



ELSEVIER



CrossMark

Canadian Association of Radiologists Journal 66 (2015) 185–189

CANADIAN
ASSOCIATION OF
RADIOLOGISTS
JOURNAL

www.carjonline.org

Education and Training / Formation et perfectionnement professionnel

Sink or Night Float: University of British Columbia Radiology Residents' Experience With Overnight Call

Elena P. Scali, MD*, Evgeny Strovski, MD, Bruce B. Forster, MD, Colin Mar, MD, Silvia D. Chang, MD

Department of Radiology, University of British Columbia, Vancouver, British Columbia, Canada

Abstract

Purpose: In July 2012, in response to residents' concerns regarding the impact of the traditional 24-hour call system on their personal well-being and educational experience, the University of British Columbia Radiology residency program adopted a 12-hour night float system. This shift takes place in the context of increasing concerns, both across Canada and internationally, about resident well-being and the impact of prolonged duty hours on patient care.

Methods: An anonymous survey was distributed to all 25 postgraduate years 2-5 University of British Columbia radiology residents 12 months after the introduction of night float. This study sought to solicit residents' feedback about these changes and to identify potential future changes to optimize the call system.

Results: The response rate was 100%; 96% of residents were in favor of continuing with night float rather than the traditional call system; 72% of residents reported that their judgement was affected secondary to being on night float. Although most residents described varying degrees of impairment, the rate of acute discrepancies between resident preliminary and attending radiologist final reports decreased by more than half, from 2% to less than 1%.

Conclusions: The vast majority of our residents were in favor of maintaining the night float call system. Night float had a beneficial effect on the resident educational experience: by eliminating the pre-call morning and post-call day off rotation, residents gained an additional 24 days per year on other clinical rotations.

Résumé

Objectif : En juillet 2012, dans le but de résoudre les préoccupations des étudiants concernant l'effet du système de garde sur appel classique (24 heures) sur leur bien-être et leur expérience de formation, le programme de résidence en radiologie de la University of British Columbia (UBC) a mis en place un système de garde de nuit de 12 heures. Ce changement s'inscrit dans un contexte d'inquiétude grandissante, tant au Canada qu'à l'étranger, au sujet du bien-être des résidents et de l'incidence des heures de travail prolongées sur les soins dispensés aux patients.

Méthodes : Une enquête anonyme a été acheminée aux 25 résidents en radiologie qui poursuivent leur deuxième, troisième, quatrième ou cinquième année de formation postdoctorale à la UBC, 12 mois après l'entrée en vigueur du système de garde de nuit. L'étude avait pour but de recueillir la rétroaction des résidents au sujet des changements apportés et de déterminer si d'autres modifications pourraient éventuellement être mises en place afin d'optimiser le système de garde.

Résultats : L'enquête a affiché un taux de réponse de 100 %; 96 % des résidents ont dit préférer le système de garde de nuit au système de garde classique; 72 % des résidents ont indiqué que leurs capacités de jugement étaient moindres à la suite d'une garde de nuit. Bien que la plupart des résidents aient fait état d'une diminution des capacités à divers degrés, le taux de divergence marquée entre les rapports préliminaires des résidents et le rapport final du radiologiste en titre a plus que diminué de moitié, passant de 2 % à moins de 1 %.

Conclusion : La grande majorité de nos résidents souhaitent le maintien du système de garde de nuit. Le système de garde de nuit a influé favorablement sur l'expérience de formation des résidents : en éliminant le matin de congé qui précède la garde et le jour de congé qui la suit,

* Address for correspondence: Elena P. Scali, MD, Department of Radiology, University of British Columbia, 3350–950 W 10th Avenue, Vancouver, British Columbia V5Z 4E3, Canada.

E-mail address: elena.scali@gmail.com (E. P. Scali).

il a permis aux résidents de bénéficier de 24 jours de plus par année pour effectuer d'autres stages cliniques.
© 2015 Canadian Association of Radiologists. All rights reserved.

