

# Cancer Surgery OR Checklists The Foundation of Synoptic Reporting

Elaine Mckevitt, MD, MEd FRCSC  
Carl J. Brown, MD MSc FRCSC

Surgical Oncology Network, BCCA  
October 21, 2011



# Synoptic Reporting

- “Synoptic” is essentially summarizing the important details in a report
- Pioneered in pathology
  - TNM classification
  - Important prognostic features

# Synoptic Reporting

- Traditional Dictated Operative Reports
  - Official medical documentation of an operation
  - Content not standardized or regulated
  - Little or no formal teaching
    - Stanley-Brown et al. 1983

# Synoptic Reporting

- Operative Report

- Patient Care

- Medico-Legal

- Research

- Quality Improvement

\* Importance of accurate process data

# Synoptic Reporting

- Edhemovic et al. 2004
  - Review of OR report data in 40 randomly selected rectal cancer patients
  - 70 data points evaluated
  - Completeness of Data:
    - Identifying Data - 69-97%
    - Surgical Data - 34-48%
    - Preop Data - 0-25%

# Synoptic Reporting

- Scherer et al. 2003

## Research Data Form vs. Dictation

- Similar for identifying & categorical data
- Differences noted in quantitative & qualitative data

## Clinical & administrative benefits of template driven documentation

- Marril et al. 1999
- van Walveran et al. 1999
- de Oria et al. 2002

# Original communications

---

## Comparison of data extraction from standardized versus traditional narrative operative reports for database-related research and quality control

A. Harvey, MD, MSc,<sup>a</sup> H. Zhang, MEng, MSc,<sup>b</sup> J. Nixon, MD,<sup>a</sup> and C. J. Brown, MD, MSc,<sup>c</sup> *Calgary and Vancouver, Canada*

*Background.* The purpose of this study was to compare the completeness and reproducibility of data extracted from a standardized operative report (SOR) with the non-standardized operative report (NSOR).

*Methods.* Between July and December 2003, operative data were collected from all laparoscopic cholecystectomy procedures performed at the Peter Lougheed Centre Hospital. A standardized format for dictating laparoscopic cholecystectomy operative reports was introduced on October 1, 2003.

Non-standardized operative reports dictated in the first 3 months of the study period were compared with SORs dictated in the final 3 months. Two physicians independently extracted data from each operative report into a surgical database.

*Results.* During the study period, 221 cholecystectomy reports were analyzed (119 SOR and 102 NSOR). Completeness of data extraction for identifying variables (eg, patient name, age, and date of procedure) was similar in the 2 types of reports. However, most other operative and perioperative details were more completely reported in the SOR (95% to 100%) when compared to the NSOR (14% to 100% complete). Furthermore, interobserver agreement between 2 independent data extractors was better for the SOR than the NSOR (0.9972 vs 0.9809,  $P < .0001$ ).

*Conclusions.* Standardized operative reports result in more complete and reliably interpretable operative data compared with NSORs. (*Surgery* 2007;141:708-14.)

*From the Division of General Surgery, Peter Lougheed Center, Calgary<sup>a</sup>; Centre for Health Evaluation and Outcomes Sciences<sup>b</sup> and Division of General Surgery,<sup>c</sup> St. Paul's Hospital, Vancouver, Canada*

# St. Paul's Hospital Synoptic Report - Rectal Cancer Surgery



The screenshot shows the website for St. Paul's Hospital, Providence Health Care, specifically the Colorectal Surgery department. The header includes the hospital logo and name. Below the header are navigation tabs: "About Colorectal Surgery", "Info for Patients + Families", "Info for Health Professionals", and "Info for Surgical Trainees". The "Info for Health Professionals" tab is active, showing a dropdown menu with options: "Referring Patients", "Guidelines + Practice Parameters", "Educational Opportunities", and "Synoptic Operative Reports". A search bar is visible with the text "Search" and a right-pointing arrow. On the left, there is a photograph of surgeons in an operating room. The main content area features the heading "Colorectal Surgery" and a paragraph describing the department's expertise in colorectal cancer, inflammatory bowel disease, and other gastrointestinal conditions. Below this is another paragraph highlighting the department's role as a teaching hospital and research center.

**ST. PAUL'S HOSPITAL**  
PROVIDENCE HEALTH CARE

## Colorectal Surgery

About Colorectal Surgery   Info for Patients + Families   **Info for Health Professionals**   Info for Surgical Trainees

Referring Patients  
Guidelines + Practice Parameters  
Educational Opportunities  
Synoptic Operative Reports

Search >>

### Colorectal Surgery

At St. Paul's Hospital, we provide excellence in colorectal surgery with a specific focus on colorectal cancer, inflammatory bowel disease, and other diseases of the lower gastrointestinal tract.

Surgeons with subspecialty training work in collaboration to treat patients with colorectal diseases at St. Paul's Hospital. As a University of British Columbia teaching hospital, St. Paul's serves as a training center for colorectal surgeons and is a leader in the research and treatment of patients with colorectal diseases.



# Criteria for OR Data

- Surgeon should not need a chart
- Should be generally accepted (face validity) as an important part of the operation
- Should not be available in other clinical documents (eg radiology reports)
- Should have a reasonable assumption of validity

# Criteria for OR Data cont'd

- Should have some relevance to present or future care by:
  - Surgeon
  - Oncologist
  - Radiologist
  - GP
  - Pathologist
  - Other Tumour Specific Clinicians (e.g. Gastroenterologists)

# St Paul's Hospital - Rectal Cancer Synoptic OR Report

23-Mar-07 1427 Operative Procedure

ST. PAUL'S HOSPITAL  
1081 Burrard Street  
Vancouver, B.C. V6Z 1Y6  
(604) 682-2344

## PROCEDURE REPORT

Name [REDACTED] DOB [REDACTED]  
Care ACUT Ward 10A  
Admit 22/03/2007 Discharge

PHN [REDACTED] Pt Phone

Date of Procedure: March 22, 2007 Performed by: D

Preoperative Diagnosis: Malignant rectal polyp.

Postoperative Diagnosis: As above.

Operation Performed: MIS assisted low anterior resection and c

## PREAMBLE:

[REDACTED] is a very pleasant 52-year-old gentleman who w  
Dr. Enns to have a mid rectal polyp. An excision of the polyp n  
with lymphovascular invasion. Pathology of this was reviewed  
and they agreed with the initial assessment. The risks, benefits  
surgery were explained to [REDACTED] and he agreed to th

## PROCEDURE:

The patient was prepped and draped in lithotomy positio  
was applied. A supraumbilical 10 mm incision was made. Care  
down through the abdominal fascia. A 10 mm Hassan port was  
lower quadrant, 5 mm right upper quadrant and 5 mm left lower  
inserted under direct visualization. A full abdominal laparoscop  
metastatic lesions. The sigmoid colon was elevated and the inf  
was dissected from a medial approach. The left lateral ureter w  
this dissection. The IMA was isolated and clipped three times p  
and transected. I then carried out a lateral mobilization of the si  
pericolic gutter and careful to preserve the ureter throughout the  
continued this dissection circumferentially around the rectum dc  
Once this was nearly complete, we elected to create the lower m

## SUMMARY:

1. Procedure - total mesorectal excision with coloanal anastomosis.
2. Technique laparoscopic assisted.
3. Diverting ileostomy - no.
4. Height of tumor - 8 cm from anal verge on sigmoidoscope.
5. Height of anastomosis 5 cm from anal verge.
6. Anastomosis - stapled.
7. Reconstruction - side to end anastomosis.
8. Multi visceral resection - none.
9. Preoperative radiotherapy - none.
10. Preoperative staging - CT abdomen and pelvis and chest x-ray.
11. Preoperative stage - T1NXMX.
12. TME specimen Grade II.
13. Residual cancer - none.
14. Operative urgency - elective.

