POSITIVA COMPAÑÍA DE SEGUROS | suma 5.0 | educa | comunica

EL FUTURO ES HUMANO

# PLAN NACIONAL

## Multimodal 2025

Fórmulas para la vida

Valores + Emociones + Competencias

Respeto + Alegría + Aprendizaje

38

POSITIVA COMPAÑÍA DE SEGUROS | suma 5.0 | educa | comunica

EL FUTURO ES HUMANO

Comunidad Nacional de Conocimiento en

# Acciones Educativas Especiales en SST

## Fórmulas para la vida

Valores + Emociones + Competencias

Sabiduría + Gratitud + Gestión del tiempo

# SESIÓN 7:
# CONOCE TU ARL - PREVENCIÓN DEL RIESGO CARDIOVASCULAR

# KATRINA YOVANA CASTILLO BARRIOS


Katrina.Castillo@grupoemi.com

3006273629

**Médico general Universidad de Cartagena**
**Médico especialista en Epidemiología**
**Fundación Universitaria del Area Andina**
**Instructora CEMI Falck**
**Jefe medico de EMI FALCK Bogotá**

# Ruta de **conocimiento**


**SESIÓN 1:**
**CONOCE TU ARL - ACCESO A SERVICIOS Y NOVEDADES**

**SESIÓN 2:**
**CONOCE TU ARL - MODELO DE ATENCIÓN DEL SINIESTRO - RUTAS INTEGRALES DEL SERVICIO**

**SESIÓN 3:**
**CONOCE TU ARL - NUEVAS HERRAMIENTAS DE GESTIÓN**

**SESIÓN 4:**
**CONOCE TU ARL - REINTEGRO LABORAL EFECTIVO - LABORATORIO DE BIOMECÁNICA**

# Ruta de **conocimiento**

05

**SESIÓN 5:**
**CONOCE TU ARL - COMO CULTIVAR EL BIENESTAR MENTAL PARA EVITAR EL DETERIORO DE LA SALUD**

06

**SESIÓN 6:**
**CONOCE TU ARL - REHABILITACIÓN INTEGRAL Y REINCORPORACIÓN LABORAL EFECTIVA**

07

**SESIÓN 7:**
**CONOCE TU ARL - PREVENCIÓN DEL RIESGO CARDIOVASCULAR**

08

**SESIÓN 8:**
**CONOCE TU ARL - LO QUE DEBES SABER EN RIESGOS LABORALES**


POSITIVA
COMPAÑÍA DE SEGUROS
suma 5.0
educa
comunica
EVALUÉMONOS
Fórmulas para la vida
Valores + Emociones + Competencias
Respeto + Gratitud + Ética y sostenibilidad

Los mejores médicos del mundo son: el doctor dieta, el doctor reposo y el doctor alegría.

Jonathan Swift

# CONTENIDO



# OBJETIVOS

01 Conocer qué es la enfermedad cardiovascular..

02 Identificar los factores de riesgo cardiovascular

03 Aplicar estrategías de prevención de riesgo cardiovascular

# Organización mundial de salud.

Las enfermedades cardiovasculares son la principal causa de defunción en el mundo. Según las estimaciones, se cobran cada año 17,9 millones de vidas. Estas enfermedades agrupan una serie de trastornos del corazón y los vasos sanguíneos, como la cardiopatía coronaria, los accidentes cerebrovasculares y las cardiopatías reumáticas. Más de cuatro de cada cinco defunciones por enfermedades cardiovasculares se deben a cardiopatías coronarias y accidentes cerebrovasculares, y una tercera parte de ellas son prematuras (es decir, de personas menores de 70 años)

# Ejemplos de enfermedad cardiovascular

**HIPERTENSIÓN ARTERIAL**
La hipertensión es una de las condiciones crónicas más conocidas que incrementan el riesgo de la enfermedad coronaria; por lo tanto, la hipertensión arterial representa una enfermedad per se y a la vez es un factor de riesgo.

**OBESIDAD**
En las últimas décadas, el índice de masa corporal (IMC), medido como el peso (enkg) dividido por el cuadrado de la estatura (en metros), de niños, adolescentes y adultos ha aumentado sustancialmente en todo el mundo[43]. Los análisis mendelianos aleatorizados muestran una relación lineal entre el IMC y la mortalidad en no fumadores La mortalidad por todas las causas es menor con un IMC de 20-25 en personas aparentemente sanas,

**DIABETES MELLITUS**
La DM1, la DM2 y la prediabetes son factores independientes de riesgo de EA y casi lo duplican, dependiendo de la población y el control terapéutico[41].
Parece que las mujeres con DM2 tienen más riesgo de ictus[42].

