

**37<sup>ο</sup>** Πανελλήνιο  
Ετήσιο  
Συνέδριο

**13-16/11/2024**

Macedonia Palace  
Θεσσαλονίκη

Ημέρα Κοινού  
**16 Νοεμβρίου 2024**  
Αίθουσα Ολύμπιον  
Ολύμπιον Πλ. Αριστοτέλους

ΑΣΘΕΝΗΣ ΜΕ ΣΑΚΧΑΡΩΔΗ  
ΔΙΑΒΗΤΗ ΚΑΙ ΑΡΤΗΡΙΑΚΗ ΠΙΕΣΗ  
128/76 mmHg.  
ΠΡΕΠΕΙ ΝΑ ΕΝΤΑΤΙΚΟΠΟΙΗΘΟΥΜΕ  
ΤΗΝ ΑΝΤΙΥΠΕΡΤΑΣΙΚΗ ΘΕΡΑΠΕΙΑ?

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Άντζα Χριστίνα,  
Επίκουρη Καθηγήτρια Παθολογίας-Υπέρτασης,  
Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης

# ΙΣΤΟΡΙΚΟ ΑΣΘΕΝΟΥΣ



Άνδρας 62 ετών, καπνιστής.  
Κληρονομικό αναμνηστικό: ελεύθερο.  
Ατομικό ιστορικό: ΣΔ2, ΑΥ, Δυσλιπιδαιμία.



Δηλώνει αρτηριακή πίεση κατ'οίκον  
125/75-135/80 mmHg.

# ΙΣΤΟΡΙΚΟ ΑΣΘΕΝΟΥΣ



Μετφορμίνη/βιλδαγλιπτίνη 1000/50mg 1x2,  
Ατορβαστατίνη/εζετιμίμπη 40/10mg 1x1,  
Ολμεσαρτάνη/Αμλοδιπίνη/ΗCT 40/10/25.



BMI: 29.8kg/m<sup>2</sup>  
Δηλώνει καθημερινή χειρωνακτική εργασία  
στον κήπο.

# ΚΛΙΝΙΚΗ ΕΞΕΤΑΣΗ



Εργαστηριακός έλεγχος χωρίς παθολογικά ευρήματα  
πλην HbA<sub>1c</sub> (7.5%) - όχι λευκωματουρία ούρων 24ώρου  
U/S καρδιάς χωρίς ευρήματα



ΑΠ χωρίς διαφορά στα 2 άκρα.  
Μέσος όρος ΑΠ ιατρείου: 128/76mmHg.



ESH GUIDELINES

**2023 ESH Guidelines for the management of arterial hypertension** *The Task Force for the management of arterial hypertension of the European Society of Hypertension*

Endorsed by the International Society of Hypertension (ISH) and the European Renal Association (ERA)

# ΟΡΙΣΜΟΣ ΑΥ

TABLE 1 - Classification of office BP and definitions of hypertension grades

Category	Systolic (mmHg)		Diastolic (mmHg)
Optimal	<120	and	<80
Normal	120–129	and	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 <sup>a</sup>	≥140	and	<90
Isolated diastolic hypertension <sup>a</sup>	<140	and	≥90

The BP category is defined by the highest level of BP, whether systolic or diastolic.

<sup>a</sup>Isolated systolic or diastolic hypertension is graded 1, 2 or 3 according to SBP and DBP values in the ranges indicated. The same classification is used for adolescents ≥16 years old (see Section 15.1).

# ΚΑΡΔΙΑΓΓΕΙΑΚΟΣ ΚΙΝΔΥΝΟΣ

## Recommendations and statements

	CoR	LoE
It is recommended that BP is classified as optimal, normal, high normal, or grade 1, 2 or 3 hypertension, according to office BP.	I	C
In addition to grades of hypertension, which are based on BP values, it is recommended to distinguish stage 1, 2, and 3 hypertension.  Stage 1: Uncomplicated hypertension without HMOD, diabetes, CVD and without CKD $\geq$ stage 3.	I	C
Stage 2: Presence of HMOD, diabetes, or CKD stage 3.		
Stage 3: Presence of CVD or CKD stage 4 or 5.		

