



On-Call Otolaryngology

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Background

Even since the institution of resident duty hour restrictions in 2003, more has been done to understand the effects of long training hours on individual providers' well-being and how this relates to patient outcomes. At this point the objective effects of sleep deprivation on neurocognition and lifespan have been well documented, and subjectively the negative impact of call on quality of life is felt by nearly all in medicine. It is no surprise that call structure is an important factor to those applying to residency and job positions. In otolaryngology residency, there has been discussion for years on the utility of in-house versus home-call as one example of how to promote resident well-being. In this study, we aim to define the burden of call by quantifying the number of consults seen per shift type. Armed with this information, residency directors can better schedule residents in a way that reduces burnout and optimizes patient care.

Methods

The study was conducted prospectively, as a single resident recorded inpatient consultations at an academic tertiary-referral and level-one trauma center from July 2020 to May 2023. Each shift was categorized as being: day or night, weekday or weekend, covering facial trauma or not. Individual day time shifts at the VA, also covered by our program, were included for comparison. Facial trauma coverage alternates between three teams on a weekly basis and consistently sees high volume. The average and standard deviation were calculated for each situation, and then compared via student's t-tests.

Category	Average	Std Dev	n
Day	3.07	1.79	82
Night	1.43	1.27	65
Weekend Day	2.67	1.56	30
Weekend Night	1.33	1.13	43
Trauma Day	3.79	2.19	34
Trauma Night	2.86	1.90	35
Trauma Weekend Day	3.56	1.41	16
Trauma Weekend Night	3.39	2.35	23
VA Day	0.50	0.65	87

Category (A vs B)	A Avg	B Avg	p-value
Day vs Night	3.07	1.43	<0.00001
Day vs Weekend Day	3.07	2.67	0.27
Night vs Weekend Night	1.43	1.33	0.66
Day vs Trauma Day	3.07	3.79	0.07
Night vs Trauma Night	1.43	2.86	0.00002
Trauma Day vs Trauma Weekend Day	3.79	3.56	0.70
Trauma Night vs Trauma Weekend Night	2.86	3.39	0.34
Day vs VA Day	3.07	0.50	<0.00001

Results

On average, the greatest number of consults were seen on weekday trauma shifts (3.79 ± 2.19). The lowest was a VA day shift (0.50 ± 0.65), followed by non-trauma weekend night (1.33 ± 1.13). The average, standard deviation, and number of shifts factored into that calculation are depicted in Table 1. The only statistically significant differences were between main campus day shifts (3.07 ± 1.79) and VA day shifts (0.50 ± 0.65), main campus day (3.07 ± 1.79) vs night shifts (1.43 ± 1.27), and night (1.43 ± 1.27) vs trauma night (2.86 ± 1.90). For each of these, p was less than .00002. Averages for comparable shifts are listed with the p-value of comparison via student t-test in Table 2.

Conclusions

This information is valuable to prospective residents and to program directors as it quantifies how varying call shifts differ in their clinical volume.

References

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