**Table 1. Hypertensive Emergencies by Organ and Initial Treatment Approach**

| | Organ | | | | |
|---|---|---|---|---|---|
| | **Brain** | **Arteries** | **Retina** | **Kidney** | **Heart** |
| Acute conditions indicating hypertensive emergency | Stroke<br>Hypertensive encephalopathy (PRES)<br>Cerebral hemorrhage | Acute aortic dissection<br>Preeclampsia, HELLP, eclampsia | Grade III–IV Keith-Wagener-Barker hypertensive retinopathy | Acute kidney injury<br>Thrombotic microangiopathy | Acute heart failure<br>Pulmonary edema<br>Acute coronary syndrome |
| Initial BP target | 130<SBP<180 mm Hg, MAP decline 15% in 1 h<br>Immediate MAP decline 20%–25%<br>Immediate MAP decline 15% | SBP <120 mm Hg immediate<br>Immediate SBP <160 mm Hg and DBP <105 mm Hg if severe | SBP <180 mm Hg<br>MAP decline of 15% | MAP decline 20%–25% over several hours | SBP <180 mm Hg or MAP decline 25%<br>Immediate SBP <140 mm Hg<br>Immediate SBP <140 mm Hg |
| Treatment agents | Labetalol<br>Nicardipine | Esmolol and nitroprusside, nitroglycerin, or nicardipine<br>Labetalol, nicardipine, magnesium sulfate, or hydralazine | | Labetalol<br>Nicardipine<br>Clevidipine<br>Fenoldopam | Nitroglycerin<br>Nitroprusside<br>Labetalol<br>Clevidipine<br>Esmolol |

BP indicates blood pressure; DBP, diastolic blood pressure; HELLP, hemolysis, elevated liver enzymes, low platelets; MAP, mean arterial pressure; PRES, posterior reversible encephalopathy syndrome; and SBP, systolic blood pressure.

Data derived from Rossi et al[21] as part of the BARKH (brain, arteries, retina, kidney, heart) acronym designed for rapid identification of hypertensive emergencies requiring rapid parenteral treatment.

