Empowerment of Transplant Patients through Clinical Exercise Testing
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Introduction
Physical deconditioning was common in the successful organ transplant recipients. To facilitate rehabilitation and promote active lifestyle, they are encouraged to participate local and international Transplant Games (“the Games”). However, underlying risks such as cardiac event are unidentified. Therefore, the Physiotherapy Department, together with the Department of Medicine, conducts Submaximal Stress Test (SST) to early identify the underlying risks and to recommend the types of games that they should participate. Participants performed the Standard Step Test except those with knee osteoarthritis, which Modified Bruce protocol was used as the testing regime. Metabolic equivalent (MET) was then estimated using standardized formula. The test was terminated if 85% of the maximum heart rate resulted or the patients had attained the target MET level of a specific sport activity.

Objectives
To evaluate the efficacy of the SST on the risk identification and performance of the Transplant Games participants.

Methodology
It was a retrospective and descriptive study. Data for the Games participants who had received the SST from 2007 to 2012 were retrieved. Demographic data and the incidence rate of cardiac event during the SST and the Games were analyzed.

Result
155 participants joined the SST with age ranged from 24 to 71 years old. 65% were male participants. 54% were renal transplant patients and 46% were liver transplant patients. Only 85 participants were qualified to participate in the event they selected. The remaining 70 participants were advised to change the event as they were unable to meet the specific energy expenditure requirement of their preferred sports. No cardiac event incident was reported during the SST and the Games. Over the years, the Hong Kong Team had been awarded a total of 71 gold medals, 71 silver medals and 74 bronze medals at the Games. “Given a second chance at life” is the dream of
most of the end-stage organ failure patients. By providing the exercise testing before the Games has shown to be essential in ensuring patient’s safety during training and performing better in the sports. Moreover, it can boost their motivation and confidence in taking up regular exercises and sport activities so as to empower them to live in a healthier and more active lifestyle.