# Documentation Burden: The Impact of Inadequate Operative Reports on Surgical Outcomes

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# Background

- Operative report documentation (ORD) plays a pivotal role in billing, medico-legal, research and surgical planning.
- There is growing interest in structured and standardized ORD.
- Improved use of ORD for purposes of clinical research & surgical quality improvement provides an opportunity to optimize surgical care.
- Consensus of procedure specific details aid in classifying high-quality ORD in VHRs.

# Objective

 To determine the incidence of poorly-detailed operative reports that describe VHR and assess their association with increased rates of hernia recurrence, reoperation, SSI, and death.

#### Methods

- 1010 VHR operative reports were obtained from a medical-legal database & reviewed for key details.
- Highly-detailed ORD defined as >70% of recommended details.
- Associated hospital data and clinical outcomes retrieved included SSI, hernia recurrence & reoperation.
- Univariate & multivariate analyses performed to compare highly-detailed vs poorly-detailed ORD and their associated postoperative outcomes.

# Results

- 35.7% of reports were highly-detailed.
- Poorly detailed op reports more likely for older operative note, cases without resident involvement, and clean procedures.
- Poorly detailed op reports more likely to be associated with SSI (p= 0.006), recurrence (p=0.002), and reoperation (p=0.001).

Table 1. Factors that Affect Operative Report Quality

|   | Overall<br>N=1011 | Low Quality (n=650) | High Quality (n=361) | P-Value |
|---|-------------------|---------------------|----------------------|---------|
| Timing of Procedure Data                      |                   |                     |                      |         |
| <2010   | 418 (41.3%)       | 298 (45.8%)         | 120 (33.2%)          | 0.0001  |
| Weekday Procedures (MTWR)                     | 787 (77.8%)       | 506 (77.8%)         | 281 (77.8%)          | 0.932   |
| Duration of Procedure<br>Longer than Expected | 143 (14.1%)       | 78 (12%)            | 65 (18%)             | 0.007   |
| Author Demographic Data                       |                   |                     |                      |         |
| Resident Author                               | 82 (8.1%)         | 45 (6.9%)           | 37 (10.2%)           | 0.157   |
| Attending Author                              | 929 (91.9%)       | 605 (93.1%)         | 324 (89.8%)          |         |
| Procedure-Specific Data                       |                   |                     |                      |         |
| Resident Involvement                          | 271 (26.8%)       | 136 (20.9%)         | 135 (37.4%)          | <0.0001 |
| Wound Class <3                                | 854 (84.5%)       | 574 (88.3%)         | 280 (77.6%)          | <0.0001 |
| Concomitant<br>Procedures                     | 234 (23.1%)       | 117 (18.0%)         | 117 (32.4%)          | <0.0001 |

### Conclusion

- There is a deficiency in detail among ORD detailing VHR.
- Poorly-detailed ORD are associated with increased post-operative complications.

## Discussion

- Future work is needed to understand the impact of highquality ORD on surgical care.
- Developing and maturing a more standardized approach to ORD can potentially improve compliance, quality documentation, cost and opportunities in surgical research.

### References

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