# ΣΤΟΧΟΣ ΑΥ ΣΕ ΔΙΑΒΗΤΙΚΟ ΑΣΘΕΝΗ

Πληθυσμός με ΣΔ2!!

Pharmacological treatment should be started when SBP is  $\geq 140$  mmHg or DBP is  $\geq 90$  mmHg, to achieve, if well tolerated, a goal of  $<130/80$  mmHg, which has been found to offer incremental protection compared to higher BP values, particularly against stroke in meta-analyses of RCTs [1308,1309]. Support for an SBP target  $<130$  mmHg is provided also by the ACCORD trial, which found that in type 2 diabetic patients, on-treatment SBP values of about 122 mmHg were associated with a clear reduction in the risk of stroke compared to on-treatment SBP values between 130 and 139 mmHg [1310]. In ACCORD, the intense SBP reduction was not accompanied by a reduction of combined CV events and all-cause mortality, but it was later recognized that this finding was probably due to the confounding effect of the factorial design of the trial [1310].

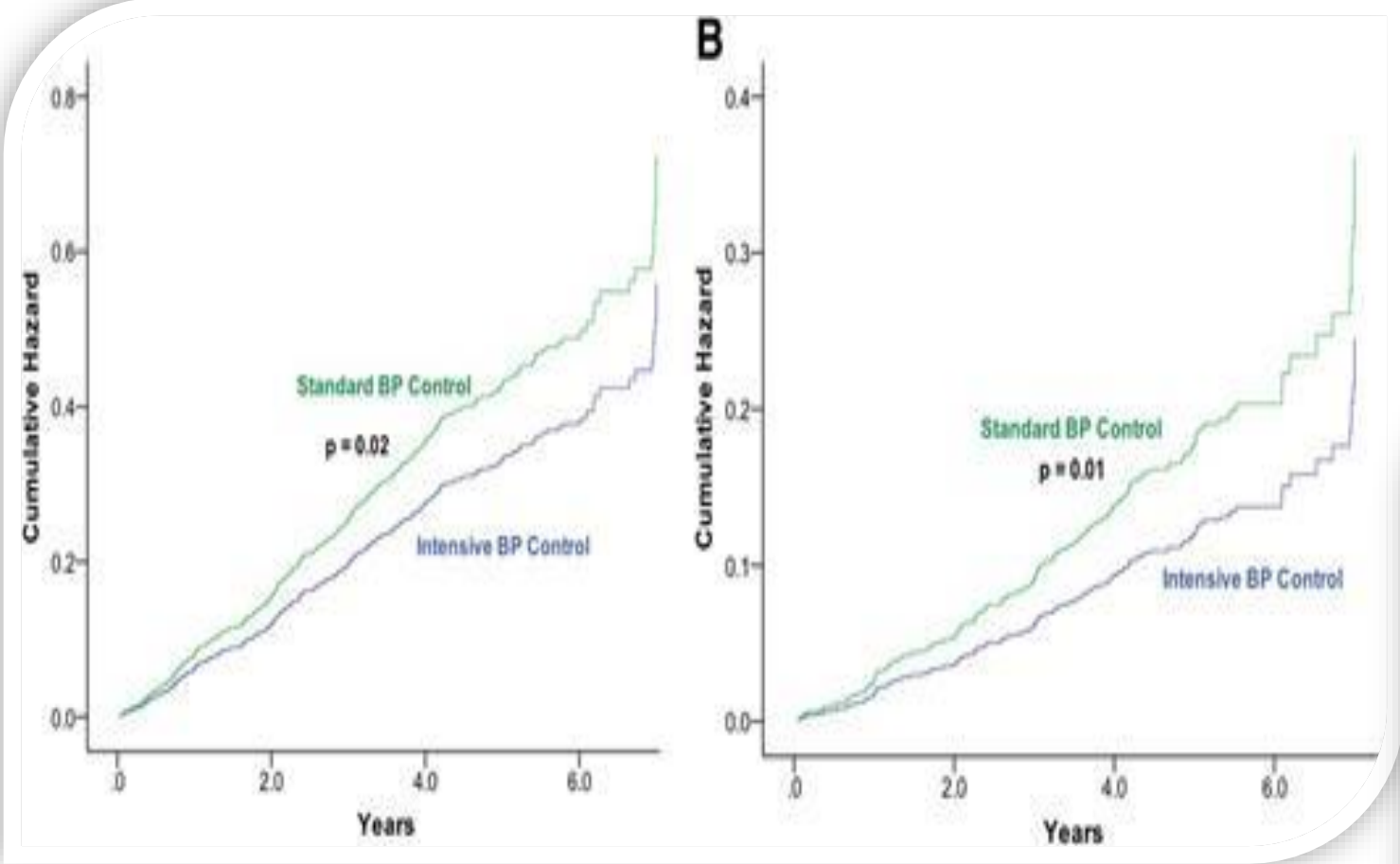
**ACCORD  
STUDY**

