test unexpectedly lateralizes to the asymptomatic, better hearing ear, this finding should prompt immediate audiometric testing, and urgent otologic referral if a sensorineural loss is confirmed.

In light of these data, clinicians should be alert to the possibility of sudden SNHL being overlooked in patients without the expected tuning fork findings. However, among patients presenting with sudden unilateral hearing loss, lateralization of the Weber test to the contralateral ear very reliably predicts a sensorineural etiology, and such patients should be promptly referred and treated accordingly.

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Change in Intern Calls at Night After a Work Hour Restriction Process Change

To accommodate shorter intern shifts (16 hours) required by the Accreditation Council for Graduate Medical Education (ACGME), a night-float cross-coverage system was put into place at Harbor–University of California, Los Angeles, Medical Center (HUMC) in July of 2011. We conducted prospective surveys to evaluate the nature and frequency of the calls received by night-float residents.

Methods. At HUMC, 5 ward teams, each composed of 2 residents and 3 interns, admit patients to the hospital, with 1 team on call each night. Before the new work hour rules, the overnight on-call interns (3 per night) provided cross-coverage for the other 12 interns who were not on-call. After the change, 1 second-year night-float resident cross-covered for all 12 interns who were not on-call, from 5 PM to 7 AM. We deployed a written survey instrument, on which all calls received by the night-float resident were documented in real-time. This study was deemed as category-2 exempt under 45 CFR 46.101(b) by the John F. Wolff institutional review board at the Los Angeles Biomedical Research Institute.

Results. Data were available from 16 of the 17 evenings during the first survey period (survey response rate, 94%), totaling 547 calls, with a median of 35 (range, 18-57) calls per 14-hour period. The median time between the calls was 11 (range, 5-25) minutes. A total of 128 calls (23%) related to issues that had been signed out by the primary team. By far the most common reason for calls was “provider confusion” (ie, calls for patients for whom a night-float resident was not responsible; Table). The next 2 most common causes of calls (minor patient complaints and order clarifications) also could not have been altered by changes to the sign-out process.

See also page 649 and Editor’s Note on page 663

After the first survey, we implemented a new page forwarding system, so that residents leaving the hospital electronically forwarded their pages to the night-float resident. We also altered procedures related to renewing restraints, so health care providers would no longer get called in the middle of the night to renew automatically expiring orders. As a result, during the second period (surveys were completed on 10 of the 14 nights), a signifi-
A significantly lower number of calls were logged (median of 20 [range 18-25] calls per night, \( P = .003 \) vs the first period). The median time between the calls was 20 (range, 10-55) minutes, which was significantly longer than in the first survey period (\( P < .001 \)).

**Comment.** We provide the first description of the reasons for overnight calls to a night-float cross-coverage resident at an internal medicine training program in the United States. Although the intent of the ACGME rules is to enhance sleeping opportunities for interns, the absence of new resources attached to these work hour rules results in increased patient hand-offs and a shift of work from interns to higher-level trainees. In 1993, the initial move toward work hour restrictions was noted to result in increasing patient hand-offs and fragmented care.\(^1\) Medical decision making by a cross-covering health care provider after patient hand-off has been shown to result in increased risk of harm to patients.\(^2,3\) Indeed, in 1994 Petersen et al\(^2\) concluded that even a fatigued intern with detailed knowledge about a patient may be able to provide more appropriate care than a well-rested one who is less familiar with the patient.\(^2\) As work hours have been further restricted over the past decade, we have transitioned

![Table. Reasons for Overnight Calls to Night-Floa](https://www.jama.org/jamainternalmed/doi/10.1001/jamainternalmed.2013.4003)
from the fatigued primary provider to a well-rested cross-covering provider. Our results underscore that the increased rest achieved for interns—who are rarely decision makers in patient care issues—is achieved at the expense of both increasing patient hand-offs (and hence increasingly fragmented care) and increasing fatigue for advanced trainees who are more responsible for clinical decision making. Our findings are also concordant with emerging data from surgical literature, indicating that night float residents are at particular risk for sleep deprivation.4

The majority of the calls in our survey could not have been prevented by improvements in sign-out procedures. Further research is needed to determine if clinical outcomes can be improved by improved sign-out. Until such data are available, it is potentially dangerous to presume that the increased risk to patients that results from increased hand-offs and increased fatigue of higher-level trainees necessitated by the shorter ACGME work hour rules can be mitigated by an as of yet unknown improvement to the sign-out/hand-off process.

In conclusion, we provide the first comprehensive description of overnight calls in an internal medicine training program night float, cross-coverage system. Our results suggest that decreasing work hours for interns can have unfortunate impact on the workload and restfulness of higher-level trainees who have to “fill the breach.” Additional research is needed to ensure the safety of patients and to optimize the education and patient care experiences of trainees given changing work hour requirements.

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COMMENTS AND OPINIONS

Burnout Exists: Cut the Fuel and Use the Fire Hose

hanafelt et al1 again underscore the embarrassing incidence of burnout symptoms among physicians. However, in the discussion, 2 important issues should be addressed. Attributing burnout score differences between the general population and physicians to job characteristics can only be done after correction for baseline differences in proneness for burnout. Maybe students choosing medicine are somewhat more neurotic or less resilient.2,3 These students, and this is the second issue, start a professional life in an emotionally, physically, and financially exhausted condition. During training they have to survive in a highly competitive atmosphere, with still extreme working hours, and will end with large debts.4 In the meantime they have to find a relation and start a family. And then they are ready for a profession with a discolored aura.

These are 2 possible causes, but many others may exist. We have to study this subject in depth to identify causes and intervention options. A mentally healthy, highly motivated medical workforce might, in the short and long term, have greater impact on health care than a new drug. Instead of starting some mindfulness or gymnastics5 after the harm has been done, which is too little too late, now that the problem has been sufficiently quantified, we should start root-cause analyses and develop preventive measures.

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