

00208 Patient and Referral Characteristics for Clinical Cardiopulmonary Exercise Testing in a Pediatric Hospital in Singapore

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Aims: Cardiopulmonary exercise testing (CPET) is a well-established procedure for the evaluation of functional capacity in pediatric clinical settings. It is a tool that can provide useful information to assist pediatricians with diagnosis and management of common pediatric medical conditions. KK Women's and Children's hospital started CPET service in 2009. Till date, there has been limited information on how the CPET service has been utilized in the hospital. The aim of this study is to describe the characteristics of patients referred for cardiopulmonary exercise testing.

Methodology: A retrospective review of patients referred for cardiopulmonary exercise testing, from the year 2009, were conducted.

Result: A total of 37 patients (29 males, 8 females) were referred for CPET since year 2009 and their average age, height and weight were 14.6 ± 2.3 years, 163.5 ± 10.9 cm and 59.5 ± 14.9 kg respectively. Majority of the test were conducted on treadmill (n=31), cycle (n=5), and one patient did not complete the test. Average test duration was 11 mins 13 secs (range 6 to 16 mins).

All patients were referred pediatrics cardiology and respiratory sub-specialities. Indications for CPET were either for diagnostic reasons to evaluate unexplained symptoms related to exertion or to quantify impairment or function related to a known or established medical condition. Among the diagnostic classification, majority were for the evaluation of chest pain with exercise (8%) with the rest for shortness of breath (3%) or exertion-related syncope (3%). Majority of the CPET referrals (86%) were for quantification of impairment and function, with tetralogy of fallots and dilated cardiomyopathy the most common diagnoses, making up to 67% and 10% of total referrals respectively.

Conclusion: The aim of this study is to describe the characteristics of patients referred for CPET. Majority of the patients were referred from cardiology service, with majority having congenital heart conditions and a varied range of referral indications.