

Is Night-time the right time for hernia surgery and dictations?

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Background

- Often, ventral hernia repairs (VHR) must be performed after hours (7 PM – 7 AM)
- For many surgeries, night-time surgery is associated with worse outcomes, however, evidence is limited regarding VHR
- In addition, night time surgery may be associated with less detailed operative reports.

Objective

- To assess whether surgeries performed at night have less detailed operative reports and poorer surgical outcomes

Methods

- 1,011 op reports from medical-legal database obtained including those of a VHR
- Factors deemed important for inclusion in a VHR operative report and complications including SSI, re-operation, and recurrence were extracted
- A target score of 70% was established a priori as a highly-detailed report
- A binomial regression was performed

Results

- 35.6% of reports were high-detailed and 14.6% were dictated overnight

Table 1. Multivariable Logistic Regression
Dependent Variable: Highly-Detailed Note

	Odds Ratio	95% Confidence Interval	P-Value
Report Author (Attending=1/Resident=0)	.457	.247-.847	.013
Weekend Case	1.058	.478-2.341	.889
Same Day Dictation	1.038	.728-1.481	.836
Procedure go overtime	1.341	.866-2.077	.189
Recurrence/Revision	3.848	2.486-5.955	<.001
Concomitant Procedures	1.852	1.215-2.824	.004
Night	1.392	.897-2.161	.140
Wound Class II-IV	1.138	.764-1.695	.525
Constant	.300		<.001

- On univariate analysis, notes dictated overnight were more highly-detailed (48.1% vs 34.1%, p=0.007), however, on multivariate regression, this was non-significant (p=0.140)
- Factors that impacted detail of operative report
 - Dictation by a resident
 - Complexity of procedure (recurrent, concomitant, contaminated)
- No difference in complications rates for VHR during day vs night despite more complex cases done at night

Conclusion

- Cases at night tend to be more complex
- Operative dictations for complex cases tend to be more detailed
- Operative reports written by residents tend to be more highly detailed
- Time of surgery did not affect complication rates for VHR

Discussion

- Further research should be done to assess whether time of surgery affects complication rates for other procedures
- Overall, the number of highly detailed op reports were less than 50% and further research into measures to increase this percentage should be investigated

References

1. Cortegiani A, Ippolito M, Misseri G, et al. Association between night/after-hours surgery and mortality: a systematic review and meta-analysis. *Br J Anaesth.* 2020;124(5):623-637. doi:10.1016/j.bja.2020.01.019
2. Cortegiani A, Gregoretti C, Neto AS, et al. Association between night-time surgery and occurrence of intraoperative adverse events and postoperative pulmonary complications. *Br J Anaesth.* 2019;122(3):361-369. doi:10.1016/j.bja.2018.10.063