ORIGINAL RESEARCH

A Malpractice Claims Study of a Family Medicine Department: A 20-Year Review

Keturah Schacht, MD, Wendy Furst, MA, Masahito Jimbo, MD, PhD, and William E. Chavey, MD, MS

Background: **This study describes medical malpractice claims from a large academic family medicine department over 20 years. The intent of this investigation is to analyze trends within the department, seeking to better understand how to improve the quality of patient care.**

Study Design: **The Office of Patient Relations and Clinical Risk (PRCR) at University of Michigan Health maintains a centralized database of family medicine malpractice claims dating back to 1987. Records from 2000 to 2020 were requested from this database and received in a deidentified manner to protect patient confidentiality, and as such this study was exempt from IRB review. A total of 55 claims occurred during this time period. These claims were then analyzed in both qualitative and quantitative terms.**

Results: **Of the 55 claims, 87.3% involved adult patients; 76.5% of the claims occurred in the outpatient setting; 98.1% of the claims involved attending physicians and 26.9% involved resident physicians; 54.5% of the claims were closed without payment and 43.6% of the claims were settled. The average settled claim amount was $742,110.50 which dropped to $160,838.59 after excluding obstetric claims. In addition, 61.8% of the claims were related to diagnosis related allegations and 16.4% of the claims involved treatment related allegations. Primarily involving allegations of missed or delayed diagnoses of cancer, 29.1% of the claims were cancer related. While 79.2% of settled claims did not meet standard of care, 83.3% of the claims closed without payment did meet standard of care.**

Conclusions: **Most claims involved adult patients, occurred in the outpatient setting, and involved diagnosis related allegations. Although representing a minority of the claims, obstetric claims made up most of the total settlement amount. Missed or delayed diagnoses of cancer were a common cause for claims, reinforcing the important role that primary care physicians have in supervising and administering preventative health care to patients. This study also emphasizes the value of peer review committees to help inform medical-legal consultants as evidenced by the high correlation between standard of care determination and final claims outcomes. (J Am Board Fam Med 2022;35:380–386.)**

Keywords: **Delayed Diagnosis, Delivery of Health Care, Family Medicine, Malpractice, Michigan, Standard of Care**

Introduction/Background

It is a widely held belief that most physicians are at risk of being sued and of eventual payment of a claim[1] and that patients, or families of patients, file malpractice claims for monetary purposes.[2] The research provided below, however, demonstrates that these beliefs may be based on misconceptions. While monetary compensation, or indemnity, for malpractice claims has increased over the past 20 years, the actual number of malpractice claims has declined.[3] Further, of nearly 41,000 physicians across multiple specialties represented by a single large professional liability insurer from 1991 to 2005, only 7.4% faced a malpractice claim per year, and only 1.6% had a claim leading to a payment. Family medicine physicians comprised 12.2% of the total number of physicians and faced an annual

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From the University of Michigan, Michigan Medicine, Department of Family Medicine, Ann Arbor, MI, USA (KS, WF, and WEC); and Family and Community Medicine, University of Illinois at Chicago College of Medicine, Chicago, IL, USA (MJ).

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Corresponding author: Keturah Schacht, MD, Family Medicine, 1018 Fuller Street, Ann Arbor MI 48104-1213, 734-615-2689, (E-mail: kschacht@umich.edu).

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malpractice claim risk of 5.2%.[1] Despite these reassuring findings, the fear of being sued remains and the consequence of facing a malpractice suit can damage a physician's reputation and self-image even if the suit outcome is in favor of the physician. Over one third of physicians involved in a malpractice claim have considered leaving medicine or early retirement.[1]

Within the state of Michigan, a claim must contain allegations of professional negligence involving licensed health care practitioners and facilities. To prevail, the plaintiff must prove the elements of duty, breach of duty, causation, and damages. The process begins with a notice of intent (NOI). This is a written notification to the medical facility and/or medical professional(s) that includes a factual basis for the claim, all named parties, the applicable standard of care (SOC) alleged by the claimant and the way this was breached, the prescribed corrective action that would have met the SOC, and a direct statement correlating the breach of the SOC with the injury. A medical malpractice claim can then be filed no fewer than 182 days after the medical facility and/or medical professional has received the NOI.[3] This process allows for a 6-month "cooling off" period in which both parties can establish the facts of the claim and attempt to seek resolution of the claim. Through medical malpractice reform laws passed in the early 1990s, the state of Michigan has a cap for noneconomic damages. There is no cap for economic damages.

