Quando e come controllare l'ipertensione e la dislipidemia?

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Medicina Interna

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ESC European Society of Cardiology
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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)*

Focus:

- Ridurre i valori pressori
- Ridurre gli eventi cardiovascolari e le complicanze d'organo

COME CLASSIFICO VALORI PRESSORI E COME STRATIFICO IL RISCHIO CV DEL PAZIENTE IPERTESO?

SCREENING

<40 anni: ogni 3 anni

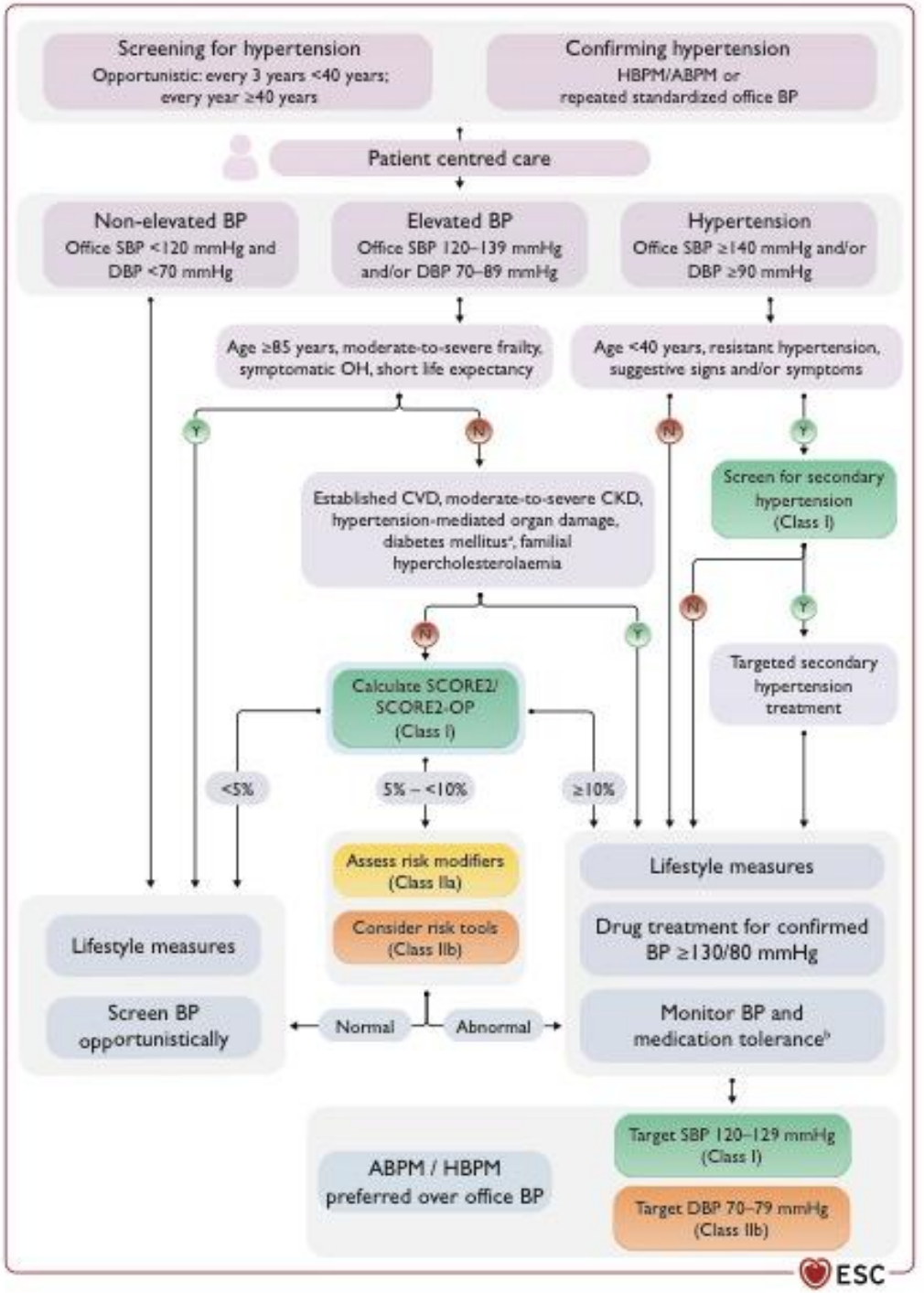
>40 anni ogni anno

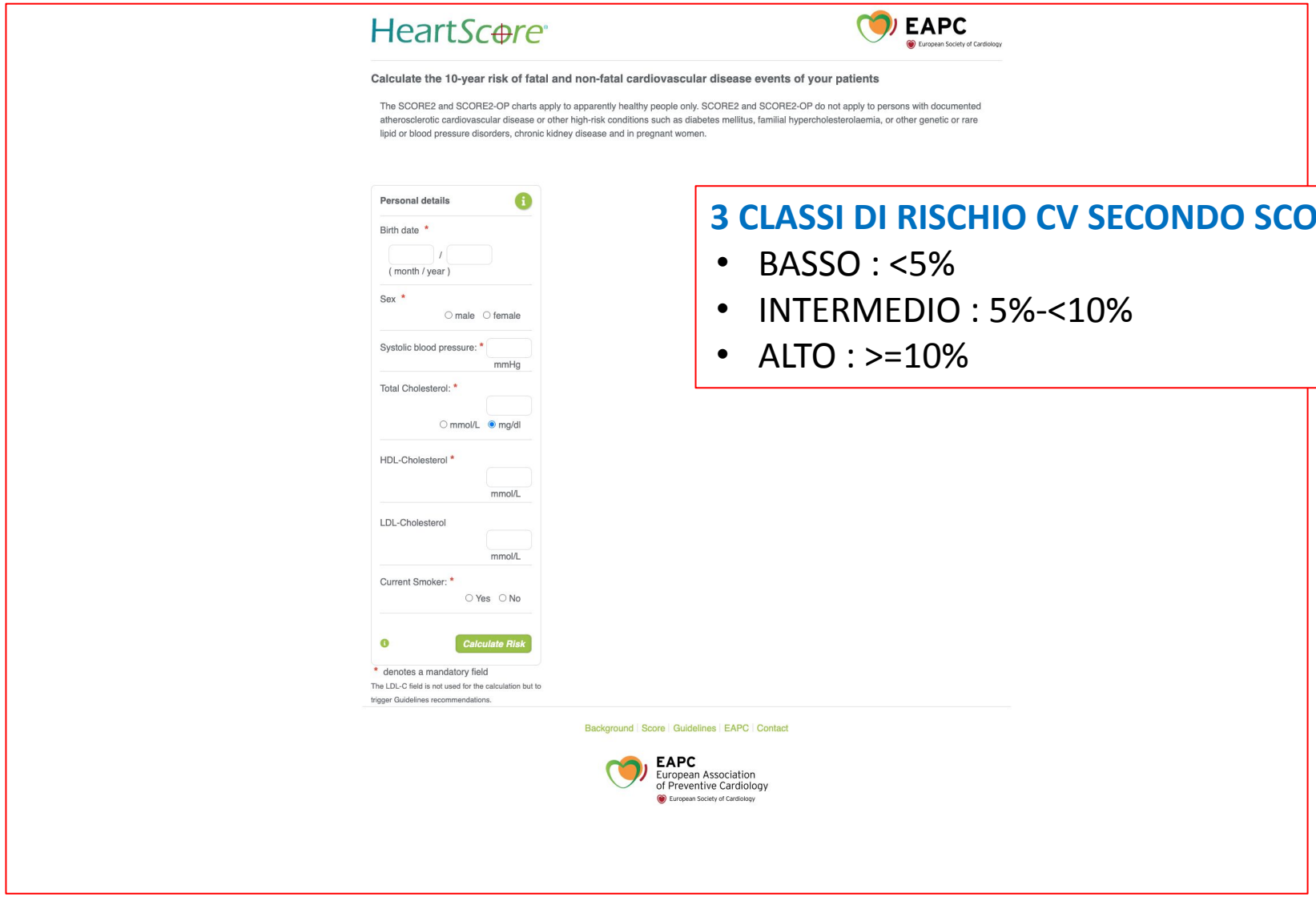
3 CATEGORIE DI PAZIENTI SECONDO PA

- PA NON ELEVATA <120/70
- PA ELEVATA 120-139/70-89
- IPERTENSIONE >140/90

3 CLASSI DI RISCHIO CV SECONDO SCORE2 O SCORE 2 OP

- BASSO : <5%
- INTERMEDIO : 5%-<10%
- ALTO : >=10%





3 CLASSI DI RISCHIO CV SECONDO SCORE2 O SCORE 2 OP

- BASSO : <5%
- INTERMEDIO : 5%-<10%
- ALTO : >=10%

Table 14 **Initiation of blood pressure-lowering treatment based on confirmed blood pressure category and cardiovascular disease risk**

