Establishment of a Night Float (NF) System at Our Institution

Resident Case Logs in the Era of New ACGME Work Hours: Impact of a Night Float Experience at a Single Institution


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Purpose:
The purpose of this study was to compare the number of general surgery resident-reported logged cases before and after establishment of a night float (NF) system at our institution in response to new ACGME resident work hour rules implemented in 2011.

Methods:
Blinded ACGME resident case log totals for major (primary and secondary) categories and patient care encounters were reviewed for each postgraduate (PG) level for academic years 2010-2011 (AY2010) and 2011-2012 (AY2011). Total number of cases performed by teaching faculty was obtained from annual departmental fiscal reports. Data consisted of the total case number for all residents per AY and the number of cases for designated category per resident per AY. Comparisons between AY2010 and AY2011 were made by paired t-tests for each PG level and for all resident years combined. To account for teaching faculty turnover, the average number of faculty per month was compared between AY2010 and AY2011 as well.

Results:
• There were 27 residents in AY2010 and 30 in AY2011. There were an average of 50 teaching faculty in AY2010 and 49 in AY2011. (Figure 1A).
• Total number of cases performed by teaching faculty was 10,120 in AY2010 and 9,742 in AY2011. (Figure 1B).
• Total surgery resident logged cases increased from a total of 4,593 in AY2010 to 6,245 in AY2011 (Figure 2A).
• Total logged cases per resident for all PG years increased from 170.1 in AY2010 to 208.1 AY2011 (Figure 2B).
• Paired comparison of case numbers per designated category per resident revealed increased total cases logged in AY2011 (p<0.001).
• Case numbers per resident were significantly higher for AY2011 for PG2, PG3, PG4 levels, although PG1 cases per resident did not change significantly (Figure 3).
• Case numbers per resident were significantly higher for AY2011 for Junior residents (PG1 and 2; p<0.001) and senior residents (PG 3, 4, and 5; p=0.007) (Figure 2).
• Total PG5 logged cases increased between AY2010 and AY2011 (1,459 vs 1,484), however, when normalized for resident number cases decreased in the face an n=1 complement increase (365 vs 270; p=0.005) (Figure 3)
• Evaluating specific index cases revealed either unchanged or increased total cases logged in each operative category in AY 2011 compared to AY 2010.

Conclusions:
Despite new ACGME work hour regulations that prompted our adoption of a new NF call system, the total number of cases logged by surgical residents increased, except where an important PG level complement increase occurred. It is not clear whether these results were influenced by the creation of new work-day operating opportunities afforded by the NF experience, but further investigation of both qualitative and quantitative impact of this change is warranted.