Predictably, malpractice claims are disproportionately represented by procedural or surgical specialties. The highest risk claims involve surgeries, heart-related procedures, and obstetric care. Both morbidity and mortality spur patient claims. Across all specialties, 1 of every 3 claims made between 1985 and 2008 was associated with a patient death.[4] Between 1991 and 2005, neurosurgery and cardiothoracic surgery each made up 19% of claims while family medicine reported 5% of claims.[1] Family medicine reported a decreasing number of claims between 1992 and 2014 as compared with obstetrics and gynecology, general surgery, internal medicine, and orthopedics.[5]

Despite this, family medicine still faces a significant number of malpractice claims given the breadth of care provided including cardiovascular and obstetric care. One study of family medicine physicians found that while only approximately 2% of 27,000 claims between 1985 and 2008 were related to obstetric care, nearly half of these cases ended with (often high value) indemnity payouts. The majority of cases related to death and dying including cancer, heart disease/surgery, or major trauma have higher indemnity payouts.[4]

When researchers seek to understand the reasons for these mistakes that lead to malpractice claims, they find several notable explanations. Diagnostic errors are the primary culprits of malpractice claims,[6,7] often resulting from: (1) miscommunication or lack of communication between medical professionals, (2) inadequate history[4,8], or (3) a delay in diagnosis.[9] Aaronson and colleagues[10] examined more than 2,000 primary care claims and found that a delay in screening or testing was the primary reason for claims. Malpractice claims also often involve deficits in medical knowledge or technical skills. An analysis of provider self-reports of doctor-patient visits found physicians "acknowledge… medical errors arising from shortfalls in clinical knowledge and skills."[11]

There are also psycho-social explanations for these claims which need to be understood and absorbed by medical (educational) institutions.[2,12–15] Patients have reported negative interactions with their providers as the root cause of a claim, citing lack of physician transparency or intentionally feeling misled by their physicians.[2] In addition, patients have identified the need for empathy[14] and honesty (including the admittance of wrong-doing)[2] in the physician–patient interaction. Finally, emotional intelligence has been found to play a role in whether a claim will more likely be made.[12,15] Levinson and colleagues[13] studied recordings of doctor–patient interactions and found that there was a difference in communication styles of primary care doctors who have faced malpractice claims and those who have not. Physicians who made greater attempts to connect with their patients with humor, digestible information, and more time during office visits had lower claims.

By better understanding where the malpractice risks lie in family medicine, physicians can more effectively improve the health outcomes of family medicine patients and create a more positive work environment in which the fear of malpractice suit is reduced.[16] Boothman and his colleagues[7] conclude, from their examination of the University of Michigan Health Department of Surgery claims study, that it may be more important to understand what "pushed" a patient or family to file a

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malpractice claim—what events led up to an individual and/or group contacting a lawyer—than simply to know the basis of the claim.

This has become part of what is known as the Michigan Model, which began in 2001 when University of Michigan Health launched a comprehensive claims management program. The goals of this program were threefold: (1) to compensate fairly and quickly when medical errors occur, (2) to vigorously defend medically reasonable care, and (3) to learn from patients' experiences and improve the quality and safety of patient care. The process begins at the time of the unintended medical outcome. Open communication and full disclosure with the patient and/or patient representative is encouraged. Peer review by the relevant medical specialties is undertaken. Following this peer review process, an offer to meet with the patient, patient representative and/or patient's legal counsel is extended irrespective of the SOC determination. This allows the patient to receive a full explanation of the unintended medical outcome. When an error has occurred, this is acknowledged, an apology is extended, and efforts shift toward seeking a mutually agreeable resolution which may or may not include a monetary settlement. Taking a claim to court is viewed as a last resort in the event of medical error, although if the patient continues to pursue a suit involving medically reasonable care, a legal team is assembled to vigorously defend the involved medical parties.

