

# Comparative Evaluation of Completeness of Traditional Narrative versus Electronic Synoptic Operative Reports for Ovarian, Peritoneal and Fallopian Tube Cancer Surgery in a Tertiary Government Hospital

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## ABSTRACT

**Objective.** This study aimed to compare the completeness and ease of use of narrative reports (NR) submitted by residents compared to electronic synoptic reports (SR) by gynecologic oncology fellows for patients who underwent ovarian, fallopian, and peritoneal cancer surgery.

**Methods.** We conducted a cross-sectional study in the Department of Obstetrics-Gynecology of the Philippine General Hospital from August to November 2019. We assessed the NRs and electronic SRs for completeness of data using quality indicators.

**Results.** The average percentage of completeness of quality indicators is 77.1% (35.7/65). Eight indicators were absent in all NRs. Reporting of residual lesions was low (29.1%). The mean time to accomplish SRs (10.4 minutes) was significantly shorter than the mean time to accomplish NRs (21.9 minutes) ( $p$  value = 0.0001). SRs were assessed to be superior to NRs in several areas of surgery for quality, completeness and timeliness.

**Conclusion.** This study showed that the NRs should be improved and periodic audit must be done to maintain quality assurance. The use of SR appears to be favorable and superior in terms of time required to accomplish.

**Key Words:** operative record, synoptic report, narrative report

## INTRODUCTION

Quality improvement is an important component of the health care system. At present, few quality indicators are available that measure the process of care that occur during gynecologic surgery. Measuring the completeness of the operative report is a potential area for quality improvement. The elements contained in the operative report are potential sources for data quality indicators. However, little is known about the completeness of the gynecologic operative reports.

The operative report is a vital medicolegal document accomplished by the surgeon at the end of the surgical procedure. It serves as an important source of information for other health-care providers involved in subsequent care such as reimbursement proceedings, follow-up care by nursing staff, therapists, and physician, especially for referrals to subspecialty clinics, such as the Section of Gynecologic Oncology. It could also be a valuable tool for surgical training.

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The traditional narrative operative report (NR) refers to the handwritten or a typewritten document in a narrative format describing the indication, procedures, intraoperative findings and complications of the surgery. There is no specific training during obstetrics and gynecology residency programs to prepare such documentation. As a consequence, operative reports contain non-standardized information and have been an identified area of weakness in gynecologic surgery.

Synoptic operative report (SR) refers to the use of a computerized, procedure-specific, template-based and standardized record of the operation. With the development of electronic health records, templates are being adopted rapidly by the medical communities worldwide. Electronic synoptic operative reports ensure documentation of all critical components and findings during complex surgical procedures.

Little is known about how closely operative reports reflect what was actually performed during an operation and the intraoperative findings in a gynecological procedures. Studies that aim to clarify the objectives of those reports and improve their efficacy are lacking. Published studies suggest that the SR is superior than the NR by the surgeon. It ensures that pertinent information are recorded in a standardized way and documents can be immediately generated for use.

To the author's knowledge, there are no local studies evaluating the completeness of a NR and the role of an electronic SR in the training of gynecologic residents and its potential to improve the accuracy, completeness and compliance for documentation of procedures in a large, tertiary, teaching hospital.

## Review of Literature

The operative record is a documentation of the process that occurred in the operating room and the findings of the surgeon during the procedure, and must be closely evaluated. However, appropriate and accurate operative records has been identified as a significant area of weakness in surgical patient care.<sup>1-5</sup>

Template-based summaries are not new in medical-surgical practice. Newer documentation methods have been developed that allow for standardized operative reports also known as synoptic operative reports (SR). Attempts were made to replace NR with electronic forms to achieve a more concise format. This evolution allows the institutions to archive essential information with the integration of electronic medical records as the new standard in the United States.<sup>6-8</sup>

In the local setting, the vast majority of daily progress notes, clinical abstracts and discharge summaries are written freehand by the student, resident or fellow-in-charge. This has been found to be time-consuming to the health care providers given the large volume of patients in the charity service. The NRs consist of the procedure narrated by a physician member of the surgical team. It is created free-form and unstructured in format and content.

At present, the NR contains large amounts of non-essential information while frequently omitting important data. Details such as 'abdomen was prepped and draped' and 'wound was closed in three layers' have little reporting value. In addition, a long narrative report with non-essential details that obscure information makes it difficult to read and burdensome to use in research analysis.

