

# Characteristics of Medical Professional Liability Claims in Patients Treated by Family Medicine Physicians

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**Objective:** This study describes a large database of closed medical professional liability (MPL) claims involving family physicians in the United States. The purpose of this report is to provide information for practicing family physicians that will be useful in improving the quality of care, thereby reducing the incidence of patient injury and the consequent frequency of MPL claims.

**Methods:** The Physician Insurers Association of America (PIAA) established a registry of closed MPL claims in 1985. This registry contains data describing 239,756 closed claims in the United States through 2008. The registry is maintained for educational programs that are designed to improve quality of care and reduce patient injury MPL claims. We summarized this closed claims database.

**Results:** Of 239,756 closed claims, 27,556 (11.5%) involved family physicians. Of these 27,556 closed claims, 8797 (31.9%) resulted in a payment, and the average payment was \$164,107. In the entire registry, 29.5% of closed claims were paid, and the average payment was \$209,156. The most common allegation among family medicine closed claims was diagnostic error, and the most prevalent diagnosis was acute myocardial infarction, which represented 24.1% of closed claims with diagnostic errors. Diagnostic errors related to patients with breast cancer represented the next most common condition, accounting for 21.3% of closed claims with diagnostic errors.

**Conclusions:** MPL issues are common and are important to all practicing family physicians. Knowledge of the details of liability claims should assist practicing family physicians in improving quality of care, reducing patient injury, and reducing the incidence of MPL claims. (J Am Board Fam Med 2010;23:753–761.)

**Keywords:** Medical Errors, Malpractice, Risk Management, Medical Liability

Family medicine is a unique specialty that deals with the treatment of both acute and chronic illnesses in adult and pediatric patient populations. As every fam-

ily physician knows, this diverse practice experience can be both very challenging and, at the same time, extremely rewarding. In our litigious society, the risk of medical professional liability (MPL) claims in the practice of such a broad specialty is also a daily concern. An understanding of these liability risks can serve to facilitate risk management strategies used in family physicians' daily practice. Evidence from other specialties supports the contention that educational efforts and other strategies aimed toward increasing practitioners' understanding of their liability risks may reduce those risks.<sup>1</sup> The purpose of this article is to present a summary of the family MPL claims experience of a consortium of MPL insurance companies. The goals are to increase family physicians' awareness of the specific details of the problem of medical liability and, in so doing, to improve the quality of patient care and to reduce the future incidence of MPL claims.

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(PIAA), which is headquartered in Rockville, MD. The PIAA is an association of 50 MPL insurance carriers that are owned and operated by physicians and dentists. PIAA-affiliated companies provide MPL insurance coverage for approximately 60% of physicians in private practice in the United States.<sup>2</sup>

## Methods

The PIAA maintains a data registry, called the Data Sharing Project (DSP), of MPL claim information voluntarily submitted by its member organizations on a biannual basis. Currently, 22 of 60 member organizations report claims data to the PIAA DSP. The PIAA provides the reporting companies with explicit definitions of the data elements requested for inclusion in the registry. The data are submitted to the PIAA in a codified format. Diagnostic information and procedures are submitted using the coding system of the International Classification of Diseases, 9th revision, Clinical Modification (ICD-9)<sup>3</sup> as well as using PIAA-designated procedure codes. To simplify reporting, the PIAA aggregates data within broad diagnostic categories; however, original detailed classification data are maintained in the registry.

With respect to the PIAA DSP data, information is available about matters that have been definitively resolved, either with or without payment to the claimant. Data are also collected describing the number of claims for each of the 28 specialties. Data are available that quantitate the proportion of closed claims that ended in payments; the total indemnity payments; and the average, median, and largest payments made.

The PIAA classifies each claim according to 19 types of “medical misadventures.” These medical misadventures are alleged principal departures from the appropriate standard of medical care.<sup>4</sup> They are errors or omissions of diagnosis, treatment, procedure performance, supervision, and timeliness that result in putative injury to patients. The PIAA DSP also codifies “no medical misadventure” for cases in which a claim is brought against a physician who had little or no contact with the patient during the event in question. Other medical or legal issues (eg, equipment malfunction or informed consent) are often associated with “no medical misadventure” claims.

