

INCIDENCE, ETIOLOGY, AND OUTCOMES OF HOSPITAL ACQUIRED ACUTE RENAL FAILURE (HAARF) IN ELDERLY  
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There has been little research done looking at hospital acquired acute renal failure (HAARF) in the elderly patients in the United States. We conducted a retrospective study to estimate the incidence, etiology, and outcomes of HAARF in the elderly in a 705 bed tertiary hospital in USA.

Serum creatinine of all admitted patients with age above 64 years in 50 days duration was evaluated for ARF, defined by a rise of 0.5 mg/dl or a rise of >20% if the baseline is more than 2.5mg/dl during their hospital stay. Complete review of the medical charts was done to find out the etiology and outcome of ARF related to hospital acquired causes.

Out of 1722 admitted patients with age above 64 years, 142 patients developed a total of 164 episodes of HAARF (incidence of 8.22%) as some of them had more than one episode. As the primary etiological factor, hypoperfusion (excluding that caused by medications and post operative hypotension) accounted for 54.88% of the episodes followed by medications (26.22% of the episodes), obstruction (7.32%), post-op (6.10%), contrast (3.66%), severe sepsis (1.22%). Hypoperfusion (excluding that caused by medications and post operative hypotension) was more commonly caused by septic shock (42.22%), severe sepsis (41.11%), volume depletion (11.11%), cardiogenic shock (4.44%), congestive heart failure (2.22%). Drugs causing medication related HAARF are mainly antihypertensives causing unintentional hypotension (51.16%), ACEI and diuretic combination (16.28%), diuretics (16.28%).

36 patients (23.78%) expired and 6 patients underwent hemodialysis of which 3 patients expired. 12 patients (7.32%) were discharged with worsening renal function. Remaining patients had either normal or improving or stable renal function at the time of discharge. Septic shock and severe sepsis accounted for 68.42%, and 24.32% of the total mortality respectively.

Our study indicates that septic shock and severe sepsis are the most common causes of HAARF in elderly and are associated with worst outcomes in this age group.