Blood pressure (mmHg)	Non-elevated BP (<120/70)	Elevated BP (120/70 to 139/89)		Hypertension (≥140/90)
Risk		(a) All adults with SBP 120 129 mmHg (b) SBP 130–139 AND 10-year estimated CVD risk <10% AND no high-risk conditions or risk modifiers or abnormal risk tool tests	(a) SBP 130 139 AND high-risk conditions (e.g. established CVD, diabetes mellitus, CKD, FH or HMOD) (b) SBP 130–139 AND 10-year estimated CVD risk ≥10% (c) SBP 130–139 AND 10-year estimated CVD risk 5% - <10% AND risk modifiers or abnormal risk tool tests	Assumed all at sufficiently high risk to benefit from pharmacological treatment
Treatment	Lifestyle measures for prevention Screen BP and CVD risk opportunistically	Lifestyle measures for treatment Monitor BP and CVD risk yearly	Lifestyle measures and pharmacological treatment (after 3-month delay). Monitor BP yearly once treatment control is established	Lifestyle measures and pharmacological treatment (immediate) Monitor BP yearly once treatment control is established
Target (mmHg)	**Maintain BP <120/70**	**Aim BP 120–129/70–79 mmHg**[a]		

BP, blood pressure; CKD, chronic kidney disease; CVD, cardiovascular disease; DBP, diastolic blood pressure; FH, familial hypercholesterolaemia; HMOD, hypertension-mediated organ damage; SBP, systolic blood pressure.

[a]Caution in adults with orthostatic hypotension, moderate-to-severe frailty, limited life expectancy, and older patients (aged ≥85 years).

QUALE TRATTAMENTO?

Monoterapia solo per:

- **PA elevata (120-139/70-89)**
- **Fragilità moderata/severa**
- **Ipotensione ortostatica sintomatica**
- **Età >= 85 anni**

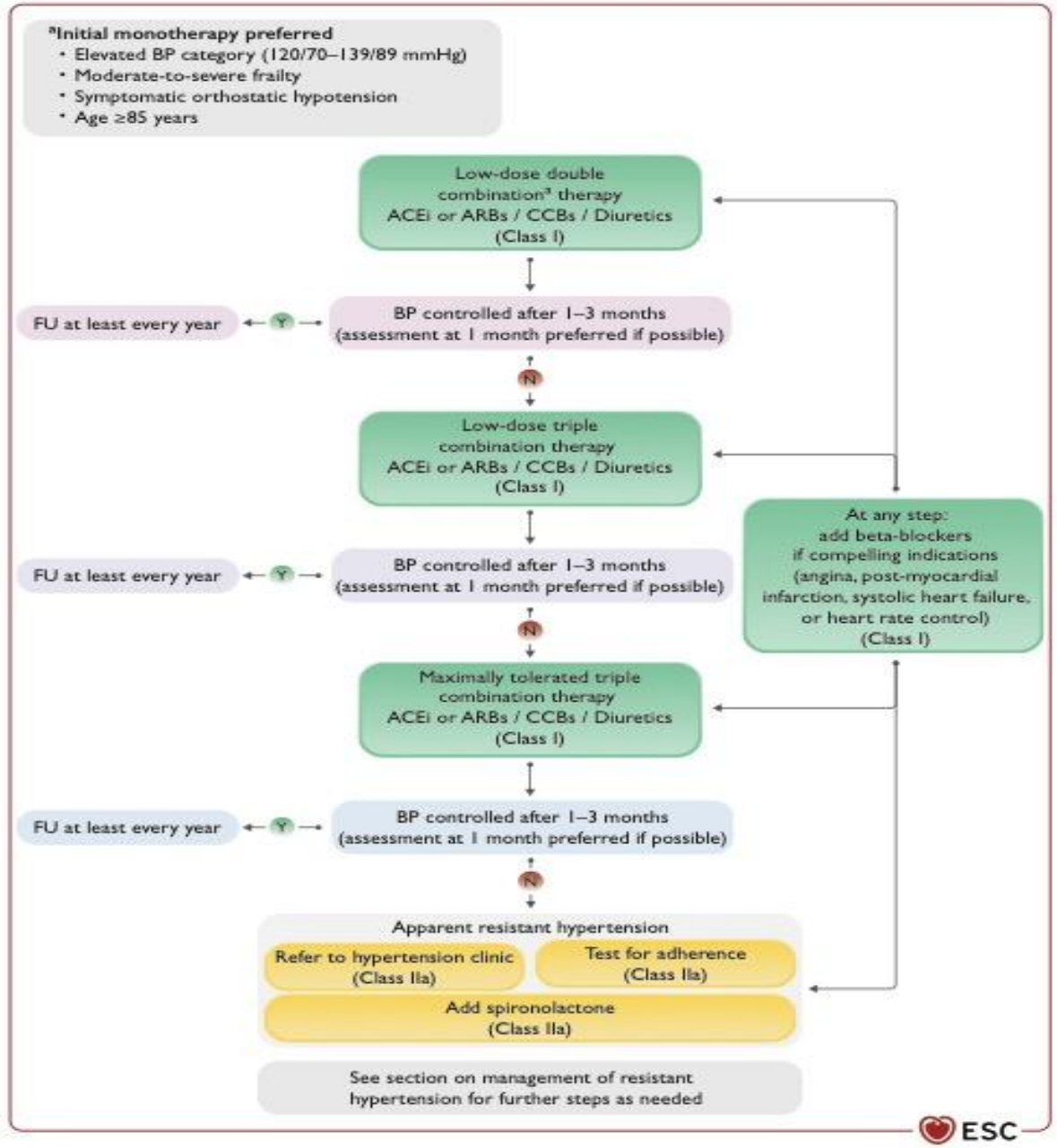
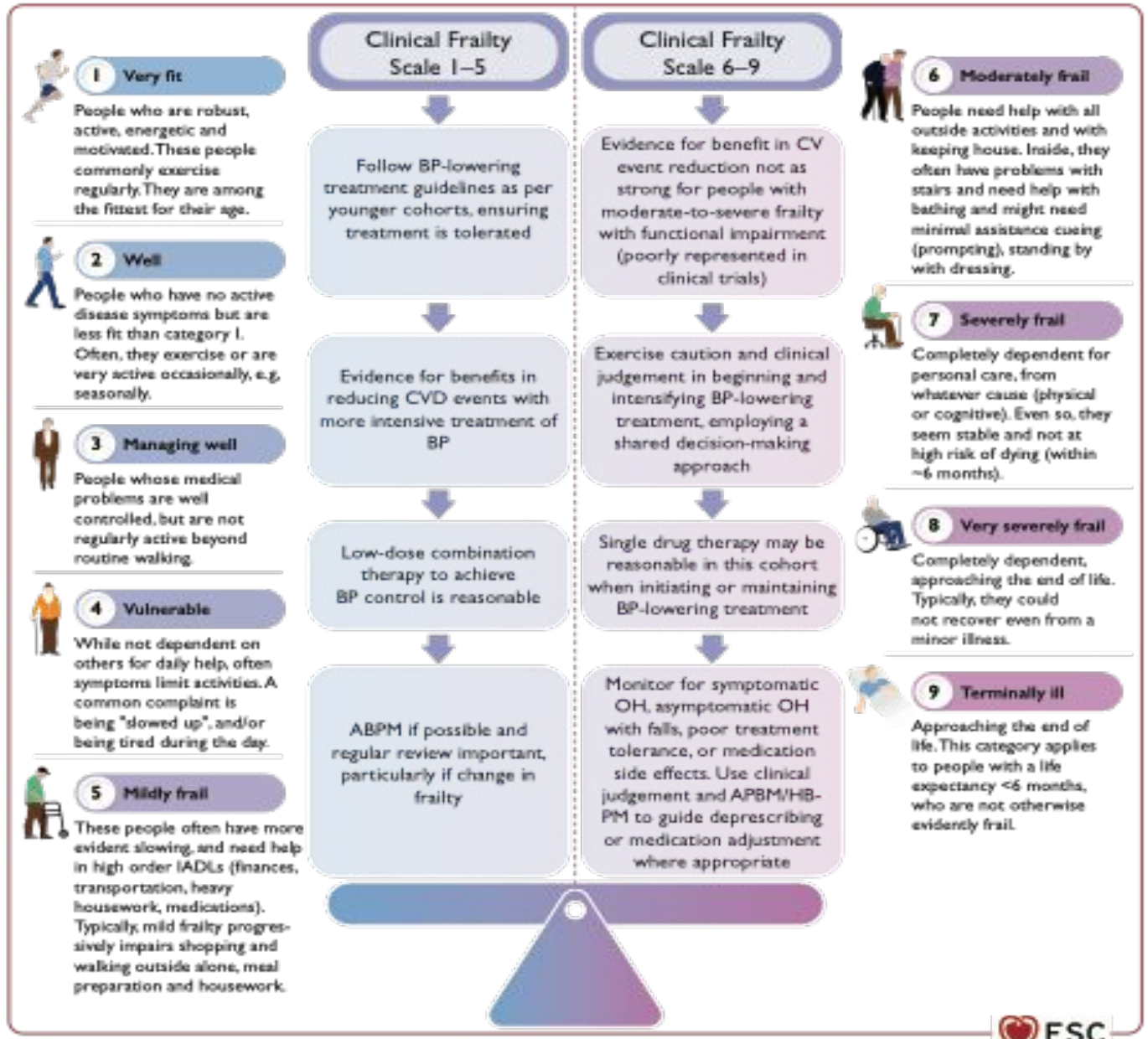


