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The 2026 Mexican Consensus on Arterial Hypertension: Expert Group on Arterial Hypertension (GREHTA)

Consenso Mexicano sobre Hipertensión Arterial 2026: Grupo de Expertos en Hipertensión Arterial (GREHTA)

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Abbreviations:

ACS = acute coronary syndrome
 AF = atrial fibrillation
 BP = blood pressure
 CKD = chronic kidney disease
 COPD = chronic obstructive pulmonary disease
 CPAP = continuous positive airway pressure
 eGFR = estimated glomerular filtration rate
 HF = heart failure
 MASLD = metabolic dysfunction–associated steatotic liver disease
 MI = myocardial infarction
 OSAS = obstructive sleep apnea syndrome
 RAAS = renin-angiotensin-aldosterone system
 SGLT2 = sodium-glucose cotransporter-2

EXECUTIVE SUMMARY**OPERATIONAL SUMMARY FOR
PRIMARY CARE PHYSICIANS¹⁻⁷****I. CORE PRINCIPLES (THE «GOLDEN
RULE» OF THE CONSENSUS)****1. Arterial hypertension is NOT
an isolated disease**

It is one of the central components of a complex cardio–renal–metabolic phenotype (MACARENHA, see below).

All elements of MACARENHA must be addressed and treated.

**2. Accurate blood pressure
(BP) measurement is the most
important clinical act**

«If I measure incorrectly → I diagnose incorrectly
 → I treat incorrectly → I fail».

Without proper measurement: office, home, ambulatory blood pressure monitoring (ABPM), or home blood pressure monitoring (HBPM), there is no patient benefit.

**3. If I do not assess cardio–reno–
metabolic risk, I cannot construct
an appropriate treatment plan**

Comprehensive management depends on global cardiovascular risk.

**4. If I initiate therapy with monotherapy, the
probability of failure is very high (≈ 70%)**

Most Mexican patients require dual or triple therapy from the outset, ideally in a single-pill combination.

**5. My objective is to bring the patient to
< 130/80 mmHg within three months**

These BP targets should be maintained lifelong.

**6. Beyond blood pressure, I must control
glucose, lipids, and body weight**

In Mexico, hypertension is almost always cardio–reno–metabolic and atherosclerotic simultaneously.

**II. GENERAL GUIDELINES FOR THE
MANAGEMENT OF ARTERIAL HYPERTENSION****1. Diagnosis must be based on accurate
blood pressure measurement***1.1 In-office measurement*

- Appropriate cuff size.
- Patient seated for five minutes.
- Two measurements separated by two minutes.
- Repeat if a discrepancy exists.
- Measure in both arms at the first visit and use the arm with the higher reading.
- A discrepancy of > 10 mmHg between arms warrants further evaluation.

1.2 Out-of-office measurement

Mandatory in adult patients with office BP values of 120-159/85-109 mmHg (for patients with > 160/110 mmHg, office measurement alone is sufficient).

1.2.1 HBPM

- The most useful instrument in daily practice for diagnosis and follow-up.
- Three measurements each morning and evening for seven consecutive days using the correct technique.

- Allows assessment of BP variability and stability.

1.2.2 24-hour ABPM

Indicated in:

- Suspected nocturnal hypertension.
- Marked BP variability.
- Resistant hypertension.
- Obstructive sleep apnea syndrome (OSAS).
- Non-dipping hypertension.

BP thresholds for clinical action

Condition	Immediate action
BP \geq 140/90 mmHg	Diagnosis and initiation of treatment
BP \geq 130/80 mmHg + high or very high risk	Diagnosis and initiation of treatment
Suspected white-coat or masked hypertension	Confirm with HBPM/ABPM

III. CARDIO-RENO-METABOLIC RISK STRATIFICATION (MACARENHA CONNECTION AS THE NEW INTEGRATIVE AXIS): HYPERTENSION IS ONE COMPONENT

1. Key components of the MACARENHA phenotype

- **Metabolic:** type 2 diabetes (T2D), dyslipidemia.
- **Adipose:** pathological visceral adiposity.
- **Cardiovascular:** ischemic heart disease, atrial fibrillation (AF), venous insufficiency.
- **Arterial:** arterial stiffness, microvascular damage, endothelial dysfunction.
- **Renal/respiratory:** chronic kidney disease (CKD), albuminuria/chronic obstructive pulmonary disease (COPD), OSAS, infections.
- **Enterohepatic:** microbiota alterations, metabolic dysfunction-associated steatotic liver disease (MASLD).
- **Neurological:** stroke, cognitive decline, mental health disorders.
- **Arterial hypertension.**

