procedures			
		12. Operative Procedures (describes elements of operative procedure)			
		12.1 Sign In and Briefing			
12.1.1	Time of surgery start	Represents the start time of the procedure (skin incision)	13:30	M	**Format:** 24 hour clock value
12.1.2	Time of surgery end	represents the end time of the procedure (skin closure)	14:50	M	**Format:** 24 hour clock value
12.1.2.1	Duration of Surgery	Duration of surgery in absolute minutes		M	**Format:** Numeric
12.1.3	Surgical safety checklist completed	Indicate whether the surgical safety checklist was completed	• Yes • No • Not instituted/ implemented at this time	M	**Format:** Alphabetic value list
12.1.4	General anesthetic	Indicate if anesthesia given and type	• General • Regional • Combined	M	**Format:** Alphabetic value list
12.1.6	Foley catheter placed in bladder	Indicate whether the patient had a urinary catheter inserted	• Yes • No	M	**Format:** Alphabetic value list
`12.1.7	Patient position	Indicate the patient's position (surgical requirement)	• Supine • Lithotomy • Other	M	**Format:** Alphabetic value list
12.1.8	DVT Prophylaxis	Indicate if Venous Thrombosis Prophylaxis was used	• Heparin • Deltaparin • Fragmin • Preinduction • Ted stockings • Pneumatic compression • IVC filter • Not used	M	**Format:** Alphabetic value list
12.1.9	Antibiotics given	Indicate if antibiotics were given	• Yes • No	M	**Format:** Alphabetic value list

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
			12.2 Operative Details		
12.2.1	Exam under anesthesia performed	Indicate if an exam under anesthesia was preformed	• Yes – Vulva • Yes – Vagina • Yes – Cervix • Yes – Uterus • Yes – Adnexa • Yes – Parametrium • No	M	**Format:** Alphabetic value list
12.2.2	Exam results	Describe the results of the exam conducted under anesthesia	• Normal • Abnormal	O	**Format:** Alphabetic value list complete for each value selected in 12.2.1
12.2.3	Abnormal results comments	Provide comments regarding abnormal results		M	**Format:** Text if 12.2.2 is "abnormal"
12.2.4	Surgical approach	Indicates how the patient's abdomen was opened by the surgeon during the surgery, either by laparoscopy, laparotomy, or both.	• Laparoscopy • Laparoscopy followed by Laparotomy • Laparotomy • Vaginal • Robotic • Robotic followed by Laparotomy • Other (specify)	M	**Format:** Alphabetic value list
12.2.5	Reasons for 'Followed by Laparotomy'		• Unexpected Advanced Disease • Poor Surgical Exposure • Anesthetic Concerns • Surgical Complication(s) • Adhesions • Technical/Equipment Issues • Other (specify)	M	**Format:** Alphabetic multiple selection if "Followed by Laparotomy" in 12.2.4
12.2.6	Comments on Surgical Approach technique	Describe Surgical Approach technique		M	**Format:** Text
12.2.7	Method of Insufflation of the Peritoneum	Describe the method of Insufflation of the Peritoneum	• Veress Needle • Open • Direct Entry	M	**Format:** Alphabetic value list if 12.2.4 is "Robotic" or "Laparoscopy"
12.2.8	Number of ports			M	**Format:** Numeric complete for each value selected in 12.2.8

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.2.9	Port Placement		• Right Upper Quadrant (RUQ) • Right Lower Quadrant (RLQ) • Left Upper Quadrant (LUQ) • Left Lower Quadrant (LLQ) • Suprapubic Quadrant	M	**Format:** Alphabetic multiple selection if 12.2.4 is “Robotic” or “Laparoscopy”
12.2.10	Port Size		• 5mm • 8mm (robotic) • 10-12mm (disposable) • 10mm	M	**Format:** Alphabetic value list complete for each value selected in 12.2.8
12.2.11	Camera Placement – port site		• Peri Umbilical • Supra Umbilical • Supra Pubic • Other	O	**Format:** Alphabetic multiple selection
12.2.12	Camera Placement – port size		• 5mm • 8mm (robotic) • 10-12mm (disposable) • 10mm	O	**Format:** Alphabetic value list
12.2.13	Camera Placement – details			M	**Format:** Text
12.2.14	Uterine Mobilizer Used		• Vcare R • Rumi TM • Colpo Probe TM • EEA TM Sizer • Sponge on a Stick • HOHL • Other (specify) • None	M	**Format:** Alphabetic multiple selection if 12.2.4 is “Robotic” or “Laparoscopy”
12.2.15	Surgical Incision		• Transverse/Pfannenstiel • Infra-umbilical • Vertical Midline • Paramedian • Other (specify)	M	**Format:** Alphabetic value list if 12.2.4 is ‘Laparotomy’ or ‘Laparoscopy followed by Laparotomy’ or ‘Robotic followed by Laparotomy’
12.2.16	Ascites present	Indicate whether ascites was found upon entering the abdomen	• Yes • No	M	**Format:** Alphabetic value list