Patient diagnoses are recorded for the claims in the PIAA DSP, and claims are further classified by

the most common procedures implicated in the alleged professional liability. Data are also available in the PIAA DSP regarding the severity of the claimant’s injury. Severity of injury is assigned to one of 9 categories as established by the National Association of Insurance Commissioners Severity Index: emotional injury only; insignificant injury; minor temporary injury; major temporary injury; minor permanent injury; significant permanent injury; major permanent injury; grave injury; and death.<sup>5</sup>

The PIAA DSP registry contains data describing allegations that specify associated medical and legal issues, such as consent or communications issues. Twenty-nine such associated medical and legal issues are identified in the PIAA DSP registry. The registry also contains data describing the area of expertise of any associated professional who may be named in the claim in question.

## Results

At the end of 2008, the PIAA DSP registry contained information approximately 239,756 claims that were closed between 1985 and 2008. Of these closed claims, 27,556 (11.5%) involved family physicians.

### *Characteristics of Claims against Family Physicians Numbers of Claims and Amounts of Claims Payments*

Table 1 shows the claim payment analysis by 28 specialties for the PIAA DSP registry of 239,756 closed claims. There were 27,556 closed claims involving family physicians between 1985 and 2008. Because the registry dates back to 1985, a small percentage of older claims against general practitioners are included in the family medicine totals. These older claims are unlikely to change our conclusions because the practice patterns of both groups reflect treatment of the same patient population and the same disease entities and resort to many of the same procedures. According to current nationwide statistics, 8.7% of all physicians are family physicians whereas only 1.1% of all physicians identify themselves as general practitioners.<sup>7</sup> Of total closed claims in the PIAA DSP, family medicine ranked third among the 28 medical specialties studied. Obstetrics/gynecology ranked first with 32,662 closed claims, and oral surgery ranked last with 65 closed claims.

**Table 1. Comparative Claim Payments: PIAA DSP Registry 1985–2008<sup>6</sup>**

Specialty	Closed Claims (n)	Paid Claims (n)	Paid to Closed (%)	Total Indemnity (\$)	Average Indemnity (\$)	Median Indemnity (\$)	Largest Payment (\$)
Anesthesiology	9,231	2,970	32.2	671,350,918	226,044	75,000	5,048,678
Cardiovascular and thoracic surgery	7,283	1,712	23.5	378,126,443	220,868	100,000	5,005,000
Cardiology	4,527	836	18.5	209,856,413	251,024	150,000	1,950,000
Dentistry	867	378	43.6	15,572,767	41,198	15,000	1,000,000
Dermatology	2,704	775	28.7	106,592,226	137,538	35,000	3,000,000
Emergency medicine	4,341	1,131	26.1	225,069,207	199,000	85,000	2,000,000
Gastroenterology	2,506	453	18.1	98,509,776	217,461	100,000	2,900,000
Family medicine	27,556	8,797	31.9	1,443,653,088	164,107	75,000	4,089,414
General surgery	24,998	8,551	34.2	1,577,752,573	184,511	87,500	3,116,180
Gynecology	2,840	863	30.4	135,783,680	157,339	60,000	2,000,000
Internal medicine	32,651	8,216	25.2	1,749,471,776	212,935	100,000	12,000,000
Neurology	3,826	825	21.6	263,991,984	319,990	150,000	5,000,000
Neurosurgery	5,620	1,585	28.2	499,918,893	315,406	170,000	5,600,000
Obstetrics and gynecology	32,662	11,488	35.2	3,257,179,047	283,529	125,000	13,000,000
Ophthalmology	6,947	1,995	28.7	367,850,385	184,386	100,000	3,550,000
Oral surgery	65	21	32.3	548,583	26,123	12,500	133,500
Orthopedics	22,538	6,599	29.3	1,099,243,175	166,577	80,000	3,000,000
Nonsurgical specialties	2,396	558	23.3	112,652,994	201,887	55,625	8,749,980
Otorhinolaryngology	3,990	1,262	31.6	257,848,881	204,318	100,000	4,000,000
Paraprofessional	417	98	23.5	19,637,949	200,387	92,000	1,322,290
Pathology	1,685	477	28.3	117,418,795	246,161	119,999	2,700,000
Pediatrics	7,001	1,951	27.9	526,796,951	270,014	125,000	5,250,000
Plastic surgery	8,910	2,346	26.3	276,760,588	117,971	46,260	1,650,000
Psychiatry	2,348	474	20.2	77,760,608	164,052	55,000	2,375,000
Radiation therapy	2,328	662	28.4	193,576,117	292,411	140,000	2,700,000
Radiology	13,592	3,977	29.3	803,819,037	202,117	90,000	3,125,000
Resident	133	44	33.1	2,689,932	61,135	74,500	200,000
Urology	5,794	1,695	29.3	306,063,041	180,568	90,000	3,200,000
Totals	239,756	70,739	29.5	14,795,495,827	209,156	90,000	13,000,000