2. Rapid evaluation using indices derived from routine laboratory tests with simple calculations

- Estimated glomerular filtration rate (eGFR) using serum creatinine for estimating renal damage.
- Albuminuria/proteinuria (urinalysis dipstick).
- Urinary albumin-to-creatinine ratio (morning spot sample).
- Non-high-density lipoprotein cholesterol (Non-HDL-c cholesterol, primary marker of dyslipidemia).
- Fasting glucose.
- Triglyceride-glucose index (marker of glucose intolerance).
- FIB-4 index calculated from complete blood count and chemistry panel.

Practical office rule:

If your patient has hypertension + T2D and/or dyslipidemia and/or obesity and/or CKD → the patient is at high cardio-reno-metabolic risk.

2.1 Rapid risk stratification version

- Always count the number of risk factors ($\geq 3 =$ high risk).
- Presence of target organ damage (retina, heart, kidney, brain, arteries).
- Previous cardiovascular event (stroke, myocardial infarction (MI), or other acute coronary syndrome (ACS), atrial fibrillation (AF), and heart failure (HF) → very high risk.
- eGFR < 60 mL/min.
- BP $> 160/100$ mmHg = high risk; BP $> 180/110$ mmHg = very high risk.

If the patient meets any of these criteria, they are automatically classified as high or very high cardio-reno-metabolic risk and do not require a digital risk calculator. Approximately 70-80% of primary care patients are already at high or very high risk at their first consultation.

IV. NON-PHARMACOLOGICAL TREATMENT

Applies to all patients and consists fundamentally of a healthy lifestyle: reduction of salt intake,

an appropriate dietary pattern (milpa diet), regular physical activity, and management of excess body weight.

V. PHARMACOLOGICAL TREATMENT: A SINGLE AND SIMPLE ALGORITHM

Key message: monotherapy is reserved only for special cases and should therefore be prescribed by a specialist. Its effectiveness in achieving BP targets is approximately 30%.

Step 1. Initiation (the vast majority)

The fundamental rule is the use of dual combination therapy in a single tablet at treatment initiation.

(Patients with systolic/diastolic blood pressure (SBP/DBP) > 160/100 mmHg at high or very high risk may require triple therapy from the outset)

- ACE inhibitor (ACEi) or angiotensin 2 receptor blocker (ARB) + calcium channel blocker (CCB)
or
- ACEi or ARB + thiazide/thiazide-like diuretic (chlorthalidone/indapamide)

Always prefer fixed-dose single-pill combinations.

Note: Beta-blockers may be initiated at Step 1 under special conditions (sustained heart rate > 80 bpm; AF to maintain HR < 110 bpm; HF to maintain HR < 70 bpm; chronic coronary syndrome).

Step 2. Intensification

If the target BP is not achieved within one month, treatment must be intensified (~ 30% of patients on dual fixed combinations will require adjustment).

Add a third agent:

ACEi/ARB + CCB + thiazide-like/thiazide diuretic.

Step 3. Resistant hypertension

(Defined as uncontrolled BP despite three or more medications, including a full-dose diuretic.)

Remember! First, verify pseudo-resistance: improper measurement, non-adherence, BP-elevating drugs, OSAS, secondary hypertension.

Add:

- Spironolactone (first choice)
- Other options: beta-blockers, clonidine, alpha-blockers, loop diuretics, and innovative therapies depending on patient context.

Consider referral for renal denervation in selected cases to specialized centers with clear criteria.

Mandatory concomitant treatments

Because BP control alone does not guarantee the total achievable benefit:

- Statin therapy in all patients, regardless of calculated risk, individualized dosing ± ezetimibe.
- Sodium-glucose cotransporter-2 (SGLT2) inhibitors or glucagon-like peptide-1 (GLP-1) receptor agonists in T2D or high cardiovascular risk.
- Sustained weight reduction.
- Sodium restriction + cardio-renal diet.
- Mandatory vaccination (Influenza, Pneumococcus, SARS-CoV-2 virus (Coronary disease 2019, COVID-19), herpes zoster, respiratory syncytial virus).

