

Title: Epidemiology of Elderly Burn Patients in the United

States: Mortality Patterns and Risk Factors Revealed by CDC Wonder Database

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Abstract:

Introduction: Burn-related fatalities pose a significant global public health challenge, with a substantial impact on the elderly population. This study examines two decades of burn-related mortality data in the United States, aiming to understand the trends, disparities, and contributing factors among adults aged 65 and older.

Objectives: The primary objectives of this study are to (1) analyze the trends in burn-related mortality rates among older adults, (2) investigate disparities based on gender, race and geographic regions, and (3) identify comorbidities and complications associated with burn-related deaths in this demographic.

Methods: Data were obtained from the Centers for Disease Control and Prevention (CDC) using the National Center for Health Statistics database. The study cohort consists of individuals aged 65 and older who experienced burn-related deaths between 1999 and 2020. Various demographic variables, including age, sex, race/ethnicity, and location of death, were considered. The study also examined urban-rural classifications and regional differences. Mortality rates were calculated and adjusted for age. Join point regression analysis was employed to assess trends in age-adjusted mortality rates over time. Modes of death and common comorbidities and complications were analyzed.

Results: Between 1999 and 2020, a total of 96,498 older adults succumbed to burn injuries in the United States. Analysis revealed a concerning increase in burn-related mortality rates from 2012 onwards. Demographic disparities were evident, with older men consistently exhibiting higher mortality rates compared to women. Racial disparities were observed, with Black individuals experiencing the highest mortality burden. Geographic analysis indicated elevated mortality rates in Western states and rural areas. Accidents emerged as the leading cause of death, with ischemic heart disease and hypertensive diseases being prevalent comorbidities. Complications, with septicemia being the most common, contribute significantly to mortality.

Conclusion: Our analysis of 20 years of burn-related mortality data from the CDC reveals alarming trends in the United States. Unlike global trends, mortality rates have stagnated from 1999 to 2020, indicating a persistent public health challenge. Black individuals aged over 65 bear

the brunt of burn-related mortality, facing the highest age-adjusted rates among all racial groups. Regional disparities are stark, with states in the top 90% exhibiting significantly higher age-adjusted mortality rates compared to those in the bottom 10%. Moreover, rural areas consistently report higher mortality rates than urban areas. Ischemic heart disease, hypertensive diseases, and other heart-related conditions emerge as prevalent comorbidities. To effectively reduce burn-related injuries and fatalities, targeted public health policies are imperative. These interventions must prioritize high-risk populations and adopt culturally sensitive approaches to promote safety. Additionally, enhancing access to healthcare and fire safety education is vital for mitigating the burden of burn-related mortality among the elderly population.

Biography:

Dr. Sobul Khan, a recent graduate of Peoples University of Medical and Health Sciences, is passionate about pursuing a career in plastic and reconstructive surgery, with a focus on enhancing patient care and outcomes in the field.