As a result of this model, malpractice claims, expenses, settlements, and time to handle a claim have decreased at University of Michigan Health.[7] Annual claims went from 122 to 61 between 2000 and 2006. The total time to resolve a claim went from 20.3 to 8 months between 2001 and 2007. Total insurance reserves decreased by over two thirds. A similar correlation between early settlement offers and decreased payouts was also noted in a series of empirical studies by Black, Hyman, and Silver.[17] Most importantly, the Michigan Model seeks to learn from medical errors and patient experiences and identify and enact changes in the systems and processes of the health system to minimize the risk of harm to future patients. In 2016, the Agency for Healthcare Research and Quality (AHRQ) introduced a free resource known as the CANDOR Toolkit which is in part based on the Michigan Model and seeks to disseminate this unique approach more widely to unintended medical outcomes.

Published literature to date reflects only aggregate data on family medicine claims. In this article, the authors review the specific claims experiences of an academic family medicine department. Research on malpractice claims may be an effective way to improve patient care quality and create a more positive work environment for physicians.

Methods

The Office of Patient Relations and Clinical Risk (PRCR) at University of Michigan Health maintains confidential malpractice claims records for the various medical departments across University of Michigan Health. Within the department of family medicine, the Office of PRCR tracks malpractice claims dating back to 1987. For every claim that has been filed, the Office of PRCR collects information pertinent to the claim, including date of claim, settlement status, peer review impressions of each claim, and the general events and circumstances that led to the claim. For the purposes of this study, the authors chose to focus on cases over the past 20 years. The University of Michigan Medical School Institutional Review Board (IRB) determined this study, which utilized deidentified patient data, to be exempt by the IRB (study ID# HUM00183229).

With the assistance of the Office of PRCR, a spreadsheet was prepared on 9/12/2020 detailing all claims with an incident date between 1/1/2000 and 9/12/2020. A total of 55 claims were filed within this time frame. Each case included the following variables: incident date, close date, status of claim (open, closed, settled or dismissed), settlement amount, primary or secondary malpractice allegation group, peer review determination (SOC met or not met), and a deidentified case description of each claim. There was some variability with respect to completeness of these deidentified case descriptions likely related to changes in the database over time and the need to remove patient identifying information.

Results

Of the 55 cases included in this analysis, 31 (56.4%) occurred between 2000 to 2009, while 24 (43.6%) occurred between 2010 to 2019. A variety of health care professionals were involved in the claims,

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including 51 (98.1%) with attending physicians, 14 (26.9%) with resident physicians, 9 (17.3%) with advanced practice providers (APPs), 6 with (11.5%) registered nurses, 1 with (1.9%) social workers, 1 (1.9%) with physical therapists, and 1 (1.9%) with medical assistants. Three of the 55 claims did not specify the type(s) of involved provider(s) and thus were excluded from these calculations.

It is worth noting that while individual clinicians may be named in a claim against University of Michigan Health, the hospital is self-insured and thus if a claim is settled it is settled against the Regents of the University of Michigan rather than individual clinicians. The Board of Regents is made up of 8 constitutional officers of the state of Michigan who are elected biennially by state-wide elections and collectively govern the University of Michigan. As the hospital is self-insured, malpractice insurance limits are not applicable for University of Michigan Health physicians.

Thirty-nine (76.5%) of the claims occurred in the outpatient setting and 12 (23.5%) in the inpatient setting. The location of care for 4 of the claims could not be determined with the provided information, and thus were excluded from these calculations. Forty-eight (87.3%) of the claims involved adults, 6 (10.9%) involved fetuses or neonates, and 1 (1.8%) involved infants or children. Nine (16.4%) of the claims involved obstetric care. Of the 55 claims, 30 (54.5%) were closed without payment, 24 (43.6%) were settled, 1 (1.8%) was dismissed, and 0 are currently open. Of claims with resident physician involvement, 7 (50.0%) settled and 6 (42.9%) closed without payment. One claim with resident involvement was dismissed. Of claims without resident physician involvement, 17 (44.7%) settled and 21 (55.3%) closed without payment.

The total settlement amount of these 55 cases was $17,810,651.96. While only 9 (16.4%) of the claims involved obstetric care, they represented a disproportionately higher amount of the total monetary settlements ($14,593,880.15 or 81.9%). The average settled claim was $742,110.50 (range $3750.00 to $9,200,000.00). Excluding obstetric settled claims, the average settled claim was $160,838.59 (range $3750.00 to $500,000.00).

