



Soirée Médicale - CH Portes de Provence

Les nouvelles Recommandations Européennes **ESH**
sur la prise en charge de l'
Hypertension artérielle

Int. Faïçal JARRAYA



AGDUC Montélimar

Montélimar, Le jeudi 15 Novembre 2018

Est-ce qu'il fallait avoir de nouvelles recommandations dans l'HTA après celles de 2013?

1- Contrôle tensionnel reste en deçà des prévisions

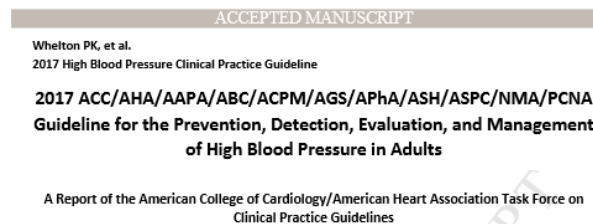


FLASH 2017: proportion de sujets contrôlés ne progresse pas mais ...les monothérapies, oui !!
Pas de progrès et même un léger recul 57% % sont contrôlés (140-90 mm Hg).
Ce taux n'a pas progressé depuis 2010
X. Girerd, JHTA 2017

2- Nouveaux essais RCT publiés et méta-analyses



3- Nouvelles recommandations américaines/changements dans les définitions (établis depuis 1993)



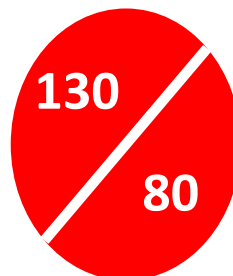
Whelton PK, et al.
2017 High Blood Pressure Clinical Practice Guideline

**2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA
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 Task Force on
Clinical Practice Guidelines

BP Category	SBP		DBP
Normal	<120 mm Hg	and	<80 mm Hg
Elevated	120–129 mm Hg	and	<80 mm Hg
Hypertension			
Stage 1	Monothérapie antiHTA	or	
	130–139 mm Hg		80–89 mm Hg
Stage 2	Bithérapie antiHTA	or	
	≥140 mm Hg		≥90 mm Hg

*Individuals with SBP and DBP in 2 categories should be designated to the higher BP category.
BP indicates blood pressure (based on an average of ≥2 careful readings obtained on ≥2 occasions, as detailed in





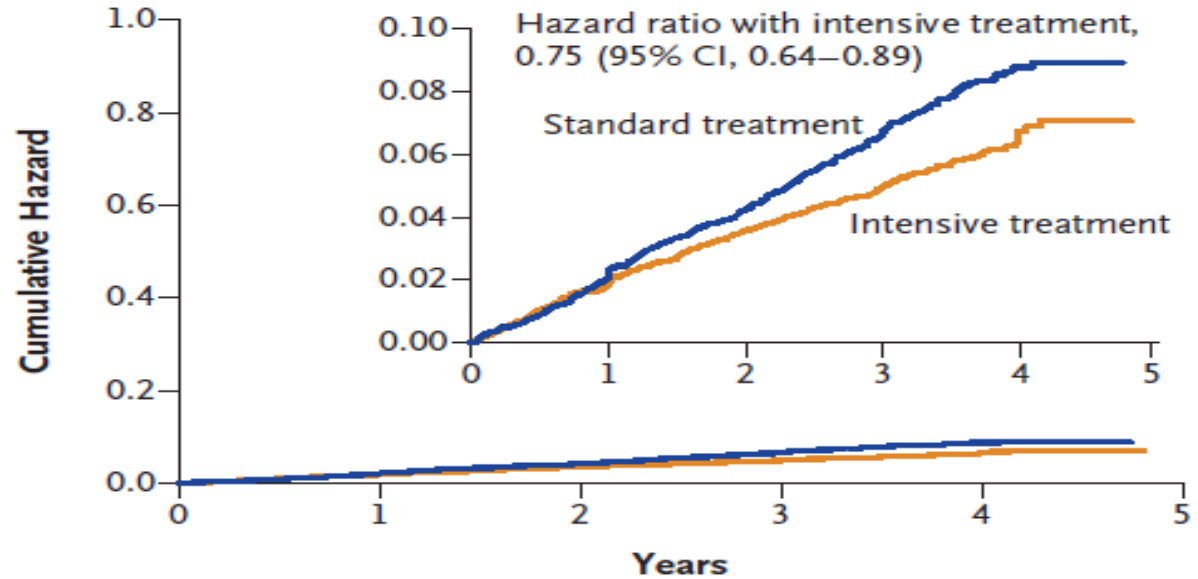
ORIGINAL ARTICLE

A Randomized Trial of Intensive versus Standard Blood-Pressure Control

The SPRINT Research Group*

A Primary Outcome

- 1- age ≥ 50 years (no upper limit)
- 2- with an average baseline SBP ≥ 130 mm Hg
- 3- and evidence of cardiovascular disease, or chronic kidney disease, or 10-year Framingham CVD risk score $\geq 15\%$ or age ≥ 75 years.



... mais résultats largement critiqués

N Engl J Med 373;22; November 26, 2015

Redefining Blood-Pressure Targets — SPRINT Starts the Marathon

Vlado Perkovic, M.B., B.S., Ph.D., and Anthony Rodgers, M.B., Ch.B., Ph.D.

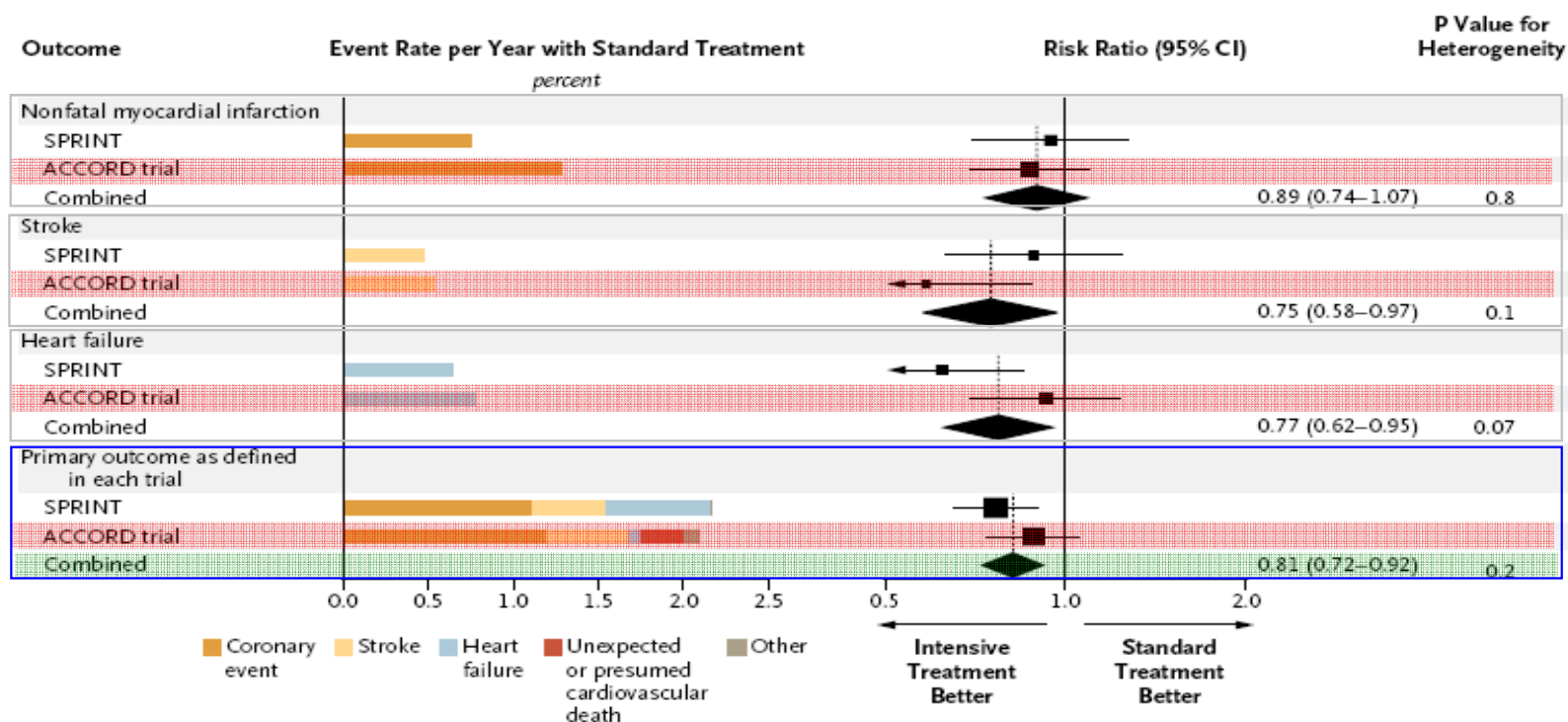


Figure 1. Outcomes Data from SPRINT and the ACCORD Trial and Combined Data from Both Trials.

Hypertension: from basic research to clinical practice

Volume 2



Treatment of Hypertension: Which Goal for Which Patient?

Faiçal Jarraya

Abstract

Hypertension remains the most important risk factor for cardiovascular disease. If antihypertensive drugs choice is well guided today, blood pressure (BP) target still a subject of controversies. Residual risk is matter of debate and the lower- the better dogma is come back again regarding to data reported from recent trials. The J curve, reason for European Society of Hypertension Guidelines reappraisal in 2009, is criticized by recent data. The one goal (<140/90 mmHg) fit 90 mmg 90 mmHg) fit all should be adapted as a personalized goal guided by evidence generated by randomized controlled trials. Target controversy is back because of the results of ACCORD and SPRINT trials challenging the common systolic BP target less 140 mmHg to less than 120 mmHg. The first was performed in diabetic patients and the second in patients at high cardiovascular risk; elderly aged of 75 years and above, or patients with chronic kidney disease, or with pre-existing subclinical or clinical cardiovascular disease or a Framingham 10-year cardiovascular disease risk score of 15 % or above, however non diabetic. If the first trial was negative, SPRINT reports a huge reduction of the composite primary outcome, which included myocardial infarction, other acute coronary syndromes, stroke, heart failure or death from cardiovascular causes by 25 %, and the risk of death from all causes by 27 %, when target systolic BP is lower than 120 mmHg compared to lower than 140 mmHg. However, BP was measured by automated office BP technique which correlates more with home BP measurement than auscultatory office BP measurement. Also, only significant less heart failure in the intensive arm was driving the difference in mortality favoring the intensive arm in SPRINT. The greater use of diuretics may have

F. Jarraya (✉)
Research Unit 12ES14, Faculty of Medicine, Sfax
University, Sfax, Tunisia
Nephrology Department, H. Chaker University Hospital,
Sfax 3029, Tunisia
e-mail: Jarraya_faiçal@yahoo.fr

