MISTRIAGE OF ELDERLY IN THE EMERGENCY DEPARTMENT

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Introduction: Elderly patient Emergency Department (ED) visits compose a large and increasing portion of total ED visits. Accurate triage is vital to differentiate those needing immediate care from those who can safely wait. Triage of the elderly is complicated by 1) a high proportion of patients who cannot provide their own history, 2) physiologic and pharmacologic factors which blunt initial changes in vital signs in response to illness, and 3) often limited information at the time of triage about the patient's baseline mental and physical function. The Emergency Severity Index Version 4 (ESI) is a widely used 5-level triage tool which was established to evaluate patients of all ages. There are no published studies describing the ability of triage nurses to apply the ESI triage system to evaluate the elderly patients.

Objective: The objective of the study was to evaluate the reliability of ESI v 4 for elderly patients by comparing actual triage scores by trained ED nurses to a triage score determined by expert review.

Methods: We conducted a prospective observational study of consecutive visits by patients 65 years or older during a one month period to a single suburban ED. Triage scores were assigned by experienced staff triage nurses who have received standardized ESI training. A blinded expert triage nurse reviewed 50 randomly selected charts. Staff and expert triage nurse scores were compared.

Results: Data were collected on 600 consecutive ED patients 65 years or older. Of 50 randomly selected cases, discrepancies between the staff and expert nurse occurred for 20 cases, with a weighted kappa of 0.60 (95% CI 0.45-0.74). The staff nurses undertriaged 13 patients and overtriaged 7 patients. Of 13 patients with an expert review triage score of 1, five were given a score greater than 1 by the staff triage nurse.
**Conclusions:** Reliability of ESI for triage in the elderly is fair. Further investigation is needed to determine if variations from ESI guidelines made by triage nurses results in adverse outcomes for this vulnerable ED population.

**Key Words:** geriatrics, elderly, triage, sensitivity