

# New study shows red blood cell distribution width predicts prognoses in elderly, hospitalized patients

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Higher red cell distribution width (RDW) is associated with increased rates of in-hospital mortality and hospital re-admission among older (>60) patients, new research led by investigators at Sutter Health's San Francisco Coordinating Center (SFCC) in San Francisco, CA has shown.

Results of a retrospective analysis were published this month in the *Journal of the American Geriatrics Society*.

"Greater variability of red blood cell size is significantly associated with worse prognosis in hospitalized elderly patients, indicating higher [mortality](#), greater risk of early re-admission and longer hospital stay days. Risk stratification strategies for hospitalized elderly should include RDW value," says Steve Cummings, M.D., lead author of the study, director of the SFCC and a principal investigator at Sutter's California Pacific Medical Center (CPMC).

Dr. Cummings and colleagues at CPMC retrospectively studied 94,617 patients aged >60 who were hospitalized between January 2013 to December 2017 at Sutter Health. A total of 167,292 admissions were included. The RDW was measured during hospital admission and categorized with 1% intervals. The primary outcome was the rate of [in-hospital mortality](#); secondary outcomes included 30-day re-admission rate and length of hospital stay.

Results showed the overall in-hospital mortality rate was 6.3%. As the RDW value increased, the rate of in-hospital mortality increased from 2.7% for the lowest RDW category to 12.2% in the highest category (p-trend

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