PLEASE BE AWARE THAT READING HYPERTENSION GUIDELINES CAN BE HAZARDOUS TO YOUR HEALTH



Krzysztof Narkiewicz

Department of Hypertension and Diabetology Medical University of Gdansk, Poland

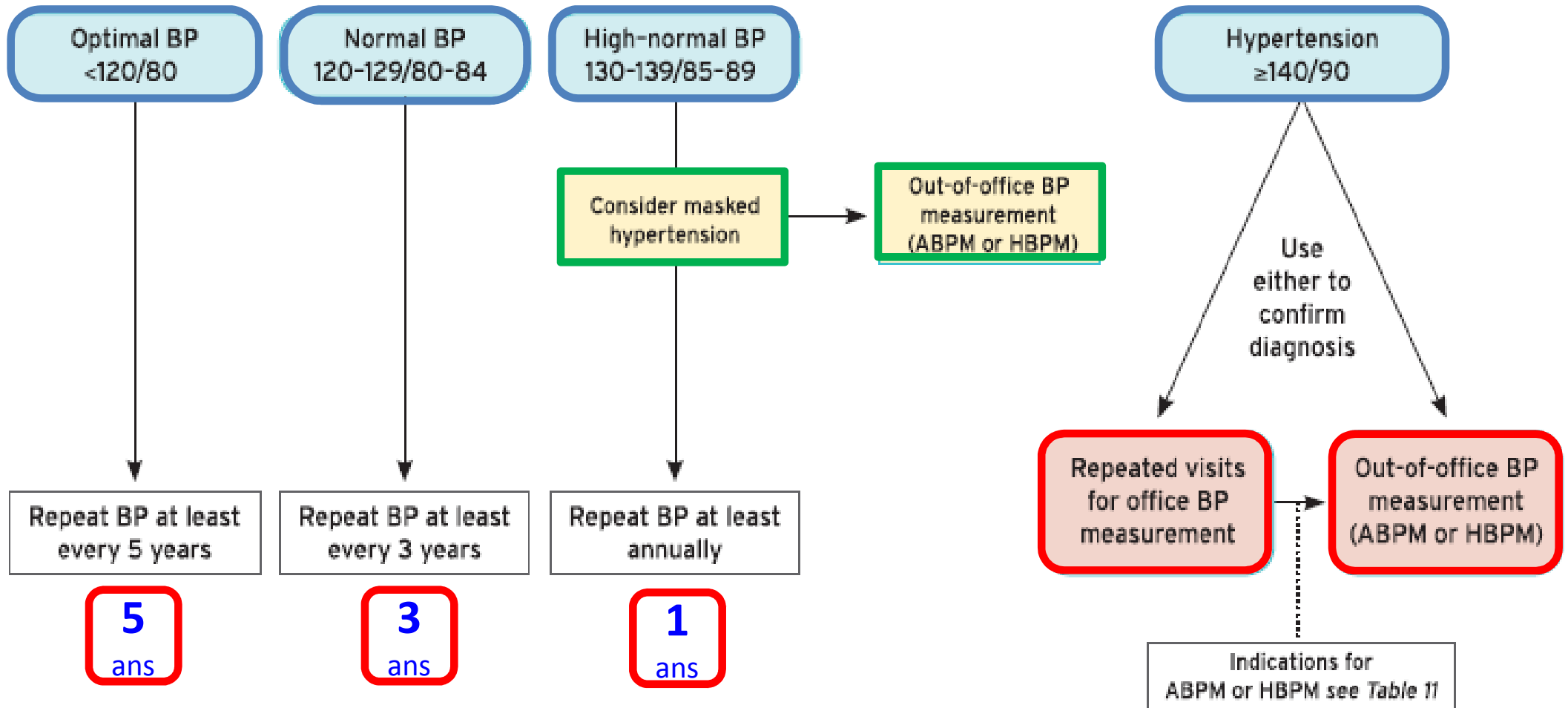
When I was asked to write a brief comment on the new guidelines I decided to make it more personal.

<http://www.eshonline.org/spotlights/editors-page/>

Classification de la PA prise au cabinet et Définition de l'HTA 2018 = 2013

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

Gradation n'est que temporaire, elle est à contrôler!



Rien à changer dans les définitions!

PA au cabinet, MAPA, AM

	Category	Systolic (mmHg)		Diastolic (mmHg)
Cabinet	Office BP	≥ 140	and/or	≥ 90
MAPA	Ambulatory BP			
	Daytime (or awake) mean	≥ 135	and/or	≥ 85
	Night-time (or asleep) mean	≥ 120	and/or	≥ 70
Automesure	24-h mean	≥ 130	and/or	≥ 80
	Home BP mean	≥ 135	and/or	≥ 85

Mais... les Recommandations Américaines se sont basées sur les mesures effectués dans l'étude SPRINT:
« **Automesure au Cabinet , Unattended** »

ORIGINAL ARTICLE

A Randomized Trial of Intensive versus Standard Blood-Pressure Control

The SPRINT Research Group*

consecutive visits. Dose adjustment was based on a mean of three blood-pressure measurements at an office visit while the patient was seated and after 5 minutes of quiet rest; the measurements were made with the use of an automated measurement system (Model 907, Omron Healthcare). Lifestyle modification was

La PA a été mesurée par un appareil automatique au cabinet: Patient seul dans une salle, assis, 3 auto-mesures à 5 min d'intervalle.


AOBPM Mesure de la PA automatisée au cabinet, **UNATTENDED**

Brief Reviews

Measurement of Blood Pressure in the Office Recognizing the Problem and Proposing the Solution

Martin G. Myers, Marshall Godwin, Martin Dawes, Alexander Kiss,
Sheldon W. Tobe, Janusz Kaczorowski

Chez des patients hypertendus traités:
Mesure Automatisée de la PA au Cabinet (AOBPM) unattended
→ PAS est comparable à AutoMesure diurne
→ Jusqu'à 20mmHg plus basse que la valeur mesurée au cabinet par le médecin par la technique auscultatoire.

11:00-12:30	<p>RECOMMANDATIONS DE LA SFHTA Recommandation sur la mesure - T. Denolle Mise au point de la SFHTA sur les seuils tensionnel J.-P. Fauvel</p> <p>HTA de la femme: spécificités de prise en charge, hors grossesse : un consensus français - C. Mounier Véhier - - G. Plu-Bureau Modérateur : T. Denolle</p> <p>DPC CARDIO et DPC THERAPEUTIQUE</p> 
-------------	---

38^{es} JHTA
JOURNÉES DE L'HYPERTENSION ARTERIELLE
INNOVATIONS EN HTA

13-14 décembre 2018
Paris
Cité Universitaire (CIUP)

www.jhta2018.eu

12th INTERNATIONAL MEETING OF THE FRENCH SOCIETY OF HYPERTENSION

Société Française d'Hypertension Artérielle
www.sfhta.org

Société Belge d'Hypertension

Société Française d'Hypertension Artérielle

Société Suisse d'Hypertension

Whelton PK, et al.
2017 High Blood Pressure Clinical Practice Guideline

**2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA
Guideline for the Prevention, Detection, Evaluation, and Management
of High Blood Pressure in Adults**

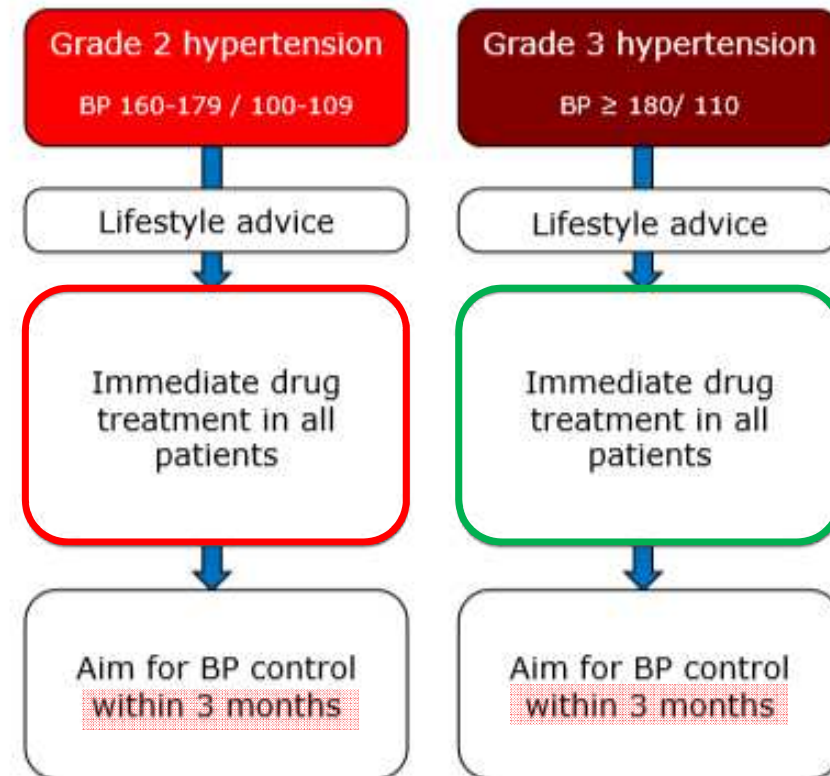
A Report of the American College of Cardiology/American Heart Association Task Force on
Clinical Practice Guidelines

8.1.6.1. Choice of Initial Monotherapy Versus Initial Combination Drug Therapy

Recommendations for Choice of Initial Monotherapy Versus Initial Combination Drug Therapy*		
COR	LOE	Recommendation
I	C-EO	1. Initiation of antihypertensive drug therapy with 2 first-line agents of different classes, either as separate agents or in a fixed-dose combination, is recommended in adults with stage 2 hypertension and an average BP more than 20/10 mm Hg above 2 antiHTA si HTA Stade 2 ($\geq 140/90$)
IIa	C-EO	2. Initiation of antihypertensive drug therapy with a single antihypertensive drug is reasonable in adults with stage 1 hypertension and BP goal <130/80 mm Hg with dosage titration and sequential addition of other agents to achieve the BP target. 1 antiHTA si HTA Stade 1 (130-139/80-89)

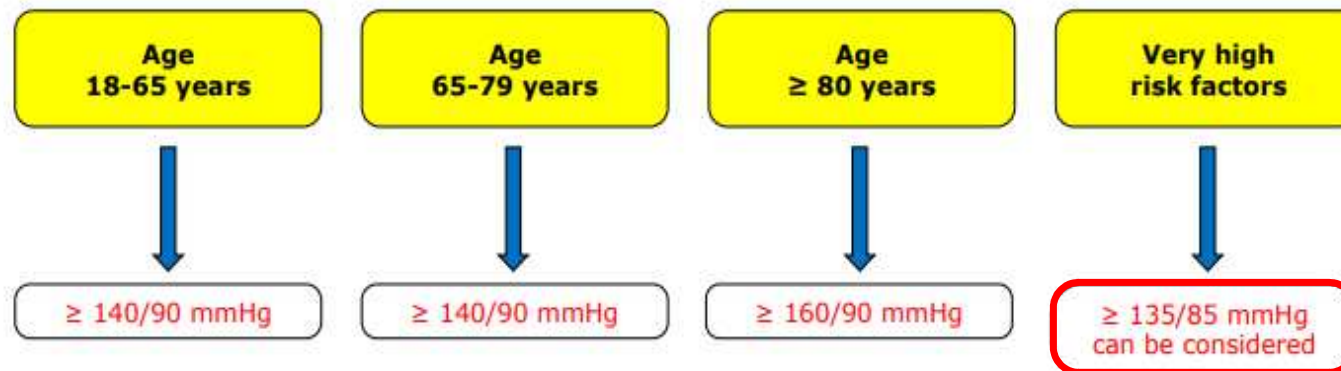
*Fixed-dose combination antihypertensive medications are listed in Online Data Supplement D.

