



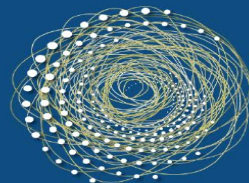
ΠΑΝΕΛΛΗΝΙΟ ΣΥΝΕΔΡΙΟ

Ξενοδοχείο
Crowne Plaza
Αθήνα

31^ο Έτος

Ημέρες Παθολογίας 2023

"Διλήμματα στην Κλινική Παθολογία"



30 Μαρτίου έως
01 Απριλίου
2023



ΚΛΙΝΙΚΟ ΦΡΟΝΤΙΣΤΗΡΙΟ: ΠΡΟΚΛΗΣΕΙΣ ΣΤΗΝ ΔΙΑΓΝΩΣΗ ΚΑΙ ΘΕΡΑΠΕΙΑ ΥΠΕΡΤΑΣΗΣ

**Ασθενής Χωρίς Θεραπεία με Πίεση
Ιατρείου 163/98 mmHg**

Κωνσταντινίδης Δημήτρης

Καρδιολόγος

Υπεύθυνος Μονάδας Υπέρτασης

Ά Πανεπιστημιακή Καρδιολογική Κλινική

ΓΝΑ Ιπποκράτειο

- Conflict of interest: SERVIER, WINMEDICA, ASTRA ZENECA, ELPEN, SANOFI, MENARINI, MEDTRONIC, IASPIS, UNI-PHARMA, NOVO NORDISK

Προφίλ ασθενούς

Άνδρας, 50 ετών προσήλθε στη Μονάδα Υπέρτασης για αντιμετώπιση αυξημένης αρτηριακής πίεσης

- Από 3μήνου αυξημένες μετρήσεις αρτηριακής πίεσης στο σπίτι
- Τυχαίες μετρήσεις: **ΣΑΠ: 150-160mmHg**
ΔΑΠ: 95-100mmHg
- Χωρίς συμπτώματα (τυχαίο εύρημα)
- Δεν έχει λάβει ποτέ αντιυπερτασική αγωγή



Ιστορικό

- Καπνιστής, 30 pack-years
- Μεγάλη κατανάλωση άλατος
- Κοινωνική κατανάλωση αλκοόλ
- Ελάχιστη σωματική άσκηση

- Ελεύθερο ατομικό ιστορικό

- Οικογενειακό ιστορικό ελεύθερο για καρδιαγγειακά νοσήματα

- Ήπιο ροχαλητό
- Χωρίς συμπτώματα ημερήσιας υπνηλίας (Erworth)

Κλινική εξέταση Σωματομετρικοί δείκτες

Ύψος	172cm
Βάρος	87Kg
BMI	29Kg/m ²
Περιφέρεια μέσης	110cm
Περίμετρος λαιμού	39cm

<18	ελλιποβαρές
18-25	φυσιολογικό
25-30	υπέρβαρο
30-35	παχυσαρκία
35-40	βαριά παχυσαρκία
40>	νοσογόνος παχυσαρκία

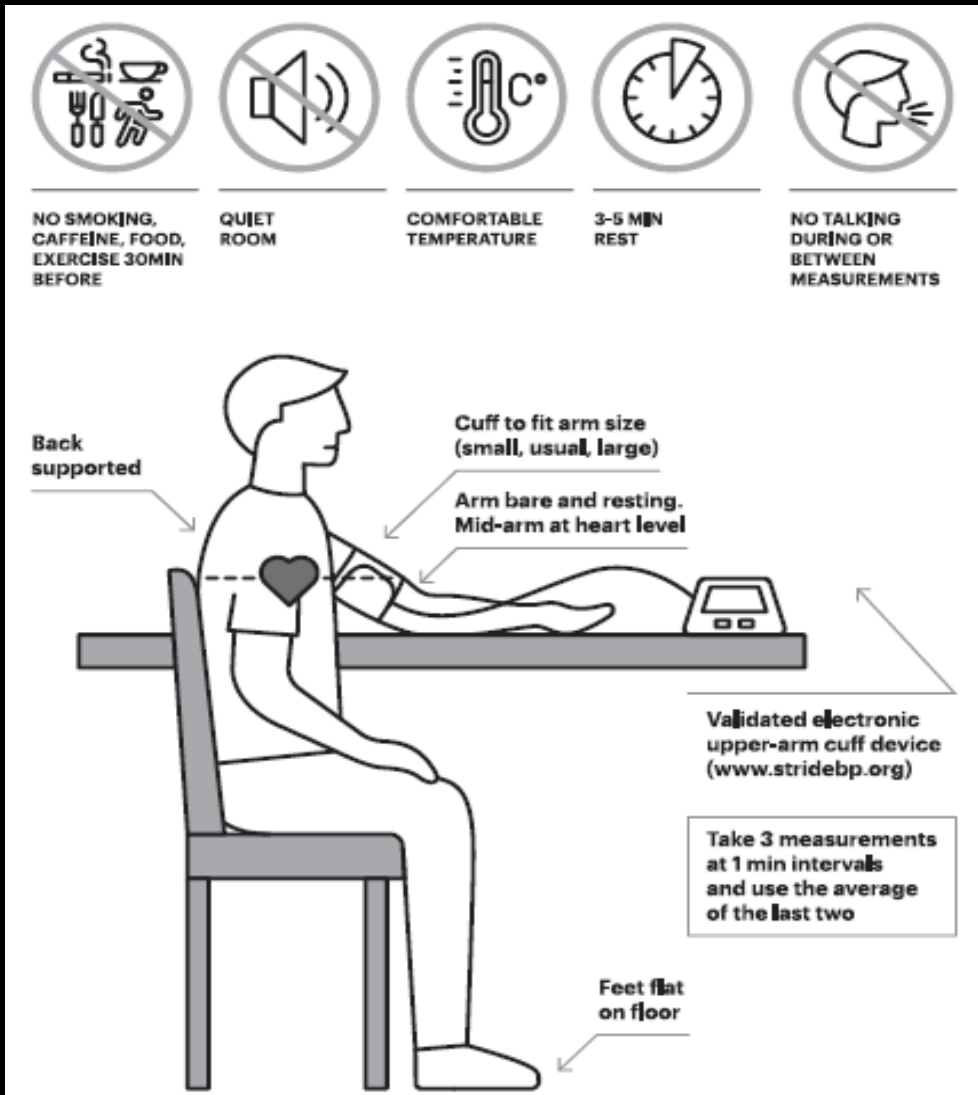
Table 6 Risk factor goals and target levels for important cardiovascular risk factors

Smoking	No exposure to tobacco in any form.
Diet	Low in saturated fat with a focus on wholegrain products, vegetables, fruit and fish.
Body weight	BMI 20–25 kg/m ² . Waist circumference <u><94 cm (men)</u> or <80 cm (women).

2016 European Guidelines on cardiovascular disease prevention in clinical practice

- ✓ ΞΑΝΘΕΛΑΣΜΑΤΑ: ΌΧΙ
- ✓ ΟΙΔΗΜΑΤΑ ΚΑΤΩ ΑΚΡΩΝ: ΟΧΙ
- ✓ ΑΚΡΟΑΣΗ ΚΑΡΔΙΑΣ: βύθιοι τόνοι, χωρίς φυσήματα
- ✓ ΠΕΡΙΦΕΡΙΚΕΣ ΑΡΤΗΡΙΕΣ: εφο

Μέτρηση ΑΠ ιατρείου



4.1 Conventional office blood pressure measurement

Auscultatory or oscillometric semiautomatic or automatic sphygmomanometers are the preferred method for measuring BP in the doctor's office. These devices should be validated according to standardized conditions and protocols.⁴⁴ BP should initially be measured in

ESH 2018

ESH - Consensus Document

OBP device requirements

- Use an automated electronic (oscillometric), upper-arm cuff device, which is validated according to an established protocol (Table 1). A device that takes triplicate readings automatically is preferred.
- If validated automated devices are not available, then use a manual electronic auscultatory device (hybrid) with LCD or LED mercury column-like display, or digital countdown (mercury sphygmomanometers are banned in most countries). Good quality shock-resistant aneroid devices might be used, but require calibration at least once per year. Deflate at 2-3 mmHg/s rate and use Korotkoff sound 1 for SBP and sound 5 for DBP in adults and children (use Korotkoff sound 4 if sounds are present at full deflation or at <40 mmHg point.

Πιστοποιημένο πιεσόμετρο!!!

Organisation	Device lists (language)	Scientific association ^a	Website
STRIDE BP	International (English, Chinese, Spanish)	European Society of Hypertension – International Society of Hypertension – World Hypertension League	www.stridebp.org
BIHS	UK/Ireland (English)	British and Irish Hypertension Society	www.bihsoc.org/bp-monitors
VDL	USA (English)	American Medical Association	www.validatebp.org
Hypertension Canada	Canada (English)	Hypertension Canada	www.hypertension.ca/bpdevices
Deutsche Hochdruckliga	Germany (German)	German High Pressure League	www.hochdruckliga.de/betroffene/blutdruckmessgeraete-mit-pruefsiegel
JSH	Japan (Japanese)	Japanese Society of Hypertension	www.jpsh.jp/com_ac_wg1.html



Ελληνική
Εταιρεία
Υπέρτασης

<https://hypertasi.gr>

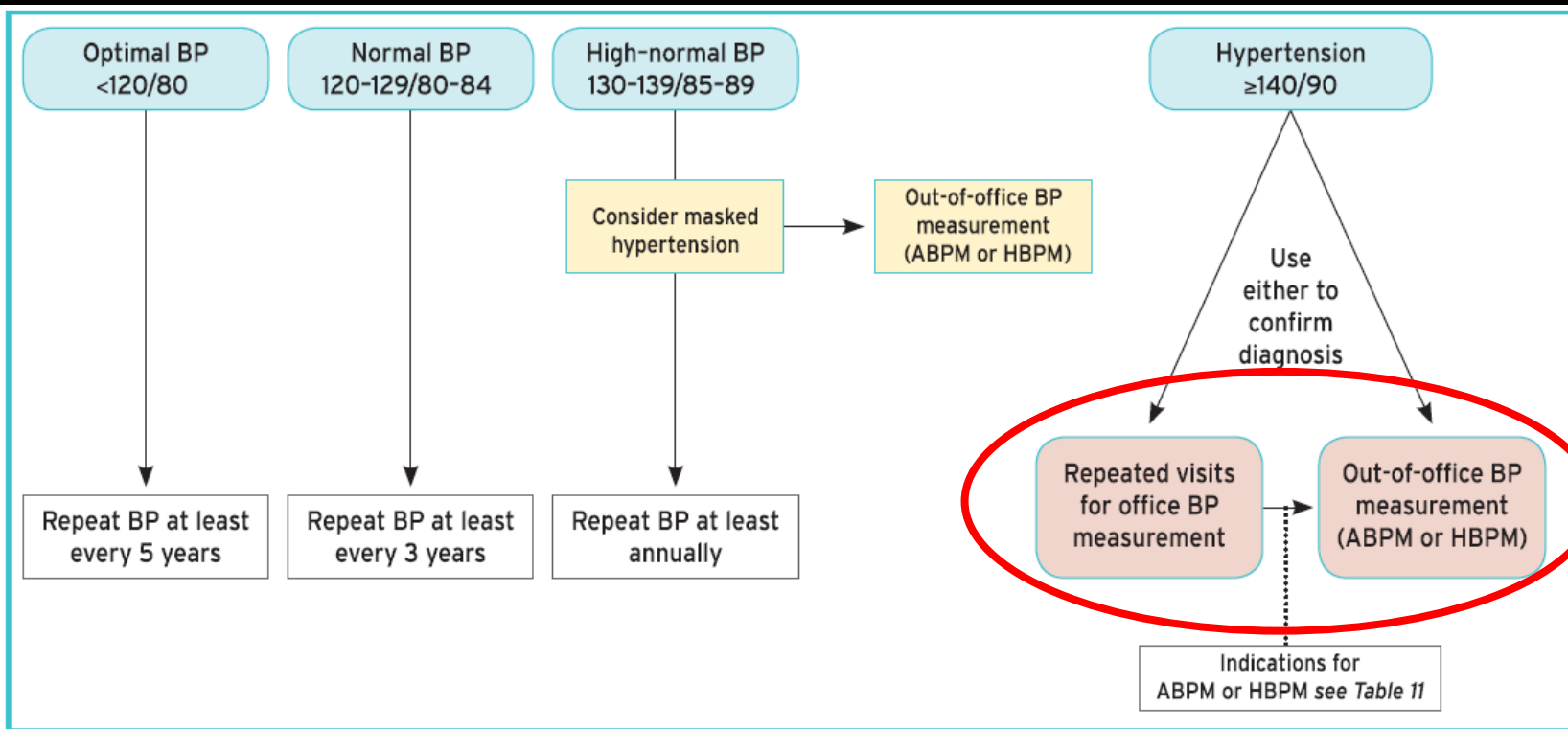
	1η	2η	3η	ΜΟ	Ορθ.
Δεξιά (ΣΑΠ/ΔΑΠ) (ΚΣ)	164/100 mmHg 74 bpm	163/98 mmHg 72 bpm	161/96 mmHg 72 bpm	163/98 mmHg 73 bpm	167/102 mmHg 81 bpm
Αριστερά (ΣΑΠ/ΔΑΠ) (ΚΣ)	163/99 mmHg 73 bpm	160/97 mmHg 70 bpm	158/95 mmHg 69 bpm	160/97 mmHg 71 bpm	

Table 3 Classification of office blood pressure^a and definitions of hypertension grade^b

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 ^b	≥140	and	<90



Είναι υπέρτασικός;



Diagnosis of hypertension based on OBP

- At least 2-3 office visits at 1-4-week intervals (depending on the BP level and CVD risk) are usually required for the evaluation of OBP.
- A diagnosis should not be made on a single office visit, unless OBP is very high (e.g. $\geq 180/110$ mmHg) and there is evidence of target organ damage or CVD.
- In most cases, the diagnosis of hypertension should be confirmed by HBPM or ABPM. Particularly in untreated or treated individuals with OBP levels within the grade 1 hypertension range (140-159/90-99 mmHg), HBPM or ABPM is strongly recommended because of increased probability of WCH; likewise, in those with high-normal OBP levels (130-139/85-89 mmHg), as they have increased probability of MH (Table 4).
- If it is not possible to perform HBPM or ABPM, then confirm diagnosis by taking more OBP measurements in repeated visits.

