(-33.55±50.89 g/L, p value=0.035), which was not seen in placebo group (16.57±214.67 g/L, p value=0.794).

Conclusion: Dapagliflozin demonstrated greater benefit in reduction of Lp(a), particularly in patients with higher baseline Lp (a) of > 30g/L. This observation may provide a possible explanation on the CV benefit of SGLT-2 in these high-risk patients.

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30.
Clinical Outcome Predictor using Killip Scoring in Acute Decompensated Heart Failure (ADHF): A Non-Cardiac Centre Pilot Experience

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Background: Physicians in tertiary centers face a constant challenge in selecting patient with ADHF to be admitted from district healthcare centre, especially with limited resources. Appropriate risk stratification of patients with ADHF would improve the efficiency of our healthcare delivery system.

Objective: We aim to find potential relationship between Killip clinical scoring with clinical outcome of ADHF, including in-patient mortality and requirement of advanced cardiorespiratory support.

Methods: 35 consecutive cases with a discharge diagnosis of ADHF and admission creatinine clearance of more than 30 were randomly reviewed. Cases were analyzed retrospectively for their Killip score, in-patient mortality, requirement of advance cardiorespiratory care or ICU admission.

Results: There were 21 male patients (60%) and 14 female patients. Mean age was 61±19 years old. Mean duration of ward-stay was 6±4 days. Comorbidities were 14 (40%) with history of coronary artery diseases and 17 (49%) with diabetes mellitus. 15 patients (43%) were on at least a single type of guideline directed medication for heart failure. The cohort was almost evenly distributed between those with a Killip score of 2 and above 2. A Killip score of 3 and above was found to have good positive predictive value (87%) for advanced cardio-respiratory care and negative predictive value of 78%. No in-patient death was observed for the group with Killip 2 while 5 deaths were recorded in the group scoring more than 2. A Killip score of 3 had excellent (100%) negative predictive value for in-patient mortality but poor positive predictive value (33%). Significant relationship ($p<0.001$) was observed for Killip scoring on both outcomes.

Conclusion: Killip scoring may be useful for on-call physician to decide the need on tertiary care among patient with ADHF and mortality outcome. However, more prospective studies and patients should be recruited to validate the study.

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31.
Acute Decompensated Heart Failure in Preserved and Mid Range Vs Reduced Ejection Fraction: Predictive Factors for all Cause In-Hospital Mortality, a Retrospective Observational Analysis

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Background: Heart failure (HF) remains an important cause of morbidity and mortality. HF experts have classified HF into 3 distinct groups based on left ventricular ejection fraction (LVEF); HF with reduced EF (HFrEF), HF with mid-range EF (HFmrEF) and HF with preserved EF (HFpEF).

Objective: To compare characteristics and predictive factors for in-hospital mortality amongst HFpEF / HFmrEF vs HFrEF patients presented with acute decompensated HF (ADHF) to Institut Jantung Negara (IJN).

Methods: A retrospective observational analysis of ADHF patient's first admission from 2009 to 2015, using descriptive, cross tabulation, univariate and multivariate logistic regression analysis. Groups were compared using non-parametric test (Mann-Whitney U test). ROC curve was used to determine cut off for variables of interest.

Results: Of 2439 ADHF patients, 28% had HFpEF/HFmrEF, 72% HFrEF. Compared with HFrEF, HFpEF/HFmrEF patients were older (60.6 vs 67.3years), more commonly female (20.4 vs 45.8%), more likely to have renal insufficiency (24.9 vs 29.7%), atrial fibrillation (17 vs 31.9%), but less likely to have coronary artery disease (CAD) (71.2 vs 64.3%), previous myocardial infarction (30.3 vs 16.7%). At presentation, HFpEF/HFmrEF patients had higher systolic blood pressure (SBP) but lower heart rate (HR) (140.5 vs 122 mmHg; 78 vs 87 bpm), NT-proBNP (3179.0 vs 6767.5 pg/ml) and uric acid (465 vs 527 μmol/L). In-hospital mortalities were lower in HFpEF/HFmrEF patients (2.3 vs 5.5%). In multivariate analysis, HFpEF/HFmrEF patients fared poorly if their SBP were ≤ 100mm Hg (OR9.216, p0.001) or urea > 7mmol/L (OR16.494, p0.008). Amongst HFrEF, mortalities were higher if they had atrial fibrillation (OR2.162, p0.025), history of stroke (OR2.99, p0.028), eGFR < 40 ml/min/1.73m2 (OR2.215, p0.02), NT-proBNP ≥ 15000 (OR2 .534, p0.005), sodium < 135mmol/L (OR2.575, p0.002), positive Troponin T (OR2.656, p0.002). Having 2 or 3 disease-modifying heart failure medications conferred lower mortality (OR0.191, $p<0.001$; OR0.109, $p<0.001$) in HFrEF but not in HFpEF/HFmrEF. Interestingly background hypertension showed lower mortality in both HFpEF/HFmrEF (OR 0.19, p0.006) and HFrEF (OR0.37, p0.003).

Conclusion: Majority of ADHF presentations were from the HFrEF group. In-hospital mortalities were lower in HFpEF/HFmrEF group. Independent predictors for in-hospital mortalities amongst HFpEF/HFmrEF are limited, proving this group to be challenging. Further studies are needed to understand the complexity of this group.

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32.
The Impact of a Clinical Pharmacist on Pharmaceutical Care Outcomes in the Heart Failure Clinic

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Background: Heart failure (HF) is associated with high mortality and morbidity with frequent hospital readmissions and multiple emergency unit visits. In the HF Clinic in Sarawak Heart Center (SHC), pharmacist's intervention was considered an essential element in the multidisciplinary team. At HF clinic, a dedicated clinical pharmacist reviewed patients' medications and provided