SRs are the expected evolution of this trend. A review of the literature showed that synoptic reports can be successfully created for multiple standardized operative procedures.<sup>9</sup> It offers several advantages over traditional operative record; it is easier to create and interpret, and more conducive to data extraction for research purposes and outcome analysis. Evidence shows that the synoptic version in general surgery procedures are more complete and have been effectively applied in thyroidectomies, breast surgery, laparoscopic cholecystectomy.<sup>5</sup> From 2001 to 2003, a provincial Cancer Surgery Working Group led by Edhemovic, et al., designed and piloted a SR in rectal cancer surgery to replace the 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 and 63 items for abdominoperineal excision were included. Results showed that NR contained 45.9% of the specified data elements while the SR captured 99%. The time needed to complete the SR was only 6 minutes.<sup>5</sup> A prospective study done by Gur, et al., compared 60 consecutive breast cancer narrative operative reports, dictated by the attending surgeon versus the synoptic computerized operative reports filled by an operating resident for overall completeness and for the completeness of individual items. Results showed that the SR contained 94.7% of the preoperative and operative data, whereas the dictated operative report was able to capture only 66% of the data ( $P < .001$ ).<sup>3</sup> A prospective multicenter electronic web-based form was designed and implemented by Iyer, et al. for thyroid surgery from 2008 to 2009. During the study period, 514 synoptic forms from 384 total thyroidectomies and 130 thyroid lobectomies had 100% compliance. All users found the form to be easy to use, comprehensive, and took less than 5 min to complete.<sup>10</sup> Studies on surgeries for gynecology using synoptics, however, are limited and is not well-established.

## Significance of the study

This study aims to prove that the electronic synoptic record for operative techniques and findings is superior than the traditional narrative operative record in gynecologic surgery. This can be used as a potential tool to collect concise and comprehensive operative information, requiring minimum time commitment from the surgeon and allowing database storage for use by other subspecialties training in the institution. This tool has the potential to facilitate clinical trials and improve communication between investigators by standardizing and precisely describing operating procedures and intraoperative findings.

## OBJECTIVE

### General Objective

1. To compare the completeness of NRs and SRs on ovarian, fallopian, and peritoneal cancer surgery

### Specific Objectives

1. To compare the length of time to accomplish the NR and the SR
2. To determine the ease of use of the SR

## METHODS

### Study Design, Setting and Duration

This was a comparative, cross-sectional study conducted at the University of the Philippines-Philippine General Hospital, a tertiary teaching hospital in Manila, Philippines from August to November 2019.

### Sampling Design and Sample Size Calculation

Sample size was calculated using the total number of surgeries done per month for ovarian malignancies (12.73 per month) (2018 Annual Department Census). Since the study duration was 4 months, the population size for the 4-month surgical cases was computed to be 63.75 cases. Using OpenEpi version 3, the calculated sample size, with a 95% confidence interval for the duration of 4 months was 55 (Table 1).

### Eligibility Criteria

#### Inclusion Criteria

1. All cases of probable ovarian, fallopian tube or peritoneal malignancy that were scheduled for operation by the gynecology resident
2. All cases preoperatively referred to the Gynecologic Oncology service for intraoperative surgical staging and/or debulking

#### Exclusion Criteria

1. Cases with late stage disease in which only mini-laparotomy or biopsy was done or the planned procedure was not completed
2. Cases of probably ovarian malignancy in which the fellow-in-training was the primary surgeon
3. Ovarian malignancy cases that were for interval debulking surgery

### Operational Definition of Terms

*Completeness.* Presence of previously established quality indicators in the operative reports

*Narrative operative report (NR).* A handwritten or typewritten documentation of the operative procedure and the findings of the surgeon during the procedure

*Synoptic operative report (SR).* An electronic format of a procedure-specific, template-based and standardized record of the procedure and findings in the operation

### Data Collection

The cases were selected pre-operatively according to the OR schedule submitted by the resident-on-duty. The chief fellow of the Section of Gynecologic Oncology assessed all cases of probable ovarian, peritoneal or tubal malignancy one day prior to the scheduled procedure. An informed consent was obtained from the resident who was scheduled to perform the procedure and fellows-in-training who would scrub in the case.

The procedure was done by general gynecologic residents or by a gynecologic oncology fellow-in-training. On the day of surgery, the resident accomplished the NR and attached it to the chart prior to transferring the patient to the recovery room. The fellows who assisted the residents in the same surgery accomplished the SR after the procedure in an electronic form which was pre-installed in the operating room (Appendices 1 and 2). A printer was installed in the operating room so that the fellows and residents were able to attach the reports to patient chart prior

**Table 1.** Sample size computation

Population size (for finite population correction factor or fpc) (N):	63.75
Hypothesized % frequency of outcome factor in the population (p):	50% ± 5
Confidence limits as % of 100% (absolute ±%) (d):	5%
Design effect (for cluster surveys -DEFF):	1

#### Sample Size (n) for Various Confidence Levels

Confidence Level (%)	Sample Size
95%	55
80%	47
90%	52
97%	57
99%	59
99.9%	61
99.99%	62

#### Equation:

$$\text{Sample size } n = [\text{DEFF} \cdot Np(1-p)] / [(d^2/Z_{1-\alpha/2}^2 \cdot (N-1) + p(1-p))]$$

Results from OpenEpi, Version 3, open source calculator – SSPropor

to transfer to recovery room. The time of completion from the start of writing and the time required to accomplish both reports were recorded by the investigator.