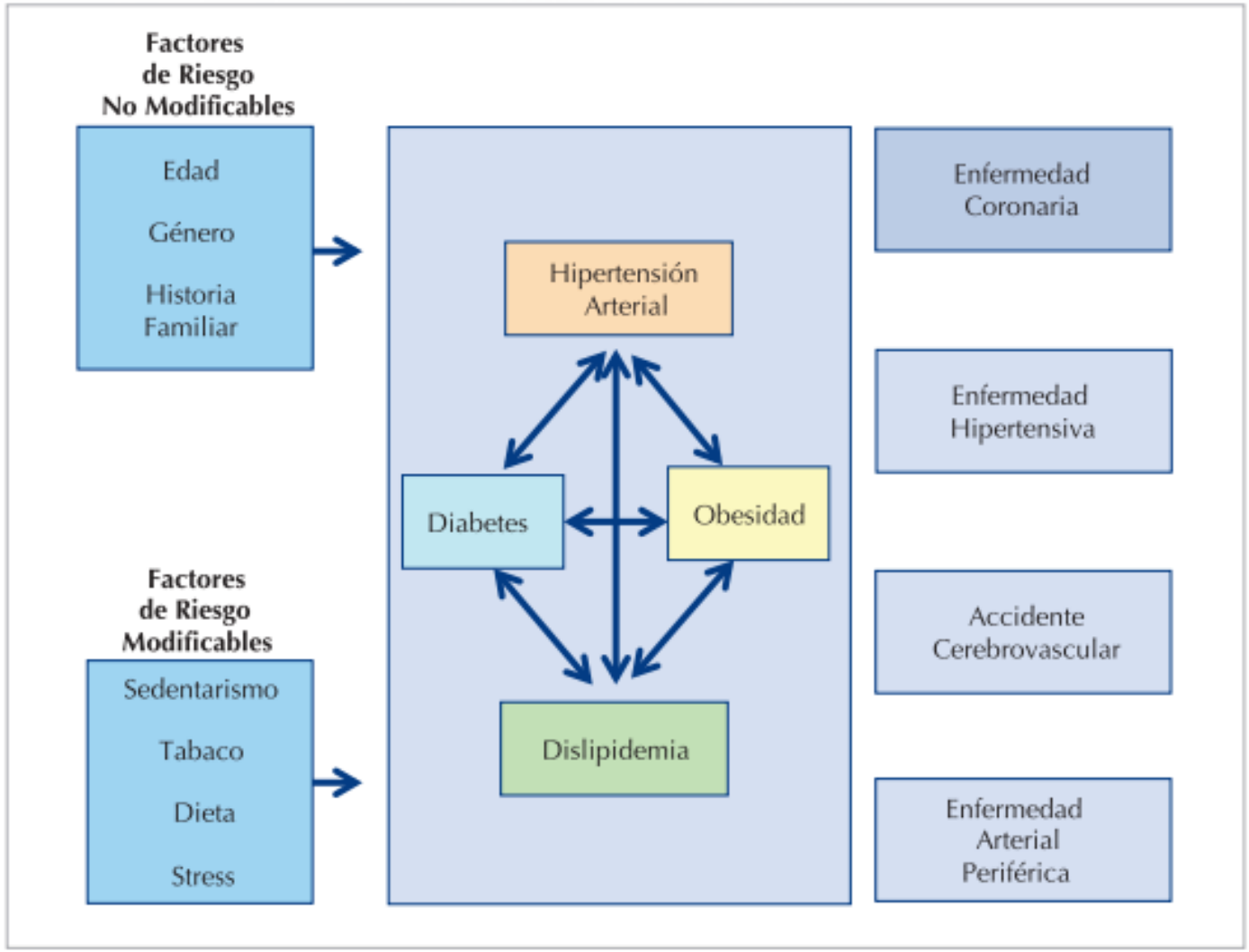



**Figura 2.** Factores de Riesgo y su relación con las enfermedades cardiovasculares.

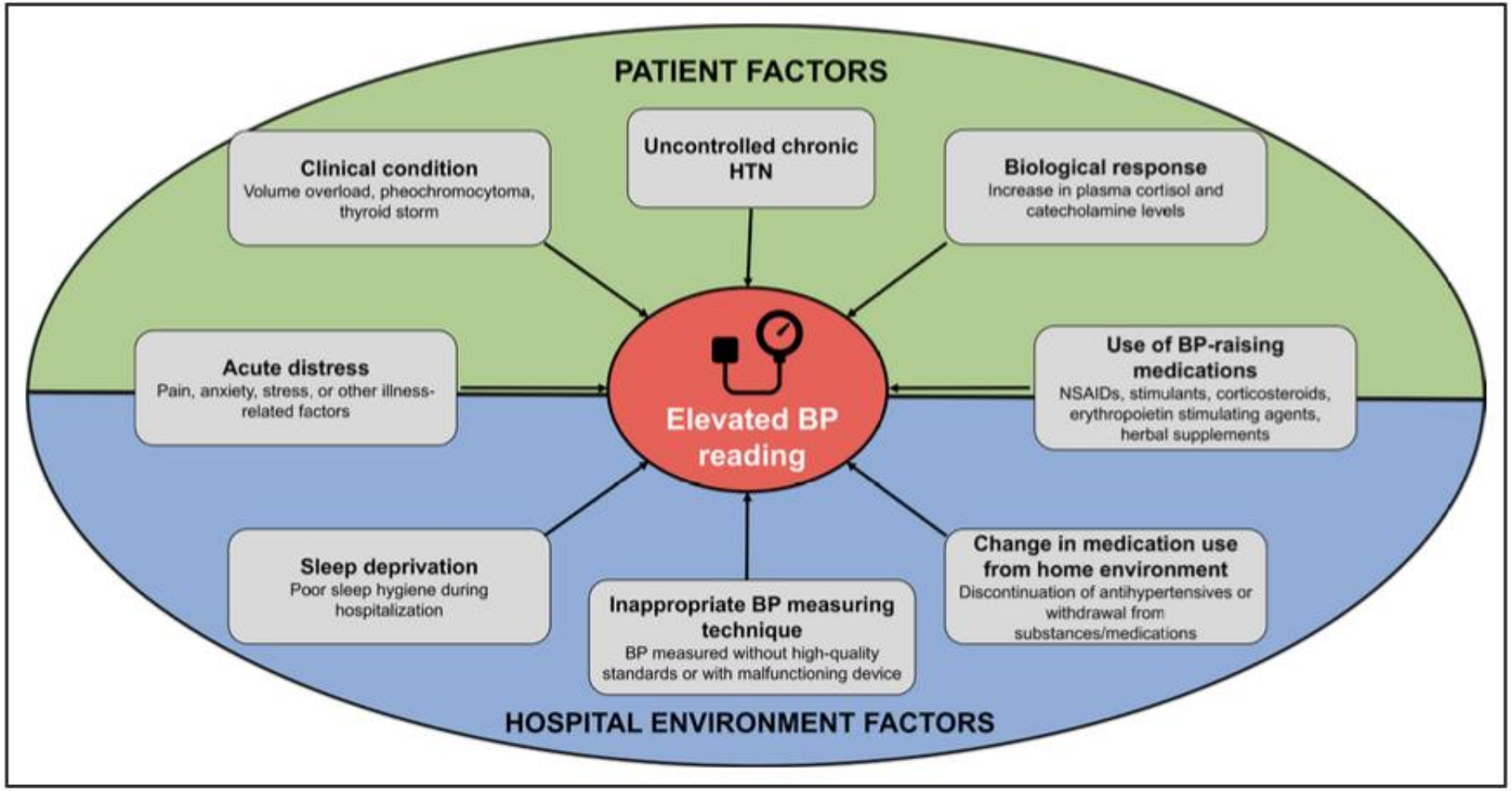



**Figure 2. Mechanisms for elevated BP in the acute care setting.**
BP indicates blood pressure; HTN, hypertension; and NSAID, nonsteroidal anti-inflammatory drug.

