Guidelines ESH jsou stále standardem

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Praha

2023 ESH Guidelines for the management of arterial hypertension

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

Authors/Task Force Members:, Giuseppe Mancia(Chairperson)[a,*], Reinhold Kreutz(Co-Chair)[b,*], Mattias Brunström[c], Michel Burnier[d], Guido Grassi[e], Andrzej Januszewicz[f], Maria Lorenza Muiesan[g], Konstantinos Tsioufis[h], Enrico Agabiti-Rosei[i], Engi Abd Elhady Algharably[b], Michel Azizi[j,k], Athanase Benetos[l], Claudio Borghi[m], Jana Brguljan Hitij[n], Renata Cifkova[o,p], Antonio Coca[q], Veronique Cornelissen[r], Kennedy Cruickshank[s], Pedro G. Cunha[t,u], A.H. Jan Danser[v], Rosa Maria de Pinho[w], Christian Delles[x], Anna F. Dominiczak[y], Maria Dorobantu[z], Michalis Doumas[aa], María S. Fernández-Alfonso[bb,cc], Jean-Michel Halimi[dd,ee,ff], Zoltán Járai[gg], Bojan Jelakovic[hh], Jens Jordan[ii,jj], Tatiana Kuznetsova[kk], Stephane Laurent[ll], Dragan Lovic[mm], Empar Lurbe[nn,oo,pp], Felix Mahfoud[qq,rr], Athanasios Manolis[ss], Marius Miglinas[tt,uu], Krzystof Narkiewicz[vv], Teemu Niiranen[ww,xx], Paolo Palatini[yy], Gianfranco Parati[zz,aaa], Atul Pathak[bbb], Alexandre Persu[ccc], Jorge Polonia[ddd], Josep Redon[oo,eee,fff], Pantelis Sarafidis[ggg], Roland Schmieder[hhh], Bart Spronck[iii], Stella Stabouli[jjj], George Stergiou[kkk], Stefano Taddei[lll], Costas Thomopoulos[mmm], Maciej Tomaszewski[nnn,ooo], Philippe Van de Borne[ppp], Christoph Wanner[qqq], Thomas Weber[rrr], Bryan Williams[sss], Zhen-Yu Zhang[ttt], and Sverre E. Kjeldsen[uuu]

59 autorů
119 stran
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European Journal of Internal Medicine 126 (2024) 1–15

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

ractice Guidelines

36 autorů
15 stran
1 citace
10 obr. + 0

024 European Society of Hypertension clinical practice guidelines for the management of rterial hypertension

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

. Introduction

The European Society of Hypertension (ESH) reported in 2023 its

that are (intentionally) not covered in this document and for the supporting literature readers are referred to the full text of the 2023 ESH Guidelines [1].

Praktická doporučení Evropské společnosti pro hypertenzi pro léčbu arteriální hypertenze z roku 2024

Schváleno a přijato Evropskou federací vnitřního lékařství (EFIM), Evropskou renální asociací (ERA) a Mezinárodní společností pro hypertenzi (ISH)

1. Úvod

Evropská společnost pro hypertenzi (ESH) uveřejnila v roce 2023 svá aktuální doporučení pro léčbu arteriální hypertenze (1). V návaznosti na svůj cíl shrnout nejlepší dostupné důkazy pro všechny aspekty léčby hypertenze, pracovní

2. Měřte krevní tlak – diagnostikujte

Přesné měření krevního tlaku (TK) je základem pro diagnózu a léčbu hypertenze. Měření TK v diagnostice hypertenze proto představuje první stěžejní krok v ESH MASTERplanu pro léčbu hypertenze.

Měřte krevní tlak – diagnostikujte

V ambulanci

Měření krevního tlaku v ambulanci (OBPM)

*STK ≥ 140
a/nebo
DTK ≥ 90

Podmínky

1. Použijte validovaný automatický elektronický přístroj s manžetou na horní část paže[a] (www.stridebp.org).
2. Zvolte vhodnou manžetu podle velikosti obvodu paže a pokynů výrobce přístroje[b].
3. Tichá místnost s příjemnou teplotou.
4. 30 minut před měřením TK nekuřte, nepijte nápoje obsahující kofein, nejezte ani necvičte.
5. Zahajte měření poté, co pacient sedí a odpočívá po dobu 3–5 minut[c].
6. Nemluvte během a mezi měřeními.

Poloha těla

7. Sed s opřenými zády o židli.
8. Nohy nezkřížené, chodidla se celou ploskou dotýkají podlahy.
9. Obnaženou paži podepřít tak, aby manžeta byla v úrovni srdce.

Měření

10. Proveďte 3 měření v minutových intervalech. Vycházejte z průměru posledních 2 naměřených hodnot TK a tepové frekvence [d].

Relevance

- Byl použit ve velkých klinických studiích a je základem pro diagnózu a cílové hodnoty TK.

Mimo ambulanci

Měření TK v domácích podmínkách (HBPM)

*STK ≥ 135
a/nebo
DTK ≥ 85

Podmínky a poloha těla

1.-9. pro měření TK v ambulanci platí i pro měření TK v domácích podmínkách

Měření

10. Navrhněte pacientovi standardizovaný protokol:
    - Poučte pacienta o tom, jak používat validovaný přístroj, a hlásit naměřené hodnoty.
    - Proveďte 2 měření s intervalem 1 minuty.
    - Měřte TK ráno a večer (před užitím léku, pokud je pacient léčen).
    - Měřte TK po dobu 3-7 dní před návštěvou ambulance.
    - Použijte průměr všech naměřených hodnot TK a tepové frekvence s výjimkou prvního dne.
11. Pro dlouhodobé sledování léčených hypertoniků provádějte duplicitní měření jednou nebo dvakrát týdně nebo měsíčně.

Relevance

- Doporučuje se pro dlouhodobé sledování léčených hypertoniků, protože zlepšuje kontrolu TK, zvláště v kombinaci s edukací a poradenstvím.
- Potvrzení diagnózy hypertenze a skutečné rezistentní hypertenze, zejména pokud není k dispozici ABPM

Ambulantní monitorování TK (ABPM)

24hod. průměr TK:
STK ≥ 130
a/nebo
DTK ≥ 80

Denní doba (v bdělém stavu):	Noční doba (ve spánku):
STK ≥ 135 a/nebo DTK ≥ 85	STK ≥ 120 a/nebo DTK ≥ 70

Podmínky

1.-2. pro měření TK v ambulanci platí i pro ambulantní monitorování TK.

3. Použijte plně automatizované přístroje naprogramované k automatickému záznamu TK v předem zvolených intervalech po dobu 24 hodin.