Initiation du traitement antihypertenseur (RHD et Médicaments)

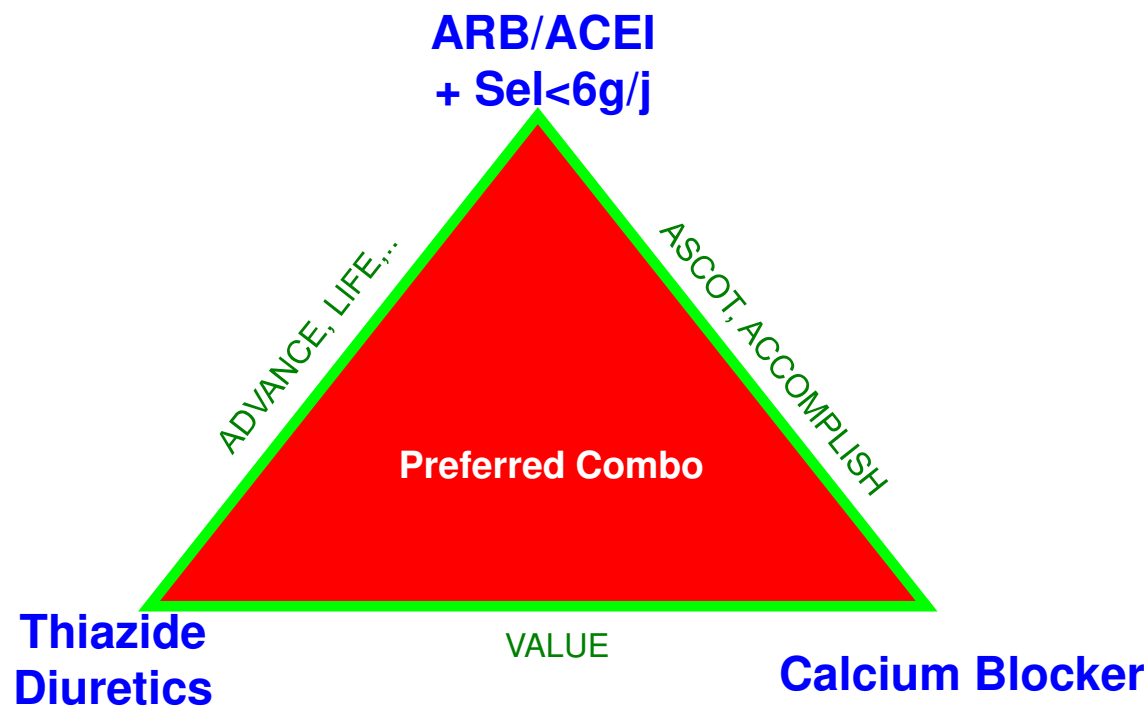
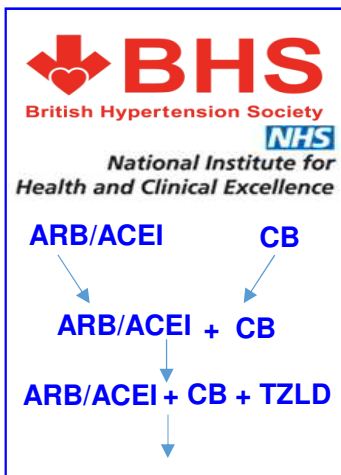


Initiation du traitement antihypertenseur (selon âge / Terrain)

basée sur la PA mesurée au cabinet médical



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	



- ARA2**
- IEC**
- TZD**
- CB**
- (BB)**

Furosemide
 Burétamide
 =
 Ne sont pas des antiHTA
 =
 optimiser la volémie
 <>
 Dose est NON fixe

IC; PU, HypoK
Attention HyperK

IC; Coro
TachyCardie

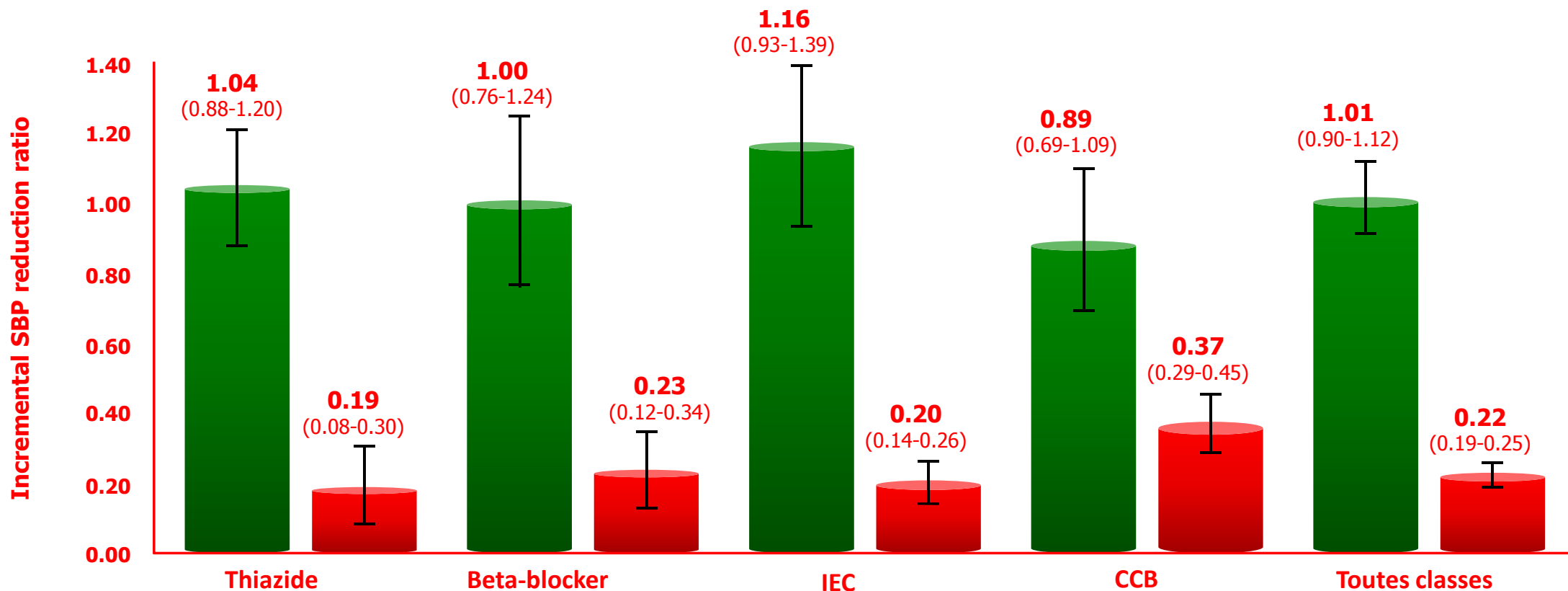
Dernier lieu
CI si hTO, IC

5è/6è position

Une approche thérapeutique combinée est préférable à une augmentation de doses

■ Adjonction d'un 2^o médicament

■ Doublement de la dose initiale



Combinaison versus double dose:
 $P < 0.05$ pour toutes comparaisons

Wald DS, et al. *Am J Med.* 2009;122:290-300.

	Mean (SD) or N (%)
Age (years)	61.4 (9.6)
Sex	
Male	230 (69%)
Female	105 (31%)
Weight (kg)	93.5 (18.1)
Smoker	26 (7.8%)
Home	
Systolic blood pressure (mm Hg)	147.6 (13.2)
Diastolic blood pressure (mm Hg)	84.2 (10.9)
Heart rate (beats per min)	73.3 (9.9)
Clinic	
Systolic blood pressure (mm Hg)	157.0 (14.3)
Diastolic blood pressure (mm Hg)	90.0 (1.5)
Heart rate (beats per min)	77.2 (12.2)
24 h urine (mmol/24 h)	
Sodium	137.1 (71.8)
Potassium	70.5 (29.5)
Blood electrolytes (mmol/L)	
Sodium	139.6 (3.0)
Potassium	4.1 (0.5)
eGFR (mL/min)	91.1 (26.8)
Diabetic	46 (14%)

eGFR=estimated glomerular filtration rate.

Table 1: Baseline characteristics of the patients randomised into the PATHWAY-2 study (n=335)

Spirolactone versus placebo, bisoprolol, and doxazosin to determine the optimal treatment for drug-resistant hypertension (PATHWAY-2): a randomised, double-blind, crossover trial

HTA non contrôlée sous ARA2+CB+TZD à dose optimale

Bryan Williams, Thomas M MacDonald, Steve Morant, David J Webb, Peter Sever, Gordon McInnes, Ian Ford, J Kennedy Cruickshank, Mark J Caulfield, Jackie Salsbury, Isla Mackenzie, Sandosh Padmanabhan, Morris J Brown, for The British Hypertension Society's PATHWAY Studies Group*

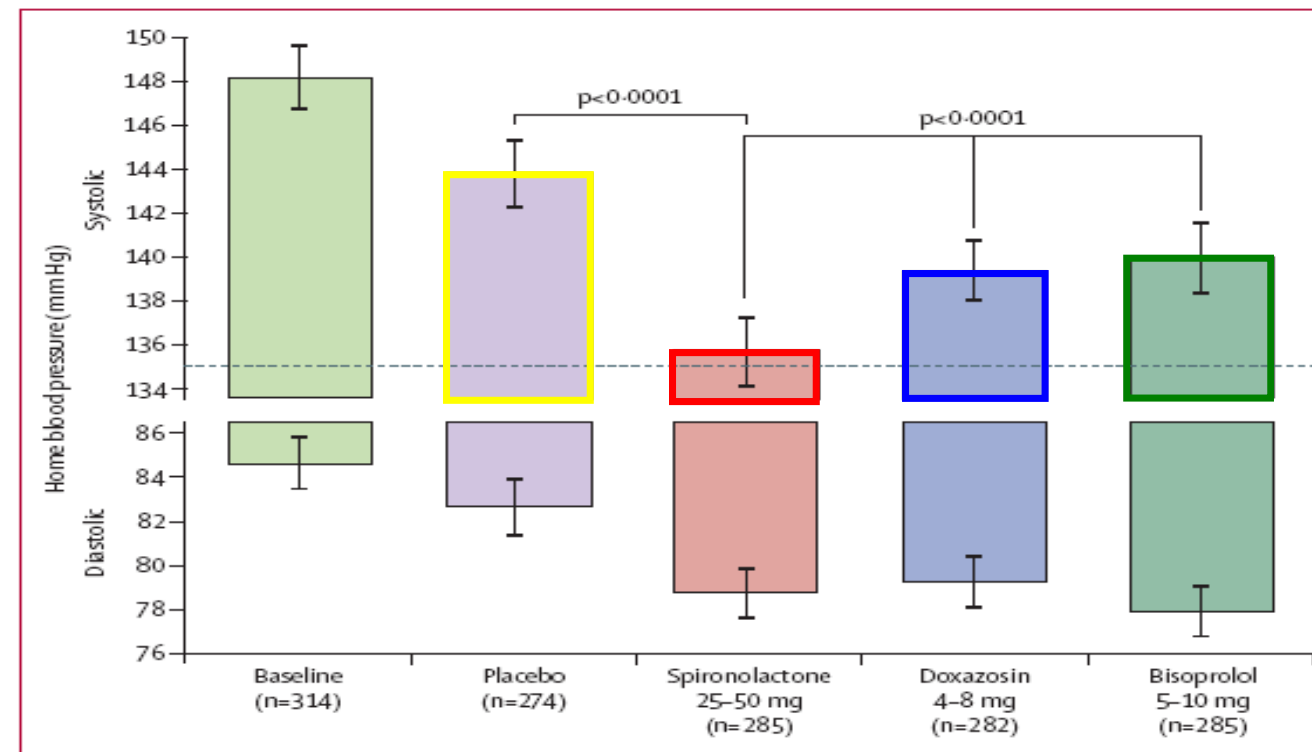


Figure 2: Home systolic and diastolic blood pressures comparing spiro lactone with each of the other cycles

Lancet 2015; 386: 2059–68

Doxazosin arm of the ALLHAT study discontinued: how equal are antihypertensive drugs?