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.2.17	Amount of ascites	Indicate amount of ascites found in litres		M	**Format:** Numeric
12.2.18	Peritoneal Washings		• Yes • No	M	**Format:** Alphabetic value list
12.2.19	Peritoneal Washings or Ascites sent for cytology	Indicate whether ascites or peritoneal washings were sent to cytology for examination	• Yes • No	M	**Format:** Alphabetic value list
		12.3 Intra-Operative Observations			
12.3.1	Locations of Pelvis examined	select the locations where observations were made	• Left Ovary/Adnexa • Right Ovary/Adnexa • Left Fallopian tube • Right Fallopian tube • Left parametria • Right parametria • Uterus • Cervix • Cul de sac peritoneum • Bladder peritoneum • Left pelvic sidewall peritoneum • Right pelvic sidewall peritoneum • Left paracolic gutter peritoneum • Right paracolic gutter peritoneum • Appendix • Sigmoid colon • Sigmoid colon serosa • Sigmoid colon mesentery • Rectum • Vagina • Stomach • Left Ureter • Right Ureter • Other (specify) • Not Done	M	**Format:** Alphabetic value list
12.3.2	Findings – Pelvis	Describe the findings within the pelvis	• Normal • Abnormal • Not Examined	M	**Format:** Alphabetic value list complete for each location selected in 12.3.1
12.3.3	Uterus Enlargement		• No • Serosal Involvement • Parametrial Involvement • Cervical Involvement	M	**Format:** Alphabetic value list

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.4	Metastatic Disease – Pelvis	Indicate whether metastatic disease was found in the pelvis	• Yes • No	M	**Format:** Alphabetic value list complete for each location selected in 12.3.1
12.3.5	Carcinomatosis – Pelvis	Indicate whether carcinomatosis was found in the pelvis	• Yes • No	M	**Format:** Alphabetic value list complete for each location selected in 12.3.1
12.3.6	Endometriosis – Pelvis	Indicate whether endometriosis was found in the pelvis	• Yes • No	M	**Format:** Alphabetic value list complete for each location selected in 12.3.1
12.3.7	Locations of Abdomen examined	Select the locations where observations were made	• Infracolic omentum • Supracolic omentum • Transverse colon mesentery • Ascending colon mesentery • Descending colon mesentery • Small bowel serosa • Small bowel mesentery • Large bowel mesentery • Terminal ileum • Liver serosa • Liver parenchyma • Porta hepatis • Spleen • Lesser sac • Left diaphragm • Right diaphragm • Anterior abdominal wall • Not Done	M	**Format:** Alphabetic value list
12.3.8	Findings – Abdomen	Describe the findings within the abdomen	• Normal • Abnormal • Not Examined	M	**Format:** Alphabetic value list complete for each location selected in 12.3.7

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.9	Metastatic Disease – Abdomen	Indicate whether metastatic disease was found in the abdomen	• Yes • No	M	**Format:** Alphabetic value list complete for each location selected in 12.3.7
12.3.10	Carcinomatosis – Abdomen	Indicate whether carcinomatosis was found in the abdomen	• Yes • No	M	**Format:** Alphabetic value list complete for each location selected in 12.3.7
12.3.12	Lymph nodes examined	Select the lymph nodes that were examined	• Left pelvic nodes (including obturator) • Right pelvic nodes (including obturator) • Left Para-aortic nodes • Right Para-aortic nodes • Left Common iliac nodes • Right Common iliac nodes • Inguinal nodes • Not Done	M	**Format:** Alphabetic value list
12.3.13	Findings – Lymph nodes		• Normal • Abnormal • Not Examined	M	**Format:** Alphabetic value list complete for each location selected in 12.3.12
12.3.14	Metastatic Disease – Lymph nodes		• Yes • No • Unknown	M	**Format:** Alphabetic value list complete for each location selected in 12.3.12
12.3.15	Findings – General Comments			M	**Format:** Text

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.16	Procedures Performed	Describe the procedures performed	• Laparoscopic assisted vaginal hysterectomy • Total laparoscopic hysterectomy • Radical laparoscopic assisted vaginal • Hysterectomy • Radical total laparoscopic hysterectomy • Radical total robotic assisted hysterectomy • Robot assisted vaginal hysterectomy • Total robotic hysterectomy • Radical robotic laparoscopic assisted vaginal hysterectomy • Abdominal hysterectomy • Radical abdominal hysterectomy • Left oopherectomy • Right oopherectomy • Left salpingectomy • Right salpingectomy • Left ureterolysis • Right ureterolysis • Left pelvic node sampling • Right pelvic node sampling • Left pelvic lymphadenectomy (includes obturator nodes) • Right pelvic lymphadenectomy (includes obturator nodes) • Para-aortic lymphadenectomy up to IMA • Para-aortic lymphadenectomy up to left renal artery • Omental biopsy • Omentectomy infracolic • Omentectomy supracolic • Appendectomy • Only sentinel node removed • Other (specify)	M	**Format:** Alphabetic value list