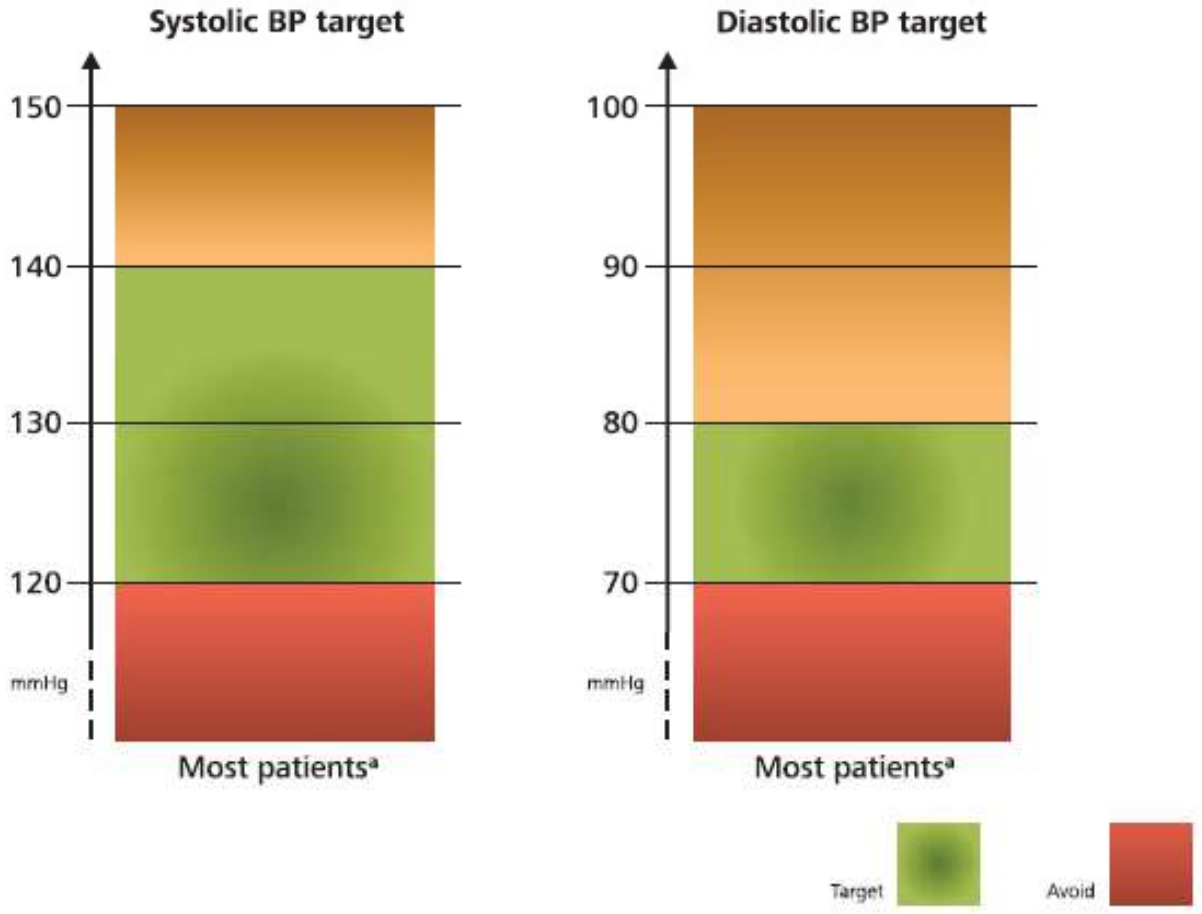
Měření

4. Doporučený optimální interval mezi měřeními by měl být 20 minut během dne (v bdělém stavu) i v noci (ve spánku).
5. Provádějte měření během obvyklého pracovního dne po dobu 24 hodin.
6. Instruujte pacienty, aby si zaznamenávali své aktivity, příznaky, konzumaci jídel, dobu užívání léků, dobu spánku nebo jakékoli neobvyklé problémy.

Relevance

- Získání 24hodinového profilu TK a zejména TK v noci (během spánku), které neposkytuje měření TK v ordinaci nebo v domácím prostředí.
- Potvrzení diagnózy hypertenze a skutečné rezistentní hypertenze.

Cílové hodnoty TK (Office BP)



Cílové hodnoty TK (Office BP)

Recommendations and statements	CoR	LoE
Patients 18 to 64 years old		
The goal is to lower office BP to <130/80mmHg	I	A
Patients 65 to 79 years old		
The primary goal of treatment is to lower BP to <140/80mmHg	I	A
However, lowering BP to below 130/80mmHg can be considered if treatment is well tolerated.	I	B
Patients 65 to 79 years old with ISH		
The primary goal of treatment is to lower SBP in the 140 to 150 mmHg range.	I	A
However, a reduction of office SBP in the 130 to 139 mmHg range may be considered if well tolerated, albeit cautiously if DBP is already below 70 mmHg.	II	B
Patients ≥80 years old		
Office BP should be lowered to a SBP in the 140 to 150 mmHg range and to a DBP <80mmHg.	I	A
However, reduction of office SBP between 130 to 139 mmHg may be considered if well tolerated, albeit cautiously if DBP is already below 70 mmHg.	II	B

Cílové hodnoty TK (Office BP)

Additional safety recommendations		
In frail patients, the treatment target for office SBP and DBP should be individualised.	I	C
Do not aim to target office SBP below 120 mmHg or DBP below 70 mmHg during drug treatment.	III	C
However, in patients with low office DBP, i.e. below 70 mmHg, SBP should be still lowered, albeit cautiously, if on-treatment SBP is still well above target values	II	C
Reduction of treatment of can be consider in patient aged 80 years or older with a low SBP (< 120 mmHg) or in the presence of severe orthostatic hypotension or a high frailty level	III	C

ESC European Society of Cardiology

European Heart Journal (2024) **00**, 1–107
https://doi.org/10.1093/eurheartj/ehae178

ESC GUIDELINES

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)*

Authors/Task Force Members: John William McEvoy *†, (Chairperson) (Ireland), Cian P. McCarthy ‡, (Task Force Co-ordinator) (United States of America), Rosa Maria Bruno ‡, (Task Force Co-ordinator) (France), Sofie Brouwers (Belgium), Michelle D. Canavan (Ireland), Claudio Ceconi (Italy), Ruxandra Maria Christodorescu (Romania), Stella S. Daskalopoulou (Canada), Charles J. Ferro [1] (United Kingdom), Eva Gerdts (Norway), Henner Hanssen (Switzerland), Julie Harris (United Kingdom), Lucas Lauder (Switzerland/Germany), Richard J. McManus (United Kingdom), Gerard J. Molloy (Ireland), Kazem Rahimi (United Kingdom), Vera Regitz-Zagrosek (Germany), Gian Paolo Rossi [2] (Italy), Else Charlotte Sandset [3] (Norway), Bart Scheenaerts (Belgium), Jan A. Staessen (Belgium), Izabella Uchmanowicz (Poland), Maurizio Volterrani (Italy), Rhian M. Touyz *†, (Chairperson) (Canada), and ESC Scientific Document Group

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ESH NEWS

Why were the 2023 Guidelines of the European Society of Hypertension not developed as Joint Guidelines together with the European Society of Cardiology?

Reinhold Kreutz[a], Michel Azizi[b], Guido Grassi[c], Andrzej Januszewicz[d], Thomas Kahan[e], Empar Lurbe[f], Jorge Polonia[g], Konstantinos Tsioufis[h], Thomas Weber[i], Bryan Williams[j] and Giuseppe Mancia[k]

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The guidelines for the management of arterial hypertension of the European Society of Hypertension (ESH) were developed for the first time in 2003 [1]. At that time, ESH offered to share these hypertension

In October 14, 2021, the acting president of the ESH and the ESH Co-Chair of the 2018 joint ESC/ESH guidelines wrote an invitation letter on behalf of the ESH Council to the acting President of the ESC . In

- Definice a klasifikace hypertenze a ostatních kategorií TK
- Zahájení medikamentózní léčby
- Cílové hodnoty TK
- Algoritmus léčby hypertenze
- Screening primárního hyperaldosteronismu

Klasifikace TK v ambulanci (office BP)

Kategorie	STK (mm Hg)		DTK (mm Hg)
Optimální	< 120	a	< 80
Normální	120–129	a	80-84
Vysoký normální	130–139	a/nebo	85-89
Hypertenze 1. stupně (mírná)	140–159	a/nebo	90-99
Hypertenze 2. stupně (středně závažná)	160–179	a/nebo	100-109
Hypertenze 3. stupně (závažná)	≥ 180	a/nebo	≥ 110
Izolovaná systolická hypertenze	≥ 140	a	< 90
Izolovaná diastolická hypertenze	< 140	a	≥ 90

2018 ESC/ESH Guidelines for the management of arterial hypertension

Definition of hypertension

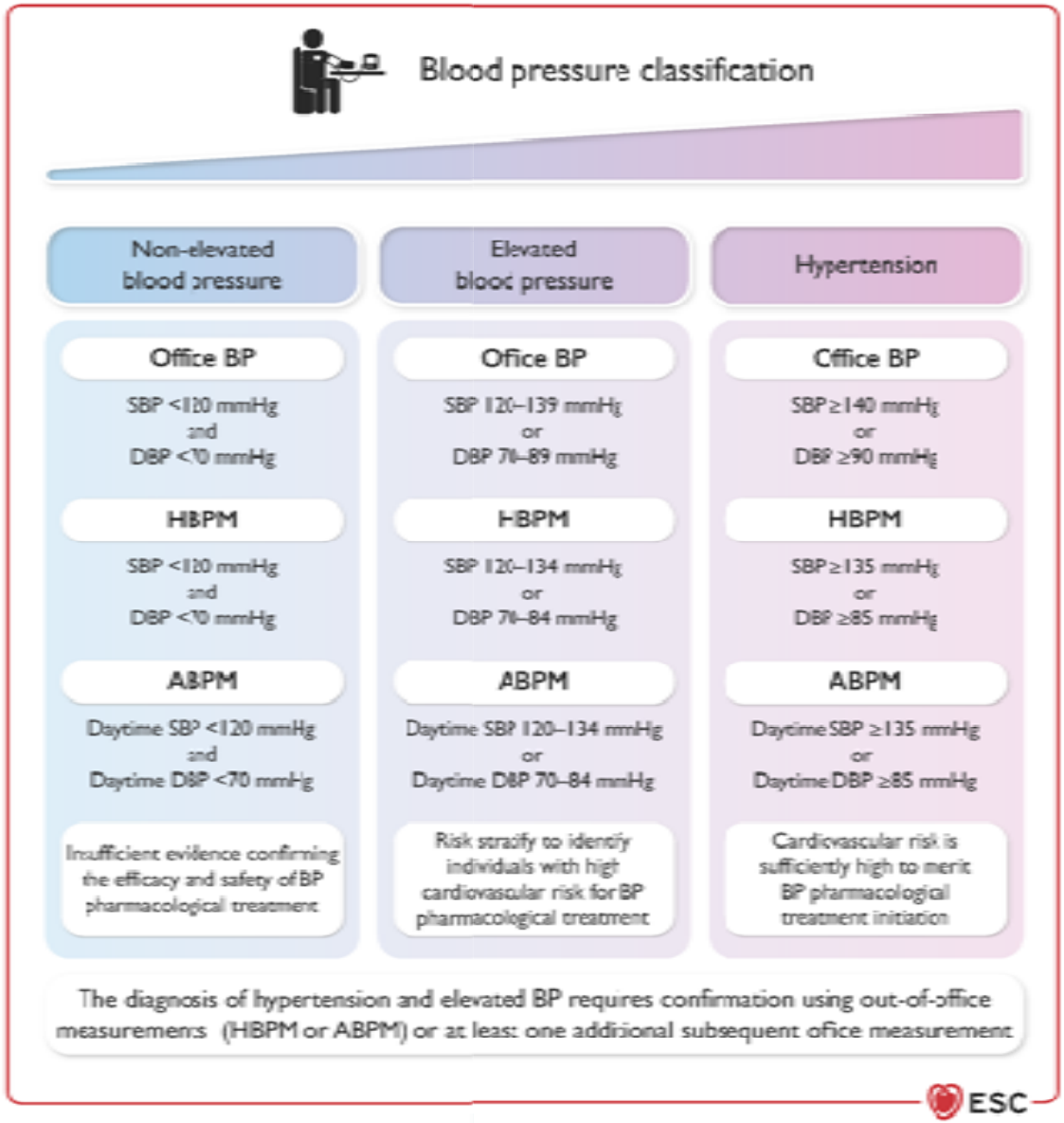
Repeated office SBP ≥ 140 mmHg and/or
DBP ≥ 90 mm Hg

