EDUCATION NEWS

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The National Practitioner Data Bank and CRNA Anesthesia-Related Malpractice Payments

A retrospective analysis of the National Practitioner Data Bank (NPDB) Public Use Data File was performed on anesthesia-related malpractice payments from 2004 to 2010. Anesthesia-related allegations, malpractice act or omission codes, severity of injury, and cost were assessed. The NPDB captured 369 anesthesia-related malpractice payments associated with Certified Registered Nurse Anesthetists (CRNAs), of which the 3 most frequently coded injury classifications for severity were death, minor permanent injury, and grave permanent injury. In general, the most costly payments based on median cost were major permanent injury, followed by grave permanent injury and death. When reviewing specific allegations of malpractice act or omission among the total number of CRNA malpractice payments, the most common allegations were improper performance, failure to monitor, and problem with intubation. Patients between the ages of 40 and 59 years, inpatients, and female gender were independently more prevalent among CRNA malpractice claims leading to payment than other patient demographics.

Keywords: Anesthesia malpractice, malpractice allegation, National Practitioner Data Bank, nurse anesthetists, severity of injury.

The National Practitioner Data Bank (NPDB) is a nationwide healthcare flagging system that seeks to improve the quality of healthcare and protect the public. It does so by monitoring medical malpractice and adverse actions and by warehousing information about medical malpractice payments, adverse licensing and clinical privileging actions related to competence and conduct, professional society membership actions, Drug Enforcement Administration (DEA) actions, and Medicare/Medicaid exclusions.[1] Specifically, state licensing boards, hospitals, and healthcare entities report and inquire about the qualifications and competency of healthcare practitioners seeking clinical privileges. The purpose of this article is to review the frequency of Certified Registered Nurse Anesthetist (CRNA)–associated anesthesia malpractice payments in data collected in the NPDB.

Nurse anesthetists are not exempt from medical malpractice reporting, and any malpractice payment made on behalf of a provider by a medical malpractice payer must be electronically reported to the NPDB as a medical malpractice payment report (MMPR).[2] The NPDB does not collect information on all malpractice claims, only malpractice claims that resulted in a payment. Therefore, at the national level, the NPDB is the largest and most complete repository for all claims that lead to payment for all providers. The NPDB does not require a submission of an MMPR when a payment is made on behalf of a healthcare corporation or business entity (eg, hospital, group practice, and clinic). In addition, a provider who pays a claim out of pocket with personal funds is exempt from reporting. Within 30 days of the date that the malpractice payment was made, a report must be submitted to the NPDB. As a mandatory reporting system and database, the NPDB maintains a malpractice payment record of individual providers and provider demographics when a payment has been made on behalf of a provider.

Methods

A retrospective analysis of the NPDB Public Use Data File[3] was performed on anesthesia-related malpractice payments from January 31, 2004, to December 31, 2010. Publically available information in the NPDB include, but are not limited to, provider type, patient demographics, malpractice allegations, injury outcomes,

and payment amount. Medical malpractice payments are based on NPDB-defined nature of the allegation (eg, anesthesia-related malpractice).[4] Provider type is identified by using the NPDB occupational field code of licensure. In addition, there are currently 91 specific NPDB codes that may be used to further describe the malpractice allegation, referred to as "specific allegation for malpractice act or omission" (eg, failure to monitor, improper intubation, failure to test equipment). Information on malpractice injury outcomes are classified using the National Association of Insurance Commissioners codes for severity of injury.[5]

This article examines the frequency of specific allegation for malpractice act or omission, severity of injury, and patient demographics pertaining to CRNA anesthesia-related malpractice payments. Dollar amounts reported for anesthesia payments in the NPDB were adjusted to reflect the 2010 US dollar inflation rate as identified by the Bureau of Labor Statistics.[6] In addition, the average with standard deviation (SD) and interquartile range for CRNA anesthesia payments was performed using statistical software (SAS version 9.2, SAS Institute Inc).