The NRs submitted by the resident surgeon were evaluated for completeness using the Canadian Structured Assessment Format for Evaluating Operative Reports (SAFE-OR)<sup>11</sup> The resident surgeons were not aware of the content of the synoptic report to avoid data collection bias. We used the synoptic version tool from the Surgical Manual of the Korean Gynecologic Oncology Group for ovarian, tubal, and peritoneal cancers in this study. The surgical procedures derived from the manual was the first version used by the group to accommodate various clinical trials and represented the minimum requirements for ovarian, peritoneal and tubal cancers with the primary objective of surgical staging. This tool was established on the basis of the Synoptic Operative Template for Ovarian Cancer of National Cancer Center of Korea and was used as the standardized operative record form to document all required information and surgical procedures.<sup>12</sup> By using this version of synoptic tool, investigators were able to identify all procedures, making the tool the gold standard to standardize operative reports for ovarian, tubal and peritoneal cancer surgeries. Since the tool was used for the first time in the OR setting, the ease of its use was also evaluated and served as a pilot test of the tool. At the end of the duration of this study and upon completion of the data collection, the fellows who used the SR answered a questionnaire to gather comments and evaluate the tool used to accomplish the SR. The participants accomplished the questionnaires after submitting the SR or within 24 hours from the time of submission of the reports. The time to accomplishment of the questionnaires took less than 5 minutes. Study flow chart is shown in Figure 1.

### Ease of Use of Synoptic Reports

At the end of the study, the fellow surgeons completed a survey to assess the ease of use of the synoptic operative reports and their perceptions on the implementation of the synoptic operative reporting system.

This checklist included 65 items, which were recorded as dichotomous variables: '1' for those described in the

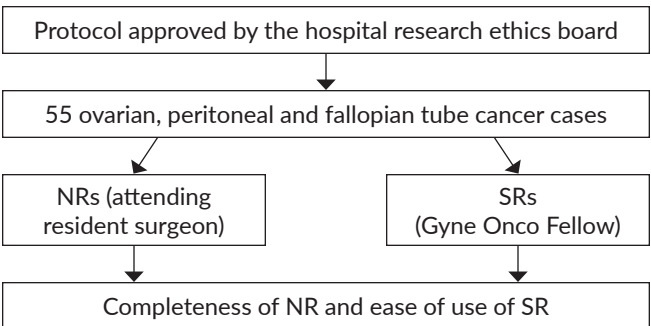


Figure 1. Study flow chart.

report, '0' for items absent from the report, or 'N/A' for elements not applicable to the case. Percent and total item completion scores were tabulated for all reports excluding 'N/A' items from the total. We compared percent and total completeness scores between the NR and SR cohorts and computed for difference of means using paired-samples t-tests with a two-tailed alpha. Statistical significance was set at an alpha of 0.05.

### Statistical Analysis

We encoded the information from the NRs in a binary fashion using Microsoft Excel: 1 (present), 0 (absent), NA (nonapplicable). Individual items and overall completeness of traditional narrative and synoptic operative reports were compared using Fisher's exact test. A P value of 0.05 or less was considered statistically significant. T-test was performed for the comparison of the time need to accomplish the NR and SR.

### Ethical Considerations

Upon approval by the hospital research ethics board, an informed consent was obtained from the residents and fellows prior to commencement of data collection. All case registry forms were kept in the investigator's locked cabinet and computers used were password-protected. There were no human participants involved since only NRs and SRs made by the surgeons were collected.

## RESULTS

There were 55 NRs and SRs included in the study. Among the cases were 53 ovarian, 1 peritoneal and 1 tubal malignancy for primary surgical staging and tumor debulking performed from August to November 2019.

The overall percentage of reported quality indicators was 77.1% (average, 35.7/65), while 10.6 was the average number of absent indicators (Table 2).

Table 2. Overall completeness of quality indicators

	Mean	SD
Number of Reported Indicators	35.7	2.3
Number of Unreported Indicators	10.6	2.2
Number of Not Applicable	18.6	2.4
Average Estimated % of Present Indicators	77.1%	

A total of 27 indicators were completely present in all 55 forms, including date of procedure, patient identifier, age, and OB score. On the other hand, 8 quality indicators were completely absent in the 55 forms; namely, the anesthesiologist, planned procedure, thromboprophylaxis, compression stockings, antibiotic prophylaxis, preoperative tumor markers, operative time and report date. The most poorly reported indicator was the presence or absence of residual lesions (29.1%) (Table 3).

