



Barcelona, 6 de maig de 2019

Tractament actual de la Hipertensió Arterial: Novetats en tractament mèdic

*Enrique Galve
Servei de Cardiologia
Hospital Vall d'Hebron Barcelona*



2018 ESC-ESH Guidelines for the Management of Arterial Hypertension



Williams, Mancia et al., J Hypertens 2018;36:1953-2041 and Eur Heart J 2018;39:3021-3104



***Ès la mesura de la PA en
consulta un procediment
obsolet?***

Diagnòstic de la HTA

2013

Office BP is recommended for diagnosis.

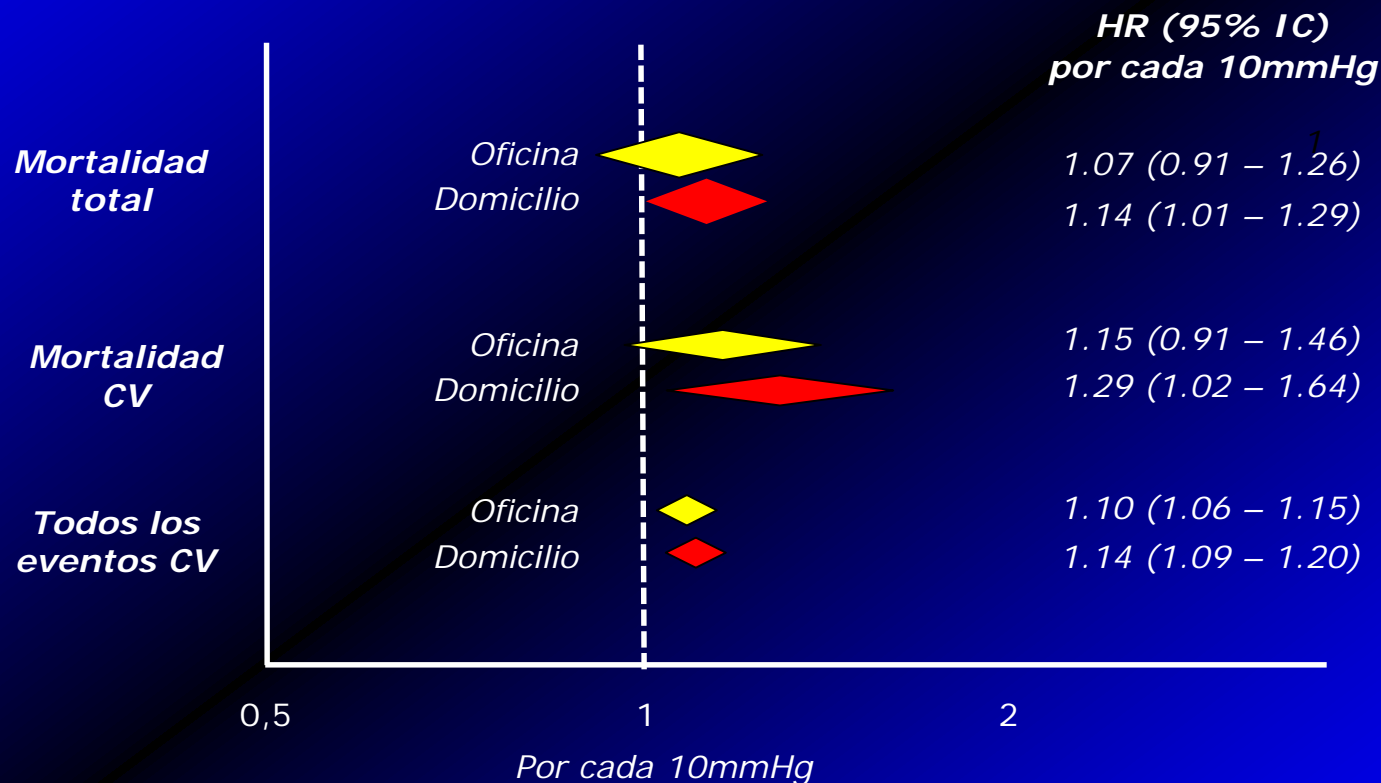
Grade I

Diagnòstic de la HTA

2013	2018
Office BP is recommended for diagnosis.	It is recommended to base diagnosis on: <ul style="list-style-type: none">• Repeated office BP measurements• Out-of-office measurements (ABPM and HBPM)
Grade I	Grade I

ABPM: Ambulatory Blood Pressure Monitoring
HBPM: Home Blood Pressure Monitoring

Metanálisis estudios HTA: automedicación vs PA en consulta



Valors corresponents per AMPA i MAPA

Oficina	AMPA (automesura)	MAPA (Holter de 24h)
140/90	135/85	130/80



En quin braç hem de mesurar la PA?

En quin braç hem de mesurar la PA?

Recommendations	Class	Level
It is recommended that office BP should be measured in both arms at least at the first visit because a between-arm SBP difference of > 15 mmHg is suggestive of atheromatous disease and is associated with an increased CV risk.	I	A



Quin és el llindar d'hipertensió?