ESC European Soci of Cardiology

ESH European Society of Hypertensi

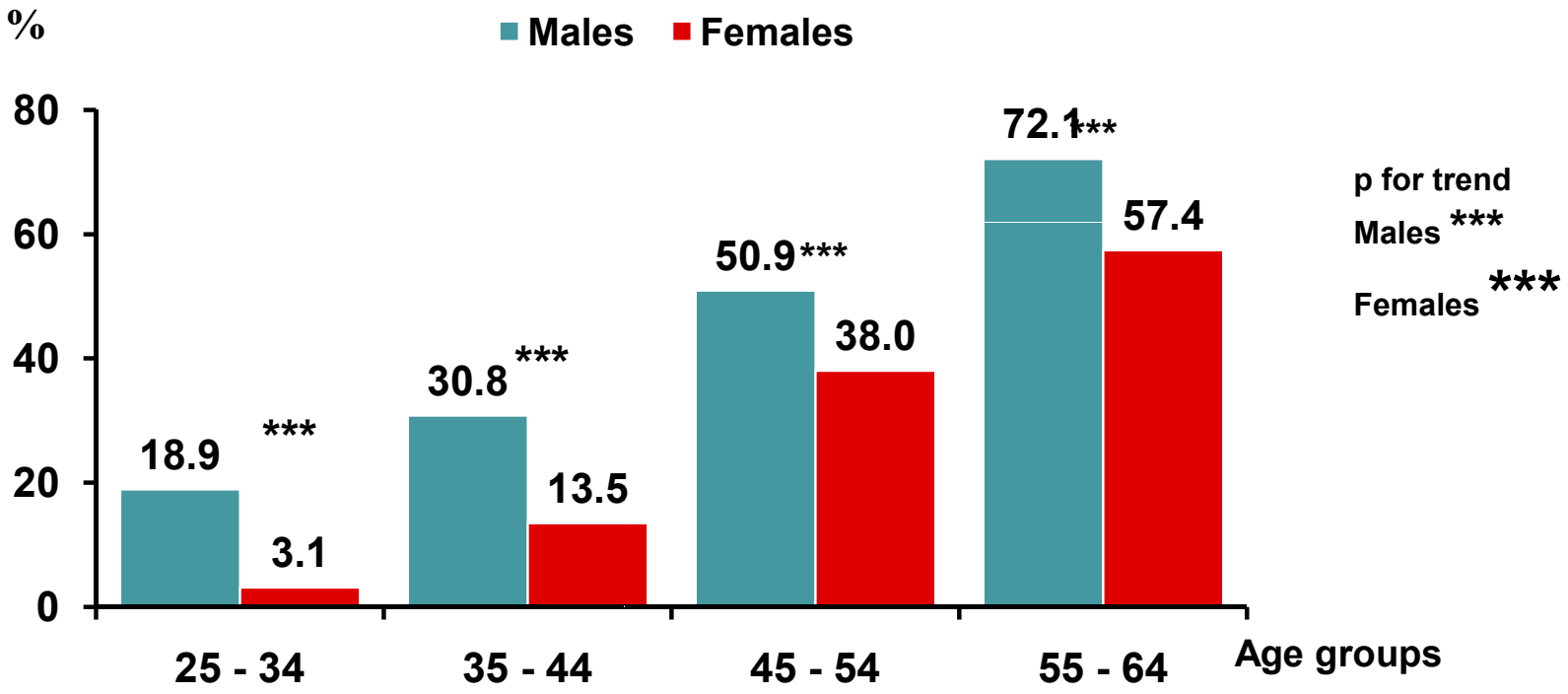
gure 6

ood pressure
tegories



Prevalence of hypertension by age groups

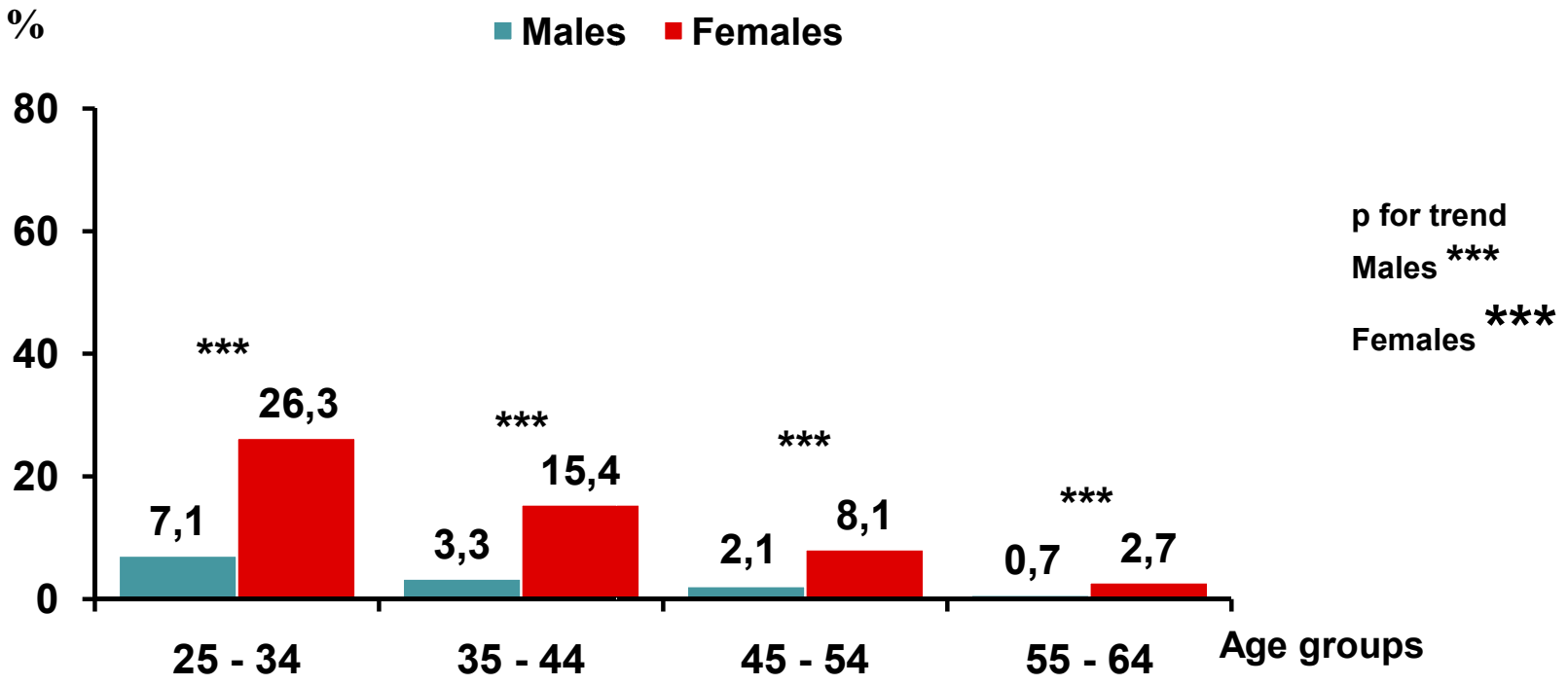
Czech Republic, 2015-2018



Cífková et al., Cor Vasa 2020;62:6-

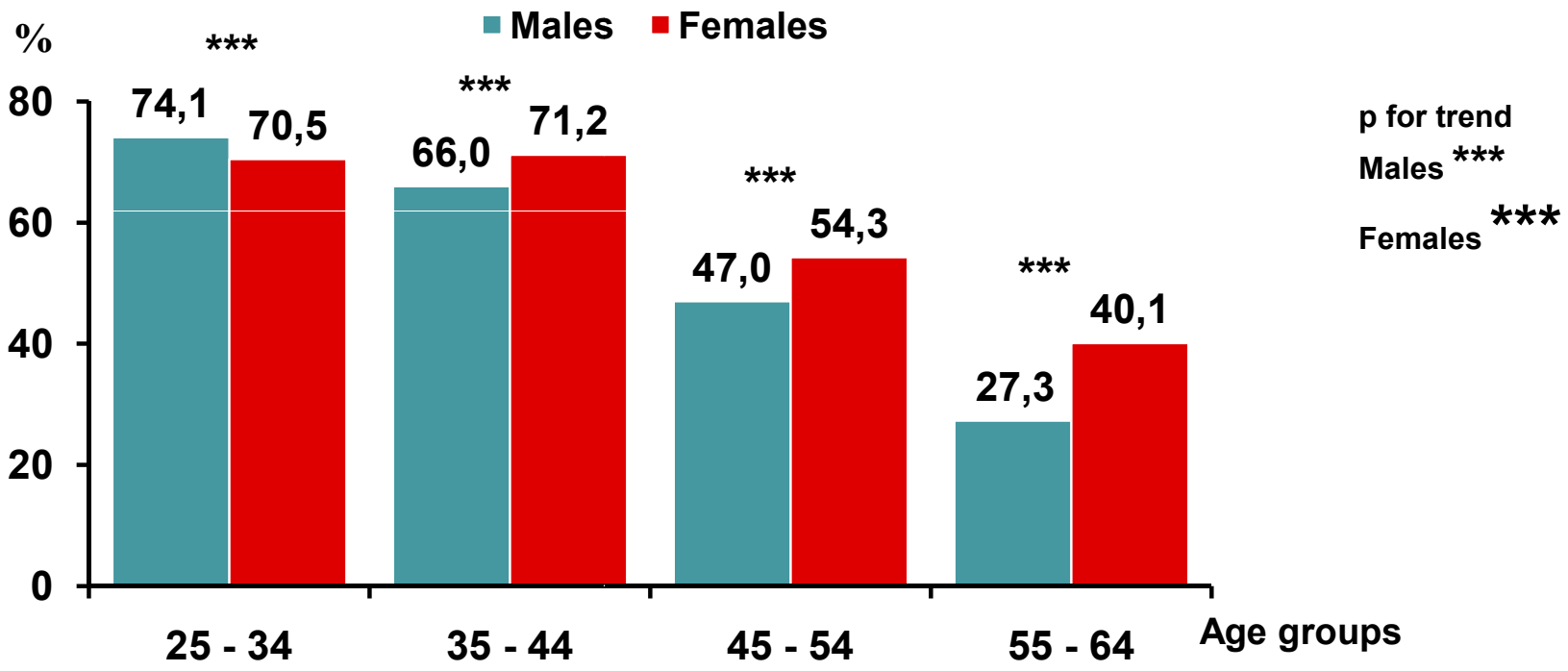
