

#### Conflict of Interest Statement

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Speakers' Bureau Menarini International, Daiichi-Sankyo Europe, Berlin Chemie, Bayer

Royalties/Activities None

**Consultant/Advisory Board** Novo Nordisk, Daiichi-Sankyo Europe, Menarini Int, Novartis Pharma, Amgen,

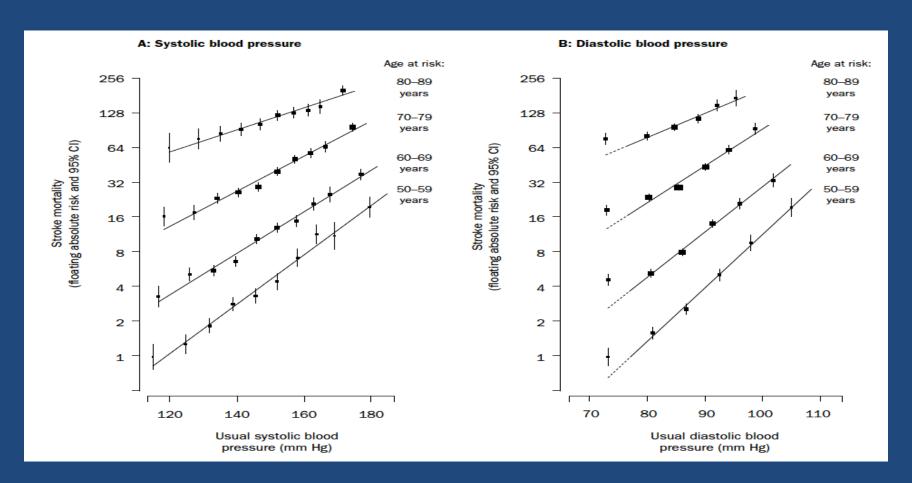
Bayer

Other Activities Reviewer ESH/ESC Hypertension Guidelines and ESC CV Prevention Guidelines

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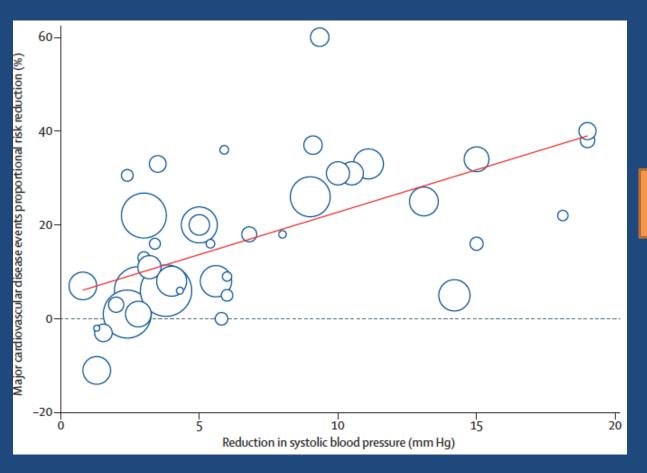
President of the Italian Society of Cardiovascular Prevention (SIPREC)

## Stroke mortality rate in each decade of age versus usual BP at the start of that decade



Rates are plotted on a floating absolute scale, and each square has area inversely proportional to the effective variance of the log mortality rate. For diastolic BP, each age-specific regression line ignores the left-hand point (ie, at slightly less than 75 mm Hg), for which the risk lies significantly above the fitted regression line (as indicated by the broken line below 75 mmHg).

## Blood Pressure Reduction and Cardiovascular Disease Risk Reduction



20 mmHg reduction in BP reduces CVD risk by almost 40%

#### 2018 ESC/ESH Guidelines for the management of arterial hypertension

The Task Force for the management of arterial hypertension of the European Society of Cardiology (ESC) and the European Society of Hypertension (ESH)