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.17.0	If para-aortic lymphadenectomy, specify		• Trans peritoneal • Extra peritoneal		**Format:** Alphabetic value list
12.3.17.1	Sentinel Node Biopsy Performed	Was Sentinel Node Biopsy Performed	• Yes • No	M	**Format:** Alphabetic value list
12.3.17.2	Type of Sentinel Lymph Node Biopsy	Type of Sentinel Lymph node biopsy	• Technetium-99m radioactive colloid Lymphoscintigraphy • SPECT-CT • Blue Dye • Isosulfan blue • Indocyanine green	O	**Format:** Alphabetic value list if 12.3.17.1 = yes
12.3.17.3	Sentinel Lymph node biopsy location	Specify location of sentinel lymph nodes	• Left parametria • Right parametria • Left obturator • Left internal iliac • Right internal iliac • Left external iliac • Right external iliac • Left common iliac • Right common iliac • Presacral nodes • Para-aortic nodes	M	**Format:** Alphabetic value list if 12.3.17.1 = yes
12.3.18	Hysterectomy Not Completed or only Subtotal hysterectomy was performed	Indicate reason why	• Excessive Adhesions • Excessive Disease • Anesthetic Complications • Other Complications • N/A	M	**Format:** Alphabetic value list if hysterectomy was completed in 12.3.16
12.3.19	Stoma	Indicate whether the patient had a stoma created	• Yes • No	M	**Format:** Alphabetic value list
12.3.20	Stoma Site	Indicate the site of the stoma. If applicable.	• None • Right Upper Quadrant (RUQ) • Right Lower Quadrant (RLQ) • Left Upper Quadrant (LUQ) • Left Lower Quadrant (LLQ)	M	**Format:** Alphabetic value list
12.3.21.0	Residual Disease	Describe if the patient had residual disease	• Yes • No • Unknown	M	**Format:** Alphabetic value list

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.21	Residual Disease – location	Indicate the location of residual disease	• Left Fallopian tube • Right Fallopian tube • Left parametria • Right parametria • Uterus • Cervix • Cul de sac peritoneum • Bladder peritoneum • Left pelvic sidewall peritoneum • Right pelvic sidewall peritoneum • Left paracolic gutter peritoneum • Right paracolic gutter peritoneum • Appendix • Sigmoid colon • Sigmoid colon serosa • Sigmoid colon mesentery • Rectum • Vagina • Stomach • Left Ureter • Right Ureter • Other (specify) • Infracolic omentum • Supracolic omentum • Transverse colon mesentery • Ascending colon mesentery • Descending colon mesentery • Small bowel serosa • Small bowel mesentery • Large bowel mesentery • Terminal ileum • Liver serosa • Liver parenchyma • Porta hepatis • Spleen • Lesser sac • Left diaphragm • Right diaphragm • Anterior abdominal wall • Left pelvic nodes (including obturator) • Right pelvic nodes (including obturator) • Left Para-aortic nodes • Right Para-aortic nodes • Left Common iliac nodes • Right Common iliac nodes • Inguinal nodes	M	**Format:** Alphabetic multiple selection

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.3.22	Residual Disease – size	Indicate the residual disease size (cm)	• 0 • < 1 • ≥ 1	M	**Format:** Alphabetic multiple selection complete for each location selected in 12.3.20
12.3.23	Other Intra Operative Events	Indicate other intra operative events	• Repair to major blood vessels • Repair to bladder • Repair to bowel • Repair to Ureter • Other (specify)	M	**Format:** Alphabetic multiple selection
12.3.25	Surgical Outcome		• N/A • Optimally Debulked • Suboptimally Debulked	M	**Format:** Alphabetic multiple selection
12.3.26	Reasons for Suboptimally debulked	If the patient was sub-optimally debulked, indicate the reasons why	• Performance Status • Patient Age • Multiple Co-morbidities • Intra-operative Complications • Unresectable Disease • Multiple radical procedures required for optimal cytoreduction • Other (specify)	M	**Format:** Alphabetic multiple selection if "suboptimally debulked" in 12.3.24
12.3.27	If unresectable disease (for advanced stage only)	If the disease was unresectable, indicate the reasons why	• Porta-Hepatis • Small bowel mesenteric disease • Intrahepatic liver disease • Unresectable Lymph node disease • Other (specify)	M	**Format:** Alphabetic multiple selection
12.3.28	Unresectable comments			M	**Format:** Text
			12.4 Intra-Operative Pathology		
12.4.1	Intra Operative Assessment of Myometrial invasion		• Yes • No	M	**Format:** Alphabetic value list
12.4.2	Frozen Section	Indicate the depth of invasion	• No Myometrial invasion • Inner ½ invasion • Outer ½ invasion • Serosal involvement • Cervical Involvement – Superficial involvement • Cervical Involvement – Stromal involvement	O	**Format:** Alphabetic multiple selection if "yes " in 12.4.1

