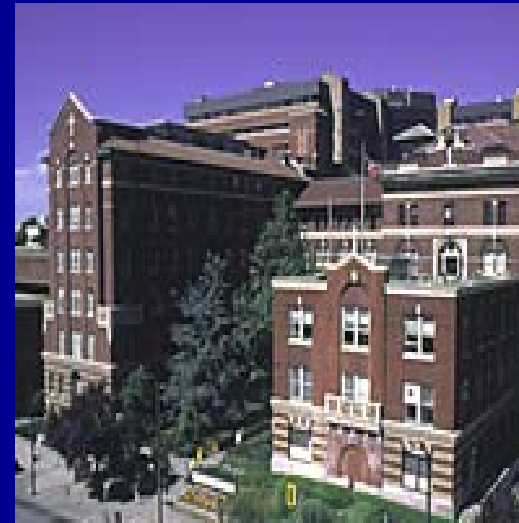


Template Operative Reports: A Pilot Study of the WebSMR in British Columbia

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University of British Columbia
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Background

- 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

Background

- Operative Report

- Patient Care

- Medico-Legal

- Research

- Quality Improvement

* Importance of accurate process data

Background

- 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%

Background

- 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,^a H. Zhang, MEng, MSc,^b J. Nixon, MD,^a and C. J. Brown, MD, MSc,^c *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^a; Centre for Health Evaluation and Outcomes Sciences^b and Division of General Surgery,^c St. Paul's Hospital, Vancouver, Canada

Methods

- Standardized summary paragraph designed from:
 - Literature review
 - Regional database survey
 - Surgeon consensus
- Peter Lougheed Center, Oct 1 – Dec 31, 2003
 - applied to laparoscopic cholecystectomy reports
 - Nine participating surgeons
- Comparison – O.R. reports for 3 months prior to the study period

PETER LOUGHEED HOSPITAL

PHYSICIAN SUTHERLAND, FRANCIS R	
DATE OF ADMISSION 05/26/2003	DATE OF DISCHARGE 05/26/2003
UNIT/CLINIC DISDC	SITE PETER LOUGHEED

OPERATIVE REPORT

SURGEON: Dr. F. Sutherland
ASSISTANT: Dr. C. Brown
ANESTHETIST: Dr. F. Mensink
PREOPERATIVE DIAGNOSIS: BILIARY COLIC.
POSTOPERATIVE DIAGNOSIS: BILIARY COLIC.
PROCEDURE PERFORMED: LAPAROSCOPIC CHOLECYSTECTOMY.
DATE OF PROCEDURE: 2003/05/26

SUMMARY

is a 22-year-old woman who presented to Dr. Sutherland's office with complaints of biliary colic. She had ultrasonic evidence of multiple gallstones. Risks, benefits, and alternatives of laparoscopic cholecystectomy were explained to the patient and she agreed to this form of treatment.

PROCEDURE

She was prepped and draped in the supine position. General anesthetic was applied. A 10 mm supraumbilical incision was made. Care was taken to dissect down through fascia under direct visualization. Hasson camera was inserted as per usual and the abdominal insufflated. A 10 mm subxiphoid, a 5 mm mid-abdominal, and a 5 mm right lateral port were all inserted under direct visualization. The gallbladder was elevated and care was taken to dissect out the triangle of Calot. This was done with some difficulty because there was a lot of inflammatory adherent. The cystic duct was identified and clipped twice proximally and once distally and transected. Similarly the artery was clipped twice proximally and once distally and transected. The gallbladder was then dissected off the liver bed. There was a single stone that was in the cystic duct which was retrieved and removed from the abdominal cavity. Once the gallbladder was off the liver bed, it was inserted into a retrieval bag. Copious amounts of irrigation were used to wash out the gallbladder fossa and the right lower quadrant. There was a minimal amount of bleeding during the case but this was stopped by the end. The gallbladder was removed through the supraumbilical port. This was somewhat difficult because of the size of the gallbladder, and the gallbladder had to be opened and multiple stones removed within the retrieval bag.

Once this was removed, the abdomen was desufflated and the supraumbilical fascia was closed with 0 Vicryl sutures. The skin at all sites was closed with 4-0 Monocryl, and further secured with Steri-Strips. All counts were correct at the end of the case and he tolerated the procedure well.