Carl Brown, MD, FRCSC

\_\_\_\_\_  
DICTATED BUT NOT READ

CB:fp 167691

D: 23/03/2007

T: 23/03/2007

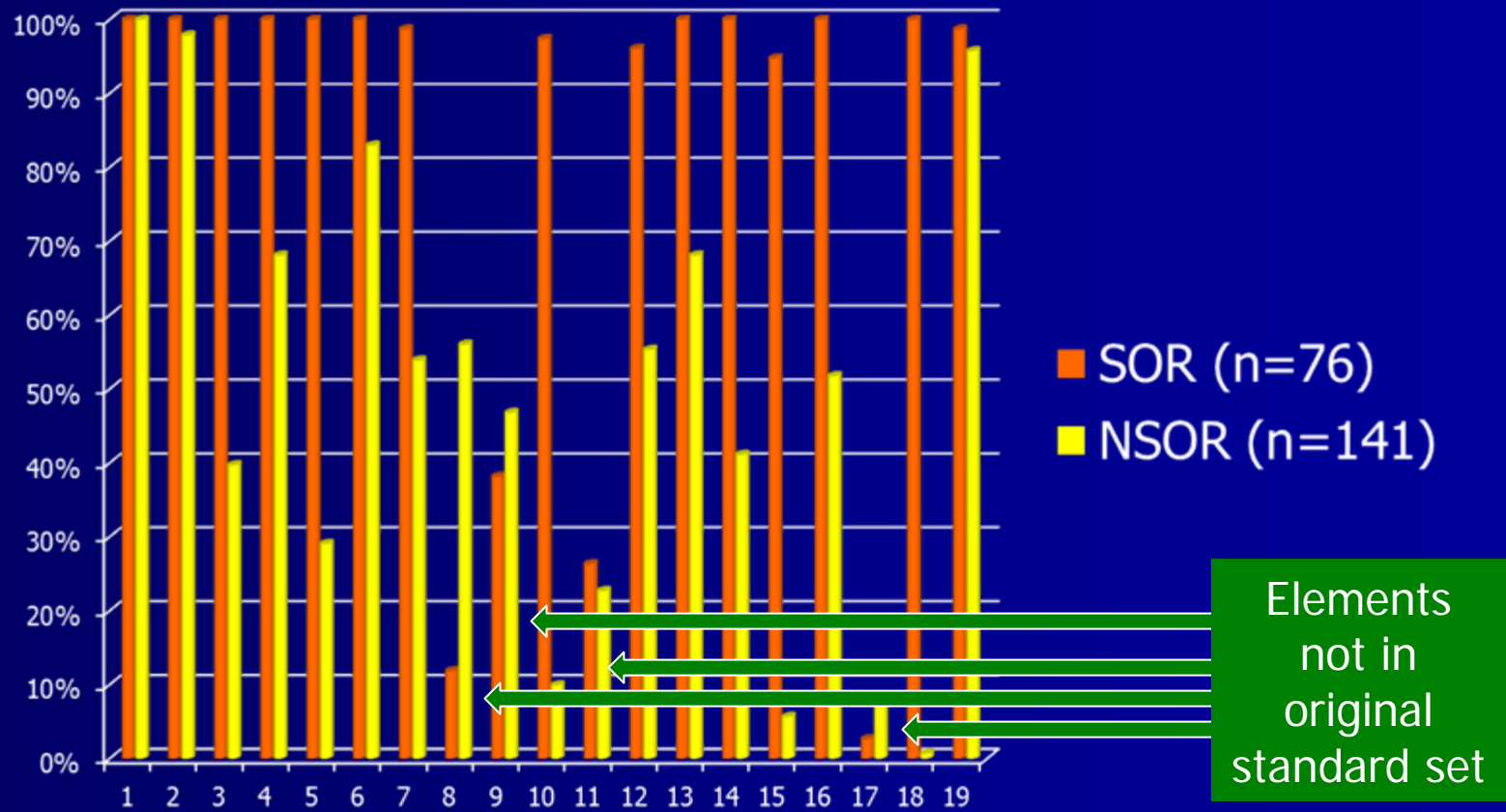
# Data Collection

- January 2006-December 2009
  - 217 Rectal Cancer Operative Reports
    - 76 Standardized Report
    - 141 Non-Standardized Reports
- Telephone interview to determine important features of operative reports
  - Surgeons
  - Medical Oncologists
  - Radiation Oncologists
  - Gastroenterologists

# Rectal Cancer Data Elements

- Procedure
- Technique
- Tumour height
- Anastomosis height
- Diverting Stoma
- Type of Anastomosis
- Reconstruction
- Preop Staging
- Preop Imaging
- Preop Treatment
- Operative Urgency
- Multivisceral Resection
- Residual Cancer
- Splenic Flexure mobilization
- Blood loss
- Air leak Test
- Complications

# Data Collection - Results



# SON Surgeon Survey

Objective: Refine minimum data set for rectal cancer surgery

- Delphi process
- Initial survey to small group to test
- Mailout to all surgeons interested in rectal cancer surgery (cancer surgeon registry) and GI tumour group

# Survey Participants

Group	n	Years in Practice
Surgeons Group	29	13 ( 2- 45)
Rad&Med Onc Group	33	15 (1 - 36)
Total	62	14 (1 – 45)

Type of Practice (N=62)	n	(%)
Anatomic pathology	1	1.6
Gastroenterology	1	1.6
General Oncology Practice	2	3.2
General Surgery	28	45.1
Med Oncology	17	27.4
Rad Oncology	11	17.7



# Survey Results

No	Data element	Mean (n=62)	Median (n=62)	Mean Group Surg (n=28)
1	<b>Procedure</b>	4.51 ± 0.64	5 (2-5)	4.31 ± 0.71
2	<b>Technique</b>	4.28 ± 0.77	4 (2-5)	4.07 ± 0.84
3	<b>Diverting Ileostomy</b>	4.41 ± 0.61	4 (3-5)	4.34 ± 0.72
4	<b>Height of Tumour</b>	4.45 ± 0.78	5 (2-5)	4.14 ± 0.91
5	<i>Height of Anastomosis</i>	3.93 ± 0.98	4 (2-5)	3.69 ± 0.96
6	<i>Anastomosis</i>	3.70 ± 0.86	4 (2-5)	4.03 ± 0.56
7	<b>Reconstruction</b>	4.01 ± 0.69	4 (3-5)	4.17 ± 0.65
8	<i>Splenic Flexure Mobilization</i>	3.36 ± 0.79	3 (2-5)	3.76 ± 0.78
9	<i>Air leak test</i>	3.93 ± 0.73	4 (2-5)	4.11 ± 0.73
10	<b>Multivisceral Resection</b>	4.62 ± 0.52	5 (3-5)	4.48 ± 0.58
11	<i>Intra-abdominal Adhesions</i>	3.85 ± 0.81	4 (2-5)	3.61 ± 0.77
12	<b>Preoperative Radiotherapy</b>	4.36 ± 0.75	4 (2-5)	4.41 ± 0.56
13	<i>Preoperative Staging</i>	3.98 ± 0.93	4 (2-5)	4.07 ± 0.84
14	<i>Preoperative Stage</i>	3.76 ± 0.94	4 (2-5)	3.71 ± 0.97
15	<b>Surgical Specimen</b>	4.35 ± 0.87	5 (2-5)	4.11 ± 0.91
16	<b>Residual Cancer</b>	4.63 ± 0.68	5 (2-5)	4.29 ± 0.85
17	<i>Blood Transfusion</i>	3.61 ± 0.76	4 (2-5)	3.93 ± 0.66
18	<b>Unplanned Events/Complications</b>	4.4 ± 0.55	4 (3-5)	4.18 ± 0.54
19	<b>Operative Urgency</b>	4.3 ± 0.59	4 (3-5)	4.18 ± 0.54