5.9.B Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.4.3	Gross Assessment		• No gross evidence of cancer invading Myometrium • Inner ½ invasion • Outer ½ invasion • Cervical Involvement – Superficial involvement • Cervical Involvement – Stromal involvement • Unknown	O	**Format:** Alphabetic multiple selection if "yes " in 12.4.1
		12.5 Closure			
12.5.1	Hemostasis agent used	Indicate the type of Hemostasis agent used, if applicable	• None • Gelfoam • Surgical • Instat • Tisseel • Coseel • Hemostase • Other (specify)	M	**Format:** Alphabetic value list
12.5.2	Hemostasis agent location	Specify the agent location		M	**Format:** Text
12.5.3	Sponge and instrument counts correct	Describes if a sponge and instrument count was completed after closure	• Yes • No	M	**Format:** Alphabetic value list
12.5.4	Sponge and instrument counts incorrect – X-ray completed?	If sponge and instrument count was incorrect indicate if an X-Ray was done	• Yes • No	M	**Format:** Alphabetic value list
12.5.5	Sponge and instrument counts incorrect – X-ray outcome	If sponge and instrument count was incorrect indicate the outcome		M	**Format:** Text
12.5.6	Patient estimated blood loss (cc)	Estimated units of blood loss during the procedure		M	**Format:** Numeric
12.5.6.1	Was patient transfused	Did patient receive a blood transfusion?	• Yes • No	M	**Format:** Alphabetic value list
12.5.7	Number of units of RBC replaced	Indicate the number of units of RBC replaced		M	**Format:** Numeric if 12.5.6.1=yes
12.5.8	Number of units of Units of FFP replaced	Indicate the number of units of Units of FFP replaced		M	**Format:** Numeric if 12.5.6.1=yes
12.5.9	Number of units of Units of platelets replaced	Indicate the number of units of Units of platelets replaced		M	**Format:** Numeric if 12.5.6.1=yes
12.5.11	Abdominal Irrigation		• Yes • No	M	**Format:** Alphabetic value list

5.9.b Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
12.5.12	Intra-abdominal drains		• Yes • No	M	**Format:** Alphabetic value list
12.5.13	Suture used to close fascia:		• Biosyn • Maxon • Vicryl • PDS • Prolene • Loop PDS • V-lock • Endostitch • Other (specify)	M	**Format:** Alphabetic value list
12.5.14	Suture Technique		• Running • Interrupted	M	**Format:** Alphabetic value list
12.5.15	Describe closure technique			M	**Format:** Text
12.5.16	Subcutaneous drain inserted		• Yes • No	M	**Format:** Alphabetic value list
12.5.17	Subcutaneous drain – type		• Jackson-Pratt • Hemovac • Blake • Sump • Davol • Other (specify)	M	**Format:** Alphabetic value list
12.5.18	Subcutaneous drain – location	Indicate the subcutaneous drain location	• Right Upper Quadrant (RUQ) • Right Lower Quadrant (RLQ) • Left Upper Quadrant (LUQ) • Left Lower Quadrant (LLQ)	M	**Format:** Alphabetic value list
12.5.19	Subcutaneous Closure		• Vicryl • Dexon • Maxon • PDS • Novafil • Prolene • Silk	M	**Format:** Alphabetic value list
12.5.20	Fascia Ports Closure		• 5mm • 8mm • 10-12mm • 10 mm • Not done	M	**Format:** Alphabetic value list
12.5.21	Describe undocking robot			M	**Format:** Text
12.5.22	Ascites sent to BioBank?	Indicate whether the ascites was sent to the BioBank	• Yes • No	O	**Format:** Alphabetic value list

5.9.B Endometrial Cancer Pan-Canadian Standards–Data Elements

Data Element Identifier	Data Element Name	Data Element Description	Values	Mandatory/ Optional	Collection Instruction
		12.6 Outcomes, Complications and Patient Transfer			
12.6.3	Patient condition when leaving OR	Describes the patients stability after the operative procedure	• Stable • Unstable	M	**Format:** Alphabetic value list
12.6.4	Unstable patient details (leaving OR)	Describe any relevant information regarding the patient's stability when leaving the OR		M	**Format:** Text if unstable in 12.6.3
12.6.5	Complications (Intra-operative)	Identify complications that occurred during surgery	• Bleeding requiring transfusion • Injury to bladder • Injury to bowel • Injury to ureter • Injury to blood vessels • Staple misfire • Arrhythmia • Arrest • Death • Other (specify) • None	M	**Format:** Alphabetic value list
12.6.6	Actions taken to address complications and results	Describe the actions taken to address complications and results of those actions		M	**Format:** Text if 12.6.5. has any value other than "None"
12.6.7	Intra-operative Consult	Indicate whether an intra-operative consult was requested and carried out and the type of consult	• No consultation Required • Gynecology • Urologist • Vascular Surgeon • General Surgeon • Other (specify)	M	**Format:** Alphabetic value list
12.6.8	Summary statement of procedure	Blank data field for surgeon notes after operative procedure		M	**Format:** Text
12.6.9	Change of disposition	Was there a noticeable change in the patient's disposition after the procedure	• Yes • No	O	**Format:** Alphabetic value list
12.6.10	Unit transferred to	Indicate where the patient was transferred to after the surgery	• Recovery room • Intensive Care Unit	O	**Format:** Alphabetic value list
		F. Completion Elements			
		13. Follow-Up (description of follow-up plans for the immediate peri-operative event and long-term plan (if applicable))			
13.1	Dictation addendum	Will there be a dictated addendum?	• Yes • No	O	**Format:** Alphabetic value list

6.0 References

American College of Surgeons. CoC Quality of Care Measures. https://www.facs.org/quality-programs/cancer/ncdb/qualitymeasures

Acuna SA, Angarita FA, McCready DR, Escallon J. Quality indicators for sentinel lymph node biopsy: is there room for improvement? Can J Surg. 2013 Apr;56(2):82-8.

