

Postpartum Malpractice Claims: Understanding Preventable Harms and Socioeconomic Factors

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“At [17.4 deaths per 100,000 live births](#), our nation suffers from a higher rate of maternal mortality than any other developed country. The gap is immense; our rate of maternal death is more than twice as high as it is in nations of comparable wealth. What is even more disturbing is that, according to the Centers for Disease Control and Prevention, nearly 60% of these deaths are preventable.” These alarming statistics, shared by Dr. Susan Bailey, a Past President of the American Medical Association, signify the need for better understanding of the causes and prevention of maternal morbidity and mortality.

BACKGROUND

Maternal morbidity and mortality have been a concern in the United States for decades. The Centers for Disease Control and Prevention (CDC) noted an increase in maternal mortality in 2018, although a change in data collection and reporting may have impacted this finding. The CDC has found that the [top causes for pregnancy-related deaths](#) have been cardiovascular conditions (15.5 percent), infections/sepsis (12.2 percent), cardiomyopathy (11.5 percent), hemorrhage (10.7 percent), and pulmonary emboli or other emboli (9.6 percent).

Health disparities have been shown to exist in maternal mortality. The [maternal mortality rate for women aged 40 and over](#) (81.9 per 100,000 live births) is nearly 8 times that for women under age 25 (10.6 per 100,000 live births). [Black women had the highest mortality ratio](#) of 41.7 deaths per 100,000 live births, compared to 13.4 deaths per 100,000 live births for White women.

Severe maternal morbidity (SMM) includes [unexpected outcomes of labor and delivery](#) that result in [significant short-term or long-term consequences](#) to a woman’s health. The CDC has a list of 21 indicators, using ICD-9 and ICD-10 codes, to [identify delivery hospitalizations with SMM](#). The largest group with SMM has been those receiving blood transfusions.

Some of the [short-term SMM risks](#) include an increased risk of posttraumatic stress disorder during the six to eight weeks post-delivery, an increased likelihood of an emergency department visit

within 90 days post-delivery, and an increased risk of readmission to the hospital for those with pregnancy hypertensive disorder.

SMM also includes [long-term health concerns](#). Women who developed gestational diabetes have an increased risk of developing glucose metabolism disease 10 to 14 years postpartum (52.2 percent compared to 20.1 percent for those women without gestational diabetes). Women who had early-onset hypertension (<34 weeks) have an increased fourfold risk of developing hypertension. Those women with preeclampsia have a fourfold increase in heart failure, and preeclampsia also doubles the risk for coronary heart disease.

SMM also reveals [health disparities](#). The occurrence of SMM was 66 percent higher in Black women, 48 percent higher in American Indian/Alaska Native women, 22 percent higher for Hispanic women, and 17 percent higher for Asian/Pacific Islander women, compared to their White counterparts. Higher incidence of SMM occurs among those women living in maternity “deserts,” better defined as counties that lack hospitals with OB or midwife coverage. [Women living in rural areas](#) had a 9 percent higher rate of SMM than those in urban areas.

Maternal injuries involve high severity in both patient impact and monetary impact. With its mission to advance, protect, and reward the practice of good medicine, The Doctors Company analyzes malpractice claims to better appreciate what motivates patients and their families to pursue claims and to gain a broader overview of system failures and processes that result in patient harm. Malpractice claims provide a retrospective review of care, and it is hopeful that information gained from claims can be used to design risk mitigation strategies to improve patient safety and reduce malpractice risk.

The purpose of this study was multifactorial, investigating postpartum claims and developing clinical recommendations to decrease the risks of postpartum morbidity and mortality. For the purposes of this study, the postpartum period encompassed the time from birth through 90 days post-discharge from the hospital.

The research questions guiding the study were:

1. What preventable factors were present in postpartum medical malpractice claims that were based in incidents that occurred during the five-year period of 2015 to 2020?
2. What were the indicators of SMM seen in postpartum malpractice claims that were based in incidents that occurred during the five-year period of 2015 to 2020?
3. Were there socioeconomic factors in postpartum malpractice claims that were based in incidents that occurred during the five-year period of 2015 to 2020?

