Investigating MPL Vulnerability for the Institutions that Employ and Insure NPs and PAs

By:
Jock Hoffman, Senior Editor, CRICO
Fangyu Wang, Data Analyst, CRICO

Introduction
Advanced practice clinicians (APC), particularly nurse practitioners (NP) and physician assistants (PA) are taking on an increasing portion of health care encounters in the United States. As their practice volume, scope, and autonomy expand, so too does their potential for facing allegations of malpractice. The degree of that exposure, and the nature of malpractice claims and lawsuits naming NPs and PAs, is a growing concern for organizations that are increasing their reliance on this level of health care provider to serve their patient populations. Our analysis indicates little justification for alarm, but does highlight specific opportunities that organizations may have to mitigate an increase in risk concurrent with an increase of NP and PA exposure.

Gradual population growth, the aging of the Baby Boomer generation, and expanded access to health insurance continues to stress U.S. health care resources. The availability of physicians to oversee those care encounters has been altered by a constellation of factors: health system consolidation, reduced compensation, increases in non-clinical duties, broader career options for individuals who excel in life sciences, and job burnout or dissatisfaction among physicians in their prime. As a result, a declining physician workforce is facing increasing patient demand. This has brought about a dramatic surge in hiring of NPs and PAs, and a steady expansion of their responsibilities.

Approximately 270,000 NPs and 110,000 PAs were practicing in United States as of 2016. Over the next decade, those numbers are expected to grow by more than 30%. In addition to more frequently being part of the patient care team, PAs, and especially NPs, have gained increasing autonomy. In almost all states, NPs now practice independently—with prescription privileges and, often, hospital admitting privileges. While PAs practice under physician supervision, their scope of responsibilities also continues to expand. Along with expanding their roles across a wide range of health care encounters, NPs and PAs are concurrently increasing their medical professional liability (MPL) exposure.

For many patients, their first appointment regarding a new health problem is with an NP or PA. And, for patients being followed after their initial treatment, those follow-up visits are often covered by non-MDs. Among all MPL cases, diagnostic errors are a significant area of concern. For MDs, NPs, and PAs, diagnostic failures often stem from missed opportunities to order testing or specialty referrals during the assessment of a patient’s symptoms/complaints or in follow up of an unresolved problem. The root of those missteps are generally related to breakdowns in clinical systems or in clinician communication.
Clear communication and shared decision making are essential to safe health care, however, miscommunication pervades medical malpractice cases in all settings for all specialties. Given the nature of interactions NPs and PAs have with both patients and other caregivers, breakdowns in communication represent their most significant vulnerability to adverse events and allegations of malpractice. Our analysis of MPL cases naming NPs and PAs was conducted with an eye toward these key vulnerabilities.

**Methodology**

**Controlled Risk Insurance Company (CRICO)** was established as a professional liability insurer for hospitals in the Harvard medical community, and now includes the CRICO Strategies Comparative Benchmarking System (CBS). This database contains nearly 400,000 malpractice claims drawn from more than 400 academic and community medical centers throughout the United States, and is estimated by CRICO to contain 30% of all U.S. malpractice claims. The CBS database exists to study and mitigate patient and provider risk using a standardized approach.

To see if the expanded liability exposure has triggered an increase in medical malpractice allegations against NPs and PAs, CRICO conducted an analysis of 110,000 MPL cases from across the U.S. The CBS database was queried for cases in which a NP or a PA was a named defendant: either alone, with another provider, or with the insured organization. Both cases opened and cases closed from January 1, 2008, to December 31, 2018, were analyzed.
Each CBS claim file consists of a detailed narrative of the case that includes relevant medical and surgical histories, a summary of the patient’s clinical course, and expert witness testimony. Each claim also contains discrete coded fields, entered by CRICO’s clinical specialists according to a proprietary taxonomy system. Coded fields include clinical location of the event, case type, defense costs, total indemnity, and the National Association of Insurance Commissioners (NAIC) outcome severity score. Another, and perhaps the most informative, coded field is the contributing factors thought to have exacerbated the error or event.

For all health care disciplines, being named in a medical malpractice case is extremely rare when measured against the total volume of health care encounters. Even when measured against their peers, fewer than 4 of 100 physicians is named (annually). Over the 11 years included in our study, 82,945 cases involved a MD; fewer than 1,400 involved a PA or NP. Extrapolated to the entire U.S., that equates to about 423 MPL cases per year naming an NP or PA. Combined with a closed without payment rate above 68%, the limited exposure for NPs and PAs through 2018 does not portend a dramatic MPL impact.