Classification of office BP and definitions of hypertension grade

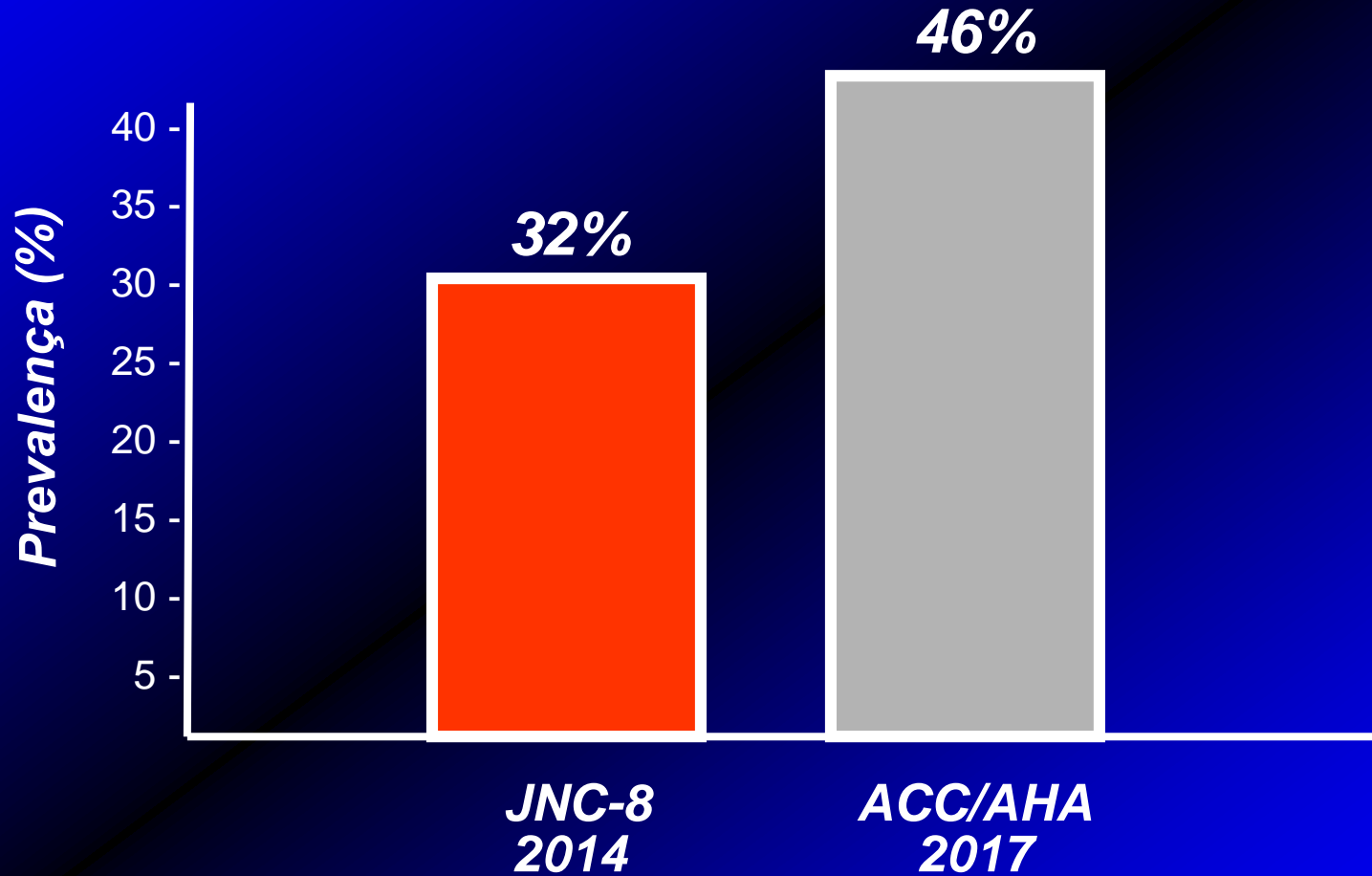
Category	Systolic (mmHg)		Diastolic (mmHg)
Optimal	< 120	and	< 80
Normal	120–129	and/or	80–84
High normal	130–139	and/or	85–89
Grade 1 hypertension	140–159	and/or	90–99
Grade 2 hypertension	160–179	and/or	100–109
Grade 3 hypertension	≥ 180	and/or	≥ 110
Isolated systolic hypertension	≥ 140	and	< 90

BP category	Systolic	Diastolic
Normal	<120	<80
Elevated	120-129	<80
Hypertension stage 1	130-139	80-89
Hypertension stage 2	≥140	≥90