Figure 18 Practical algorithm for pharmacological blood pressure lowering. ACEi, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; BP, blood pressure; CCB, calcium channel blocker; FU, follow-up.


Clinical Frailty Scale 1–5
Clinical Frailty Scale 6–9
1 Very fit
People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.
2 Well
People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g. seasonally.
3 Managing well
People whose medical problems are well controlled, but are not regularly active beyond routine walking.
4 Vulnerable
While not dependent on others for daily help, often symptoms limit activities. A common complaint is being "slowed up", and/or being tired during the day.
5 Mildly frail
These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.
Follow BP-lowering treatment guidelines as per younger cohorts, ensuring treatment is tolerated
Evidence for benefits in reducing CVD events with more intensive treatment of BP
Low-dose combination therapy to achieve BP control is reasonable
ABPM if possible and regular review important, particularly if change in frailty
Evidence for benefit in CV event reduction not as strong for people with moderate-to-severe frailty with functional impairment (poorly represented in clinical trials)
Exercise caution and clinical judgement in beginning and intensifying BP-lowering treatment, employing a shared decision-making approach
Single drug therapy may be reasonable in this cohort when initiating or maintaining BP-lowering treatment
Monitor for symptomatic OH, asymptomatic OH with falls, poor treatment tolerance, or medication side effects. Use clinical judgement and APBM/HBPM to guide deprescribing or medication adjustment where appropriate
6 Moderately frail
People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance cueing (prompting), standing by with dressing.
7 Severely frail
Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~6 months).
8 Very severely frail
Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.
9 Terminally ill
Approaching the end of life. This category applies to people with a life expectancy <6 months, who are not otherwise evidently frail.
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6 Moderately frail

Necessita di aiuto per tutte le attività esterne e per la cura della casa. All'interno, hanno spesso problemi con le scale e hanno bisogno di aiuto per fare il bagno e potrebbero aver bisogno di un'assistenza minima per la vestizione.

7 Severely frail

Completamente dipendente per la cura personale, per qualsiasi causa (fisica o cognitiva). Tuttavia sono stabili e non ad alto rischio di morire (entro ~6 mesi).

QUALE TRATTAMENTO?

Monoterapia solo per:

- **PA elevata** (120/70-139/89 mmHg)
- **Fragilità moderata/severa**
- **Ipotensione ortostatica sintomatica**
- **Età >= 85 anni**

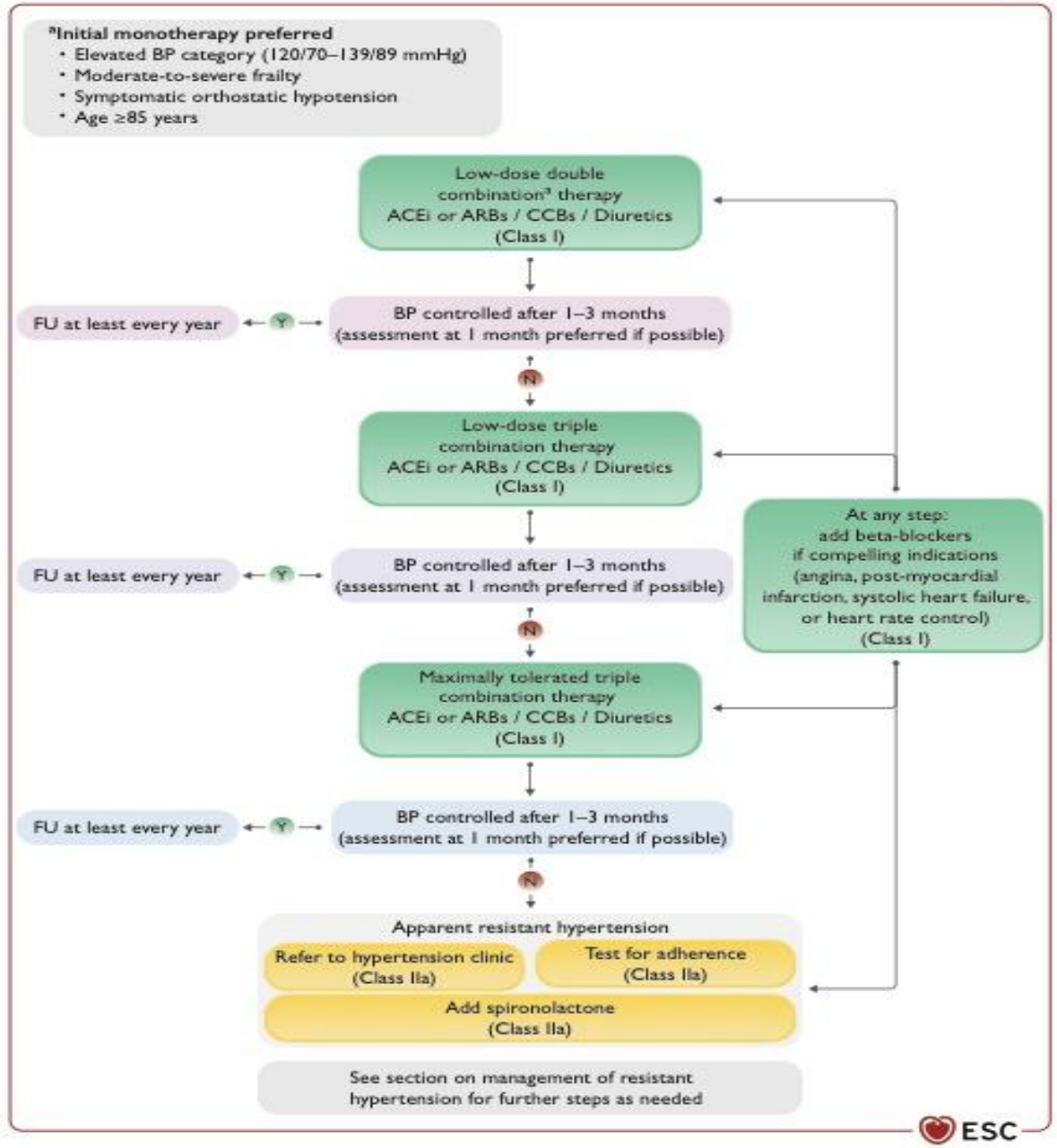


Figure 18 Practical algorithm for pharmacological blood pressure lowering. ACEi, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; BP, blood pressure; CCB, calcium channel blocker; FU, follow-up.

