Trends of Length of Stay and Cost of Hospitalization in Elderly Patients Who Died During Hospitalization: A 12-Year US Perspective

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PURPOSE: Data regarding length of stay and cost of hospitalization in elderly patients who died during hospitalization is sparse. The objective of this study was to identify elderly patients who died during hospitalization and report trends of length of stay and cost of hospitalization in them.

METHODS: From the Nationwide Inpatient Sample (NIS), which is a 20% representative of all hospital discharges in the US, we identified all adults (≥18 years of age) patients admitted during 2002 to 2013. Patient who died during hospitalization (DIED) is coded from the discharge disposition of patient. We divided all patients who died in to 3 major age groups Age < 65, 65- 79 and ≥ 80. Temporal trends were assessed using Cochran-Armitage statistical analysis.

RESULTS: Total 1,864,922 patients died during 2002 to 2013. From them 50.1% were male and 21.8% were white. Among all patients who died 36.84% were <65 years, 33.32% were in age group 65-79 while 39.85% were above 80 years. In hospital mortality has decreased significantly from 2002(9.24%) to 2013(7.1%) in all inpatient admissions. In Age group >80 years Mean length of stay has decreased significantly from 7.46 days (2002) to 6.01 days (2013). Mean Cost of hospitalization remained the same during study period. Multivariate predictors also showed that In Age group >80 years length of stay significantly reduced (Adjusted OR = -2.85 days, CI: -2.93 - -2.78, P Value <0.01) compared to Age group <65 years. Similarly cost of hospitalization also reduced significantly (Adjusted OR = -$13485, CI: -$13596 - -$13266, P value <0.01).

CONCLUSIONS: In elderly population, length of stay and cost of hospitalization has significantly reduced in last decade. Emerging fields in medicine like geriatric medicine, palliative care, hospice medicine and early discussion of goals of care might played significant role for this changes.

CLINICAL IMPLICATIONS: It will encourage physicians to discuss goals of care earlier. Care at the end of life mainly in elderly patients, length of stay and ultimately proper utilization of health care resources can be improved by early discussion of goals of care.

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