In another study we are doing additional analyses of the PIAA data in which we focus on the physicians involved rather than the claim-focused analysis that we present here. In this supplemental analysis, we will incorporate data from the American Medical Association's Physician Masterfile database in an effort to estimate a denominator.

Of the 27,556 family medicine closed claims, 8,797 resulted in payment to the plaintiff (31.9%). Gastroenterology closed claims represented the lowest percentage of paid to closed claims for the 28 specialties studied, with 18.1% of claims paid. Claims against dentists resulted in the highest payment rate (43.6% of cases), and those against obstetrician/gynecologists resulted in payments in 35.2% of cases. The average ratio

of paid claims to closed cases was 29.5% for all 28 specialties.

The total indemnity paid for all MPL closed claims in the database between 1985 and 2008 was \$14.8 billion. The highest total indemnity for specialists was for obstetrics/gynecology at \$3.3 billion; the lowest total indemnity for specialists was oral surgery at \$548,583. The total indemnity paid for family physicians was \$1.4 billion. Family medicine ranked fourth among the 28 specialties in total indemnity paid.

The largest single payment in the PIAA DSP registry (\$13,000,000) was for an obstetrics and gynecology claim. On the opposite end of this spectrum, the largest payment for an oral surgery case was \$133,500. Family medicine ranked eighth, with the largest single payment of \$4,089,414.

**Table 2. Most Prevalent Medical Misadventures in Family Medicine Closed Claims 1985–2008<sup>6</sup>**

Medical Misadventure	Closed Claims (n)	Paid Claims (n)	Paid to Closed (%)	Average Indemnity (\$)
Errors in diagnosis	8,726	3,235	37.1	185,615
None noted	4,587	371	8.1	168,727
Improper performance	3,886	1,454	37.4	128,618
Failure to supervise or monitor case	2,570	838	32.6	163,598
Medication errors	2,500	811	32.4	109,758
Failure or delay in referral or consultation	905	421	46.5	192,261
Failure to perform	794	355	44.7	199,708
Failure to recognize a complication of treatment	759	269	35.4	160,775
Failure to instruct or communicate with patient	576	157	27.3	179,535
Delay in performance	573	274	47.8	211,826
Total	25,876	8,185	31.6	165,852

### *Most Prevalent Medical Misadventures in Family Medicine Closed Claims*

The 10 most common medical misadventures encountered in the PIAA registry for family medicine closed claims are listed in Table 2. These are the primary causes for 27,556 family medicine claims. No specific medical misadventure is present in 4587 closed family medicine claims. Table 2 also shows the percentage of paid claims and the average indemnity paid for paid claims for each of the 10 most frequent medical misadventures. For claims in which no identifiable medical misadventure is present, the percentage of paid to closed claims is lowest at 8.1%. The average indemnity payment for these claims is important, however, because it is higher than other types of claims in which potential negligence seems more obvious.

Diagnostic error represented the most prevalent identified medical misadventure. Delay in performance of a procedure represented the least prevalent medical misadventure among the 10 most prevalent; however, this medical misadventure had the highest proportion of paid closed claims. The highest average indemnity was \$211,826 for delay in performance, and the lowest average indemnity was \$109,758 for medication error.

