Introduction
Continuous quality of care assessment is becoming an integral part of surgical practice. Being the only referral centre in Hong Kong, the congenital heart surgery (CHS) programme in Queen Mary Hospital (QMH) has the responsibility of maintaining a high quality of service by continuously evaluating and auditing its outcomes. However, a systematic audit of the CHS outcome had been lacking in Hong Kong until 2012.

Objectives
(1) To establish an ongoing surgical database for paediatric and congenital heart disease (CHD) by registering with the European Association for Cardio-Thoracic Surgery (EACTS) Congenital Heart Database, collecting data prospectively for all the patients undergoing surgery for CHD. (2) To identify risk stratification tools for CHS applicable to the local population. (3) To aid in quality assessment and quality improvement initiatives of CHS in Hong Kong.

Methodology
All the data has been collected at the bedside of patients undergoing CHS by the first-line medical staff in QMH since 2012. Data entry, submission, maintenance, and analysis were conducted by the department’s full-time research staff. Aristotle Basic Complexity (ABC) Score and the STAT Mortality Score were used as risk stratifications for outcome analysis and benchmarking. The performance was also assessed by calculating the observed versus the expected mortality (O/E ratio). The discrimination of the risk stratification tools as predictors of 30-day mortality were
quantified by calculating the area under the Receiver Operating Characteristic curve (C-index).

**Result**

3-year data was analyzed. There were 1,088 operations performed in 952 patients with CHD at QMH between 2012 and 2014. Complex CHS accounted for around 50% of the workload and neonatal surgery contributed to 21%. The 30-day mortality and the overall complication rates were 2.0% and 20.8% respectively, which were both lower than the average in the EACTS Database. The mortality O/E ratio was 0.64. The C-index for the ABC Score and the STAT Mortality Score were 0.73 and 0.79 respectively. Conclusions: satisfactory CHS outcomes have been achieved at QMH in the past three years. The existing risk models for CHS are applicable to local patients. The information from this surgical database will aid in benchmarking our performance against international peers and guide our quality improvement efforts.