METHODOLOGY

Two investigators who are familiar with maternal medical malpractice claims performed the retrieval and review of closed, coded malpractice claims involving improper management of postpartum patients from the years 2015–2020 using date of loss. Data was extracted using the Candello Comprehensive Risk Intelligence Tool (CRIT) and Advanced Report Writer (ARW) tool.

A data collection tool was developed to capture variables of interest. Any information not included in the claim files was noted as unavailable. The two investigators initially met after an independent review of three medical malpractice claims and evaluated their findings and agreement regarding the data collection tool. Minor adjustments were made accordingly. The two investigators communicated throughout the study to assure consistency of coding. Information on variables was tallied on the data collection tool. At the completion of the coding, the two investigators met to review findings.

Analysis was descriptive for the characteristics of claims.

RESULTS

A total of 43 closed postpartum medical malpractice claims were reviewed and included. The average age of the claimant was 31.71 years old, with a diverse racial breakdown. The incidents underlying most claims occurred in the patient's hospital room (40 percent), and 65 percent of the claims involved a high-severity injury (including deaths). Most of the claims occurred prior to discharge (63 percent), with almost 78 percent of those women having a high-severity injury. Among the women who were discharged, 31 percent sustained a high-severity injury.

<i>Age</i>	<i>Average</i>	<i>Range</i>
	31.71 years old	21–42 years old
<i>Injury Severity</i>	<i>Number</i>	<i>Percent</i>
Low	1	2%
Medium (non-disabling)	14	32%
High (disabling)	8	19%
Death	20	47%
<i>Race</i>	<i>Number</i>	<i>Percent</i>
Asian	6	14%
Black	10	23%
Hispanic	9	21%
White	12	28%
Unknown	6	14%
<i>Insurance</i>	<i>Number</i>	<i>Percent</i>
Private	15	35%
Public	13	30%
None	2	5%
Unknown	13	30%
<i>Location</i>	<i>Number</i>	<i>Percent</i>
Patient Room	17	40%

L & D OR	9	21%
L & D	6	14%
PACU	4	9%
Patient Home	4	9%
Hospital OR	1	2%
ICU	1	2%
Office	1	2%

A major consideration in patient safety is to understand why the errors are occurring and what can be done to mitigate any patient harm. When evaluating claims, we can determine various factors. Every claim can have multiple aspects contributing to the error. The chart below indicates what percentage of the claims included each contributing factor. Clinical judgment was the contributing factor most frequently involved, with 87 percent of the claims revealing some contribution from this factor. Technical skills often appeared in reference to delivery issues, especially with cesarean sections. Technical skills as a factor includes known complications from procedures.

Contributing Factor	All
Clinical Judgment	87%
Selection/Management of Therapy	65%
Technical Skill	62%
Off Hours/Shift	46%
Communication Among Providers	43%
Staff Issues	22%
Insufficient Documentation	16%
Policies and Procedures Issues	14%

Preventable Factors in Postpartum Claims

One of the questions asked on the data collection sheet was: Was the event preventable? Through review of the claims, 51 percent of the claims (n=22) were determined to have been preventable, 37 percent (n=16) were undetermined, and 12 percent (n=5) were not preventable.

Ten claims involved the need to go to surgery earlier for a dilation and curettage (D&C) or a hysterectomy. Thirteen involved blood products, either delayed or not enough blood products given, while another 15 claims involved medications that were delayed or not given, or entailed another issue with a medication (see the chart below).

Medication Type (n=28)	Not Enough Given	Delayed	Not Given	Other
Antibiotics (n=1)		100%		
Antihypertensives (n=5)		20%	60%	20%
Blood Products (n=13)	62%	31%		7%
Code Medication (n=1)		100%		
Magnesium Sulfate (n=4)		75%		25%
Pitocin (n=1)			100%	
Tissue Plasminogen Activator (n=1)				100%
Tranexamic Acid (n=1)			100%	
Uterotonic medication (n=1)			100%	

Other factors included failure to admit to the hospital earlier, or one early discharge resulted in the patient developing posterior reversible encephalopathy syndrome (PRES). Poor communication due to hierarchical issues and poor rapport were also evident in several claims. Failure to follow established policies led to poor outcomes, with several claims involving postpartum hemorrhage protocols that were not followed. Two claims illustrated how the lack of knowledge regarding postpartum complications can lead to poor outcomes, including one case in which the nurses were unaware of the potential for an epidural hematoma. Several diagnostic tests were also noted as central to the potential prevention of the event, including cultures not ordered with obvious signs of infection leading to sepsis.

