10 The Impact of Insurance Disparities on Long-term Burn Outcomes: A Burn Model System Investigation

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Introduction: Access to healthcare and insurance coverage are associated with quality of life, morbidity, and mortality outcomes. However, most studies have only focused on same-admission and short-term outcomes due to the lack of national longitudinal data and there is limited data on this topic in the burn literature. Our aim was to determine the effect of insurance status on long-term outcomes in a national sample of burn patients.
Methods: This is a retrospective study using the longitudinal Burn Model System National Database from January 2015 to April 2021. The inclusion criteria were all adult patients admitted for burn injury from participating sites. Main outcomes were the physical (PCS) and mental (MCS) health component summary scores of the Veterans RAND 12 (VR-12) score at 6, 12, and 24 months after injury. Multivariable regression was used to examine the association between insurance status and the outcomes, adjusting for demographics (i.e., age, gender, race/ethnicity) and burn injury severity.
Results: A total of 3,698 burn patients were included. Mean age was 43.39 (SD 15.84) years, 72% were male and 76% were white. Most patients had private/commercial insurance (56.37%), followed by Medicare (14.42%) and Medicaid (13.18%). The remaining 16% were uninsured patients (self-pay or philanthropy). Mean PCS scores were 43.64 (SD 10.87), 45.31 (SD 11.04) and 46.45 (SD 10.65) and Mean MCS scores were 47.80 (SD 12.35), 48.18 (SD 12.30) and 48.44 (SD 12.18) at 6, 12 and 24 months, respectively. In adjusted analyses, Medicaid insurance was associated with worse MCS at 6 months (Coefficient -3.90, p=0.001), and worse PCS at 12 and 24 months (Coefficient -3.09, p=0.004 and Coefficient -4.18, p< 0.001, respectively), compared to uninsured status. Medicare insurance was associated with worse PCS scores at 24 months (Coefficient -3.07, p=0.013).
Conclusions: Having Medicaid and Medicare insurance was significantly associated with a lower health-related quality of life at long-term follow up, even after adjusting for demographics and burn injury severity. Further studies need to focus on analyzing the reasons for these disparities and developing strategies to improve the quality of life of this subpopulation.

11 A Twenty-one Year Review of Medical Malpractice Cases in Burn Care

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Introduction: Traumatic injuries are a common source of medical litigation but no prior studies have reported on the trends of medical malpractice in burn care. As a result, it is unclear what factors increase the likelihood that a medical professional caring for a burn patient will be named in a lawsuit. By understanding what drives patient discontent and the motivations behind their malpractice claims, burn care practitioners can better care for patients and decrease their own risk of involvement in medical litigation.
Methods: The Westlaw legal research database contains state and federal court documents from over 40,000 databases across the United States and was queried for all cases of burn injuries and medical malpractice from 2000 to 2021. All mechanisms-of-injury (e.g. flame, scald, electrical, chemical, Stevens-Johnson, etc.) were included. Case information including injury circumstances, plaintiff/defendant occupation, defendant burn care experience, and burn demographics (TBSA, mechanism) were recorded when available. The primary outcome was the case ruling (plaintiff or defendant), and settlement amounts were recorded when available.
Results: Forty of the 1,222 identified cases fit inclusion criteria. Twenty-seven percent (11/40) of cases involved treatment at a burn center and 82% of plaintiffs were men. The two most common mechanisms-of-injury were scald (38%) and flame burns (18%). The court ruled in favor of the plaintiff in 10% (4/40) of cases. When the court/jury ruled in favor of the plaintiff, the settlement amount ranged from $25,000 to $20,000,000. The most frequently sued medical specialty was Family Medicine (35%) and mid-level practitioners like physician assistants and nurse practitioners (35%). Physicians with a burn fellowship were named in only 5% (2/40) of cases. The most common claims were for burn depth misdiagnoses (7/40), deliberate indifference/treatments below standard-of-care (7/40), and delayed referrals to a burn specialist (6/40). All cases met American Burn Association transfer criteria. Patient mortality was the reason for litigation in 10% (4/40) of cases.
Conclusions: This study showed that most burn-specialized practitioners are not the subject of litigation. In fact, many patients filed malpractice claims because they were not referred to burn specialists. Based on case text analysis, all of the patients' injuries fit American Burn Association transfer criteria and some lawsuits may have been avoidable.