Πιέσεις λατρείου και εκτός λατρείου

OBP is the most well studied method with the strongest evidence, on which the BP classification of HTN and the recommended thresholds for treatment initiation and treatment targets are based.

Clinical use	Office	Home	24 h ambulatory	Pharmacy
Screening	+++	+	-	++
Initial diagnosis	+	++	+++	-
Treatment titration	+	++	++	-
Follow-up	++	+++	+	+
Main indication	Screening of untreated individuals. Follow-up of treated patients	Long-term follow-up of treated patients (preferred method)	Initial diagnosis (preferred method)	Screening of untreated individuals. Follow-up of treated patients
Hypertension (mmHg)	≥140/90	≥135/85	≥130/80	≥135/85 (?)

2^η επίσκεψη

AY

- ΑΠ ιατρείου: 161/96 mmHg
- ΑΠ σπίτι: 154/95 mmHg

Overall summary - Successful: 74,32% (55 of 74), Avg.: 153/98 mmHg

	Hourly avg.	Std. dev.	Min.	Max.	Dipping
Systolic (mmHg)	153	19,10	105 (02:17 Σαβ)	198 (11:57 Παρ)	17,32 %
Diastolic (mmHg)	98	15,87	63 (04:17 Σαβ)	131 (08:57 Σαβ)	25,31 %
MAP (mmHg)	115	17,49	71	162	22,18 %
Pulse pressure (mmHg)	54	10,14	34	76	
Heart rate (BPM)	77	14,29	52	110	
Systolic > limits	96,36%	Diastolic > limits	94,55%	AASI: 0,29	MSI: 17,76

Wake periods summary - Successful: 68,42% (39 of 57), Normal values: 135/85 mmHg, Avg.: 161/107 mmHg

	Hourly avg.	Std. dev.	Min.	Max.
Systolic (mmHg)	161	14,36	136 (09:01 Παρ)	198 (11:57 Παρ)
Diastolic (mmHg)	107	10,00	88 (15:37 Παρ)	131 (08:57 Σαβ)
MAP (mmHg)	123	12,54	104	162
Pulse pressure (mmHg)	55	9,72	37	76
Heart rate (BPM)	83	11,34	58	110
Systolic > 135 mmHg	100,00%	Diastolic > 85 mmHg		100,00%

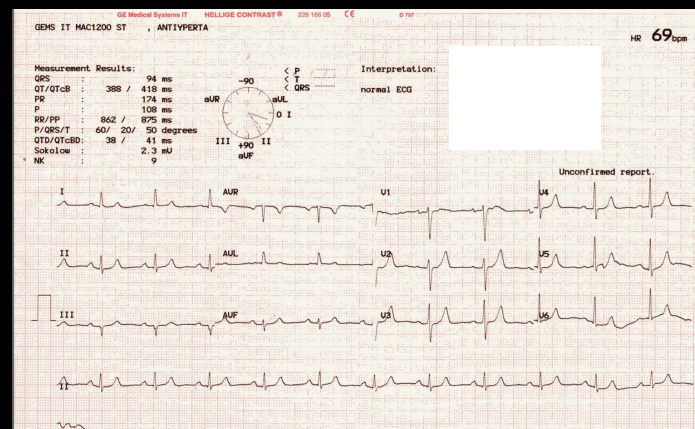
Sleep periods summary - Successful: 94,12% (16 of 17), Normal values: 120/70 mmHg, Avg.: 134/80 mmHg

	Hourly avg.	Std. dev.	Min.	Max.
Systolic (mmHg)	134	13,75	105 (02:17 Σαβ)	160 (22:17 Παρ)
Diastolic (mmHg)	80	9,59	63 (04:17 Σαβ)	99 (02:47 Σαβ)
MAP (mmHg)	97	11,25	71	116
Pulse pressure (mmHg)	54	11,41	34	72
Heart rate (BPM)	62	10,07	52	92
Systolic > 120 mmHg	87,50%	Diastolic > 70 mmHg		81,25%

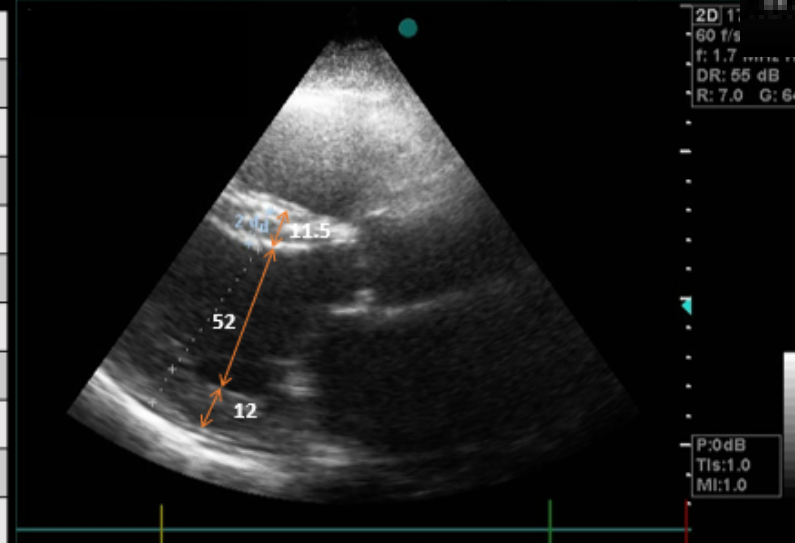
Category	SBP (mmHg)		DBP (mmHg)
Office BP ^a	≥140	and/or	≥90
Ambulatory BP			
Daytime (or awake) mean	≥135	and/or	≥85
Night-time (or asleep) mean	≥120	and/or	≥70
24 h mean	≥130	and/or	≥80
Home BP mean	≥135	and/or	≥85

Εξετάσεις στον υπέρτασικό ασθενή

Ht	44.6%
Γλυκόζη	105 mg/dl
HbA1c	5.9 %
Ουρία	32 mg/dL
Κρεατινίνη	1.2 mg/dl
Ουρικό οξύ	4.6 mg/dl
Κάλιο	4.5 mEq/l
Νάτριο	143 mEq/l
SGOT	20 UI/l
SGPT	22 UI/l
Ολ. Χοληστερόλη	197 mg/dl
Τριγλυκερίδια	130 mg/dl
HDL	47 mg/dl
LDL	124 mg/dl
TSH	2.3 mIU/ml
ACR ούρων	12 mg/g



ΤΔΚ Ø	52mm
ΤΣΚ Ø	35mm
ΜΚΔ Ø	11.5mm
ΟΠ.Τ Ø	12mm
RWT	0.46
LVMi	120gr/m²
EF	60%
ΑΚ Ø	44mm
AoD Ø	36mm
AoV Vmax	1.25m/sec
Em	0.60m/sec
Am	0.65m/sec
IVRT	105msec
DTm	270msec



- Διάταση αριστερού κόλπου
- Διαστολική δυσλειτουργία
- Συγκεντρική υπερτροφία ΑΚ

Θα ψάξω για δευτεροπαθή ΑΥ;

Characteristic

Younger patients (<40 years) with grade 2 hypertension or onset of any grade of hypertension in childhood

Acute worsening hypertension in patients with previously documented chronically stable normotension

Resistant hypertension (see section 8.1)

Severe (grade 3) hypertension or a hypertension emergency (see section 8.3)

Presence of extensive HMOD

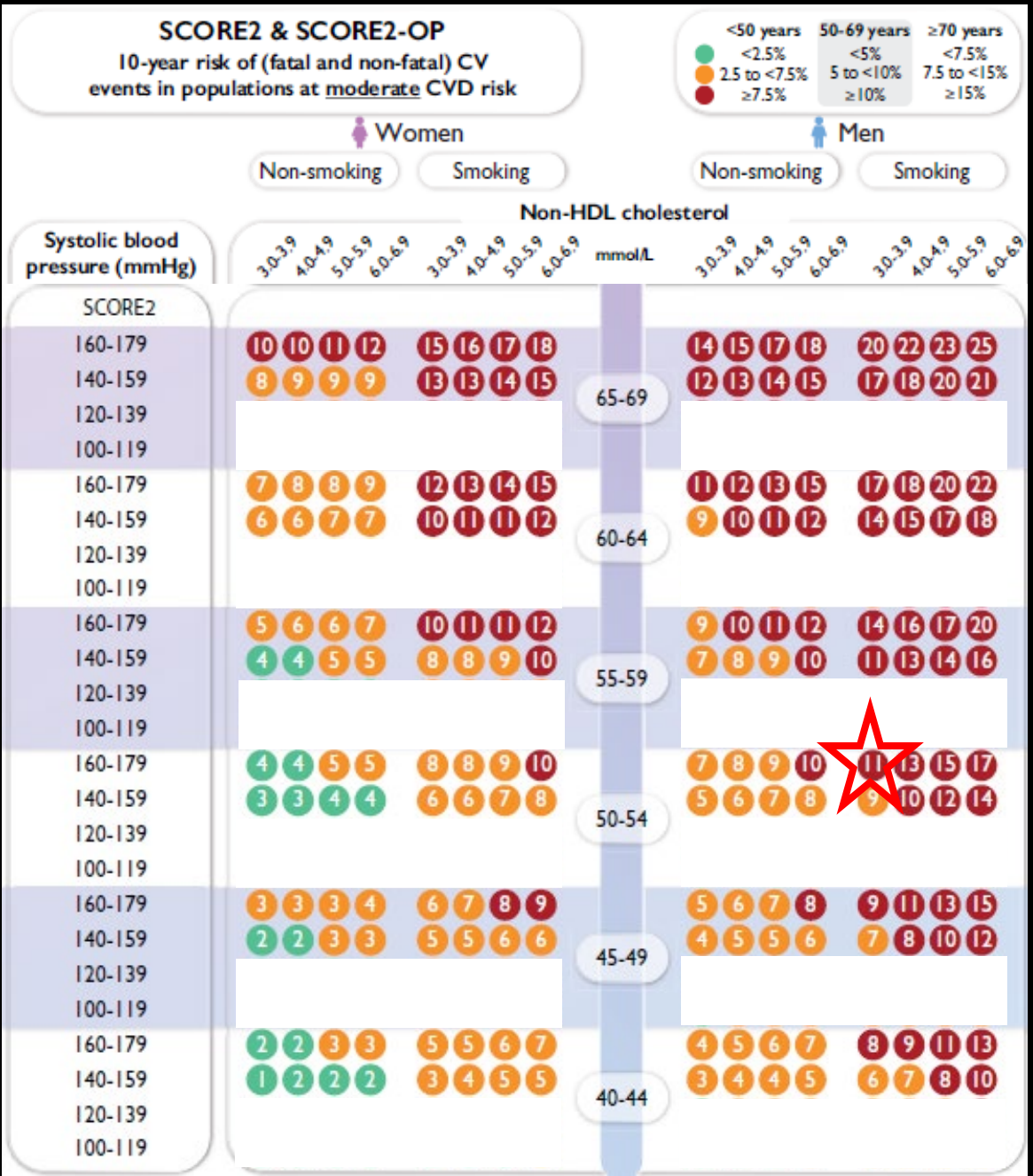
Clinical or biochemical features suggestive of endocrine causes of hypertension or CKD

Clinical features suggestive of obstructive sleep apnoea

Symptoms suggestive of pheochromocytoma or family history of pheochromocytoma

Διαστρωμάτωση Καρδιαγγειακού Κινδύνου

Hypertension disease staging	Other risk factors, HMOD, or disease	BP (mmHg) grading			
		High normal SBP 130-139 DBP 85-89	Grade 1 SBP 140-159 DBP 90-99	Grade 2 SBP 160-179 DBP 100-109	Grade 3 SBP ≥180 or DBP ≥110
Stage 1 (uncomplicated)	No other risk factors	Low risk	Low risk	Moderate risk	High risk
	1 or 2 risk factors	Low risk	Moderate risk	Moderate to high risk	High risk
	≥3 risk factors	Low to Moderate risk	Moderate to high risk	High Risk	High risk
Stage 2 (asymptomatic disease)	HMOD, CKD grade 3, or diabetes mellitus without organ damage	Moderate to high risk	High risk	High risk	High to very high risk
Stage 3 (established disease)	Established CVD, CKD grade ≥4, or diabetes mellitus with organ damage	Very high risk	Very high risk	Very high risk	Very high risk



Υπάρχει κάτι καλύτερο;



CAC scoring may be considered to improve risk classification around treatment decision thresholds. Plaque detection by carotid ultrasound is an alternative when CAC scoring is unavailable or not feasible.^{103,104}