Dx Test (n=15)	Delayed	Not ordered	Misread
Blood Test (CBC, ABG, Glucose) (n=4)	100%		
CT (n=5)	100%		
Culture (n=3)		100%	
Ultrasound (n=3)	66%		33%

Indicators of Severe Maternal Morbidity (SMM)

Blood product transfusion was the top SMM indicator found in closed postpartum medical malpractice claims over the period studied. The dominant underlying cause was obstetric hemorrhage: transfusion + hysterectomy + DIC + hemorrhage + shock.

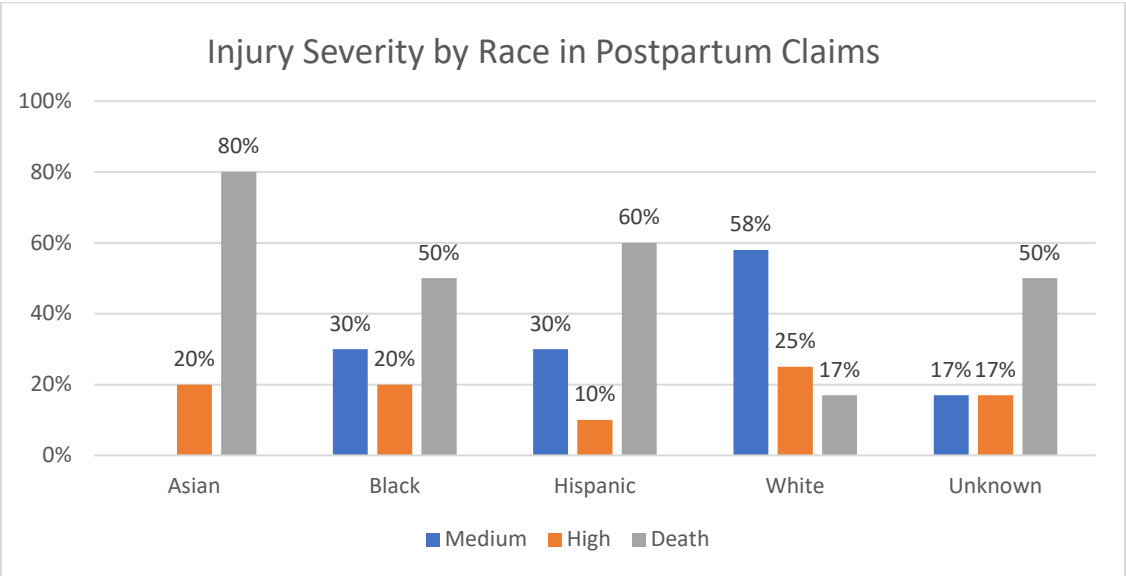
Indicator of SMM (n=43)	Number	Percent
Blood Product Transfusion	20	47%

Hysterectomy	11	26%
Cardiac Arrest/Ventricular Fibrillation	11	26%
Disseminated Intravascular Coagulation (DIC)	9	21%
Hemorrhage	7	16%
Sepsis	7	16%
Ventilation	6	14%
Shock	6	14%
Amniotic Fluid Embolism (AFM)	3	7%
Eclampsia	2	5%

