

CARDIO approach – quality of Care

Highlights from recommended interventions

Quality of care



Goal

Lower the main cardiovascular risk factors at the population level by improving quality of care. This is achieved by standardizing cardiovascular (CV) risk factor management aligned with existing evidence, and by optimizing primary healthcare performance with task shifting and sharing



Contents

Key interventions to improve quality of care (slides 3-11)



Simplify guidelines for hypertension in primary care



Guidelines



Decision support



Training



Care coordination

Translating lengthy hypertension guidelines into practical decision support for primary healthcare in São Paulo



103 pages

7th Brazilian Cardiology Society Guideline



81 pages

City of São Paulo Recommendation for Hypertension and Diabetes Care in Primary Care



11 pages

Simplified Protocol: Taking Care of your Heart



Review of international guidelines (AHA/ACC)



Standardize hypertension management at primary healthcare level

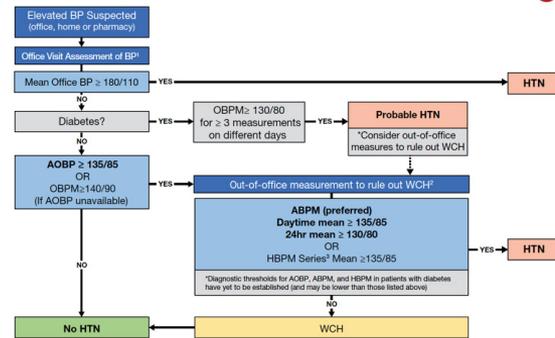
Guidelines

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DIAGNOSIS HYPERTENSION DIAGNOSTIC ALGORITHM FOR ADULTS



Algorithm Notes:

- 1) If AOBP is used, use the mean calculated and displayed by the device. If OBPM is used, take at least three readings, discard the first and calculate the mean of the remaining measurements. A history and physical exam should be performed and diagnostic tests ordered.
- 2) Serial office measurements over 3-5 visits can be used if ABPM or HBPM are not available.
- 3) Home BP Series: Two readings taken each morning and evening for 7 days (28 total). Discard first day readings and average the last 6 days.
- 4) In patient with suspected masked hypertension, ABPM or HBPM could be considered to rule out masked hypertension.

AOBP: Automated Office Blood Pressure. This is performed with the patient unattended in a private room.
OBPM: Office Blood Pressure Measurement. These are measurements performed in the office using an electronic upper arm device with a provider in the room.
ABPM: Ambulatory Blood Pressure Monitoring
HBPM: Home Blood Pressure Monitoring
WCH: White Coat Hypertension
HTN: Hypertension
All measurement values in algorithm are reported as mmHg.

Simplified and standardized algorithms and clinical decision support systems are essential to improve quality of care – followed by training of health workers on their use (supplemented by online continuing medical education when possible) and adherence monitoring

Learn more about this:



A Practical Guide informed by the Hypertension Canada Guidelines for the Prevention, Diagnosis, Risk Assessment, and Treatment of Hypertension (PDF)

Ensure quality of blood pressure measurement



Guidelines



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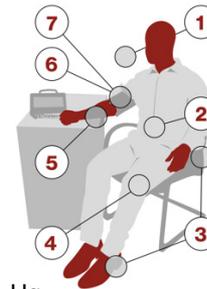
Care coordination

Six steps for accurate blood pressure measurement

- Step 1** Prepare the patient: relax >5 minutes, sit in chair, no caffeine, empty bladder, no talk
- Step 2** Use proper technique to measure blood pressure (see illustration)
- Step 3** Take the proper measurements needed: record blood pressure in both arms on first visit, repeat measurements 1-2 minutes apart
- Step 4** Properly document accurate blood pressure readings: note the time of the most recent blood pressure medication taken
- Step 5** Use the average of multiple readings
- Step 6** Provide blood pressure readings to patient