Prevalence of non-elevated BP by age groups

Czech Republic, 2015-2018



Prevalence of elevated BP by age groups

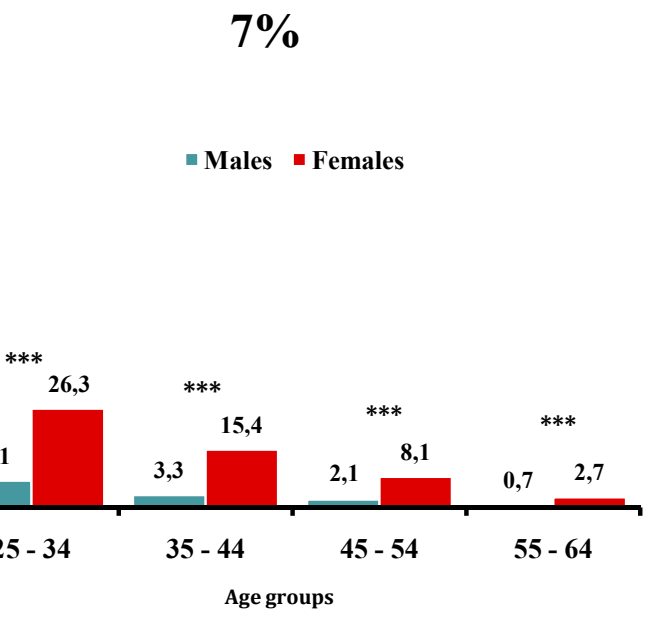
Czech Republic, 2015-2018

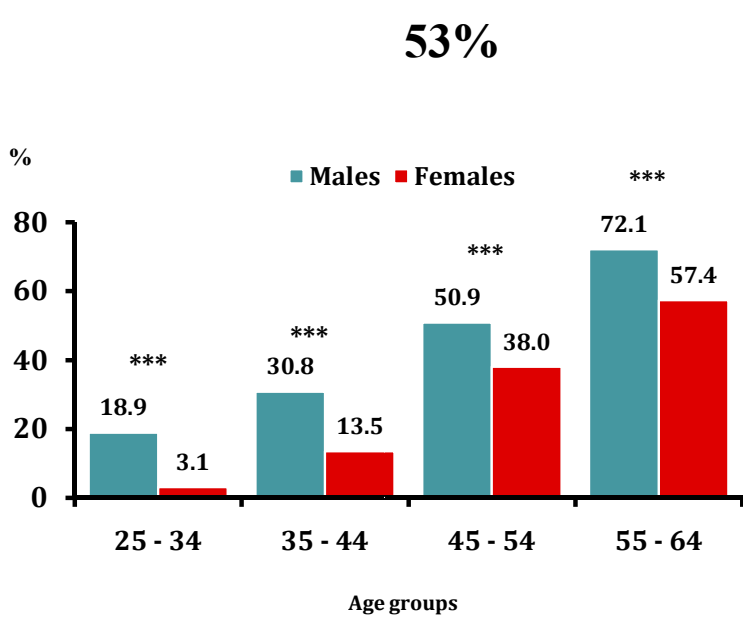


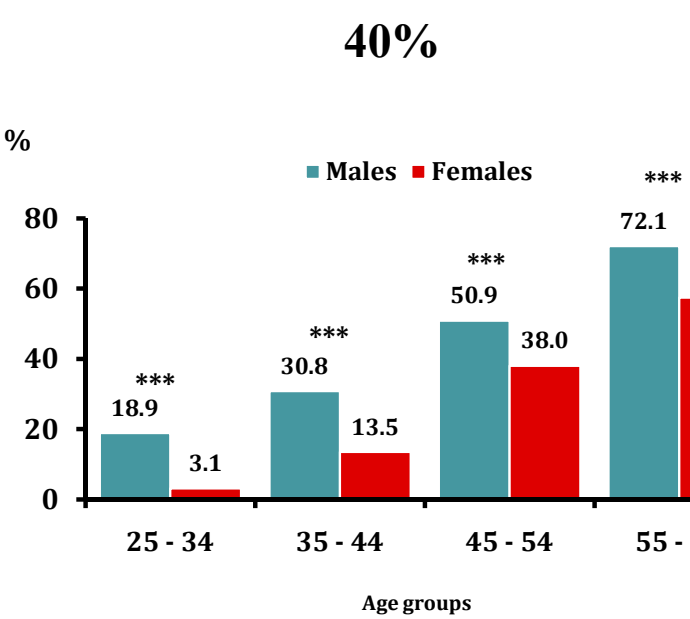
revalence of hypertension, elevated and non-elevated Bl by age groups