# Select Therapy: Lifestyle Interventions

## Relevance

- Prevent or delay onset of hypertension
- Improve overall/CV health and well-being
- Reduce BP
- Booster BP lowering effects of medications
- Reduce the number/dose of drugs needed for BP control

## Prescribing

- To all patients with diagnosed hypertension
- To patients with white-coat or masked hypertension
- To patients with high-normal BP
- Individual patient counseling and support
- Prescribe with specific instructions, e.g. intensity and type of exercise
- Assess, adapt, and reinforce during follow-up

## Key interventions to reduce BP

### Healthy diet

**Prefer:**

- DASH or Mediterranean type diets
- A healthy dietary pattern including more plant-based and less animal-based food
- Vegetables , fruits, beans, nuts, seeds, and vegetable oils
- Lean protein (e.g. fish, poultry)

**Limit:**

- Fatty meats, full-fat dairy
- Sugar, sweets and sweetened beverages

### Daily physical activity and regular exercise

- Incorporate physical activity (e.g. walking, cycling) into everyday life and reduce sedentary behavior (e.g. sit less)
- Aim for:
  -150-300 min of aerobic exercise per week performed at a moderate intensity or
  -75-150 min of aerobic exercise per week performed at a vigorous intensity or
  -an equivalent combination of moderate and vigorous physical activities
- Add dynamic resistance (muscle strengthening) exercise 2-3 times per week
- Start slow and gradually to build up the amount/ intensity of activity

### Weight reduction

- Combine a low-caloric diet with daily physical activity in patients with overweight or obesity
- Monitor waist circumference and weight

### Restriction of sodium intake

- Sodium is mainly consumed as salt, which comes from processed foods or is added to the food during cooking or at the table
- Salt (NaCl) restriction to < 5 g (~2g sodium) or 1 teaspoon per day is recommended

### Augmentation of potassium intake

- Increase potassium consumption, preferably via dietary modification, except for hypertensive patients with advanced CKD
- Foods high in potassium are for example white cannellini beans (1200 mg/cup), unsalted boiled spinach (840 mg/cup), avocado (708 mg/cup) and bananas (450 mg per medium fruit)
- Use salt substitutes replacing NaCl with KCl in patients consuming a high sodium diet

### Limit alcohol intake

- Limit alcohol intake close to abstinence, particularly if intake is ≥3 drinks/day[a]
- Avoid excessive (binge) drinking

## Supportive additional interventions

### Smoking cessation

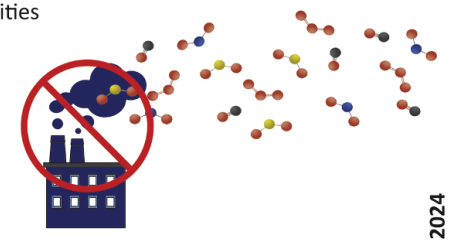
- Smoking cessation, supportive care and referral to smoking cessation programs are recommended for all smokers

### Improve stress management

- Reduce stress by use of
  -Regular physicial activity
  -Mindfulness-based exercise
  -Relaxation techniques, e.g. deep breathing, meditation, yoga or Tai Chi
- Get enough sleep (7-9 hours)
- Find individual ways to cope with stress, e.g. practicing mindfulness, engaging in hobbies or talking to a therapist
- Moderate alcohol and caffeine intake, avoid drugs

### Minimize exposure to noise and air pollution

- Reduce indoor exposure to noise and air pollution.
- Consider to reduce exposure to air pollution by modifying the location, timing and type of outdoor activities



[a]About 350 ml of regular beer containing 5% alcohol by volume or 150 ml of wine containing 12% alcohol by volume per drink.

