Provider and Practice Factors Associated With Emergency Physicians' Being Named in a Malpractice Claim

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Study objective: We examine the association between emergency physician characteristics and practice factors with the risk of being named in a malpractice claim.

Methods: We used malpractice claims along with provider, operational, and jurisdictional data from a national emergency medicine group (87 emergency departments [EDs] in 15 states from January 1, 2010, to June 30, 2014) to assess the relationship between individual physician and practice variables and being named in a malpractice claim. Individual and practice factors included years in practice, emergency medicine board certification, visit admission rate, relative value units generated per hour, total patients treated as attending physician of record, working at multiple facilities, working primarily overnight shifts, patient experience data percentile, and state malpractice environment. We assessed the relationship between emergency physician and practice variables and malpractice claims, using logistic regression.

Results: Of 9,477,150 ED visits involving 1,029 emergency physicians, there were 98 malpractice claims against 90 physicians (9%). Increasing total number of years in practice (adjusted odds ratio 1.04; 95% confidence interval 1.02 to 1.06) and higher visit volume (adjusted odds ratio 1.09 per 1,000 visits; 95% confidence interval 1.05 to 1.12) were associated with being named in a malpractice claim. No other factors were associated with malpractice claims.

Conclusion: In this sample of emergency physicians, 1 in 11 were named in a malpractice claim during 4.5 years. Total number of years in practice and visit volume were the only identified factors associated with being named, suggesting that exposure to higher patient volumes and longer practice experience are the primary contributors to malpractice risk. [Ann Emerg Med. 2017;■:1-8.]

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INTRODUCTION

Background

Emergency medicine is a specialty with high malpractice risk because of the undifferentiated patient population and limited time and resources to manage acutely ill and injured individuals. Emergency physicians are likely to be involved in malpractice claims; more than 75% of emergency physicians will be named in a malpractice claim at some point in their career.[1] On average, physicians spend 50.7 months of their career involved in litigation.[2] To help reduce risk, 9 in 10 physicians report overusing or overordering tests or procedures, termed *defensive medicine,* which costs an estimated $46 billion annually in the United States.[3,4]

Importance

A malpractice claim can negatively affect a provider through anxiety, depression, and even thoughts of suicide, referred to as *medical malpractice stress syndrome*.[5] Identifying factors associated with greater malpractice risk could help improve physician well-being. Although patient experience data, years in practice, and practice location have been studied in isolation or outside of emergency medicine with respect to malpractice claims, limited data exist on the effect of emergency physician and practice factors in combination on malpractice risk.[6-8] Identification of such factors may inform how emergency physicians practice, the environments in which they choose to work, and how to approach reducing malpractice risk.

Editor's Capsule Summary

What is already known on this topic

A majority of emergency physicians will be involved in malpractice litigation during their careers, causing professional stress.

What question this study addressed

What measurable elements of physician practice and departmental environment are associated with risk of being named in a malpractice suit?

What this study adds to our knowledge

Being named in a suit appears to be mostly a random event associated with degree of exposure. The only variables associated with increased likelihood were years in practice and number of patients treated.

How this is relevant to clinical practice

Malpractice risk is an inherent element of emergency medicine practice. Practicing good medicine and caring about the patient likely remains the best approach.

Goals of This Investigation

We evaluate the association of commonly measured emergency physician and practice factors with the risk of being named in a malpractice claim.

MATERIALS AND METHODS

Study Design and Setting

We performed a retrospective cross-sectional study using data from a national emergency physician group that managed 87 emergency departments (EDs) (including 3 Level I trauma centers and 12 with emergency medicine residents) in 15 states during the study period (January 1, 2010, to June 30, 2014) (Appendix E1, available online at http://www.annemergmed.com). Because hospital contracts can change over time, the number of facilities varied between 51 and 65 for any given month. This physician group also maintained its own risk-retention program that recorded all malpractice claims during the study period. Data on malpractice claims were downloaded on September 30, 2015, to ensure complete availability of the provider, operational, and jurisdictional variables evaluated in the study. Visit characteristics, including Current Procedural Terminology Evaluation and Management and Procedure codes and relative value units (RVUs) generated, were abstracted by trained billing specialists. During this period, billing specialists were required to have or acquire relevant certification(s) between their second and third employment year, with ongoing training, auditing, and external evaluation. The group also maintains a demographic and credentialing database of all physicians. Physicians' clinical hours were tracked electronically (Tangier; Sparks, MD). Patient experience data (Press Ganey Associates Inc., South Bend, IN) were linked to physicians monthly. The study was approved by the Carnegie Mellon University Institutional Review Board.

Selection of Participants

We included emergency physicians with at least 4 consecutive months of practice data and working in a nonpediatric ED (mean patient age >18 years). To ensure that our results were not contaminated by idiosyncratic physician patterns and observed practice stability, we explored the monthly RVUs per hour for each physician. Starting with each physician's first appearance in the data set, we calculated the monthly RVUs per hour for each of the first 6 months of physician data. We compared RVUs per hour for each month with the previous month by using the paired *t* tests and Wilcoxon signed-rank tests when appropriate. Because month-to-month changes in RVUs per hour did not differ after the third month, this suggested that 4 months of practice was sufficient to allow time for provider acclimatization to the practice environment and assessment of practice patterns related to malpractice risk. Pediatric EDs may have different malpractice risks than general, nonpediatric EDs; therefore, pediatric EDs were excluded.

Methods of Measurement

We modeled variables theoretically related to malpractice risk according to previous work and through the authors' consensus.[1-7] These variables included provider and operational factors, as well as assessment of the malpractice risk based on the state malpractice environment of the ED (described in detail below). Provider factors included years in practice, defined as the number of years (days/365.25) between residency completion (not counting fellowship training) and the median study period date (March 31, 2012), board certification (American Board of Emergency Medicine or American Osteopathic Board of Emergency Medicine), and majority night practice (>50% of clinical hours between midnight and 6 AM during the period the physician was in the data set).

Operational factors at the physician level included median monthly RVUs generated per hour (RVUs/patient×patients/hour), which is a composite measure for patient acuity and volume; data on patient experience (median monthly physician Press Ganey percentile); median monthly physician admission rate (a risk tolerance and patient acuity marker)[1,9]; total patients treated as the attending physician of record; and working in multiple EDs