IIb

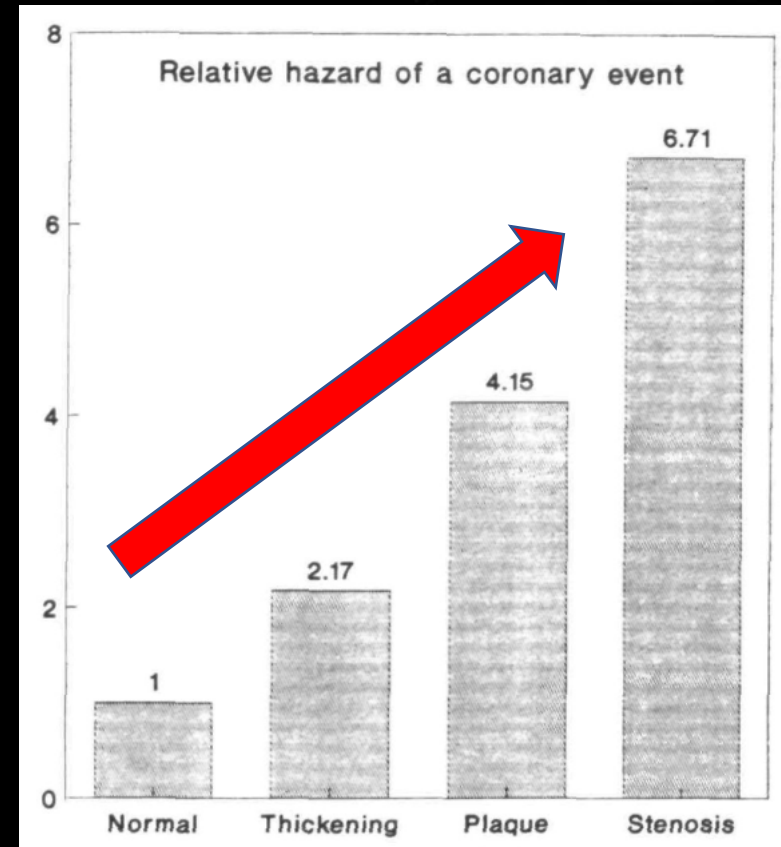
B

3.3.3.3 Carotid ultrasound

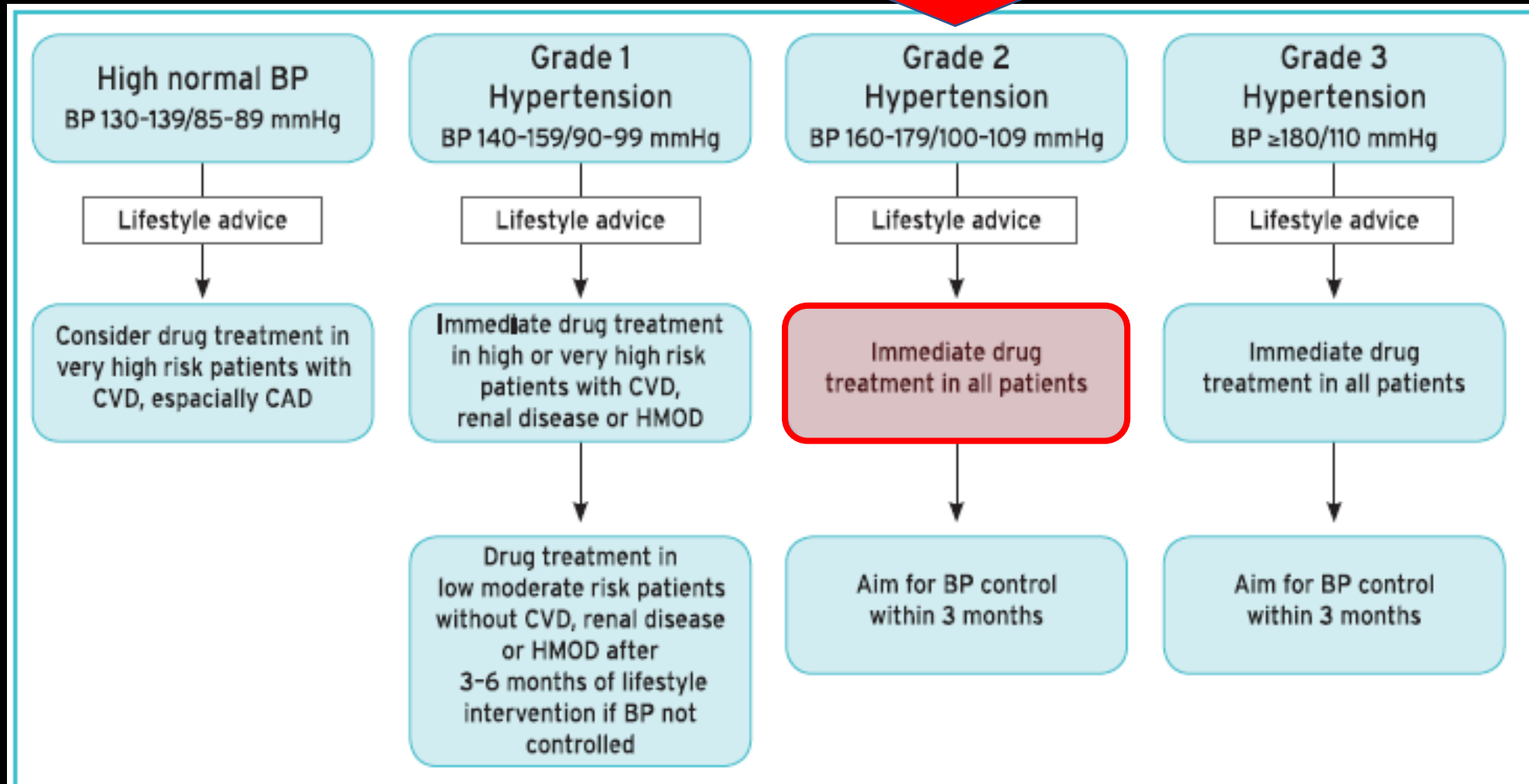
Systematic use of intima-media thickness (IMT) to improve risk assessment is not recommended due to the lack of methodological standardization, and the absence of added value of IMT in predicting future CVD events, even in the intermediate-risk group.¹²¹

Plaque is defined as the presence of a focal wall thickening that is $\geq 50\%$ greater than the surrounding vessel wall, or as a focal region with an IMT measurement ≥ 1.5 mm that protrudes into the lumen.¹²² Although the evidence is less extensive than it is for CAC, carotid artery plaque assessment using ultrasonography probably also reclassifies CVD risk,^{104,122} and may be considered as a risk modifier in patients at intermediate risk when a CAC score is not feasible.

ESC 2021 Prevention



Έναρξη αντιυπερτασικής αγωγής



There's no such thing as a sudden heart attack. It requires years of preparation.



Υγιεινοδιαιτητικές συστάσεις



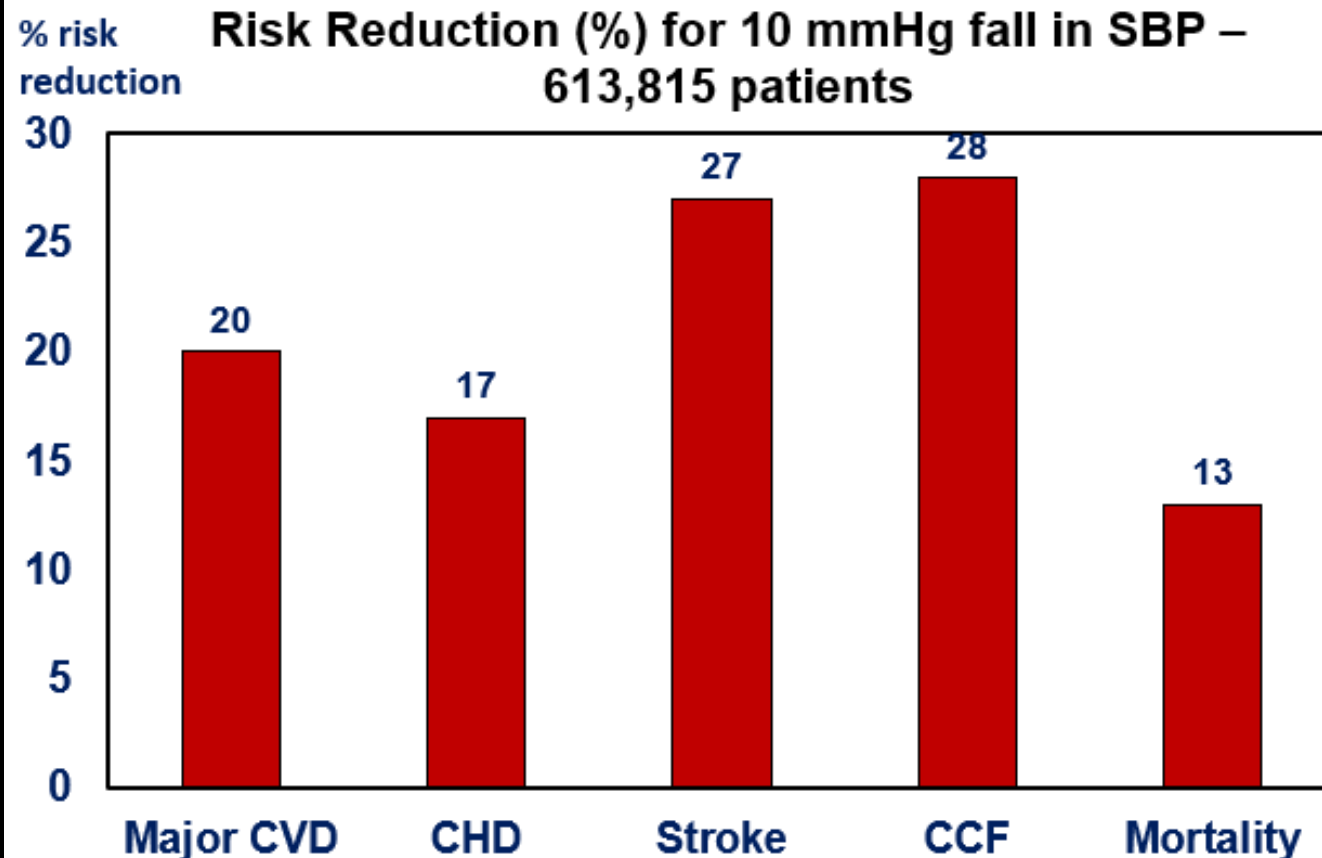
Recommendations	Class ^a	Level ^b
Salt restriction to <5 g per day is recommended. ^{248,250,255,258}	I	A
It is recommended to restrict alcohol consumption to: <ul style="list-style-type: none"> • Less than 14 units per week for men. • Less than 8 units per week for women.³⁵ 	I	A
It is recommended to avoid binge drinking.	III	C
Increased consumption of vegetables, fresh fruits, fish, nuts, and unsaturated fatty acids (olive oil); low consumption of red meat; and consumption of low-fat dairy products are recommended. ^{262,265}	I	A
Body-weight control is indicated to avoid obesity (BMI >30 kg/m ² or waist circumference >102 cm in men and >88 cm in women), as is aiming at healthy BMI (about 20–25 kg/m ²) and waist circumference values (<94 cm in men and <80 cm in women) to reduce BP and CV risk. ^{262,271,273,290}	I	A
Regular aerobic exercise (e.g. at least 30 min of moderate dynamic exercise on 5–7 days per week) is recommended. ^{262,278,279}	I	A
Smoking cessation, supportive care, and referral to smoking cessation programs are recommended. ^{286,288,291}	I	B

Lifestyle modification	Average effect on blood pressure	
	SBP (mm Hg)	DBP (mm Hg)
Physical activity		
Aerobic ^{15–17}	–4	–3
Dynamic resistance ^{15,18}	–2	–3
Combined ¹⁹	–3	–3
Weight loss ²⁰	–3	–2
Dietary modifications		
DASH and DASH-style diets ²¹	–5	–3
Mediterranean diet ²²	–3	–2
Smoking cessation ^{23,24}	–	–
Alcohol moderation (≤2 drinks/d) ^{25,26}	–3	–3

Blood pressure lowering for prevention of cardiovascular disease and death: a systematic review and meta-analysis



Dena Ettehad, Connor A Emdin, Amit Kiran, Simon G Anderson, Thomas Callender, Jonathan Emberson, John Chalmers, Anthony Rodgers, Kazem Rahimi



Irrespective of baseline BP or pre-existing conditions

There was no clear evidence that proportional risk reductions in major CVD differed by baseline disease history, **except for diabetes and chronic kidney disease**, for which smaller, but significant, risk reductions were detected