Agency for Healthcare Research and Quality. Guideline Summary ACR Appropriateness Criteria prostate cancer – pretreatment detection, staging and surveillance. http://www.guideline.gov/content.aspx?id=43879

American Society of Breast Surgeons Breast Mastery Program. https://www.breastsurgeons.org/new_layout/programs/mastery/pqrs.php

Bill-Axelson A, Holmberg L, Garmo H, Rider JR, Taari K, Busch C, Nordling S, Häggman M, Anderson S, Spångberg A, Andrén O, Palmgren J, Steineck G, Adami H, Johansson J. Radical prostatectomy or watchful waiting in early prostate cancer. N Engl J Med 2014; 370:932-942.

Cooper D, Doherty GM, Haugen BR, Kloos RT, Lee SL, Mandel SJ, et al. Revised American Thyroid Association Management Guidelines for Patients with Thyroid Nodules and Differentiated Thyroid Cancer. *Thyroid*. 2009 Nov 19(11):1167-1214.

American Society of Colon and Rectal Surgeons. Best Practices Checklist for Rectal Cancer. https://www.fascrs.org/sites/default/files/downloads/publication/best_practices_checklist_for_rectal_cancer_final.pdf (Accessed 17 Jul 2014).

Carty SE, Doherty GM, Inabret III WB, Pasieka JL, Randolph GW, Shaha AR, et al. American Thyroid Association Statement on the Essential Elements of Interdisciplinary Communication of Perioperative Information for Patients Undergoing Thyroid Cancer Surgery. *Thyroid.* 2012 22(4):395-399.

Chan EO, Groome PA, Siemens DR. Validation of quality indicators for radical prostatectomy. *Int J Cancer.* 2008 Dec 1;123(11):2651-7. doi: 10.1002/ijc.23782.

Chen F, Puig M, Yermilov I, Malin J, Schneider EC, Epstein AM, et al. Using breast cancer quality indicators in a vulnerable population. *Cancer.* 2011 Aug 1;117(15):3311-21.

Chin JL, Srigley J, Mayhew LA, Rumble RB, Crossley C, Hunter A, Fleshner N, Bora B, McLeod R, McNair S, Langer B, Evans A. Guideline for optimization of surgical and pathological quality performance for radical prostatectomy in prostate cancer management: evidentiary base. *Can Urol Assoc J*. 2010 Feb;4(1):13-25.

Chin-Lenn L, Craighead P, Bryant HE, Mack L, Temple W, Ghali W, et al. Quality indicators for ductal carcinoma in situ (DCIS) of the breast: development using a multidisciplinary Delphi process and its use in monitoring population-based treatment. *J Surg Oncol.* 2013 Nov;108(6):348-51.

Darling G, Malthaner R, Dickie J, McKnight L, Nhan C, Hunter A, McLeod RS; Lung Cancer Surgery Expert Panel. Quality indicators for non-small cell lung cancer operations with use of a modified Delphi consensus process. *Ann Thorac Surg*. 2014 Jul;98(1):183-90.

Del Turco MR, Ponti A, Bick U, Biganzoli L, Cserni G, Cutuli B, et al. Quality indicators in breast cancer care. *Eur J Cancer.* 2010 Sep;46(13):2344-56.

Donabedian A. 1973. *Aspects of Medical Care Administration: Specifying Requirements for Health Care.* Cambridge, MA: Harvard University Press.

Elit LM, Bondy SJ, Paszat LP, Holowaty EJ, Thomas GM, Stukel TA, Levine MN. Surgical outcomes in women with ovarian cancer. *Can J Surg.* 2008 Oct;51(5):346-54.

Ferrua M, Couralet M, Nitenberg G, Morin S, Serin D, Minvielle E. Development and feasibility of a set of quality indicators relative to the timeliness and organisation of care for new breast cancer patients undergoing surgery. *BMC health services research*. 2012;12:167.

Finley C, Schneider L, and Shakeel S. Approaches to high-risk, resource intensive cancer surgical care in Canada.

Gagliardi AR, Fleshner N, Langer B, Stern H, Brown AD. Development of prostate cancer quality indicators: a modified Delphi approach. *Can J Urol.* 2005 Oct;12(5):2808-15.

Gagliardi AR, Fung MF, Langer B, Stern H, Brown AD. Development of ovarian cancer surgery quality indicators using a modified Delphi approach. *Gynecol Oncol.* 2005 May;97(2):446-56.