1. Duplice associazione a bassa dose:

- **ACEi o ARB/CCBs/Diuretics**

2. Triplice associazione a bassa dose:

- **ACEi o ARB/CCBs/Diuretics**

3. Triplice associazione alla massima dose tollerata:

- **ACEi o ARB/CCBs/Diuretics**

4. Spironolattone

- **Se ipertensione resistente**

<u>Ad ogni step segue un controllo a 1-3 mesi</u>

Betaboloccante:

Può essere aggiunto ad ogni step se:

- **Angina**
- **Post IMA**
- **Scompenso sistolico**
- **Rate control**

TARGET 120-129/70-79 mmHg

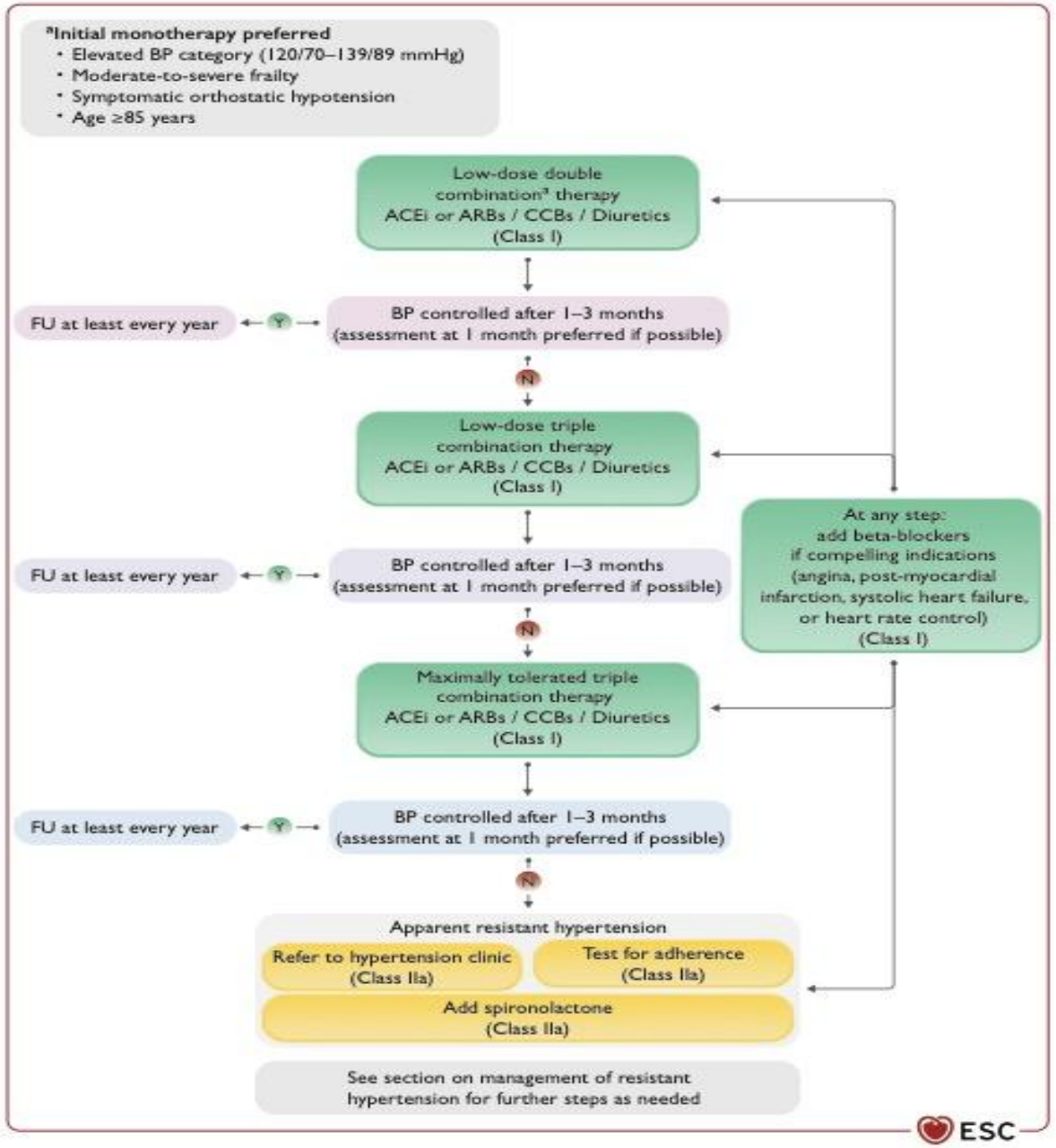


Figure 18 Practical algorithm for pharmacological blood pressure lowering. ACEi, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; BP, blood pressure; CCB, calcium channel blocker; FU, follow-up.

Riduzione attesa dei valori pressori con terapia farmacologica

- **L'entità della riduzione** della pressione arteriosa ottenuta con le principali classi di farmaci antipertensivi (ACE-inibitori, ARB, diidropiridina CCB, diuretici e beta-bloccanti) in monoterapia **è complessivamente simile**.
- La riduzione della pressione arteriosa con **dosi standard** di una qualsiasi di queste cinque classi può essere di circa **9/5 mmHg** (office BP)
  La terapia di combinazione (ad esempio con **tre farmaci a metà dose** standard) a breve termine può ridurre la pressione arteriosa fino a **20/11 mmHg**.
  L'effetto di riduzione della pressione arteriosa dato dalla terapia farmacologica è tipicamente evidente **dopo 1-2 settimane di trattamento**, ma l'effetto massimo potrebbe richiedere più tempo per manifestarsi.
- Pertanto, il **follow-up consigliato dopo 1-3 mesi** (preferibilmente 1 mese con un medico di famiglia o uno specialista) **consente di valutare la tolleranza/sicurezza**, ma consente anche un tempo sufficiente per **valutare l'effetto completo** di riduzione della pressione arteriosa di ciascuna titolazione del farmaco