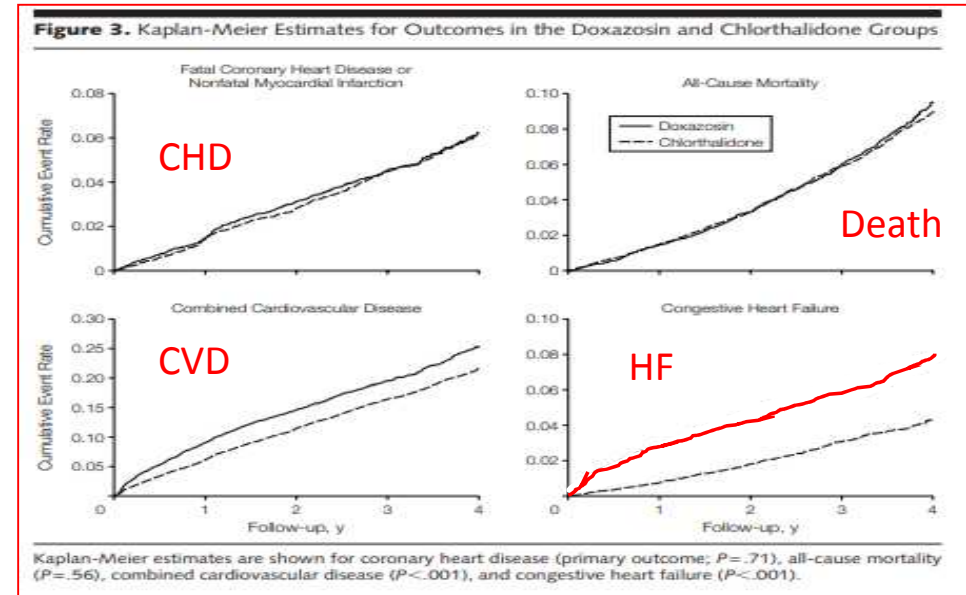
Antihypertensive and Lipid Lowering Treatment to Prevent Heart Attack Trial.
Messerli FH1, Grossman E.. Curr Hypertens Rep. 2000 Jun;2(3):241-2.

ORIGINAL CONTRIBUTION JAMA-EXPRESS

Major Cardiovascular Events in Hypertensive Patients Randomized to Doxazosin vs Chlorthalidone

The Antihypertensive and Lipid-Lowering Treatment
to Prevent Heart Attack Trial (ALLHAT)

Hypotension artérielle orthostatique+++
(âgés, diabétiques)



Circulation

CARDIOVASCULAR NEWS

National Heart, Lung, and Blood Institute Halts Part of
Antihypertensive and Lipid-Lowering Treatment to Prevent
Heart Attack Trial (ALLHAT)

Ruth SoRelle

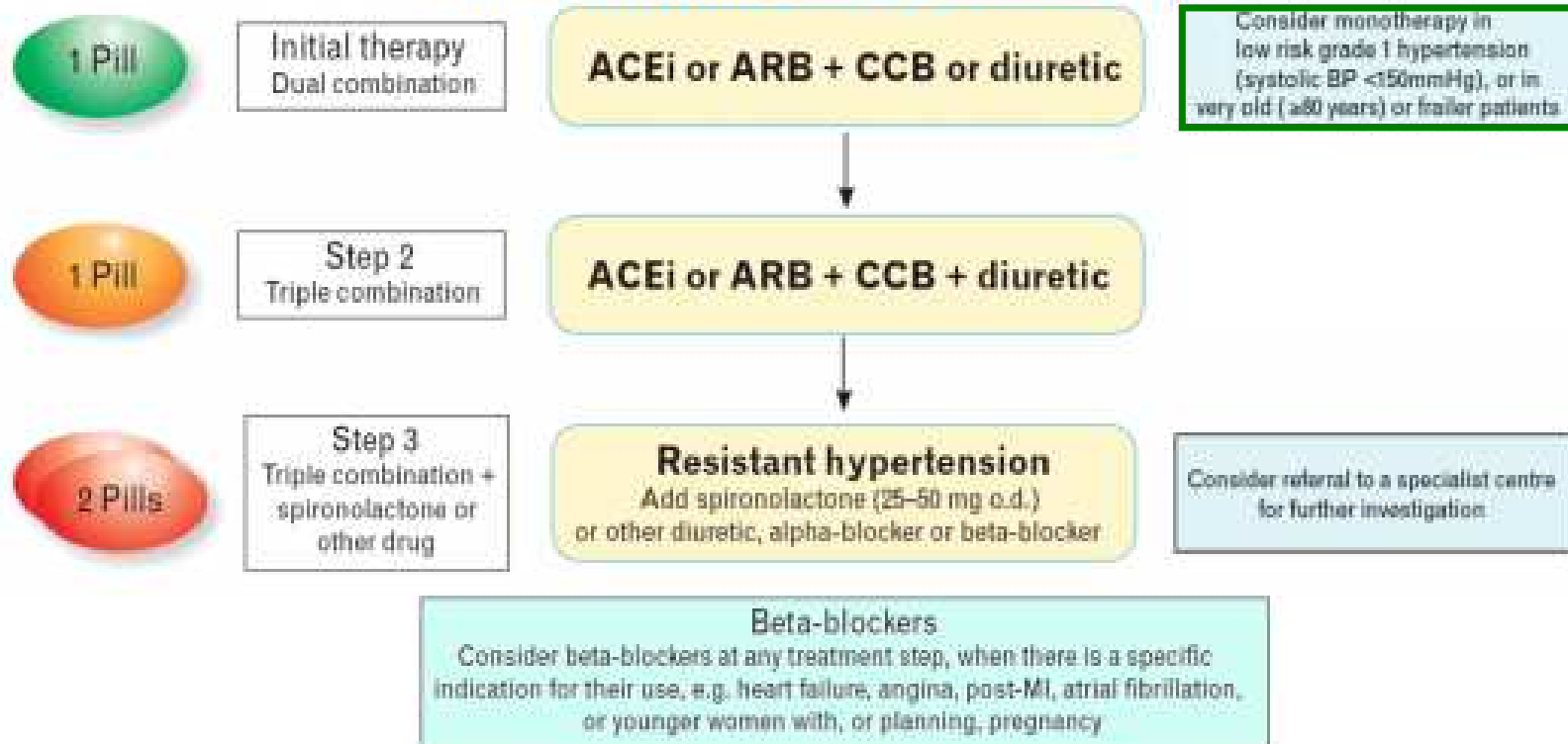
Because of the finding, the NHLBI advises patients with high blood pressure who are now taking an α -adrenergic blocker to consult with their doctors about a possible alternative.

Recommendations	Class ^a	Level ^b
<p>Prompt initiation of BP-lowering drug treatment is recommended in patients with grade 2 or 3 hypertension at any level of CV risk, simultaneous with the initiation of lifestyle changes.^{2,8}</p>	I	A
<p>In patients with grade 1 hypertension:</p> <ul style="list-style-type: none"> ● Lifestyle interventions are recommended to determine if this will normalize BP.²¹⁹ ● In patients with grade 1 hypertension at low–moderate-risk and without evidence of HMOD, BP-lowering drug treatment is recommended if the patient remains hypertensive after a period of lifestyle intervention.^{211,212} ● In patients with grade 1 hypertension and at high risk or with evidence of HMOD, prompt initiation of drug treatment is recommended simultaneously with lifestyle interventions.^{211,212} 	II	B
<p>In fit older patients with hypertension (even if aged >80 years), BP-lowering drug treatment and lifestyle intervention are recommended when SBP is ≥ 160 mmHg.^{210,220,221}</p>	I	A
<p>BP-lowering drug treatment and lifestyle intervention are recommended for fit older patients (>65 years but not >80 years) when SBP is in the grade 1 range (140–159 mmHg), provided that treatment is well tolerated.²¹²</p>	I	A
<p>Antihypertensive treatment may also be considered in frail older patients if tolerated.²¹⁵</p>	IIb	B
<p>Withdrawal of BP-lowering drug treatment on the basis of age, even when patients attain an age of ≥ 80 years, is not recommended, provided that treatment is well tolerated.²¹³</p>	III	A
<p>In patients with high–normal BP (130–139/85–89 mmHg):</p> <ul style="list-style-type: none"> ● Lifestyle changes are recommended.^{17,35} ● Drug treatment may be considered when their CV is very high due to established CVD, especially CAD.²¹⁷ 	I	A
	IIb	A

Initier le traitement par une combo fixe!, associer en combo fixe!

Moralité: favoriser l'observance, minimiser l'inertie: une course contre le déséquilibre tensionnel