The claims were categorized by primary malpractice allegation group. Consistent with prior studies, 34 (61.8%) of the claims involved diagnosis related allegations (delay in diagnosis or failure to diagnose) (see Table 1). Nine (16.4%) claims were treatment related (delay in treatment or failure to treat), 3 (5.5%) were categorized as failure to monitor, and 3 (5.5%) as failure to perform a procedure. Delay in treatment of identified fetal distress, improper management, wrong body part, wrong medication administered, and wrong medication ordered comprised the remaining 5 cases. By comparison, in Medscape's Malpractice Report from 2019, family physicians reported failure to diagnose or delayed diagnosis as 42% of claims, poor outcome/disease progression as 22%, failure to treat/delayed treatment as 19% and wrongful death as 18%.[18]

Table 1. Primary Malpractice Allegation Group in All Claims

Allegation type	Frequency	Percent (%)
Delay in diagnosis	18	32.7
Failure to diagnose	16	29.1
Delay in treatment	5	9.1
Failure to treat	4	7.3
Failure to monitor	3	5.5
Failure to perform procedure	3	5.5
Delay in treatment of identified fetal distress	1	1.8
Improper management	1	1.8
Wrong body part	1	1.8
Wrong medication administered	1	1.8
Wrong medication ordered	1	1.8
Wrong procedure or treatment	1	1.8

Sixteen (29.1%) of the claims were cancer related, primarily involving allegations related to missed or delayed diagnoses of cancer. Analyses of primary care claims outside of University of Michigan Health have also shown missed or delayed diagnoses of cancer to be a common cause for malpractice claims within primary care.[4]

Of the 30 cases that were closed without payment, 25 (83.3%) met SOC and 5 (16.7%) did not meet SOC. Of the 24 settled cases, 5 (20.8%) met SOC and 19 (79.2%) did not meet SOC. Of claims with resident involvement, 8 (57.1%) met SOC and 6 (42.9%) did not meet SOC. Of claims without resident involvement, 20 (52.6%) met SOC and 18 (47.4%) did not meet SOC.

Discussion

This study of malpractice claims across a 20-year time span in the Department of Family Medicine at

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University of Michigan Health revealed a rate of 2.75 claims per year, with greater than 50% chance of a claim being dismissed or closed without payment. These findings may provide comfort to a physician fearful of a claim, as these 55 claims are the cumulative sum of claims over 20 years across a department which currently includes more than 90 attending physicians, nearly 40 resident physicians, and many APPs. Clinical volume statistics for the department were available dating back to 2015 and over this time frame there was an average of 137,289 office visits per year. This is likely a modest underestimate of yearly office visits as phone visits were not included in these numbers. During this same time frame, there was a yearly average of 1,247 adult inpatient admissions, 355 obstetric deliveries, 55 C-sections, 563 newborn admissions, and 500 obstetric triage visits.

Nonetheless, claims do occur, and it is prudent to analyze these claims to better inform efforts to improve the quality of care for our patients. This study is important as it represents the first publication of malpractice claims data by an academic family medicine center.

When considering the patient population, most of the claims involved adult patients and occurred in an outpatient setting. This is consistent with current family medicine practice patterns. In addition, in accordance with previously reported literature, much of the risk from a monetary standpoint was related to obstetric care. This is important to recognize and address openly with medical students and residents as fear of malpractice claims may negatively affect a physician's decision to incorporate obstetric care into their family medicine practice. Awareness of this risk also highlights the importance of continued education and peer review of obstetric care. Within the University of Michigan Health Department of Family Medicine efforts to acknowledge and manage this risk have included resident physician lectures on obstetric risk management, department wide quality conferences, use of standardized electronic note templates and checklists, obstetric chart reviews at the resident clinic sites and utilization of best practice advisories.

As we consider claim content, most claims involved diagnostic concerns followed by treatment concerns. Missed or delayed diagnosis of cancer was a common cause of claims. A delayed diagnosis of cancer may be attributable to any number of causes, but it speaks to the importance of attentiveness to age-appropriate cancer screening and the potential for prompts or best practice advisories within the electronic medical record to help remind physicians when these services are due. It is also an important reminder to clearly document when and why patients decline routine preventative testing.