Results

During the data collection period, there were 369 CRNA anesthesia-related malpractice payments from a total of 2,664 anesthesia-related malpractice payments identified. Of the total payments reported, most were reported by malpractice insurance companies (n = 2,302; 86.4%), and 362 were made by other reporting entities such as state governments, hospitals, group medical practice, or managed care organizations. From 2004 through 2010, the number of CRNA anesthesia-related malpractice payments per year remained relatively constant over this timeframe (Figure 1).

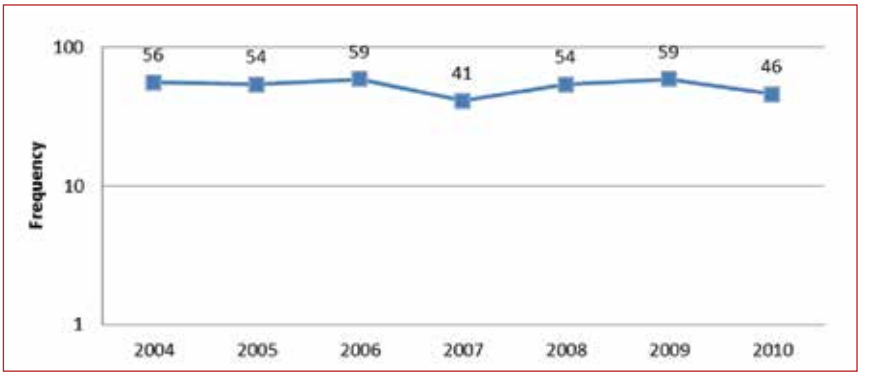

Figure 1. CRNA Anesthesia Malpractice Payments by Year
Abbreviation: CRNA, Certified Registered Nurse Anesthetist.

Code	Severity of injury	NAIC interpretation[5]	No. (%)
01	Emotional Injury Only	Fright, no physical injury	13 (3.5)
02	Insignificant Temporary Injury	Lacerations, contusions, minor scars or rash; no delay in recovery	12 (3.3)
03	Minor Temporary Injury	Infection, fracture set improperly, fall in hospital; recovery is delayed but complete	38 (10.3)
04	Major Temporary Injury	Burns, surgical material left, drug side effect or brain injury; recovery is delayed but complete	15 (4.1)
05	Minor Permanent Injury	Loss of fingers, loss or damage to minor organs; injury is not disabling	50 (13.6)
06	Significant Permanent Injury	Deafness, loss of limb, loss of eye, loss of 1 kidney or lung	32 (8.7)
07	Major Permanent Injury	Paraplegia, blindness, loss of 2 limbs, or brain damage	40 (10.9)
08	Grave Permanent Injury	Quadriplegia, severe brain damage, lifelong care, or fatal prognosis	41 (11.1)
09	Death	—	127 (34.4)
	Cannot Be Determined	—	1 (0.3)

Table 1. Malpractice Severity of Injury Classification for CRNA Anesthesia Malpractice Payments
Abbreviations: CRNA, Certified Registered Nurse Anesthetist; NAIC, National Association of Insurance Commissioners.

As indicated in Table 1, of the 369 CRNA anesthesia-related malpractice payments, the most frequently coded severity of injury category was death (n = 127, 34%), followed by minor permanent injury (n = 50, 14%), grave permanent injury (n = 41, 11%), and major permanent injury (n = 40, 11%). Regarding the payment of CRNA malpractice claims, there is noted variation as demonstrated by the interquartile range among payments in the severity of injury classification categories (Figure 2). The most costly payments based on median cost are major permanent injury, grave permanent injury, and death, respectively; however, the costliest average CRNA payment was $947,804.90 (SD = $1,731,125.60) for grave per-