**Findings**

**Distribution of Cases with MDs, NPs, and PAs as MPL Defendants**

<table>
<thead>
<tr>
<th></th>
<th>Cases</th>
<th>Total Incurred*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>110,055</td>
<td>$17.8 Billion</td>
</tr>
<tr>
<td>MDs</td>
<td>82,945 (75%)</td>
<td>$10 Billion (57%)</td>
</tr>
<tr>
<td>NPs</td>
<td>495 (0.5%)</td>
<td>$39 Million (0.2%)</td>
</tr>
<tr>
<td>PAs</td>
<td>926 (0.8%)</td>
<td>$71 Million (0.4%)</td>
</tr>
</tbody>
</table>

Source: CBS

* Includes reserves on open cases and expenses and payments for closed cases

While the cases naming an NP or PA (often with co-defendants) represent a small portion of all MPL claims and suits, we do see an upward trend from 2008-2018 both for cases involving NPs and cases naming a PA. As measured by defendants in all CBS cases, NPs showed an upward frequency trend, while PAs were unchanged. Most of the time (72% of their cases), NPs and PAs involved in an MPL case are named along with a co-defendant. Physicians are named alone in 49% of cases.
NPs and PAs Percent of All Cases Over Time

MPL Cases in Which MDs and PAs (or NPs) are Co-defendants
NPs and PAs compared to MDs

<table>
<thead>
<tr>
<th></th>
<th>2008-2018</th>
<th>Claims Made</th>
<th>% Cases</th>
<th>% Total Incurred</th>
<th>% High-severity*</th>
<th>% Ambulatory Setting</th>
<th>% Diagnosis-related</th>
<th>Cases Closed with Payment 2008-2018 (% of Defendants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>110,055</td>
<td>100.00%</td>
<td>100.0%</td>
<td>39%</td>
<td>49%</td>
<td>21%</td>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>MDs</td>
<td>82,945</td>
<td>75.00%</td>
<td>57.00%</td>
<td>41%</td>
<td>54%</td>
<td>22%</td>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>PAs</td>
<td>926</td>
<td>0.84%</td>
<td>0.4%</td>
<td>49%</td>
<td>49%</td>
<td>32%</td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>NPs</td>
<td>495</td>
<td>0.45%</td>
<td>0.2%</td>
<td>59%</td>
<td>48%</td>
<td>35%</td>
<td></td>
<td>14%</td>
</tr>
</tbody>
</table>

*A NAIC score of 6–9 is defined as “high severity,” representing death or permanent major injury.

Nearly half of all MPL cases involve care in the (non-emergency) ambulatory setting; NPs and PAs have comparable exposure. Their primary vulnerability in ambulatory cases is diagnosis-related events leading to severe injury (or death). For NPs, 43% of their ambulatory setting cases are diagnosis related, and 47% of those involve high-severity injuries.

Specific to the Emergency Department (ED), which reflects one of the more prominent settings frequently employing PAs, a greater share (15%) of PA MPL cases stem from care in the ED than is seen for MDs (6%). Comparably, 10% of NP cases occur in the ED.

It is important to note that both NP and PA often involve high-severity injury events across all hospital settings. As shown in the chart above, 49% of PA cases and 59% of NP cases are high-severity injury events (73% of inpatient cases naming NPs are high severity).

The key takeaway is that, currently, NPs and PAs reflect an extremely small impact on overall MPL exposure: less than 2% of cases naming a clinician involve an NP or PA (and the vast majority of those close without a payment). Indicators that NP and PA cases often involve diagnostic errors merit further attention to opportunities for skill and systems improvements throughout the diagnostic process of care.

**Contributing Factors**

Access to the details of deeply-coded cases enables CRICO to discern key care-related factors associated with each MPL claim or lawsuit. Specifically, these are the actions (or inactions) that align with missteps, miscommunication, and missed opportunities associated with an adverse outcome, patient injury, and allegation of malpractice. At the detail level, contributing factors help pinpoint tactics for reducing the risk of a similar cascade of events.
For all three clinician groups (NPs, PAs, and MDs), **failure to appreciate and reconcile relevant signs, symptoms, or test results and delay in ordering a diagnostic test** are a top contributing factor.

For NPs, other top contributing factors include:
- A failure or delay in obtaining consult/referral
- Failure to establish differential diagnosis

For PAs, differential diagnoses and referral issues are also common, as well as:
- Supervision
- Premature discharge

For all clinicians, **miscommunication regarding the patient’s condition** is commonly cited.