Φάρμακα 1^{ης} γραμμής

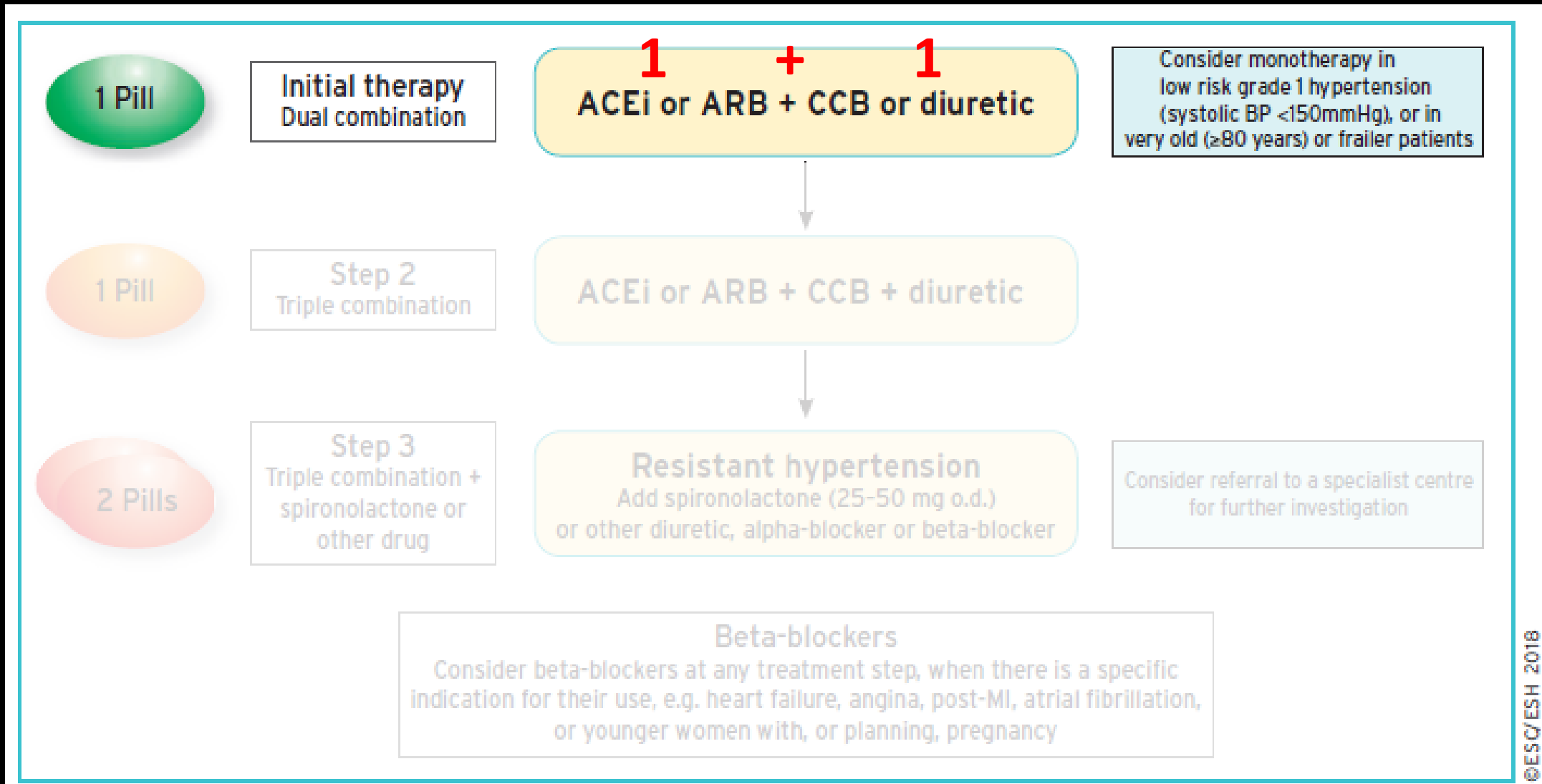


Recommendations	Class	Level
Among all antihypertensive drugs ACE inhibitors, ARBs, beta-blockers, CCBs, and diuretics (thiazides and thiazide-like such as chlortalidone and indapamide) have demonstrated effective reduction of BP and CV events in RCTs, and thus are indicated as the basis of antihypertensive treatment strategies.	I	A
It is recommended that beta-blockers are combined with any of the other major drug classes when there are specific clinical situations , e.g. angina, post-myocardial infarction, heart failure, or heart-rate control.	I	A

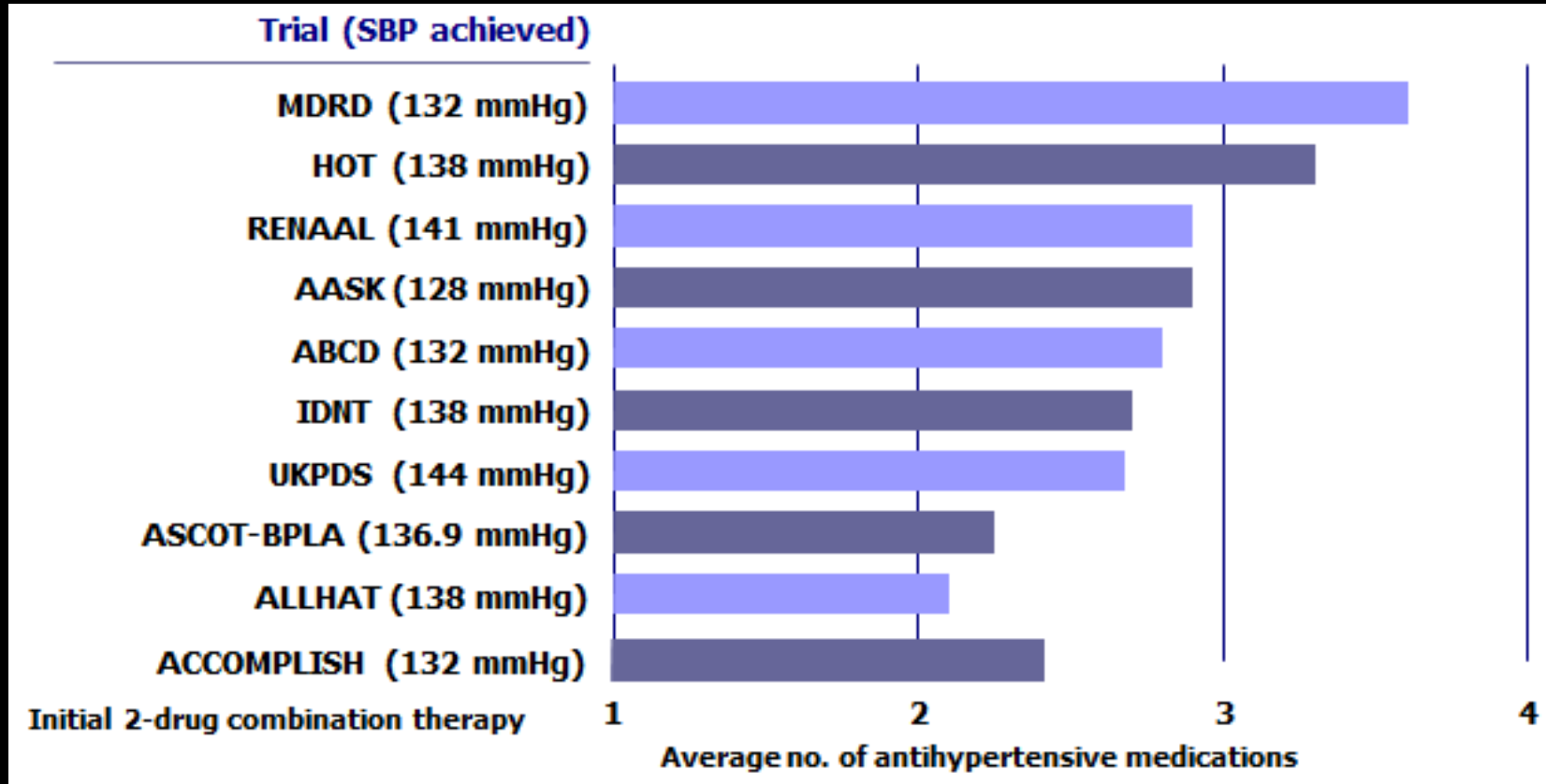
Comaprisons	Outcomes	D	BB	CA	ACEI	ARB
vs placebo	Stroke + CHD	Green	Green	Green	Green	Green
	Adverse events	Red	Red	Red	Red	Yellow
vs all drugs (ARB excepted)	Stroke + CHD	Yellow	Yellow	Yellow	Yellow	Yellow
	Adverse events	Yellow	Yellow	Yellow	Yellow	Green

Thomopoulos C, et al. *J Hypertens.* 2016 Oct;34(10):1921-32

Θεραπευτικός αλγόριθμος



>2 φάρμακα απαιτούνται για την επίτευξη του στόχου της ΑΠ



Bakris et al. Am J Med 2004;116(5A):30S-8

Dahlöf et al. Lancet 2005;366:895-906

Jamerson et al. Blood Press 2007;16:80-6

Jamerson et al. N Engl J Med 2008;359:2417-28

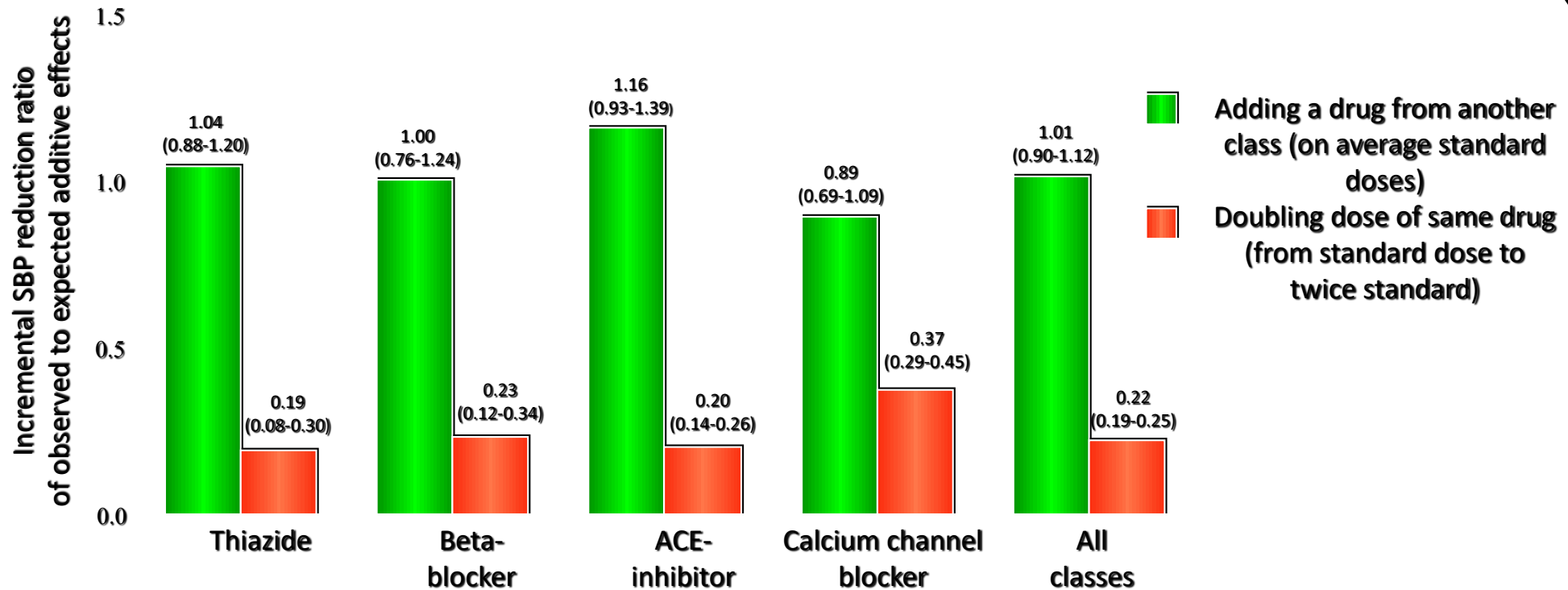
Πλεονεκτήματα συνδυασμών αντιυπερτασικών φαρμάκων

➤ **Αποτελεσματικότητα**

➤ **Ασφάλεια**

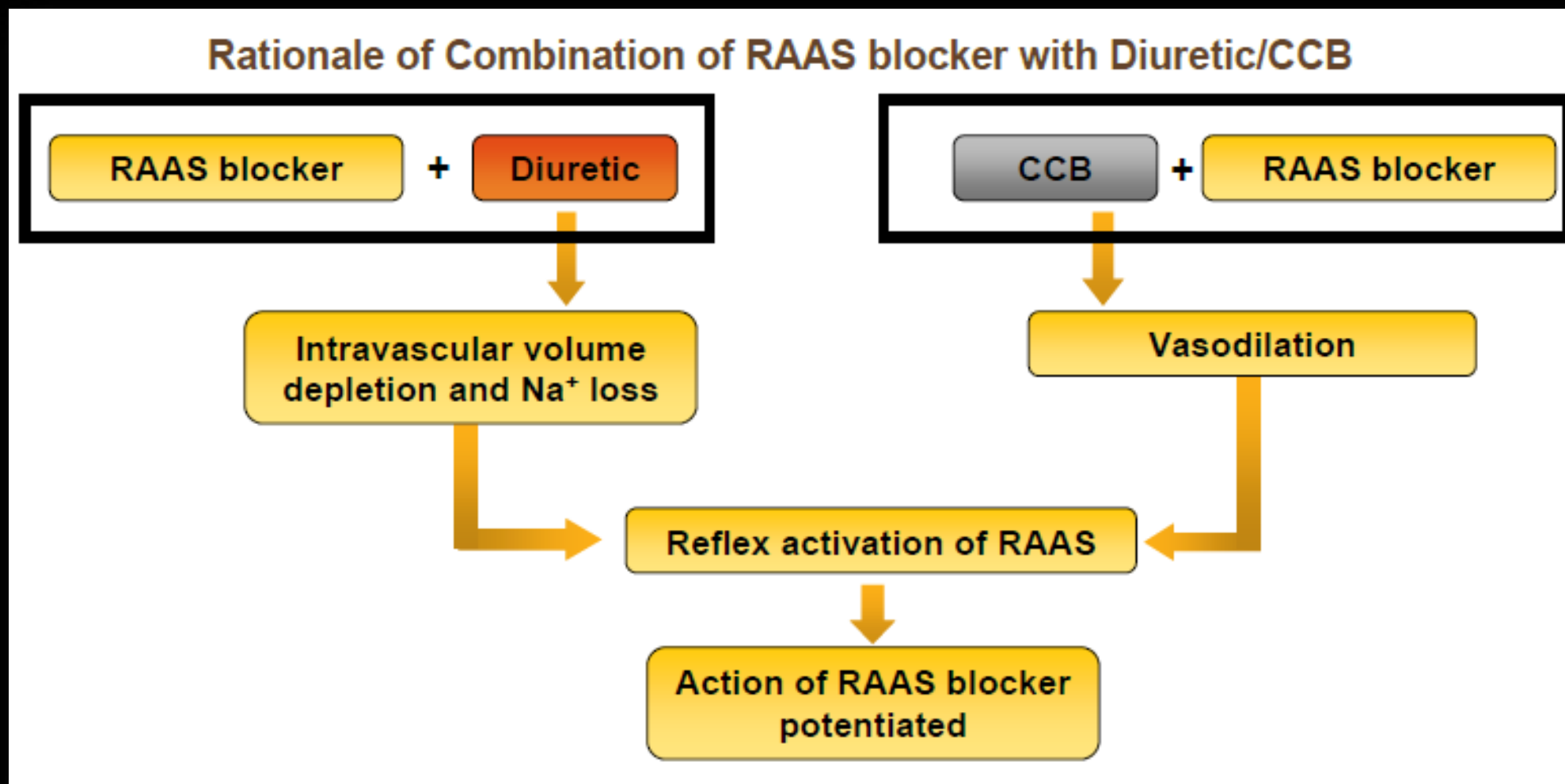
➤ **Συμμόρφωση (Σταθεροί συνδυασμοί)**

Combining drugs from complementary classes is approximately 5 times more effective in lowering BP than increasing the dose of one drug