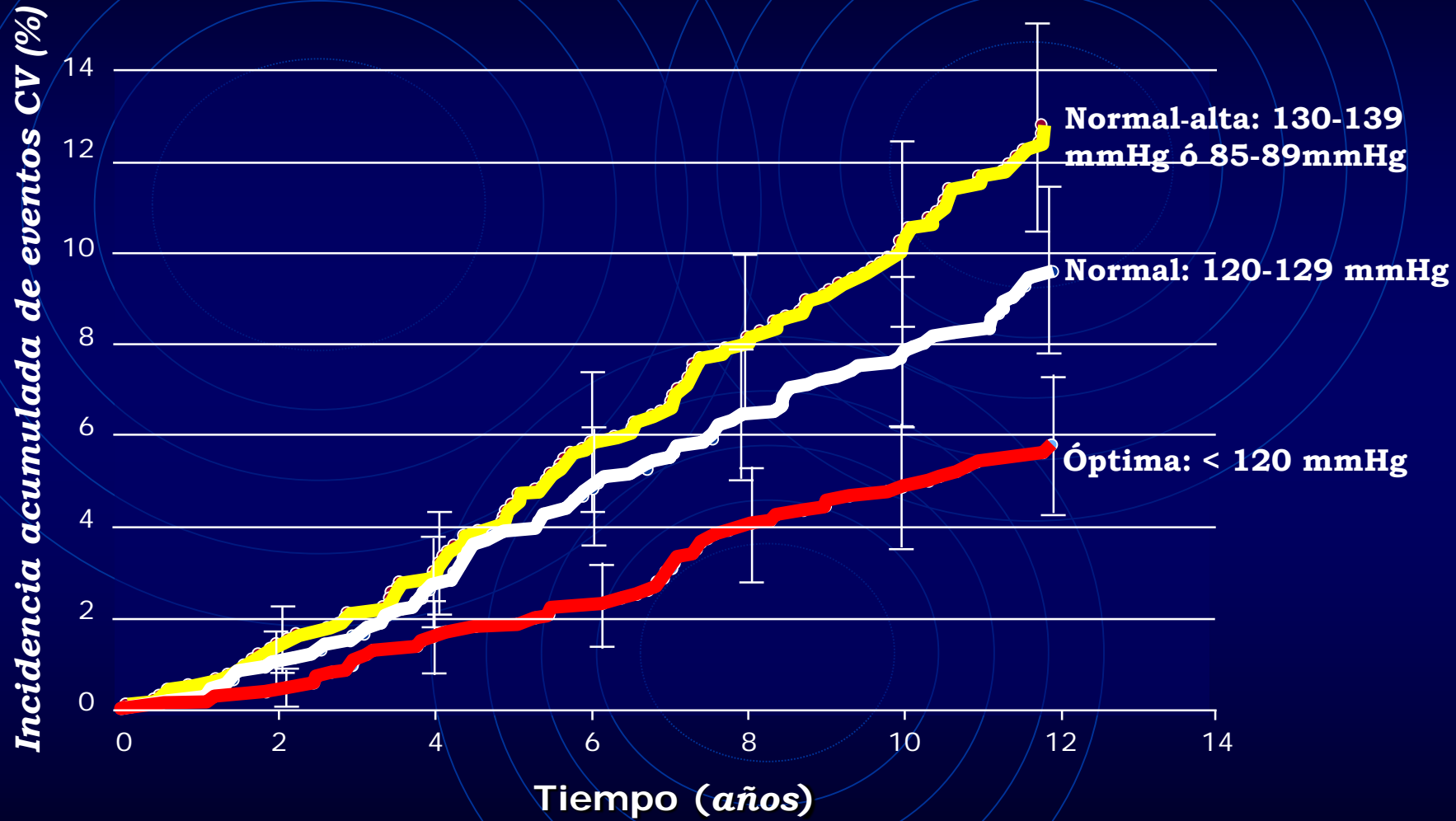
(Hypertension. 2018;71:e13-e115. DOI: 10.1161/HYP.0000000000000065.)



Augment de la prevalença d'hipertensosos



La correlació entre PA i risc CV és lineal





Quan hem d'iniciar el tractament de la HTA?

Inici tractament HTA (PA normal-alta)

2013

130-139/85-89
Do not initiate drug treatment.

Grade III

Inici tractament HTA (PA normal-alta)

2013

130-139/85-89
Do not initiate drug treatment.

