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Clinical decisions on hypertension among Colombian internists: three-year changes after publication of national guidelines

JC. Villar 1,2, A. Muñoz 1, JG. Perez 1, YZ. Castellanos 2, CA. Velandia 3, CA. Ruiz3 , from the Knowledge Synthesis and Transfer Unit, Cardiecol Research Program and Fundación Cardioinfantil – Instituto de Cardiología; 2- Universidad Autónoma de Bucaramanga; 3-Fundación Oftalmológica de Santander - Clínica Carlos Ardila Lülle

PURPOSE

Hypertension (HTN) is the leading cause of seeking outpatient medical care [1] (one in three visits to doctors) in Colombia.

In 2011 the government funded, for the first time, a systematic initiative to introduce evidence-based clinical practice guidelines (CPG) including HTN [2].

Upon publication of these CPGs (2013), there was not systematic, nationwide plan for implementation. We report the frequency of clinical decisions related to the recommendations listed in the HTN-CPG, both in 2013 and 2016 (before its first update).

METHODS

We conducted two independent electronic surveys within the membership of the Colombian Association of Internal Medicine (ACMI). Those providing authorization to email-listing announcements and giving consent to participate provided demographic information and their decisions on HTN.

The survey included 4 sets of questions covering the 26 recommendations included in the HTN-CPG 4 modules (prevention, diagnosis, treatment and follow up). Questions were either yes/no or multiple-choice, based on clinical scenarios, one per each guideline module.

Respondents received two randomly-allocated cases/sets of questions in order to reduce answer times. We categorized answers by "clinical distance" with 2 levels of agreement (as on the/close to or distant from) with the recommendations.

This analysis focuses on decisions on diagnosis and therapy.

RECOMMENDATIONS IN CPG	In Agreement with CPG Recommendations 2013 (n=132) n (%)	2016 (n=131) n (%)
Decisions on diagnosis of HTN / for target organ disease when HTN is confirmed		
24-hour ambulatory blood pressure monitoring (ABPM) to ascertain first-time diagnosis of HTN	68 (51.6)	95 (72.5)
Screening for target organ damage upon diagnosis of HTN		
EKG to screen for LVH	**21 (16.1)**	**9 (7.6)**
Fundoscopy to screen for retinopathy	**26 (19.4)**	**27 (23.1)**
CCL (24-hour urine collection) to rule out HTN Kidney disease	**102 (77.4)**	**66 (56.4)**
Echocardiography to rule out LVH in low pre-test probability cases	**81 (61.3)**	**72 (61.5)**
Carotid ultrasound to rule out vascular disease	**123 (93.5)**	**91 (77.7)**
Albuminuria (casual urine sample) to rule out HTN Kidney disease	85 (64.5)	86 (73.5)
Overall CVD risk stratification	123 (93.5)	108 (92.3)
Decisions on Therapy		
Starting a 2nd drug (different group) instead of increase dose of the 1st drug for uncontrolled cases	58 (44.4)	61 (58.1)
Preferred starting drug		
Thiazides ¶	37 (27.8)	33 (31.4)
Beta- blockers	15 (11.1)	7 (6.6)
CCBs	26 (19.4)	22 (20.9)
ARBs	44 (33.3)	38 (36.2)
ACE inhibitors	84 (63.9)	58 (55.2)

(shaded) Recommendations against the decision (do not perform/order….) ¶ Recommended as first-line therapy in the guideline

RESULTS

Stratifying overall risk for CVD events was the decision more often in agreement with "positive" recommendations in the guideline. The most followed "negative" recommendation was not to perform carotid ultrasound to rule out vascular disease. The decision more distant from recommendations was to order EKG to rule out left ventricular hypertrophy (below 20%).

ARABs/ACE inhibitors were at the top of the list as starting drug of choice. About 30% of doctors would start with thiazides, the drugs recommended as first-line.

There was an encouraging increase in ordering 24-hour ABPM to ascertain first-time diagnosis of HTN between 2013 and 2016.

CONCLUSIONS

In the absence of implementation strategies3 , clinical decisions on HTN among Colombian internists did not improve, even deteriorated, three years after publication of a CPG.

Although doctors are choosing more often 24-hour ABPM to ascertain first-time diagnosis of HTN, EKG is still the leading screening tool for left ventricular hypertrophy.

Additional efforts are urgently required to disseminate widely and systematically evidence based recommendations to add value to the delivery of care in HTN.

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