Czech Republic, 2015-2018

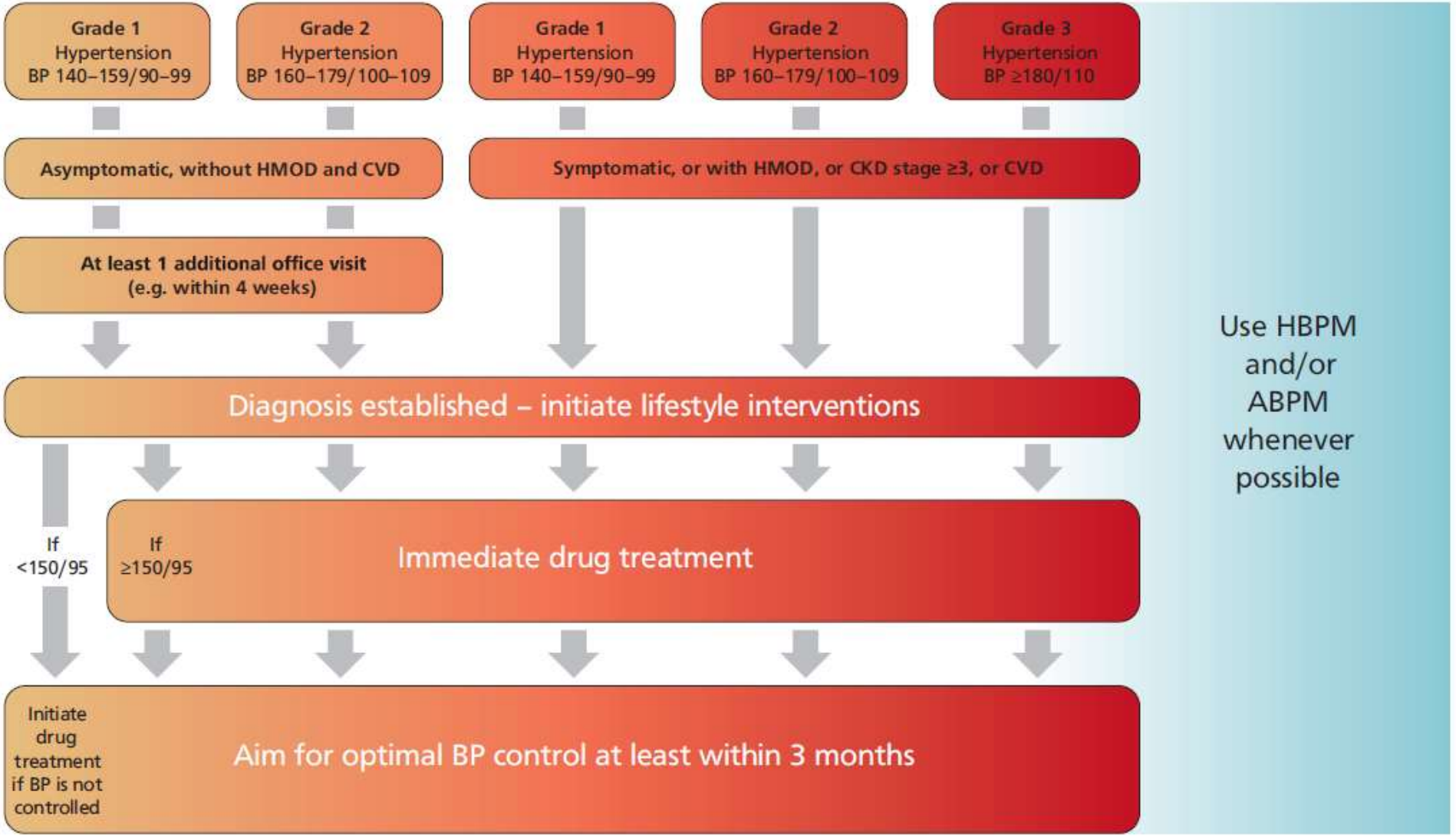
p for trend
Males ***
Females ***





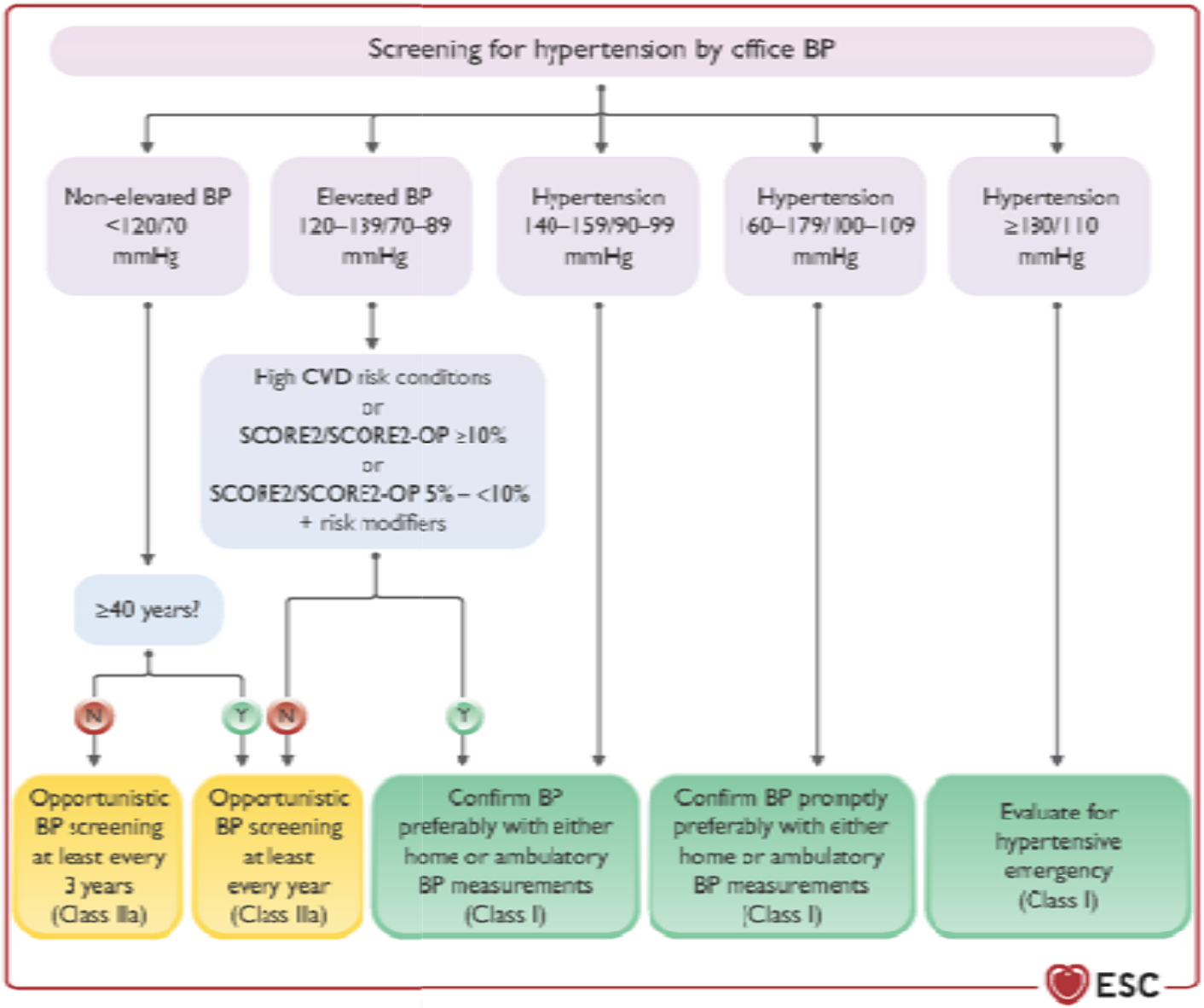


Inicialní léčba hypertenze, dg. na základě „office BP“



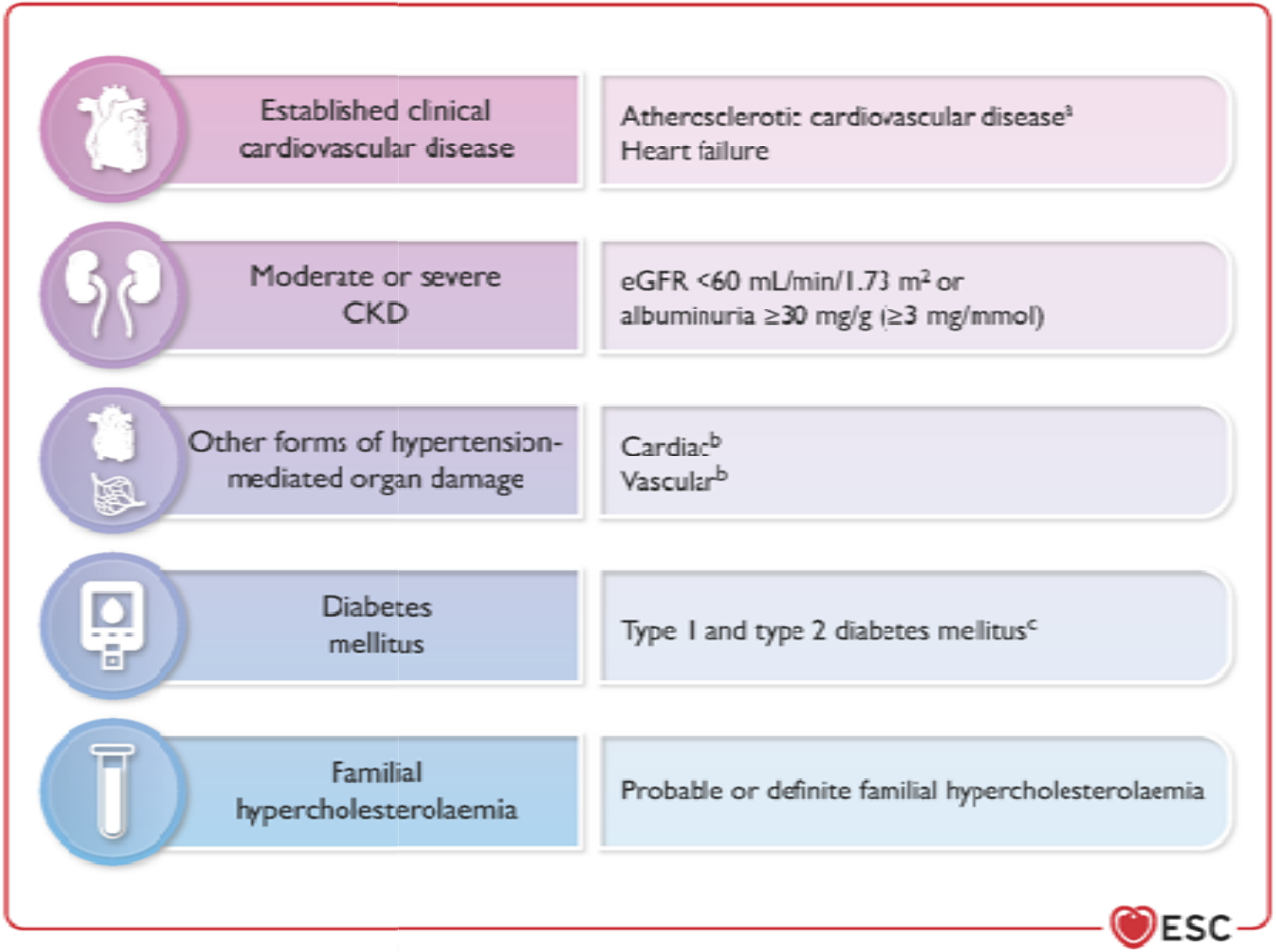
gure 10

otocol for confirming ypertension diagnosis



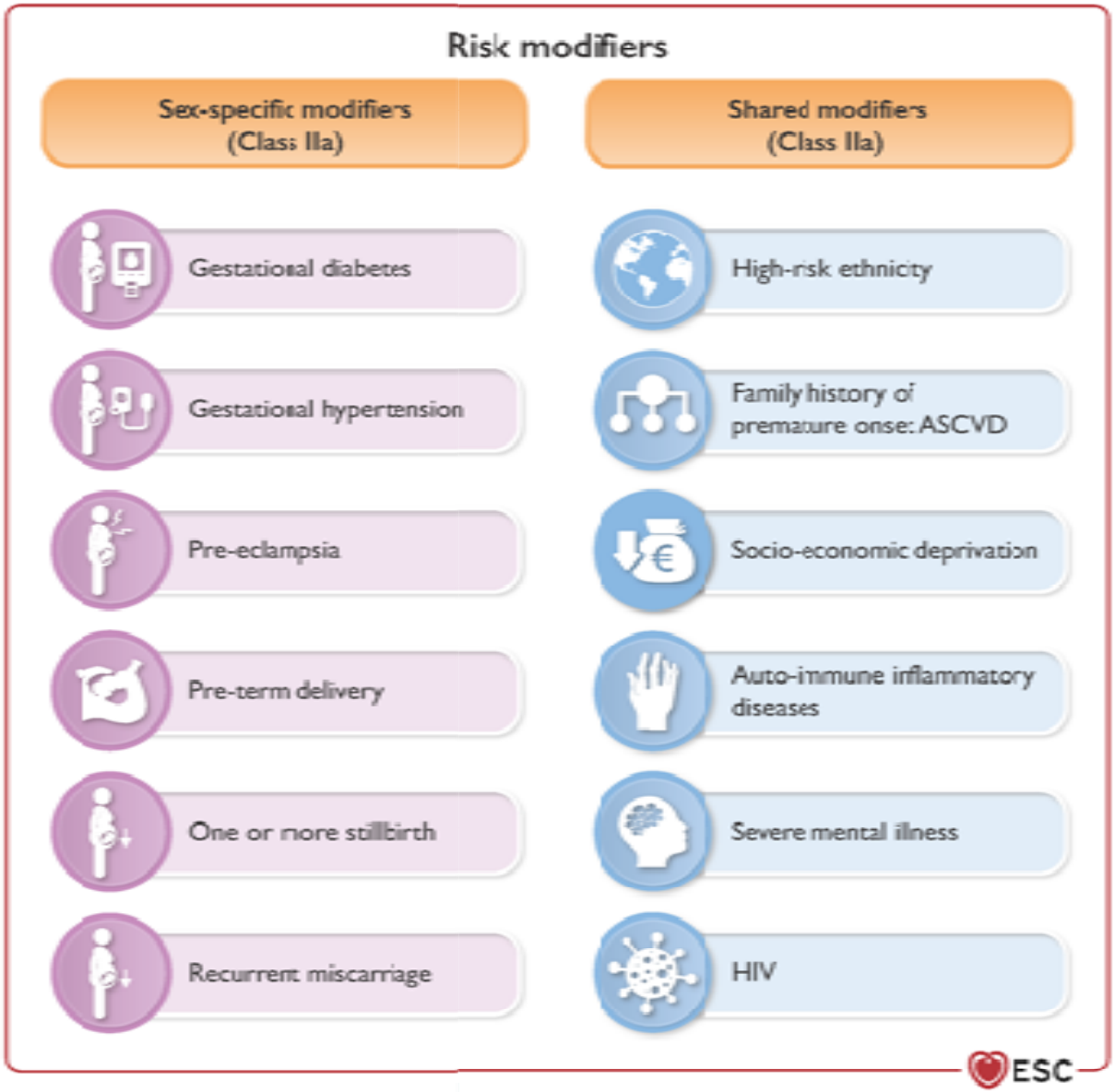
gure 7

fficiently high rdiovascular risk nditions that arrant blood essure-lowering eatment among dults with elevated ood pressure



gure 8

ardiovascular disease sk modifers to onsider for up- assification of risk



Pharmacological blood pressure lowering for primary and secondary prevention of cardiovascular disease across different levels of blood pressure: an individual participant-level data meta-analysis

*The Blood Pressure Lowering Treatment Trialists' Collaboration**

- 344 716 individuals from 48 RCT
- a 5 mm Hg reduction of SBP reduced the risk of major CV events by about 10%, irrespective of previous diagnoses of cardiovascular disease, and even at normal or high-normal blood pressure values

Lancet 2021;397: 1625-36

Age-stratified and blood-pressure-stratified effects of blood-pressure-lowering pharmacotherapy for the prevention of cardiovascular disease and death: an individual participant-level data meta-analysis

*The Blood Pressure Lowering Treatment Trialists' Collaboration**

Pharmacological blood pressure reduction is effective into old age, with no evidence that relative risk reductions for prevention of major cardiovascular events vary by systolic or diastolic blood pressure levels at randomisation, down to less than 120/70 mm Hg. Pharmacological blood pressure reduction should, therefore, be considered an important treatment option regardless of age, with the removal of age-related blood-pressure thresholds from international guidelines.

Lancet 2021;398:1053-1064

Is there enough evidence to recommend initiating BP lowering treatment at values <140/90 mmHg?

