

POSTER 10

THE IMPACT OF “JULY EFFECT” ON “FAILURE TO RESCUE”: DO PATIENTS WHO UNDERGO CORONARY ARTERY BYPASS GRAFTING AT TEACHING HOSPITALS FACE A SELECTIVE DISADVANTAGE?

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Introduction: The new academic cycle in July is associated with the commencement of post-graduate medical education. Although this is presumed to be associated with poor patient outcomes, supportive evidence is limited for Cardiac surgery patients. We sought to determine if the new academic cycle had a direct bearing on outcomes of patients undergoing Coronary Artery Bypass Grafting.

Methods: Prospectively collected nationwide in-hospital data over a 10 year time span (1998 – 2007) was used for the study. Only patients who underwent CABG in the first and final academic 3-month quarter were included. Generalized multivariate regression was used to assess risk-adjusted mortality, total complications and “*failure to rescue*” (FTOR) - defined as death after a complication and reflective of hospital quality of care.

Results: Of the 1,056,865 CABG operations performed in the selected academic quarters, 698,942 were at teaching hospitals. The risk-adjusted mortality, complications and FTOR were higher in the beginning of the academic year [Odds ratio= 1.14, 1.04 and 1.19 respectively; $p < 0.001$ for all] irrespective of teaching status. However, teaching status lowered the mortality and aggravated the complications (OR 0.9 and OR 1.02; $p < 0.05$ for both). The July Effect thus contributed to only a 2.4% higher FTOR in teaching hospitals compared to 19% in non teaching hospitals.

Conclusion: Teaching hospitals were attributed to lowering FTOR rates and thus mortality despite higher complication rates in the beginning of the academic cycle. The July Effect is thus reflective of an overall positive change in culture of teaching hospitals.