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AJNR Am J Neuroradiol published online 29 April 2024
http://www.ajnr.org/content/early/2024/04/29/ajnr.A8321

State Of Practice

Health Policies/Quality Improvement/Evidence-Based Neuroimaging

Academic Neuroradiology: 2023 Update on Turn-Around Time, Financial Recruitment and Retention Strategies

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Abstract

The ASNR Neuroradiology Division Chief Working Group's 2023 survey, with responses from 62 division chiefs, provides insights into turn-around times, faculty recruitment, moonlighting opportunities, and academic funds.

In emergency cases, 61% aim for a turn-around time of less than 45-60 minutes, with two-thirds meeting this expectation more than 75% of the time. For inpatient CT and MRI scans, 54% achieve a turn-around time of 4-8 hours, with three quarters meeting this expectation at least 50% of the time. Outpatient scans have an expected turn-around time of 24-48 hours, which is met in 50% of cases.

Faculty recruitment strategies included 35% offering sign-on bonuses, with a median of $30,000. Additionally, 23% provided bonuses to fellows during fellowship to retain them in the practice upon completion of their fellowship. Internal moonlighting opportunities for faculty were offered by 70% of divisions, with a median pay of $250 per hour.

The median annual academic fund for a full-time neuroradiology faculty member was $6,000, typically excluding license fees but including ACR and ABR membership, leaving $4,000 for professional expenses.

This survey calls for further dialogue on adapting and innovating academic institutions to meet evolving needs in neuroradiology.

Received month day, year; accepted after revision month day, year.

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Disclosure of potential conflicts of interest should be included here.

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INTRODUCTION

The ASNR Neuroradiology Division Chief Working Group meets annually during the ASNR Annual meeting. Each year, the group tackles a specific issue that is of general interest for the academic neuroradiology community. Previous topics that have been addressed included: academic models for evening and night coverage, [1] recommendations for resident training in neuroradiology, [2] and realistic productivity in academic neuroradiology. [3]

During the 2023 ASNR Annual meeting, the Neuroradiology Divisions Chiefs decided to gather information about typical expectations for report turn-around time, academic funds available, faculty recruitment strategies and faculty moonlighting opportunities at academic institutions across North America.

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MAIN HEADINGS

Survey

We conducted a web-based survey of the academic neuroradiology division chiefs listed by the American Society of Neuroradiology. We sent email correspondence to all academic neuroradiology division chiefs in North America, discussing intent of the project and encouraging participation, with three follow-up emails for non-respondents. A link was provided to the online survey, with results imported into Microsoft Excel for analysis.

Survey Results: Expected Turn-Around Times

62 academic neuroradiology division chiefs completed the survey for a response rate of 58% (62/107).

The turn-around time for studies ordered within the emergency department was expected to be less than 45-60 minutes in 61% of the respondent academic practices (preliminary report in 70% and final report in 30%). This metric was met more than 75% of the time in 68% of the academic practices (more than 95% of the time in 27% of academic practices and 75%-95% of the time in an additional 41% of academic practices).

The expected turn-around time for inpatient CT and MRI scans was reported as 4-8 hours in 54% of academic practices (typically final report), with less than 2 hours expected in 21% of academic practices and 2-4 hours expected in an additional 25% of academic practices (typically preliminary report). This metric was met more than 50% of the time in 75% of academic practices (more than 95% of the time in 18% of academic practices, 75%-95% of the time in an additional 43% of academic practices and 50%-75% of the time in an additional 14% of academic practices).

The expected final report turn-around time for outpatient CT and MRI scans was reported as 24-48 hours in 36% of academic practices, within 12-24 hours in 36% of academic practices and in less than 12 hours in an 11% of academic practices. This metric was met more than 50% of the time in 84% of academic practices (more than 95% of the time in 35% of academic practices, 75%-95% of the time in an additional 33% of academic practices and 50%-75% of the time in an additional 16% of academic practices).

Survey Results: Faculty Recruitment Strategies

35% of the respondent neuroradiology divisions offer signing bonuses (median: $30,000; interquartile range: $20,000-$50,000, range: $10,000-$50,000).

23% of neuroradiology divisions offer bonuses to fellows during fellowship to encourage retention as faculty at the conclusion of their fellowship. A number of these bonuses were paid upon signature of the faculty contract. An additional 18% of neuroradiology divisions are looking into this option.

Survey Results: Faculty Moonlighting Opportunities

70% of the respondent neuroradiology divisions offer internal moonlighting opportunities for their faculty. The moonlighting shifts lasted a median of 8 hours (interquartile range: 8-12 hours, range: 4-12 hours). Moonlighting faculty were paid a median of $250 per hour (not per shift) (interquartile range: $240-$300 per hour, range: $200-$375 per hour).