Core drug-treatment strategy for uncomplicated hypertension

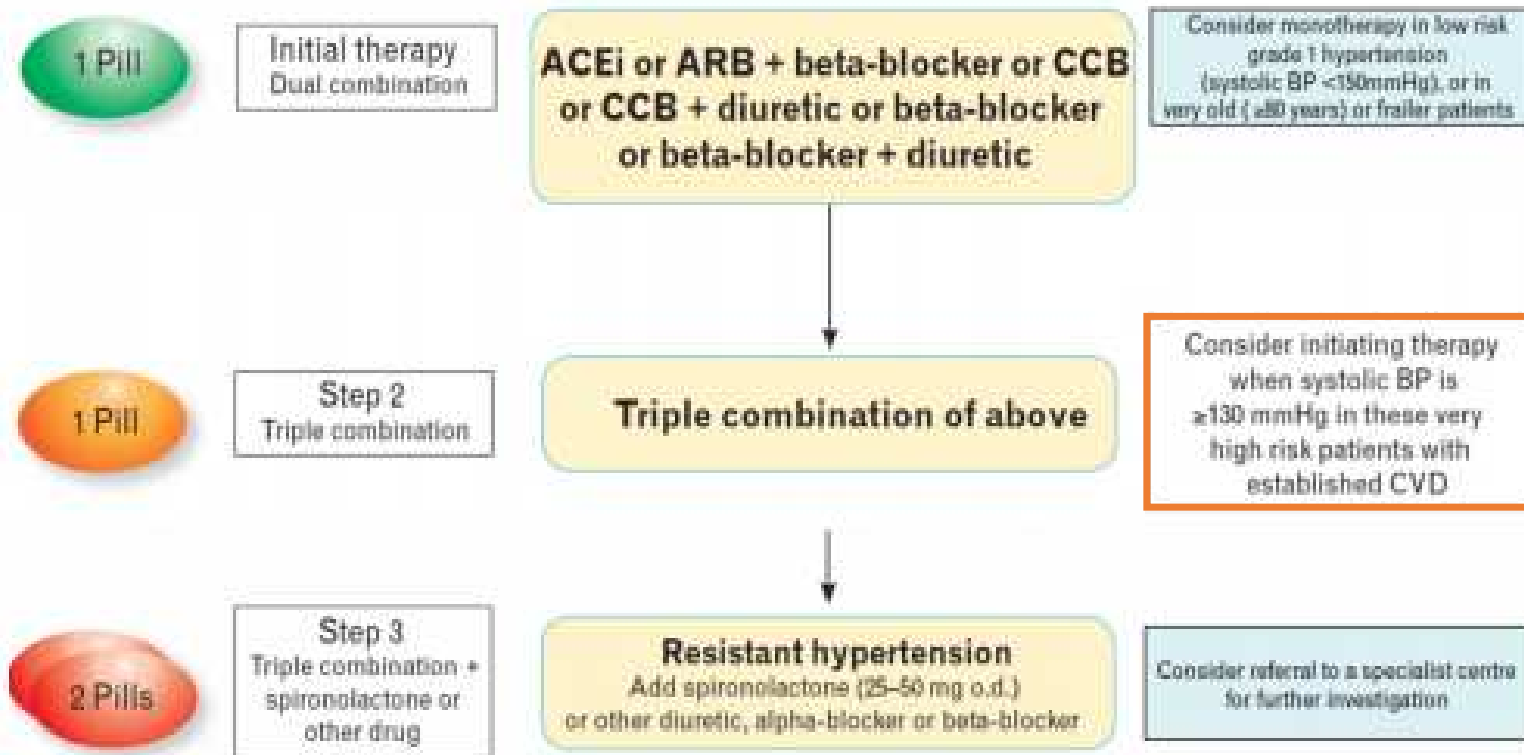


The core algorithm is also appropriate for most patients with HMOD, cerebrovascular disease, diabetes, or PAD

Initier le traitement par une combo fixe!, associer en combo fixe!

Moralité: favoriser l'observance, minimiser l'inertie: une course contre le déséquilibre tensionnel

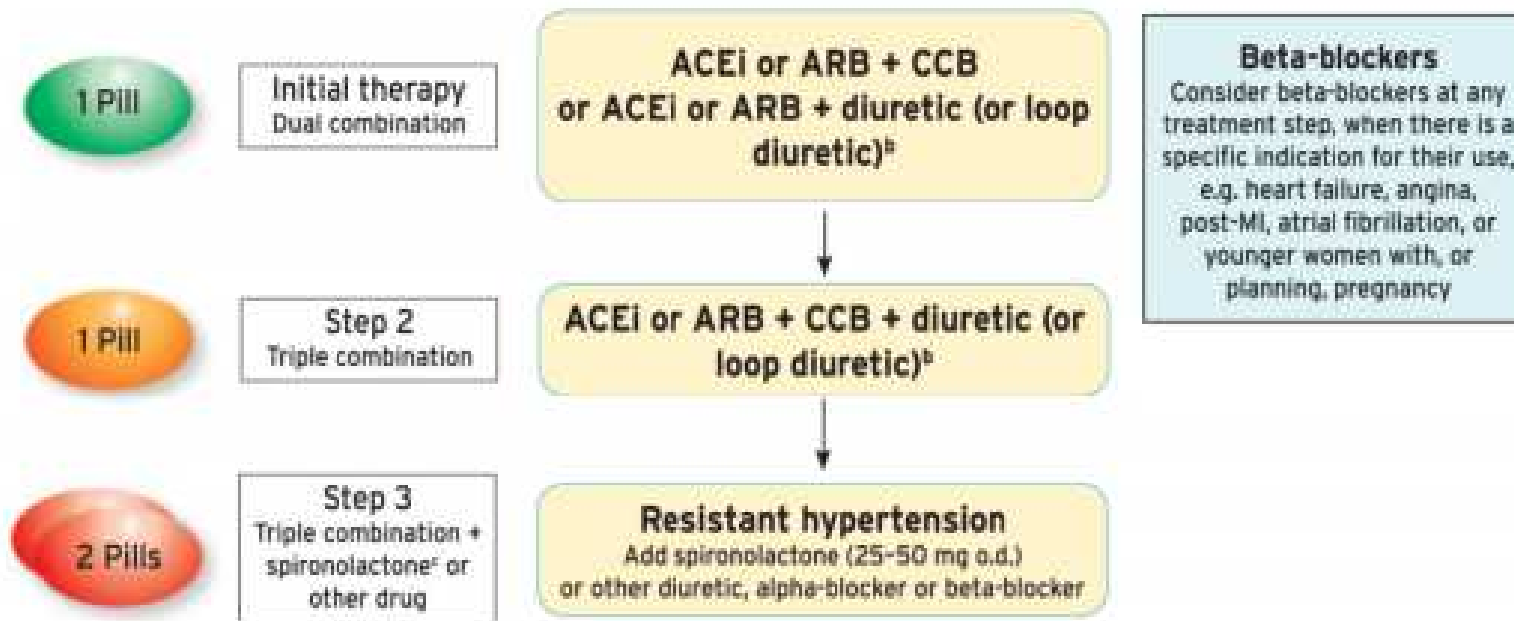
Drug-treatment strategy for hypertension and CAD



Initier le traitement par une combo fixe!, associer en combo fixe!

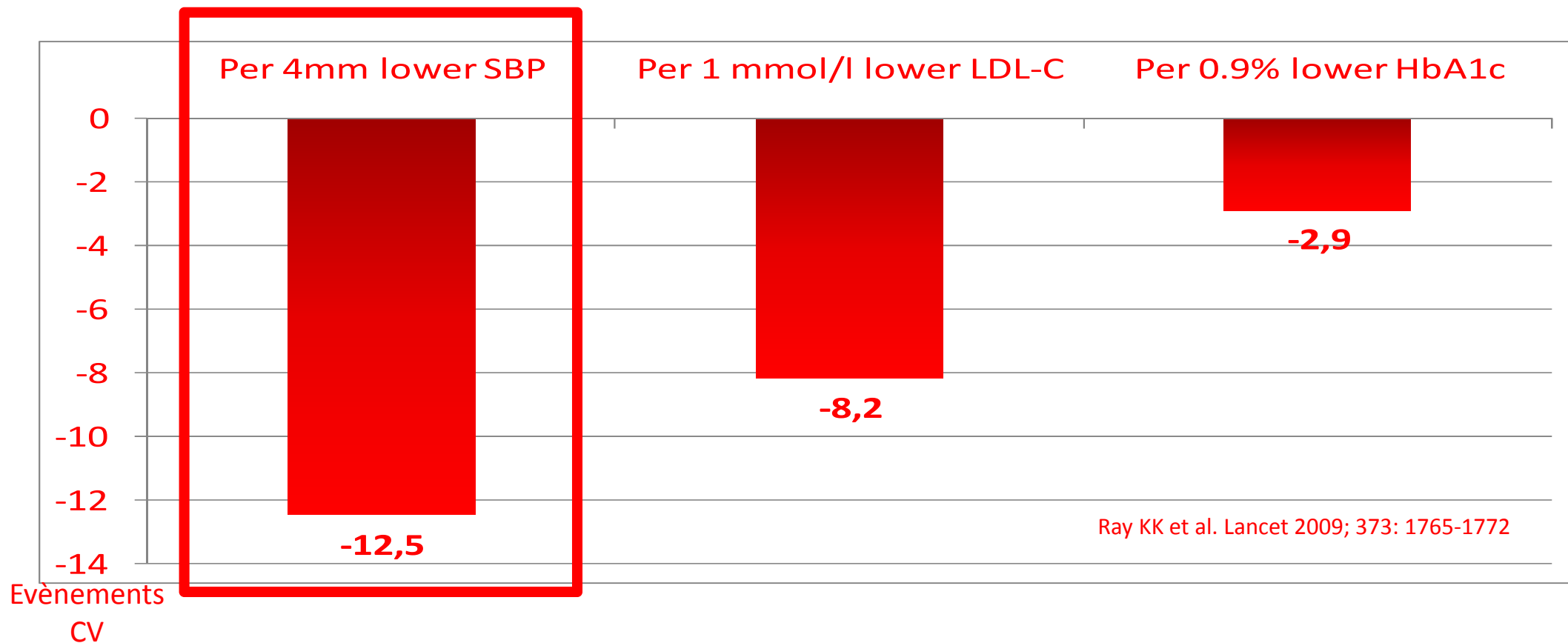
Moralité: favoriser l'observance, minimiser l'inertie: une course contre le déséquilibre tensionnel

Drug-treatment strategy for hypertension and CKD

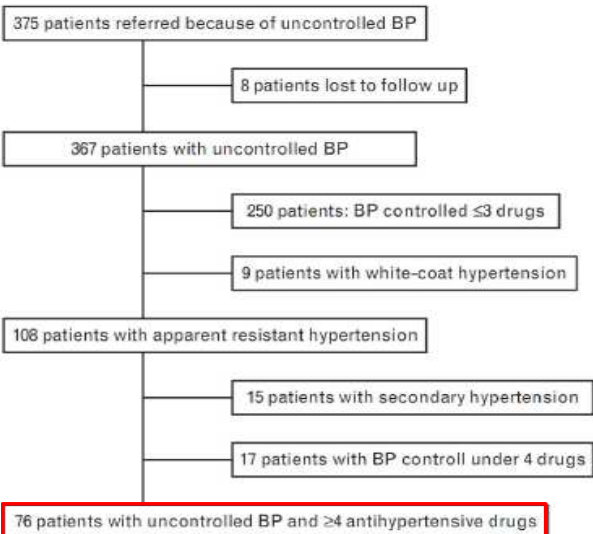


A reduction in eGFR and rise in serum creatinine is expected in patients with CKD^a who receive BP-lowering therapy, especially in those treated with an ACEi or ARB but a rise in serum creatinine of >30% should prompt evaluation of the patient for possible renovascular disease.

Bénéfice des différentes interventions (réduction des évènements CV pour 2000 DT2 en 5 ans)



2004 and 2011



Observance

Resistant Hypertension? Assessment of adherence by toxicological urine analysis

Jung O et al. J Hypertens 2013;31:766-74.