Table 3 depicts the family medicine claims that stemmed from a diagnostic error for the years 1985 until 2008. The greatest number of these claims that alleged an error in diagnosis involved patients with myocardial infarction (24.1%). This group of diagnostic error claims also had the highest average payment (\$206,156). Less common diagnostic error claims involved breast cancer (21.3%), with a relatively high average payment of \$195,857, and

appendicitis (19.7%), with a much smaller average payment of \$76,743. Still less-common diagnostic errors involved lung cancer (17.6%) and colon cancer (17.2%). Of all diagnostic error claims that were closed, 44% of these total closed claims were paid. Interestingly, in the category of diagnostic error claims that specifically involved myocardial infarctions, more than half (50.7%) of these closed claims were paid. This higher payment figure could suggest the difficulty in defending a diagnostic decision concerning a serious entity such as a myocardial infarction.

### *Severity Level of Patient Injury*

Almost one third of closed claims (29.4%) were associated with the patient's death. A smaller proportion of these claims (4.3%) were associated with grave injury. As depicted in Figure 1, among these 2 high-severity categories, closed claims were paid more frequently. Specifically, the payment rate for death claims was 36.7% and the rate for grave injury claims was 44.4%. The average indemnity payment was highest for claims involving grave injury (\$369,444) and major permanent injury (\$336,240), whereas the average payment in claims involving death was lower (\$185,925). The higher average payment in major injury claims undoubtedly represents the high cost of continuing care for these survivors. Among those claimants who suffered minor temporary injury, only 25.7% of closed claims were paid. The closed claim payment rate was even smaller for those who suffered insignificant injury (15.9%) or emotional injury only (13.0%). The average indemnity paid was likewise much smaller for those experiencing minor temporary injury (\$42,619),

**Table 3. Top 20 Misdiagnosed Conditions (1985 to 2008)**

Condition	Closed Claims (n)	Paid Claims (n)	Paid to Closed (%)	Average Indemnity (\$)
Myocardial infarction, acute	351	178	50.7	206,156
Malignant neoplasms of the female breast	311	136	43.7	195,857
Appendicitis	286	123	43.0	76,743
Malignant neoplasms of the bronchus and lung	257	94	36.6	127,260
Malignant neoplasms of the colon and rectal region	248	112	45.2	188,197
Symptoms involving abdomen and pelvis	197	54	27.4	285,306
Chest pain, not further defined	138	61	44.2	342,335
Pneumonia	133	46	34.6	183,119
Meningitis	114	59	51.8	221,914
Coronary atherosclerosis	99	51	51.5	165,758
Pulmonary embolism	94	49	52.1	284,176
Diabetes	93	36	38.7	179,161
Aortic aneurysm	92	42	45.7	171,071
Wrist bones, fracture of	83	36	43.4	52,808
Disorders of soft tissue	79	28	35.4	193,952
Disorder of joint, not including arthritis	76	21	27.6	173,202
Fracture of vertebral column	76	30	39.5	177,401
Back disorders, including lumbago and sciatica	74	22	29.7	389,545
Malignant neoplasms of the prostate	72	28	38.9	209,030
Endocarditis, acute	69	36	52.2	286,871

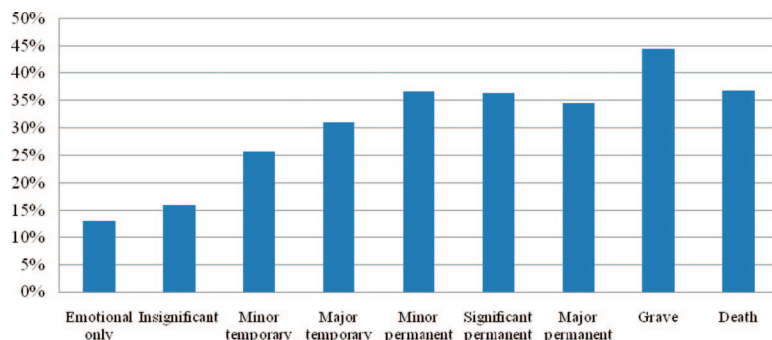
emotional injury only (\$40,351), and insignificant injury (\$30,871).