Socioeconomic Factors in Postpartum Claims

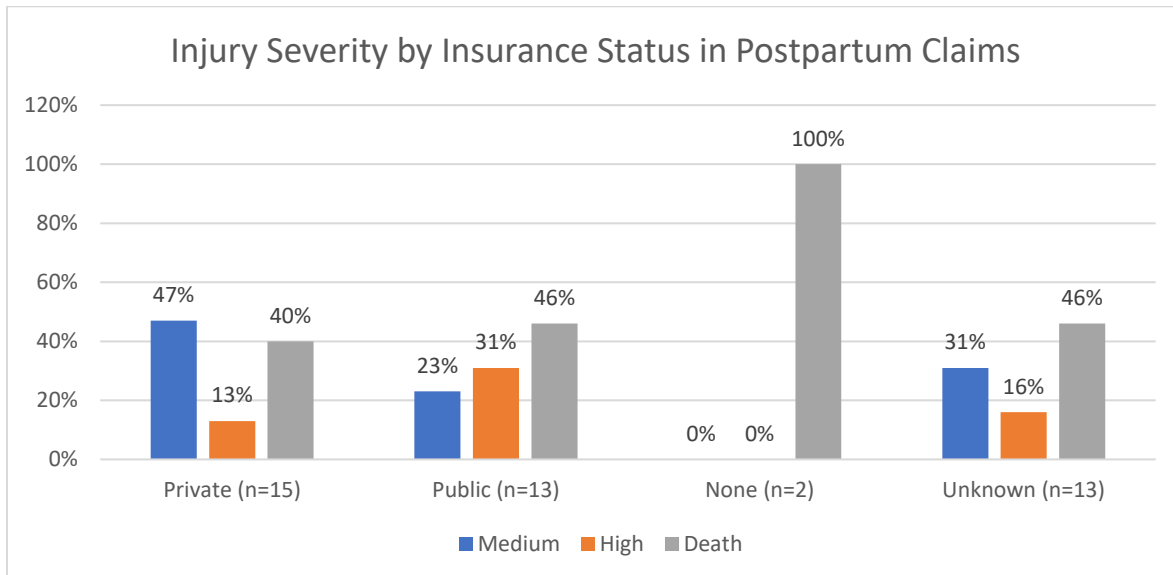
Upon examination, differences emerged in patients’ age and injury severity. In claims that resulted in a death, the women had an average age of 33.47 years old (21–42 years old / median 33 years old). Patients in high-severity injury claims had an average age of 32.19 years old (21–42 years old / median 33 years old). Women who suffered a medium-severity injury (non-disabling) had an average age of 30.8 years old (21–41 years old / median 30 years old).

Injury severity did vary based on race, but because of the small sample size, statistical significance was not tested. Asian patients suffered the highest percentage of deaths (80 percent), with White patients having the lowest percentage (17 percent). Conversely, White patients experienced the highest percentage of medium-severity injuries (58 percent), with Black and Hispanic patients each experiencing 30 percent. For Black and Hispanic patients, combining deaths with high-severity injuries totaled 70 percent of their studied claims, compared with 42 percent for the White claimants. Asian women had all deaths and high-severity injuries.



[Having health insurance](#) can influence outcomes. Unfortunately, we were unable to locate the health insurance status on 13 of the claims (30 percent). However, those women with no insurance

or public insurance had 80 percent high-severity injuries (included death), compared to those women with private insurance, who had 53 percent high-severity injuries (included death).



One variable we did consider was the possibility of maternity care “deserts”; however, none of our claims involved patients from these areas. From obtaining the patients’ ZIP codes, we were able to determine the states where the claims occurred. Every region in the country had claims. Most of the claims occurred in California (n=15; 35 percent), followed by New York (n=6; 14 percent), with Maryland and Michigan having four claims each (9 percent). This is not surprising, as 18.4 percent of The Doctors Company’s insured obstetricians practice in California, whereas only 5.6 percent of The Doctors Company’s insured obstetricians practice in Michigan.

DISCUSSION

Our findings support Dr. Bailey’s comments: Among our studied collection of malpractice claims in patients with SMM, most of these postpartum complications—at least 51 percent—were preventable. Our analysis found the need for facilities to have and follow blood transfusion guidelines, as many of the patients in these claims did not receive adequate blood products. Some deliveries may have occurred at an institution without a maternal-care designation, or with a lower-level trauma designation, which could indicate inadequate equipment for triage of high-risk patients as to where to deliver.

Obstetric hemorrhage was found to be a common indicator of SMM in this study. The [causes of obstetric hemorrhage](#) include uterine atony, vaginal or cervical lacerations, and placental separation issues. Of these sources, uterine atony accounts for 70 to 80 percent of obstetric hemorrhage. [If uterine atony is identified early](#), then it can be treated with medication (oxytocin) or fundal massage.

Other prominent features involved “[denial and delay](#).” Though clinical signs were seen (hypotension, tachycardia) that should have merited a swift response, there was a delay in returning to the operating room, and/or often a “wait and see” approach. Some claims involved a

patient who presented with visible bleeding, and some had none (concealed hemorrhage) but presented other [clinical signs of hemorrhage](#).