# Survey Results

## Strong Agreement (grade >4)

- Procedure
- Technique
- Tumour height
- Diverting Stoma
- Reconstruction
- Preop Treatment
- Operative Urgency
- Multivisceral Resection
- Residual Cancer
- Surgical Specimen
- Complications

## Moderate Agreement (grade 3.5-4)

- Blood transfusion
- Preop staging
- Air leak Test
- Previous adhesions
- Ht. of Anastomosis
- Anastomosis type

## Borderline Acceptable (3-3.5)

- Splenic Flexure mobilization

# Synoptic Reporting - 2010

- BC Surgical Society Meeting, May 12 2010
  - Presentation of data
  - Manuscript nearly complete
- BC GI Tumour Group
  - Adoption as “minimum data set”
- Computer Interface
  - Partnership with mTuitive Inc.
- Other tumour sites
  - Breast Tumour Group

# SON Breast Cancer Synoptic Reporting Initiative

## ■ Goals:

- Improve communication with other health care providers
- Increase awareness amongst surgeons of elements of the operative procedure that need reporting:
  - Affect adjuvant treatment
  - Quality Indicators
- Inform outcomes data collection
  - Breast Cancer Outcomes Unit
  - Resource issues

# Previous Synoptic Initiatives

- Initiative in Alberta: WebSMR
- Interprovincial Template for Synoptic Operative Reporting in Breast Cancer Surgery
  - 100 elements
- Rectal Cancer Standardized Dictated Summary

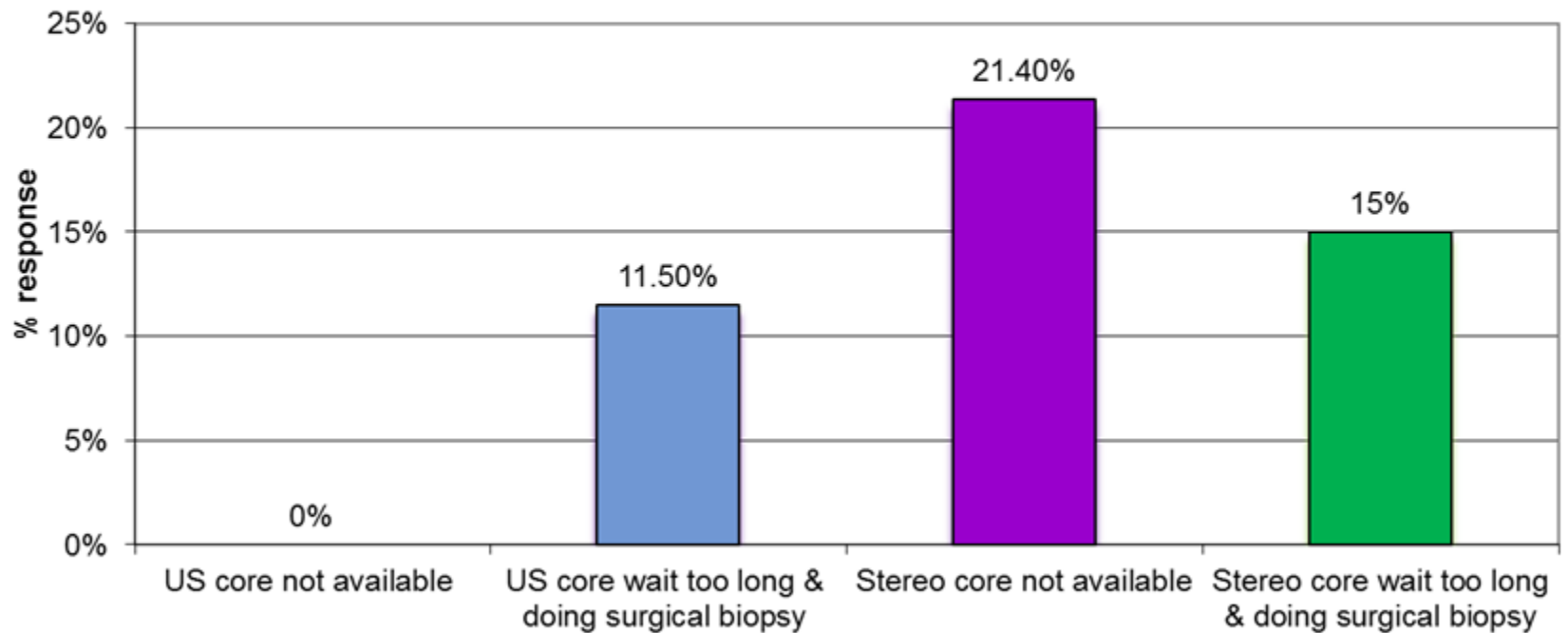
# Overview of Process

- Modified Delphi Process
  - Input from Surgical Oncology Breast Tumor Group
  - Input from Medical and Radiation Oncology
- **Minimum Data Set** introduced and trialed
  - 18 elements
- **Synoptic Report** Elements introduced and trialed
  - Additional 15 elements
- Surveyed BC Breast Surgeons and Oncologists
- Finalized Synoptic Report

# SON Breast Synoptic Reporting Survey

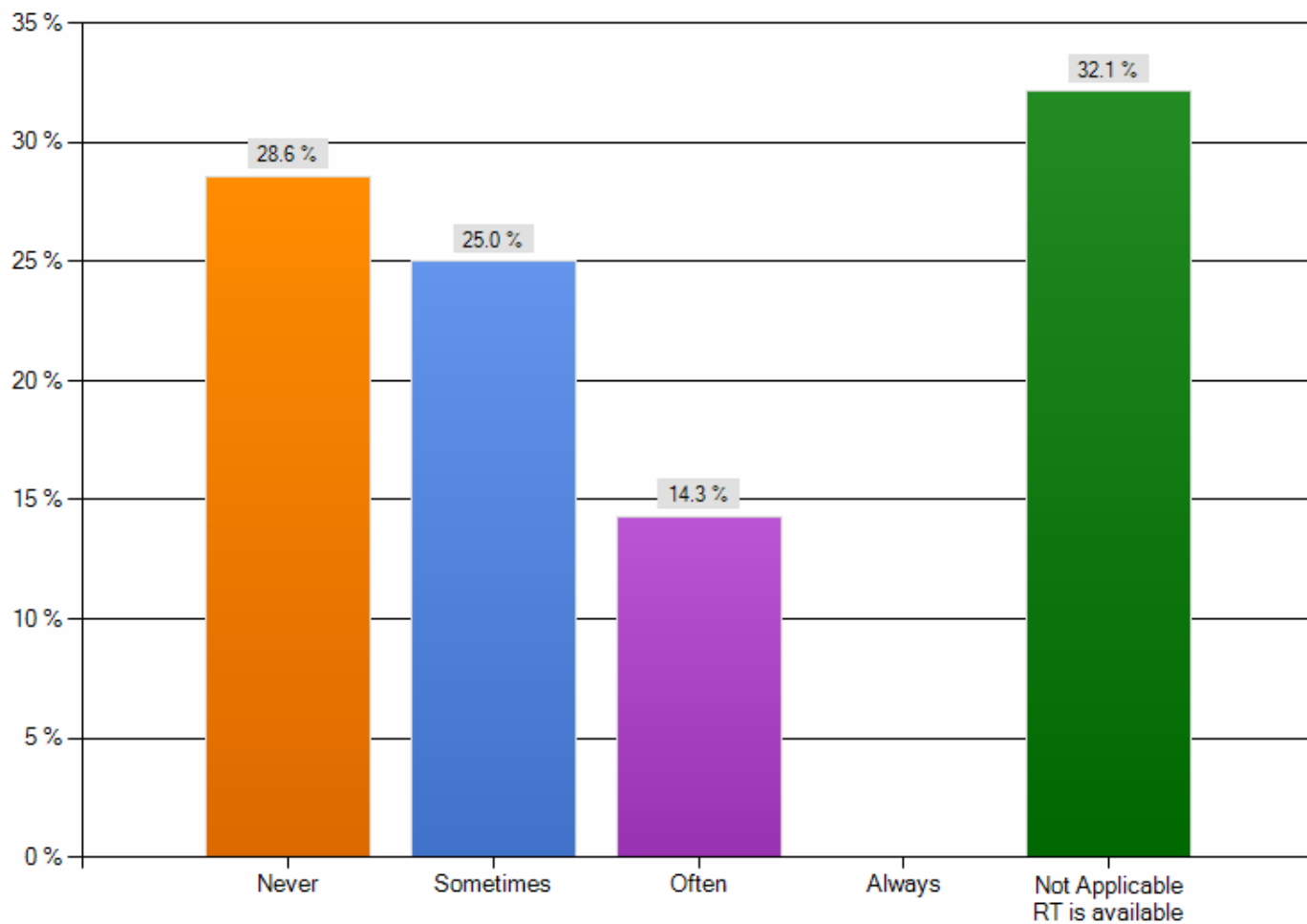
- Response
  - Surgeons: 64/113 (57%)
  - Oncologists: 17/56 (30%)
- Surgeons from all health authorities
- Mean years in practice: 16
- Survey also asked about resource availability