OPERATIVE REPORT

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SUMMARY

1. Operative urgency - Elective.
2. Outpatient.
3. Date of admission - No admission.
4. Indication - Biliary colic.
5. DVT prophylaxis - Stockings.
6. Start time 9:53. Finish time 11:03.
7. Entry - Open.
8. Conversion to open - No.
9. Cystic artery ligation - Two small clips.
10. Cystic duct ligation - Two clips.
11. Bile spillage - None.
12. Gallstone spillage - Yes. Recovered - All.
13. Intraoperative cholangiogram - No.
14. Fascial closure - Umbilicus.

Carl J. Brown, MD
General Surgery Resident

for

SIGNATURE AUTHENTICATED

Francis R. Sutherland, MD, FRCSC
General Surgeon

PHYSICIAN SUTHERLAND, FRANCIS R	
DATE OF ADMISSION 05/26/2003	DATE OF 05/26/2003
UNIT/CLINIC	

Results

■ Identifying Data:

Variable	Standardized	Traditional	p value
Name	100%	100%	1.00
Age	94.1%	89.2%	0.184
Gender	100%	100%	1.00
Surgeon	100%	100%	1.00
Anesthetist	68.1%	61.7%	0.327
Date	99.2%	99.0%	0.712

Results

■ Peri –Operative Categorical Data:

Variable	Standardized	Traditional	p value
<i>Setting/Indication</i>			
Urgency	99.2%	63.7%	<0.001
Indication	100%	100%	1.00
Inpatient Status	97.5%	49.0%	<0.001
<i>Peri-operative</i>			
Antibiotics	94.9%	14.7%	<0.001
DVT	97.5%	13.7%	<0.001

Results

■ Qualitative O.R. details:

Variable	Standardized	Traditional	p value
Entry	98.3%	100%	0.712
Conversion	100%	100%	1.00
GB Appear.	100%	35.3%	<i><0.001</i>
Cholangiogram	100%	100%	1.00
- Indication	100%	75%	0.104
- Finding	100%	100%	1.00
Retrieval Bag*	63.0%	57.8%	0.432
Fascial Closure	100%	98.3%	0.156
Duct Ligation	100%	100%	1.00
Bile Spillage	100%	58.8%	<i><0.001</i>
Stone Spillage	100%	54.3%	<i><0.001</i>

The Computer Synoptic Operative Report—A Leap Forward in the Science of Surgery

Ibrahim Edhemovic, MD, MSc, Walley J. Temple, MD, FRCSC, FACS,
Christopher J. de Gara, MD, MB, BS, FRCS (Ed., Eng. and C.), MS (London),
and Gavin C. E. Stuart, MD, FRCSC

Background: Quality of surgery is a proven prognostic factor in many tumors. It is critical to ensure that an effective method is in place to evaluate surgery accurately.

Material and Methods: A provincial Cancer Surgery Working Group designed and piloted a computerized synoptic operative report template (WebSMR) in rectal cancer surgery, to replace the standard narrative operative record (NR). This included a precise description of the procedure, data on demographics, diagnostic evaluation, staging, and functional measures. A total of 70 items for anterior resection (AR) and 63 items for abdominoperineal excision (APR) were included. The WebSMR was assessed for comparison with 40 NR randomly selected from seven hospitals in Southern Alberta from 2001 to 2003.

Results: The NR contained 45.9% of the specified data elements and the WebSMR captured 99%. The most complete NR data (68.8% to 97%) concerned hospital and patient data, anesthetist and surgeon information, approach, and closure details. The important details of laparotomy and tumor resection were the next most complete data (33.5% to 47.5%) and the least complete (0 to 25%) concerned preoperative treatment, comorbidity, and metastatic and local assessment. All differences among these groups were statistically different ($P < .001$). No statistically significant differences were seen in the completeness of the NR according to the type of surgery (AR vs. APR; $P = .1$) or the dictating surgeon (colorectal vs. general vs. resident; $P = .175$). The time needed to complete the WebSMR test was only 6 minutes.

Web Synoptic Medical Report (WebSMR)

- 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
- Replaces dictated OR reports
- Surgeons can query their own data

Canadian Partnership Against Cancer (CPAC)

- 5 year initiative by current government initiated in November 2006

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.



CPAC - Improving Cancer Data

- National Conference, Toronto, May 2007
 - National and provincial leaders in cancer surgery, pathology, and administration
 - Agreement in principal to pursue improvements in cancer care reporting
- Funding Meeting, Toronto, Sept 2007
 - CPAC funds available
 - Guidelines for applications set

Pilot Project - BC

- Jan 2007 - BC has funds from CPAC to pilot WebSMR for Breast and Colorectal Cancer
 - Vancouver Cancer Centre
 - Vancouver General Hospital
 - St. Paul's Hospital