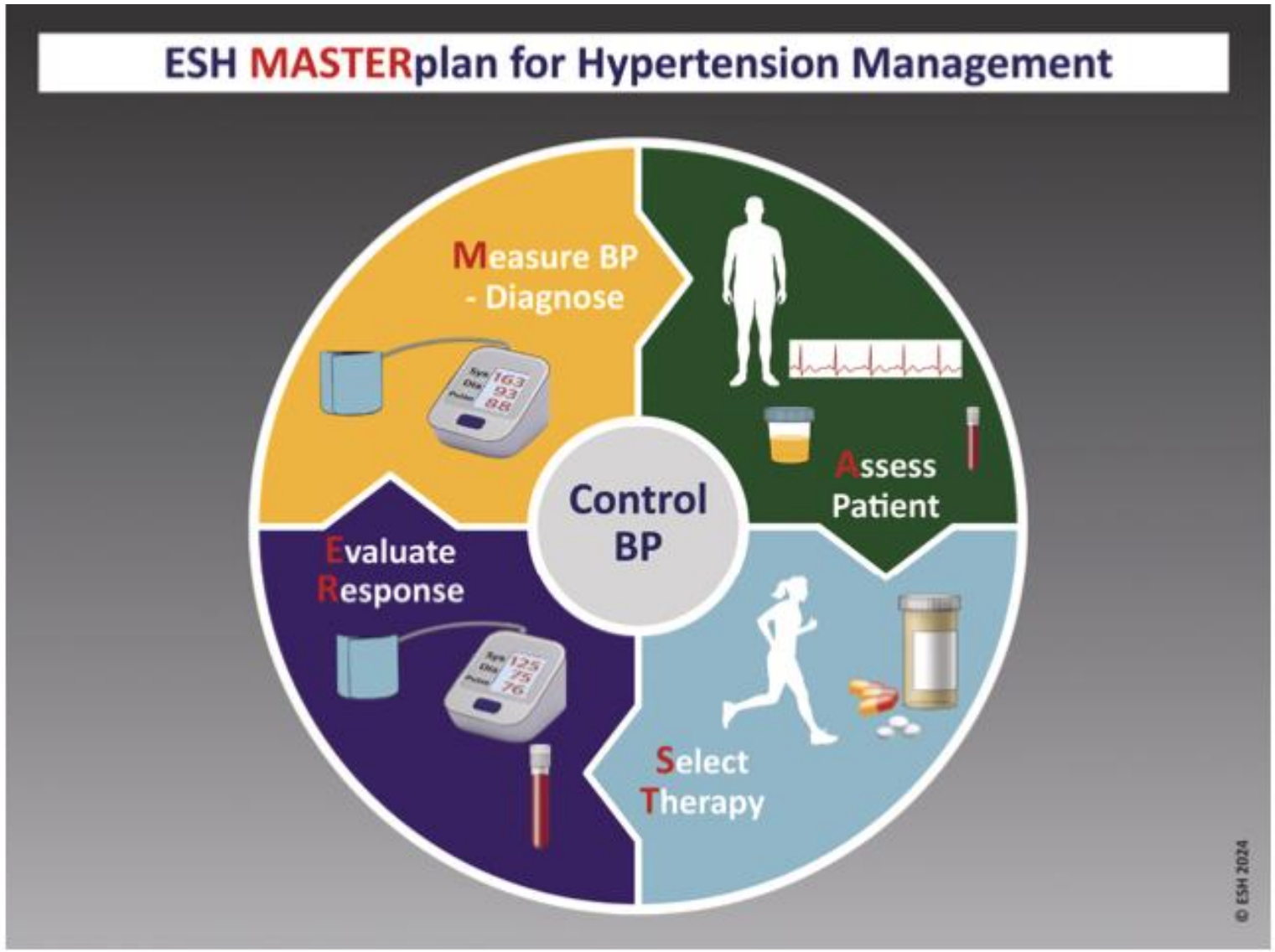



**Fig. 1.** The ESH **MASTER**plan for the management of hypertension.

# Measure Blood Pressure - Diagnose

## In Office

### Office BP measurement (OBPM)

*SBP ≥140
and/or
DBP ≥90

#### Conditions

1. Use validated automated electronic upper-arm cuff device[a] (www.stridebp.org).
2. Select appropriate cuff to fit arm size according to instructions by device manufacturer[b].
3. Quiet room with comfortable temperature.
4. No smoking, caffeine, food, or exercise 30 min before measurement.
5. Start measurement after patient remained seated and relaxed for 3-5 min[c].
6. No talking during and between measurements.

#### Posture

7. Sitting with back supported on chair.
8. Legs uncrossed, feet flat on floor.
9. Bare arm resting on table with mid-arm at heart level.

#### Measurement

10. Take 3 readings with 1 min intervals between them. Use the average of the last 2 readings for BP and also for pulse rate[d].

#### Relevance

- Was used in outcome trials and provides the basis for diagnosis and BP targets.

## Out-of-office

### Home BP monitoring (HBPM)

*SBP ≥135
and/or
DBP ≥85

#### Conditions and Posture

1.-9. From OBPM apply also to HBPM.

#### Measurement

10. Propose a standardized protocol to the patient:
    - Educate the patient on how to use a validated device and report the data.
    - Take 2 readings with 1 min intervals between them.
    - Measure in the morning and the evening (before drug intake if treated).
    - Measure for 3–7 days before office visits.
    -Use the average of all readings excluding the first day for both BP and pulse rate.
11. For long-term follow-up of treated hypertension, make duplicate measurements once or twice per week or month.

#### Relevance

- Recommended for long-term follow-up of treated hypertension, because it improves BP control, especially when combined with education and counseling.
- Confirmation of hypertension diagnosis and of true resistant hypertension, particularly if ABPM is not available.

### Ambulatory BP monitoring (ABPM)

*24-h mean BP:
SBP ≥130
and/or
DBP ≥80

*Daytime (awake):
SBP ≥135 mmHg
and/or
DBP t≥85

*Nighttime (asleep):
SBP ≥120 mmHg
and/or
DBP ≥70

#### Conditions

1.-2. From OBPM applies also to ABPM.
3. Use fully automated devices programmed to record BP automatically at preselected intervals for 24 h.