Key Words: Night float; Radiology residency; Resident education; Resident call

In July 2012, the University of British Columbia (UBC) radiology residency program adopted a 12-hour night float system at Vancouver General Hospital, the province's largest hospital and only level 1 trauma center. The impetus for this change came from resident concerns regarding the traditional 24-hour call system. In particular, the residents thought that the continuous adjustment to and from call affected both the amount and quality of time that they spent on rotation. This shift from 24- to 12-hour call was adopted in the context of increasing concerns, both across Canada and internationally, about resident well-being as well as the impact of prolonged duty hours on patient care [1–24].

Under the traditional 24-hour call system, the resident worked a regular 8 AM to 5 PM workday and was on call after 5 PM until 8 AM the following morning. On average, the call frequency was approximately 1 in 5. Under the night float system, the resident works 12-hour shifts from 8 PM to 8 AM for 7 consecutive days, twice each year. Seven consecutive days were chosen to allow sufficient time for the resident to adjust to overnight work and to provide continuous after-hours coverage given the number of available residents. During this week, the resident works exclusively on night float and is excused for his or her regular rotation duties.

On-call responsibilities include protocoling and providing preliminary reports for all urgent imaging studies performed for both the patients in the emergency department and inpatients. The majority of studies are performed by using computed tomography, and common study types include neuroimaging, body imaging, and trauma radiology. In addition, residents are responsible for performing and reporting urgent ultrasounds, which commonly include pelvic, scrotal, abdominal, and deep vein thrombus studies. Plain films are reviewed at the request of the ordering physician. In general, approximately 20–40 studies are performed during a typical 12-hour night float shift. At the time that the survey was conducted, the attending radiologists were in-house, working alongside the on call resident from 5 PM to 8 PM and were available by pager thereafter. Clinical fellows also were available for consultation overnight.

Materials and Methods

This study sought to solicit residents' feedback about the changes as well as to identify potential future changes to optimize the call system. The study population consisted of radiology residents at UBC. An anonymous questionnaire was distributed to all 25 postgraduate year (PGY) 2 to PGY-5 residents. Only the PGY-3 to PGY-5 residents had experience

with the 24-hour call system at that hospital site from which to compare. The study was carried out 12 months after the introduction of night float to assess its impact on residents' experience and impacts on their well-being.

The survey consisted of a total of 18 closed and open-ended questions administered by sending an e-mail as a Word document (Microsoft Corp, Redmond, WA). The inclusion criteria included all PGY-2 to PGY-4 residents who had completed 2 weeks of night float and all PGY-5 residents who had completed 1 week of night float. PGY-5 residents do night float for only 1 week because they do not cover call in the last half of their year. The questions were designed to obtain information about the residents' quality of life, quality of educational experience, and perception of factors that influence medical errors. Residents also were asked to input recommendations for changes to optimize the call system in the future. The survey drew from surveys already in the published literature and also included items of interest to the authors [25–27]. Data analysis consisted of a simple tabulation of responses.

Results

A total of 25 of 25 eligible residents completed the survey (response rate of 100%). On average, it took residents 2.8 days to acclimatize to night float, and 3.9 days to return to their daily routine after completion of the week. Thirty-six percent of the residents were able to sleep during their night float shifts; on average, they slept just over 1 hour. Eighty percent of the residents reported becoming fatigued at some point during the shift, most commonly during the early morning hours (4 AM to 6 AM). Approximately three-fourths of the residents agreed that they became fatigued and/or overwhelmed during their week of night float, most commonly at day 5 or 6.

Seventy-two percent of the residents reported that their judgement was affected secondary to being on night float. Most described varying degrees of impairment. For example, residents reported decreased sensitivity to imaging findings, spending more time than they normally would on a given study, as well as an overall lack of ability to concentrate as the shift and week progressed. However, a significant minority, 28%, thought that their skills had improved. For example, some residents thought that, due to the overall shorter shifts, they were more alert during the time they would typically "crash," during the early morning hours.

To explore the impact that this perception had on call performance, we examined the discrepancy rate between resident preliminary reports and attending radiologist final reports. A total of 38 preliminary resident reports were

Download English Version:

<https://daneshyari.com/en/article/4220567>

Download Persian Version:

<https://daneshyari.com/article/4220567>

[Daneshyari.com](https://daneshyari.com)