## Availability of US Core & Stereo Core/ Performing Surgical Biopsies Due to Long Waits





### How often do patients opt for a mastectomy because radiotherapy is not available?



# Minimum Data Set Survey BC Surgeons

- Likert scale 1-5
  - **Score >4**
  - Indication
  - Preop Biopsy
  - Preop Diagnosis
  - Clips marking site
  - Breast Procedure
  - Indication for TM
  - Margins re-excised
  - **Score <4**
  - **Conf. lesion removed**
  - **Preop Stage**
- Fascia removed
  - Localization
  - Specimen orientation
  - Axillary procedure
  - Sentinel Node Technique
  - Number Sentinel nodes
  - Indication for ALND
  - Ant Tissue remaining**
  - Intra-op pathology**

# Minimum Data Set Oncologists

Survey Item	Surgeons	Oncologists
Intraoperative Confirmation of Lesion Removal	<b>3.90</b>	<b>4.19</b>
Superficial(anterior) margin	<b>3.84</b>	<b>4.75</b>
Preoperative Stage (narrative)	<b>3.39</b>	<b>4.25</b>
Intra-operative Pathology Assessment of Node	<b>3.36</b>	<b>3.88</b>

# Additional Elements Survey: BC Surgeons

- Score >4
- Unplanned events
- Nerves preserved
- Operative counts
- Drain
- Score > 3.5
- Axillary incision
- Breast incision
- Injection site SN dye
- Breast closure
- Borders of axilla
- Location suspicious nodes
- Score < 3.5
- Borders of mastectomy
- Antibiotics
- Internal mammary radioactivity
- SN location
- DVT prophylaxis
- Score <3
- Follow up

# Comments from Oncologists

- Would like information about:
  - information about re-excision of margins and where additional tissue can be taken
  - Likelihood of future reconstruction
  - Nodes removed in addition to sentinel nodes (sampling vs true dissection)
  - Would like internal mammary activity commented on

# FINALIZING THE SYNOPTIC TEMPLATE

- Reviewed the results and comments from the surveys
  - Surgeons
  - Oncologists
- Multiple discussions with the SON Breast Tumor Group
- Discussion with the Provincial Breast Tumor Group

# Breast Cancer Synoptic Report

Performed by: Dr. Elaine McKeivitt

Assistant: Dr. M. A. Wachsmuth

**PREOPERATIVE DIAGNOSIS:**

Right breast DCIS.

**POSTOPERATIVE DIAGNOSIS:**

Right breast DCIS.

**OPERATION PERFORMED:**

1. Skin-sparing mastectomy, right.
2. Right sentinel lymph node biopsy.

**A. PREOPERATIVE EVALUATION AND RATIONALE FOR SURGERY:**

1. Indication: Primary treatment.
2. Preoperative biopsy: Core biopsy Radiology.
3. Preoperative diagnosis: DCIS.
4. Preoperative stage: 8 mm mass of DCIS with bloody nipple discharge. Nodes clinically and radiologically negative.
5. Neoadjuvant treatment: No.

**B. OPERATIVE DETAILS:**

6. Breast procedure: Skin-sparing mastectomy with reconstruction.
7. Indication for total mastectomy: Patient preference and central lesion with bloody nipple discharge.
8. Reconstruction: Permanent implant with bioprosthesis.
9. Localization: Not applicable, mastectomy done.
10. Incision: Circumareolar.
11. Intraop confirmation of lesion removal: Not applicable, mastectomy done.
12. Clips marking site: Not applicable, mastectomy done.
13. Specimen orientation: Yes.
14. Additional margin tissue taken: No.
15. Specimen pectoral fascia removed: Yes.
16. Anterior breast tissue remaining: No.
17. Additional notes from breast procedure: No.

**C. OPERATIVE DETAILS AXILLA:**

18. Axillary procedure: Sentinel node biopsy.
19. Axillary incision location: Via mastectomy.
20. Sentinel node technique: Technetium blue dye.
21. Internal mammary radioactivity: None by intraoperative gamma probe.
22. Number of submitted sentinel nodes: Three.
23. Indication for axillary node dissection: Not applicable, sentinel node biopsy done.
24. Structures identified and preserved: Not applicable, sentinel node biopsy done.
25. Additional notes from axillary surgery: No.

26. Unplanned events and complications: None.
27. Drain in location: Yes, by Plastic Surgery.
28. Closure: By Plastic Surgery.

**D. WHOLE PROCEDURE AND FOLLOWUP:**

She will see me in the Breast Clinic in two weeks' time to discuss results and I will refer her on to the BC Cancer Agency.

# THE SYNOPTIC OPERATIVE REPORT FOR BREAST CANCER

- Two ways the Synoptic Elements can be used:
  - 1. Dictate a complete Synoptic OR Report
    - Elements listed from 1 to 28
    - No narrative report needed
    - Can add extra preamble or comments
  - 2. Dictate a Synoptic Summary prior to your usual OR report



# SUGGESTIONS FOR GETTING STARTED

- The first couple of times the Synoptic OR report will seem counterintuitive
- After 2-3 reports it becomes quick and easy
- The complete template has drop down menus designed for when there is computer entry
- While dictating if there are elements that are not relevant just dictate not applicable for the element

# SUGGESTIONS FOR GETTING STARTED 2

- If you are only operating on the breast
  - dictate elements from 1-17
  - Dictate 18-25 not applicable
  - Continue dictating elements 26-28
- If you are only operating on the axilla
  - Dictate elements 1-5
  - Dictate 6-17 not applicable
  - Dictate elements 18-28

# Ex

Date of Procedure: October 19, 2011

Performed by: Dr. Elaine McKeivitt

Assistant: Dr. Wachsmuth

**PREOPERATIVE DIAGNOSIS:**

Right breast DCIS and atypia.

**POSTOPERATIVE DIAGNOSIS:**

Right breast DCIS and atypia.

**OPERATION PERFORMED:**

Partial mastectomy with fine wire localization x2.