#### Measurement

4. The recommended optimal time interval between measurements should be 20 minutes during day (awake) and night (sleep).
5. Measure during a routine workday for 24 h.
6. Instruct patients to keep a diary of their activities, symptoms, meals, drug intake times, sleep times or any unusual problems.

#### Relevance

- Obtaining 24-h BP profile and especially BP during night (sleep) not captured by OBPM or HBPM
- Confirmation of hypertension diagnosis and of true resistant hypertension.



*Definition of hypertension [a]A device that takes triplicate readings automatically is preferred. [b]The selection of an appropriate cuff size is crucial. A smaller than required cuff overestimates BP and a larger underestimates BP. [c]Use of electronic devices allowing automated storage and data transfer is encouraged. [d]At initial visit measure on both arms. An interarm SBP difference >10 mmHg must be confirmed with repeated measurements. If confirmed, the arm with the higher BP should be used for all subsequent measurements. If any two sequential BP readings in one arm differ by >10 mmHg, additional measurements are recommended. See also Table 1.

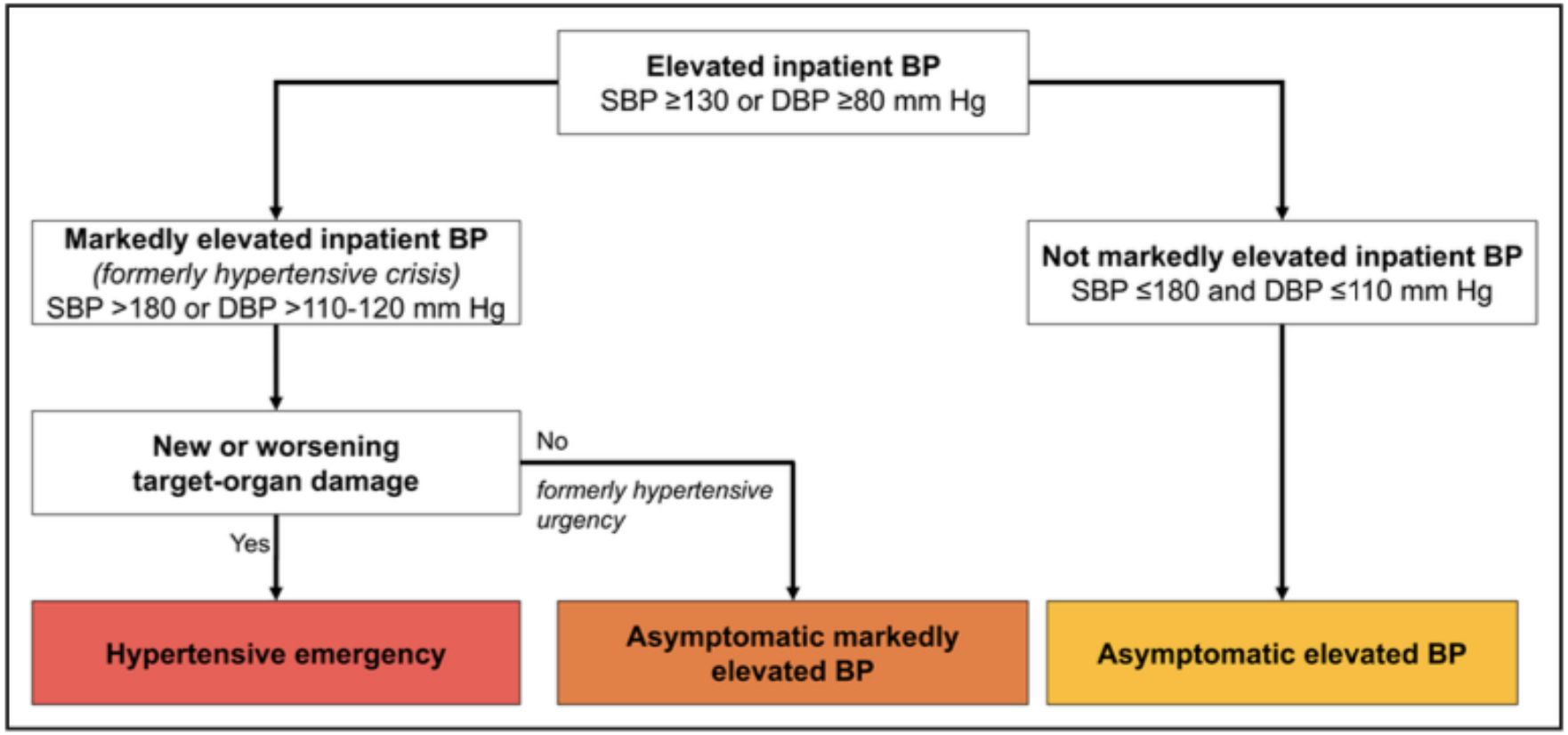



**Figure 1. Terminology of elevated inpatient BP in the acute care setting.**
The blood pressure (BP) classifications depicted in this figure are based on established thresholds from recent hypertension guidelines, including the 2017 Hypertension Clinical Practice Guidelines, the 2018 European Society of Cardiology/European Society of Hypertension (ESH) clinical practice guidelines for the management of arterial hypertension, and the 2023 ESH guidelines on arterial hypertension management. Markedly elevated BP is defined by the 2017 Hypertension Clinical Practice Guidelines as systolic BP (SBP) >180 mm Hg or diastolic BP (DBP) >120 mm Hg in scenarios without new or worsening target-organ damage. The 2023 ESH guidelines categorize hypertensive emergency or urgency as grade 3 hypertension (SBP ≥180 mm Hg or DBP ≥110 mm Hg) without differentiating severity based solely on BP values among those showing no signs of target-organ damage progression. The depicted ranges for inpatient elevated BP align with recommendations for outpatient high BP management as the definition of stage I hypertension. Readers are encouraged to consult individual guidelines for detailed definitions and clinical context.

# Signos de alarma

Dolor de pecho

Dificultad respiratoria

Alteración neurológica

Pérdida de la visión

# BIBLIOGRAFÍA

Cestário et al. Trials (2018) 19:101
DOI 10.1186/s13063-017-2343-3

Trials

STUDY PROTOCOL Open Access

## Resistant Hypertension On Treatment (ResHypOT): sequential nephron blockade compared to dual blockade of the renin-angiotensin-aldosterone system plus bisoprolol in the treatment of resistant arterial hypertension – study protocol for a randomized controlled trial

Elizabeth do Espirito Santo Cestário[1*], Letícia Aparecida Barufi Fernandes[1], Luiz Tadeu Giollo-Júnior[1], Jéssica Rodrigues Roma Uyemura[1], Camila Suemi Sato Matarucco[1], Manoel Idelfonso Paz Landim[1], Luciana Neves Cosenso-Martin[1], Lúcia Helena Bonalume Tácito[2], Heitor Moreno Jr.[3], José Fernando Vilela-Martin[1] and Juan Carlos Yugar-Toledo[1]

