**Figure S1. Distribution and influence of residuals in logistic regression model of mortality.**

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The graph demonstrates for each covariate pattern the squared standardized Pearson residual (on the y axis) and the probability of mortality for an individual with that covariate pattern (x axis). The area of each data point is proportional to $∆\hat{β}$j influence statistic. The graph demonstrates no relationship between the probability of mortality for a given covariate pattern and the magnitude of the residuals. Residual analysis of the 14 covariate patterns demonstrates a single covariate pattern with a squared Pearson standardized residual greater than 3.84 (95% significance level – horizontal line on graph) with a $∆\hat{β}$j influence statistic of 0.44 indicating the model is consistent with the magnitude and influence of the residuals.