<table>
<thead>
<tr>
<th>Top Contributing Factors for Cases Involving a Nurse Practitioner</th>
<th>Ambulatory</th>
<th>Inpatient</th>
<th>Emergency Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to order a diagnostic test</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Failure to appreciate and reconcile relevant signs, symptoms, or test results</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Failure to obtain a consult or referral</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Failure to establish differential diagnosis</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Miscommunication among providers regarding patient’s condition</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Failure to obtain a consult or referral</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top Contributing Factors for Cases Involving a Physician Assistant</th>
<th>Ambulatory</th>
<th>Inpatient</th>
<th>Emergency Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to appreciate and reconcile relevant signs, symptoms, or test results</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Failure to order a diagnostic test</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Supervision</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failure to establish differential diagnosis</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Technical performance, known complication</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Failure to obtain a consult or referral</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Selection/management of surgical/invasive procedures</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Miscommunication among providers regarding patient’s condition</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Premature discharge</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Examples of (Closed) Cases

Nurse Practitioner Cases

• 36-year-old female diagnosis of cervical cancer was delayed when her NP failed to order a Pap smear

• 52-year-old female with dehydration and malnutrition died due to diabetic ketoacidosis after the NP at her long-term care facility failed to order follow-up blood sugars

• 65-year-old female underwent an unnecessary nephrectomy following a misdiagnosis of renal carcinoma due to a misidentification of her imaging

• 23-year-old female, on methadone, suffered septic shock and tested positive for MRSA after the NP who saw her in the ED for a foot injury failed to recognize early signs of infection

• 28-year-old female suffered extensive bleeding after undergoing incision and drainage of a vaginal cyst performed by the NP, who did not seek a consult with the physician on site

• 11-month-old female, subsequently diagnosed with encephalopathy, suffered neurologic damage after the NP failed to order a timely neurology consult

Physician Assistant Cases

• 59-year-old male suffered extensive scarring when the PA failed to diagnosis scabies over 10-month period

• 28-year-old patient suffered cognitive issues and required additional surgery following an initial brain surgery for which the PA scrubbed in

• 47-year-old male suffered a cervical artery dissection, resulting in a stroke, due to the PA’s delay in ordering a stat MRI

• 43-year-old male was diagnosed with right leg hematoma following an anterior cervical discectomy/fusion; attending not notified by the PA of the patient’s complaint and no imaging was ordered

• 37-year-old male presenting with a finger laceration required extensive hand surgery and suffered lingering functionality issues due to complications from the PA’s attempt to close the wound with sutures—with no attending involvement and no hand specialist called

• 51-year-old male patient treated by a PA for a perirectal abscess developed necrotizing fasciitis and septic shock after being discharged one day post procedure with a high WBC
Mitigating Risk for PAS, NPS, and their Patients

In general, NPs and PAs are exposed to patient safety vulnerabilities similar to their physician colleagues. Extending existing safety improvement programs to all members of patient care teams promotes a comprehensive understanding of risks, and greater likelihood that safety initiatives will be adopted and sustained.

More specific to clinicians subject to collaborative care agreements or accountable relationships, organizations should develop and adhere to clear criteria for recruitment, training, auditing, and professional education. Organizations employing or insuring NPs and PAs can begin to identify opportunities to reduce exposure to situations that put patients—or other caregivers—at unnecessary risk, by considering the following questions.

- Is there clarity on scope of practice?
- Are accountable relationships based on unmodified state regulations, custom designed agreements, universal across all departments, or haphazard?
- Are there clear criteria for regular check-ins, escalation of care to a physician (e.g., patient factors or conditions that trigger MD involvement)?
- Are MDs, NPs, and PAs educated about their malpractice liability, in particular regarding APC’s autonomous versus shared care?
- Do physicians within the organization believe NPs and PAs make them more vulnerable to malpractice allegations?
- Is the threshold for non-MD involvement in patient care extended indiscreetly?
- Are patients informed about the roles of NPs and PAs and their rights as patients?
- Is there team communication training in place?

Conclusion

The growing ranks of NPs and PAs, practicing with ever-increasing autonomy, raises understandable concern that they represent an uncertain vulnerability for the institutions that employ and insure them. While traditional attitudes about non-physician caregivers—and jurisdictional variations—may be suppressing the inclination to pursue NPs and PAs with malpractice allegations, the current MPL landscape does not point to any dramatic increased risk when compared to physicians in comparable realms of care. When NPs or PAs have been named in an MPL case, the factors that contributed to an adverse event or triggered the pursuit of compensation align with factors in cases naming MDs. Thus, many of the remedies developed to help physicians reduce the risk of patient harm can benefit NPs, PAs, and other members of the expanding team of health care providers.

Acknowledgments

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References

1. AANP National Nurse Practitioner Database, 2019


4. Kaiser Family Foundation State Health Facts: Nurse Practitioner Scope of Practice Laws

5. Kaiser Family Foundation State Health Facts: Physician Assistant Scope of Practice Laws


Recommended Citation


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