Contents lists available at ScienceDirect

European Journal of Internal Medicine

journal homepage: www.elsevier.com/locate/ejim

Practice Guidelines

## 2024 European Society of Hypertension clinical practice guidelines for the management of arterial hypertension

*Endorsed by the European Federation of Internal Medicine (EFIM), European Renal Association (ERA), and International Society of Hypertension (ISH)*

PeerJ

## Hypertension in frail older adults: current perspectives

Liying Li[1,*], Linjia Duan[1,*], Ying Xu[1], Haiyan Ruan[1,2], Muxin Zhang[1,3], Yi Zheng[1] and Sen He[1]

[1] Department of Cardiology, West China Hospital of Sichuan University, Chengdu, China
[2] Department of Cardiology, Traditional Chinese Medicine Hospital of Shuangliu District, Chengdu, China
[3] Department of Cardiology, First People's Hospital, Longquanyi District, Chengdu, China
* These authors contributed equally to this work.

**ABSTRACT**

Hypertension is one of the most common chronic diseases in older people, and the prevalence is on the rise as the global population ages. Hypertension is closely associated with many adverse health outcomes, including cardiovascular disease, chronic kidney disease and mortality, which poses a substantial threat to global public health. Reasonable blood pressure (BP) management is very important for reducing the occurrence of adverse events. Frailty is an age-related geriatric syndrome, characterized by decreased physiological reserves of multiple organs and systems and increased sensitivity to stressors, which increases the risk of falls, hospitalization, fractures, and mortality in older people. With the aging of the global population and the important impact of frailty on clinical practice, frailty has attracted increasing attention in recent years. In older people, frailty and hypertension often coexist. Frailty has a negative impact on BP management and the prognosis of older hypertensive patients, while hypertension may increase the risk of frailty in older people. However, the causal relationship between frailty and hypertension remains unclear, and there is a paucity of research regarding the efficacious management of hypertension in frail elderly patients. The management of hypertension in frail elderly patients still faces significant challenges. The benefits of treatment, the optimal BP target, and the choice of antihypertensive drugs for older hypertensive patients with frailty remain subjects of ongoing debate. This review provides a brief overview of hypertension in frail older adults, especially for the

Submitted 13 September 2023
Accepted 26 June 2024
Published 11 July 2024

## Riesgo y Prevención Cardiovascular

DR. ENRIQUE RUIZ MORI
Autor y Editor

Organización Mundial de la Salud

CLINICAL PRACTICE GUIDELINES

## 2025 AHA/ACC/AANP/AAPA/ABC/ACCP/ACPM/AGS/AMA/ASPC/NMA/PCNA/SGIM Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines

