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# Characteristics of Sleepwear-Related Injuries in Adults Age 65 and Older in the United States

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## INTRODUCTION AND OBJECTIVES:

The proportion of older adults in the United States is increasing, with all Baby Boomers being age 65 or older by the end of 2029. As this segment of the population grows, it is important to look for ways to decrease injuries and promote the overall health of this demographic. Falls are a leading cause of injury in older adults.<sup>1</sup> In 2018, the United States Preventive Services Task Force reviewed previous studies and recommends risk factor assessment by physicians and environmental modifications to decrease falls.<sup>2</sup> Our study expands the knowledge base by identifying sleepwear as a contributing factor to falls and related injuries.

**METHODS:** We conducted a retrospective analysis of data obtained from the National Electronic Injury Surveillance System (NEISS). The NEISS provides injury data reported from a nationally representative sample of emergency departments regarding consumer products, which allows for nationwide estimates. We extracted data concerning sleepwear-related injuries occurring in adults age 65 and older between 1998 and 2017. The NEISS provided data about the date the injury occurred, sex and

age of the patient, diagnosis, disposition, body part affected, and a brief narrative explaining the injury. We used these narratives to code for sleepwear type, mechanism of injury, age categories, and injuries directly related to falls. We report descriptive statistics as well as multivariate logistic regression analysis identifying contributing variables to sleepwear related injuries.

**RESULTS:** One thousand thirty-six (1036) cases were found in the NEISS data and 1013 were ultimately included for analysis. The median age of those injured by sleepwear was 82 (range 65-104), and 83% of the cases were female. The highest proportion of injuries occurred between the ages of 80 and 89 (39%). Pajamas were the most frequently implicated sleepwear (40%), followed by robes/housecoats (34%), and nightgowns/nightshirts (24%). Injuries that were a result of falls represented 72% of the sample, and pajamas were responsible for 44% of these injuries. Increased age (both the 80-89 age group and the 90-99 age group) and wearing pajamas were associated with a statistically significant increased risk of falls. The most common injury types were fractures (35%), contusions/abrasions (15%), and internal organ injuries (11%). The head (20%) and the hip (18%) were the body parts most frequently affected. The NEISS data estimates a 266% increase in sleepwear-related injuries from 1998 to 2017, with an

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estimated 43,348 sleepwear-related injuries occurring in the United States over those 20 years.

**CONCLUSIONS:** The number of sleepwear-related injuries in those age 65 and older has increased over the past 20 years and is likely to continue to increase as this segment of the population grows. Patients who have fall risk factors, such as impaired vision, gait, and balance, as well as those who have fallen in the past, may benefit from physician questioning about the types of sleepwear used by the patient. If the patient responds that he or she sleeps in large, baggy pajamas with unhemmed pajama pants, a suggestion towards a safer form of sleepwear could potentially prevent falls and related injuries. Education, awareness, and targeted interventions for patients/caregivers in the home and professionals in clinical and residential care settings may represent high yield opportunities to prevent injuries, decrease morbidity, and enhance the health of older adults.

**REFERENCES:**

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