**A. PREOPERATIVE EVALUATION/RATIONALE FOR SURGERY:**

1. Indication: Primary treatment.
2. Preoperative biopsy: Core by Radiology.
3. Preoperative diagnosis (pathology): In situ carcinoma.
4. Preoperative stage (narrative): Small focus of DCIS, 2 cm of calcifications and other area positive for atypia.
5. Neoadjuvant treatment: None.

**B. OPERATIVE DETAILS - Breast:**

6. Breast procedure: Partial mastectomy.
7. Indication for total mastectomy: Not applicable, breast-conserving surgery done.
8. Reconstruction: Not applicable, breast-conserving surgery done.
9. Localization: Wire.
10. Incision and incision relation to tumor: Overlying the area of the wires and in continuity with the more inferior wire.
11. Intraoperative confirmation of lesion removal: Yes by x-ray.
12. Clips marking site after BCS: Yes.
13. Specimen orientation: Yes.
14. Additional margin tissue taken and submitted separately: Yes. Anterior, inferior and medial.
15. Pectoral fascia removed: Yes.
16. Anterior breast tissue remaining: No.
17. Additional notes on breast procedure (narrative): I did re-excise at least three specimens, the whole of the anterior and inferior margin in the area where the wire was.

**C. OPERATIVE DETAILS - Axilla:**

18. - 25 Not applicable.

**D. PROCEDURE COMPLETION:**

26. Unplanned events: None.
27. Drain and location: No.
28. Closure (narrative): Subcuticular stitch.

**FOLLOW-UP:**

She will see me in the office in two weeks' time to discuss results and I will refer her on to the BC Cancer Agency. We will restart her dabigatran tomorrow if we have good hemostasis. She will be kept in hospital overnight.

Performed by: Dr. E. McKeVitt

Assistant: Dr. Tran

**PREOPERATIVE DIAGNOSIS:**

Right breast ductal carcinoma in situ.

**POSTOPERATIVE DIAGNOSIS:**

Right breast ductal carcinoma in situ.

**OPERATION PERFORMED:**

1. Right skin-sparing mastectomy.
2. Right sentinel lymph node biopsy.

**PROCEDURE:**

This 63-year-old female presented with an abnormal screening mammogram and went on to have a workup with core biopsy for ultrasound guidance demonstrating DCIS. This was a larger area, and so the options were discussed with her and we decided to proceed with a mastectomy. She desired reconstruction, and a referral to Plastic Surgery was arranged. The pertinent details of the procedure are summarized below in the breast cancer standardized dictated summary.

**A. PREOPERATIVE EVALUATION AND RATIONALE FOR SURGERY:**

1. Indication: Primary treatment.
2. Preoperative biopsy: By Radiology.
3. Preoperative diagnosis: In situ carcinoma (DCIS).
4. Preoperative stage: 6-cm area of calcifications with lymph nodes clinically negative.
5. Neoadjuvant treatment: No.

**B. OPERATIVE DETAILS:**

6. Breast procedure: Skin-sparing mastectomy with reconstruction.
7. Indication for total mastectomy: Tumor size.
8. Reconstruction: Tissue expander.
9. Localization: Not applicable. Mastectomy done.
10. Incision: Wise pattern mastectomy.
11. Intraoperative confirmation of lesion and removal: Not applicable. Mastectomy done.
12. Clips marking site: Not applicable. Mastectomy done.
13. Specimen orientation: Yes.
14. Additional margin tissue taken: Not applicable. Mastectomy done.
15. Pectoralis fascia removed: Yes.
16. Anterior breast tissue remaining: No.
17. Additional nodes on breast procedure: None.

**C. OPERATIVE DETAILS AXILLA:**

18. Axillary procedure: Sentinel node biopsy.
19. Incision: Axillary incision via mastectomy.
20. Sentinel node technique: Technetium and blue dye.
21. Intramammary radioactivity: No by intraoperative gamma probe.
22. Specified number of submitted sentinel nodes: 3.
23. Indication for node dissection: Not applicable. Sentinel node biopsy done.
24. Structures identified and preserved: Axillary vein and two intercostal brachial nerves.
25. Additional nodes on axillary surgery: When I did the sentinel node biopsy there was a palpable node that was not sentinel in the low axilla just below the sentinel node. This was suspicious, and the sentinel node was suspicious. Considering the patient had DCIS on core biopsy, I proceeded to do a more thorough exploration of the axilla and open the clavipectoral fascia, identifying the vein. I did identify a small suspicious node more superiorly just underneath the axillary vein but could not feel any other suspicious lymph nodes. Because I was not sure these nodes contained tumor because the core biopsy demonstrated only DCIS, and because more recent data from the Z11 trial demonstrates no survival benefit to lymph node dissection following a positive sentinel node biopsy, I felt it most appropriate not to perform an axillary lymph node dissection.

**D. WHOLE PROCEDURE AND FOLLOWUP:**

26. Unplanned events and complications: None.
27. Drain and location: Placed by Plastics.
28. Closure: By Plastics.

**FOLLOWUP:**

She will see me in the office in two weeks' time as well as follow up with Dr. Van Laeken. She is planning to travel to Kenya on November 2, 2011, and I may not be able to see her in the office prior to her leaving due to the office scheduling times and the timing of her trip. I have asked her to follow up with me in the office when she returns, and I have told her I have copied the results to her family physician, who she can also check in with prior to leaving for Kenya. I am suspicious about the axillary nodes. We may well identify a positive invasive focus within the breast, and she may well have metastasis to her lymph nodes. She would then need to be assessed for further treatment.

# Dictating a Synoptic Summary

- 18 elements in red on synoptic list
  - Dictate number, title of element and answer
- For the other (black) elements
  - dictate the number and “skip”

# Synoptic Summary Example

- 1. Indication: Primary treatment
- 2. Preop Biopsy: core by radiology
- 3. Preop Diagnosis: invasive carcinoma
- 4. skip
- 5. skip
- 6. Breast procedure: partial mastectomy
- 7. Indication for total mastectomy: not applicable
- 8. Reconstruction: Not applicable
- 9. Localization: palpable
- 10. skip
- 11. Intraop confirmation of lesion removal: yes with xray
  
- etc

# WHY CONVERT TO A SYNOPTIC REPORT

- Improved communication
- Improved outcomes data
  - Your outcome data will be more accurate
- Quicker once familiar with the format
- By having data can improve resource availability in your community