* The expected incremental effect is the incremental blood pressure reduction of the added (or doubled drug), assuming an additive effect and allowing for the smaller reduction from 1 drug (or dose of 1 drug) given the lower pretreatment blood pressure because of the other

Παθοφυσιολογικό υπόστρωμα



Πλεονεκτήματα συνδυασμών αντιυπερτασικών φαρμάκων

➤ **Αποτελεσματικότητα**

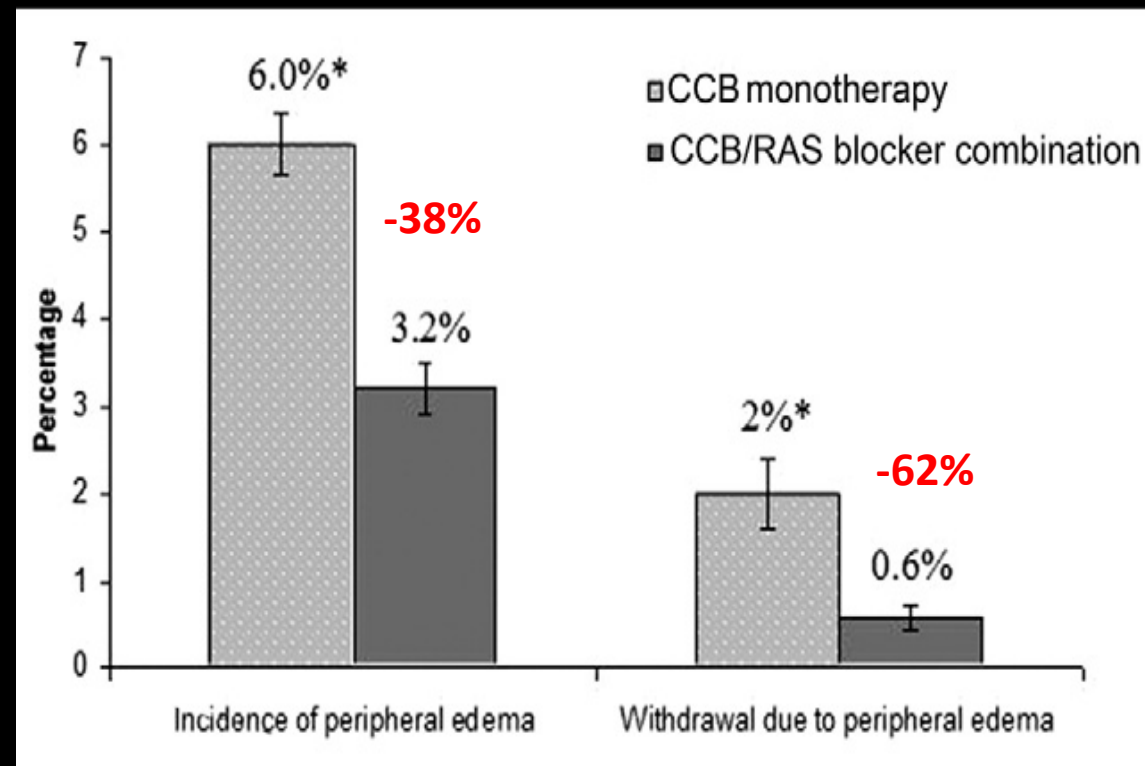
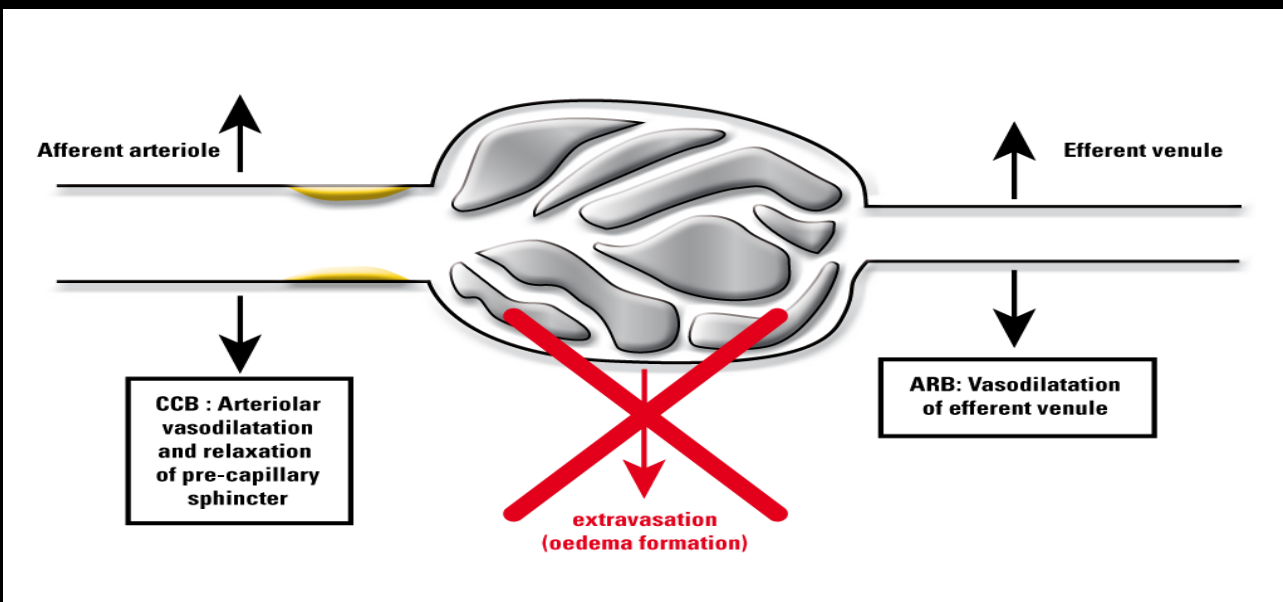
➤ **Ασφάλεια**

➤ **Συμμόρφωση (Σταθεροί συνδυασμοί)**

Ανεπιθύμητες ενέργειες



The CCB/RAS blocker combination:
synergy for decreasing oedema



Πλεονεκτήματα συνδυασμών αντιυπερτασικών φαρμάκων

➤ **Αποτελεσματικότητα**

➤ **Ασφάλεια**

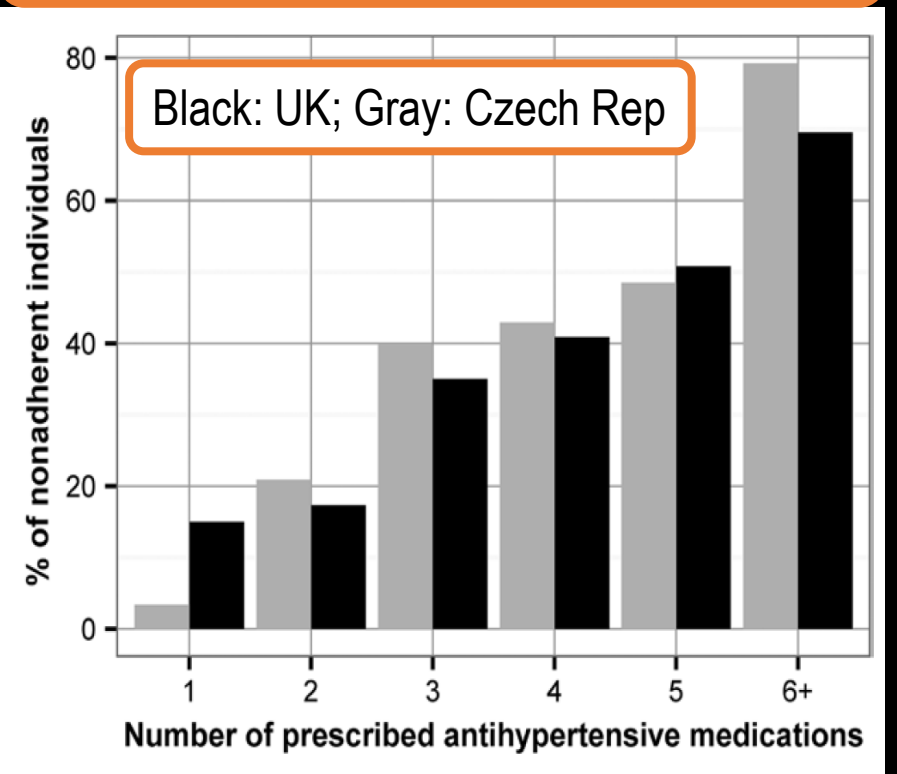
➤ **Συμμόρφωση (Σταθεροί συνδυασμοί)**

Predictors of Non-adherence to Antihypertensive Medications

Clinical Predictors of Nonadherence to Antihypertensive Treatment

Phenotype	United Kingdom		Czech Republic	
	Adjusted OR (95% CI)	P Value	Adjusted OR (95% CI)	P Value
Age	0.67 (0.59–0.77)	<0.001	0.69 (0.59–0.80)	<0.001
Women	1.65 (1.16–2.33)	0.005	1.55 (1.09–2.20)	0.014
No. of med.	1.85 (1.58–2.16)	<0.001	1.77 (1.47–2.12)	<0.001
Prescribed diuretics	1.65 (1.01–2.70)	0.047	1.18 (0.76–1.83)	0.457

Nonadherence increases with increasing drug prescriptions



Risk factors of poor Adherence

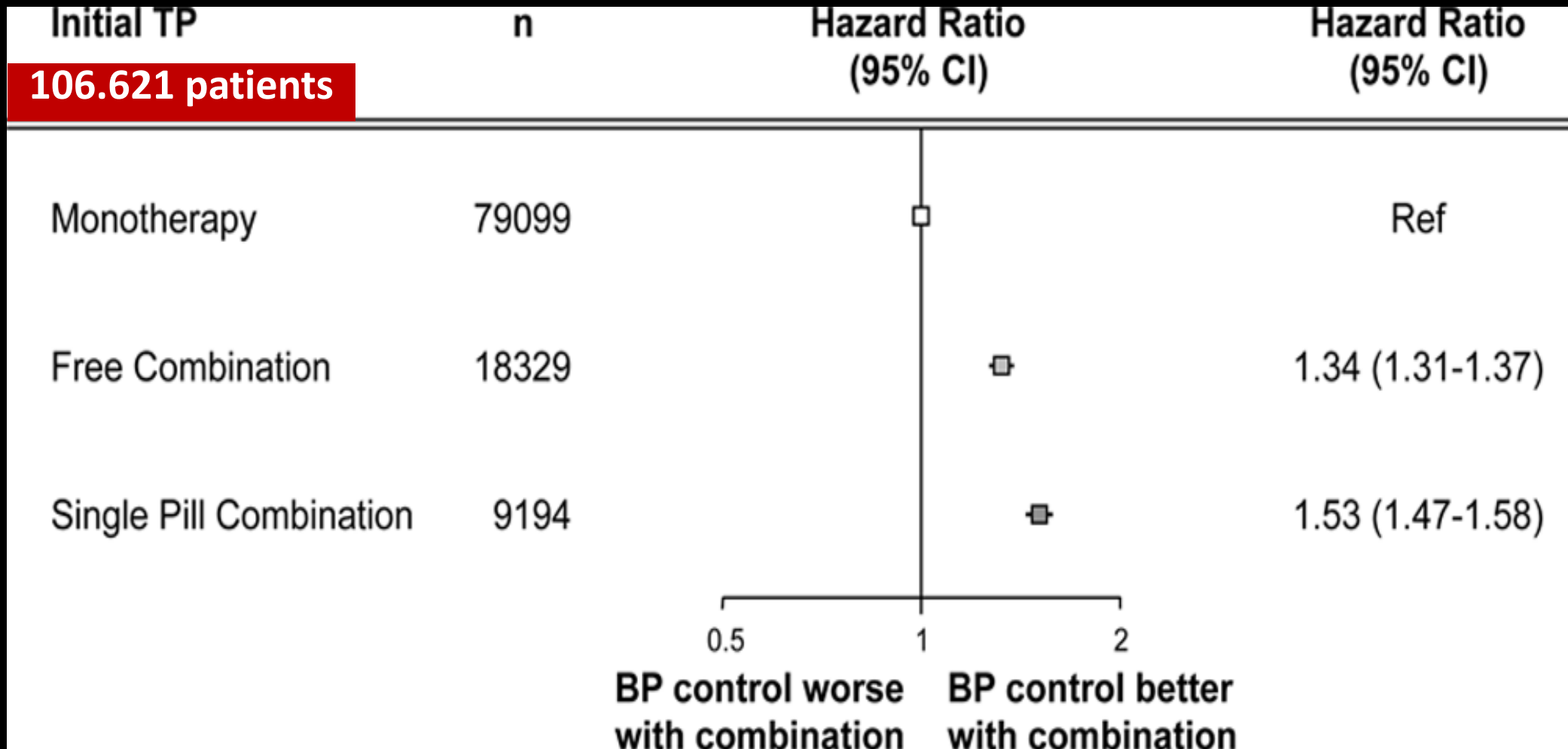
Essential HTN needs a life-long treatment.