Table 3. Primary and Secondary Outcomes. <span style="color: red;">119.3mmHg</span> <span style="color: red;">133.5mmHg</span>						
Outcome	Intensive Therapy (N=2363)		Standard Therapy (N=2371)		Hazard Ratio (95% CI)	P Value
	no. of events	%/yr	no. of events	%/yr		
Primary outcome*	208	1.87	237	2.09	0.88 (0.73–1.06)	0.20
Prespecified secondary outcomes						
Nonfatal myocardial infarction	126	1.13	146	1.28	0.87 (0.68–1.10)	0.25
Stroke						
Any	36	0.32	62	0.53	0.59 (0.39–0.89)	0.01
Nonfatal	34	0.30	55	0.47	0.63 (0.41–0.96)	0.03
Death						
From any cause	150	1.28	144	1.19	1.07 (0.85–1.35)	0.55
From cardiovascular cause	60	0.52	58	0.49	1.06 (0.74–1.52)	0.74
Primary outcome plus revascularization or nonfatal heart failure	521	5.10	551	5.31	0.95 (0.84–1.07)	0.40
Major coronary disease event†	253	2.31	270	2.41	0.94 (0.79–1.12)	0.50
Fatal or nonfatal heart failure	83	0.73	90	0.78	0.94 (0.70–1.26)	0.67

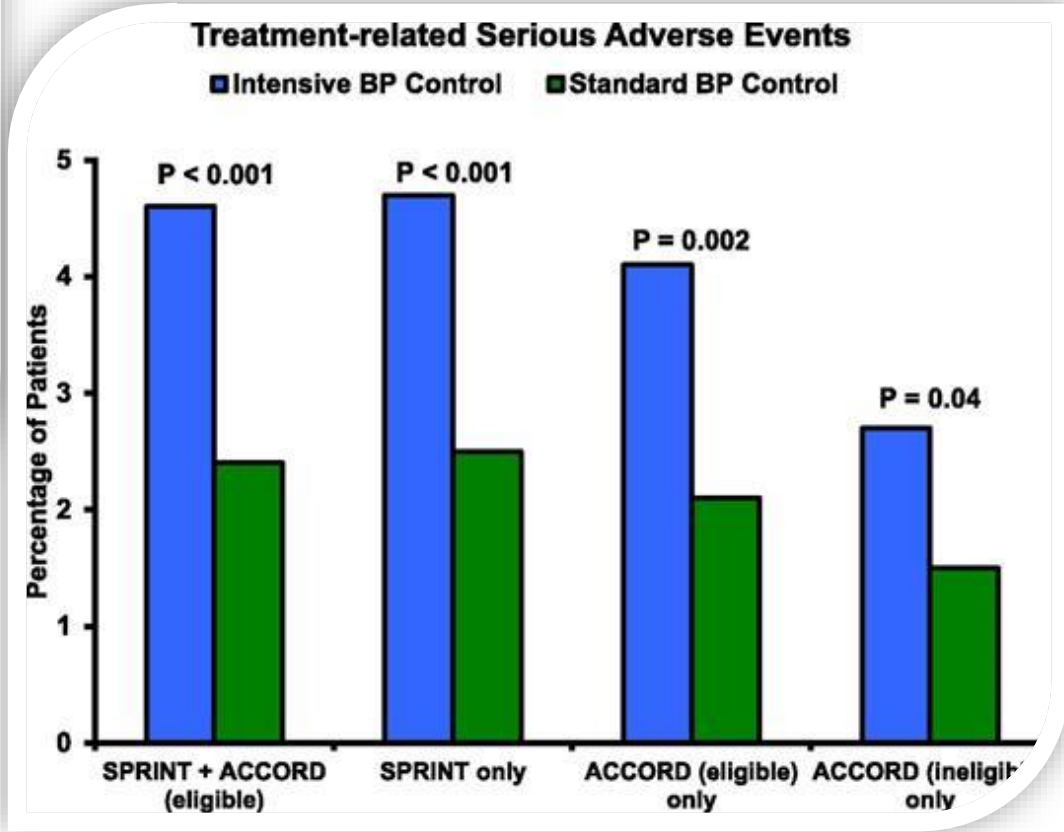
\* The primary outcome was a composite of nonfatal myocardial infarction, nonfatal stroke, or death from cardiovascular causes.

