INTRODUCTION

The Surgical Oncology Network (SON) was established in 2001 by the BC Cancer Agency and is now the leading advisory and resource body for surgical oncology in the province. By engaging cancer surgery care providers, and developing partnerships and collaborations provincially and nationally, the SON promotes and advances continuous quality improvement to ensure the best possible outcomes for all cancer surgery patients in BC.

Surgery plays a critical role in the diagnosis, staging and treatment of cancer and remains the primary treatment for many solid tumours. More than half of patients diagnosed with cancer will require some form of surgical procedure during the course of their illness, and surgery is frequently the gateway into services provided by the Agency.

The SON has made cancer surgery checklists (also known as synoptic operative reports) a priority as part of its strategic plan and has developed a standardized process to establish tumour site specific datasets critical for the optimal management of cancer patients. These checklists will be used by surgeons when dictating their operative reports and will inform the future development of an electronic synoptic reporting system.

BACKGROUND

An operative report is a descriptive account of the surgical procedure, suspected or confirmed findings, and proposed treatment dictated by the surgeon in a narrative form. They are the official medical and legal documentation of an operation and provide information for decision making and treatment planning by other health care providers. Data from the operative reports is also used for research and quality improvement purposes.

Uses of the Operative Report

- Radiation Oncologist
- Medical Oncologist
- Family Physician
- Pathology
- Hospital Admin
- Other Health Care Providers
- Legal Record
- Research & Evaluation
- Continuing Education
- Quality Improvement
**Cancer Surgery Checklists**

**Drawbacks to Narrative Operative Reports**

Research has demonstrated that narrative reporting does not consistently provide all the information required to make optimal treatment planning decisions.

- Critical information is recorded only 33% to 50% of the time.
- Insufficient detail for treatment planning.
- Lack of standardized format does not promote best practices.
- Significant variation in style and content between surgeons.
- Data not easily accessed and difficult to extract for research and quality improvement studies.
- Do not provide surgical residents with a training tool to guide their dictation.

**Most surgeons remember the first time they performed a full surgery and the daunting task of dictating the operative report. With little or no instruction, we all struggled to remember exactly what we did and what important information to include. Often, a 20-minute appendectomy turned into a 40-minute dictation.

Dr. Carl Brown, Chair, SON Research & Outcomes Committee
Specialist in General & Colorectal Surgery, St. Paul’s Hospital**

**Cancer Surgery Checklist**

Also known as a synoptic operative report, a cancer surgery checklist is a structured, standardized list of data items with a pre-specified choice of responses that concisely and comprehensively records key elements related to the tumour and operative procedure.

This concept has been pioneered in pathology, where synoptic summaries have been advocated by the College of American Pathologists (CAP) since the early 1990s.

A checklist is more comprehensive and precise, capturing essential data elements clearly and reliably in the operative report.

**Standardized Checklists:**

- Increase the consistency, accuracy and completeness of clinical information.
- Improve the process of patient care by ensuring all relevant information is captured to guide optimal treatment planning.
- Incorporate quality standards and best practice guidelines.
- Facilitate data collection for quality reporting and quality improvement.
The Surgical Oncology Network has established a standardized process for developing cancer surgery checklists, based on a modified Delphi method (an iterative process to reach consensus using data collection, analysis and expert feedback). This process was used to develop the Breast and Rectal Cancer Surgery Checklists and is outlined as follows:

1. **ESTABLISH AND ENGAGE A TEAM OF CONTENT EXPERTS**
   - SON Surgical Tumour Group (i.e. Breast and Colorectal) and medical and radiation oncologists.
   - Content experts selected based on expertise, competence and higher volumes of cancer patients.
   - Experts from all Health Authorities included.

2. **APPOINT A CLINICAL PROJECT LEAD**
   - Surgical leads selected based on high volumes of cancer procedures, respect within surgical community, multidisciplinary practice, leadership skills and dedication.
   - Dr. Elaine McKevitt (Breast Cancer Checklist) & Dr. Carl Brown (Rectal Cancer Checklist).

3. **IDENTIFY A PRELIMINARY LIST OF DATA ELEMENTS**
   - Based on best practices, guidelines and standards.

4. **REACH CONSENSUS AMONG THE TEAM OF EXPERTS**
   - Through face-to-face meetings and email discussions.

5. **PILOT TEST LIST OF DATA ELEMENTS**
   - Each list was trialled for feasibility by surgeons and was further refined in accordance with their feedback.

6. **CONDUCT A PROVINCE WIDE SURVEY OF SURGEONS TO SOLICIT FEEDBACK, VALIDATE THE CHECKLIST AND ENGAGE SURGEONS IN THE PROCESS**
   - For each checklist, a survey of data elements was developed using a 1 to 5 Likert scale to assess the level of agreement for each data element.
   - Electronic and print surveys were piloted then circulated to surgeons across BC who perform breast/rectal cancer procedures in their practice. All Health Authorities were represented.
   - Surgeons were identified using the SON Surgeon Directory, an in-house database of surgeons’ contact information and practice interests.
   - A modified Dillman approach was used.
   - Prize draw for a $100 gift certificate was provided as an incentive.

7. **OBTAIN MULTIDISCIPLINARY INPUT**
   - Surveys were also completed by medical and radiation oncologists.
   - Checklists were presented for discussion at the BCCA Provincial Breast and GI Tumour Groups.

8. **FINALIZE THE CHECKLIST**
   - Based on survey feedback and further discussions, the lists of data elements were finalized.
   - The final checklists were reviewed and approved by the appropriate SON Surgical Tumour Group.

A modified Delphi method is an effective way to develop a cancer surgery checklist. This process facilitates consensus building in an inclusive manner that engages clinicians from across BC, working in different health regions and environments with varying resources.
The SON Breast and Rectal Cancer Surgery Checklists have been finalized and planning for the implementation process is underway.

Next steps are to integrate cancer surgery checklists into hospital and cancer care processes and ensure that key data elements are collected for quality reporting and improvement.

In future, electronic data entry for operative reports will facilitate patient care and quality assurance for cancer surgery.

A checklist-based synoptic report will reliably capture critical data as a summary in the operative report. Adding these crucial data elements will improve the process of patient care, enhance communication of important information between health care providers and increase efficiency.

Dr. Laurence Turner
Chair, Breast Surgical Tumour Group
General Surgeon, Royal Columbian Hospital

The introduction of synoptic reporting for rectal cancer will significantly improve interdisciplinary communication and lead to standardization of information. Essential data required for treatment and follow up of rectal cancer is required and would be ensured within synoptic reports. Rectal cancer represents a particularly complex management challenge involving nurses (including ostomy nurses), dieticians, gastroenterologists, surgeons, radiation and medical oncologists. It is particularly important to describe tumour location, surgical approach and outcome in a consistent and accurate manner and synoptic reporting will significantly contribute to this.

Dr. Hagen Kennecke, Medical Oncologist, BC Cancer Agency

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