

serves to assist the decision makers in PGH in optimal utilization of oral anticoagulant medicines within the given budget while taking into consideration the benefits and risks of the newer versus conventional therapy.

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### A Comparison of the Outcome and Safety Profile of Primary Percutaneous Coronary Intervention Done During Office Hours and Non-Office Hours

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**Background:** Patients with ST Elevation Myocardial Infarction should be treated with Primary Percutaneous Coronary Intervention (PPCI) when available. There has been ongoing debate regarding the efficacy of PPCI during non-office hours, as compared to PPCI done during office hours.

**Objective:** To determine the outcome of Primary Percutaneous Coronary Intervention (PPCI) for patients with ST Elevation Myocardial Infarction (STEMI), during non-office hours as compared to PPCI done during office hours via the HKL IJN Network (HISNET).

**Methods:** Consecutive STEMI patients referred from HKL to IJN for PPCI between January 2015 and December 2016 were studied. Patients were subdivided into two groups, PPCI done during office hours and those done during non-office hours (Defined as weekend, and weekdays between 5pm till 8am). Patient's demographics as well as in hospital mortality, 30 day mortality, 6 months mortality, 1 year mortality and MACE were observed. MACE was defined as death, re-infarction, bleeding, urgent coronary bypass graft (CABG) and stroke.

**Results:** A total of 277 patients were involved in the study, with 162 patients being treated during non-office hours and 115 patients during office hours. There were 69 patients who had cardiogenic shock during the procedure, with 41 patients presenting during non-office hour and 28 during office hour. The First Medical Contact (FMC) to balloon time was 95 minutes (79-128) for non-office hour presentations and 86 minutes (75-108) for those presenting during office hours. The baseline characteristics of the patients involved in the study were similar, with a majority of patients were male (87%). The in-hospital mortality for non-office hours and office hours were nine (6%) and four (4%) respectively. Thirty day and one year mortality for non-office hour's patients' vs office hour patients are three (2%) vs 1(1%) and zero vs one (2%) respectively.

**Conclusion:** PPCI done at our Centre during non-office hours were comparable to those performed during office hours in terms of outcomes and efficacy.

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### Comparison of Resting PD/PA with Fractional Flow Reserve Using a Monorail Pressure Catheter

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**Background:** The RXi™ system (ACIST Medical Systems, MN, USA) is a new Fractional Flow Reserve (FFR) technology utilising an ultrathin

monorail microcatheter (Navvus®; ACIST Medical Systems) with an optical pressure sensor located close to the distal catheter tip. FFR measurement using monorail microcatheter is comparable to the conventional pressure wires. However, the predictive value of resting distal coronary artery pressure/aortic pressure (Pd/Pa) on hyperemic FFR value in the real world practice is unknown.

**Objective:** To explore the diagnostic accuracy of resting Pd/Pa in relation to hyperemic FFR using the monorail pressure catheter.

**Methods:** Resting Pd/Pa and FFR were measured using monorail pressure catheter in 67 consecutive patients with intermediate coronary artery lesions (30% to 80% diameter stenoses) between 01-03-2016 to 17-01-2017. Of 121 studied lesions, 29 (23.97%) were excluded because of no hyperemic FFR due to positive resting Pd/Pa (n=17), severe or non-critical stenosis (n=11) and suboptimal acquisition (n=1), leaving 92 lesions for final analysis. Hyperemic FFR was induced with intracoronary adenosine. The selection of coronary wire and the dose of intracoronary nitroglycerine were at the operators' discretions.

**Results:** Bland-Altman plots showed a moderate degree of scatter between Pd/Pa and FFR value. On average, Pd/Pa exceeded FFR by 0.066 (-0.09 to +0.22). Receiver-operating characteristic curves of the resting Pd/Pa with FFR≤0.80 as the reference variable showed an area under the curve of 0.78 (95% confidence intervals 0.680 to 0.881, p<0.001), with a diagnostic accuracy of 79.3% when the resting Pd/Pa was ≤0.86. Certain cutoff values of Pd/Pa can reliably predict whether hyperemic FFR was positive or negative (FFR cutoff≤0.80). Resting Pd/Pa value of >0.96 had a negative predictive value (NPV) of 100% and sensitivity of 100%; the resting Pd/Pa value of ≤0.82 had a positive predictive value (PPV) of 100% and specificity of 98.3%. These were consistent regardless of coronary vessel, location of lesion or degree of diameter stenosis.

**Conclusions:** Certain range of resting Pd/Pa measured by monorail pressure catheter had excellent NPV and sensitivity or excellent PPV and specificity to predict hyperemic FFR. Clinical outcome studies are required to determine whether the results might obviate the need for hyperemia in selected patients.

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### Primary Percutaneous Coronary Intervention in ST Elevation Myocardial Infarction Network: Outcome & Determinant Factors. The Hospital Serdang Experience\*

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**Background:** Primary Percutaneous Coronary Intervention (PPCI) is the treatment of choice for patients presented with acute ST elevation myocardial infarction (STEMI). The purpose of STEMI Network is to improve the management of STEMI patients with the aim to transfer patients for PPCI. This Network includes Hospital Serdang as PCI-capable hospital with three other non-PCI-capable hospitals (distance covered 9.8-46.4km).

**Objectives:** This study portrays and correlates factors including patients' demographic, timeliness of patients' transfer and patients' hemodynamic status in treatment of STEMI with PPCI. The primary outcome measured is the 30 days all-cause mortality.

**Methods:** This prospective study collected data for all patients underwent PPCI for acute STEMI in Hospital Serdang from 12May2015 till 24November2016. The 30 days' outcome were obtained from patients'