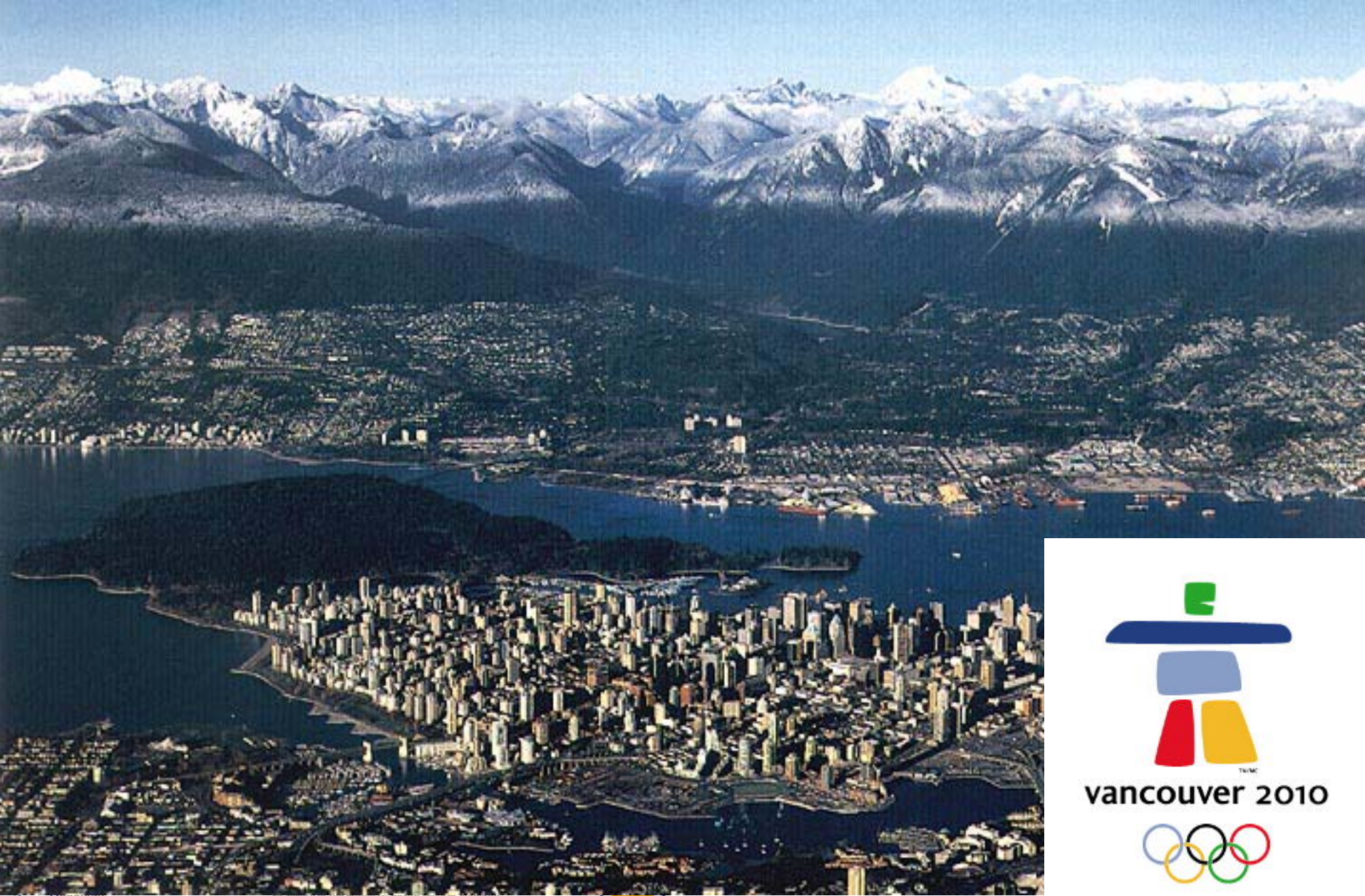
# FUTURE DIRECTIONS

- Computer generated synoptic reports
  - Drop down menus already developed
- Data base for breast cancer being developed to receive data from synoptic reports
- Discussions with MOH regarding fee code support



# Thank you

- Carl Brown
- Fatima Cengic
- Yasmin Miller
- Colorectal and Breast Surgical Tumor Groups
- All the surgeons who filled in our surveys



# Extra Slides



**BC Cancer Agency**  
CARE & RESEARCH  
An agency of the Provincial Health Services Authority



**Vancouver Coastal Health**  
*Promoting wellness. Ensuring care.*

# Canadian Partnership Against Cancer (CPAC)



- 5 year initiative by Federal Government in Feb 2006
- \$250 million funding – recently extended

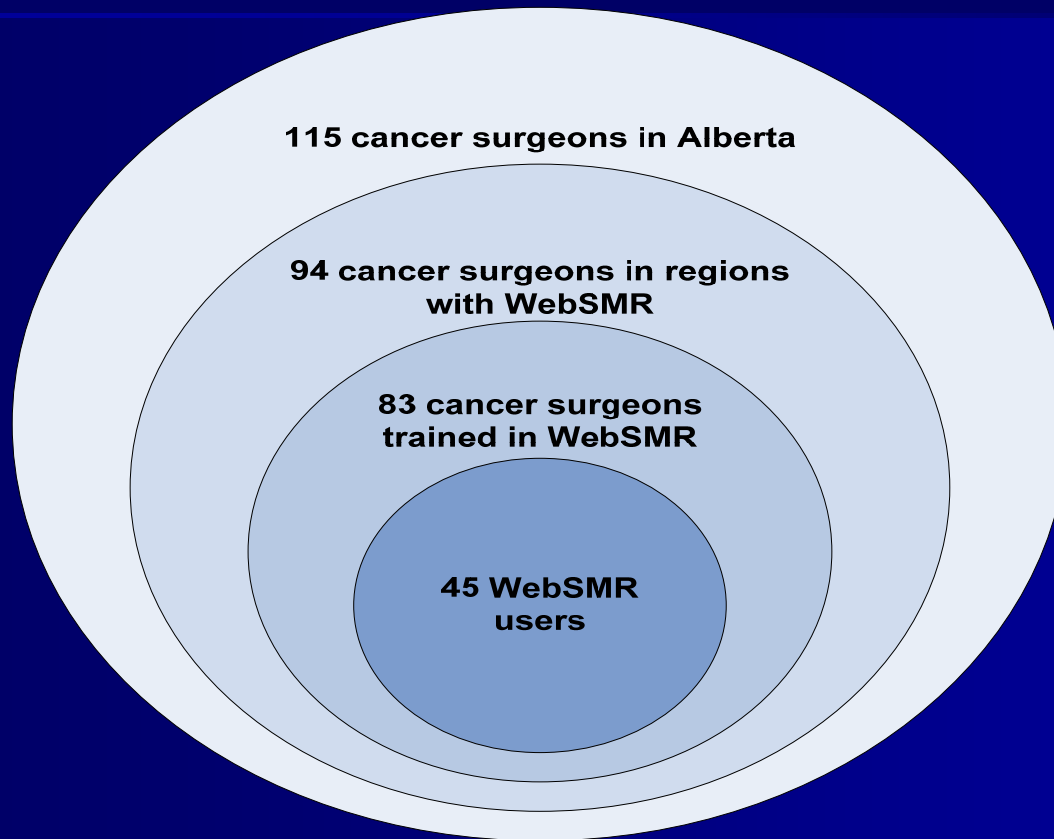
## Objectives

- reduce the expected number of new cases of cancer among Canadians
- enhance the quality of life of those living with cancer
- lessen the likelihood of Canadians dying from cancer

# Web Synoptic Medical Report (WebSMR)

- Joint venture of Softworks Inc. and the Alberta Cancer Board
- Software engine created to facilitate online “tick box” operative reports
- Developed in Alberta
  - Led by Dr. W Temple
  - Currently two templates - breast and colorectal
  - Further cancer sites under development (e.g. gynecology, head and neck cancer)
- Replaces dictated OR reports
- Surgeons can query their own data

# Web Synoptic Medical Report (WebSMR)



# Web Synoptic Medical Report (WebSMR)

## Calgary Region Analysis

# of Cancer Surgeries – CIHI Count (Jan – June 2007)\*

# of Cancer Surgeries Entered into WebSMR (Jan – June 2007)

	# of Cancer Surgeries – CIHI Count (Jan – June 2007)*	# of Cancer Surgeries Entered into WebSMR (Jan – June 2007)	
		#	%
<b>Tumor Group Analysis</b>			
Breast	348	194	56
Rectal	115	25	22
Colon	102	40	39
<b>Total**</b>	<b>565</b>	<b>259</b>	<b>46***</b>