Aderenza alla terapia

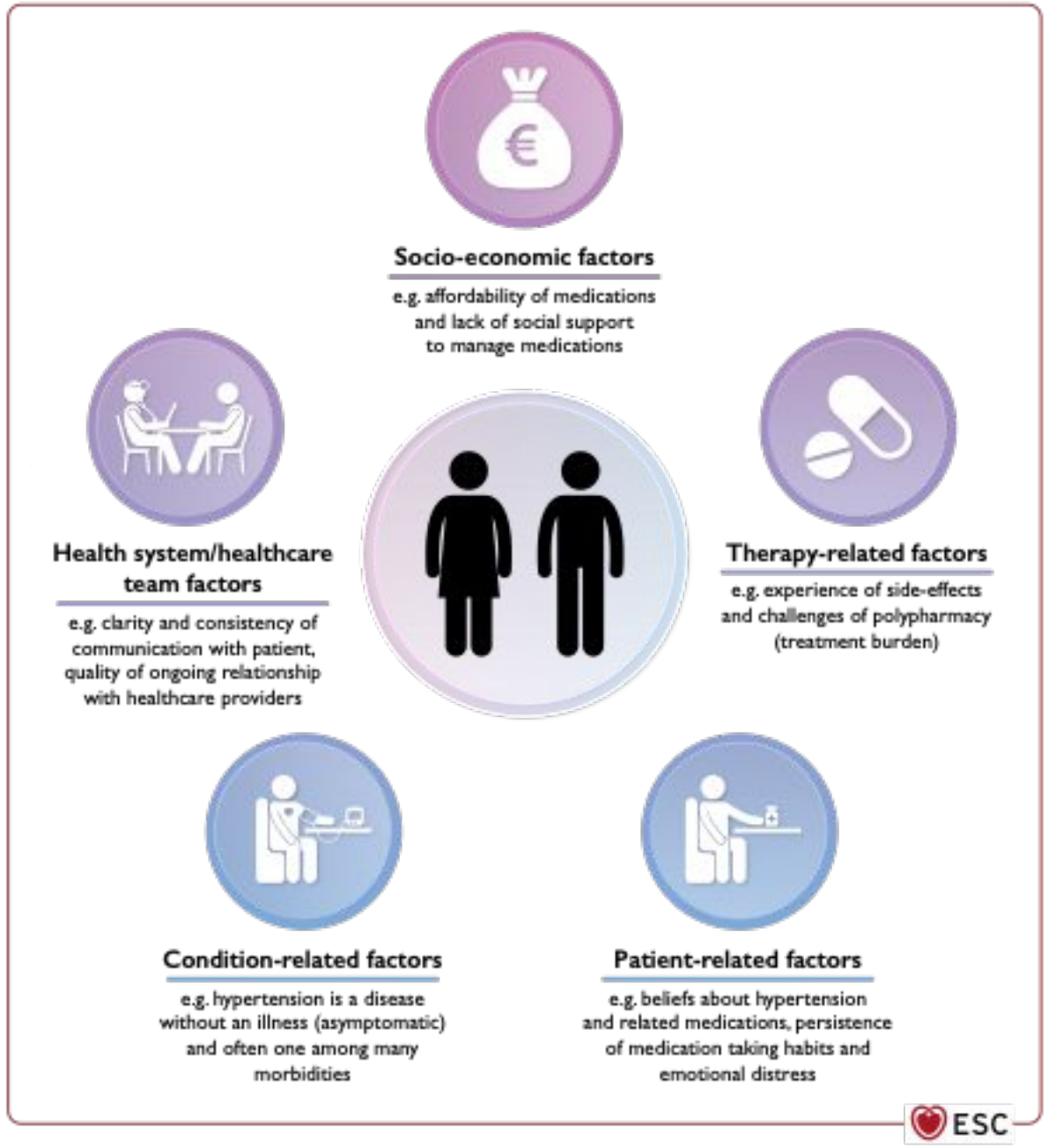
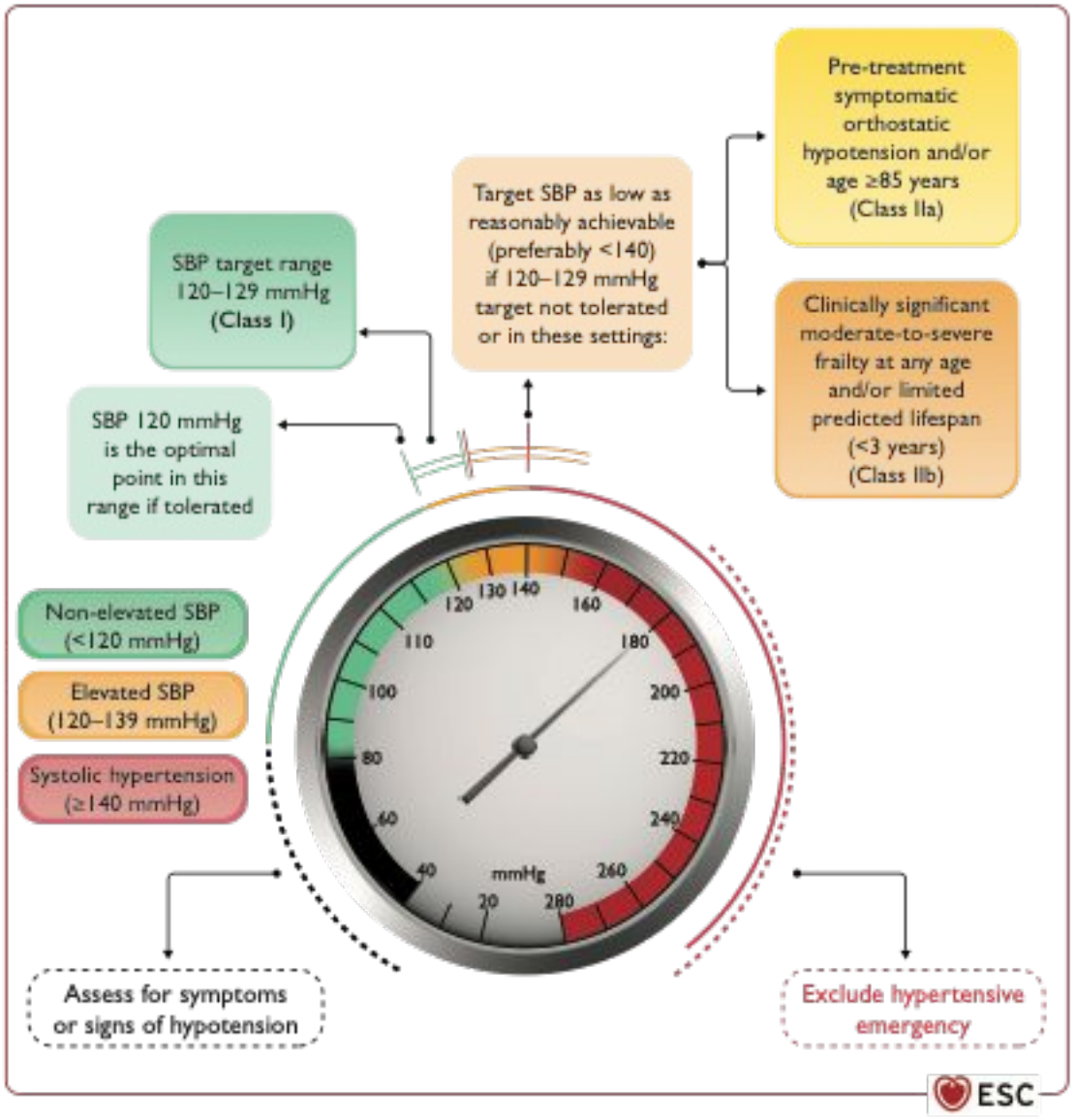


Figure 24 The five dimensions of adherence (WHO, 2003) applied to hypertension.

Systolic blood pressure categories and treatment target range.

In cases **where BP-lowering treatment is not well tolerated** and a target of 120–129/70–79 mmHg is not possible, it is recommended to follow the '**as low as reasonably achievable'** (ALARA) principle, by targeting treatment to a BP that is as low as reasonably achievable.

Recommendations	Class[a]	Level[b]
To reduce CVD risk, it is recommended that treated systolic BP values in most adults be targeted to 120–129 mmHg, provided the treatment is well tolerated.[22,122,131,523,541]	I	A
In cases where BP-lowering treatment is poorly tolerated and achieving a systolic of 120–129 mmHg is not possible, it is recommended to target a systolic BP level that is 'as low as reasonably achievable' (ALARA principle).[22,122,131,523,541]	I	A



Recommendation Table 17 — Recommendations for initiating blood pressure-lowering treatment (see Evidence Tables 30–32)

Recommendations	Class[a]	Level[b]
Negli adulti con **pressione arteriosa elevata** e rischio CV basso/medio (<10% in 10 anni), la **riduzione della PA con misure di stile di vita** sono raccomandate e possono ridurre il rischio di CVD.	I	B
Negli adulti con **pressione arteriosa elevata** e **rischio CV sufficientemente elevato**, dopo 3 mesi di intervento sullo stile di vita, si raccomanda di passare al **trattamento farmacologico** per quelli con pressione arteriosa confermata ≥**130/80 mmHg** per ridurre il rischio di CVD.	I	A
Si raccomanda che nei pazienti ipertesi con **PA confermata** ≥**140/90** mmHg, **indipendentemente dal rischio di CVD**, le misure di stile di vita e il trattamento farmacologico per abbassare la pressione arteriosa ~~siano **iniziati prontamente per ridurre il rischio**~~	I	A
Si raccomanda di mantenere il **trattamento farmacologico** per ~~abbassare la pressione arteriosa **per tutta la vita, anche oltre l'età di 85 anni**~~, se ben tollerato.	I	A
Tra le persone che soddisfano i seguenti criteri: ipotensione ortostatica sintomatica pre-trattamento, età ≥85 anni, fragilità da moderata a grave clinicamente significativa e/o durata della vita prevista limitata (<3 anni). Poiché il **beneficio nel ridurre gli esiti delle CVD è incerto** in questi contesti, e notando che si consiglia un attento monitoraggio della tolleranza al trattamento, il trattamento per abbassare la pressione arteriosa dovrebbe essere preso in considerazione **solo a partire da ~~≥140/90 mmHg~~**	IIa	B

Recommendation Table 25 — Recommendations for managing hypertension in patients with diabetes

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

DIABETE

PRE-DIABETE

TARGET

TARGET

Recommendation Table 28 — Recommendations for managing hypertension in patients with chronic cerebrovascular disease and cognitive impairment

Recommendations	Class[a]	Level[b]
It is recommended that the BP-lowering drug treatment strategy for preventing recurrent stroke should comprise a RAS blocker plus a CCB or a thiazide-like diuretic.[820,823,825,826]	I	A
In patients with confirmed BP ≥130/80 mmHg with a history of TIA or stroke a systolic BP target of 120–129 mmHg is recommended to reduce CVD outcomes, provided treatment is tolerated.[824,827,828]	I	A

MISURAZIONE DELLA PA NEI DIVERSI SETTING

Ambulatory blood pressure measurement

1. Use a validated BP device
2. Device usually records BP at 15–30 min intervals during the day and 30–60 min at night
3. A minimum of 70% usable BP recordings is required
4. A diary of the patient's activities, intake of medications and sleep time should be completed

