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OUTCOME-PREDICTABILITY OF THE ETIOLOGICAL AKI CATEGORIZATION AND THE NOVEL RIFLE CLASSIFICATION

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It is unclear what the relationship between the novel RIFLE classification and the classical etiological categorization of acute kidney injury (AKI) is and which classification is better at predicting outcomes.

We examined 707 male US veterans hospitalized with AKI at a single medical center. All-cause mortality and incidence of end stage renal disease (ESRD) associated with the different etiologic and RIFLE categories were examined using the Kaplan-Meier method and the log rank test.

Etiologic and RIFLE categories showed significant correlation ($r=0.42$, $p<0.0001$, Figure 1); RIFLE categories were associated with the risk of ESRD: multivariable adjusted hazard ratios (HR) and (95% confidence interval [CI]) for I and F compared to the R category were 2.30 (0.72-7.40) and 10.25 (3.91-26.87), but less consistently with mortality: HR (95% CI) for I and F vs. R were 1.32 (1.02-1.71) and 1.14 (0.87-1.49). Among etiologic categories intrinsic AKI was associated with both higher mortality and higher ESRD incidence: 1.66 (1.31-2.13) and 6.30 (3.14-12.64) compared to pre-renal.

RIFLE classes are strongly associated with the risk of ESRD however show an inconsistent association with all-cause mortality.

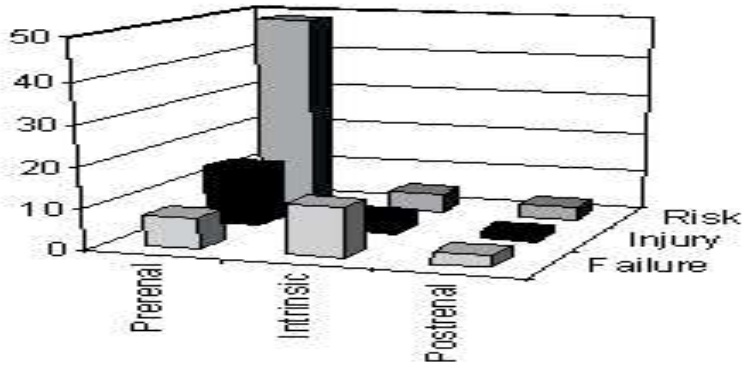

Figure 1- Association between RIFLE and Etiology.