

Residency Training

The neurology resident case log

A national survey of neurology residents

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Beginning in July 2004, the Neurology Residency Review Committee (NRRC) of the Accreditation Council for Graduate Medical Education (ACGME) required neurology residents to enter patient encounters into a Web-based data entry system. This system was meant to document actual resident experience for informational purposes¹ (Robert Pascuzzi, MD, personal communication) as the ACGME believed the current institutional databases were inadequate and a national Web-based system was needed.² To assess the burden from and compliance with the case log system, the Graduate Education Subcommittee (GES) of the American Academy of Neurology (AAN) created an anonymous resident survey. The preliminary results of this survey were made available to the NRRC in May 2005. Citing inefficiencies in the current system, the NRRC made entry of the data voluntary on June 1, 2005.³ Here we present the full results of the survey.

METHODS Members of the GES and the Consortium of Neurology Residents and Fellows created survey questions aimed at assessing compliance with the case log system, time spent entering the cases, use of a personal digital assistant, and perceived educational and patient care benefits of the system. Questions were tested by members of the GES. An e-mail notification to participate was sent to all US AAN member neurology residents and fellows based on AAN databases. Two percent ($n = 29$) of residents had already received three AAN surveys in 3 years and were excluded from the survey, per AAN policy. This resulted in 1,629 eligible survey participants. Participants were identified by their AAN identification code only. Five e-mail reminders and two postal letters were sent to those who had not responded. Finally, neurology residency program directors were asked to encourage responses. One percent (21) of the survey participants indicated they did not use the case log system, and did not complete the survey. Respondents' and non-respondents' demographic data were obtained from the AAN membership databases. For the demographic data, age means were compared with a two-tailed t test analysis and proportions with a χ^2 analysis. p Values < 0.05 were considered significant.

RESULTS The final response rate was 50% (810/1,629). There were no significant differences between responders and non-responders in age, gender, geographic location, or year in residency. Key results are presented in the table. The remainder of the results are available in table E-A-1, table

E-A-2, and appendix E-1. Fourteen percent of residents entered every patient encounter into the case log. A majority of residents could not find the correct International Classification of Diseases (ICD) code (54% found the code less than 50% of the time). Sixty-one percent took 2 minutes or more to enter a single patient encounter, and 59% said it took 10 minutes or more to enter their daily encounters. Fifty-three percent agreed or strongly agreed that the case log interfered with their education vs 23% who disagreed or strongly disagreed. Similarly, 40% agreed or strongly agreed that the case log interfered with patient care vs 29% who disagreed or strongly disagreed.

DISCUSSION The results of this survey showed an overall dissatisfaction with and lack of use of the case log system. Over 50% of residents entered less than half of their cases and a significant percentage of residents felt the case log system interfered with their education and patient care.

This survey demonstrates two other points. First, a survey of neurology residents can be done and produce useful information. This is only the third published report of a survey that included neurology residents.^{4,5} This survey, unlike the previous two, was meant to obtain information about a specific topic, the case log system, for the purpose of giving feedback to the NRRC. The response rate to the survey was 50% and provided consistent feedback.

Second, data from a resident survey may yield feedback that the NRRC can use to shape its policies. This survey was created and implemented over a short time, and the results were instrumental in guiding the decision of the NRRC to suspend the mandatory use of the case log (Robert Pascuzzi, MD, personal communication).

Based on the process and results of this survey, we suggest residents and residency programs should be integral to any future developments in a case log system, so that any future case log system will be more efficient and provide synchronous institutional, educational, and patient care data. In addition, we suggest that an effective method to evaluate the use of the case log system is a national resident survey.

Disclosure: The authors report no conflicts of interest.

Table Key results

| | | | | |
|--|--------------|---------------|---------------|-------------------|
| How often do you enter patient encounters? (n = 807) | | | | |
| 0-25% | >25-50% | >50-75% | >75% | About 100% |
| 31.5 | 19.1 | 18.0 | 17.5 | 14.0 |
| How often do you find the accurate ICD-9 code for your patient case? (n = 803) | | | | |
| 0-25% | >25-50% | >50-75% | >75% | About 100% |
| 24.7 | 29.1 | 26.3 | 18.4 | 1.5 |
| After becoming familiar with the system, on average, how long does it take to enter 1 patient encounter? (n = 774) | | | | |
| <1 minute | 1 minute | 2 minutes | 3 minutes | ≥4 minutes |
| 15.9 | 23.5 | 28.0 | 19.9 | 12.7 |
| How much time, on average, does it take you to enter your logs on a daily basis? (n = 757) | | | | |
| <5 minutes | 5-10 minutes | 10-15 minutes | 15-30 minutes | ≥30 minutes |
| 13.9 | 26.7 | 26.0 | 18.5 | 14.9 |
| Do you feel case log entry is benefiting your education at the present time? (n = 799) | | | | |
| Yes | No | Don't Know | | |
| 6.0 | 84.6 | 9.4 | | |
| Do you feel case log entry will benefit your education in the future? (n = 801) | | | | |
| Yes | No | Don't Know | | |
| 13.7 | 67.2 | 19.1 | | |
| The case log entry interferes with my education. (n = 795) | | | | |
| Strongly agree | Agree | Uncertain | Disagree | Strongly Disagree |
| 23.9 | 29.4 | 24.2 | 19.5 | 3.0 |
| The case log entry interferes with patient care. (n = 797) | | | | |
| Strongly agree | Agree | Uncertain | Disagree | Strongly Disagree |
| 19.2 | 21.2 | 31.1 | 24.2 | 4.3 |

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