Background

- Injuries due to unintentional falling are the most common non-fatal injuries reporting to US EDs for every age category except ages 15-24.
- In 2014 the PA statewide cost for fall-related injuries in patients ages ≥65 was $2.7 billion with an average per-hospitalization cost of $58,929.
- Pennsylvania has the fifth highest state senior population in the country and Philadelphia has the fifth largest senior population among the major American cities, 17.4% as of 2016.
- We will analyse the 2016 Jefferson ED fall-related trauma database to help understand the unique demographics of our community and help contribute to ongoing falls prevention and reduction efforts at TJU.

Methods

- Study Design – A retrospective analysis of de-identified data.
- Data - The 2016 Thomas Jefferson ED fall-related trauma database will be searched retrospectively for fall-related trauma incidents occurring between January 1, 2016 and December 31, 2016.
- Sample - Patients ages ≥65 with the word “Fall” in their reported mechanism of injury who meet the Pennsylvania Trauma Outcome Study (PTOS) criteria for a trauma in Pennsylvania.
- Inclusion/Exclusion – The PTOS outlines specific guidelines for what are considered fall-related traumas (details upon request) and distinguish those from other falls and fall-related injuries not considered physically traumatic.
- Data Analysis – SAS 9.4 was used to run crosstab analysis on variables across age groups, an ANOVA with Tukey test for analysis of multiple group mean differences, and a t-test for significance of length of hospital stay among those with and without an initial loss of consciousness.

Results

- The 400 total incident records for 2016 are represented roughly evenly by our three age groups of older adults.

Discussion

- Fall Types across age groups describe a linear trend increasing with age for simple falls and a linear trend decreasing with age for falls involving a trip – trend observed without statistical significance.
- While no significant difference in Mean Length of Stay is observed across age groups, it is noteworthy that each age group is staying approximately 7 days in hospital.
- Patients’ Post ED Destination are not significantly different across age groups, but we can observe that patients are moved to the 4 categories of destination in similar proportions regardless of age group.
- Comparing the Mean Length of Stay between patients reporting an initial loss of consciousness and those who did not, reveals patients with an LOC are staying more than a full day longer on average. While LOC reporting can be unreliable, Jefferson health care providers/administrators may be able to anticipate longer LOS for this group.
- Study limitations include potential for incomplete “falls” records as a result of the established reporting system, e.g., falls due to dizziness, those not resulting in a trauma, or not requiring a hospital stay long enough to meet PTOS standards may not be included in our original data set.

Core Competencies

- Contributes to assessments of community health status and factors influencing health in the community (e.g., availability, accessibility, and the use of health services).
- Identifies current trends affecting health in the community.
- Provides input for developing, implementing, evaluating, and improving policies, programs and services.
- Contributes to development of a vision for a healthy community (e.g., emphasis on prevention, health equity for all, excellence and innovation).

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