Hypertension:
ABPM ≥130/80 mmHg over 24 h
or
≥135/85 mmHg for the daytime average
or
≥120/70 mmHg for the night-time average

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Home-based blood pressure measurement

1. Use a validated BP device
2. Measure BP in a quiet room after 5 min of rest with arm and back supported
3. Obtain two readings on each occasion, 1–2 min apart
4. Obtain readings twice a day (morning[a] and evening) for at least 3 and ideally 7 days
5. Record and average all readings and present results to clinician

Hypertension:
average HBPM
≥135/85 mmHg

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Blood pressure classification

Non-elevated blood pressure	Elevated blood pressure	Hypertension
Office BP SBP <120 mmHg and DBP <70 mmHg	**Office BP** SBP 120–139 mmHg or DBP 70–89 mmHg	**Office BP** SBP ≥140 mmHg or DBP ≥90 mmHg
HBPM SBP <120 mmHg and DBP <70 mmHg	**HBPM** SBP 120–134 mmHg or DBP 70–84 mmHg	**HBPM** SBP ≥135 mmHg or DBP ≥85 mmHg
ABPM Daytime SBP <120 mmHg and Daytime DBP <70 mmHg	**ABPM** Daytime SBP 120–134 mmHg or Daytime DBP 70–84 mmHg	**ABPM** Daytime SBP ≥135 mmHg or Daytime DBP ≥85 mmHg
Insufficient evidence confirming the efficacy and safety of BP pharmacological treatment	Risk stratify to identify individuals with high cardiovascular risk for BP pharmacological treatment	Cardiovascular risk is sufficiently high to merit BP pharmacological treatment initiation

The diagnosis of hypertension and elevated BP requires confirmation using out-of-office measurements (HBPM or ABPM) or at least one additional subsequent office measurement

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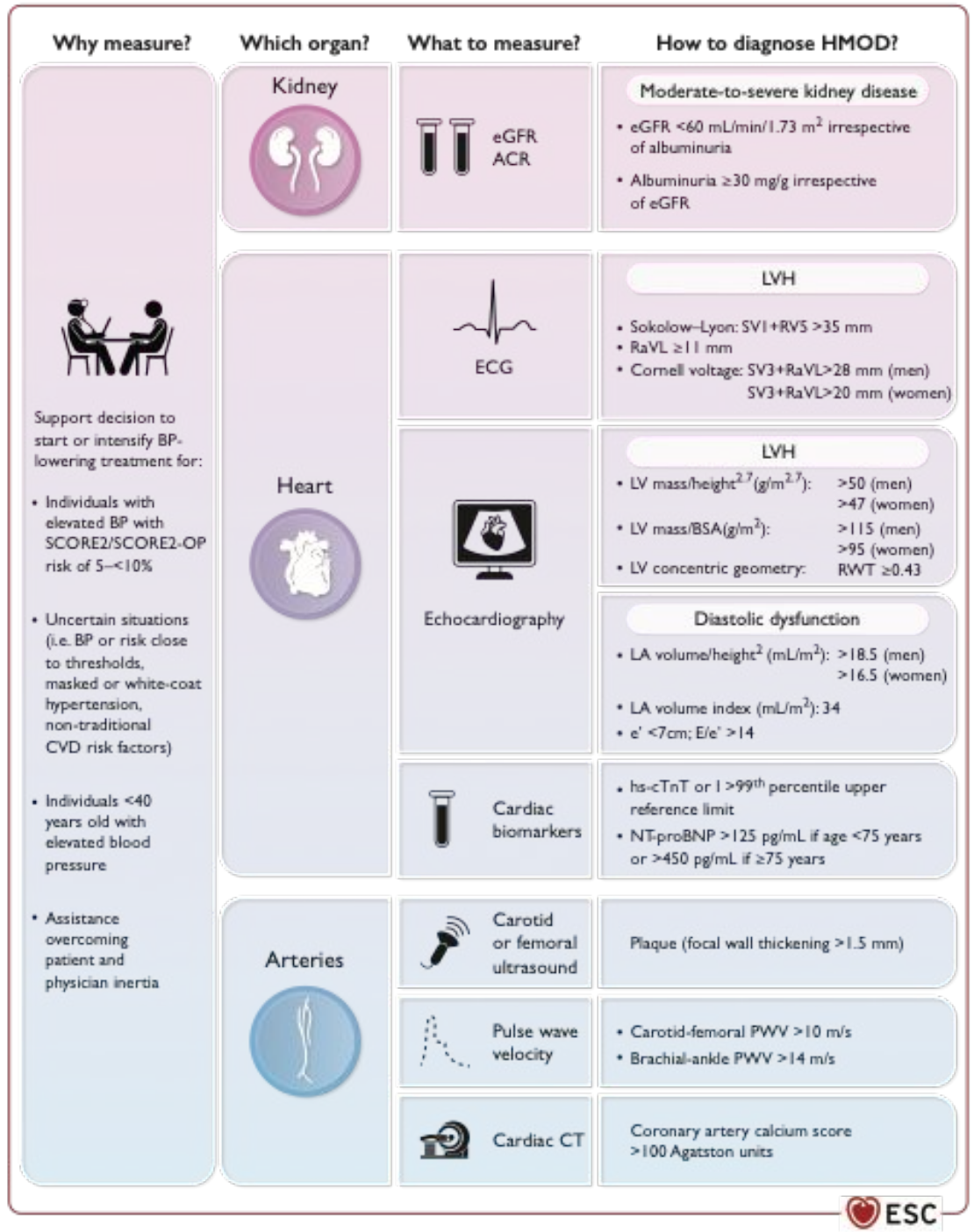
Why measure?
Which organ?
What to measure?
How to diagnose HMOD?
Support decision to start or intensify BP-lowering treatment for:
• Individuals with elevated BP with SCORE2/SCORE2-OP risk of 5–<10%
• Uncertain situations (i.e. BP or risk close to thresholds, masked or white-coat hypertension, non-traditional CVD risk factors)
• Individuals <40 years old with elevated blood pressure
• Assistance overcoming patient and physician inertia
Kidney
eGFR
ACR
Moderate-to-severe kidney disease
• eGFR <60 mL/min/1.73 m2 irrespective of albuminuria
• Albuminuria ≥30 mg/g irrespective of eGFR
Heart
ECG
LVH
• Sokolow–Lyon: SV1+RV5 >35 mm
• RaVL ≥11 mm
• Cornell voltage: SV3+RaVL>28 mm (men) SV3+RaVL>20 mm (women)
Echocardiography
LVH
• LV mass/height2.7(g/m2.7): >50 (men) >47 (women)
• LV mass/BSA(g/m2): >115 (men) >95 (women)
• LV concentric geometry: RWT ≥0.43
Diastolic dysfunction
• LA volume/height2 (mL/m2): >18.5 (men) >16.5 (women)
• LA volume index (mL/m2): 34
• e' <7cm; E/e' >14
Cardiac biomarkers
• hs-cTnT or I >99th percentile upper reference limit
• NT-proBNP >125 pg/mL if age <75 years or >450 pg/mL if ≥75 years
Arteries
Carotid or femoral ultrasound
Plaque (focal wall thickening >1.5 mm)
Pulse wave velocity
• Carotid-femoral PWV >10 m/s
• Brachial-ankle PWV >14 m/s
Cardiac CT
Coronary artery calcium score >100 Agatston units
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Risk modifiers

Sex-specific modifiers (Class IIa)


Gestational diabetes


Gestational hypertension


Pre-eclampsia


Pre-term delivery


One or more stillbirth


Recurrent miscarriage

Shared modifiers (Class IIa)


High-risk ethnicity


Family history of premature onset ASCVD


Socio-economic deprivation


Auto-immune inflammatory diseases


Severe mental illness


HIV

ESC

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ESC GUIDELINES

2025 Focused Update of the 2019 ESC/EAS Guidelines for the management of dyslipidaemias

Developed by the task force for the management of dyslipidaemias of the European Society of Cardiology (ESC) and the European Atherosclerosis Society (EAS)

Focus:

- stratificazione del rischio CV
- Target LDL

Qual è il rischio di evento cardiovascolare?

Qual è il target di LDL?