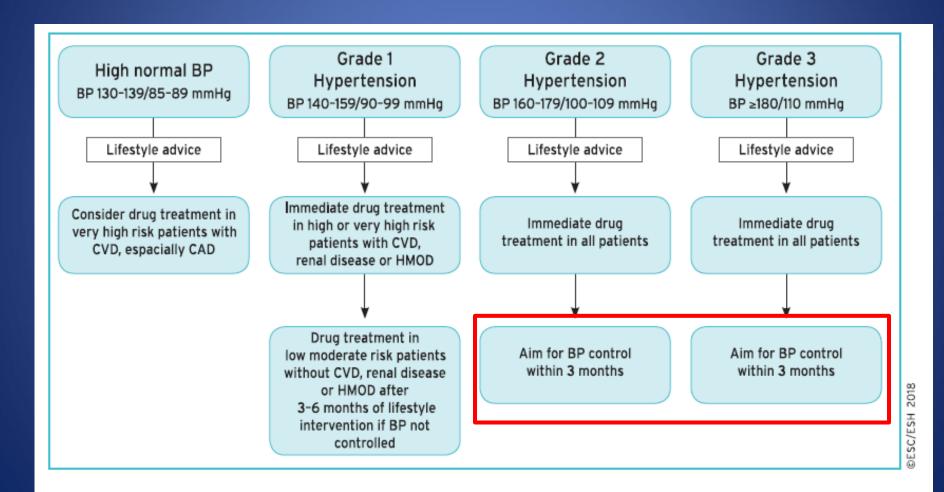
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# Classification of hypertension stages according to blood pressure levels, presence of cardiovascular risk factors, HMOD or comorbidities

		PD (mmUs) grading					
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		

#### Initiation of blood pressure-lowering treatment



OPINION

# Has the SPRINT trial introduced a new blood-pressure goal in hypertension?

Gema Ruiz-Hurtado, José R. Banegas, Pantelis A. Sarafidis, Massimo Volpe, Bryan Williams and Luis M. Ruilope

The SPRINT trial clearly shows that 'lower is better', providing justification for trying to lower blood-pressure targets.

# Office blood pressure thresholds for treatment

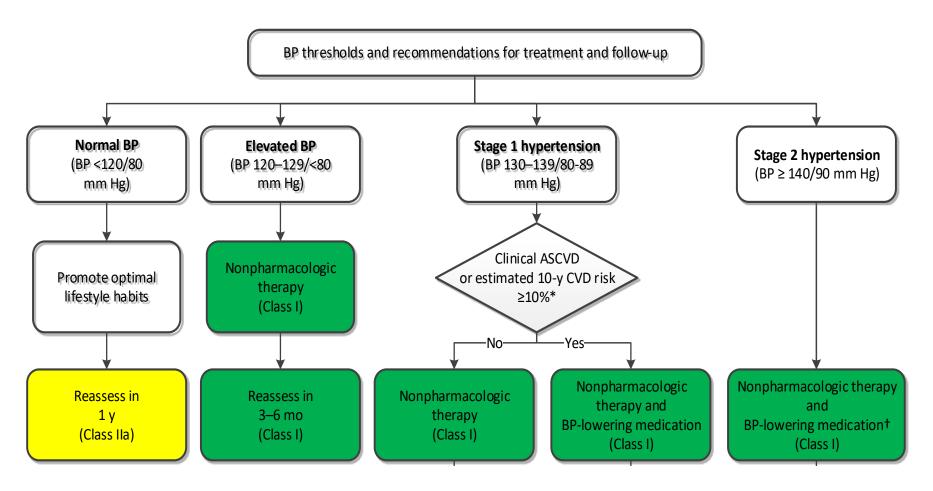
Age group	Office SBP treatment threshold (mmHg)				Office DBP treatment threshold (mmHg)	
	Hypertension	+ Diabetes	+ CKD	+ CAD	+ Stroke/TIA	
18 - 65 years	≥140	≥140	≥140	≥140 <sup>a</sup>	≥140 <sup>a</sup>	≥90
65 - 79 years	≥140	≥140	≥140	≥140 <sup>a</sup>	≥140 <sup>a</sup>	≥90
≥80 years	≥160	≥160	≥160	≥160	≥160	≥90
Office DBP treatment threshold (mmHg)	≥90	≥90	≥90	≥90	≥90	

### Office blood pressure treatment target range

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

# A debate across the Atlantic: So, Which is the target BP to achieve?

#### Blood Pressure (BP) Thresholds and Recommendations for Treatment and Follow-Up







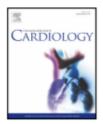
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#### International Journal of Cardiology





Is early and fast blood pressure control important in hypertension management?

