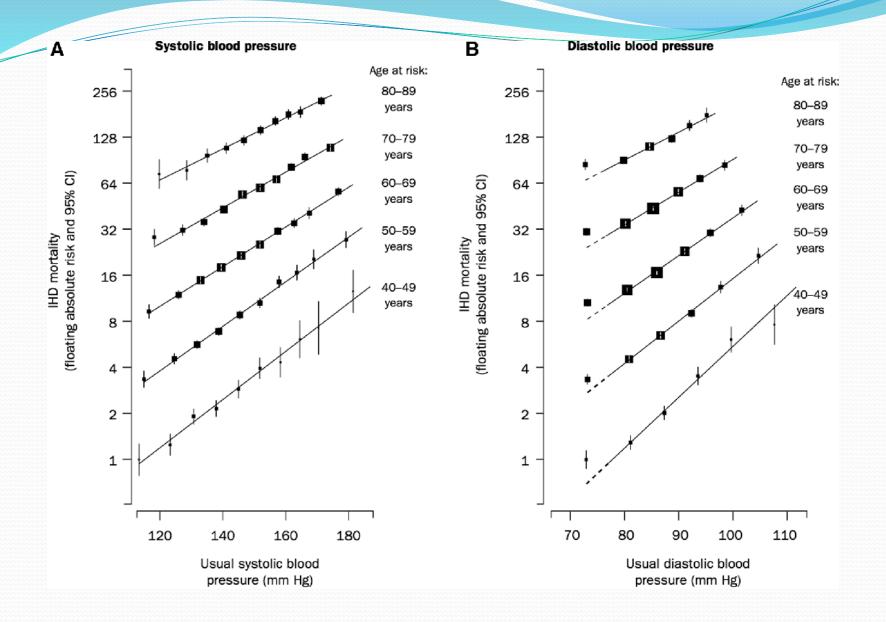
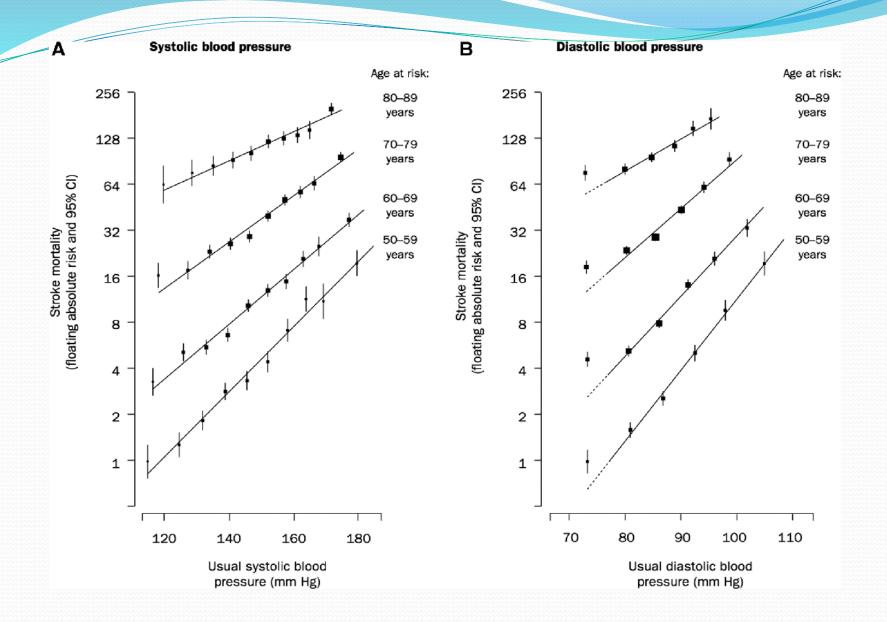
ASIA CARDIOLOGY