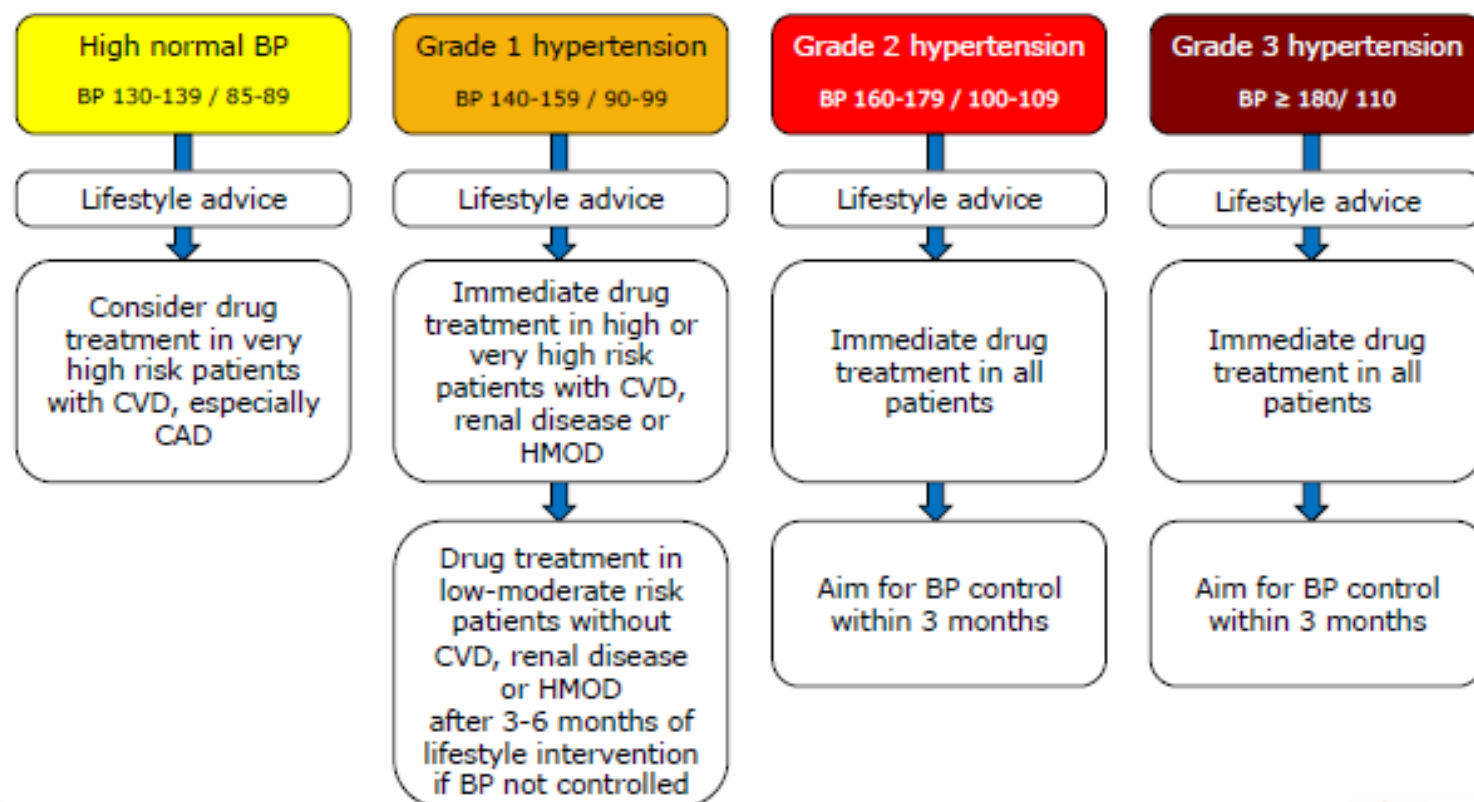
Grade III

2018

130-139/85-89
Drug treatment when CV risk is very high (especially due to established CVD)

Grade I

Initiation of BP-lowering treatment (lifestyle changes and medication) at different initial office BP levels





PA dintell per iniciar el tractament

- $\geq 130/80$ en prevenció secundària o alt risc
- $\geq 140/90$ per a la resta de pacients

PA objectiu sota tractament

Tots els malalts	<140/90
Si ho toleren bé	<130/80
Si tenen edat < 65	120-130



Per què aquests canvis?

SPRINT Trial

Baixem la PA a ?

- *<120 mmHg*
- *<140 mmHg*

New Engl J Med 2015; 373: 2103-16.