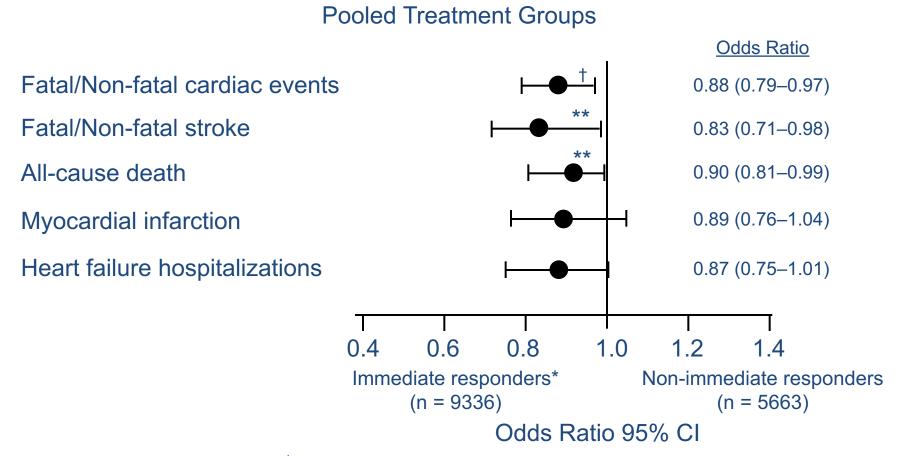


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- b IRCCS Neuromed, Pozzilli, IS, Italy

The benefit of BP control is enhanced by rapidly achieving the response, and it can be speculated that the faster is the goal achievement, the more sustained is the CV protection.

#### VALUE: Analysis of Results Based on Immediate Response\*

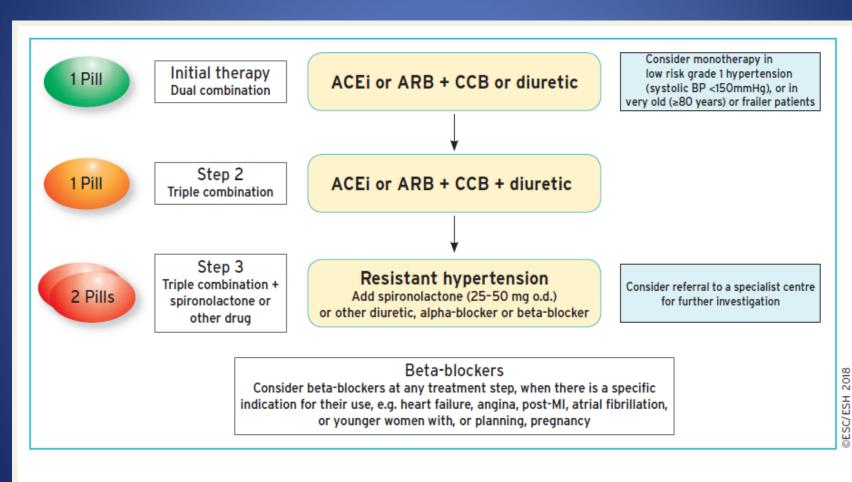


<sup>\*</sup>Those not on previous tx: SBP  $\downarrow$  ≥10 mmHg at one month; those on previous tx: no increase in SBP when switched to study drug \*\*P < 0.05; †P < 0.01.

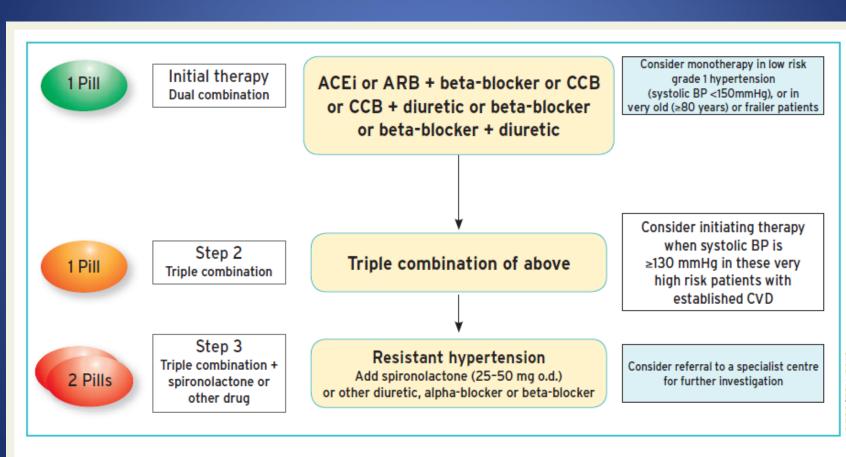
## 2018 ESC/ESH Guidelines

Goal in 3 months!