This study confirms the value of peer review committees in the risk management process. We found a high correlation between peer review designation of "SOC not met" and decision to settle a case as well as peer review designation of "SOC met" and decision to close a case without payment. By establishing a detailed factual understanding of the events leading up to an unintended medical outcome, a thorough and impartial review of the case can be made. This analysis can help differentiate between cases where medical error occurred and cases where a complication occurred despite reasonable medical care, thus fairly and expeditiously providing compensation to patients and families when medical errors have occurred, while vigorously defending medically appropriate care.

The University of Michigan Health Family Medicine peer review committee is comprised of 11 members and meets monthly to review cases. Committee composition includes permanent members (department and inpatient service chiefs, associate chair of clinical programs, and faculty chair of resident peer review committee) and rotating members (3-year position including 1 outpatient clinic medical director representative and 3 at-large faculty members). Cases come to the committee through self or colleague referrals, resident peer review, referrals from other departments and the Office of PRCR. The committee votes on whether the SOC was met for each case. Input from the involved faculty is sought if the standard of care was not met. Involved faculty members are notified after cases have been reviewed to provide overall impressions of the care provided and educational resources if applicable. For cases not meeting the SOC, a provider self-acknowledged action plan is implemented for many of the cases. It is common that the involved physicians have already engaged in self-reflection and noted possible areas for improvement before receiving the final committee feedback. Other possible outcomes include formal or informal improvement plans, addition of an educational letter to the involved faculty member's permanent record, recommendation to review the case

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at the resident peer review committee or referral to other involved specialties or care providers for review. Cases may also be referred to a departmental quality improvement committee to look for systems or processing issues that may have contributed to the case.

At a hospital level, malpractice claims from all specialties including family medicine are reviewed by the Clinical Care Review Committee. This is a robust committee comprised of faculty physicians from a variety of specialties, along with nursing, esident physician, and APP representatives. Several of the physicians on the committee are primary care physicians. A detailed factual summary of each case is provided in advance of each monthly meeting, as are both internal and external reviews from the relevant specialties regarding the appropriateness of care. The cases are presented by members of the Office of PRCR department and the committee votes on each case regarding whether SOC was met. These discussions aid the Office of PRCR team as they work with the involved parties to seek resolution of each claim.

The main limitation of this study is the lack of identifying data and detailed care summaries for individual claims. This limited our ability to characterize cases beyond broad terms and is an area for future exploration. Additional characteristics of all providers could be determined to see if they impacted the case outcomes (patient satisfaction scores, practice location, years in practice, etc.). In addition, case specific information obtained through identified patient data could allow for more detailed comparisons of University of Michigan Health to other institutions and nationwide groupings of family physicians.

Future directions include consideration of the relationship between increased patient access to medical records and claims data. At University of Michigan Health, patients began to be able to view some of their visit notes electronically in August of 2012 when the electronic medical records transitioned to an Epic based system which included a patient portal. This access was expanded further in 2017, though sensitive notes and/or departments remained inaccessible to patients through the electronic medical records. In March of 2021, this universal blocking of potentially sensitive information was removed, thus further expanding a patient's ability to access their medical records. It is unclear if this increase in access by patients to their medical records will impact malpractice risk.

It would also be of value to continue to explore the relationship between resident physicians and claims data. Interestingly, in this small sample size, we found that while claims with resident involvement were more likely to settle, they were also more likely to meet SOC.

Another area of potential interest is the explosion of virtual care over the past 2 years related to the COVID-19 pandemic. Virtual care developed out of necessity and not necessarily as a part of natural organic growth. This occurred absent evidence on which types of medical conditions or patient concerns can be managed effectively in virtual models and without the establishment of the SOC surrounding virtual care. It is unclear what impact this evolving model of care will have on complaints being filed or validated, and it would be worthwhile to revisit this data in several years' time for pre- and postpandemic comparisons. In addition, it is unclear if virtual visits will positively or negatively impact patient–physician communication and how this will impact malpractice risk.

In conclusion, our study is an important contribution to family medicine claims data analyses. These data add to the literature of other specialties overall that highlights the importance of ongoing thoughtful analysis of the quality and safety of care that we provide to all our patients.

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