Giede C, Le T, Power P, Le T, Bentley J, Farrell S, Fortier MP, Kupets R, Plante M, Renaud MC, Schepansky A, Senikas V, Kwon J, Préfontaine M, Germain I, Pearcey R, D'Souza D, Senterman M, Hoskins P; SOGC-GOC-SCC Policy and Practice Guideline Committee. The role of surgery in endometrial cancer. *J Obstet Gynaecol Can*. 2013 Apr;35(4):370-4.

Kwon O, Hong S. Active surveillance and surgery in localized prostate cancer. Minerva Urol Nefrol. 2014 Sep;66(3):175-87. Epub 2014 May 28.

Laronga C, Gray JE, Siegel EM, Lee JH, Fulp WJ, Fletcher M, et al. Florida initiative for quality cancer care: improvements in breast cancer quality indicators during a 3-year interval. *Journal of the American College of Surgeons*. 2014 Oct;219(4):638-45 e1.

Litwin MS, Steinberg M, Malin J, Naitoh J, McGuigan KA, Steinfeld R, Adams J, and Brook R H. Prostate Cancer Patient Outcomes and Choice of Providers: Development of an Infrastructure for Quality Assessment, Santa Monica, CA: RAND, MR-1227-BF, 2000. *RAND Measuring Quality of Care for Prostate Cancer.*

Lovrics P, Hodgson N, O'Brien MA, Thabane L, Cornacchi S, Coates A, et al. Results of a surgeon-directed quality improvement project on breast cancer surgery outcomes in South-Central Ontario. *Ann Surg Oncol*. 2014 Jul;21(7):2181-7.

McCahill LE, Privette A, James T, Sheehey-Jones J, Ratliff J, Majercik D, et al. Quality measures for breast cancer surgery: initial validation of feasibility and assessment of variation among surgeons. *Archives of surgery* (Chicago, Ill : 1960). 2009 May;144(5):455-62; discussion 62-3.

McGory ML, Shekelle PG, Ko CY. Development of Quality Indicators for Patients Undergoing Colorectal Cancer Surgery. *JNCI J Natl Cancer Inst* (15 November 2006) 98 (22): 1623-1633.

Miller DC, Litwin MS, Sanda MG, Montie JE, Dunn RL, Resh J, Sandler H, Wei JT. Use of quality indicators to evaluate the care of patients with localized prostate carcinoma. *Cancer*. 2003 Mar 15;97(6):1428-35.

Morash C, Tey R, Agbassi C, Klotz L, McGowan T, Srigley J, Evans A. Active surveillance for the management of localized prostate cancer: Guideline recommendations. Can Urol Assoc J 2015; 9(5-6): 171-8. http://dx.doi.org/10.5489/cuaj.2806. Published online June 15, 2015

Nagase S, Katabuchi H, Hiura M, Sakuragi N, Aoki Y, Kigawa J, Saito T, Hachisuga T, Ito K, Uno T, Katsumata N, Komiyama S, Susumu N, Emoto M, Kobayashi H, Metoki H, Konishi I, Ochiai K, Mikami M, Sugiyama T, Mukai M, Sagae S, Hoshiai H, Aoki D, Ohmichi M, Yoshikawa H, Iwasaka T, Udagawa Y, Yaegashi N. Japan Society of Gynecologic Oncology. Evidence-based guidelines for treatment of uterine body neoplasm in Japan: Japan Society of Gynecologic Oncology (JSGO) 2009 edition. *Int J Clin Oncol.* 2010 Dec;15(6):531-42. doi: 10.1007/s10147-010-0138-6. Epub 2010 Nov 11.

National Collaborating Centre for Cancer. Ovarian Cancer. The recognition and initial management of ovarian cancer. London (UK): National Institute for Health and Clinical Excellence (NICE). 2011 Apr. 28 p. (Clinical guideline; no.122).

National Comprehensive Cancer Network – Lung Cancer Guidelines. http://www.nccn.org/professionals/physician_gls/pdf/sclc.pdf (Lung).

National Comprehensive Cancer Network – Ovarian Cancer Guidelines. http://www.nccn.org/professionals/physician_gls/pdf/ovarian.pdf (Accessed 5 May 2015).

National Comprehensive Cancer Network – Uterine Neoplasm Guidelines. http://www.nccn.org/professionals/physician_gls/pdf/uterine.pdf (Accessed 5 May 2015).

National Institute for Health and Care Excellence (UK) – Lung Cancer Quality Indicators. https://www.nice.org.uk/Guidance/QS17

National Institute for Health and Care Excellence (UK) – Ovarian Cancer Quality Indicators. https://www.nice.org.uk/guidance/qs18/chapter/List-of-quality-statements.

National Institute for Health and Care Excellence (UK) – Endometrial Cancer Quality Indicators. https://www.nice.org.uk/guidance/conditions-and-diseases/cancer/endometrial-cancers

National Quality Forum (Search by phrase “lung cancer”) https://www.qualityforum.org/Qps/QpsTool.aspx (accessed 2 March 2015).