VI. SECONDARY HYPERTENSION: RAPID AND PRACTICAL DETECTION

Red flags:

- Onset in children, adolescents, adults < 30 or > 65 years.
- Resistant hypertension.

- Hypokalemia.
- Significant albuminuria.
- OSAS.
- Abrupt BP worsening.

Main causes and basic management:

- OSAS → Continuous positive airway pressure (CPAP) therapy for sleep apnea + combination therapy.
- Kidney disease → Renin-angiotensin-aldosterone system (RAAS) blockade + CCB + thiazide-like + SGLT2 inhibitor.
- Hyperaldosteronism → spironolactone/surgery.
- BP-raising drugs → discontinue.
- Renovascular disease → multifactorial management/selective intervention. (Other less frequent causes are discussed in the extended document).

VII. SPECIAL POPULATIONS

Hypertension and pregnancy

- Definition: BP \geq 140/90 mmHg; may predate pregnancy and persist.
- Preeclampsia: hypertension after week 20 → multiorgan dysfunction, proteinuria, platelet dysfunction, thrombotic diathesis → Hemolysis-elevated liver enzymes-low platelet count (HELLP).
- Low-dose of acetylsalicylic acid from week 11 if no contraindication.
- Initial BP control: methyldopa, labetalol, nifedipine, hydralazine, or combinations.
- Magnesium sulfate in severe cases; mandatory hospital management.
- High future CV risk → mandatory postpartum follow-up.

All these conditions confer lifelong elevated risk in women.

Women and other disorders

- Menopause
- Polycystic ovary syndrome
- Contraceptive and hormonal therapy use
- Autoimmune diseases

Children and adolescents

- Hypertension defined by percentiles; \geq 130/80 mmHg in those >13 years
- Treatment: lifestyle + ACEi/ARB + CCB
- Consider obesity
- Evaluate for secondary causes

Older adults

- Consider arterial stiffness (pulse pressure > 50 mmHg).
- Assess frailty and cognitive decline.
- Dual or triple therapy may be used if no contraindications.
- BP flexible target, preferably close to 130/80 mmHg.
- Avoid orthostatic hypotension.
- Consider monotherapy in frailty.

VIII. ARTIFICIAL INTELLIGENCE IN HYPERTENSION

- Cuffless BP measurement.
- Support for cardio-reno-metabolic risk stratification.
- Greater precision in ABPM/HBPM interpretation and remote monitoring.
- Identification and control of the MACARENHA connection.
- Detection of clinical inertia.
- Improved adherence.
- Opportunity for precision medicine.
- Research and big data management.
- Automation of medical records.
- Greater diagnostic and therapeutic precision via invasive and non-invasive methods.
- Education for physicians and patients.
- Improved decision-making in healthcare and public policy.

IX. KEY MESSAGES: THE 10 COMMANDMENTS OF HYPERTENSION

1. Remember: there is no correlation between symptoms and the severity of hypertension.
2. Measure BP correctly (in and out of the office).
3. Do not use monotherapy except in exceptional cases.

4. Initiate fixed combinations from day 1.
5. General target < 130/80 mmHg - sustain it permanently.
6. Always think MACARENHA: correct unhealthy habits, lipids, glucose, weight, and renal function.
7. Anticipate clinical inertia: adjust therapy when necessary (at least every 4-6 weeks).
8. Educate and empower patients and their families.
9. One combination pill is worth more than two or three separate tablets.
10. These commandments are lifelong.

CONCLUSIONS

The 2026 Mexican Hypertension Consensus, proposed by GREHTA, establishes a new clinical paradigm, redefining hypertension as an integral component of the MACARENHA phenomenon, which interconnects cardiovascular, renal, and metabolic health. The consensus prioritizes diagnostic precision through strict measurement protocols, both in and out of the clinical setting, to avoid diagnostic and therapeutic errors.

For pharmacological management, it recommends abandoning monotherapy and initiating fixed-dose combination therapy in a single tablet immediately, aiming to achieve BP targets below 130/80 mmHg. The guideline emphasizes that treatment success depends on simultaneously addressing lifestyle factors, obesity, glucose, and lipid abnormalities, rather than solely reducing blood pressure.

Finally, the consensus provides simplified algorithms and risk-stratification tools specifically designed to optimize primary care delivery in the Mexican population, and underscores the importance of leveraging emerging technologies and artificial intelligence.

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