This delay in treating hemorrhage, however, rarely occurred in isolation. Often poor communication among the care team was evident, and they missed opportunities to use communication tools like [Situation-Background-Assessment-Recommendation \(SBAR\)](#). In addition, healthcare providers would have benefitted from taking a cognitive pause to consider other possible diagnoses.

Night shifts were frequently involved in claims that occurred in the labor and delivery operating room and the PACU, but not on the postpartum unit. It would take further investigation into several factors here to answer questions like: Do hospitals have dedicated OB hospitalists? How are units staffed during the night shifts with nurses? Are the nurses on call, and is there a possibility that fatigue may have influenced clinical judgment and decision making?

Our claims review did find health disparities by age, race, and insurance coverage; however, malpractice claims are not risk adjusted, so we are unable to determine if these claims represent care that is disparate among patients based on these factors. Those women with high-severity injuries, including deaths, had a higher average age (32.2 years old) than women with medium-severity injuries. The average age for patients who suffered high-severity injuries is higher than the average age of a woman in this study (31.71 years old). The proportion of high-severity injuries was larger for Asian patients (100 percent), Black patients (70 percent), and Hispanic patients (70 percent) than for White patients (42 percent) in this review. Several claims in this study involved language barriers. Those particular claims involved Asian and Hispanic patients, but language barriers can exist for patients of any race. Of those with known insurance coverage, 80 percent of patients with no insurance or public insurance experienced high-severity injuries, compared to only 53 percent of those individuals who had private insurance.

Recommendations

Communication is critical in functioning as a team and decreasing medical errors. [TeamSTEPPS®](#), an evidence-based teamwork system, was developed to improve communication and hone teamwork skills. The system encourages the use of safe handoffs through the aforementioned SBAR, call-outs to verbally deliver any change in current conditions, huddles to discuss what needs to be done as a team, and the ability of any member of the team to stop the process through the [two-challenge rule](#).

Leaders and managers should increase education into the awareness of the existence of disparities within maternal morbidity and mortality. Healthcare providers need to be mindful of these possibilities when assessing patients and considering plans of care. However, many of these maternal complications can occur regardless of race, age, or economic status. Therefore, it is important that staff members participate in drills and simulations of these complications, such as postpartum hemorrhage or eclampsia. To [improve maternal outcomes](#), the goal is to have well-practiced teams respond with structured, standardized treatments to potentially catastrophic events like obstetric hemorrhage.

One evidence-based method to improve the process of care and patient outcomes is the use of [national safety bundles](#). Safety bundles provide a structured means to accomplish these goals. The patient safety bundles are [specific to clinical conditions](#) such as obstetric hemorrhage or severe hypertension in pregnancy. State [perinatal quality collaboratives \(PQCs\)](#), state or multistate networks of multidisciplinary teams, also focus on the improvement of maternal and infant health. The PQCs advance evidence-based clinical processes and practices using quality improvement principles.

Leaders within organizations should be promoting and supporting a culture of safety. Leaders need to encourage [learning from patient safety events](#) by reporting near misses, making it simpler to report events, and fixing system issues that are causing adverse events. Transparency is essential. Arranging [leadership huddles](#) with managers to discuss patient safety concerns and disseminate lessons learned from events are some suggestions. [Do not tolerate](#) disruptive or intimidating behavior from any healthcare provider. Provide medical professionals with resources and training for improvement.

Limitations

This data was retrospective and used closed malpractice claims from a large national malpractice carrier. This study did not represent complications that arose in which patients did not file a claim or patients who did not experience complications from their procedures. Maternal mortality encompasses causes that occur during pregnancy, and this review did not specifically analyze claims that failed to appreciate the causes of mortality that arose during pregnancy, such as hypertension or diabetes.

As far as disparities, this study was a retrospective review of claims data, and as such, we were limited to information available. Many patient factors of interest were unavailable, such as employment, social support, health behaviors, literacy, income levels, and education. Additionally, we could not evaluate provider details in many claims, or system issues such as staffing levels, or the experience of the staff, all of which would have been helpful to fully understand the influence of health disparities on outcomes. This study was not able to determine types of hospitals (academic, community, etc.) in which the postpartum events occurred.

ACKNOWLEDGMENTS

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