# Treatment strategy for uncomplicated hypertension



# Drug treatment strategy for hypertension and coronary artery disease



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## Drug treatment strategy for hypertension and atrial fibrillation

Initial therapy
Dual combination

Step 2 Triple combination ACEi or ARB + beta-blocker or non-DHP CCB<sup>a</sup>, or beta-blocker + CCB

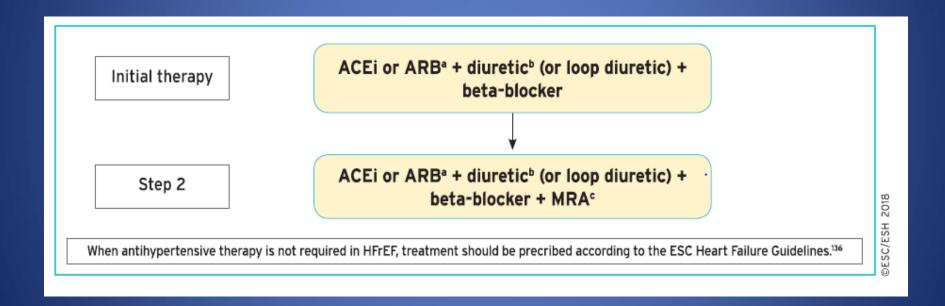
ACEi or ARB + beta-blocker + DHP CCB or diuretic or beta-blocker + DHP CCB + diuretic

Add oral anticoagulation when indicated according to the CHA2DS2-VASc score, unless contraindicated.

<sup>a</sup>Routine combination of beta-blockers with non-dihydropyridine CCBs (e.g. verapamil or diltiazem) is not recommended due to a potential marked reduction in heart rate.

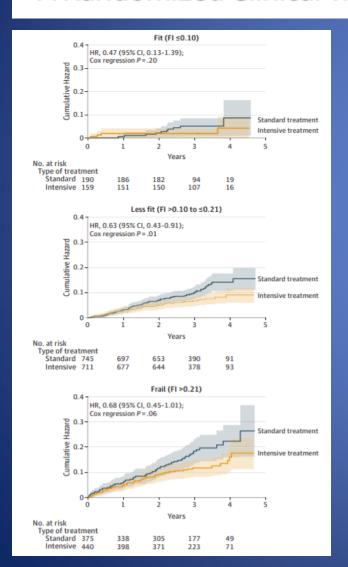
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## Drug treatment strategy for hypertension and hear failure with reduced ejection fraction



#### **Original Investigation**

#### Intensive vs Standard Blood Pressure Control and Cardiovascular Disease Outcomes in Adults Aged ≥75 Years A Randomized Clinical Trial



#### **SPRINT Elderly Analysis**

Among ambulatory adults aged 75 years or older, treating to an SBP target of less than 120 mm Hg compared with an SBP target of less than 140 mm Hg resulted in significantly lower rates of fatal and nonfatal major cardiovascular events and death from any cause.

## Targets in the elderlies

In older patients (aged ≥65 years) receiving BP-lowering drugs:  ■ It is recommended that SBP should be targeted to a BP range of 130–139 mmHg. 2,235,244	_	A
<ul> <li>Close monitoring of adverse effects is recommended.</li> </ul>	_	С
<ul> <li>These BP targets are recommended for patients at any level of CV risk and in patients with and without established CVD.<sup>2,8</sup></li> </ul>	1	Α

### Take-Home Messages

- The new ESC/ESH guidelines for hypertension recommend:
  - To achieve lower BP targets in patients below 65 years with or without comorbidities;
  - 2. To lower BP in elderly below 140/90 mmHg, if tolerated;
  - 3. To get to goal within 3 months;
  - 4. To start with combination therapy in all the eligible patients