

Rachs-1 system in risk stratification for congenital heart disease surgery outcome

Abstract:

The Risk Adjustment in Congenital Heart Surgery (RACHS-1) system has been used as a benchmark to compare surgical results in developed countries. Its ability to stratify postoperative mortality risk has been validated in several developed countries, however, this has not been examined in a developing country. To assess the ability of the RACHS-1 system to stratify postoperative mortality risk in a developing country Retrospective study over a five year period between 1st January 2002 and 31st December 2006. Kenyatta National Hospital, a teaching and referral hospital in Nairobi, Kenya. Three hundred and seventeen consecutive operations were performed on 313 patients aged between 0.25 and 204 months. Operations were performed in RACHS-1 categories 1, 2, 3 and 4 with hospital mortalities of 2.5%, 16.9%, 29.4% and 50% respectively. The difference in mortality between categories 1 and 2 was significant (p-value of 0.0003), however, the difference in mortality between categories 2 and 3 and categories 3 and 4 was not significant (p-values 0.193 and 0.67 respectively). The RACHS-1 system did not adequately stratify risk in a low case load setting. The use of the RACHS-1 method as a benchmark to compare surgical results of paediatric cardiac surgery services in developing countries may be limited