In the 76 patients, 388 antihypertensive drugs were prescribed. LCMS analysis performed for 368 drugs (except lercanidipine and nitrates)

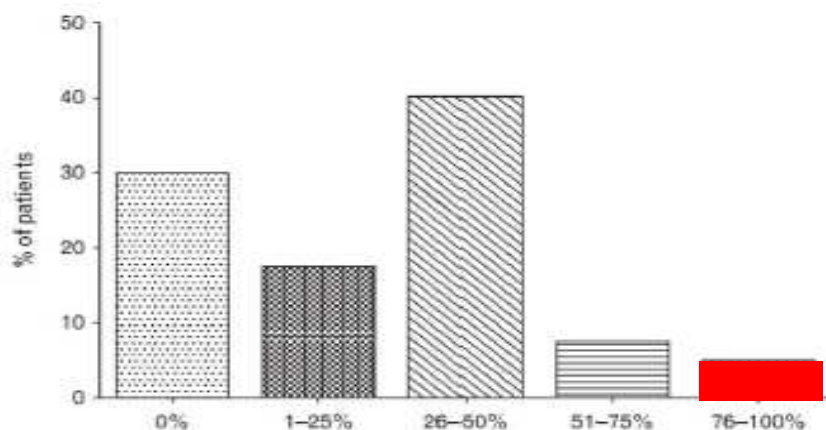
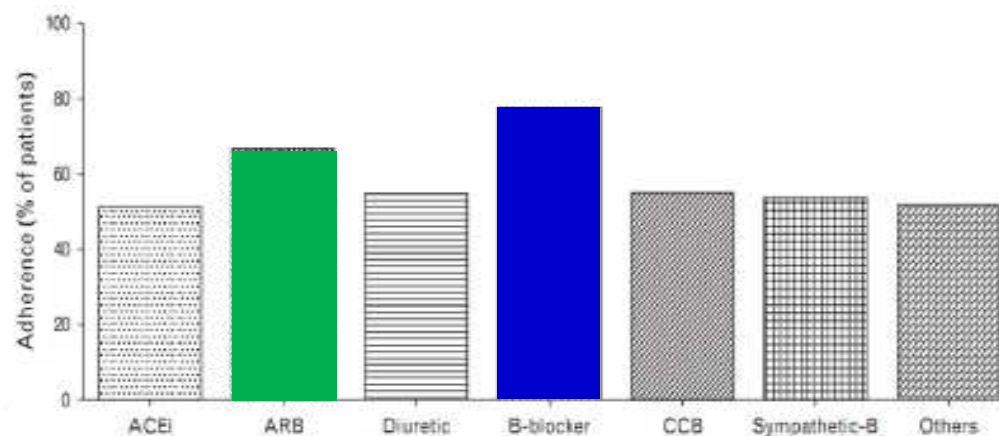
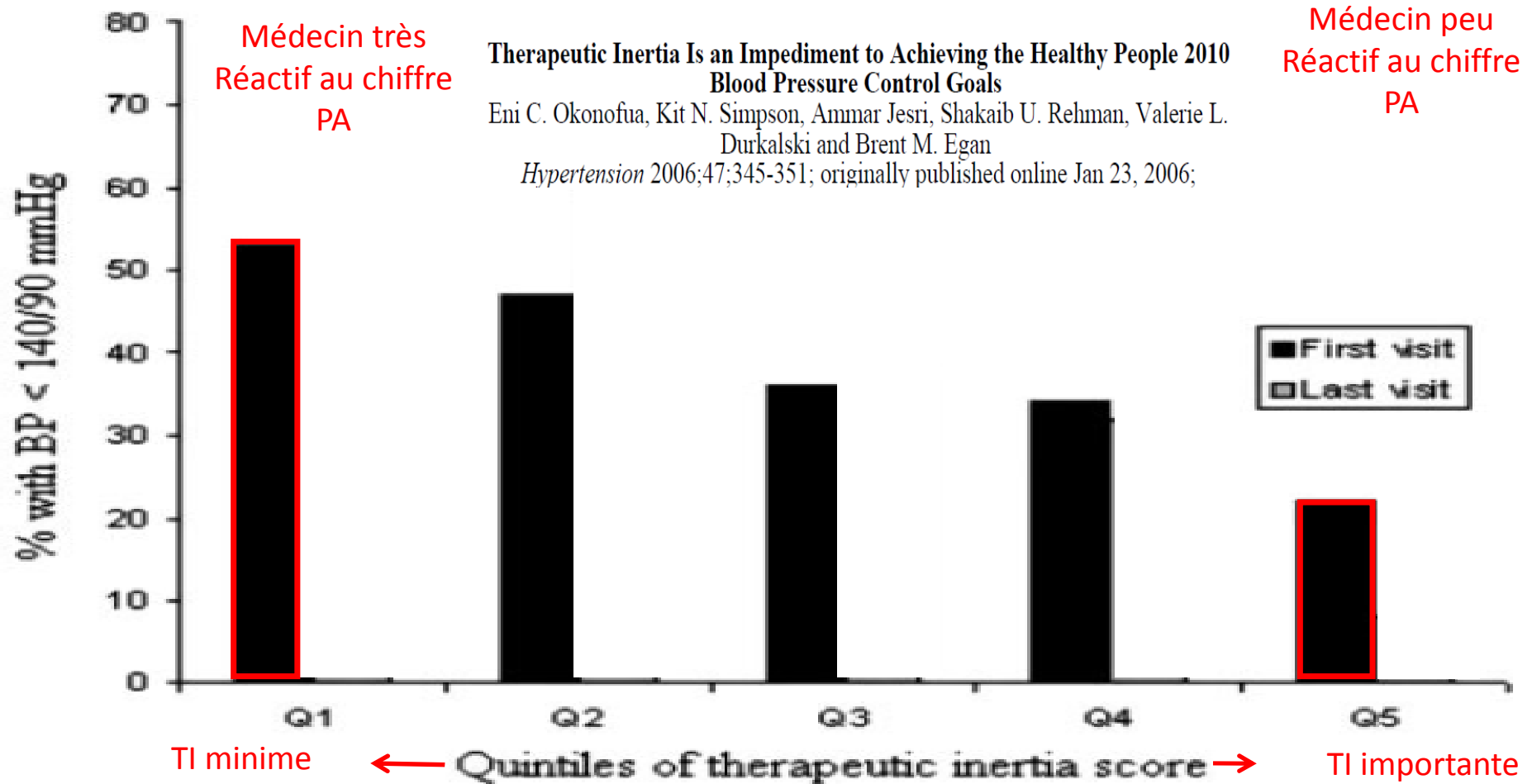


FIGURE 3 Percentage of prescribed drugs taken by nonadherent patients.



Inertie Thérapeutique



**Therapeutic Inertia Is an Impediment to Achieving the Healthy People 2010
Blood Pressure Control Goals**

Eni C. Okonofua, Kit N. Simpson, Ammar Jesri, Shakaib U. Rehman, Valerie L.
Durkalski and Brent M. Egan

Hypertension 2006;47;345-351; originally published online Jan 23, 2006;

TABLE 3. Logistic Model to Predict the Probability That a Visit Will Result in Therapeutic Inertia

Variables	Reference	Odds Ratio	95% CI	P Value
BP, stage 2	Stage 1	0.600	0.547 to 0.658	<0.0001
Race				
Black	White	0.984	0.872 to 1.111	0.9954
Unknown		0.968	0.863 to 1.086	0.5799
Age		1.110	1.070 to 1.150	<0.0001
Sex, male	Female	0.965	0.876 to 1.064	0.4761
No. of medications		0.523	0.505 to 0.541	<0.0001
Nephropathy, yes	No	1.028	0.902 to 1.171	0.6815
CHF, yes	No	1.196	1.033 to 1.384	0.0168
CVD, yes	No	1.246	1.122 to 1.384	<0.0001
Tobacco, yes	No	0.906	0.725 to 1.132	0.3830
Diabetes mellitus, yes	No	1.234	1.120 to 1.368	<0.0001
Hypercholesterolemia, yes	No	1.207	1.092 to 1.334	0.0002

BP stage based on untreated BP levels for those not on medications and treated levels for those on medications.

Whelton PK, et al.

2017 High Blood Pressure Clinical Practice Guideline

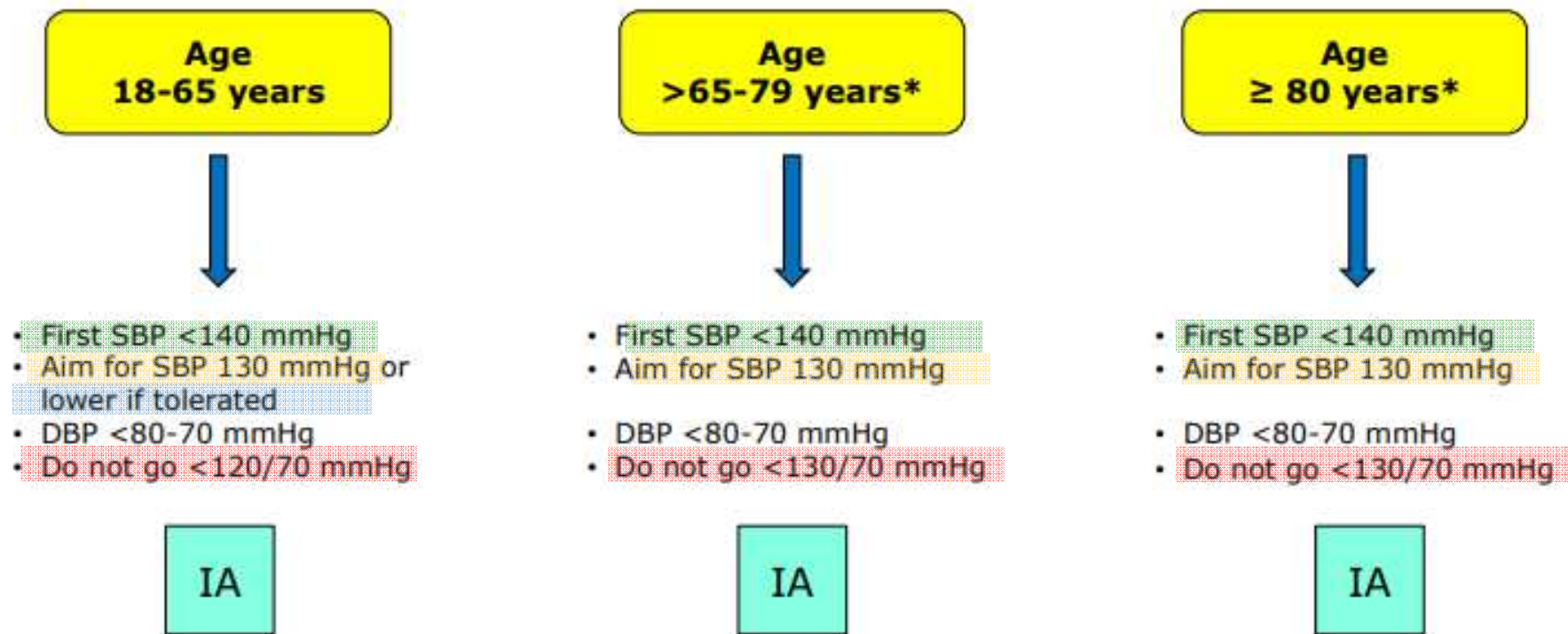
2017 ACC/AHA/AAPA/AA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults

A Report of the American College of Cardiology/American Heart Association Task Force on
Clinical Practice Guidelines

8.1.5. BP Goal for Patients With Hypertension

Recommendations for BP Goal for Patients With Hypertension		Recommendations
References that support recommendations are summarized in Online Data Supplement 26 and Systematic Review Report.		
COR	LOE	
I	SBP: B-R ^{SR}	1. For adults with confirmed hypertension and known CVD or 10-year ASCVD event risk of 10% or higher (see Section 8.1.2), a BP target of less than 130/80 mm Hg is recommended (1-5).
	DBP: C-EO	
IIb	SBP: B-NR	2. For adults with confirmed hypertension, without additional markers of increased CVD risk, a BP target of less than 130/80 mm Hg may be reasonable (6-9).
	DBP: C-EO	