Quan ML, Wells BJ, McCready D, Wright FC, Fraser N, Gagliardi AR. Beyond the false negative rate: development of quality indicators for sentinel lymph node biopsy in breast cancer. *Ann Surg Oncol.* 2010 Feb;17(2):579-91.

Querleu D, Ray-Coquard I, Classe JM, Aucouturier JS, Bonnet F, Bonnier P, Darai E, Devouassoux M, Gladieff L, Glehen O, Haie-Meder C, Joly F, Lécuru F, Lefranc JP, Lhommé C, Morice P, Salengro A, Stoeckle E, Taieb S, Zeng ZX, Leblanc E. Quality indicators in ovarian cancer surgery: report from the French Society of Gynecologic Oncology (Societe Francaise d’Oncologie Gynecologique, SFOG). *Ann Oncol.* 2013 Nov;24(11):2732-9. doi: 10.1093/annonc/mdt237. Epub 2013 Jul 14.

Sacerdote C, Bordon R, Pitarella S, Mano MP, Baldi I, Casella D, et al. Compliance with clinical practice guidelines for breast cancer treatment: a population-based study of quality-of-care indicators in Italy. *BMC health services research*. 2013;13:28.

Scottish Task Force. April 2012. Breast Cancer Measurability of Quality Performance Indicators Version 1.0: April 2012. http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/docs/QPI-Breast-Cancer-Measurability-V1.0-(April-2012).pdf

Scottish Task Force. October 2014. Endometrial Cancer Clincial Performance Quality Indicators. http://www.healthcareimprovementscotland.org/our_work/cancer_care_improvement/cancer_qpis/quality_performance_indicators.aspx

Scottish Task Force. December 2012. Lung Cancer Clinical Performance Quality Indicators. http://www.healthcareimprovementscotland.org/our_work/cancer_care_improvement/cancer_qpis/quality_performance_indicators.aspx (Accessed 15 Dec 2014).

Scottish Task Force. August 2013. Ovarian Cancer Clinical Performance Quality Indicators. (http://www.healthcareimprovementscotland.org/his/idoc.ashx?docid=4ad13ff9-0d4a-42c0-8166-19d256fe44ae&version=-1) (Accessed 11 December 2014).

Scottish Task Force. February 2012. Prostate Cancer Clinical Quality Performance Indicators. http://www.healthcareimprovementscotland.org/our_work/cancer_care_improvement/cancer_qpis/quality_performance_indicators.aspx (Accessed 29 Sept 2014).

Scottish Task Force. April 2014. Thyroid Cancer clinical Performance Quality Indicators. http://www.healthcareimprovementscotland.org/his/idoc.ashx?docid=26ea61c4-d4af-4df7-ad3a-2b00d03e1648&version=-1

Schneider DF, Shippel R. Review Article: Measuring Quality in Thyroid Cancer Surgery. *Advances in Endocrinology.* Volume 2014, Article ID 714291, 6 pages. Hindawi Publishing Corporation. http://dx.doi.org/10.1155/2014/714291.

Society of Gynecologic Oncology. Quality Indicators. (https://www.sgo.org/quality-outcomes-and-research/quality-indicators/) (Accessed 12 Dec 2014).

Society of Thoracic Surgeons. Quality Performance Measures. General Thoracic Surgery Measures. www.sts.org/quality-research-patient-safety/quality/quality-performance-measure (Accessed 2 March 2015).

Spencer BA, Steinberg M, Malin J, Adams J, Litwin MS. Quality-of-care indicators for early-stage prostate cancer. *J Clin Oncol*. 2003 May 15;21(10):1928-36.

Stordeur S, Vrijens F, Devriese S, Beirens K, Van Eycken E, Vlayen J. Developing and measuring a set of process and outcome indicators for breast cancer. *Breast*. 2012 Jun;21(3):253-60.

Stordeur Sabine, Vrijens France, Beirens Koen, Vlayen Joan, Devriese Stephan, Van Eycken Elisabeth. KCE Reports 150C. Quality Indicators in oncology: breast cancer. https://kce.fgov.be/publication/report/quality-indicators-in-oncology-breast-cancer-0