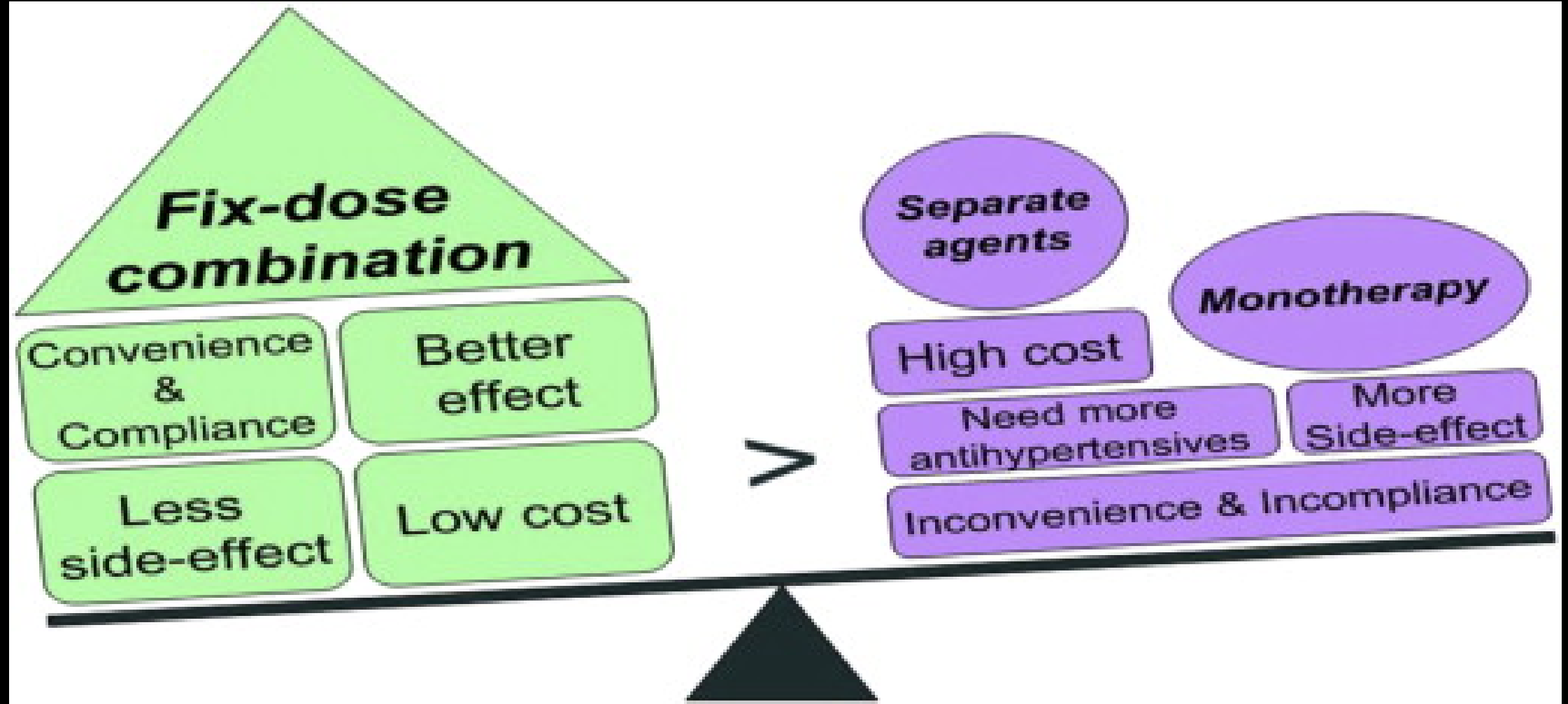
In the absence of reliable tools to detect a poor adherence to therapy, physicians should develop capacities to identify patients who are or will be at risk of non-adherence.

Table 2: Factors associated with an increased risk of poor adherence

- Age and sex (young man at higher risk)
- Elderly patients with cognitive impairment
- Personal and family beliefs
- Asymptomatic nature of hypertension
- Understanding of the benefits of treatment
- Lower socio-economic status
- Cost of treatments and copayments
- Severity of disease
- Number of drugs and complexity of treatment
- Drug tolerability (acute and long-term side-effects)
- Efficacy on blood pressure control
- Family support
- Physician-patient relationship
- Depression and comorbidities

Initial Monotherapy and Combination therapy and hypertension control the first year

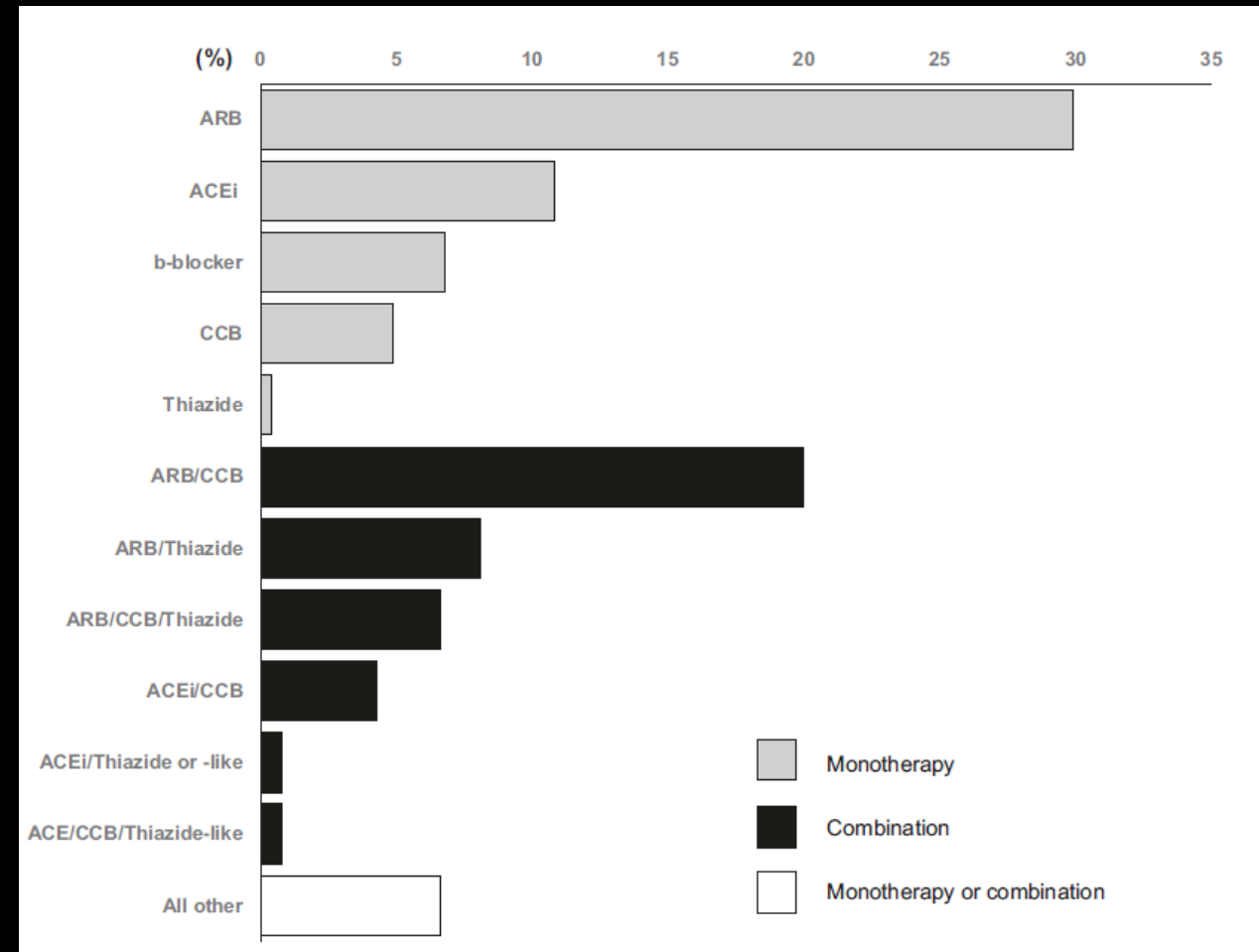






Do we use initial combination therapy?

- In 772 untreated hypertensives, drug treatment was initiated with:
 - 53.4% monotherapy
 - 36.3% two-drug combination
 - 10.3% three drugs

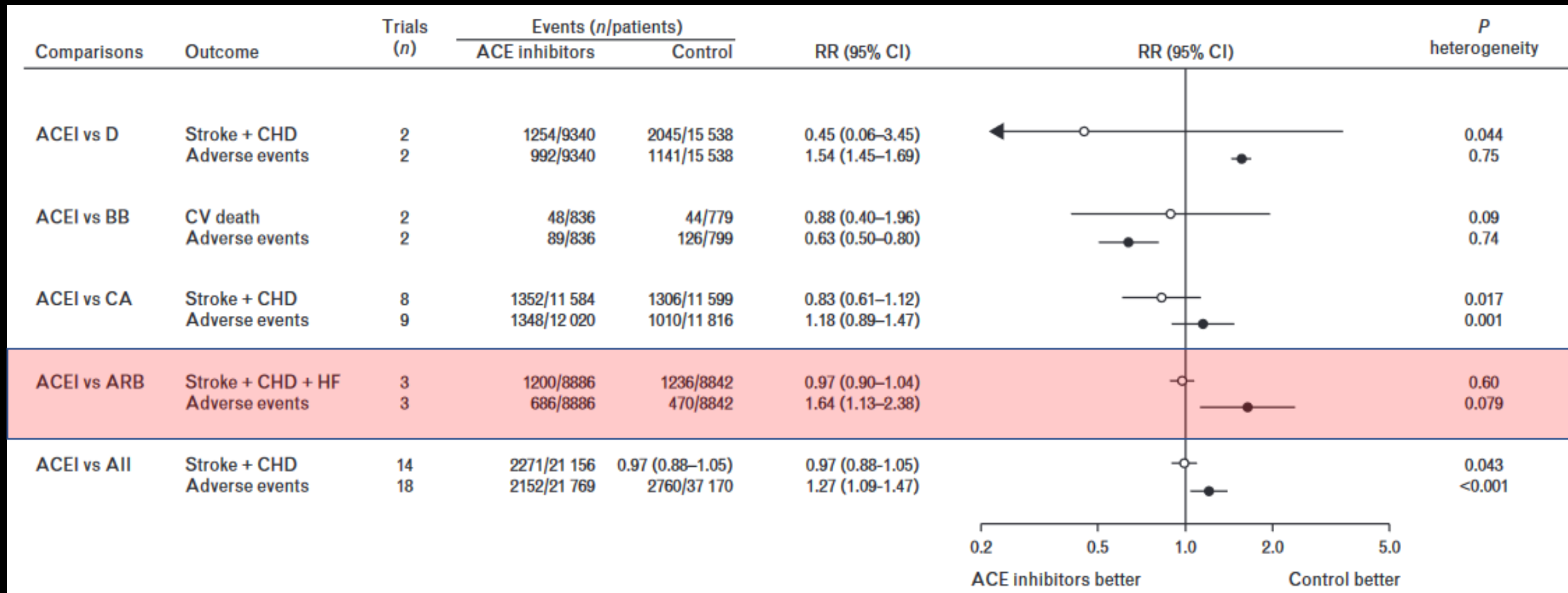


Επιλογή των δραστικών ουσιών



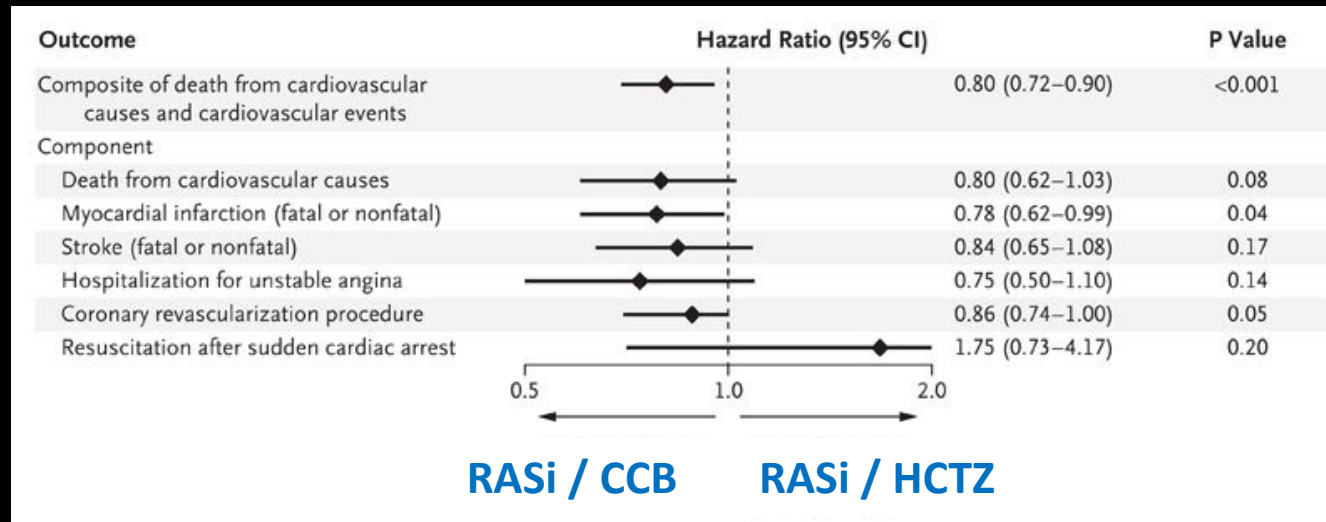
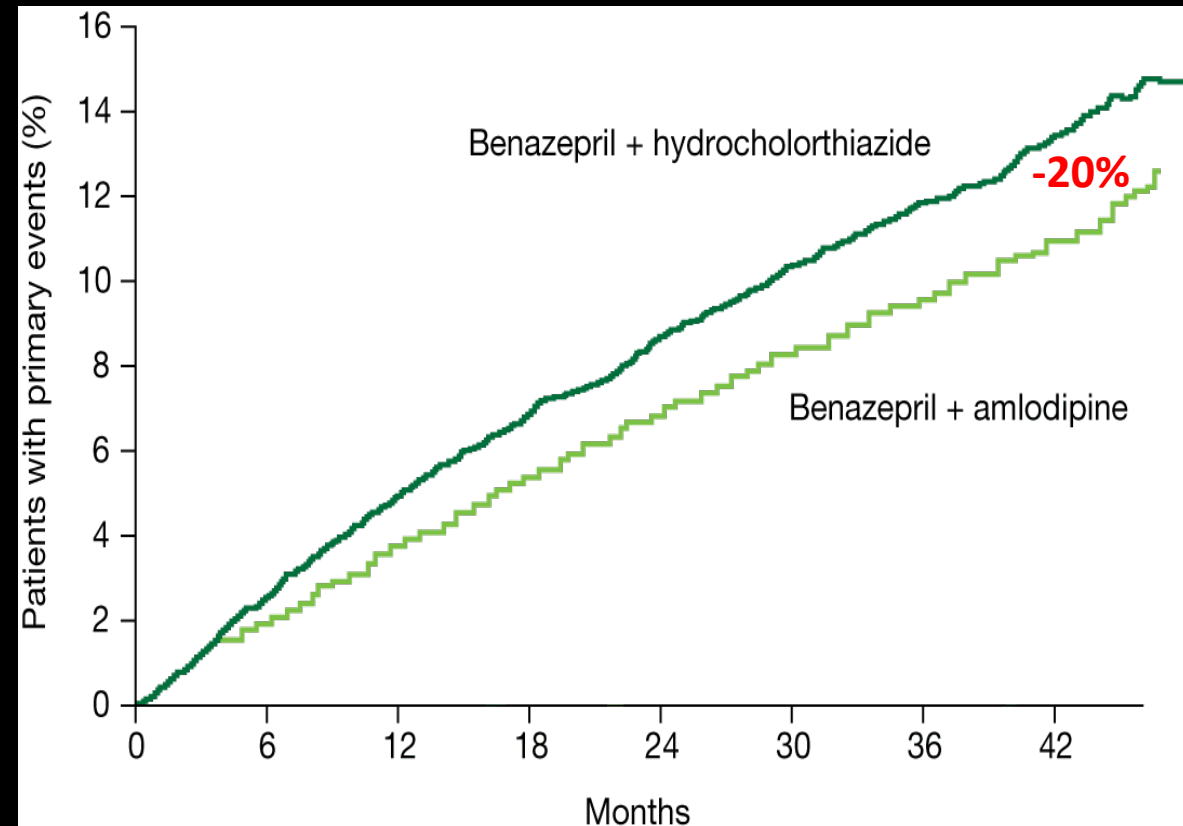
ACEi vs ARBs