Objectif tensionnel au cabinet sous traitement



* Consider frailty/independence/tolerability of treatment

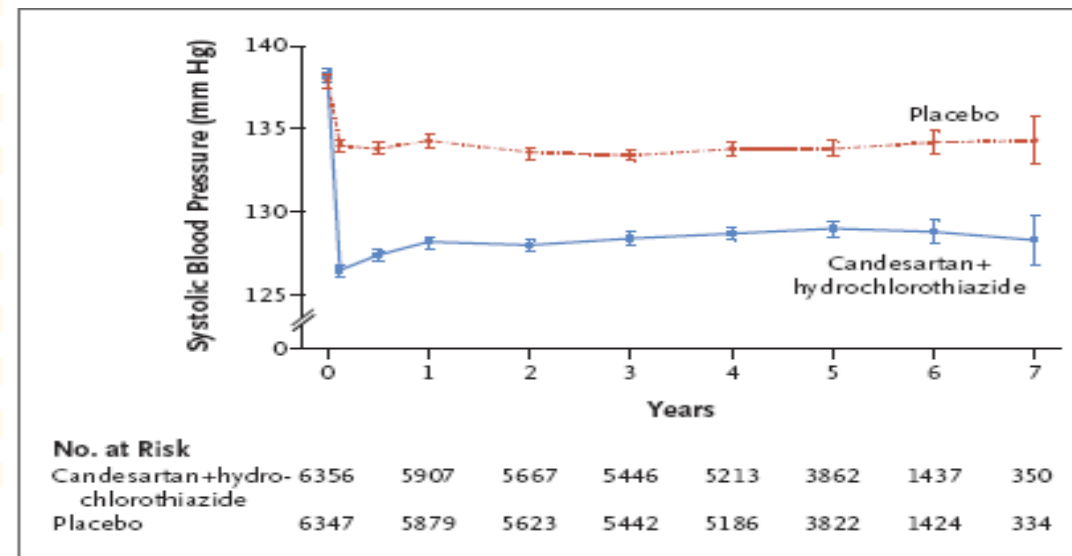
ORIGINAL ARTICLE

Blood-Pressure Lowering in Intermediate-Risk Persons without Cardiovascular Disease

HOPE 3

Heart Outcomes Prevention Evaluation

Characteristic	Candesartan + Hydrochlorothiazide (N = 6356)	Placebo (N = 6349)
Age — yr	65.7 ± 6.4	65.8 ± 6.4
Female sex — no. (%)	2910 (45.8)	2964 (46.7)
Cardiovascular risk factor — no. (%)		
Elevated waist-to-hip ratio	5511 (86.7)	5523 (87.0)
Recent or current smoking	1782 (28.0)	1742 (27.4)
Low concentration of HDL cholesterol	2297 (36.1)	2291 (36.1)
Impaired fasting glucose or impaired glucose tolerance	799 (12.6)	817 (12.9)
Early diabetes mellitus	386 (6.1)	345 (5.4)
Family history of premature coronary heart disease	1668 (26.2)	1667 (26.3)
Early renal dysfunction	184 (2.9)	166 (2.6)
Hypertension	2398 (37.7)	2416 (38.1)
Blood pressure — mm Hg		
Systolic	138.2 ± 14.7	137.9 ± 14.8
Diastolic	82.0 ± 9.4	81.8 ± 9.3
Heart rate — beats/min	72.9 ± 10.2	72.5 ± 10.2
Body-mass index	27.1 ± 4.8	27.1 ± 4.7
Waist-to-hip ratio	0.94 ± 0.08	0.94 ± 0.08
Total cholesterol — mg/dl†	201.4 ± 42.6	201.5 ± 41.7
LDL cholesterol — mg/dl†	127.4 ± 36.5	128.3 ± 35.6
HDL cholesterol — mg/dl†	44.9 ± 13.9	44.8 ± 13.7
Triglycerides — mg/dl†		
Median	127.4	128.3
Interquartile range	92.9–180.5	92.9–175.2
Fasting plasma glucose — mg/dl		
Median	95.4	95.4
Interquartile range	87.0–106.2	86.4–106.0
High-sensitivity C-reactive protein — mg/liter†		
Median	2.0	2.0
Interquartile range	1.0–4.1	1.0–3.9
Serum creatinine — mg/dl	0.9 ± 0.2	0.9 ± 0.2
INTERHEART Risk Score‡	14.5 ± 5.2	14.4 ± 5.2



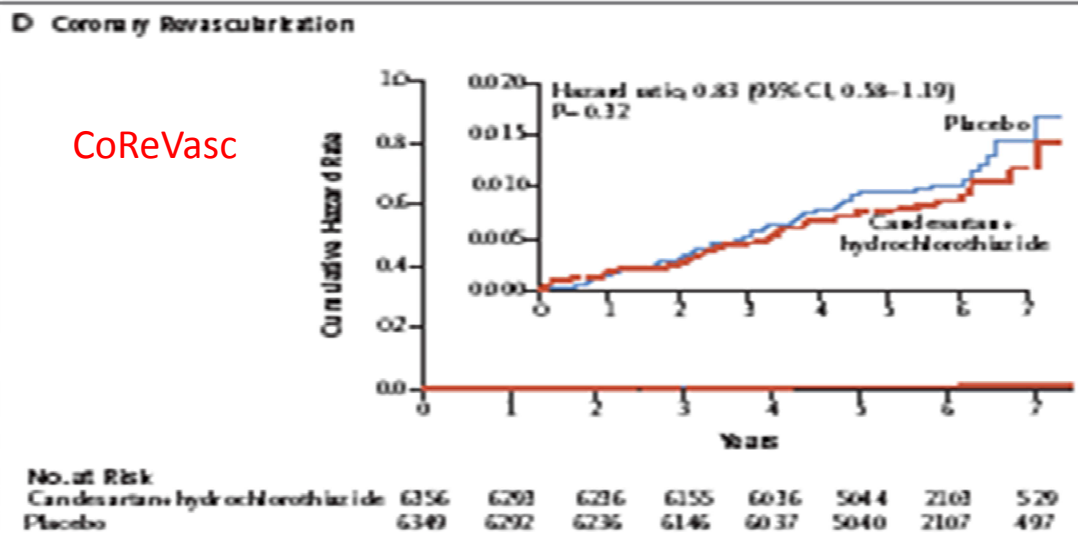
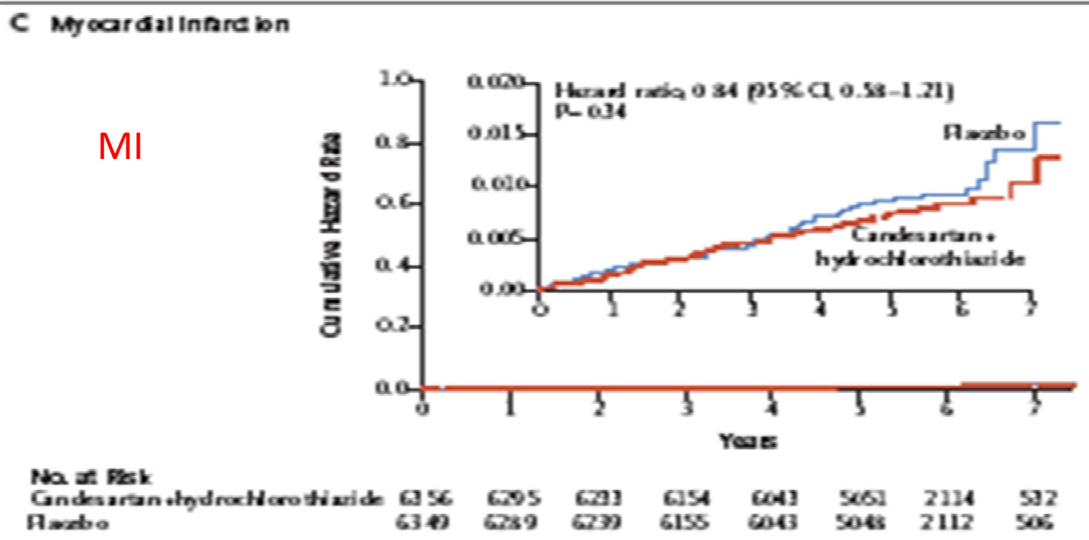
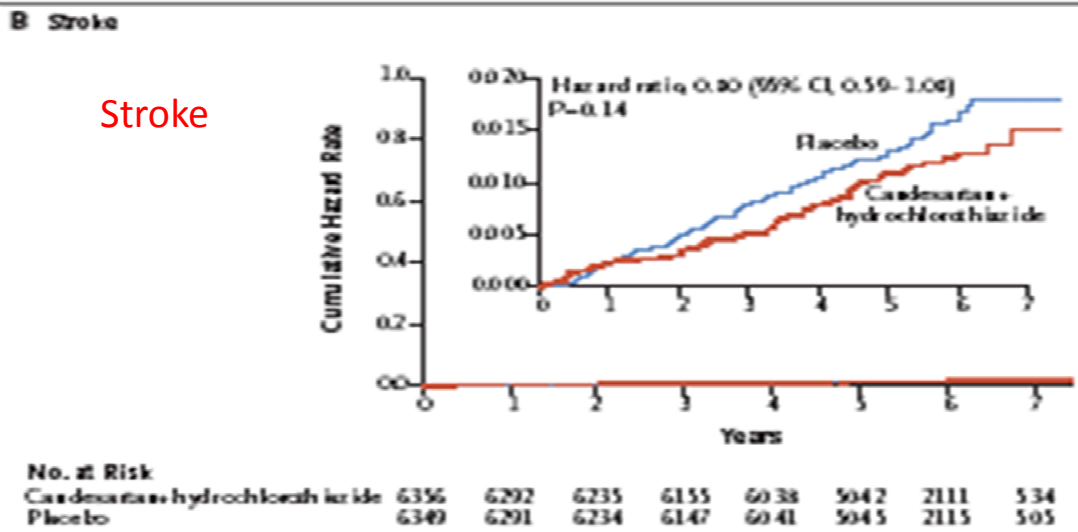
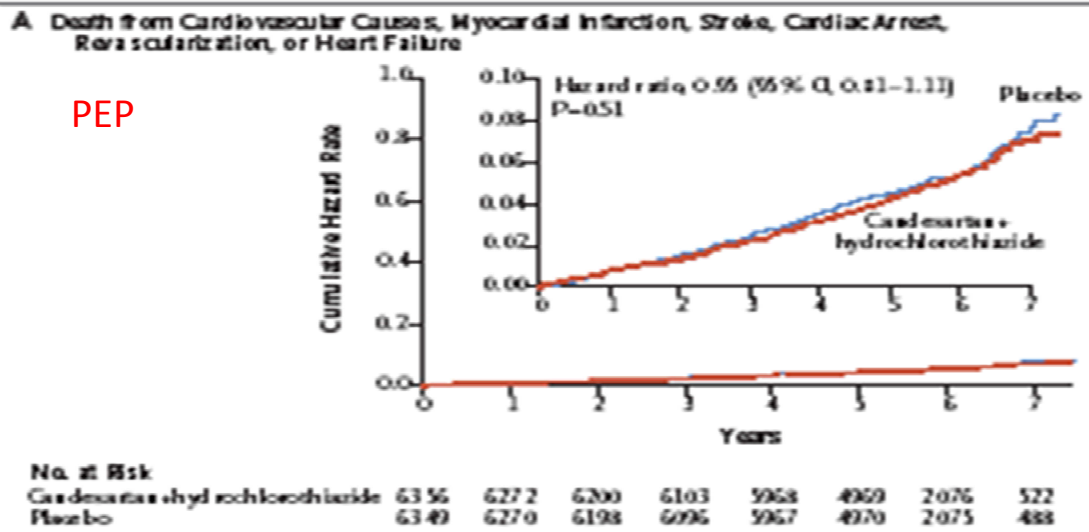


Figure 2. Cumulative Incidence of Major Cardiovascular Events, According to Trial Group. Shown are the Kaplan-Meier curves for the second coprimary outcome, which was the composite of death from cardiovascular causes, nonfatal myocardial infarction, nonfatal stroke, resuscitated cardiac arrest, revascularization, or heart failure (Panel A), for fatal and nonfatal stroke (Panel B), for myocardial infarction (Panel C), and for coronary revascularization (Panel D). Coronary revascularization was not a prespecified outcome. Insets show the same data on an enlarged y axis.

