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‘AFTER-HOUR’ EMERGENT SPINE SURGERY: PERPHAPS WE SHOULD THINK TWICE?

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Objectives



- After-hours' emergent spinal surgeries are frequently necessary, and often performed under sub-optimal conditions. The consequences of performing these often complex surgeries under such conditions on post-operative outcomes are unknown.
- Objectives
 - Compare emergent spine surgery performed 'after-hours' to those performed in regular operating hours with respect to operative time, in-hospital mortality, length of stay, intraoperative and postoperative AEs.

Methods

Ambispective study at Vancouver General Hospital

-INCLUSION CRITERIA

-Underwent Emergent Spine surgery

-GROUP STRATIFICATION

-In hours: surgery completed between 7h00 and 16h00

-After hours: Surgery where more than 50% of the operative time was between 16h01 and 6h59, or if it was performed over the weekend

-OUTCOME MEASURES

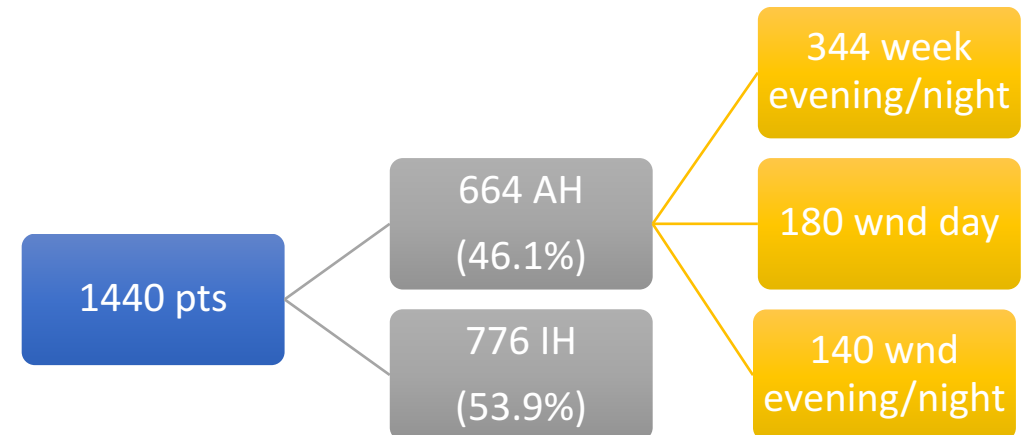
-Post operative outcomes: Adverse Events (AE), Mortality, Discharge disposition, Length of stay (LOS)

-DATA COLLECTION

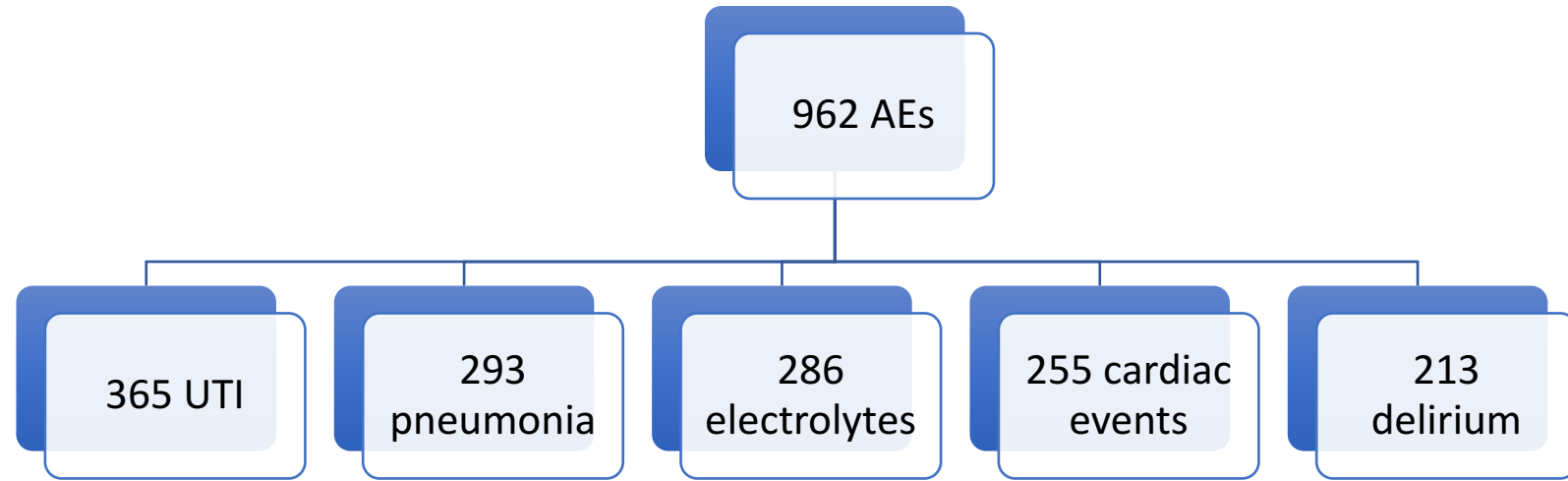
-SSII was calculated retrospectively
-Other outcomes measures were collected prospectively using the SAVES Database

-STATISTICAL ANALYSIS

-Multivariate analysis
-P < 0.05 was considered significant



Results



Any AES

69.7% in the After-hours vs 64.3% in the In-Hours (p= 0.016)

Number of intraoperative AES

Median [IQR] 1 (0-4) in the After-hours vs 1 (0-3) in the In-Hours (p= 0.0096)

Variable	Unadjusted OR	Adjusted OR	95% CI	P-value
After hours*	1.30	1.32	1.03 to 1.69	0.027
Percent After hours	1.003	1.003	1.00-1.01	0.16

Results

	After-hours	In-Hours	p
OR time	190 (SD 118)	189 (SD 113)	0.992
EBL	570 (SD 1101)	536 (SD 667)	0.514
Length of stay	14 [IQR 21]	13 [IQR 7]	0.014
In-Hospital Mortality	29 (4.4 %)	16 (2.1%)	0.013

On multivariate analysis

In Hospital Mortality: adjusted OR 1.99, 95% CI 0.98-4.06, p= 0.056

Length of stay: adjusted OR 1.63, 95% CI -0.83- 4,10, p= 0.194

Conclusion

- AFTER HOURS surgery
 - Clear relationship with perioperative Adverse Events
 - Bordeline association with in-Hospital mortality
 - No association with LOS- EBL –OR time



Disclosure

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None of the authors has any potential conflict of interest