† Major coronary disease events, as defined in the protocol, included fatal coronary events, nonfatal myocardial infarction, and unstable angina.

# Intensive Versus Standard Blood Pressure Control in SPRINT-Eligible Participants of ACCORD-BP.



Time-to-event analysis for SPRINT-eligible ACCORD-BP participants.  
 A. a composite of myocardial infarction, any revascularization, stroke, heart failure, and CVD death (primary outcome of SPRINT),  
 B. a composite outcome of CVD death, nonfatal myocardial infarction, and nonfatal stroke (primary outcome of ACCORD-BP).



# ΣΤΟΧΟΣ ΑΥ ΣΕ ΔΙΑΒΗΤΙΚΟ ΑΣΘΕΝΗ

- SBP <130 mmHg αλλά όχι <120 mmHg,
- DBP <80 mmHg αλλά όχι <70 mmHg,
- Εάν ο στόχος <130/80 mmHg δεν είναι εφικτός ή δεν είναι ανεκτός, προτείνεται η διατήρηση της BP μεταξύ 130– 139/80– 89 mmHg.

# ΣΥΣΤΑΣΕΙΣ

Recommendations and statements	CoR	LoE
BP should be monitored to detect hypertension in all patients with diabetes, because it is a frequent comorbidity associated with an increase CV risk and risk for kidney events.	I	A
Non-dipping or elevated night-time BP are frequent in type 2 diabetes and should be monitored by ABPM or HBPM.	I	B
Antihypertensive treatment in type 2 diabetes is recommended to protect against macrovascular and microvascular complications.	I	A
Immediate lifestyle interventions and antihypertensive drug treatment are recommended for people with type 2 diabetes when office SBP is $\geq 140$ mmHg and DBP is $\geq 90$ mmHg.	I	A
When office SBP is $\geq 140$ mmHg and DBP is $\geq 90$ mmHg, treatment are recommended for people with type 2 diabetes and antihypertensive drug	I	A
Immediate lifestyle interventions and antihypertensive drug	I	A
microvascular complications	I	A

Drug treatment strategies in patients with type 2 diabetes should be the same as for patients without diabetes but the primary aim is to lower BP below $<130/80$ mmHg	I	A
BP control is difficult in diabetes and combination treatment is almost always necessary.	I	B
SGLT2is are recommended to reduce cardiac and kidney events in type 2 diabetes. These agents have a BP lowering effect.	I	A
The non-steroidal MRA finerenone can be used, because of its nephroprotective and cardioprotective properties in patients with diabetic CKD and moderate to severe albuminuria. Finerenone has a BP lowering effect.	I	A
There are only limited data on the potential benefits of combining SGLT2is and finerenone.	II	C
combining SGLT2is and finerenone	II	C
to different extent on the potential benefits of	II	C

