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Interamerican Society of Cardiology (IASC) position statement: Chlorthalidone vs. thiazide-*type* diuretics☆

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ABSTRACT

The Interamerican Society of Cardiology (IASC) Position Statement for hypertension management in Latin America is a practical and useful review of five different hypertension guidelines. Though, thiazide diuretics have been recommended as firstline option, the position statement needs to highlight differences *within* the thiazide class. Chlorthalidone is structurally and pharmacokinetically distinct from thiazide-*type* iuretics like hydrochlorothiazide with a longer half-life and 24-h anti-hypertensive effect. It has been shown to reduce cardiovascular morbidity and mortality in several landmark studies evaluating anti-hypertensives.

We appreciate the efforts by Wyss and colleagues to analyze five hypertension guidelines and derive practical recommendations for hypertension management in Latin America. Though, the authors have recommended thiazides as first-line option, they have not differentiated *within* the thiazide class.

A meta-analysis involving 112, 113 hypertensives showed that thiazide-*like* diuretics cause significantly greater reduction in cardiac events than thiazide-*type* diuretics [1]. American and Canadian guidelines reviewed by the authors too, recommend preferring thiazide-*like* diuretics like chlorthalidone (CTD) on the basis of long duration of action and proven efficacy in landmark trials. CTD is structurally and pharmacokinetically distinct from thiazide-*type* diuretics like hydrochlorothiazide (HCTZ) with a longer half-life (40–60 h vs. 3.2–13.1 h), explaining the potent 24-h anti-hypertensive effect. In a double-blind randomised trial, CTD significantly reduced 24-h ambulatory, day-time as well as night-time BP. However, no significant 24-h BP reduction was seen with HCTZ, which merely converted sustained hypertension into masked hypertension [2]. Meta-analyses and observational comparisons also have suggested that CTD is superior to HCTZ in preventing CV events [3,4]. Major National Institutes of Health-funded studies evaluating anti-hypertensives have preferred CTD as the thiazide-diuretic; and CTD has been repeatedly shown to reduce CV events and death, equally or better than other anti-hypertensives at clinically used doses. In contrast, HCTZ at usual prescribed doses (12.5–25 mg/day) has no published evidence of reducing CV events and has been called a "paltry" antihypertensive [5].

Thus, we suggest that IASC should guide clinicians to use the evidence-based diuretic CTD which has been unequivocally shown to prevent hypertension-related morbidity and mortality.

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