**Table 3.** Completeness of quality indicators

	Number of Present	% Completeness	95% CI	Rank
Date of procedure	55	100.0	93.5 to 100	1
Patient identifier	55	100.0	93.5 to 100	1
Age	55	100.0	93.5 to 100	1
OB score	55	100.0	93.5 to 100	1
Comorbidities	54	98.2	90.4 to 99.7	28
Other gynecologic conditions	51	92.7	82.7 to 97.1	36
Previous abdominal surgeries	50	90.9	80.4 to 96.1	38
Attending surgeon	55	100.0	93.5 to 100	1
1 <sup>st</sup> Assistant	54	98.2	90.4 to 99.7	28
2 <sup>nd</sup> assistant	53	96.4	87.7 to 99.0	33
Anesthesia	53	96.4	87.7 to 99.0	33
Anesthesiologist	0	0.0	0.0 to 6.5	52
Pre-op diagnosis	55	100.0	93.5 to 100	1
Procedure planned	0	0.0	0.0 to 6.5	52
Procedure performed	55	100.0	93.5 to 100	1
Post-op diagnosis	55	100.0	93.5 to 100	1
Thromboprophylaxis	0	0.0	0.0 to 6.5	52
Compression stockings	0	0.0	0.0 to 6.5	52
Skin preparation type	36	65.5	52.3 to 76.6	47
Draping	55	100.0	93.5 to 100	1
Antibiotic prophylaxis	0	0.0	0.0 to 6.5	52
FIGO staging	49	89.1	78.2 to 94.9	39
Primary site	55	100.0	93.5 to 100	1
Preoperative tumor markers	0	0.0	0.0 to 6.5	52
Patient position	55	100.0	93.5 to 100	1
Drape	55	100.0	93.5 to 100	1
Incision	55	100.0	93.5 to 100	1
Fertility preservation	55	100.0	93.5 to 100	1
Type of hysterectomy	55	100.0	93.5 to 100	1
Type of vault closure	55	100.0	93.5 to 100	1
Salpingo-oophorectomy	55	100.0	93.5 to 100	1
Peritonectomy		<i>Not Applicable</i>		
Omentectomy	55	100.0	93.5 to 100	1
Appendectomy	49	89.1	78.2 to 94.9	39
Bowel resection		<i>Not Applicable</i>		
Splenectomy		<i>Not Applicable</i>		
Other organ resection	54	98.2	90.4 to 99.7	28
Level of lymphadenectomy	54	98.2	90.4 to 99.7	28
Debulking site	55	100.0	93.5 to 100	1
Other procedure	44	80.0	67.6 to 88.5	44
Intraoperative findings	55	100.0	93.5 to 100	1
Frozen section	55	100.0	93.5 to 100	1
Ascites	53	96.4	87.7 to 99.0	33
Adhesions	47	85.5	73.8 to 92.4	42
Ovarian tumor size	55	100.0	93.5 to 100	1
Residual lesions	16	29.1	18.8 to 42.1	50
Lymph node enlargement	49	89.1	78.2 to 94.9	39
Intraperitoneal tumor		<i>Not Applicable</i>		
Extraperitoneal tumor		<i>Not Applicable</i>		
Anti-adhesive used		<i>Not Applicable</i>		
Hemostatic agent used	51	92.7	82.7 to 97.1	36
Intraoperative injury	1	50.0	9.5 to 90.6	51
Estimated blood loss	54	98.2	90.4 to 99.7	28
Blood transfusion	40	72.7	59.8 to 82.7	46
Drains used	47	85.5	73.8 to 92.4	42
Location of drain	43	78.2	65.6 to 87.1	45
Gauze count	55	100.0	93.5 to 100	1
Type of ligating suture	55	100.0	93.5 to 100	1
Wound closure, type of suture	55	100.0	93.5 to 100	1
Wound closure, type of stitches	55	100.0	93.5 to 100	1
List of specimens sent	30	54.5	41.5 to 67.0	49
Operative time (hr:min)	0	0.0	0.0 to 6.5	52
Post-operative condition	32	58.2	45.0 to 70.3	48
Signature of surgeon	55	100.0	93.5 to 100	1
Report date	0	0.0	0.0 to 6.5	52

The mean time to accomplish the SR (10.4 minutes, SD 4.3, range 6 to 25) was significantly shorter than the mean time it took to accomplish the NR (21.9 minutes, SD 10.5, range 9 to 66) by 11.5 minutes (95% CI 8.3 to 14.6) ( $p = 0.0001$ ) (Figure 2).