**2024 ESC Guidelines for the management of elevated blood pressure and hypertension: Developed by the task force on the management of elevated blood pressure and hypertension of the European Society of Cardiology (ESC) and *endorsed by the European Society of Endocrinology (ESE) and the European Stroke Organisation (ESO)***

# ΟΡΙΣΜΟΣ ΑΥ

	Office BP (mmHg) <sup>a</sup>	Home BP (mmHg)	Daytime ABPM (mmHg)	24 h ABPM (mmHg)	Night-time ABPM (mmHg)
<b>Reference</b>					
Non-elevated BP	<120/70	<120/70	<120/70	<115/65	<110/60
Elevated BP	120/70–<140/90	120/70–<135/85	120/70–<135/85	115/65–<130/80	110/60–<120/70
Hypertension	≥140/90	≥135/85	≥135/85	≥130/80	≥120/70

# ΚΑΡΔΙΑΓΓΕΙΑΚΟΣ ΚΙΝΔΥΝΟΣ

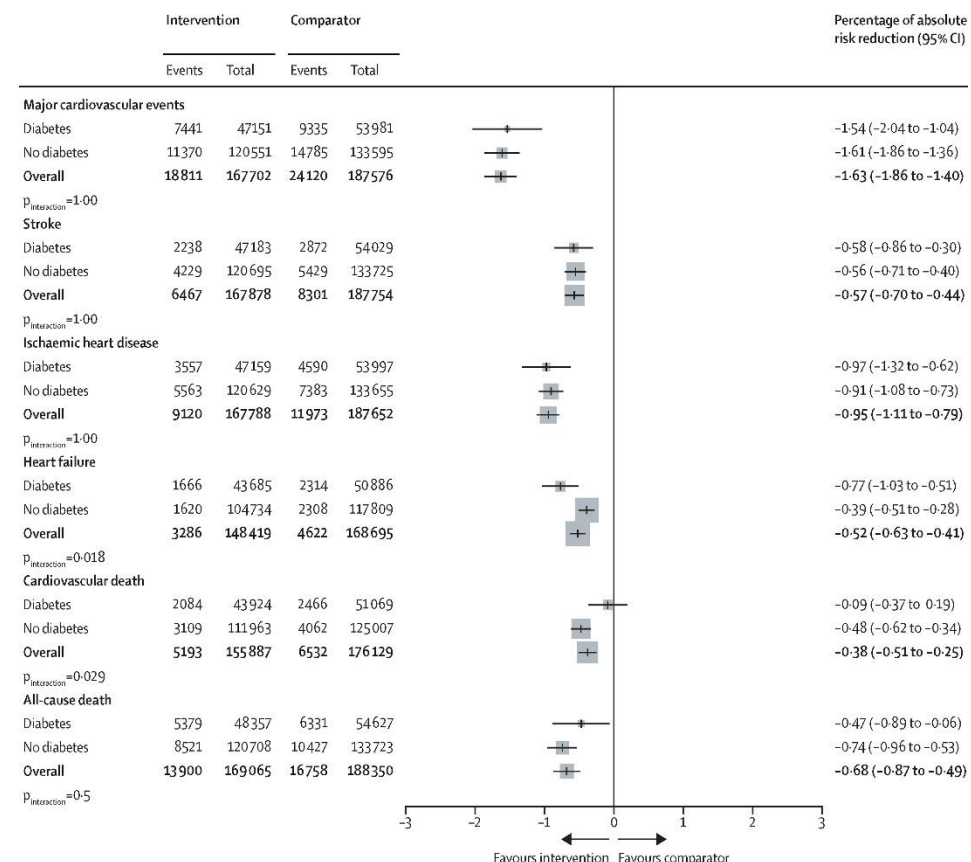
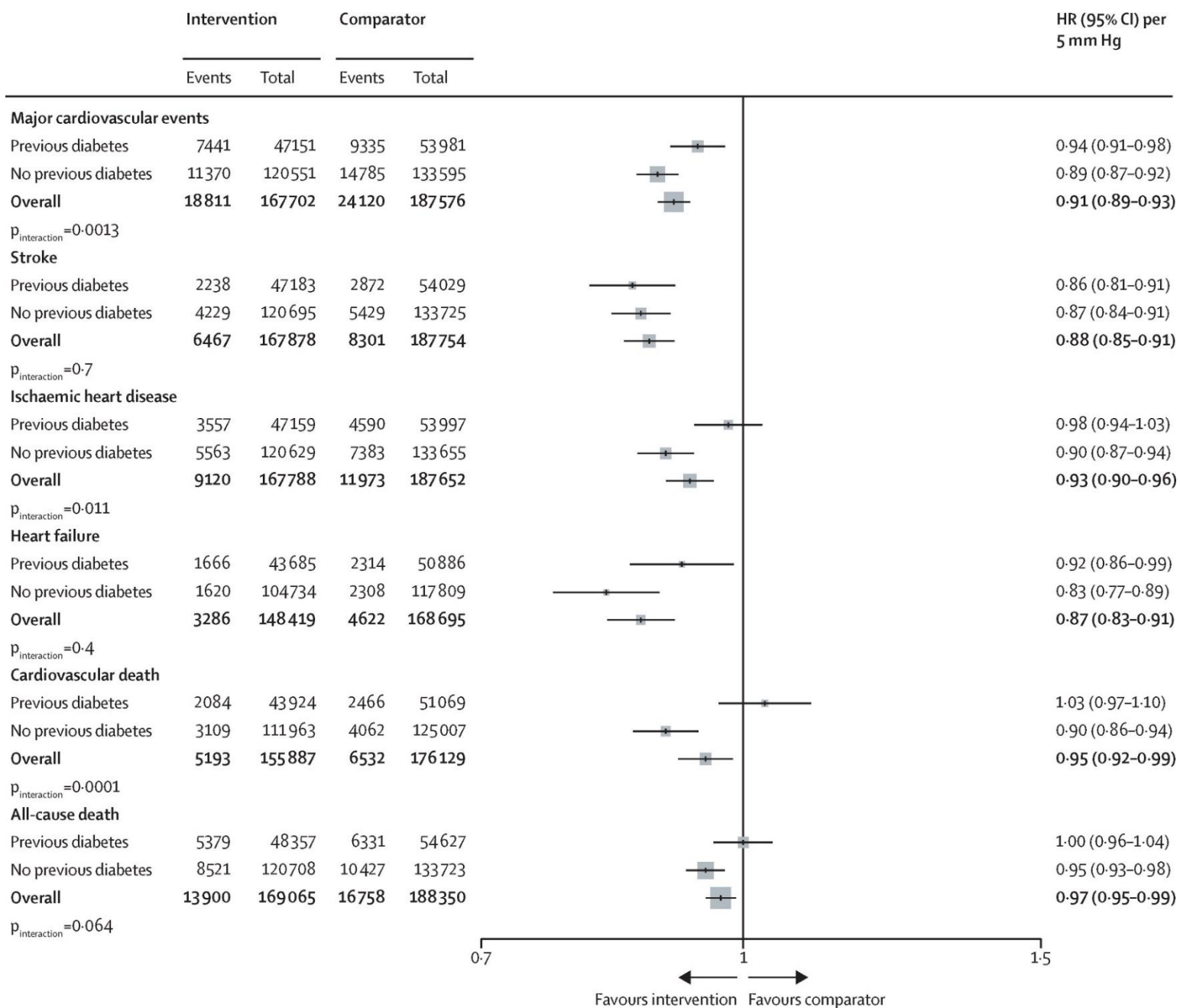
- Ασθενείς με διαβήτη έχουν εξ ορισμού  $\geq 10\%$  10y κίνδυνο για CVD.
- Προτίνεται η χρήση του SCORE2-Diabetes για ασθενείς <60 ετών.