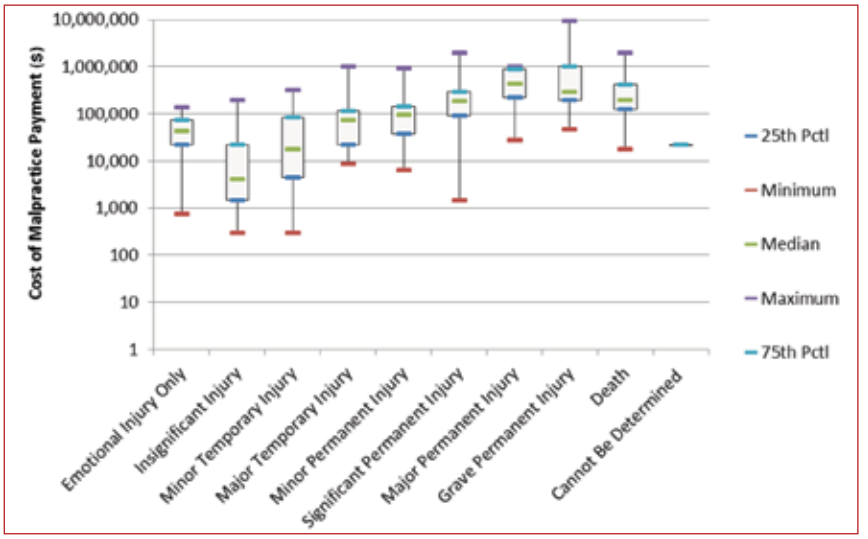

Figure 2. CRNA Anesthesia Malpractice Payment Amount by Severity of Injury
Abbreviations: CRNA, Certified Registered Nurse Anesthetist; Pctl, percentile.

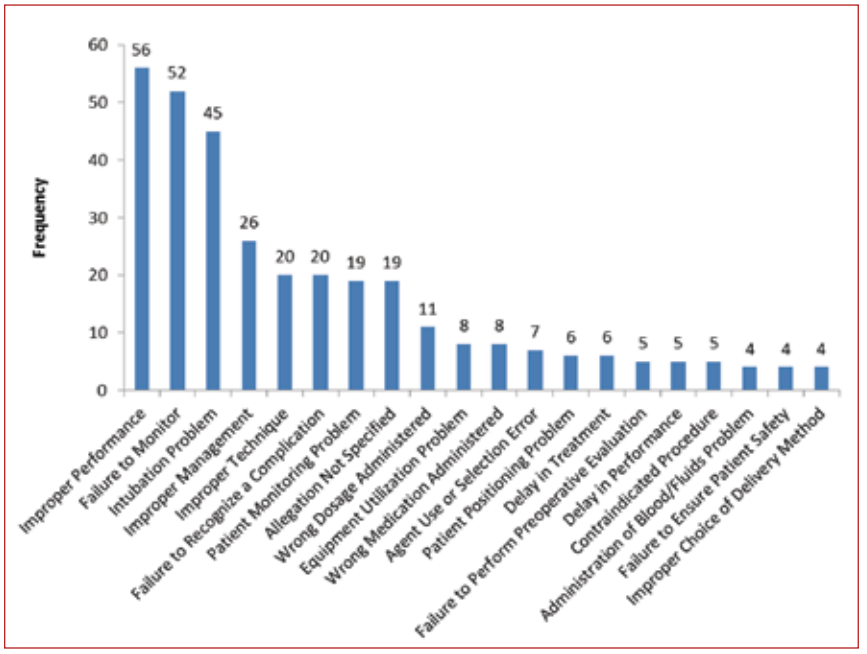

Figure 3. Twenty Most Cited CRNA-Specific Malpractice Allegations for All Anesthesia Malpractice Payments
Abbreviation: CRNA, Certified Registered Nurse Anesthetist

manent injury, with a maximum payment of $9,550,000. The least costly CRNA average malpractice payment was $33,816.70 (SD = $65,103.20) for insignificant injury, with a minimum payment of $300.

Of the 91 NPDB's specific allegations for malpractice act or omission, CRNAs were identified as having committed 43 specific allegations (47%). Figure 3 illustrates the 3 most frequently found CRNA anesthesia-related specific allegations among the 369 payments. They were improper performance (n = 56, 15%), failure to monitor (n = 52, 14%), and problem with intubation (n = 45, 12%). Further investigation demonstrated that the rate of committing a specific allegation might differ depending on the severity of injury (Table 2). For example, failure to monitor was more frequently found among injuries that led to death and grave or major permanent injury. On the other hand, improper performance is more frequently found among minor and significant permanent injuries.