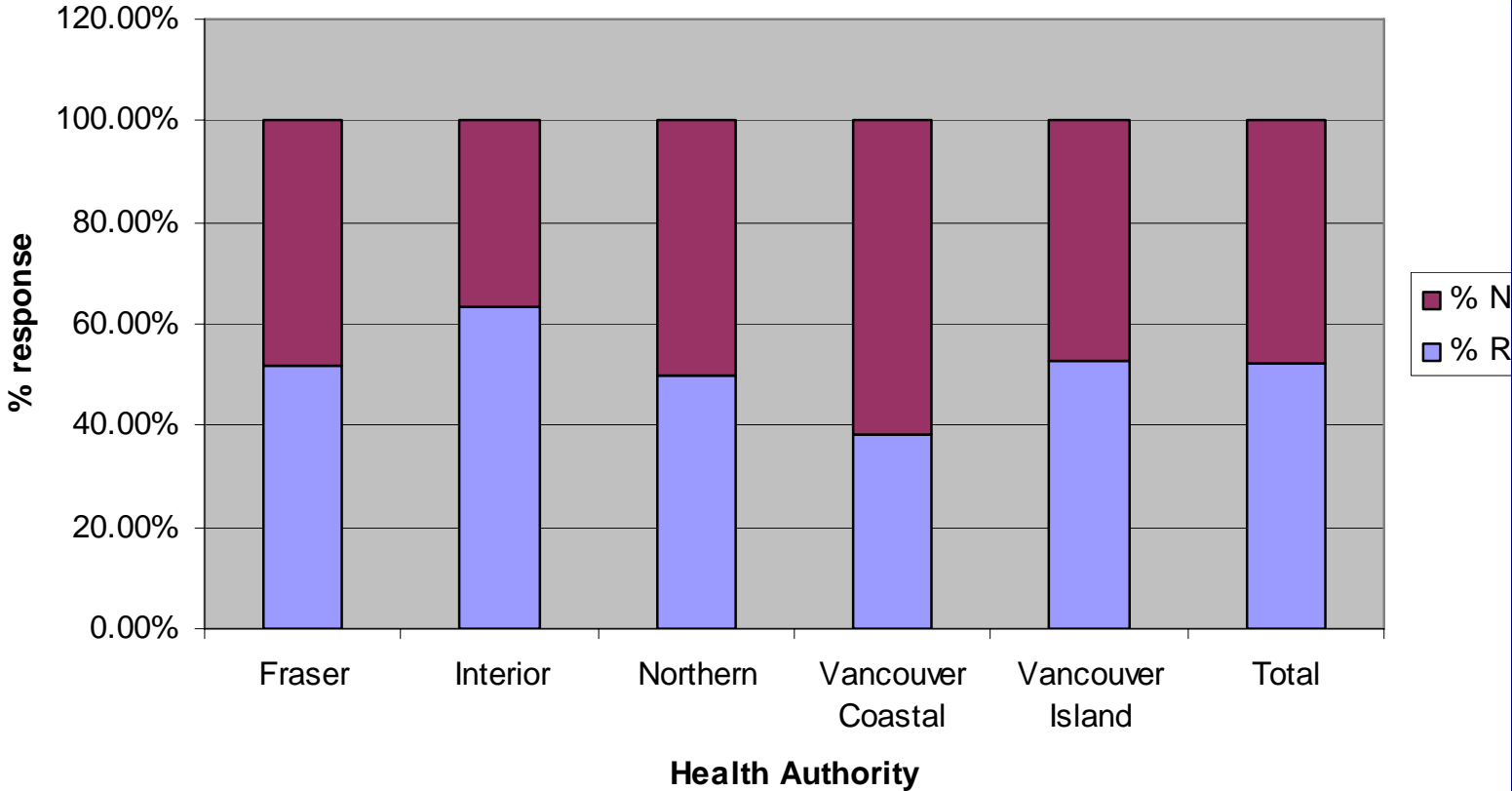
\*Alberta WebSMR Final Evaluation, Praxia Information Intelligence, March 2008

# Web Synoptic Medical Report (WebSMR)

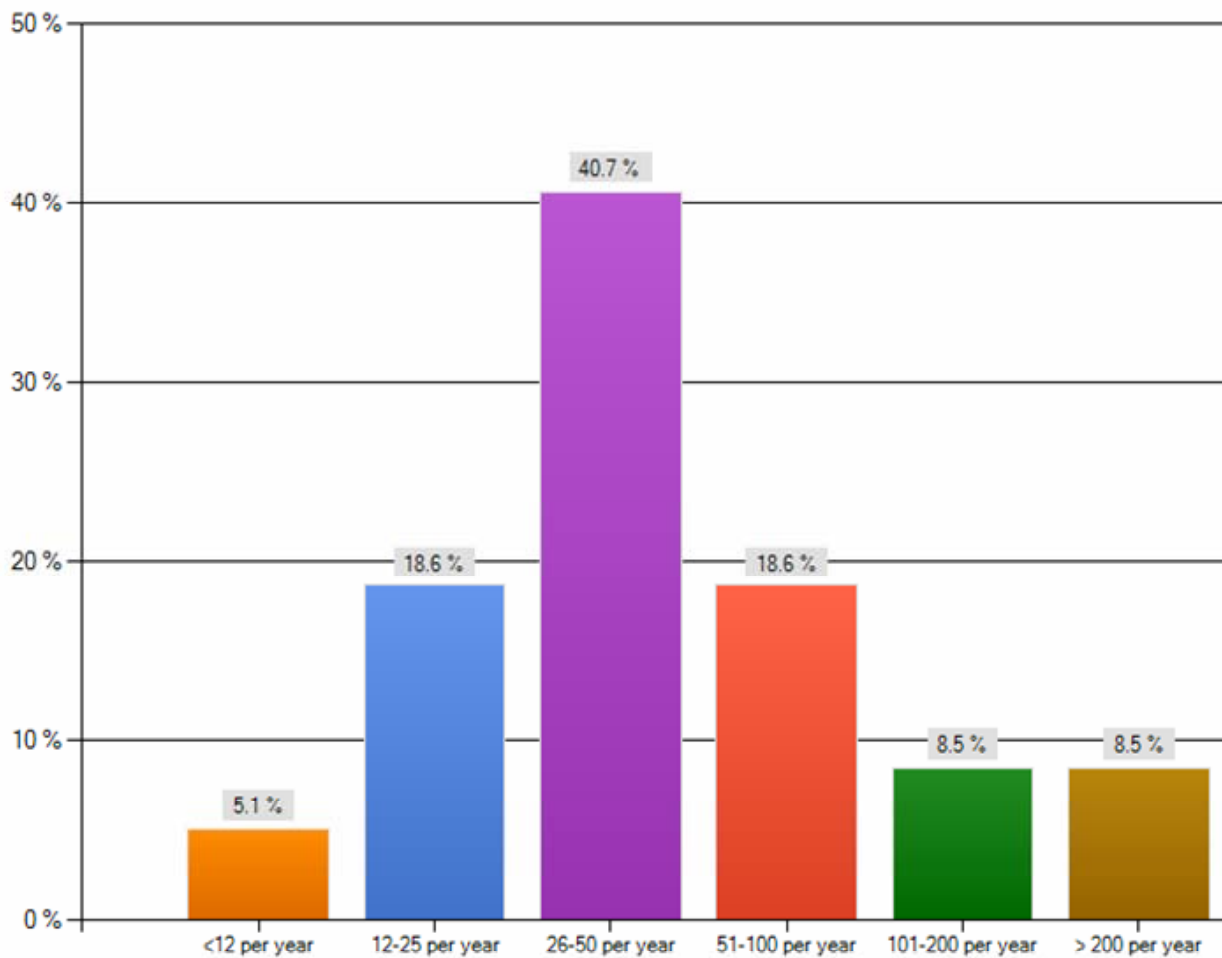
- Pilot Project Ongoing
- BC SON elected not to participate
  - Limited uptake by surgeons in Alberta
  - Cancer specific tool – impractical
  - High costs
  - Administrative issues
    - Data Stewardship



### Response rate within each Health Authority



### Q5: How many BREAST PROCEDURES (cancer & biopsy) do you perform per year?



# Operative Reports

- Documentation of the procedure performed:
  - Medico-legal
  - Communication
    - oncology
- No standard teaching
- Narrative report
  - Variable in length and detail

# Synoptic Reports

- Increase reporting of essential prognostic info
- Reduce reporting of non essential surgical details (eg. sutures used for closure)
- Reported as being user friendly
- Available on patient chart more quickly
- Initiatives to develop computer entry

# Future Directions

- SON Breast tumor group to discuss final composition of elements
  - 17 elements from minimum data set
  - Simplify elements for Synoptic Report
- Distribute elements to BC Surgeons:
  - Minimum Data set
  - Synoptic Operative Report
- Computer based data entry/reporting

■ Improving data collection to inform outcomes research and resource

# Minimum Data Set Example

100057437 / 1000000-42072

MSJ Surgical Suite (MSDC)

subcuticular stitch.