## ΣΤΟΧΟΣ ΑΠ

- Έναρξη αντιυπερτασικής αγωγής με στόχο τη διατήρηση της ΑΠ <120–129/70–79 mmHg, εάν είναι ανεκτό από τον ασθενή.

# Blood pressure-lowering treatment for prevention of major cardiovascular diseases in people with and without type 2 diabetes: an individual participant-level data meta-analysis

## BP Lowering Treatment Trialists' Collaboration in 103 325 patients



Recommendations	Class <sup>a</sup>	Level <sup>b</sup>
<p>In most adults with elevated BP and diabetes, after a maximum of 3 months of lifestyle intervention, BP lowering with pharmacological treatment is recommended for those with confirmed office BP <math>\geq 130/80</math> mmHg to reduce CVD risk.<sup>445,749</sup></p>	I	A
<p>BP-lowering drug treatment is recommended for people with pre-diabetes or obesity when confirmed office BP is <math>\geq 140/90</math> mmHg or when office BP is 130–139/80–89 mmHg and the patient is at predicted 10-year risk of CVD <math>\geq 10\%</math> or with high-risk conditions, despite a maximum of 3 months of lifestyle therapy.<sup>445</sup></p>	I	A
<p>In persons with diabetes who are receiving BP-lowering drugs, it is recommended to target systolic BP to 120–129 mmHg, if tolerated.<sup>136,146,445,747,749–752</sup></p>	I	A

# ΔΙΑΓΝΩΣΗ – 24ΩΡΗ ΚΑΤΑΓΡΑΦΗ

ABPM

ABPM Σώσιμο εγγραφής

PatientID: 7016 Ημερομηνία: 06/05/2011

Clinic SBP (mmHg): 1021 Clinic DBP (mmHg): 130

	Min	Mean	Max	SD
SBP24:	129	127	206	16,0825647484749
DBP24:	65	78	149	14,8572705733216
HR24:	59	82,0178571428571	109	7,91004986639711
MBP24:	91	122,96	156	13,719514082746

Time High SAP: 12:28:00 μμ  
 Time High DAP: 6:11:00 μμ  
 Time Low SAP: 4:11:00 μμ  
 Time Low DAP: 4:11:00 μμ

PP24 (mmHg): 64,0133333333333  
 Systolic BLP24: 94,67%  
 Diastolic BLP24: 89,33%

	Min	Mean	Max	SD
SBPDay:	129	130	206	14,7731895710453
DBPDay:	65	82	149	14,4091873859163
HRDay:	59	82,0178571428571	109	8,34200017002725
MBPDay:	91	125,142857142857	156	13,5783816774898

PP day (mmHg): 65,2857142857143  
 Systolic BLP day: 92,86%  
 Diastolic BLP day: 87,50%

	Min	Mean	Max	SD
SBPNight:	136	120	188	15,5015860148267
DBPNight:	78	70	141	14,3136608324563
HRNight:	71	71,05263158	92	6,4649063295933
MBPNight:	100	116,526315789474	146	12,0060003465488

PPnight(mmHg): 60,2631578947368  
 Systolic BLPnight: 100,00%  
 Diastolic BLPnight: 94,74%

Ποσοστό Αποδεκτών μετρήσεων: 73

## ΑΠ 24ΩΡΗΣ ΚΑΤΑΓΡΑΦΗΣ

Μεταβλητή	ΣΑΠ	ΔΑΠ
24ωρη	130	80
Πρωινή	135	85
Νυκτερινή	120	70

# Διαχείριση: αλλαγή τρόπου ζωής.

- ✓ Διακοπή καπνίσματος.
- ✓ Άσκηση (δηλώνει καθημερινή χειρωνακτική εργασία στον κήπο).
- ✓ Απώλεια Β.Σ περίπου 5-15%. (LOOK AHEAD STUDY-TONE).
- ✓ Μείωση πρόσληψης άλατος σε <2gr ημερησίως.