In addition to reviewing anesthesia-specific allegations and severity of injury, the NPDB also provides basic patient demographic information such as patient gender, setting, and age. Figure 4 illustrates the data associated with patient demographics in relation to CRNA malpractice payment. In particular, female gender (n = 224, 61%), inpatient setting (n = 263, 71%), and age between 40 and 59 years (n = 136, 37%) were independently more prevalent among CRNA malpractice payments than other patient demographics.

Discussion

All providers, including CRNAs, may be reported or queried by eligible reporting or querying entities for malpractice claims that lead to a settlement or judgment resulting in payment. In the reporting process, practitioners are not involved in the submission of an MMPR. It is important to note that the NPDB does not render a complete representation of adverse patient events associated with anesthesia, nor does it necessarily reflect the totality of CRNA malpractice claims. Therefore, one should use caution when attempting to draw conclusions regarding malpractice risk. On the other hand, the NPDB malpractice electronic repository captures all payments from all practice locations on all providers reported. Therefore, the NPDB represents the most comprehensive data warehouse for malpractice claims that lead to payment.

This analysis describes the rate of malpractice payment occurrence only among CRNAs as captured in the NPDB.

From 2004 to 2010, the NPDB captured 369 CRNA anesthesia-

Severity of injury (No.)	Specific allegation	No. (%)
Emotional Injury (n = 13)		
	Agent use or selection	2 (15.4)
	Improper management	2 (15.4)
	Improper performance	2 (15.4)
Insignificant Injury (n = 12)		
	Improper performance	4 (33.3)
	Intubation problem	4 (33.3)
	Equipment utilization problem	1 (8.3)
Minor Temporary Injury (n = 38)		
	Intubation problem	12 (31.6)
	Improper performance	9 (23.7)
	Failure to monitor	3 (7.9)
Major Temporary Injury (n = 15)		
	Improper performance	3 (20.0)
	Improper technique	3 (20.0)
	Failure to recognize complication	2 (13.3)
Minor Permanent Injury (n = 50)		
	Improper performance	11 (22.0)
	Allegation not specified	9 (18.0)
	Intubation problem	5 (10.0)
Major Permanent Injury (n = 32)		
	Failure to monitor	7 (17.5)
	Improper performance	7 (17.5)
	Wrong dosage administered	4 (10.0)
Significant Permanent Injury (n = 40)		
	Improper performance	9 (28.1)
	Improper management	5 (15.6)
	Failure to monitor	4 (12.5)
Grave Permanent Injury (n = 41)		
	Failure to monitor	9 (22.0)
	Patient monitoring problem	6 (14.6)
	Improper performance	5 (12.2)
Death (n = 127)		
	Failure to monitor	25 (19.7)
	Failure to recognize complication	14 (11.0)
	Intubation problem	14 (11.0)

Table 2. Top 3 CRNA-Specific Malpractice Allegations by Severity of Injury in Groups
Abbreviation: CRNA, Certified Registered Nurse Anesthetist.

related malpractice payment reports. In a similar 1998 retrospective analysis of the NPDB conducted by Jordan and Oshel,[7] 481 CRNAs were identified as having malpractice payment reports from September 1, 1990, to December 31, 1997. During the 1990-1997 data period, the most frequently reported specific malpractice allegations were anesthesia not otherwise coded, failure to monitor, improper intubation, and improper technique. Malpractice payment reports could have had more than one specific allegation attributed to it. In this current study, the most common allegations were improper performance, failure to monitor, and problems with intubation, yet the rate of occurrence depended on the severity of injury. The 3 most coded severity of injury classes were death, minor permanent injury (eg, infection, fracture set improperly, fall in hospital, or recovery delayed but complete) and grave permanent injury (eg, quadriplegia, severe brain damage, lifelong care, or fatal prognosis). Severity of injury classification was not performed in the previous study, and coding changes, in addition to the expansion of specific allegation codes, have also occurred since then.

This study showed that the most costly payments based on median cost for injury classes are major permanent injury (eg, burns, surgical material left, drug side effect or brain injury, and delayed but complete recovery), followed by grave permanent injury and death. Not surprising, the injuries that most likely affect quality of life resulted in greater malpractice payment. Overall, minor changes have taken place regarding the occurrence of specific allegations, and the total frequency of CRNA malpractice payment reports between the 2 study periods has declined.