#### BREAST CANCER OPERATIVE SUMMARY:

1. Indication: Primary treatment.
2. Preop biopsy: Core under ultrasound.
3. Preop diagnosis: Invasive carcinoma.
4. Preop stage: 1.1 cm tumor with nodes clinically and radiologically negative.
5. Breast procedure: Partial mastectomy.
6. Localization: Wire.
7. Intraoperative confirmation: Yes.
8. Margins re-excised: Yes anterior.
9. Clips marking the site: Yes.
10. Fascia removed: No.
11. Anterior breast tissue remaining: No.
12. Specimen orientation: Yes.
13. Axillary procedure: Sentinel node biopsy.
14. Sentinel node technique: Technetium blue dye.
15. Number of sentinel nodes: Two sentinel, one non-sentinel.
16. Intraoperative pathology: No.
17. Indication for axial node dissection: Not done.
18. Unplanned events: None.

Elaine McKeivitt, MD, FRCSC  
DIVISION OF GENERAL SURGERY

EM:bs  
D: 10/08/2010 T: 27/08/2010

cc: Mira Kovacs, MD

POSTOPERATIVE DIAGNOSIS:

Same.

OPERATION PERFORMED:

1. Left sentinel lymph node biopsy.
2. Left partial mastectomy/fine wire localization.

CLINICAL PREAMBLE:

This 55-year-old female had an abnormality identified on screening mammogram just before she left Alberta. She presented in BC for further evaluation and was diagnosed with a lobular breast cancer. She has previously had implants removed. She went on to have an MRI scan which identified only the known focus in the left breast that was suspicious although there were foci suspicious for silicone. She was injected with radionuclide at St. Paul's Hospital. Fine wire was placed in Radiology and she was brought to the Operating Room for her surgery.

PROCEDURE:

A partial mastectomy (fine wire guided) and sentinel lymph node biopsy was performed in the standard fashion and the relevant details are summarized below.

Breast cancer standardized dictated summary:

1. Indication: Primary treatment.
2. Preop biopsy core: Under ultrasound.
3. Preop diagnosis: Invasive carcinoma.
4. Preop stage: A 9 mm mass by MRI in the upper outer left breast. Nodes negative by imaging.
5. Breast procedure: Partial mastectomy.
6. Indication: Total mastectomy not done.
7. Abortus mastectomy: Not done.
8. Localization: Wire localization.
9. Incision: Radial.
10. Intraoperative confirmation of lesion removal: Yes by palpation.
11. Margins re-excised intraoperatively: Yes superior.
12. Clips marking site: Yes.
13. Fascia removed: Yes.
14. Anterior breast tissue remaining: No.
15. Specimen orientation: Yes.
16. Closure: Subcuticular stitch.
17. Drain: No.
18. Axillary procedure: Sentinel node biopsy.
19. Incision: Low axilla.
20. Sentinel node technique: Was technetium (ARM study).
21. Location of radioactivity: Was mid axilla, no internal mammary.
22. Number of sentinel nodes: Two located in the mid axilla and the hottest node was located superiorly to the thoracodorsal neurovascular bundle.
23. Intraoperative pathology of node: No.
24. Indication for axillary node dissection: Not done.
25. Borders of axilla: Not done.
26. Nerves preserved.
27. Axillary dissection: Not done.
28. Location of suspicious nodes: Not palpated.
29. Closure: Subcuticular skin.
30. Drain: No.
31. Unplanned events: None. Although I do want to note that this mass was located on the very edge of the breast tissue and there really was no further breast tissue to take in the area where it was located. We did go down to fascia and anteriorly there was no further tissue and laterally there was no further breast tissue.
32. Sponge and instrument counts correct.
33. Follow-up: She will follow-up in my office in two weeks' time and I will refer her on to the BC Cancer Agency.

# Minimum Data Set Survey BC Surgeons

- 18 data elements
- Likert scale (1-5)
- Agreement found on 14/18 elements (score >4):
  - Indication
  - Preop Biopsy
  - Preop Diagnosis
  - Clips marking site
  - Breast Procedure
  - Indication for TM
  - Margins re-excised
  - Conf. lesion removed
  - **Preop Stage**
  - Fascia removed
  - Localization
  - Specimen orientation
  - Axillary procedure
  - Sentinel Node Technique
  - Number of Sentinel nodes
  - Indication for ALND
  - Ant Tissue remaining
  - **Intra-op pathology**



# Comments from Surgeons

- This seems like a waste of time. Alberta and several other provinces are using synoptic reporting for breast cancer and we should use the same program.
- Clinical stage either not known at time of surgery or not relevant (pathologic stage is)
- Sentinel node biopsy or intra-op pathology may not be available
- Comment on extent of axillary sampling/dissection in case of recurrence and considering repeat surgery

# Synoptic Report Elements Oncologists

	Surgeons	Oncologists
Location of Suspicious nodes	3.57	4.13
Borders of Mastectomy	3.47	4
Internal Mammary Radioactivity	3.22	4
Sentinel Node Location	3.17	4.13
Follow-up	2.95	3.88

# THE SYNOPTIC ELEMENTS

- CLINICAL PREAMBLE

- As Appropriate at surgeon discretion
- Could include things such as marking, Abx, DVT, etc

- PREOPERATIVE EVALUATION AND INDICATIONS

- 1. Indication
- 2. Preoperative Biopsy
- 3. Preoperative Diagnosis
- 4. Preoperative Stage (narrative)
- 5. Neoadjuvant Treatment

# SYNOPTIC ELEMENTS 2

## ■ BREAST PROCEDURE

- 6. Breast Procedure
- 7. Indication for Total Mastectomy
- 8. Reconstruction
- 9. Localization
- 10. Incision
- 11. Intraop confirmation of lesion removal
- 12. Additional margin specimen taken
- 13. Clips marking surgical site
- 14. Pectoral Fascia Removed
- 15. Anterior Breast Tissue remaining
- 16. Specimen Orientation
- 17. Additional notes on breast procedure

# SYNOPTIC ELEMENTS 3

## ■ AXILLARY PROCEDURE

- 18. Axillary Procedure
- 19. Axillary Incision location
- 20. Sentinel node technique
- 21. Internal Mammary Radioactivity
- 22. Number of Submitted sentinel nodes
- 23. Indication for Axillary Node Dissection
- 24. Structures Identified and Preserved

# SYNOPTIC ELEMENTS 4

## ■ PROCEDURE COMPLETION

- 26. Unplanned events or complications
- 27. Drain and location
- 28. Closure (narrative)

## ■ FOLLOWUP

- As appropriate at surgeon discretion