HYPERTENSION

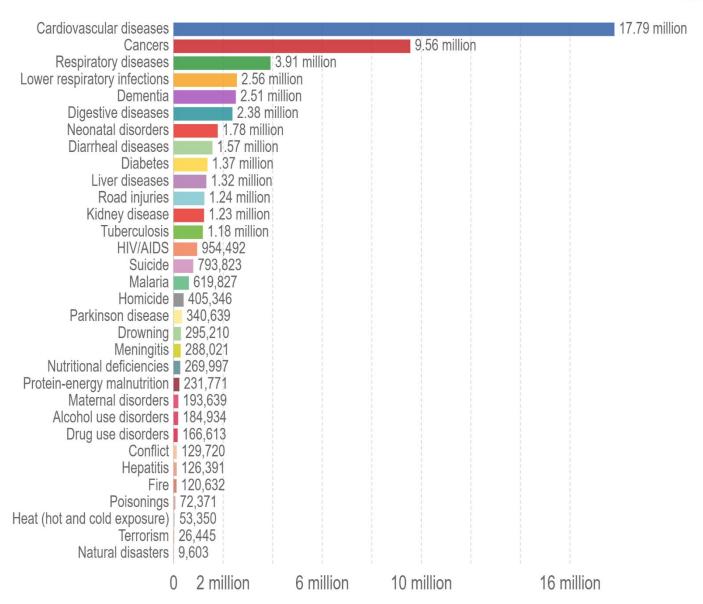






Number of deaths by cause, World, 2017



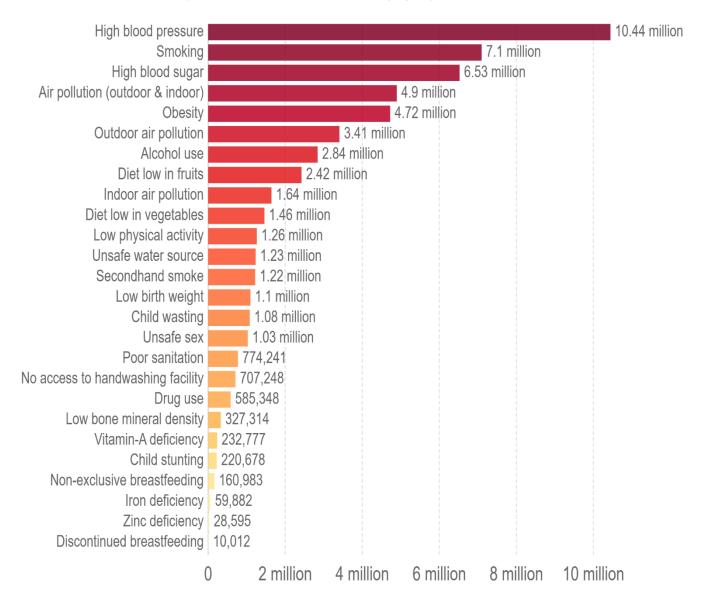


Source: IHME, Global Burden of Disease OurWorldInData.org/causes-of-death • CC BY

Number of deaths by risk factor, World, 2017



Total annual number of deaths by risk factor, measured across all age groups and both sexes.



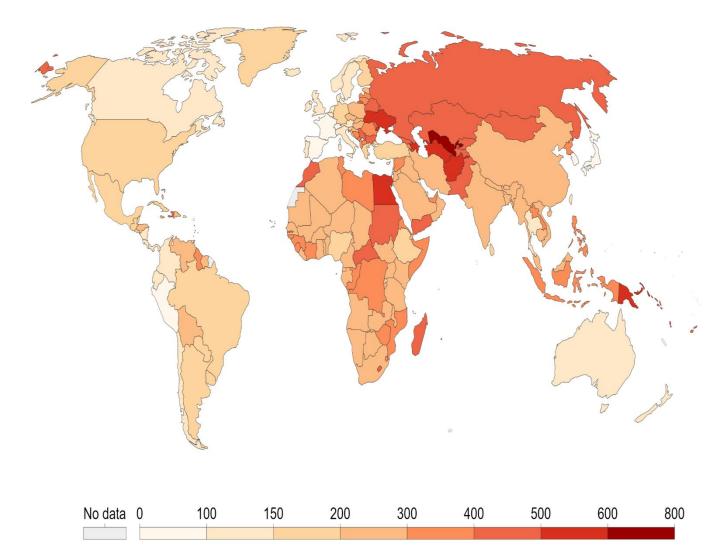
Source: IHME, Global Burden of Disease (GBD)

CC BY

Death rate from cardiovascular disease, 2017



The annual number of deaths from cardiovascular diseases per 100,000 people.



Source: IHME, Global Burden of Disease (GBD)

Note: To allow comparisons between countries and over time this metric is age-standardized.

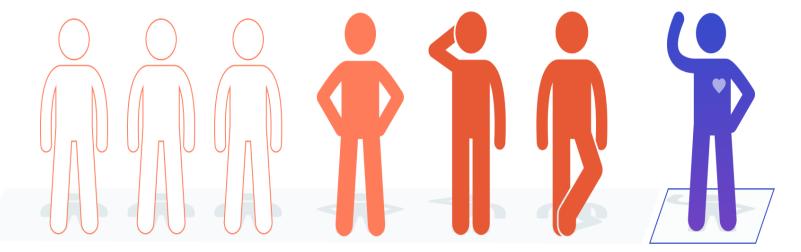
OurWorldInData.org/causes-of-death • CC BY

Globally, only 1 of every 7 people has their hypertension under control

Unaware that they have high BP

Aware but untreated

Treated but not controlled



UNCONTROLLED BLOOD PRESSURE

CONTROLLED

Guidelines:

- > JNC
- > ESC
- > ACC/AHA

BP Classification...