Table 3 Cardiovascular risk categories

Very high risk	People with any of the following: • Documented ASCVD, either clinical or unequivocal on imaging. Documented ASCVD includes previous ACS (MI or unstable angina), chronic coronary syndromes, coronary revascularization (PCI, CABG, and other arterial revascularization procedures), stroke and TIA, and peripheral arterial disease. Unequivocally documented ASCVD on imaging includes those findings that are known to be predictive of clinical events, such as significant plaque[a] on coronary angiography or CT scan or on carotid or femoral ultrasound or markedly elevated CAC score by CT[b] • DM with target organ damage,[c] or at least three major risk factors, or early onset of T1DM of long duration (>20 years) • Severe CKD (eGFR <30 mL/min/1.73 m^2) • A calculated SCORE2 or SCORE2-OP ≥20% for 10 year risk of fatal or non-fatal CVD • FH with ASCVD or with another major risk factor
High risk	People with any of the following: • Markedly elevated single risk factors, in particular TC >8 mmol/L (>310 mg/dL), LDL-C >4.9 mmol/L (>190 mg/dL), or BP ≥180/110 mmHg • Patients with FH without other major risk factors • Patients with DM without target organ damage,[c] with DM duration ≥10 years or another additional risk factor • Moderate CKD (eGFR 30–59 mL/min/1.73 m^2) • A calculated SCORE2 or SCORE2-OP ≥10% and <20% for 10 year risk of fatal or non-fatal CVD
Moderate risk	People with any of the following: • Young patients (T1DM <35 years; T2DM <50 years) with DM duration <10 years, without other risk factors • Calculated SCORE2 or SCORE2-OP ≥2% and <10% for 10 year risk of fatal or non-fatal CVD
Low risk	• Calculated SCORE2 or SCORE2-OP <2% for 10 year risk of fatal or non-fatal CVD

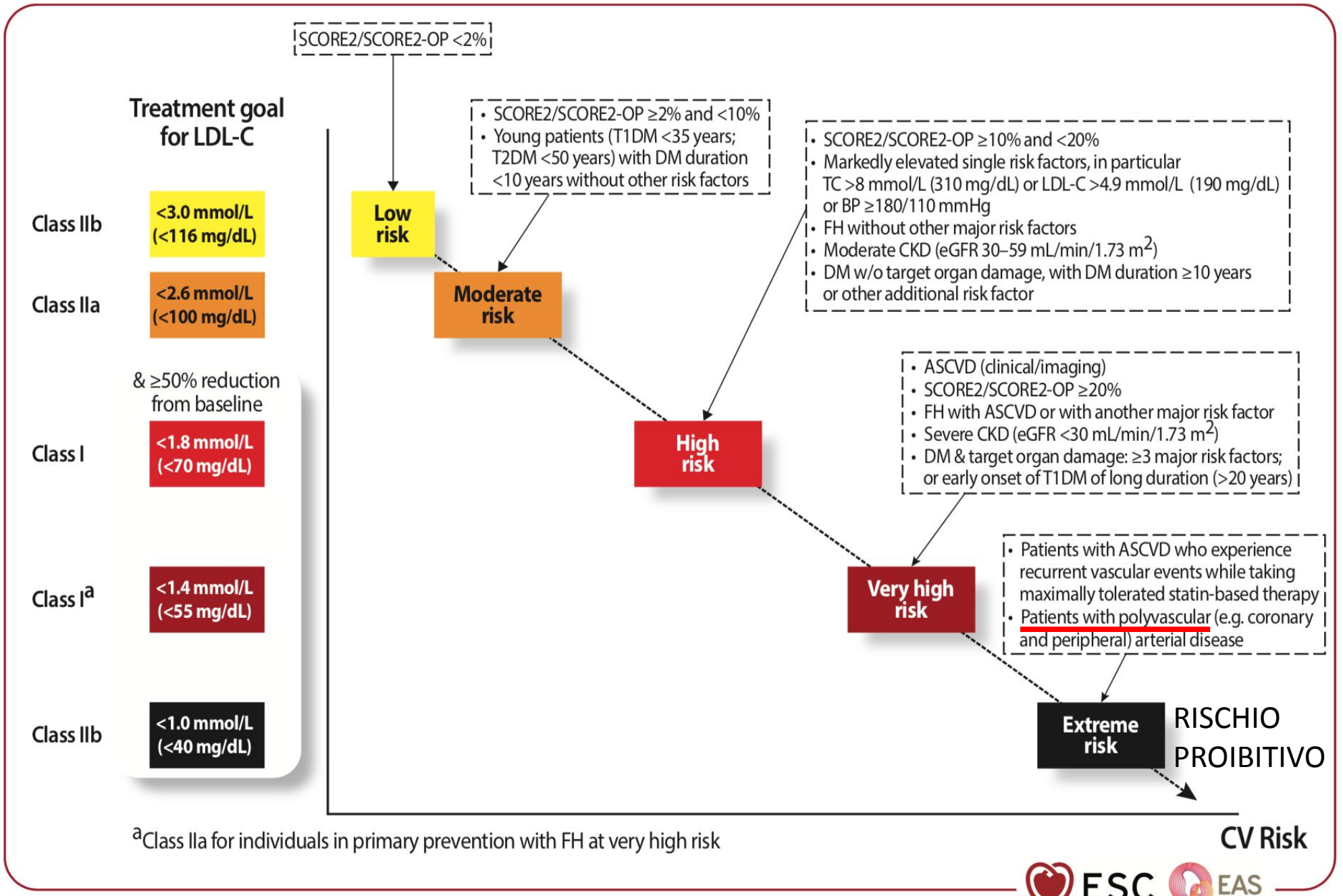
Table 4 Intervention strategies as a function of total cardiovascular risk and untreated low-density lipoprotein cholesterol levels

Total CV risk	Untreated LDL-C levels					
	<1.4 mmol/L (<55 mg/dL)	1.4 to <1.8 mmol/L (55 to <70 mg/dL)	1.8 to <2.6 mmol/L (70 to <100 mg/dL)	2.6 to <3.0 mmol/L (100 to <116 mg/dL)	3.0 to <4.9 mmol/L (116 to <190 mg/dL	≥4.9 mmol/L (≥190 mg/dL)[a]
Low	Lifestyle advice	Lifestyle advice	Lifestyle advice	Lifestyle advice	Lifestyle modification, consider adding drug if uncontrolled	N/A[a]
Moderate	Lifestyle advice	Lifestyle advice	Lifestyle advice	Lifestyle modification, consider adding drug if uncontrolled	Lifestyle modification, consider adding drug if uncontrolled	N/A[a]
High	Lifestyle advice	Lifestyle advice	Lifestyle modification, consider adding drug if uncontrolled	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention
Very high: primary prevention	Lifestyle modification, consider adding drug	Lifestyle modification, consider adding drug	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention
Very high: secondary prevention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention

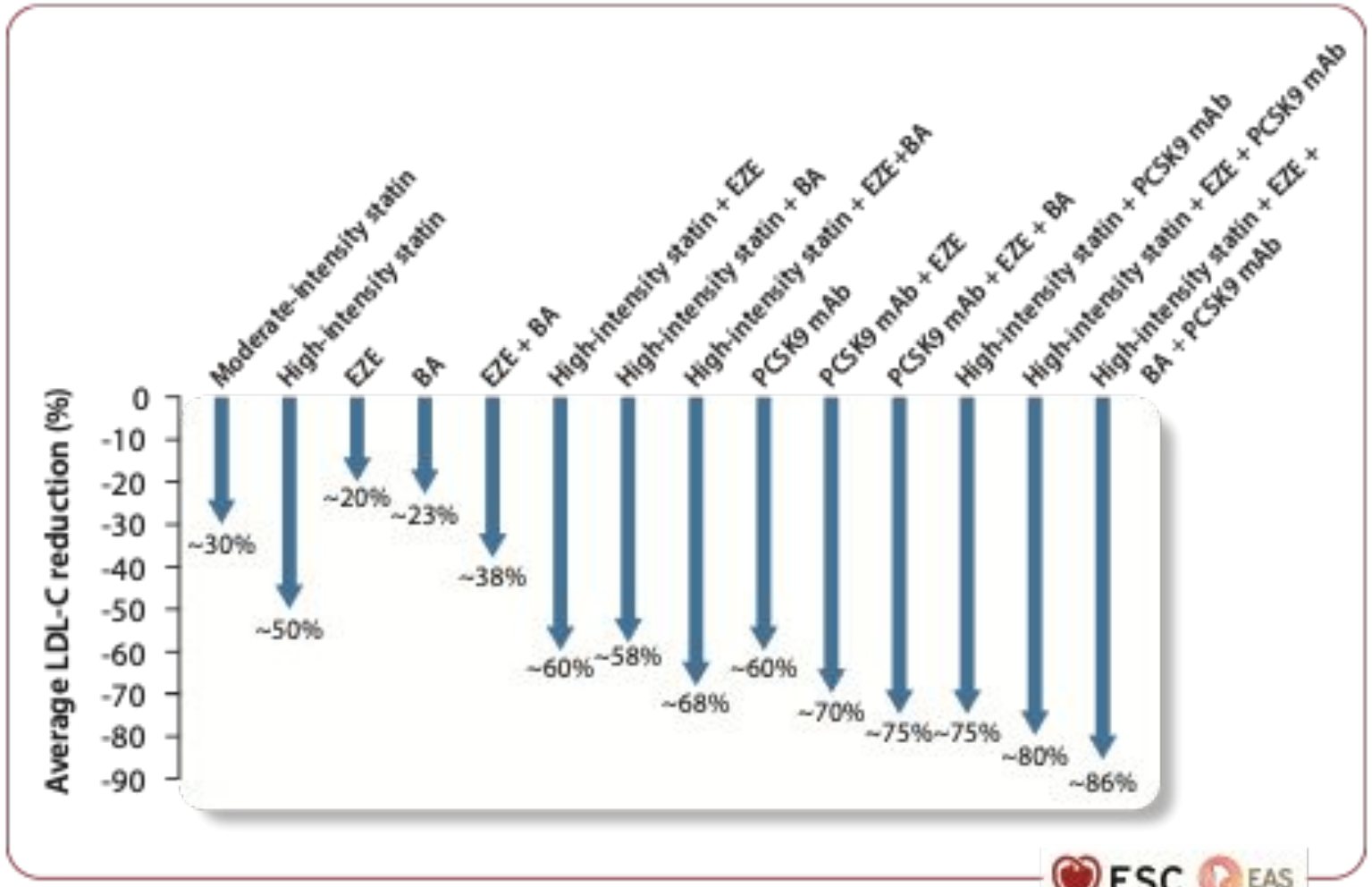
Recommendation Table 1 — Recommendations for cardiovascular risk estimation in persons without known cardiovascular disease (see also Supplementary data online, Evidence Table 1)

Recommendations	Class[a]	Level[b]
SCORE2 is recommended in apparently healthy people <70 years of age without established ASCVD, DM, CKD, genetic/rare lipid or BP disorders for estimation of 10-year fatal and non-fatal CVD risk.[2 c]	I	B
SCORE2-OP is recommended in apparently healthy people ≥70 years of age without established ASCVD, DM, CKD, genetic/rare lipid or BP disorders for estimation of 10-year fatal and non-fatal CVD risk.[3 c]	I	B
Presence of subclinical coronary atherosclerosis by imaging or increased CAC score by CT should be considered as risk modifiers in individuals at moderate risk or individuals around treatment decision thresholds to improve risk classification.[24,27,28,36 d]	IIa	B
Risk modifiers[e] should be considered in individuals at moderate risk or individuals around treatment decision thresholds to improve risk classification.[17,27,37 f]	IIa	B
In primary prevention,[g] pharmacological LDL-C-lowering therapy is recommended in persons: • at very high risk and LDL-C ≥1.8 mmol/L (70 mg/dL), or • at high risk and LDL-C ≥2.6 mmol/L (100 mg/dL) despite optimization of non-pharmacological measures, to lower CVD risk.[1,13,38,39]	I	A
In primary prevention,[g] pharmacological LDL-C-lowering therapy should be considered in persons: • at very high risk and LDL-C ≥1.4 mmol/L (55 mg/dL) but <1.8 mmol/L (70 mg/dL), or • at high risk and LDL-C ≥1.8 mmol/L (70 mg/dL) but <2.6 mmol/L (100 mg/dL), or • at moderate risk and LDL-C ≥2.6 mmol(L (100 mg/dL) but <4.9 mmol/L (190 mg/dL), or • at low risk and LDL-C ≥3.0 mmol/L (116 mg/dL) but <4.9 mmol/L (190 mg/dL) despite optimization of non-pharmacological measures, to lower CVD risk.[1,13,38,39]	IIa	A

PREVENZIONE PRIMARIA


SCORE2/SCORE2-OP <2%
Treatment goal for LDL-C
Class IIb
<3.0 mmol/L (<116 mg/dL)
Class IIa
<2.6 mmol/L (<100 mg/dL)
& ≥50% reduction from baseline
Class I
<1.8 mmol/L (<70 mg/dL)
Class I[a]
<1.4 mmol/L (<55 mg/dL)
Class IIb
<1.0 mmol/L (<40 mg/dL)
Low risk
• SCORE2/SCORE2-OP ≥2% and <10%
• Young patients (T1DM <35 years; T2DM <50 years) with DM duration <10 years without other risk factors
Moderate risk
• SCORE2/SCORE2-OP ≥10% and <20%
• Markedly elevated single risk factors, in particular TC >8 mmol/L (310 mg/dL) or LDL-C >4.9 mmol/L (190 mg/dL) or BP ≥180/110 mmHg
• FH without other major risk factors
• Moderate CKD (eGFR 30–59 mL/min/1.73 m2)
• DM w/o target organ damage, with DM duration ≥10 years or other additional risk factor
High risk
• ASCVD (clinical/imaging)
• SCORE2/SCORE2-OP ≥20%
• FH with ASCVD or with another major risk factor
• Severe CKD (eGFR <30 mL/min/1.73 m2)
• DM & target organ damage: ≥3 major risk factors; or early onset of T1DM of long duration (>20 years)
Very high risk
• Patients with ASCVD who experience recurrent vascular events while taking maximally tolerated statin-based therapy
• Patients with polyvascular (e.g. coronary and peripheral) arterial disease
Extreme risk
RISCHIO PROIBITIVO
CV Risk
[a]Class IIa for individuals in primary prevention with FH at very high risk
ESC
EAS

Riduzione attesa dei valori di LDLc con la terapia farmacologica



UPDATE 2025
prevenzione secondaria

- Non più terapia stepwise, ma
- Si considera il gap rispetto al target
- Certificano l'utilizzo di farmaci non statinici in particolare PCSK9i (evolocumab e alirocumab) nella prima fase di inquadramento del paziente con evento cardiovascolare.

Recommendation Table 8 — Recommendations for dietary supplements (see also Supplementary data online, Evidence Table 8)

Recommendation	Class[a]	Level[b]
Dietary supplements or vitamins without documented safety and significant LDL-C-lowering efficacy are not recommended to lower the risk of ASCVD.[10,11]	III	B

Recommendation Table 4 — Recommendations for measurement of lipoprotein(a) (see also Supplementary data online, Evidence Table 4)

Recommendations	Class[a]	Level[b]
Lp(a) levels above 50 mg/dL (105 nmol/L) should be considered in all adults as a CV risk-enhancing factor, with higher Lp(a) levels associated with a greater increase in risk.[37,101]	IIa	B

Risk modifier!

Recommendation Table 5 — Recommendations for drug treatment of patients with hypertriglyceridaemia (see also Supplementary data online, Evidence Table 5)

Recommendations	Class[a]	Level[b]
High-dose icosapent ethyl (2 × 2 g/day) should be considered in combination with a statin in high-risk or very high-risk patients with elevated triglyceride levels (fasting triglyceride level 135–499 mg/dL or 1.52–5.63 mmol/L) to reduce the risk of cardiovascular events.[8,111]	IIa	B
Volanesorsen (300 mg/week) should be considered in patients with severe hypertriglyceridaemia (>750 mg/dL or >8.5 mmol/L) due to familial chylomicronaemia syndrome, to lower triglyceride levels and reduce the risk of pancreatitis.[6,117]	IIa	B

[a]Class of recommendation.

Table 10 **Drugs potentially interacting with statins metabolized by cytochrome P450 3A4 leading to increased risk of myopathy and rhabdomyolysis**

Anti-infective agents	Calcium antagonists	Other
Itraconazole	Verapamil	Ciclosporin
Ketoconazole	Diltiazem	Danazol
Posaconazole	Amlodipine	Amiodarone
Erythromycin		Ranolazine
Clarithromycin		Grapefruit juice
Telithromycin		Nefazodone
HIV protease inhibitors		Gemfibrozil

Adapted from Egan and Colman,[257] and Wiklund *et al.*[258]
HIV = human immunodeficiency virus.

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