A wrong post-operative diagnosis was reported in 12.7% while 7.3% of reports had the wrong mode of anesthesia. In the operative technique, the most common errors were: missed procedures (27.3%), discrepancy in reported skin suture (22.6%) and wrong laterality of adnexa that was removed (16.4%). The most common missing intra-operative findings were: description of the bladder (65.6%), followed by stomach (27.3%) and omentum (21.8%) (Table 4).

## Ease of use of SRs

### Timeliness of NRs

Majority (71%, 5/7) of the gynecologic oncology fellows-in-training reported excessive delays in the timeliness of the NRs that were received for gynecologic malignancy surgeries while the others reported only short delays in the reports. Among the NRs submitted by the resident surgeons, three surgeons were unable to comply with the submission of 10 NRs prior to transfer of these patients to the recovery room and was able to place the NR on the 2<sup>nd</sup> day post op.

### Experience with poorly written operative reports

All gynecologic oncology fellows experienced a situation where poor operative reports have led to poor patient care, such as: residual tumor not reported, rupture of the mass not indicated, inconsistencies with the actual operative findings, incorrect labels, wrong laterality. These resulted in delay in treatment planning and initiation of treatment.

## Improving the NRs

On how to improve reporting of the NRs, the following were suggested: ensuring completeness and taking time to finish the reports immediately post-operative upon scrubbing out of the OR, indicating the extent and not just the measurement, listing all surgeons involved especially if with morbidities, and using a typewritten but uniform template from the institution.

## Information on SRs

All but one fellow did not have experience in reading or interpreting a synoptic report.

## Superiority of SRs to NRs

All except one fellow strongly agreed that SRs are superior to NRs in several areas of surgery for quality, completeness and timeliness. All except one agreed that a SR could improve the operative reports in gynecologic surgery.

## General comments on SRs

The comments on the SR used in this study includes the following: convenience since it is accomplished right after the surgery, standardization of reports, ease of use except that there must be room for unusual findings. The SR was useful and helpful and it was hoped to become the standard in the future.

## Key features for an ideal SR

An ideal SR for gynecologic surgery would have the following key features: simple format, time-efficient, easy to understand and follow.

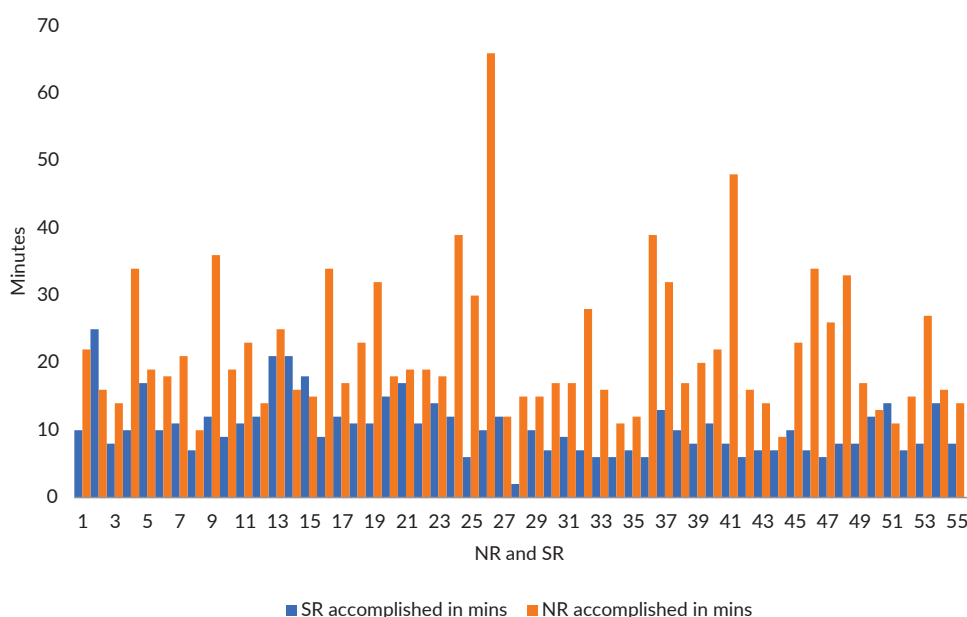


Figure 2. Time required to accomplish the narrative reports and synoptic reports.