18% of the respondent neuroradiology divisions also had a per-click compensation option in addition or in lieu of the moonlighting offering. This option pays a median of $50 for CT scan (interquartile range: $30-$55 per CT scan, range: $25-$80 per CT scan) and a median of $60 for MRI scan (interquartile range: $50-$65 per MRI scan, range: $30-$90 per MRI scan).

Survey Results: Academic Funds

The median annual academic fund/allotment for a full-time neuroradiology faculty member was $6,000 (interquartile range: $4,000-$7,000, range: $0-$16,000).

The medical license renewal fee and the DEA license renewal fee were paid separately from the annual academic fund/allotment in 53%

of academic practices, and directly from the annual academic fund/allotment in the remaining 47%.

The annual ABR and ACR fees were paid directly from the annual academic fund/allotment in 60% of academic practices, and separately from the annual academic fund/allotment in the remaining 40%.

After deduction from the above, a full-time neuroradiology faculty member would typically have a median of $4,000 left annually to pay for society membership dues, meeting registration and/or meeting travel (interquartile range: $2,000-$6,500, range: $0-$12,000).

The respondent neuroradiology divisions have access to a fund/allotment separate from the individual faculty fund/allotments in 43% of the cases. That division fund/allotment is calculated as a median of $1,000 per faculty (interquartile range: $1,000-$2,000, range: $1,000-$15,000).

Discussion

The ASNR Neuroradiology Division Chief Working Group conducted a survey shedding light on the challenges confronting academic neuroradiology divisions in the United States. Despite the escalating volumes in neuroradiology cases and the resulting threat of burnout, most divisions manage to maintain reasonable turn-around times (less than 60 minutes for ED cases, same-day reads for inpatients, and 24-48 hours for outpatients). This achievement is attributed to innovative moonlighting policies for existing faculty and extensive efforts in recruiting additional faculty, including the use of substantial signing bonuses.

The survey emphasizes the competitive nature of recruiting and retaining qualified neuroradiologists, with signing bonuses and considerations for fellows reflecting the urgency and creativity required to address faculty shortages. While moonlighting opportunities offer short-term benefits to cover gaps in clinical coverage, employing this strategy as a prolonged solution may lead to commoditization of our profession and should not outweigh the necessity to increase faculty recruitment overall.

Another key insight from the survey is the wide-range of annual academic fund/allotment for neuroradiology faculty. The overall modest amount available ($4,000 for faculty members to cover additional professional expenses after essential deductions) raises questions about the true ability of faculty to engage in academic and professional development activities. This echoes the observed decline in protected time at academic institutions over the past decade. [4]

In conclusion, this survey provides a comprehensive overview that prompts contemplation on the intricacies of academic neuroradiology. From the urgency in emergency care to financial considerations and creative recruitment strategies, the findings prompt further dialogue on how academic institutions can adapt and innovate to meet the evolving needs of both patients and faculty members. As we navigate current and future demands by the healthcare industry, the educational mission, and a commitment to professional development, we hope the results of this survey will catalyze reflections on the future trajectory of academic neuroradiology in North America.

ACKNOWLEDGMENTS

The academic neuroradiology division chiefs of the following institutions responded to our survey:

- Boston Children's Hospital
- Boston Medical Center
- Cedars Sinai
- Cleveland Clinic
- Columbia University
- Cornell University
- Duke University
- Emory University
- Georgetown University
- Iowa University
- John Hopkins
- Loma Linda University
- Mallinckrodt Institute of Radiology/Washington University in St. Louis
- Massachusetts General Hospital
- Mayo Rochester
- Mayo Florida

Mayo Scottsdale
Medical College of Wisconsin
Medical University of South Carolina
Montefiore Medical Center/Albert Einstein College of Medicine
Mount Sinai School of Medicine
New York University
Northwestern University
Oregon Health & Science University
Penn State University
Stanford University
Texas Children's
University Hospitals Case Western
University of Arizona
University of California, Davis
University of California, Irvine
University of California, Los Angeles
University of California, San Diego
University of California, San Francisco
University of Chicago
University of Cincinnati
University of Colorado
University of Florida
University of Illinois
University of Indianapolis
University of Kentucky
University of Wisconsin-Madison
University of Maryland
University of Miami
University of Michigan
University of Minnesota
University of Mississippi
University of Missouri
University of Nebraska
University of New Mexico
University of North Carolina
University of Oklahoma
University of Pittsburgh
University of Pennsylvania
University of Rochester
University of Texas, Houston
University of Texas, MD Anderson
University of Texas, San Antonio
University of Texas, Southwestern
University of Utah
University of Virginia
University of Washington

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