ORIGINAL ARTICLE

Radiology Malpractice Claims in the United States From 2008 to 2012: Characteristics and Implications

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Abstract

Purpose: The aim of this study was to compare the frequency and liability costs associated with radiology malpractice claims relative to other medical services and to evaluate the clinical context and case disposition associated with radiology malpractice claims.

Methods: This HIPAA-compliant study was exempted from institutional review board approval. The Comparative Benchmarking System database, a repository of more than 300,000 medical malpractice cases in the United States, was queried for closed claims over a five-year period (2008-2012). Claims were categorized by the medical service primarily responsible for the claim and the paid total loss. For all cases in which radiology was the primary responsible service, the case abstracts were evaluated to determine injury severity, claimant type by setting, claim allegation, process of care involved, case disposition, modality involved, and body section. Intracategory comparisons were made on the basis of the frequency of indemnity payment and total indemnity payment for paid cases, using χ^2 and Wilcoxon rank-sum tests.

Results: Radiology was the eighth most likely responsible service to be implicated in a medical malpractice claim, with a median total paid loss (indemnity payment plus defense cost plus administrative expense) per closed case of $30,091 (mean, $205,619 ± $508,883). Radiology claims were most commonly associated with high- and medium-severity injuries (93.3% [820 of 879]; 95% confidence interval [CI], 91.7%-94.95%), the outpatient setting (66.3% [581 of 876]; 95% CI, 63.0%-69.2%), and diagnosis-related allegations (ie, failure to diagnose or delayed diagnosis) (57.3% [504 of 879]; 95% CI, 54.0%-60.6%). A high proportion of claims pertained to cancer diagnoses (44.0% [222 of 504]; 95% CI, 39.7%-48.3%). A total of 62.3% (548 of 879; 95% CI, 59.1%-65.5%) of radiology claims were closed without indemnity payments; 37.7% (331 of 879; 95% CI, 34.5%-40.9%) were closed with a median indemnity payment of $175,000 (range, $112-$6,691,762; mean $481,094 ± $727,636).

Conclusions: Radiology malpractice claims most commonly involve diagnosis-related allegations in the outpatient setting, particularly cancer diagnoses, with approximately one-third of claims resulting in payouts to the claimants.

Key Words: Radiology, medical malpractice, malpractice, liability, damages, policy, regulation, law

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INTRODUCTION

In the United States, the medical malpractice system is the primary means by which claimants alleging tortious injuries in the course of medical care seek compensation. Despite weaknesses of the current system, including unpredictability of case outcomes, high direct and indirect costs, and a potential negative impact on access to care, it is unlikely that the current state will undergo

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dramatic change in the near future [1,2]. Many of the current federally funded demonstration projects seek to change the existing system through introducing mechanisms for early disclosure or guidelines-based safe harbors, rather than instituting sweeping change such as moving to a no-fault model of compensation [3].

Radiology is no stranger to medical malpractice litigation. Surveys suggest that fear of a potential malpractice claim is a perennial source of anxiety for many radiologists, especially breast imagers [4,5]. A recent study by Baker et al [6] reviewed the liability records of more than 8,401 radiologists and demonstrated that one in every two US radiologists would be involved in a medical malpractice claim by the age of 60 years. Likewise, recent studies have found that failure of correct diagnosis is by far the most common allegation underlying a malpractice claim, with failure to diagnose breast cancer the most common allegation overall. Failure to diagnose lung cancer is the most common allegation specifically involving chest radiologists [7,8]. In addition to the diagnostic process, earlier publications and expert commentaries have also warned of potential risk management issues surrounding the communication of results and ensuring radiologist-recommended follow-up [9-12].

Knowledge of the character and outcomes of malpractice claims remains important for risk management efforts and may offer crucial insights for improving the quality of care. The purpose of this study was to compare the frequency and liability costs associated with radiology malpractice claims relative to other medical services and to evaluate the clinical context and case disposition associated with radiology malpractice claims.

METHODS

Human Subjects Compliance

This HIPAA-compliant study was exempted from the need for institutional review board approval.

Comparative Benchmarking System Registry

Data were acquired from CRICO Strategies' Comparative Benchmarking System (CBS). CBS is a private repository of approximately 300,000 open and closed medical malpractice claims, representing approximately 30% of US malpractice claims. Claims originate from more than 125,000 physicians and 550 hospitals, including more than 30 academic and teaching hospitals covered by both captive and commercial insurers. The other 70 percent of claims are handled by professional liability insurers that do not participate in the CBS database. To create the database, a nurse trained in risk management reviewed and coded each malpractice claim on the basis of a number of variables, including but not limited to the medical specialty primarily involved; primary allegation; the clinical setting in which the claim arose; disposition of the claim; indemnity paid to claimant, if a payment was made; and total paid loss (indemnity payment plus defense cost plus administrative expense). Additionally, the database includes a short case abstract for each claim consisting of a narrative case description.

Data Coding and Analysis

The CBS database was queried for all unique closed malpractice claims between January 1, 2008, and December 31, 2012. No closed claims were excluded. The medical service primarily responsible for the claim and the total paid loss were recorded for each closed claim within the study period. The total number of malpractice claims and sum total paid loss were determined for the 11 major medical services, including anesthesiology, emergency medicine, internal medicine, nursing, obstetrics and gynecology, oral surgery and dentistry, pathology, pediatrics and neonatology, psychiatry, radiology, and surgery, as well as an additional category termed "other" that included claims primarily involving allied health services, nonclinical services, or pharmacy.

For cases in which radiology was deemed the service primarily responsible for the malpractice claim (radiology claims), the database was queried for the primary allegation; the clinical setting in which the claim arose; the severity of the asserted medical malpractice injury; disposition of the claim; indemnity paid to claimant, if a payment was made; primary imaging modality involved, if applicable; and primary International Classification of Diseases, ninth rev, diagnosis underlying the claim. The severity of the medical malpractice injury asserted in the claim was graded as high, medium, or low on the basis of the National Association of Insurance Commissioners scale [13]. High-severity injuries were defined as those injuries resulting in death, permanent grave disability, permanent major disability, or permanent significant disability. Medium-severity injuries were defined as those injuries resulting in permanent minor disability, temporary major disability, or temporary minor disability. Low-severity injuries were defined as those injuries resulting in temporary insignificant disability or limited to emotional injury. Low-severity injuries also included claims that only involved legal issues, without any injury.

The clinical setting giving rise to the claim was classified as outpatient (including both hospital-based and ambulatory outpatient services), inpatient, or emergency department, on the basis of the clinical site giving rise to