#### *Associated Medical and Legal Issues*

Table 4 portrays various other medical issues that are frequently associated with an allegation of physician negligence. Equipment malfunction is mentioned along with physician negligence in 6.6% of these closed claims in the database. Equipment malfunction would include events such as failure of a mechanical ventilator or the malfunction of an

electrocardiogram device. Although this represents a relatively large percentage of the closed claims, only 6.9% of those claims were paid. This small ratio of paid claims to total closed claims may ultimately be the result of erroneous patient perceptions regarding what they consider to be substandard performance of medical equipment. An associated problem with records, on the other hand, was mentioned in fewer closed claims (4.7%). A problem with records encompasses situations involving, for example, illegible or missing records.

**Figure 1. Percent of paid family medicine claims and degree of injury histogram of degree of injury, measured by the severity index of the National Association of Insurance Commissioners, and the percentage of closed family medicine claims that resulted in payment to the plaintiff in the Physician Insurers Association of America Data Sharing Project registry for the period 1985 to 2008.**





**Table 4. Ten Most Prevalent Associated Medical Issues in Family Medicine Closed Claims 1985–2008<sup>6</sup> (n = 18,031)**

Associated Medical Issue	Closed Claims (n)	Paid Claims (n)	Paid to Closed (%)	Average Indemnity (\$)
Equipment malfunction	1,189	82	6.9	162,685
Problem with records	846	566	66.9	184,511
Problem with history or examination	716	311	43.4	339,189
Communications between providers	507	223	44.0	253,078
X-ray error	390	153	39.2	159,938
Improper conduct by physician	330	107	32.4	79,372
Premature discharge	298	153	51.3	208,556
Lack of adequate facilities	248	106	42.7	237,646
Comorbid conditions	202	39	19.3	315,317
Unnecessary treatment	132	40	30.3	167,810

Nonetheless, when problems with records are involved with allegations of physician negligence, two thirds of claims (66.9%) were paid. Other associated issues often linked with negligent care in closed claims include problems with the history or examination (4%) and issues concerning communication between providers (2.8%). Paid claims involving a problem with the history or examination also yielded the highest average indemnity (\$339,189). Family medicine closed claims alleging radiologic error (2.2%) and premature discharge (1.7%) were reported less frequently. An allegation of unnecessary treatment was contained in less than 1% of closed claims (0.7%), whereas the lowest average indemnity (\$79,372) was found in paid claims involving allegations of improper conduct by the physician. This modest payment figure for improper conduct may represent the fact that compensation for emotional injuries is frequently lower than that for physical injuries.

Associated legal issues are also detailed in closed claims alleging physician negligence. Table 5 depicts

many of these issues. Issues concerning patient consent were expressed more frequently (9.6%) than other legal issues. Vicarious liability, on the other hand, involves an allegation that the negligence of an employed provider also subjects an employer, such as a hospital or large medical group, to legal liability. This vicarious liability issue arose in 4.9% of closed claims. Other legal issues in the closed claims database, such as assault and battery and false imprisonment, were each mentioned in less than 1% of claims.

#### ***Claims Involving Associated Personnel***

In addition to the family physician who is listed in the PIAA database as the target of negligence allegations, other personnel, including nurses, technicians, and other physicians, are sometimes also mentioned. In the group of closed claims involving associated professionals (Table 6), other physicians were named most frequently (38.1%). Nurses were mentioned less often (6.3%), as were physicians' assistants (2.3%) and technicians (1.4%). Along with family physicians,

**Table 5. Ten Most Prevalent Associated Legal Issues in Family Medicine Closed Claims 1985–2008<sup>6</sup> (n = 18,031)**

Associated Legal Issue	Closed Claims (n)	Paid Claims (n)	Paid to Closed (%)	Average Indemnity (\$)
Informed consent	1,728	354	20.5	106,326
Vicarious liability	877	252	28.7	136,611
Punitive damages	492	118	24.0	174,606
Abandonment	213	70	32.9	144,571
Failure to conform with rules, regulations	152	76	50.0	206,719
Third party claimant	87	14	16.1	194,116
Breach of Confidentiality	134	16	11.9	42,378
Assault and battery	112	42	37.5	92,197
<i>Res ipsa loquitur</i>	65	26	40.0	211,510
False imprisonment	21	7	33.3	22,357

