

Should Post-Call Surgeons Operate the Next Day?

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Purpose: Residents are not permitted to work the day after they are on call based on safety concerns. It is a matter of time before this concept is tested in the courts against faculty. We were interested as to whether these same safety concerns should be applied to attending surgeons. Thus, our purpose was to evaluate surgeons' ability to perform a standard operation after being on call. To that end, we chose fixation of intertrochanteric (IT) hip fractures with a fixed angle device to evaluate quality using tip-apex distance (TAD) and quality of reduction with Garden angles, both of which are reproducibly measured and have standard goals.

Methods: We reviewed a consecutive series of patients with IT hip fractures treated surgically with a fixed angle device at 8 centers. We compared the TAD and reduction quality in those treated by surgeons who were on call the night before versus those who were not. We also compared surgeons who did procedures when on call the night before the index procedure against surgeons not on call. Secondary outcomes included union and perioperative complications.

Results: 1473 patients (942 F: 531 M) aged 24-91 years (average 80) with 772 left and 701 right IT fractures were included. Post-call surgeons treated 689 (47%) patients and not on call surgeons treated 784 (53%). The average age (80), body mass index (BMI) (24), American Society of Anesthesiologists (ASA) grade (III+), and use of nail (79%) did not differ between groups. Surgical TAD did not differ: on call 18.9 ± 6 mm versus 19.3 ± 6 not on call ($P = 0.96$). The number of patients with TAD >25 mm was 92 (13%) post call and 117 (15%) not post call ($P = 0.41$). The AP Garden indices were $160^\circ \pm 7^\circ$ post call versus $161^\circ \pm 7^\circ$ not on call ($P = 1$) and the lateral indices were $175^\circ \pm 14^\circ$ post call and $174^\circ \pm 11^\circ$ not on call ($P = 1$). There were 65 surgeons known to have done surgery the night they were on call prior to the index procedure. The TAD for patients they treated was 19.1 ± 6 , which was also not different than those treated by a surgeon not on call ($P = 0.99$). Complications for post-call surgeons versus not on call were: nonunion (7 vs 17), osteonecrosis (2 vs 1), hardware failure (5 vs 3), and malunion (13 vs 9) for a total of 27/689 versus 30/784 ($P = 1$).

Conclusion: Surgeons who were post call, even if they operated the night before, demonstrated no difference quality based on accepted radiographic criteria of reduction and implant positioning, and no increase in complications when performing surgery the next day as compared to surgeons who were not on call. Patients concerned regarding surgeon fatigue may be counseled that surgeon performance is not adversely affected by post-call status when performing standard operations. We found no evidence that being on call or operating when on call has any influence over the quality of operative performance the next day.