**Table 4.** Errors or omissions in narrative reports

Error or omission	N	%
<b>General Information</b>		
Incorrect post-operative diagnosis	7	12.7
Name of the 2 <sup>nd</sup> assist is incorrect	1	1.8
2nd assist not mentioned	3	5.5
Random peritoneal biopsy is missing in procedure done	1	1.8
Case number missing	1	1.8
Jackson-Pratt drain in procedure not mentioned	2	3.6
Wrong mode of anesthesia	4	7.3
Previous surgery not mentioned	3	5.5
Wrong spelling in diagnosis	1	1.8
Procedure missed	7	12.7
<b>Operative Technique</b>		
Extent of abdominal incision not mentioned	3	5.5
Infracolic omentectomy not mentioned among the steps	2	3.6
Peritoneal fluid cytology not mentioned among the steps	2	3.6
Wrong laterality of adnexa removed	9	16.4
Suture used in skin is different	8	14.5
Suture used in subcutaneous tissue is different	8	14.5
Missing procedure	15	27.3
Foley catheter inserted in endocervical canal was stated but not actually done	4	7.3
Ligation of contralateral adnexa was not mentioned	5	9.1
Redundant steps	2	3.6
<b>Intra-operative Findings</b>		
Bladder	36	65.5
Stomach	15	27.3
Liver		5.5
Subdiaphragm/peritoneum		12.7
Gallbladder		16.4
Omentum		21.8
Spleen		7.3
Kidneys		12.7
Intestines		16.4
Appendix		7.3
Uterus		7.3
Cervix		1.8
Myometrium		1.8
Contralateral adnexa		14.5
Uterine cavity		10.9
Endocervical canal		10.9
Pelvic lymph node		9.1
Para-aortic lymph node		14.5
Adhesions		14.5
Ascites	2	3.6
Serosal tear	1	1.8
Inferior vena cava injury	1	1.8

## DISCUSSION

The study highlights the need for robust operative note recording practices and surgeons need to be well trained for this. All 55 NRs lacked specific quality indicators needed for safe operating room practices. The incorrect mode of anesthesia, incorrect post-operative diagnosis and missing procedures in the general data will result in problems regarding reimbursement procedures due to conflicting data in the NR. This will lead to patient inconvenience and cause stress. It is time-consuming to look for the surgeon to sign the corrections in the NRs. Mentioning a wrong procedure, such as removal of the adnexa with wrong laterality, may also lead to medicolegal problems and

litigations. Four NRs mentioned insertion of a small caliber Foley catheter in the endocervical canal which is usually done in patients who will undergo chromotubation. This reflects the practice of the surgeon 'copy-paste' a previous NR without double checking the statements. This also contributes to the errors made in the NRs. In addition, most NRs failed to mention complete intraoperative findings. This may be attributed to poor recall, hence the need to accomplish these forms immediately after the procedure. It may also suggest poor assessment of different abdominopelvic organs; either the abdominopelvic organs were fully assessed or not, hence, the failure to mention. This will significantly affect patient post-operative care, especially in patients with residual tumors. Mentioning the presence

of any residual tumors will be of value to gynecologic oncologists for post-operative follow-up, planning adjuvant treatment, monitoring and prognosis of patients with ovarian, peritoneal and tubal malignancies.

The study results point to a need for better education programs, mentorship by seniors and a quality assurance process. Formal teaching regarding operative notes is a must in modern-day surgical practice. Quality operation note recording facilitates quality medical care, provides defense from litigation, and remuneration for surgical procedures. In gynecologic surgery, our data suggest that training on the completion of the NRs has been mostly ignored in surgical training. Our study presents a local perspective of residents' and fellows' perceptions about the current status of operative report training, which represents an important but poorly studied area with significant clinical and educational implications. The findings of our study have certain limitations in that the time for data collection was limited to 4 months. However, the findings serve as a needs assessment, to identify deficiencies in current NRs and to guide formal training in NR skills through regular feedback and operative finding templates.

The excessive delays in the reporting of the NRs, up to the 2<sup>nd</sup> post-operative day, may lead to problems in recall especially for the senior residents who do the bulk of procedures. Further studies are recommended to investigate the factors that led to this delay and how to further improve the timeliness of reporting. The lack of computers and printer in the OR area may have also contributed to delays in insertion of the NRs into the charts. With increasing subspecialization in gynecologic surgeries, there is a wide array of surgical operations that include a multitude of technologies. This means greater demands from operation record for clinical care, medico-legal purposes and clinical coding in the future.

## CONCLUSION

Incompleteness and delays in accomplishing NRs for patients post-surgery for ovarian, fallopian tube, and peritoneal cancers, can be improved with the use of more accurate SRs. Synoptic reports are easier to use and faster to complete, provided that computers are readily available in operating theatres, and users are adequately trained. An added advantage is that the data collected may be archived and analyzed automatically for audit and research. Periodic audit is suggested to assure timely reporting. Formal teaching sessions in writing operative records will be helpful to improve the quality of operative recording.