Study	SGLT-2 inhibitors			GLP-1 analogues	
	EMPA-REG (empagliflozin)	CANVAS (canagliflozin)	DECLARE-TIMI 58 (dapagliflozin)	LEADER (liraglutide)	SUSTAIN-6 (semaglutide 0.5 or 1.0 mg)
Patients enrolled	<i>n</i> = 7020	<i>n</i> = 10 142	<i>n</i> = 17 160	<i>n</i> = 9340	<i>n</i> = 3297
Median duration of follow-up (years)	3.1	2.4	4.2	3.8	2.1
Weight reduction (kg)	~2	1.60 (1.70–1.51)	1.8 (1.7–2.0)	2.3 (2.5–2.0)	2.87 (3.47–2.28) and 4.35 (4.94–3.75)
Baseline statin use (%)	77	75	75	72	73
Baseline prevalence of CV (%) disease	100	65.6	40.6	81	72
Heart failure (%)	11	14	10	18	24
Primary outcome (HR, 95% CI)	0.86 (0.74–0.99)	0.86 (0.75–0.97)	0.93 (0.84–1.03)	0.87 (0.78–0.97)	0.74 (0.58–0.95)
CV death (HR, 95% CI)	0.62 (0.49–0.77)	0.87 (0.72–1.06)	0.98 (0.82–1.17)	0.78 (0.66–0.93)	0.98 (0.65–1.48)
Fatal or nonfatal MI (HR, 95% CI)	0.87 (0.70–1.09)	0.89 (0.73–1.09)	0.89 (0.77–1.01)	0.86 (0.73–1.00)	0.74 (0.51–1.08)
Fatal or nonfatal stroke (HR, 95% CI)	1.18 (0.89–1.56)	0.87 (0.69–1.09)	1.01 (0.84–1.21)	0.86 (0.71–1.06)	0.61 (0.38–0.99)
All-cause mortality (HR, 95% CI)	0.68 (0.57–0.82)	0.87 (0.74–1.01)	0.93 (0.82–1.04)	0.85 (0.74–0.97)	1.05 (0.74–1.50)
Heart failure hospitalization (HR, 95% CI)	0.65 (0.50–0.85)	0.67 (0.52–0.87)	0.83 (0.73–0.95)	0.87 (0.73–1.05)	1.11 (0.77–1.61)
Composite renal end point (HR, 95% CI)	0.61 (0.53–0.70)	0.60 (0.47–0.77)	0.76 (0.67–0.87)	0.78 (0.67–0.92)	0.64 (0.46–0.88)
SBP (mmHg) reduction	~4	3.93 (4.30–3.56)	2.7 (2.4–3.0)	1.2 (1.9–0.5)	1.27 (2.77–0.23) and 2.59 (4.09–1.08)
DBP (mmHg) reduction	~2	1.39 (1.61–1.17)	0.7 (0.6–0.9)	0.6 (0.2–1.0)	0.04 (0.83–0.92) and 0.14 (0.74–1.03)
Adverse events	Genital infection	Amputation 1.97 (1.41–2.75), fracture, genital infection, osmotic diuresis, volume depletion	Diabetic ketoacidosis, genital infection	Acute gallstone disease, pancreatic cancers ( <i>P</i> = 0.06), gastrointestinal symptoms	Diabetic retinopathy complications (1.76; 1.11–2.78), gastrointestinal symptoms

# ΑΓΩΓΗ ΣΔ ΜΕ ΟΦΕΛΟΣ ΣΤΗΝ ΥΠΕΡΤΑΣΗ

Kotsis V, Jordan J, Stabouli S, Antza C, Micic D, Jelaković B, Schlaich MP, Nilsson PM, Kreutz R, Mancia G, Tsioufis K, Grassi G. consensus article from the European Society of Hypertension Working Group on Obesity, Diabetes and the High-risk Patient

# Διαχείριση

- ✓ Ρύθμιση παραγόντων καρδιαγγειακού κινδύνου.
- ✓ Μετφορμίνη/Εμπαγλιφλοζίνη 1000/12.5 x2 ΚΑΙ
  - ✓ Σεμαγλουτίδη 1mg/εβδομ.



*Σας ευχαριστώ πολύ!!!*