SPRINT

The NEW ENGLAND
JOURNAL of MEDICINE

ESTABLISHED IN 1812 NOVEMBER 26, 2015 VOL. 373 NO. 22

A Randomized Trial of Intensive versus
Standard Blood-Pressure Control

***Hypertensive patients with high CV risk
(Previous CV disease or MDRD 20-60 or CV risk at 10y>15% or >75y)***

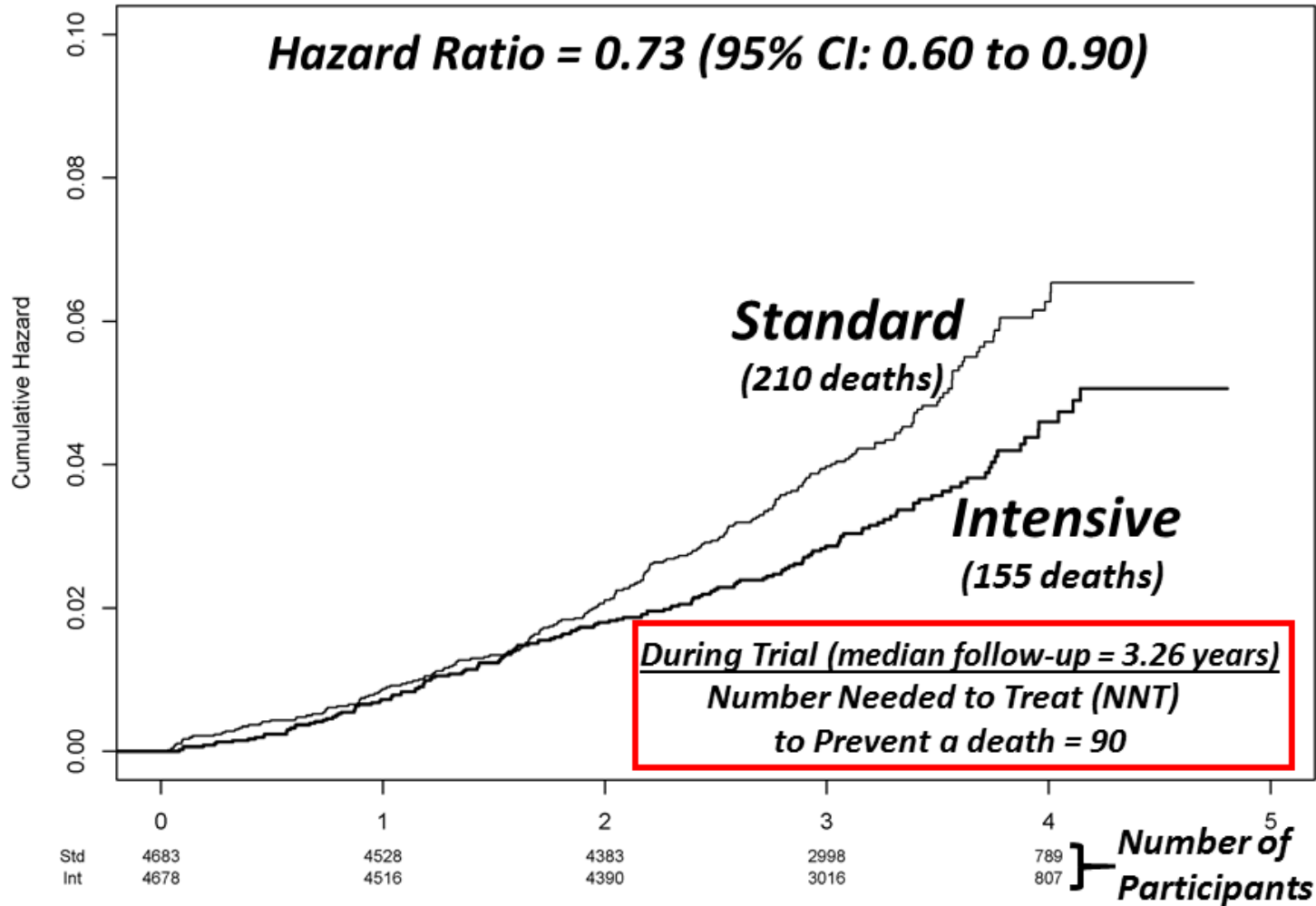
***Randomized Controlled Trial
Target Systolic BP***

***Sponsored by the NIH
9361 persons***

***Intensive Treatment
Goal SBP < 120
mm Hg***

***Standard Treatment
Goal SBP < 140
mm Hg***

All-cause Mortality Cumulative Hazard



Serious Adverse Events* (SAE) During Follow-up

	Number (%) of Participants		
	Intensive	Standard	HR (P Value)
All SAE reports	1793 (38.3)	1736 (37.1)	1.04 (0.25)
SAEs associated with Specific Conditions of Interest			
Hypotension	110 (2.4)	66 (1.4)	1.67 (0.001)
Syncope	107 (2.3)	80 (1.7)	1.33 (0.05)
Injurious fall	105 (2.2)	110 (2.3)	0.95 (0.71)
Bradycardia	87 (1.9)	73 (1.6)	1.19 (0.28)
Electrolyte abnormality	144 (3.1)	107 (2.3)	1.35 (0.020)
Acute kidney injury or acute renal failure	193 (4.1)	117 (2.5)	1.66 (<0.001)

**Fatal or life threatening event, resulting in significant or persistent disability, requiring or prolonging hospitalization, or judged important medical event.*



Amb quin fàrmac hem de començar el tractament?

