

Medication adherence pattern, associated factors and outcomes among hospitalized heart failure patients in a tertiary hospital in Tanzania: A Prospective Cohort Study

Recent Advances in pathogenic treatment of Heart Failure



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Abstract

Background: Management of heart failure is complex and multifaceted but adherence to medications remains the cornerstone of preventing avoidable readmissions, premature deaths, and unnecessary healthcare expenses. Despite of evidence-based efficacy on anti-failure drugs, poor adherence is pervasive and remains a significant barrier to improving clinical outcomes in heart failure population.

Methods: We enrolled 459 patients with established diagnosis of heart failure. Sociodemographic, clinical, laboratory, and echocardiographic data were gathered using a structured questionnaire during the hospital admission of enrollment. Medication adherence was assessed using the 8-item Morisky Medication Adherence Scale (MMAS-8). The primary outcome measures were rehospitalization and mortality at 180-days. Linear logistic regression analyses were used to assess for factors associated with adherence and predictors of rehospitalization. Based on their adherence status, participants were compared with respect to survival using Cox proportional-hazards regression model. All tests were 2-sided and $p < 0.05$ was used to denote statistical significance.

Results: The mean age was 46.4 years and participants aged ≤ 50 years constituted 55.4% of the cohort. There was a female predominance (56.5%), 67.5% resided in urban areas and 74.2% had primary education. About 22% of all participants had health insurance. Of the 419 participants eligible for assessment of medication adherence, 313 (74.7%) had poor adherence and 106 (25.3%) had good adherence. Possession of a health insurance was found to be the strongest associated factor for adherence (OR 8.7, 95% CI 4.7-16.0, $P < 0.001$). During follow-up, rehospitalization rates were 32.8%, 48.1% and 53.0% at 30, 90 and 180 days respectively. Participants with poor adherence displayed a 70% increased risk for rehospitalization compared to their counterparts with good adherence (RR 1.7, 95% CI 1.2-2.9, $p = 0.04$). Overall, 177 (42.2%) patients survived the 180-days of follow-up. Poor adherence was found to be the strongest predictor of early mortality (HR 2.5, 95% CI 1.3-4.6, $p < 0.01$).

Conclusion: Poor medication adherence in patients with heart failure is associated with increased readmissions and mortality. In view of this, deliberate efforts to assess and improve adherence should be incorporated and become an integral part

of daily patient management. Furthermore, strategies to increase health insurance acquisition are fundamental to improve adherence especially among persons living in resource-poor settings.



Biography:

Dr Pedro Pallangyo has completed his Master of Medicine in Internal Medicine and Master of Public Health from Muhimbili University, Tanzania and Dartmouth Medical School, USA. He is the director of Research and Training at the Jakaya Kikwete Cardiac Institute in Tanzania. He has published more than 20 papers in reputable peer reviewed international journals. His key research interests are in NCDs particularly CVDs, nephrology, obesity and Public health.

Speaker Publications:

1. "Knowledge of cardiovascular risk factors among caretakers of outpatients attending a tertiary cardiovascular center in Tanzania: a cross-sectional survey"; *BMC Cardiovascular Disorders* / 2020 / 10.1186/s12872-020-01648-1
2. "Burden and correlates of atrial fibrillation among hypertensive patients attending a tertiary hospital in Tanzania"; *BMC Cardiovascular Disorders* / 2020 / 10.1186/s12872-020-01517-x
3. "A Case of Wellens Syndrome in a 30-Year-Old Woman From Sub-Saharan Africa: A Perplexing Clinical Entity With Invaluable Lessons"; *Journal of Investigative Medicine High Impact Case Reports* / 2020/ 10.1177/2324709620918552

[8th World Heart Congress](#); Webinar – May 11-12, 2020;

Abstract Citation: Pedro Pallangyo, Medication adherence pattern, associated factors and outcomes among hospitalized heart failure patients in a tertiary hospital in Tanzania: A Prospective Cohort Study Recent Advances in pathogenic treatment of Heart Failure, Euro Heart Congress 2020, 8th World Heart Congress; Webinar – May 11-12,2020

(<https://heartcongress.cardiologymeeting.com/abstract/2020/medication-adherence-pattern-associated-factors-and-outcomes-among-hospitalized-heart-failure-patients-in-a-tertiary-hospital-in-tanzania-a-prospective-cohort-study>)