According to Miller,[8] from 1990 to 2006 all nursing personnel (eg, registered nurses and advance practice registered nurses) represented only 9.2% of all reports. This may in part be due to the "corporate shield" of which individual practitioners are not reported if malpractice payments are made on behalf of a hospital or corporation.[9,10] According to the NPDB, "specialty when combined with other available data in the Public Use Data File would in some cases allow identification of individual practitioners".[3] It is not clear why the nursing workforce and other healthcare practitioners are identified by scope or specialty in the Public Data Use File, yet physicians are not identified by specialty. Therefore, researchers should use caution when attempting to draw provider type comparisons.

Bell and colleagues[10] suggest that in today's environment of adverse event disclosure, both provider *and* institution should take accountability when a systems error has been identified, thereby striking a balance between reporting individual accountability and institution systems errors. Furthermore, most

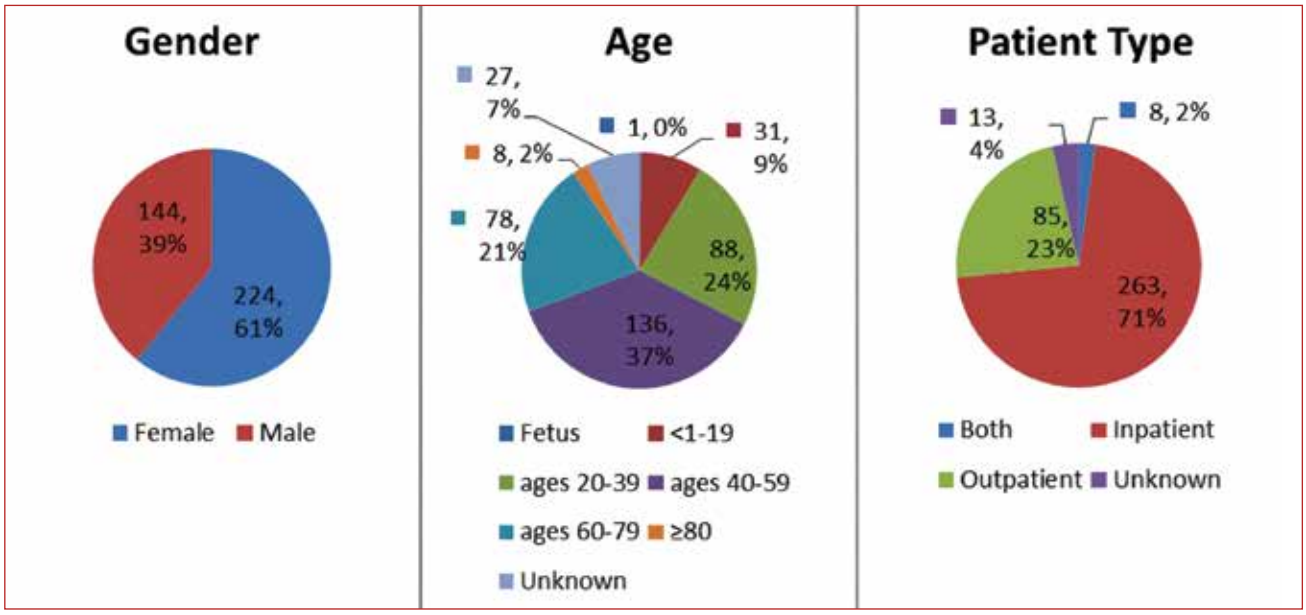

Figure 4. Patient Demographics and CRNA Anesthesia Malpractice Payments[a]
Abbreviation: CRNA, Certified Registered Nurse Anesthetist.
[a] Values are number and percentage. Patient age is in years.

errors do not occur as a solo catastrophic event, but rather are due to a breakdown in multiple processes such as interprofessional communication, system processes, and documentation. One should not assume provider incompetence or negligence just because a claim leads to payment; however, the NPDB does offer important malpractice payment information in conjunction with severity of injury and specific allegations of malpractice act or omission. The NPDB is one of several means in a researcher's toolkit that may be used to identify harm or potentially preventable actions associated with anesthesia care and the provider.

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