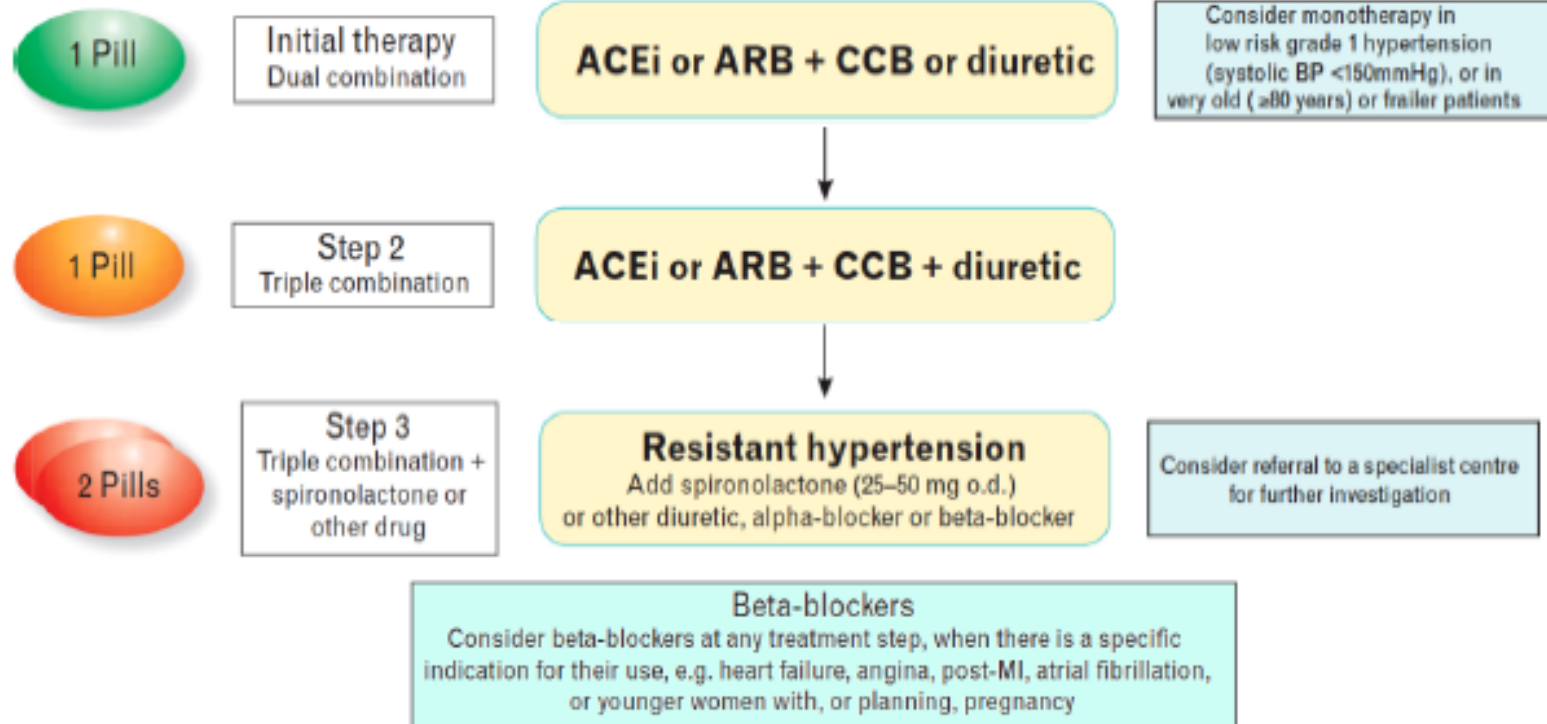


Choice of initial medication

- **ACE inh or ARBs**
- **CCBs**
- **Diuretics**

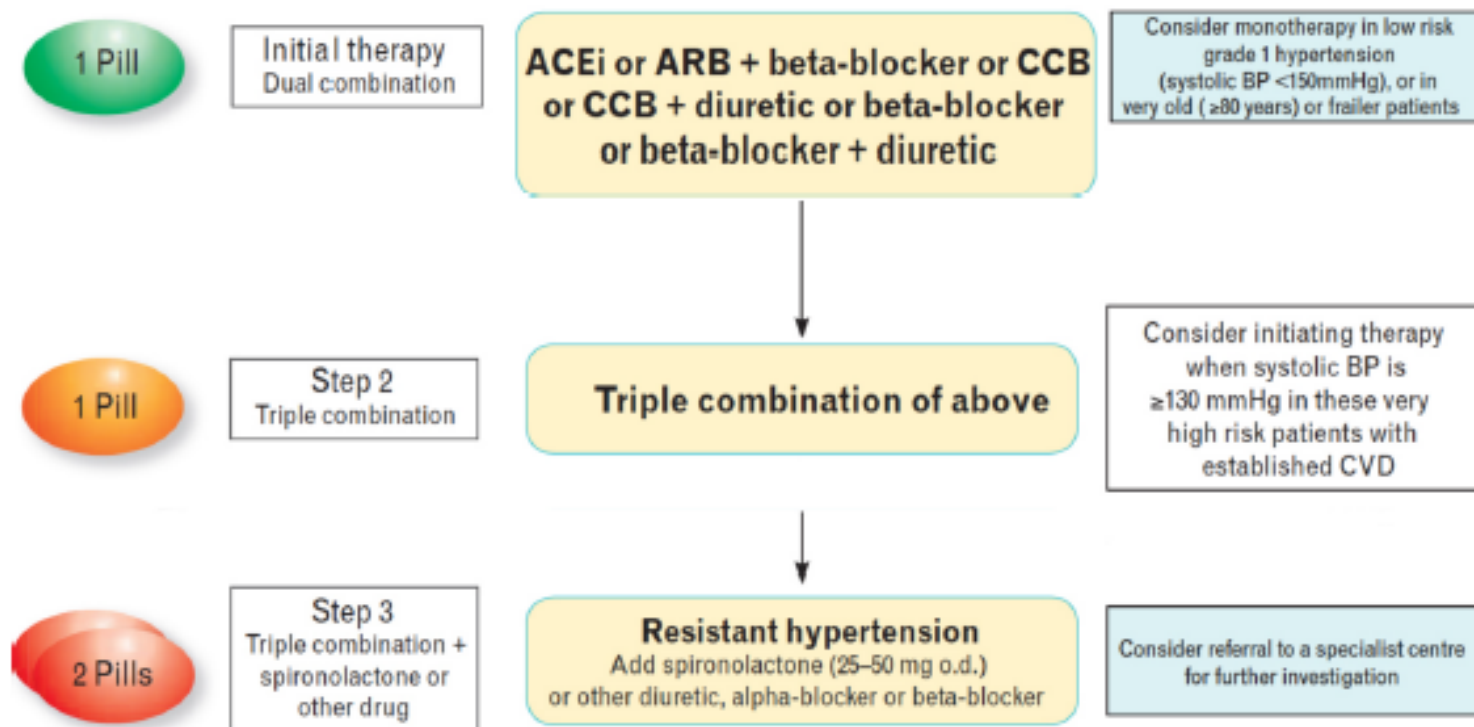
- **No with beta-blockers, alfa-blockers or antialdo**