How to measure blood pressure

- 1** Don't have a conversation – talking or active listening adds 10 mm Hg
- 2** Empty bladder first – full bladder adds 10 mm Hg
- 3** Support back/feet – unsupported back and feet adds 6 mm Hg
- 4** Keep legs uncrossed – crossed legs add 2-8 mm Hg
- 5** Support arm at heart level – unsupported arm adds 10 mm Hg
- 6** Put cuff on bare arm – cuff over clothing adds 5-50 mm Hg
- 7** Use correct cuff size – cuff too small adds 2-10mm Hg



Source: American Heart Association, hypertension management flyer for Better Hearts Better Cities



Introduce a cardiovascular risk score



	SBP 130 - 139mmHg or DBP 85 - 89mmHg	Stage 01 HA SBP 140 - 159mmHg or DBP 90 - 99mmHg	Stage 02 HA SBP 160 - 179mmHg or DBP 100 - 109mmHg	Stage 03 HA SBP ≥ 180mmHg or DBP ≥ 110mmHg
No RF	No Additional Risk	Low Risk	Moderate Risk	High Risk
1 a 2 RFs	Low Risk	Moderate Risk	High Risk	High Risk
≥ 3 RFs	Moderate Risk	High Risk	High Risk	High Risk
Presença de LOA, DCV, DRC ou DM	High Risk	High Risk	High Risk	High Risk

Brazil, Mongolia and Senegal introduced a cardiovascular risk score into the evaluation of hypertensive patients (based on international guidelines and contextualised to each city)

Strengthen capacity of nurses and community health workers



Guidelines



Decision support



Training



Care coordination

A range of activities can be used to train and empower nurses and community health workers, i.e., educational materials, tailored trainings, role play and tools that can be applied in daily interactions with communities and patients



The video shows an activity from the 2019 **Day of the Community Health Worker** that brought together for the first time the district's community health workers to exchange, learn, celebrate and test their knowledge (Portuguese with English subtitles):



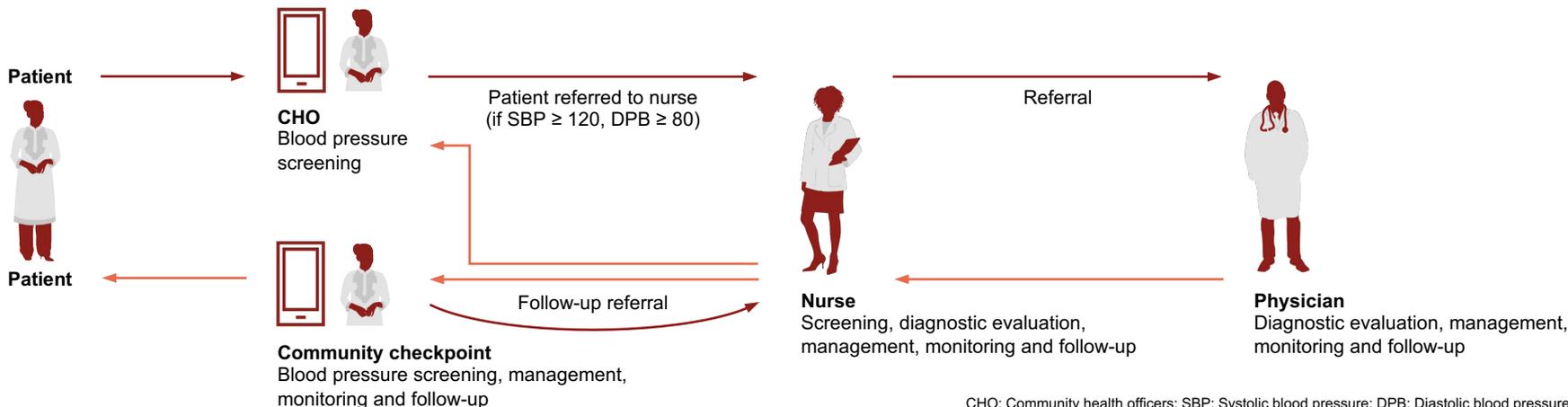
National Day of Community Health Agents



Make task shifting possible amongst levels of health providers



Provide clear guidance on the role and responsibility of each category of personnel, protocols for screening and further assessment, criteria for diagnosis, and recommendations for treatment and management