Review

Do recent meta-analyses truly prove that treatment with blood pressure-lowering drugs is beneficial at any blood pressure value, no matter how low? A critical review

Reinhold Kreutz[a], Mattias Brunstrom[b], Costas Thomopoulos[c], Bo Carlberg[b], and Giuseppe Mancia[d]

See related papers on pages 847 and 1050

Current European guidelines for the management of hypertension and on cardiovascular disease prevention place the threshold for pharmacological treatment at a SBP level of 140 mmHg or above, with the exception of patients at very high risk (mainly because of coronary heart disease). This is in agreement with the current definition of

THE DEFINITION OF *HYPERTENSION*

One important aspect of the 2018 European Society of Cardiology (ESC) and European Society of Hypertension (ESH) guidelines on the management of hypertension was the decision not to change the definition of hypertension [1]. At the time of the presenta-

J Hypertens 2022;40:839-846

RCTs not included in the BPLTTC meta-analysis

acronym	Full name (number of participants)	Prevention (number of partici pants with secondary prevent
MPLISH [17]	Avoiding Cardiovascular Events through Combination Therapy in Patients Living with Systolic Hypertension (11506)	Mixed (5314 with CHD)
N [18]	A Coronary disease Trial Investigating Outcome with Nifedipine GITS (3825)	Secondary
M [19]	Diabetes Reduction Assessment with Ramipril and Rosiglitazone Medication	
	(5269)	Primary
[20]	Felodipine Event Reduction (FEVER) Study (9711)	Mixed (3894 with CVD)
3 [29]	Heart Outcomes Prevention Evaluation - 3 (12705)	Primary
1]	Hypertension Optimal Treatment (18790)	Mixed (3080 with CVD)
NE [22]	Ischemia Management with Accupril post- bypass Graft via Inhibition of the coNverting Enzyme (2553)	Secondary
[23]	Japanese Trial to Assess Optimal Systolic Blood Pressure in Elderly Hypertensive Patients (4418)	Primary
[24]	Medical Research Council trial 1 (17354)	Primary
[25]	Medical Research Council trial 2 (4396))	Primary
ATOR [26]	Nateglinide and Valsartan in Impaired Glucose Tolerance Outcomes	
	Research (9306)	Mixed (2266 with CVD)
MAP [27]	Randomized Olmesartan and Diabetes Microalbuminuria Prevention (4447)	Mixed (1104 with CHD)
28]	Secondary Prevention of Small Subcortical Strokes (3020)	Secondary

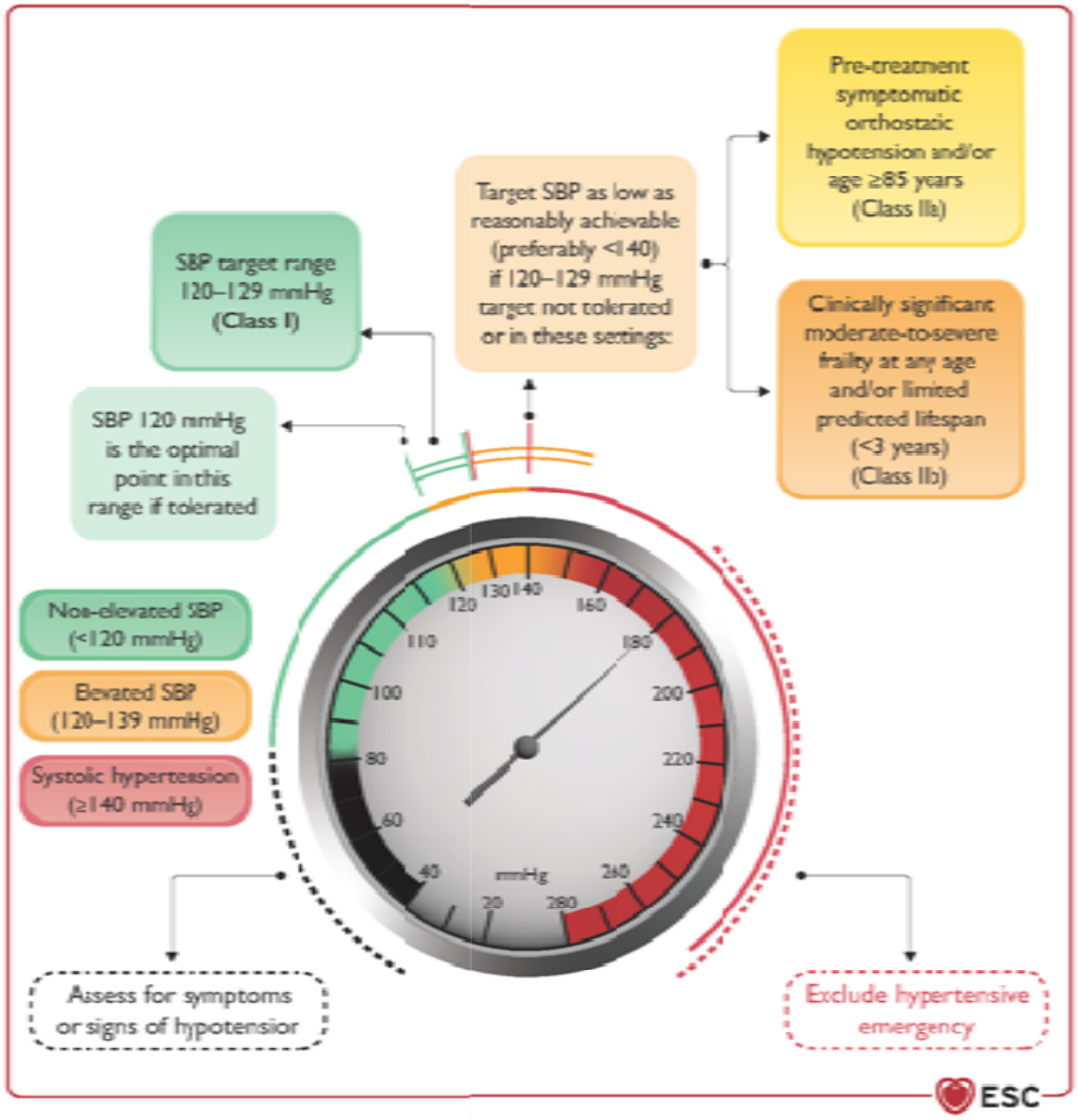
J Hypertens 2022;40:839-846

gure 18

actical algorithm for harmacological blood essure lowering

gure 20

stolic blood pressure tegories and eatment target range



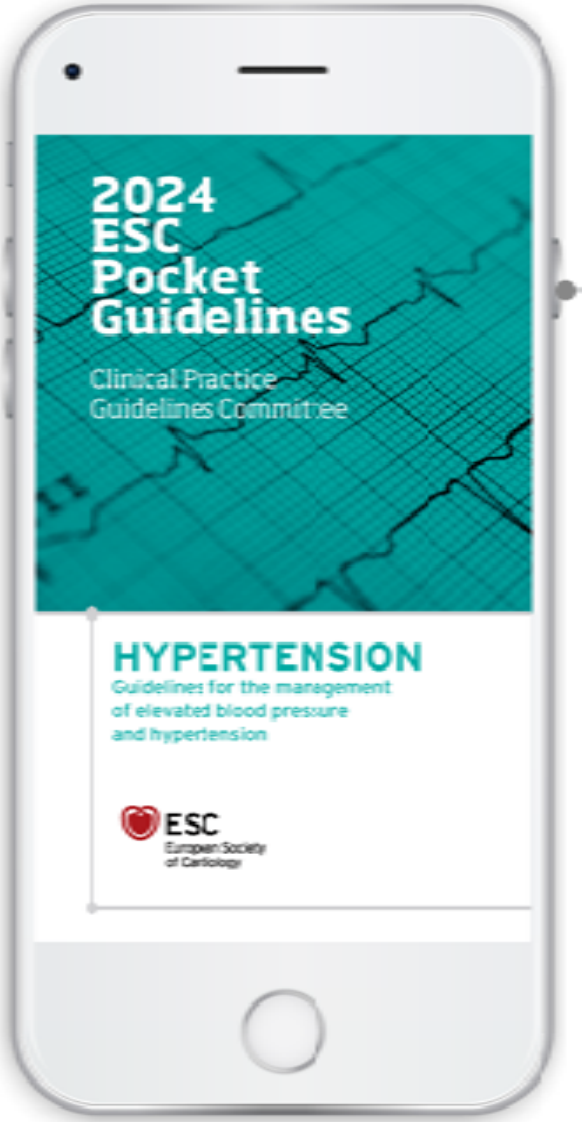
Strategie léčby u pacientů > 80 let

V dobré kondici*	Zpomalený, ale soběstačný ve většině aktivit*	Silně závislý
1. Pokud je STK v ordinaci ≥ 160 mm Hg 2. Zvažte také ve většině případů, je-li STK v ordinaci 140–159 mm Hg	1. Pokud je STK v ordinaci ≥ 160 mm Hg 2. Zvažte také ve většině případů, jsou-li hodnoty STK v ordinaci 140–159 mm Hg	1. Podle komorbidit a polyfarmacie 2. Zvažte léčbu, pokud je STK v ordinaci ≥ 160 mm Hg
3. STK v ordinaci 140–150 mm Hg 4. Rozmezí 130–139 mm Hg lze zvážit při dobré toleranci hodnot TK 5. Buďte opatrní, pokud je DTK nižší než 70 mm Hg	Platí také body 3–5 z části „v dobré kondici“	3. STK v ordinaci 140-150 mm Hg

gure 23

tient-centred care

SC Pocket Guidelines App to access



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2024 ESC Guidelines for the management of elevated blood pressure and hypert
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/eh

ecommendations for screening for secondary hypertension

commendations	Class	Le
s recommended that patients with hypertension presenting with suggestive signs, nptoms or medical history of secondary hypertension are appropriately screened for condary hypertension.	I	
reening for primary aldosteronism by renin and aldosterone measurements should be nsidered in all adults with confirmed hypertension (BP ≥140/90 mmHg).	IIa	

rugs and conditions that affect aldosterone, renin, and dosterone-to-renin ratio (1)

ctor	Effect on plasma aldosterone levels	Effect on renin levels	Effect on ARR
rum potassium status			
pokalaemia	↓	→↑	↓ (FN)
tassium loading	↑	→↓	↑
dium restriction	↑	↑↑	↓ (FN)
dium loading	↓	↓↓	↑ (FP)
ugs			
ta-adrenergic blockers	↓	↓↓	↑ (FP)
lcium channel ockers (DHPs)	→↓	→↑	→↓ (FN with short acting DHPs)
E inhibitors	↓	↑↑	↓ (FN)
Bs	↓	↑↑	↓ (FN)

rugs and conditions that affect aldosterone, renin, and dosterone-to-renin ratio (2)

ctor	Effect on plasma aldosterone levels	Effect on renin levels	Effect on ARR
ugs cont.			
tassium-sparing uretics	↑	↑↑	↓ (FN)
tassium-wasting uretics	→↑	↑↑	↓ (FN)
pha-2 agonists onidine, methyldopa)	↓	↓↓	↑ (FP)
AIDs	↓	↓↓	↑ (FP)
eroids	↓	→↓	↑ (FP)
ntraceptive agents ospirenone)	↑	↑	↑ (FP)