**Table 6. Ten Most Prevalent Associated Professional Personnel 1985–2008<sup>6</sup> (n = 20,518)**

Associated Professional Personnel	Closed Claims (n)	Paid Claims (n)	Paid to Closed (%)	Average Indemnity (\$)
Other physician	7,812	2,327	29.8	178,262
Consultant	1,654	590	35.7	198,607
Nurse	1,300	535	41.2	155,228
Emergency room physician	1,061	434	40.9	167,115
Radiologist	1,056	408	38.6	171,686
Manufacturer of drug or equipment	649	1	0.2	1,000,000
Physician assistant	464	165	35.6	165,569
Other hospital personnel	459	189	41.2	114,968
Resident or intern	440	207	47.0	205,967
Technician	279	108	38.7	119,747

manufacturers of drugs or equipment were named in 3.2% of closed claims, but less than 1% of these claims alleging drug or equipment problems resulted in payment.

#### ***Most Prevalent Patient Conditions in Family Medicine Closed Claims***

Certain underlying patient conditions are often linked with allegations of negligence by the family physician. Considering the primary care patient population that is served, it is perhaps not surprising that obesity and diabetes are the 2 most frequently reported patient conditions linked to these claims. The actual percentage of paid claims in the case of obesity and diabetes, however, is relatively low (8% and 21%, respectively). Back pain and

appendicitis are associated conditions that are mentioned less frequently in patient claims. Not surprisingly, negligence claims associated with a patient complaint of chest pain represented the highest average indemnity in this category (\$281,200).

#### ***Most Prevalent Procedures in Family Medicine Closed Claims***

Perhaps the most frequent daily activity for a family physician is the diagnostic interview and evaluation of a patient. It is not surprising, then, that when closed claims are grouped according to the 10 most frequently named procedures, most claims (41%) were associated with the performance of a diagnostic interview and patient evaluation (Table 7). More than \$438.1 million of the \$1.1 billion of paid

**Table 7. Closed Claims by Ten Most Prevalent Procedures Performed 1985–2008<sup>6</sup>**

Procedure Performed	Closed Claims (n)	Paid Claims (n)	Paid to Closed (%)	Total Indemnity (\$)	Average Indemnity (\$)
Diagnostic interview, evaluation, or consultation	8,307	2,480	29.9	438,144,458	176,671
Prescription of medication	5,159	1,605	31.1	214,309,905	133,526
General physical examination	2,367	720	30.4	156,808,468	217,790
No care rendered	1,153	133	11.5	14,273,164	107,317
Miscellaneous manual examinations and nonoperative procedures	859	332	38.7	67,232,400	202,507
Injections and vaccinations	731	329	45.0	35,274,714	107,218
Operative procedures on the skin, excluding skin grafts	572	236	41.3	16,197,136	68,632
Diagnostic radiologic procedures, excluding CAT scan and contrast material	413	143	34.6	16,320,721	114,131
Diagnostic procedures involving cardiac and circulatory functions	365	174	47.7	49,747,032	285,902
Manually assisted deliveries	342	153	44.7	47,601,072	311,118
Totals	20,268	6,305	31.1	1,055,909,070	167,472

CAT, computed axial tomography.

claims in family medicine involved this activity. Prescription of medication was the procedure linked to 25.5% of closed claims in this cohort. The performance of injections and vaccinations, on the other hand, was linked to only 3.6% of claims. Thus, if any one area of family medicine is selected for remedial quality assurance efforts, the data regarding frequency of claims argue that the patient interview and evaluation should first be targeted.

Manually assisted deliveries (non-Cesarean) were linked to only 1.7% of closed claims. Other related statistics in Table 7 reflect the high-risk nature of delivering obstetric care in family medicine. A relatively high percentage (44.7%) of these obstetrical closed claims resulted in payment, and the performance of manually assisted deliveries was also the procedural category with the highest average indemnity (\$311,118).