CHO: Community health officers; SBP: Systolic blood pressure; DPB: Diastolic blood pressure

Optimize primary healthcare performance with task-shifting and task-sharing



Guidelines



Decision support



Training



Care coordination



Optimize performance of primary health centers through **task-shifting and task-sharing in managing CV risk factors** – this empowers nurses and community health workers to play a bigger role

Read more about this work in Dakar:



www.intrahealth.org



Systematically measure health outcomes



Guidelines



Decision support



Training

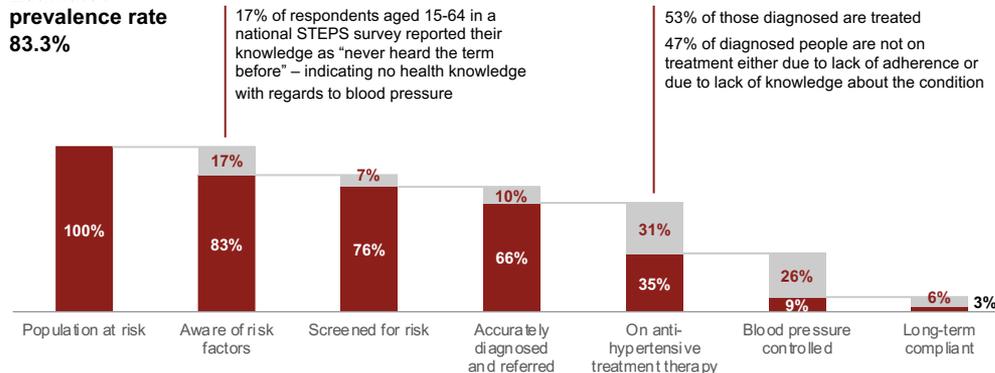


Care coordination

Cascade data are key to:

- Regularly **monitor progress** on health outcomes
- Understand **system performance**
- Identify areas requiring **priority focus** (e.g., early detection versus long-term retention)
- Redesign **CARDIO** interventions accordingly

Estimated prevalence rate
83.3%



Our field assessment

1. Lack of awareness on triggering factors and consequences of uncontrolled hypertension

2. Low knowledge base among healthcare providers regarding diagnosis and treatment guidelines

3. Lack of affordability for those with co-morbidities or not with regular employment (most nomadic population)

Example for illustration



Map the patient journey



Guidelines



Decision support



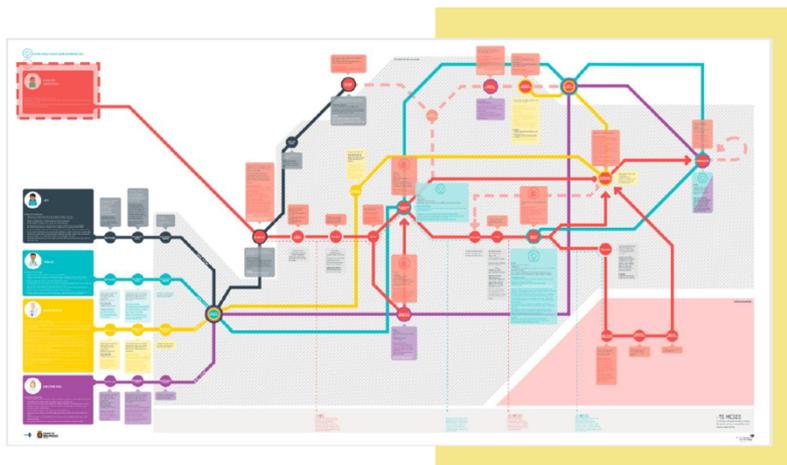
Training



Care coordination

The Better Hearts, Better Cities User Journey on **Primary Care**

Having BHBC's primary care journey as a starting point we focused on the patient and expanded the view to secondary and tertiary level of care.



Learn more about the patient journey in Brazil that was created through a design thinking process:



Patient and care journey map (PDF)