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ORIGINAL ARTICLE

Primary aldosteronism in a general population sample. The Czech post-MONICA study

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- 740 hypertensive individuals; 650 sampled direct plasma renin and serum aldosterone
- Elevated serum aldosterone together with low renin and high ARR were found in 52 (8%); the **diagnosis of PA was confirmed in** 13 of them (**2%**)

2018 ESC/ESH Guidelines for the management of arterial hypertension

Patient characteristics that should raise the suspicion of secondary hypertension

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 phaeochromocytoma or family history of phaeochromocytoma

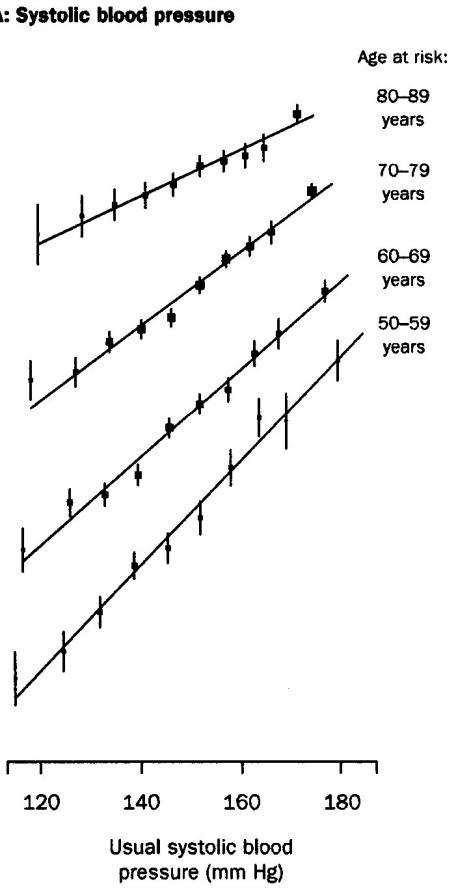
CKD, chronic kidney disease; HMOD, hypertension-mediated organ damage.

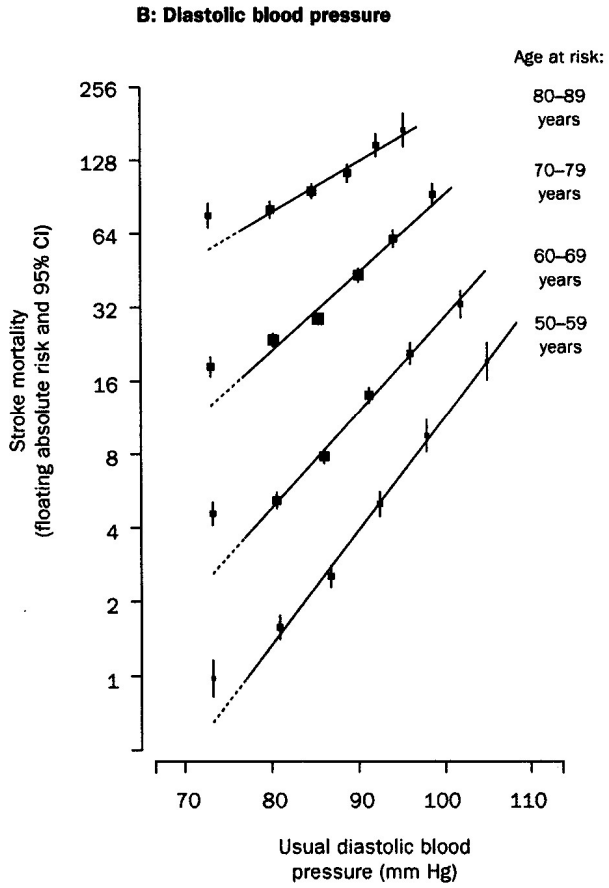
Williams B, Mancia G, Spiering W, et al. J Hypertens. 2018;36(10):1953-2041.

Závěry

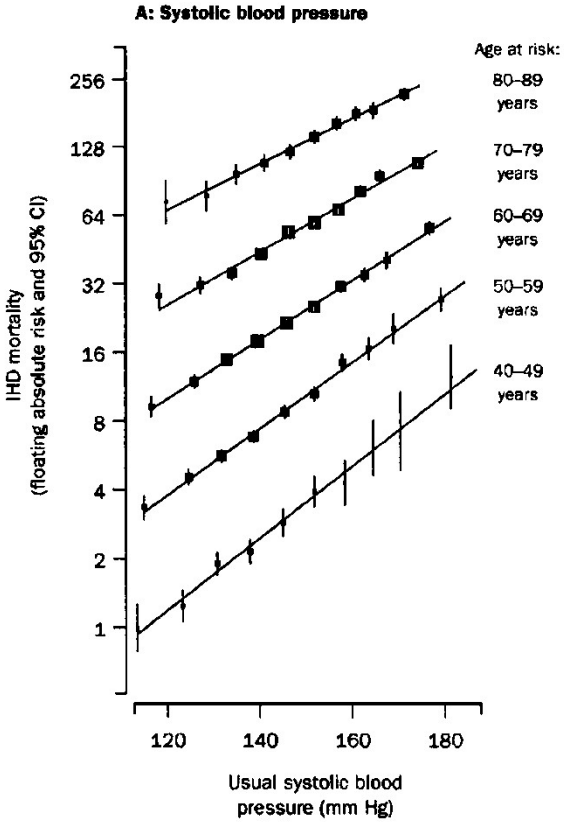
- Existence 2 rozdílných doporučení pro léčbu hypertenze a „zvýšeného TK“ je zavádějící pro lékaře i pacienty.
- Do budoucna je třeba vyvinout maximální úsilí, aby se situace neopakovala.
- Cíle ESC guidelines jsou velmi ambiciózní, v denní praxi obtížně realizovatelné; NÚ léčby jsou brány v potaz jen okrajově.
- Snížení hodnoty TK napříč celou populací může přispět ke snížení zátěže populace spojené s vyššími hodnotami TK.

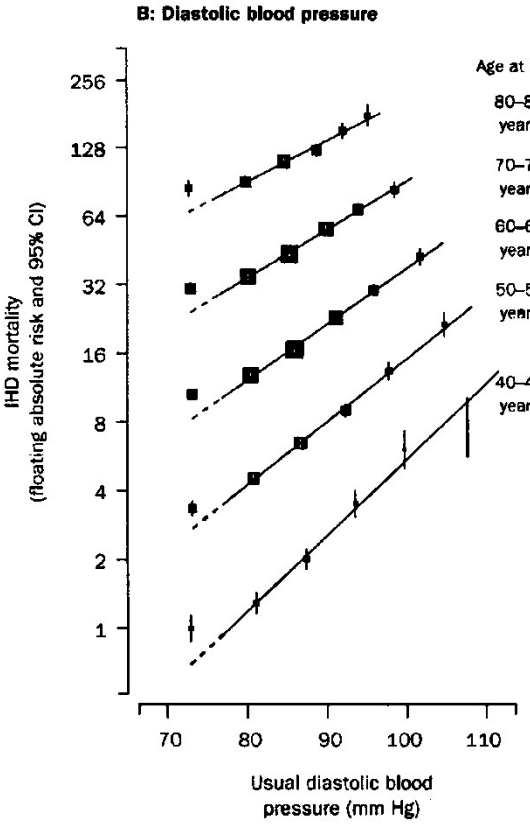
Stroke mortality





IHD mortality





Lancet 2002;360:190

Definition of hypertension

Operational definition (G. Rose):

Hypertension is the level of arterial BP at which the benefits of intervention exceed those of inaction.