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TECHNICAL REPORT

Is Better Patient Safety Associated with Less Malpractice Activity?

Evidence from California

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Summary

In principle, improvements in health care quality, and in safety outcomes and practices in U.S. facilities, ought to have a positive impact on the volume of malpractice claims against physicians and institutions. Malpractice claims are supposed to spin out of legitimate injuries to patients, so reducing the occurrence of those injuries ought to have a corresponding effect on the volume of litigation. In practice, however, this association has not previously been demonstrated.

Despite its putative status, the link between safety outcomes and malpractice claims in U.S. hospitals and facilities is nevertheless potentially very important to policy. Such a link suggests that providers could improve their own malpractice risk by making health care safer; that the interests of patients and providers are potentially well aligned when risk is addressed in this way; and that policymakers might enact a new set of tools for reducing malpractice risk, focused on facilitating new patient safety interventions, quality-improvement activities, root-cause analysis efforts, and the like.

This report endeavors to test the hypothesis that the occurrence of adverse safety events is predictive of subsequent malpractice activity, and, by extension, that improved safety performance is associated with reduced malpractice claiming. Focusing on California, we examine a combination of malpractice and safety outcomes data from 2001 through 2005. Our results show a strong correlation between safety outcomes and the volume of malpractice claiming within California's counties.

Data and Approach

To assess the occurrence of clinical events with possible safety implications, we used the Healthcare Cost and Utilization Project (HCUP) state inpatient database for California, a comprehensive hospital encounter dataset, and we applied a version of the Patient Safety Indicators (PSIs) to that dataset. These indicators, which were developed by the Agency for Healthcare Research and Quality, capture 20 distinct classes of in-hospital events and complications with potential safety implications. These types of events range from obstetrical events to post-surgical events to nosocomial (in-hospital) infections. Statewide, we identified more than 365,000 PSI events during the study period, with a slight downward trend in frequency for the entire state over the five years. When analyzed by county and from year to year, however, the results showed considerable county-level variation over time.

To assess malpractice claiming activity, we constructed a database of malpractice claims from four of the largest physician medical liability carriers in California (Norcal, The Doctors

Company, SCPIE, and the Cooperative of American Physicians), which account for substantially more than 50 percent of the market of physicians who are not self-insured in the state. We collected approximately 27,000 claims based on alleged events that occurred from 2001 through 2005. As with our PSI measure, we found a modest, statewide decline in malpractice claiming over that time period, but with considerable year-to-year variation across counties within the general trend.

Our analysis involved building a series of regression models to examine the relationship between the annual frequency of adverse events and malpractice claims within California's counties, while controlling for stable demographic differences across counties.

Findings

Our results showed a highly significant correlation between the frequency of adverse events and malpractice claims: On average, a county that shows a decrease of *10 adverse events* in a given year would also see a decrease of *3.7 malpractice claims*. Likewise, a county that shows an increase of 10 adverse events in a given year would also see, on average, an increase of 3.7 malpractice claims. According to the statistical analysis, nearly three-fourths of the within-county variation in annual malpractice claims could be accounted for by the changes in patient safety outcomes.

We also found that the correlation held true when we conducted similar analyses for medical specialties—specifically, surgeons, nonsurgical physicians, and obstetrician/gynecologists (OB-GYNs). Nearly two-thirds of the variation in malpractice claiming against surgeons and nonsurgeons can be explained by changes in safety. The association is weaker for OB-GYNs, but still significant.

Policy Implications

From a policy perspective, the idea of a direct link between safety outcomes and the malpractice claims that spin out of them has several major implications. First is the premise that new safety interventions potentially can reduce the volume of malpractice litigation—a desirable result to seek out, even beyond the immediate impact of medical injuries avoided. Stated another way, improvements in safety performance have the potential to benefit both patients and providers and to align their interests while reducing litigation. A second implication is that the relationship between safety and malpractice is complex and not fully described by the simple notion of deterring acts of negligence through civil liability. Third is the observation that malpractice laws that place providers at risk for engaging in peer review risk-management activities, root-cause analysis, and the like, could have the perverse effect of detracting from broader patient safety efforts. In turn, that could increase the frequency of adverse events and preventable injuries and, indirectly, increase the volume of malpractice litigation itself.

These kinds of relationships and concerns represent an entirely different set of levers for policymakers to consider in regard to malpractice, quite apart from more conventional statutory tort interventions, such as caps on damages in tort claims. The recently announced federal initiative for a new portfolio of Medical Liability Reform and Patient Safety Demonstration projects is aimed at investigating, and expanding on, exactly these sorts of policy levers (White House, 2009a).