## Statement of Authorship

Both authors participated in data analysis, and approved the final version submitted.

## Author Disclosure

Both authors declared no conflicts of interest.

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## APPENDICES

### Appendix 1. Actual Synoptic Electronic Form Used for Gynecologic Surgery

Operation Records



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New Record

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### New Operation Record

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#### General Information

Patient Name

Patient ID  Date of Surgery

Patient Age  OB Score

Surgeon

1st Assist


2nd Assist

Anesthesiologist

#### Anesthesia

☐ General
 ☐ Spinal
 ☐ Epidural
 ☐ Combined Spinal-Epidural

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#### Compression Stockings

☐ No ☐ Yes

#### Skin Prepping

☐ Chlorhexidine
 ☐ Betadine
 ☐ Others

#### Drape

☐ Linen
 ☐ Lap Pack

#### Antibiotic Prophylaxis

#### Preoperative Diagnosis

#### Procedure

#### Intraoperative Diagnosis


#### FIGO Staging

☐ IA
 ☐ IB
 ☐ IC1
 ☐ IC2
 ☐ IC3
 ☐ IIA
 ☐ IIB
 ☐ IIIA1 (i)
 ☐ IIIA1 (ii)
 ☐ IIIA2
 ☐ IIIB
 ☐ IIIC
 ☐ IVA
 ☐ IVB

#### Primary Site

☐ Ovary
 ☐ Fallopian Tube
 ☐ Peritoneum

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#### Pre-operative Tumor Marker

☐ CA-125
 ☐ BHCg  
☐ CA19-9
 ☐ LDH  
☐ HE-4
 ☐ Inhibin  
☐ CEA
 ☐ AMH  
☐ AFP

#### Patient's Position

☐ Supine
 ☐ Lithotomy
 ☐ Others

#### Approach


##### Laparotomy

☐ Midline incision from xiphoid process to symphysis pubis  
☐ Lower midline incision  
☐ Pfannenstiel's incision  
☐ Maylard incision  
☐ Others

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Operation Records

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### Operation

Fertility Preservation ☐ No ☐ Yes

Hysterectomy ☐ No ☐ Yes

Salpingo-oophorectomy, Left ☐ No ☐ Yes

Salpingo-oophorectomy, Right ☐ No ☐ Yes

Peritoneal Biopsy ☐ No ☐ Yes


Pelvic ☐ Left side wall ☐ Bladder serosa  
☐ Right side wall ☐ Cul-de-sac

Abdominal ☐ Left Paracolic ☐ Right Paracolic

Diaphragmatic ☐ Left ☐ Right

Operation Records

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### Lymphadenectomy (KGOG classification)

☐ No ☒ Yes

Pelvic LN/Level 1 ☐ Right Lymph Node Sampling ☐ Left Lymph Node Sampling  
☐ Right Lymph Node Dissection ☐ Left Lymph Node Dissection  
☐ None

Common Iliac LN/Level 2 ☐ Right Lymph Node Sampling ☐ Left Lymph Node Sampling  
☐ Right Lymph Node Dissection ☐ Left Lymph Node Dissection  
☐ None

Para-aortic LN (infra-IMA)/Level 3 ☐ Lymph Node Sampling ☐ Lymph Node Dissection

Para-aortic LN (infra-renal)/Level 4 ☐ Lymph Node Sampling ☐ Lymph Node Dissection

Debulking ☐ No ☐ Yes


Others

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### Intraoperative Findings

Frozen Section ☐ No ☒ Yes

Ascites ☐ No ☒ Yes

Adhesion ☐ No ☒ Yes

Ovarian Tumor ☐ No ☒ Yes

Peritoneal Tumor ☐ No ☒ Yes

Lymph Node Enlargement ☐ No ☐ Yes

Largest Residual Tumor ☐ No residual tumor

**Operation Records**

**Transfusion** ☐ No ☐ Yes

**Drain** ☐ No ☐ Yes

**Gauze Inserted Per Vagina** ☐ No ☐ Yes

**Wound Closure**

**Peritoneum** ☐ Smead Jones ☐ Continuous ☐ Continuous Interlock

Specify suture used

**Fascia** ☐ Continuous ☐ Continuous Interlock

Specify suture used

**Subcutaneous** ☐ Continuous ☐ Continuous Interlock

Specify suture used

**Skin** ☐ Continuous ☐ Continuous Interlock

## Appendix 2. Sample of Synoptic Report after Gynecologic Surgery

**View Record**

[Print](#) [Back to records](#)

**Record Summary - Castino, Mary Jane Pitarque**

**General Information**

Patient Name: [REDACTED]