Core drug-treatment strategy for uncomplicated hypertension



The core algorithm is also appropriate for most patients with HMOD, cerebrovascular disease, diabetes, or PAD

Drug-treatment strategy for hypertension and CAD





HTA resistant

PATHWAY-2

Trial design: Patients with resistant hypertension were randomized to each of four different add-on study medications, each for a 12-week period; spironolactone 25-50 mg daily, doxazosin 4-8 mg daily, bisoprolol 5-10 mg daily, or placebo.

Treatments	Home Systolic BP (mmHg)	Change from baseline
Spironolactone	134.9 (134.0,135.9)	-12.8 (-13.8,-11.8)
Doxazosin	139.0 (138.0,140.0)	-8.7 (-9.7,-7.7)
Bisoprolol	139.4 (138.4,140.4)	-8.3 (-9.3,-7.3)
Placebo	143.6 (142.6,144.6)	-4.1 (-5.1,-3.1)

Serious Adverse Events and Withdrawals

	Bisoprolol	Spirolactone	Doxazosin	Placebo	p value
Serious adverse events	8 (2.6%)	7 (2.3%)	5 (1.7%)	5 (1.7%)	0.831
Any adverse event	68 (11.3%)	67 (10.4%)	58 (10.1%)	42 (9.1%)	0.711
Withdrawals for adverse events	2 (2.9%)	3 (3.4%)	8 (10.0%)	2 (2.6%)	0.084

p values for Fisher's exact test



El maneig de la gent gran

Summary of office BP thresholds for treatment

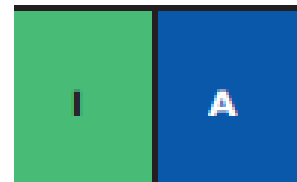
Age group	Office SBP treatment threshold (mmHg)					Office DBP treatment threshold (mmHg)
	Hypertension	+ Diabetes	+ CKD	+ CAD	+ Stroke/TIA	
18–65 years	≥ 140	≥ 140	≥ 140	≥ 140	≥ 140	≥ 90
65–79 years	≥ 140	≥ 140	≥ 140	≥ 140	≥ 140	≥ 90
≥ 80 years	≥ 160	≥ 160	≥ 160	≥ 160	≥ 160	≥ 90
Office DBP treatment threshold (mmHg)	≥ 90	≥ 90	≥ 90	≥ 90	≥ 90	

Summary of office BP thresholds for treatment

Age group	Office SBP treatment threshold (mmHg)					Office DBP treatment threshold (mmHg)
	Hypertension	+ Diabetes	+ CKD	+ CAD	+ Stroke/TIA	
18–65 years	≥ 140	≥ 140	≥ 140	≥ 140	≥ 140	≥ 90
65–79 years	≥ 140	≥ 140	≥ 140	≥ 140	≥ 140	≥ 90
≥ 80 years	≥ 160	≥ 160	≥ 160	≥ 160	≥ 160	≥ 90
Office DBP treatment threshold (mmHg)	≥ 90	≥ 90	≥ 90	≥ 90	≥ 90	