*Developed in Collaboration With and Endorsed by American Academy of Physician Associates; American Association of Nurse Practitioners; American College of Clinical Pharmacy; American College of Preventive Medicine; American Geriatrics Society; American Medical Association; American Society of Preventive Cardiology; Association of Black Cardiologists; National Medical Association; Preventive Cardiovascular Nurses Association; and the Society of General Internal Medicine.*


POSITIVA
COMPAÑÍA DE SEGUROS
suma 5.0
educa
comunica
EVALUÉMONOS
Fórmulas para la vida
Valores + Emociones + Competencias
Respeto + Gratitud + Ética y sostenibilidad

# PREGUNTAS

POSITIVA COMPAÑÍA DE SEGUROS | suma 5.0 | educa | comunica

Recuerda que POSITIVA tiene para ti:

# Posipedia

https://posipedia.com.co/

- Cursos virtuales
- Artículos
- Audios
- Juegos digitales
- OVAS
- Guías
- Mailings
- Videos

POSITIVA COMPAÑÍA DE SEGUROS | suma 5.0 | educa | comunica

## ¿Quieres profundizar tus conocimientos y potenciar tus competencias en SST?

¡Capacítate y fortalece
la seguridad de tu empresa!



CURSOS

# VIRTUALES SG-SST DE 50 Y 20 HORAS

Escanea e inscríbete

Para trabajadores de todas las empresas, áreas y sectores.

**¡TE ESPERAMOS!**

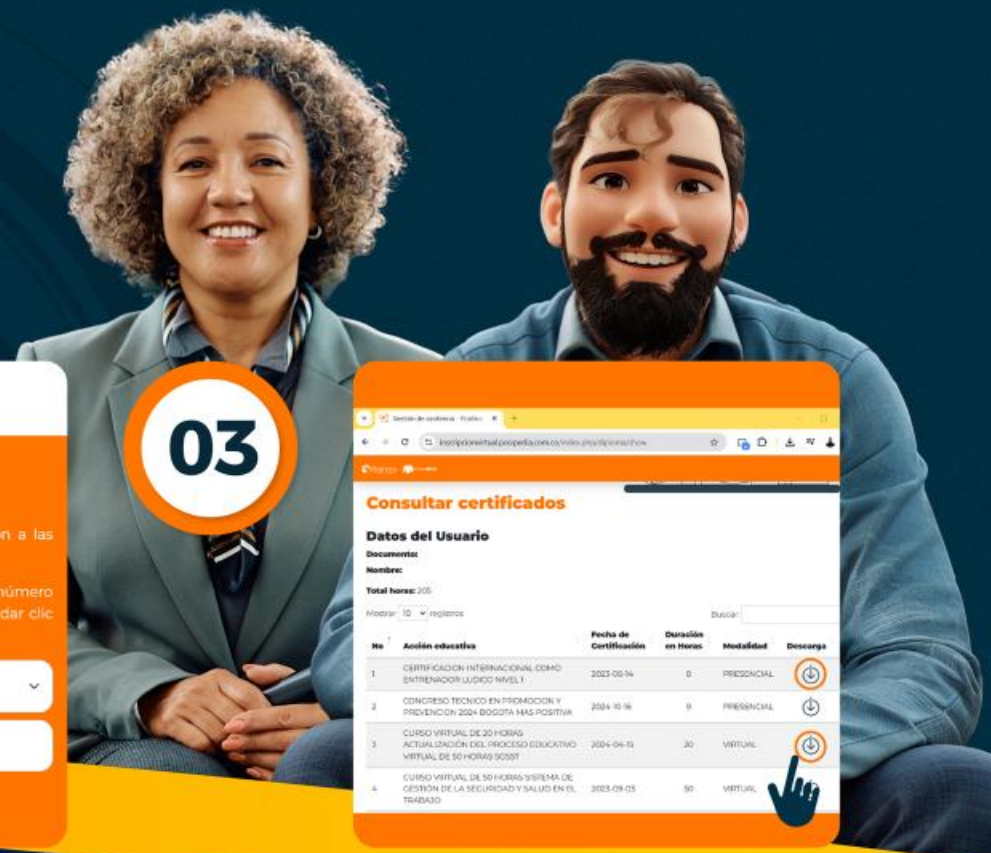
Positiva Prevención

Hacienda

POSITIVA COMPAÑÍA DE SEGUROS | suma 5.0 | educa | comunica | Posipedia

## Conoce cómo

# descargar los certificados de las acciones educativas



**01**

**02**


**03**




**Paso 1:**
Escanea el código QR

**Paso 2:**
Selecciona el **tipo de documento** y escribe el **número**, una vez diligenciados da clic en consultar.

**Paso 3:**
Encontrarás tu historial académico y podrás generar la descarga de tu certificado en el icono

VIGILADO SUPERINTENDENCIA FINANCIERA DE COLOMBIA

Positiva Prevención

Hacienda