

follow up. Further up-titration of beta blocker or earlier initiation of ivabradine on discharge should be considered.

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10. A Review of Discharge Medications in Patients Admitted with Acute Decompensated Heart Failure in a Tertiary Referral Centre

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Background: National guidelines for heart failure recommend prescription of certain classes of drugs to improve prognosis in patients admitted with acute decompensated heart failure (ADHF). It has been noted during clinical follow up such patients are discharged with different treatment regimes.

Objective: To determine the relationship between drug treatment regimes in patients admitted to a tertiary referral centre with ADHF and their medium term clinical outcomes post-discharge, defined as 90-day mortality and hospital readmissions.

Methods: 94 cases with a discharge diagnosis of ADHF were recruited from October 2017 until August 2018. Cases were analyzed retrospectively for their medications at discharge. Patients were followed-up for 90 days via phone.

Results: Out of 94 patients, 8 patients died during admission. 86 patients were being analysed for clinical outcomes. 22 (26%) patients were discharged without a single type of guideline recommended medication for heart failure (GRM). 33 (38%) patients were discharged on one type, 22 (26%) patients discharged with two types and 10 (12%) patients were discharged with three or more types of GRM. The main reasons for not being discharged with all GRM were chronic kidney disease, obstructive lung disease, bradycardia and hypotension. The 90 days mortality rate was higher in patients discharged with ≤ 1 class of GRM drugs compared to patients with discharged on ≥ 2 classes of GRM drugs. (14.5% vs 6.5%; OR 2.25; 95%CI 0.51, 9.96; $p=0.28$). The 90 days readmission rate for ADHF was also higher for patients discharged with ≤ 1 class of GRM drugs (20.0% vs 12.9%; OR 1.55; 95%CI 0.539, 4.457; $p=0.416$). Overall, patients with discharged with ≤ 1 class of GRM drugs had also a higher 90-day event rate (27.3% vs 19.4%; OR 1.78; 95%CI 0.797, 3.993; $p=0.16$).

Conclusions: Discharging ADHF patients with ≥ 2 class of GRM drugs was associated with lower 90 days readmission rates and mortality.

Even at a tertiary referral centre, every effort should be made to ensure patients admitted with ADHF are discharged on GRM.

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11. Prognostic Value of N-Terminal Prohormone of Brain Natriuretic Peptide (NT-ProBNP) and Killip Score in Patients with Acute Decompensated Heart Failure (ADHF): A Sarawak Tertiary Centre Experience

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Background: Mortality and readmission due to heart failure is contributing to increase healthcare burden. NT-proBNP is known for its role in diagnosis of heart failure. Higher Killip score was found to be associated with more inpatient death among ADHF patients in Sarawak General Hospital. There are limited data on usage of NT proBNP and Killip score to prognosticate post discharge clinical outcome.

Objective: We aim to explore association of admission NT-ProBNP and Killip score with 90-day mortality and readmission outcome.

Materials & Methods: 68 patients with a primary diagnosis of ADHF were recruited between December 2017 to October 2018 in Sarawak General Hospital. NT-proBNP samples were collected within 24hours from diagnosis. Patients were prospectively follow up for 90 days from discharge. ROC curve analysis was applied to determine the cut-off value of NT-proBNP with optimal sensitivity and specificity. Factors (Age, gender, hypertension, diabetes, dyslipidemia, admission BP, heart rate and EF) were investigated for their role in affecting the discriminative value of NT-proBNP. Chi-square analysis was used to compare differences in outcomes between patients with NT-proBNP readings >5055 pg/ml and those with higher Killip score.

Results: Patients recruited had a median age of 63 ± 17 years old and 57% are male. 36(54%) patients had admission Killip score of >2 . 16 (28%) patients recorded cumulative event of death and readmission in 90 days post discharge. The median value of NT-proBNP recorded in the cohort was 4115 pg/ml. ROC analysis identified NT-proBNP as a useful tool in determining 90-day clinical outcome (AUC=0.694, $p=0.024$). At the level of 5055 pg/ml, NT-proBNP had a sensitivity and specificity of 66% and 69%. Performance of NT-proBNP significantly improved in subpopulation of patients who are less than 65 years old, male gender and those with admission systolic blood pressure >100 mmHg respectively (AUC up to 0.871, $p=0.004$). A combination of Killip score >2 with NT-proBNP >5055 pg/ml showed almost 5-fold increase in risk of developing 90-day event (OR 4.5714, 95% CI 1.3-15.7, $p=0.0158$).

Conclusion: Objective assessment using NT-proBNP and clinical parameter of Killip scoring during admission are potentially useful in determining 90-day outcome in patients with ADHF.

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12. Dilated and Hypertrophic Cardiomyopathy in A Tertiary Hospital in Malaysia: A Descriptive Study

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Background: The most prevalent non-ischemic cardiomyopathies are hypertrophic (HCM) and idiopathic dilated cardiomyopathy (DCM). There are no published data regarding these conditions for the Malaysian population.

Objective: To describe the presenting features, clinical characteristics, management and outcome of individuals diagnosed with HCM and DCM.

Materials & Methods: Patients diagnosed at a tertiary medical centre with HCM or DCM were recruited into the study. Primary DCM and HCM were determined by strict echocardiographic criteria. For DCM patients, ischaemic pathogenesis had to be excluded by coronary imaging. Patients with disease due to endocrine, immunologic, drug toxicity, persistent tachycardia and other causes were excluded.

Results: 118 patients were diagnosed with either HCM or DCM (M: F = 1:87; mean age 55 years) over a 3-year period.