HOPE 3

Heart Outcomes
Prevention Evaluation

Blood-Pressure Lowering in Intermediate-Risk Persons without Cardiovascular Disease

ORIGINAL ARTICLE

A First Coprimary Outcome

Subgroup	Mean Systolic Blood Pressure <i>mm Hg</i>	Difference in Blood Pressure	Candesartan+ Hydrochlorothiazide <i>no. of events/total no. of participants (%)</i>	Placebo	Hazard Ratio (95% CI)	P Value for Trend
Overall	138.1	6.0/3.0	260/6356 (4.1)	279/6349 (4.4)	0.93 (0.79–1.10)	—
Systolic blood pressure						0.02
≤131.5 mm Hg	122.2	6.1/3.1	70/2080 (3.4)	62/2122 (2.9)	1.16 (0.82–1.63)	
131.6–143.5 mm Hg	137.6	5.6/2.7	87/2120 (4.1)	81/2141 (3.8)	1.08 (0.80–1.46)	
>143.5 mm Hg	154.1	5.8/3.0	103/2156 (4.8)	136/2084 (6.5)	0.73 (0.56–0.94)	

B Second Coprimary Outcome

Subgroup	Mean Systolic Blood Pressure <i>mm Hg</i>	Difference in Blood Pressure	Candesartan+ Hydrochlorothiazide <i>no. of events/total no. of participants (%)</i>	Placebo	Hazard Ratio (95% CI)	P Value for Trend
Overall	138.1	6.0/3.0	312/6356 (4.9)	328/6349 (5.2)	0.95 (0.81–1.11)	—
Systolic blood pressure						0.009
≤131.5 mm Hg	122.2	6.1/3.1	90/2080 (4.3)	74/2122 (3.5)	1.25 (0.92–1.70)	
131.6–143.5 mm Hg	137.6	5.6/2.7	99/2120 (4.7)	98/2141 (4.6)	1.02 (0.77–1.34)	
>143.5 mm Hg	154.1	5.8/3.0	123/2156 (5.7)	156/2084 (7.5)	0.76 (0.60–0.96)	

HMOD: Atteinte des organes cibles induite par l'HTA

Basic screening tests for HMOD	Indication and interpretation
12-lead ECG	Screen for LVH and other possible cardiac abnormalities and to document heart rate and cardiac rhythm
Urine albumin:creatinine ratio	To detect elevations in albumin excretion indicative of possible renal disease
Blood creatinine and eGFR	To detect possible renal disease
Fundoscopy	To detect hypertensive retinopathy, especially in patients with grade 2 or 3 hypertension

More detailed screening for HMOD
Echocardiography
Carotid ultrasound
Abdominal ultrasound and Doppler studies
PWV
ABI
Cognitive function testing
Brain imaging

HMOD: Hypertension-mediated organ damage

Marker of HMOD	Sensitivity to changes	Reproducibility and operator independence	Time to changes	Prognostic value of the change
LVH by ECG	Low	High	Moderate (>6 months)	Yes
LVH by echocardiogram	Moderate	Moderate	Moderate (>6 months)	Yes
LVH by CMR	High	High	Moderate (>6 months)	No data
eGFR	Moderate	High	Very slow (years)	Yes
Urinary protein excretion	High	Moderate	Fast (weeks to months)	Moderate
Carotid IMT	Very low	Low	Slow (>12 months)	No
PWV	High	Low	Fast (weeks to months)	Limited data
Ankle-brachial index	Low	Moderate	Slow (>12 months)	Moderate

Homme 69 ans : DT2, Pompe Insuline, Obésité, HTA, Pied diabétique, RPD, PND, Co-ATL

An	2014	2014	2015	2016	2016	2016	2017
mois	04	12	07	01	03-05	12	03
Poids	128	106				-39mmHg	123
PA c	170/70	113/62		143/74	140/80	178/82	154/80
PAd1'						130/73	110/61
PAd3'						139/77	117/64
Creat	146	143			130	139	154
DFG	45	42			49	45	39
Pug/g	3.4	1.1	-	-	-	-	-
K	4,1	4					3.9
Valsart	Stop	40	40	40	40	40	40
Nicard	100mg	100mg	100mg	100mg	Stop*		
Bisop	5mg	5mg	5mg	5mg	5mg	5mg	5mg
Urap	60mg	60mg	60mg	60mg	120mg	120mg	120mg
Amlo							

H

H

* Pour
diarrhée

Take Home Messages

Diagnostic:

Définition HTA: PA > 140/90 mesures au cabinet (AM/MAPA)

Initiation MHD:

PA > 130/80

Initiation du traitement médicamenteux:

(mesures au cabinet)

- ✓ PA > 140/90
- ✓ PA 130/80 peut être considéré si RCV élevé/très élevé

Objectifs tensionnels

- ✓ Obligatoire < 140/90
- ✓ Suggéré si bien toléré autour de 130/70-80
- ✓ Pas de PA < 120/70 (...courbe J !!)

Classes antiHTA de 1^{ère} intention:

IEC/ARA2-CB-TZD-(BB)

Initiation traitement par combinaison fixe:

Si PA > 140/90 mmHg et RCV élevé

Privilégier les SPC (combinaisons fixes)

IEC/ARA2 + CB ou TZD → IEC/ARA2 + CB + TZD (+BB si indication)

Monothérapie proposée pour uniquement

HTA grade 1 PAS < 150 mmHg + RCV faible

HTA Réfractaire:

Référer Spécialiste HTA/Centre d'excellence/BP Clinics

HTA secondaire? (Obligation du Bilan initial devant toute HTA)

Escalade thérapeutique: Antialdostérone > BB-AB-C

Pas de place pour les « devices »



Thank you
Gracias
Merci

شكرا لكم

Sfax, Arab Cultural Capital 2016

Prof. Façal JARRAYA, MD, FERA

ESH Clinical Hypertension Specialist

Fellow European Renal Association

Sfax University, Faculty of Medicine, Sfax, Tunisia

Email jarraya_faical@yahoo.fr

- STN- Ex. Sec Général
- Société Française Nephrologie- Ex. membre du CA
- Arican Renal Association- Board Member
- ERA-EDTA member, Ex. Registry committee member
- International Society Nephrology- Afria Board Member

- Conseiller scientifique SFHTA
- ESH Clinical Hypertension specialist
- Membre du WG ESH Hypertension and Kidney
- ATERA - Vice Président
- ADREMED- Past President
- Coordinateur DU HTA Fac Med Sfax
- Directeur d'Unité de recherche UR12ES14- Sfax University

PubMed: 58

Chapitre de livre: 3

Editorial Board Member:

BMC nephrology, IJH, KRCP

Diplomé de:

Université Sfax

Université Picardie J Verne

Université Lille II

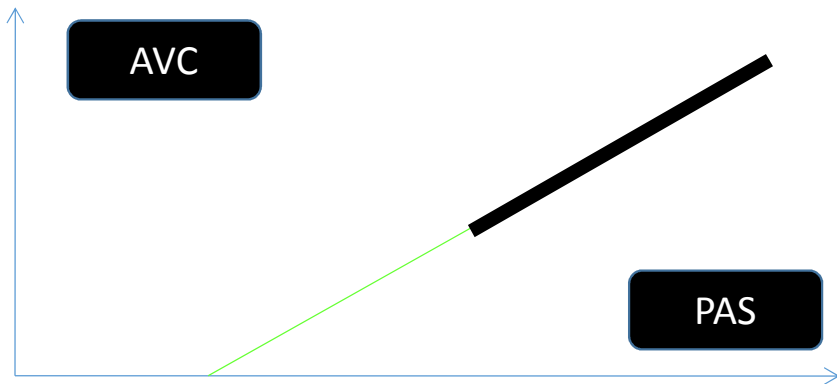
Université J Fourier Grenoble

Université Paris V

ORIGINAL ARTICLE

A Randomized Trial of Intensive versus Standard Blood-Pressure Control

The SPRINT Research Group*



less than 140 mm Hg (standard treatment). The primary composite outcome was myocardial infarction, other acute coronary syndromes, stroke, heart failure, or death from cardiovascular causes.

cantly lower rate of the primary composite outcome in the intensive-treatment group than in the standard-treatment group (1.65% per year vs. 2.19% per year; hazard ratio with intensive treatment, 0.75; 95% confidence interval [CI], 0.64 to 0.89; P<0.001). All-cause mortality was also significantly lower in the intensive-treatment group (hazard ratio, 0.73; 95% CI, 0.60 to 0.90; P=0.003). Rates of seri-

antiHTA 2.8 vs 1.8



« plus de diurétiques dans le groupe intensif qui masquent plutôt qui préviennent l'insuffisance cardiaque »

Outcome	Intensive Treatment		Standard Treatment		Hazard Ratio (95% CI)	P Value
	no. of patients (%)	% per year	no. of patients (%)	% per year		
All participants	(N= 4678)		(N= 4683)			
Primary outcome†	243 (5.2)	1.65	319 (6.8)	2.19	0.75 (0.64–0.89)	<0.001
Secondary outcomes						
Myocardial infarction	97 (2.1)	0.65	116 (2.5)	0.78	0.83 (0.64–1.09)	0.19
Acute coronary syndrome	40 (0.9)	0.27	40 (0.9)	0.27	1.00 (0.64–1.55)	0.99
Stroke	62 (1.3)	0.41	70 (1.5)	0.47	0.89 (0.63–1.25)	0.50
Heart failure	62 (1.3)	0.41	100 (2.1)	0.67	0.62 (0.45–0.84)	0.002
Death from cardiovascular causes	37 (0.8)	0.25	65 (1.4)	0.43	0.57 (0.38–0.85)	0.005
Death from any cause	155 (3.3)	1.03	210 (4.5)	1.40	0.73 (0.60–0.90)	0.003
Primary outcome or death	332 (7.1)	2.25	423 (9.0)	2.90	0.78 (0.67–0.90)	<0.001