HTA i insuficiència renal

- ▶ ***A combination of a RAS blocker with a CCB or a diuretic is recommended as initial therapy.***
- ▶ ***Because BP lowering reduces renal perfusion pressure, it is expected and not unusual for eGFR to be reduced by 10 - 20% in patients treated for hypertension.***
- ▶ ***Clinicians should not be alarmed by the anticipated decline in GFR when treatment is initiated. This decline usually occurs within the first few weeks of treatment and stabilizes thereafter. If the decline in GFR continues or is more severe, the treatment should be stopped, and the patient investigated to determine the presence of renovascular disease.***
- ▶ ***Loop diuretics should replace thiazide diuretics when the estimated GFR is $<30 \text{ mL/min/1.73 m}^2$.***

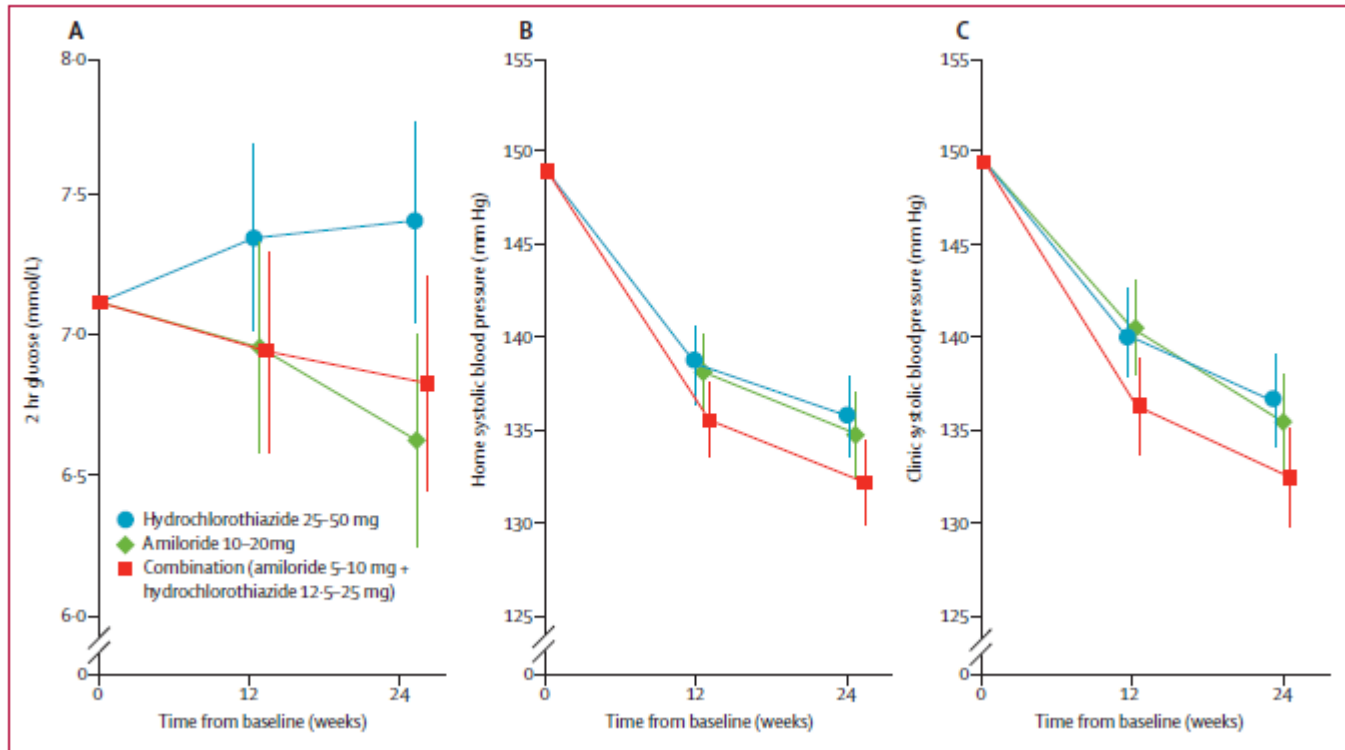


Punts fonamentals

- ▶ ***La PA en consulta perd pes.***
- ▶ ***La HTA es tracta, si hi ha malaltia CV, a partir de 130mmHg.***
- ▶ ***Objectiu tensional: <130mmHg.***
- ▶ ***Hem de començar el tractament amb dos fàrmacs (en polypill).***
- ▶ ***Els betabloquejants es despenyen de la primera línia de tractament llevat que hi hagi indicacions específiques.***

Moltes gràcies

Pathway 3



Cambios en el estilo de vida

<i>Modificación</i>	<i>Reducción aproximada de PA</i>
<i>Reducción de peso</i>	<i>5-20 mmHg / 10Kg de pérdida de peso</i>
<i>Dieta DASH</i>	<i>8-14 mmHg</i>
<i>Reducción sodio</i>	<i>2-8 mmHg</i>
<i>Ejercicio</i>	<i>4-9 mmHg</i>
<i>Moderar consumo alcohol</i>	<i>2-4 mmHg</i>