Patient ID: 4679318

Patient Age: 36

OB Score: G1P1(1001)

Date of Surgery: 2019-10-04

Surgeon: [REDACTED]

1st Assist: [REDACTED]

2nd Assist: [REDACTED]

Anesthesiologist: [REDACTED]

Anesthesia: General

**Compression Stockings:** Yes

**Skin Prepping:** Chlorhexidine

**Drape:** Lap Pack

**Antibiotic Prophylaxis:** Cefazolin 2grams

**Preoperative Diagnosis:** ONG, bilateral rule out malignancy; s/p THBS for multiple myoma uteri (2016, Pasay General Hospital)

**Compression Stockings:** Yes

**Skin Prepping:** Chlorhexidine

**Drape:** Lap Pack

**Antibiotic Prophylaxis:** Cefazolin 2grams

**Preoperative Diagnosis:** ONG, bilateral rule out malignancy; s/p THBS for multiple myoma uteri (2016, Pasay General Hospital)

**Procedure:** preoperative stenting, EL, PFC, BO, BLND, PALS, IO, RPB, biopsy of adhesions

**Intraoperative Diagnosis:** ONG, bilateral, malignant, probably serous papillary, intraoperative stage IC1

**FIGO Staging:** IC1

**Primary Site:** Ovary

**Preoperative Tumor Marker:** CA-125 127

**Patient's Position:** Supine

**Approach**

**Laparotomy:** Midline incision from xiphoid process to symphysis pubis


**Operation**


**Fertility Preservation:** No

**Hysterectomy:** No

**Salpingo-oophorectomy, Left:** Yes

**Salpingo-oophorectomy, Right:** Yes

Record	
 <p>Home</p> <p>New Record</p> <p>View Records</p>	<b>Intraoperative Findings</b> <b>Frozen Section :</b> No <b>Ascites:</b> Yes 500 serous <b>Adhesion</b> Yes posterior peritoneum adherent to inferior of right ong. ureter adherent to right ONG <b>Ovarian Tumor:</b> Yes R ong: 21 cm; L ong: 14.5 cm <b>Peritoneal Tumor:</b> No <b>Lymph Node Enlargement:</b>  <b>Largest Residual Tumor:</b> None <b>Anti-adhesive Used:</b> Yes gelfoam, snow <b>Intraoperative Injury:</b> <b>Ureter:</b> <b>Vessel:</b> <b>Bowel:</b> <b>Others:</b> <b>Estimated Blood Loss:</b> 900cc mL <b>Transfusion:</b> Yes <b>p-RBC:</b> 1unit pRBC units <b>FFP:</b> units <b>Platelets:</b> units <b>Whole Blood:</b> units <b>Drain:</b> Yes RLQ <b>Gauze Inserted Per Vagina:</b> No <b>Wound Closure:</b> <b>Peritoneum:</b> <b>Fascia:</b> Continuous PDS 0 <b>Subcutaneous:</b> Continuous plain 2-0

Record	
 <p>Home</p> <p>New Record</p> <p>View Records</p>	<b>p-RBC:</b> 1unit pRBC units <b>FFP:</b> units <b>Platelets:</b> units <b>Whole Blood:</b> units <b>Drain:</b> Yes RLQ <b>Gauze Inserted Per Vagina:</b> No <b>Wound Closure:</b> <b>Peritoneum:</b> <b>Fascia:</b> Continuous PDS 0 <b>Subcutaneous:</b> Continuous plain 2-0 <b>Skin:</b> Monosyn 4-0 <b>List of Specimen Submitted:</b> Ovary - Both - bilateral ONG with papillary excrescences characteristic of serous papillary, Left Obturator Nodes - , Right Obturator Nodes - , Left External Iliac Nodes - , Right External Iliac Nodes - , A1 - , Omentum - , Peritoneal Fluid Cytology - , Peritoneum - Left Pelvic Sidewall - , Peritoneum - Right Pelvic Sidewall - , Peritoneum - Left Paracolic - , Peritoneum - Right Paracolic - , Peritoneum - Cul-de-sac - , Peritoneum - Bladder - Peritoneal adhesion: rectosigmoid sigmoid submitted <b>Remarks:</b> intraoperative inadvertent rupture of the right ONG at the posteroinferior pole during adhesiolysis Both ONGS are multiloculated multiseptated, with multiple papillary excrescences Right ONG: 21 x 15.5 x 10 cm Left ONG: 14.5 x 10 x 7 cm <b>Prepared By:</b> BCY <b>Time Start:</b> Thu Oct 03 2019 14:36:50 GMT+0800 (China Standard Time) <b>Time End:</b> Thu Oct 03 2019 14:48:56 GMT+0800 (China Standard Time)