## Discussion

### *Limitations of Registry Data*

It is important to understand the nature of the data that populates the PIAA DSP registry. The information in this resource is voluntarily provided by a subgroup of the 60 domestic MPL carriers who are members of the PIAA. The data contributors currently number 22 PIAA member companies, but this number and the percentage of contributing member companies have varied during the existence of the DSP. Contributing PIAA members are given guidelines and definitions to ensure, to the greatest extent possible, that there is consistency and uniformity in the data collection, but invariably in a registry format there will be uncontrolled factors in the collection and reporting of the data. A second major limitation of the PIAA DSP registry data are the absence of exposure data. PIAA member companies, for example, do not report the number of family physicians whom they insure during a given year, so it is not possible to calculate incidence data, nor is it possible to accurately link registry data with external data sources in ways that would allow meaningful calculation of statistical relationships. Chiefly because of these limitations, the utility of registry data are to obtain a snapshot of the details of a subject and, using that window in time, to develop hypotheses that may be further tested, preferably in prospective, randomized trials. Unfortunately, no such trials are likely to be initiated to study MPL, so the best available opportu-

nity to gain insight into this subject is, and probably will continue to be, the close study of registry data.

Other databases that provide information on large numbers of MPL claims are limited in number and scope. In addition to the PIAA DSP registry, 2 other potential sources of data for the study of MPL claims exist. The first is the National Practitioner Data Bank (NPDB), established by the Health Care Quality Improvement Act of 1986 and administered by the United States Department of Health and Human Services.<sup>8</sup> The second potential source is a commercial company, Jury Verdict Research (JVR), which maintains a database of more than 245,000 verdicts and settlements for personal injury claims of all kinds.<sup>9</sup> JVR was established in 1961 with the intent of providing information concerning the results of past personal injury claims for the benefit of both plaintiff and defense attorneys and liability insurance companies.

Both of these sources have inherent limitations that decrease their utility when studying MPL. The NPDB contains data on the amounts of settlements and verdicts for virtually all US MPL claims that have occurred since its inception. The public-use files from the NPDB do not have any specific patient diagnoses or practitioner medical specialty information. Thus, they can be of no practical use when studying family medicine MPL claims. The JVR database does not focus on medical claims, but it does report on settlements and jury awards; thus, it is heavily biased toward cases that have had an outcome favorable to the plaintiff. The PIAA DSP registry, though constrained by the limitations noted above, seems to be the best source of information with which to understand the current state of family medicine MPL claims. With these caveats in mind, insights pertaining to characteristics of MPL claims may be derived from the PIAA DSP registry data, and some preliminary hypotheses may be proposed. For example, one quarter of diagnostic error allegations involved a diagnosis of acute myocardial infarction. In addition, cases involving diagnostic error in breast cancer cases accounted for another one fifth of these same diagnostic error allegations. This high frequency suggests that risk management strategies should focus on maintaining an especially high degree of suspicion for the existence of these disease entities.



## Conclusion

Physicians have a clear incentive to avoid MPL by minimizing patient injury in general and by eliminating negligent patient injury. Providing proper informed consent and carefully adhering to appropriateness criteria and published practice guidelines theoretically will result in the significant reduction or elimination of MPL. The MPL system, however, is not perfect, and it is not likely that lawsuits will ever be eradicated even with universal physician adherence to practice guidelines and appropriateness criteria. The patient's decision to file a MPL claim, after all, stems from a variety of reasons, such as unmet expectations of a favorable clinical result or personal economic need, even when they do not believe that medical negligence occurred.<sup>10</sup> At other times, the decision to litigate might stem from emotional reasons such as anger about a poor clinical outcome or the patient's perception of a lack of caring on the part of the family physician.<sup>11</sup> Ironically, some researchers have even assembled data showing that family physicians who possess greater knowledge are actually sued more frequently.<sup>12</sup>

All family physicians, therefore, will be well served to learn skills of risk management and risk reduction. Excellent documentation can be one way of reducing the risk of MPL claims.<sup>13</sup> Improved communication with patients, nurses, and other physicians involved in patient care can be a second important strategy.<sup>14</sup> Better communication can readily lead to more complete understanding of the clinical situation and thereby facilitate error avoidance and appropriate medical decision making. Another important risk management tool is the study of the history of past claims to identify high-risk practices. An increased awareness and understanding of clinical situations that frequently spawn claims can allow for remedial action that reduces the probability of future claims. Limited empiric evidence suggests that this is a successful technique; however, this approach represents a prudent, logical, and risk-free course of action.

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