ACEi or ARB + CCB or diuretic

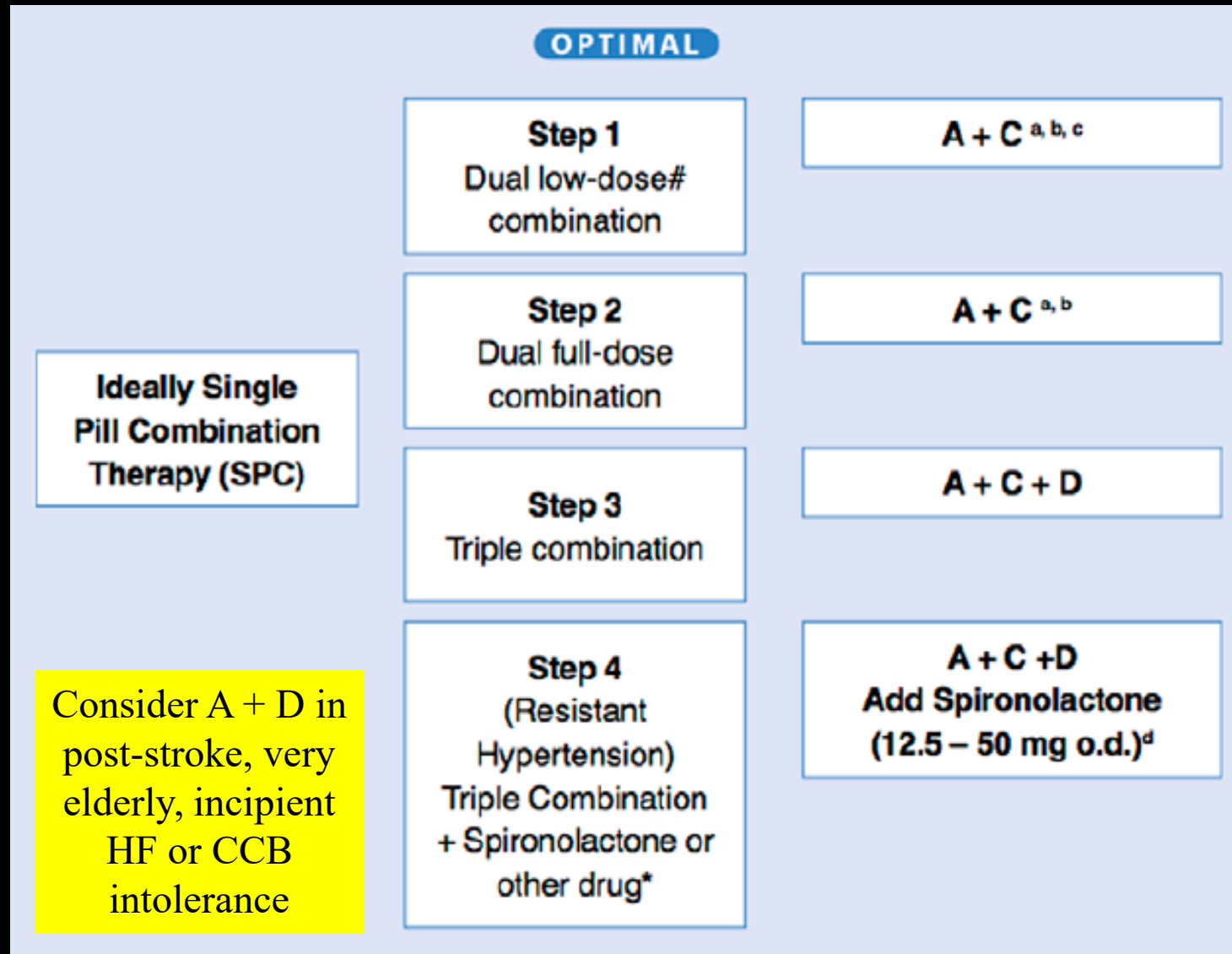


Choosing the 2nd component ACCOMPLISH trial favors RASi - CCB combination

ACEi or ARB + **CCB or diuretic**



ISH 2020 GDLNs



Thiazides for Whom

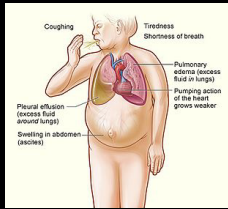
- Elderly



- Ankle oedema



- HF (HFpEF)



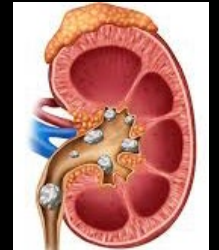
- Women?



- Blacks



- Calcium nephrolithiasis



- Obese



Έναρξη αντιυπερτασικής αγωγής

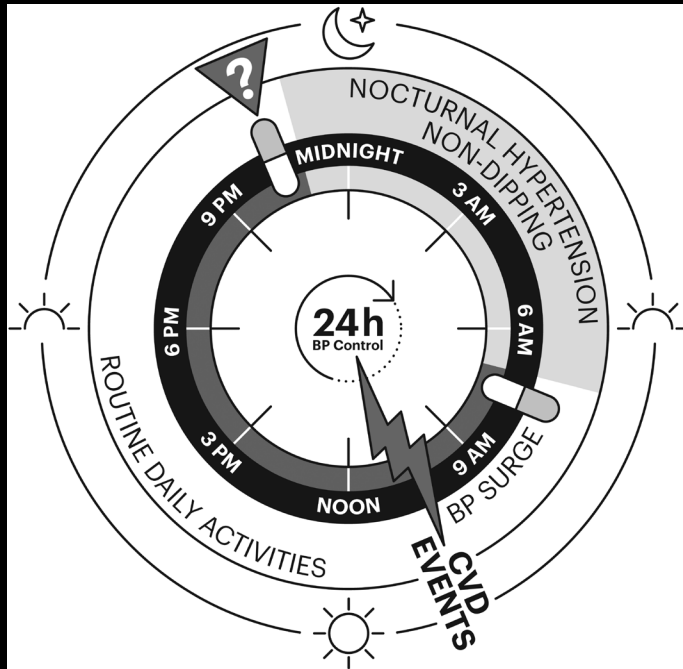
- ARB (50% max dose)



- CCB (50% max dose)



Πρωί ή βράδυ; TIME trial

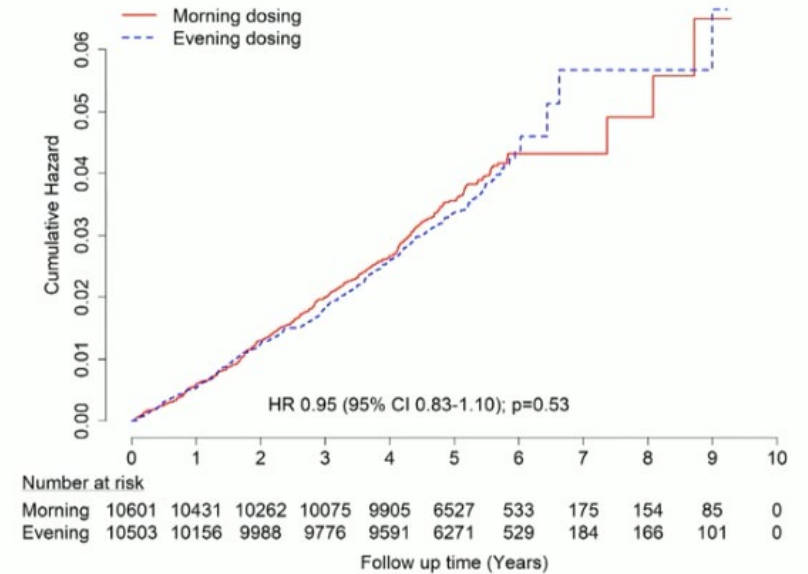


Stergiou G, et al. J Hypertens. 2022 Oct 1;40(10):1847-1858

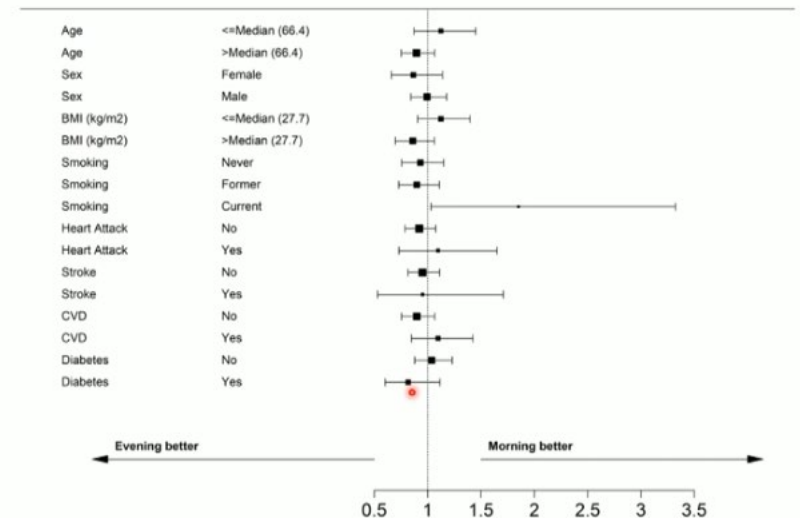
"I am not too happy with their conclusion that patients should do as they wish. The vast majority of well-conducted outcomes studies which we use to guide the treatment of hypertension administered all drugs in the morning"

