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Abstract

Sustainable protocol-based management of hypertension in one institution in northern Malawi

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Abstract

Introduction: Across all WHO regions, Africa has the highest prevalence of hypertension with 46% of the population >25 years estimated to be hypertensive. Blood pressure (BP) control is poor, with <40% of hypertensives diagnosed, <30% of those diagnosed receiving medical treatment, and <20% with adequate control. We report an intervention to improve BP control in a cohort of hypertensive patients attending a single hospital in Mzuzu Malawi, by introducing a limited protocol of four antihypertensive medications taken once-daily.

Methods: A drug protocol based on international guidelines, drug availability in Malawi, cost and clinical effectiveness was developed and implemented. Patients were transitioned to the new protocol as they attended for clinic visits. Records of 109 patients completing at least three visits were assessed for BP control.

Results: Two-thirds of patients (*n*=73) were female and average age at enrolment was 61.6 ± 12.8 years. Median [interquartile range] systolic BP (SBP) was 152 [136;167] mm Hg at baseline and reduced over the follow-up period to 148 [135; 157, $p<0.001$ vs baseline]. Median diastolic BP (DBP) reduced from 90.0 [82.0; 100] mm Hg to 83.0 [77.0; 91.0], $p<0.001$ vs baseline. Patients with highest baseline blood pressures benefited most and there were no associations noted between BP responses and either age or gender.

Discussion: We conclude that a limited evidence based once-daily drug regimen can improve blood pressure control by comparison with standard management. Cost effectiveness of this approach will also be reported.