ADHERENCE TO MEDICATION AND SALT RESTRICTION AND BLOOD PRESSURE CONTROL AMONG HYPERTENSIVE PATIENTS

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PURPOSE

Sub-Saharan Africa is experiencing a rising burden of hypertension. Antihypertensive medications and salt restriction diet are the cornerstone of effective hypertension control

We therefore, assessed **adherence to medication and salt restriction** in 12 sub-Saharan countries and studied their relationship with **blood pressure (BP) control** among hypertensive patients.

METHODS

- **Design**: Cross sectional study
- **Settings**: patients were recruited during outpatient consultations-specialized in hypertension- in the cardiology departments in 12 sub-Saharan countries (6 low income countries : Benin, Democratic Republic of Congo, Guinea, Mozambique, Niger, Togo and 6 middle income countries : Cameroon, Congo (Brazzaville), Ivory Coast, Gabon, Mauritania, Senegal).
- **Participant**: Patients attending an outpatient consultation in the cardiology department of the participating hospitals, aged ≥18 years
- **Adherence**: Poor adherence to medication was defined as a score <8 on the validated 8-Item Morisky Medication Adherence Scale (MMAS 8) completed by the patients. We developed a scale (ranging from 0 to 9) to assess salt consumption, poor adherence to salt restriction was defined as a score ≥2.
- **Measurements:** BP control was defined as BP<140/90 mmHg and hypertension grades were defined according to European Society of Cardiology guidelines;
- **Statistical Methods**: association between adherence to medication and salt restriction and BP control was investigated using multilevel logistic regression analysis adjusting for age, sex and countries

RESULTS

- Between January 2014 and November 2015, 2198 patients with hypertension were included. Among these patients, 34.0% were poorly adherent to salt restriction, 64.4% were poorly adherent to medication, and 24.6% had poor adherence to both. Moreover, 77.4% of the patients had uncontrolled BP.

Table 1 : Patients characteristics according to their level of adherence

	GLOBAL	ADHERENCE TO SALT RESTRICTION			ADHERENCE TO MEDICATION		
		GOOD	POOR	pValue	GOOD	POOR	pValue
N (%)	2198	1361 (66.0)	700 (34.0)		782 (35.6)	1416 (64.4)	
Age, mean (sd)	58.3 (11.8)	58.8 (11.7)	57.0 (11.9)	0.011	58.4 (11.3)	58.2 (12.1)	0.178
Male, N (%)	874 (39.8)	531 (39.0)	295 (42.1)	0.080	317 (40.5)	557 (39.3)	0.772
Location (Urban vs Rural), N (%)	1702 (78.9)	1039 (77.8)	564 (82.1)	0.224	625 (81.1)	1077 (77.7)	0.593
No. of antihypertensive prescribed, mean (sd)	1.94 (0.93)	1.98 (0.94)	1.86 (0.91)	<0.001	2.01 (0.98)	1.90 (0.90)	0.043
Recent diagnosis of hypertension (<1 year), N (%)	335 (15.6)	192 (14.4)	117 (17.1)	0.006	126 (16.5)	209 (15.0)	0.138

- Poor adherence was significantly associated with uncontrolled BP :
  - OR: 1.33, 95%CI [1.03–1.72] for poor adherence to salt restriction
  - OR: 1.56, 95% CI [1.25–1.93] for poor adherence to medication
  - OR: 1.91, 95% CI [1.39–2.66] for poor adherence to both
- Moreover, poor adherence (to salt restriction, medication or both) was associated with a higher stage of hypertension (Figure 1).

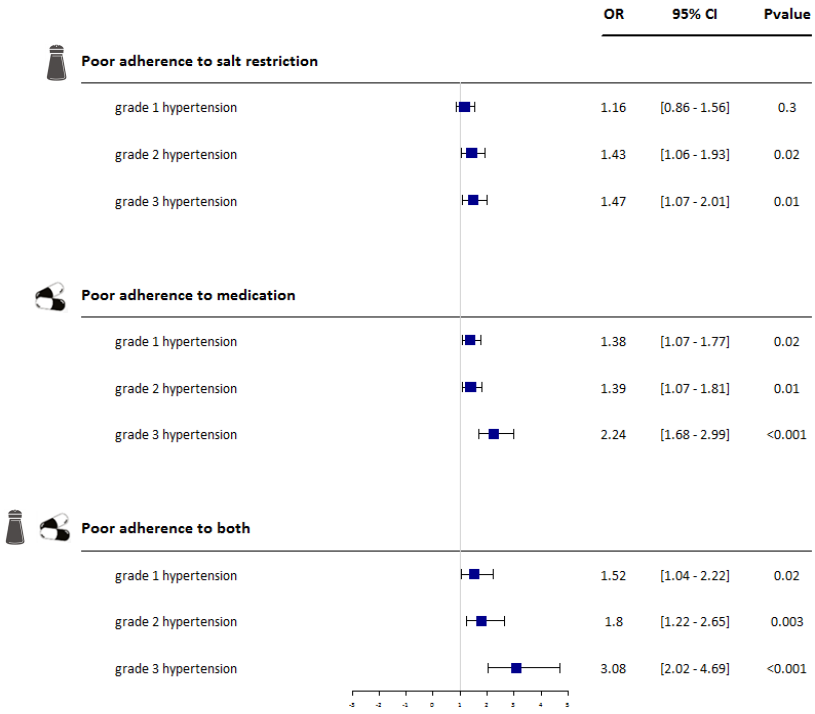

Figure 1: Odds ratios for hypertension grades according to adherence level to salt restriction or to medication

CONCLUSION

High levels of poor adherence to medication and salt restriction were noted in this urban Sub-Saharan study. Both were significantly associated with uncontrolled BP, representing major opportunities for intervention to improve hypertension control in Sub-Saharan Africa.