George Stergiou

Primary Endpoint



Forest Plot: Primary EP by Baseline Factors



Mackenzie IS, et al. Lancet. 2022 Oct 22;400(10361):1417-1425

Πότε θα τον ξαναεκτιμήσω; Παρακολούθηση μετά από έναρξη/τιτλοποίηση αγωγής

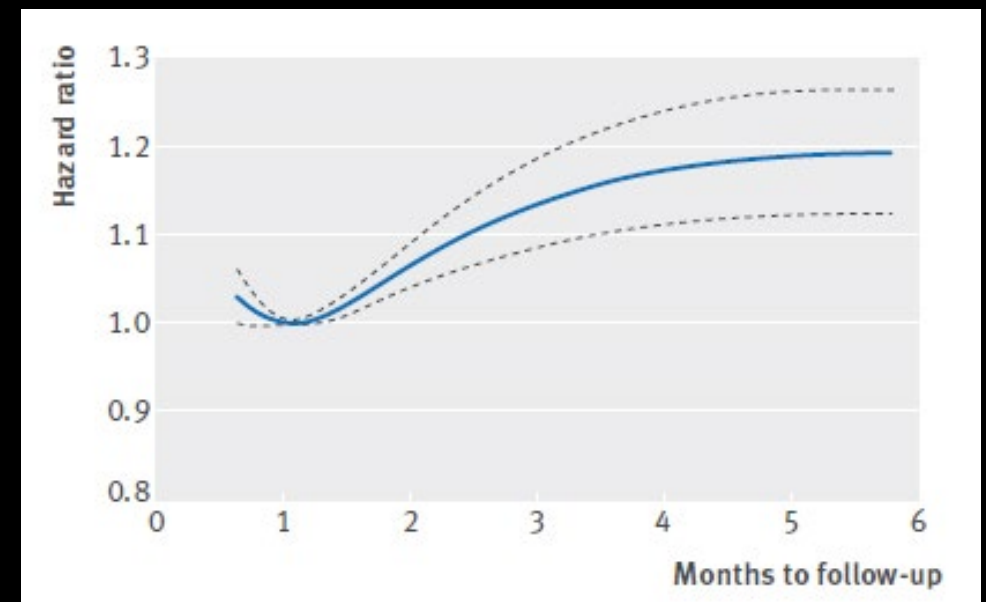
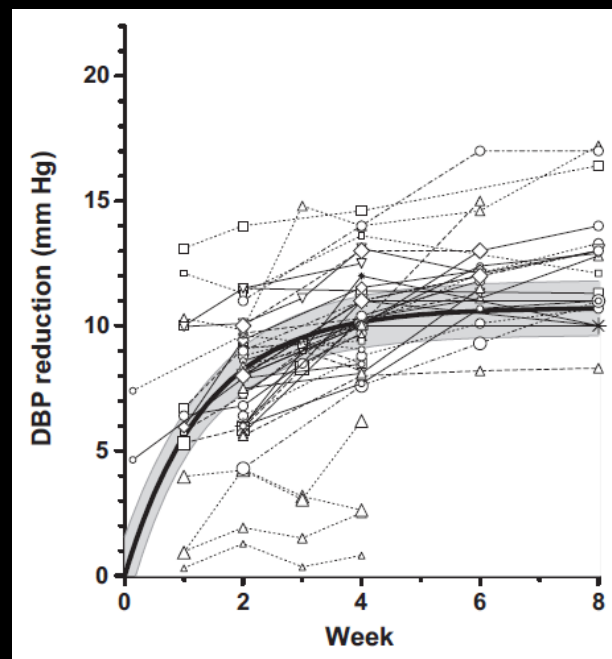
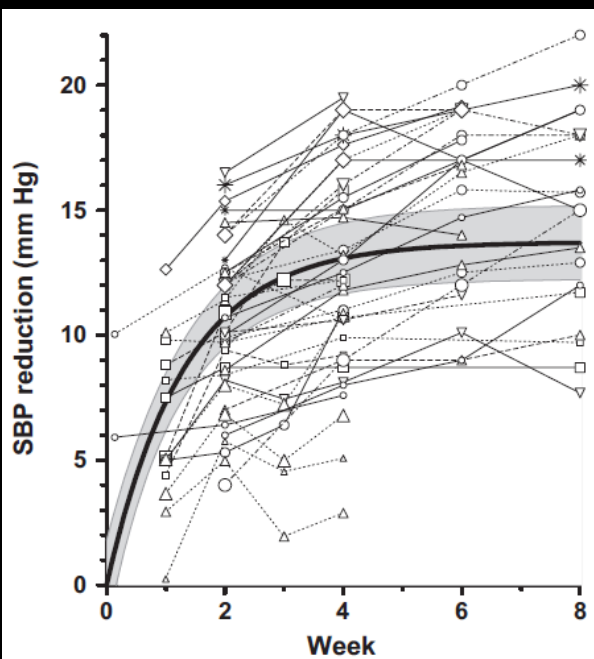


- For the majority of treatments, around half the full reduction in BP occurs during the first week of therapy, with lesser reductions in subsequent weeks.

Optimal systolic blood pressure target, time to intensification, and time to follow-up in treatment of hypertension: population based retrospective cohort study

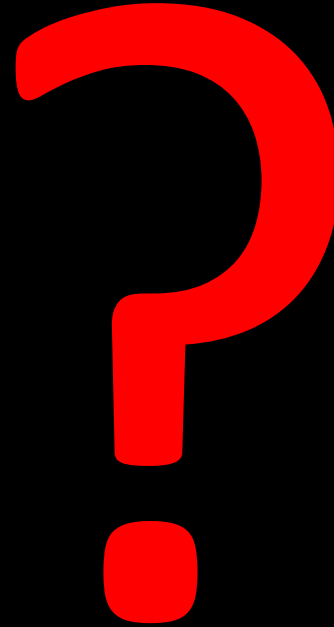
Wenxin Xu,¹ Saveli I Goldberg,² Maria Shubina,³ Alexander Turchin³

BMJ. 2015 Feb 5;350:h158



...1 μήνα μετά

- **Ασυμπτωματικός**
- ΑΠ ιατρείου 134/81 mmHg
- ΑΠ σπίτι 127/78 mmHg



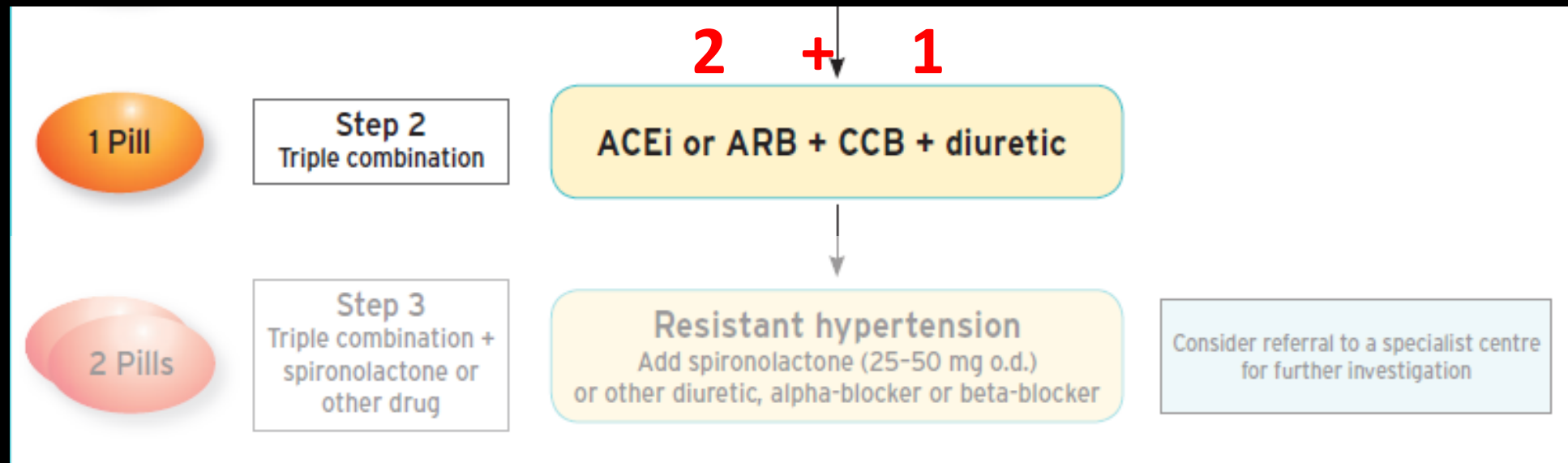
Στόχοι ΑΠ



Age group	Office SBP treatment target ranges (mmHg)					Office DBP treatment target range (mmHg)
	Hypertension	+ Diabetes	+ CKD	+ CAD	+ Stroke ^a /TIA	
18 - 65 years	Target to 130 <i>or lower if tolerated</i> Not <120	Target to 130 <i>or lower if tolerated</i> Not <120	Target to <140 to 130 <i>if tolerated</i>	Target to 130 <i>or lower if tolerated</i> Not <120	Target to 130 <i>or lower if tolerated</i> Not <120	70–79
65 - 79 years ^b	Target to 130-139 <i>if tolerated</i>	Target to 130-139 <i>if tolerated</i>	Target to 130-139 <i>if tolerated</i>	Target to 130-139 <i>if tolerated</i>	Target to 130-139 <i>if tolerated</i>	70–79
≥80 years ^b	Target to 130-139 <i>if tolerated</i>	Target to 130-139 <i>if tolerated</i>	Target to 130-139 <i>if tolerated</i>	Target to 130-139 <i>if tolerated</i>	Target to 130-139 <i>if tolerated</i>	70–79
Office DBP treatment target range (mmHg)	70–79	70–79	70–79	70–79	70–79	

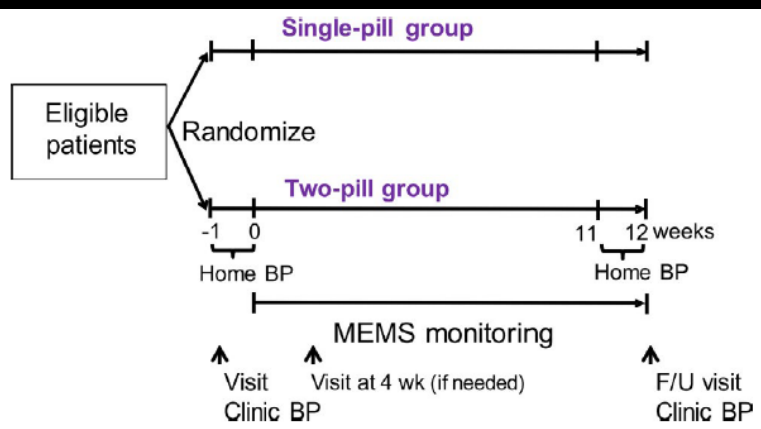
Αν η ΑΠ εκτός στόχου... Go to STEP 1.5 - 2 - 2.5 - 3

- ΑΠ ιατρείου >130 (140)
- ΑΠ σπίτι >125-130 (135)



And if we add a 2nd pill?

Reduced adherence



Outcomes	Single-pill group (n)	Two-pill group (n)	p value
PDT, %	95.1 (86.7–100.0) (66)	92.1 (73.0–97.3) (66)	<0.05
PDTc, %	91.0 (79.4–96.5) (66)	88.6 (69.2–96.3) (66)	<0.05
PDT ≥80%, %	84.8 (56/66)	68.2 (45/66)	<0.05
PDTc ≥80%, %	72.7 (48/66)	59.1 (39/66)	0.14
Clinic SBP change, mmHg	-19.3 ± 15.3 (63)	-17.2 ± 15.1 (64)	0.44
Clinic DBP change, mmHg	-11.7 ± 9.6 (63)	-10.6 ± 9.4 (64)	0.49
Home SBP change, mmHg	-14.0 ± 10.8 (32)	-11.8 ± 12.8 (31)	0.46
Home DBP change, mmHg	-7.1 ± 6.6 (31)	-7.1 ± 7.4 (30)	0.98

PDT, percentage of doses taken

PDTc, percentage of days with prescribed dose taken correctly

...2 μήνες μετά

- Ασυμπτωματικός
- ΑΠ ιατρείου 126/77 mmHg
- ΑΠ σπίτι 121/75 mmHg



Χρόνια παρακολούθηση ρυθμισμένων υπερτασικών ασθενών

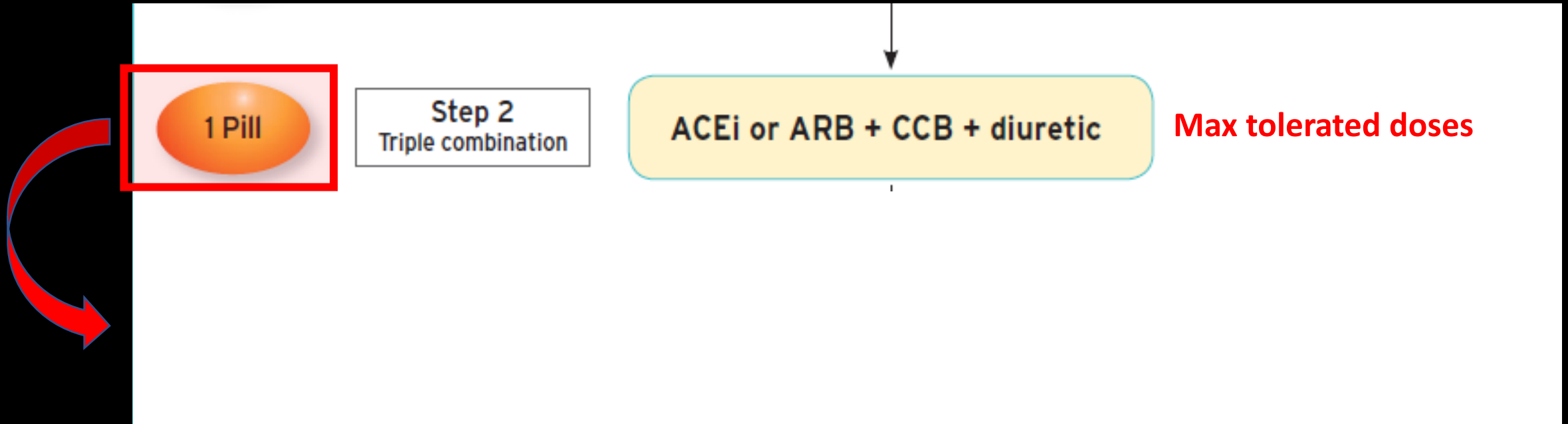
Randomised equivalence trial comparing three month and six month follow up of patients with hypertension by family practitioners

Richard V Birtwhistle, Marshall S Godwin, M Diane Delva, R Ian Casson, Miu Lam, Susan E MacDonald, Rachelle Seguin, Lucia Rühland for the Hypertension Follow-up Study Group

- Six months follow up is sufficient for patients with controlled hypertension.
- In three years of follow up of patients with hypertension, we found that **blood pressure control**, **patient satisfaction**, and **adherence to treatment** were equivalent in patients assigned to follow up at 3 month and 6 month intervals.

Group	No of visits	Visits for blood pressure measurement		Other visits	Mean (SD) visits per patient
		Scheduled	Unscheduled		
3 month	5 682	2575	890	2217	18.8 (8.06)
6 month	4 977	1461	939	2577	16.2 (8.45)
Total	10 659	5865	1829	4794	17.5 (8.25)

What about if BP target is not...



Ασφάλεια



Αποτελεσματικότητα

Συμμόρφωση

Ευχαριστώ

**Normalisation
of BP**

**Good
tolerability**

**Simple drug
regiment**

Satisfaction

**Day-to-day
compliance ↑**

**Long-term
compliance ↑**

**TOD
regression/prevention**