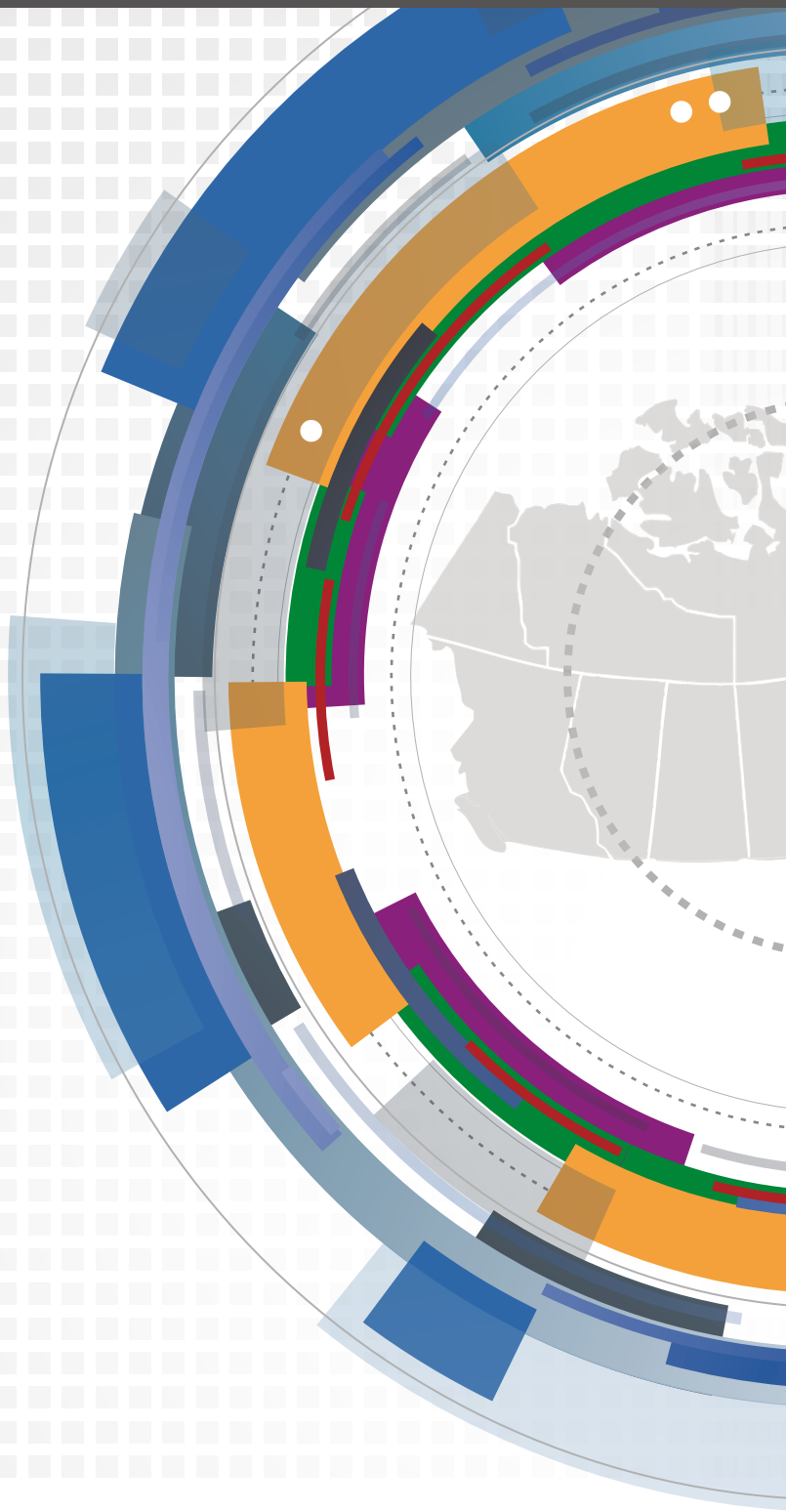
Tanvetyanon T. Quality-of-care indicators for non-small cell lung cancer. *Cancer Control*. 2009 Oct 16(4):335-41.

Verleye L, Ottevanger PB, van der Graaf W, Reed NS, Vergote I; Gynaecological Cancer Group (GCG) of European Organisation for Research and Treatment of Cancer (EORTC). EORTC-GCG process quality indicators for ovarian cancer surgery. *Eur J Cancer.* 2009 Mar;45(4):517-26. doi: 10.1016/j.ejca.2008.09.031. Epub 2008 Nov 14.

Webber C, Siemens DR, Brundage M, Groome PA. Quality of care indicators and their related outcomes: A population-based study in prostate cancer patients treated with radical prostatectomy. *Can Urol Assoc J*. 2014 Jul;8(7-8):E572-9. doi: 10.5489/cuaj.1649.

Wells BJ, Najjar H, Wright FC, Holloway CM, Fraser N, McCready D, et al. Measuring the quality of sentinel lymph node biopsy in breast cancer using newly developed quality indicators: a feasibility study. *Ann Surg Oncol*. 2011 Jan;18(1):78-85.

Werbrouck J, Bouche G, de Jonge E, Jacomen G, D'Hondt V, Denys H, Van Limbergen E, Vandermeersch B, De Schutter H, Van Eycken E, Goffin F, Amant F. Evaluation of the quality of the management of cancer of the corpus uteri--selection of relevant quality indicators and implementation in Belgium. *Gynecol Oncol*. 2013 Dec;131(3):512-9. doi: 10.1016/j.ygyno.2013.10.001. Epub 2013 Oct 6.



CANADIAN **PARTNERSHIP** AGAINST **CANCER**

PARTENARIAT CANADIEN CONTRE LE **CANCER**

1 University Avenue, Suite 300
Toronto, Ontario, Canada M5J 2P1

Tel: 416.915.9222
Toll-Free: 1.877.360.1665

partnershipagainstcancer.ca