2017 Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults

BP Classification (INC 7 and ACC/AHA avidelines)

| SBP | | DBP |
|---------|-----|-------|
| <120 | and | <80 |
| 120–129 | and | <80 |
| 130–139 | or | 80–89 |
| 140–159 | or | 90-99 |
| ≥160 | or | ≥100 |

| JNC 7 | |
|----------------------|---|
| Normal BP | |
| Prehypertension | |
| Prehypertension | |
| Stage 1 hypertension |) |
| Stage 2 hypertension |) |

| 2017 ACC/AHA |
|----------------------|
| Normal BP |
| Elevated BP |
| Stage 1 hypertension |
| Stage 2 hypertension |
| Stage 2 hypertension |

ESC/ESH vs. ACC/AHA Hypertension Guideline

| ESC/ESH 2018 (June) | | | ACC/AHA 2017 (Nov) | | | | | |
|---------------------|-------------------|--------|---------------------|---------------------|-------------------|-----|---------------------|--|
| Category | Systolio (mmHg | | Diastolic (mmHg) | Category | Systolio (mmHg | | Diastolic (mmHg) | |
| Optimal | <120 | and | <80 | Normal | <120 | and | <80 | |
| Normal | 120-129 | and | 80-84 | Elevated BP | 120-129 | and | <80 | |
| High Normal | 130-139 | and/or | 85-89 | Stage 1 | 130-139 | or | 80-89 | |
| Grade 1 | 140-159 | and/or | 90-99 | Stage 2 | ≥140 | or | ≥90 | |
| Grade 2 | 160-179 | and/or | 100-109 | Hypertensive crisis | ≥180 | or | ≥120 | |
| Grade 3 | ≥ 180 | and/or | ≥ 110 | | | | | |

 Table 23
 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 ^a /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 ^b | 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 ^b | 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 | |

CAD = coronary artery disease; CKD = chronic kidney disease (includes diabetic and non-diabetic CKD); DBP = diastolic blood pressure; SBP = systolic blood pressure; TIA = transient ischaemic attack.

SECCIECH 2018

^aRefers to patients with previous stroke and does not refer to blood pressure targets immediately after acute stroke.

^bTreatment decisions and blood pressure targets may need to be modified in older patients who are frail and independent.

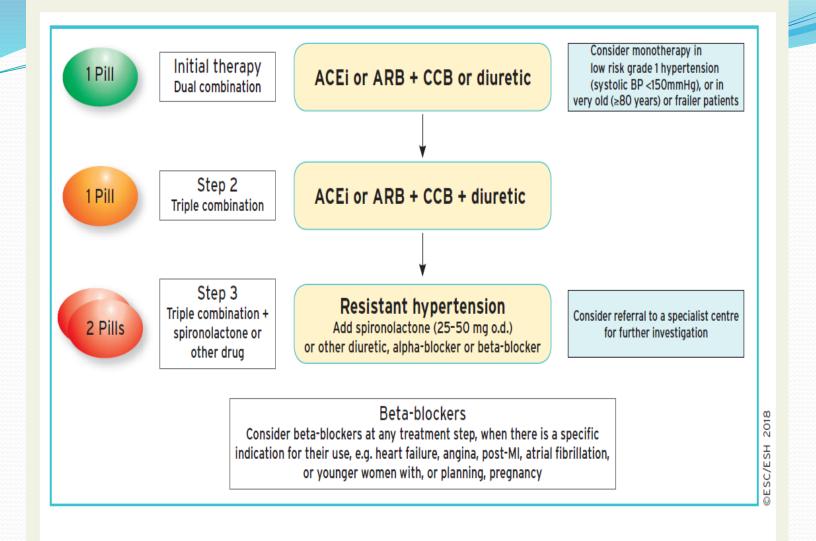


Figure 4 Core drug treatment strategy for uncomplicated hypertension. The core algorithm is also appropriate for most patients with HMOD, cerebrovascular disease, diabetes, or PAD. ACEi = angiotensin-converting enzyme inhibitor; ARB = angiotensin receptor blocker; CCB = calcium channel blocker; HMOD = hypertension-mediated organ damage; MI = myocardial infarction; o.d. = omni die (every day); PAD = peripheral artery disease.

ACEIs (Angiotensin converting anzyme inhibitor):

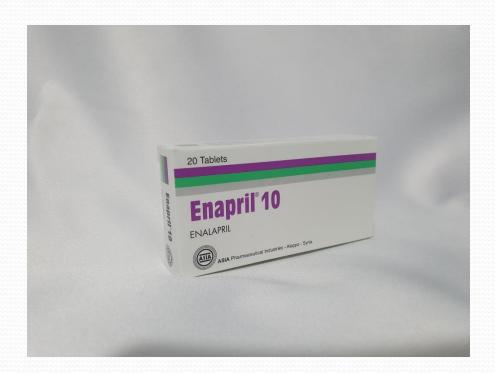
anzyme inhibitor): 1-Captopril:





ACEIs (Angiotensin converting anzyme inhibitor): cont....

2- Inalapril:





ACEIs (Angiotensin converting anzyme inhibitor): cont....

ASIA

3- Prindopril:



ARBs (Angiotensin receptor blockers):

1- Candesartan:







ARBs (Angiotensin receptor blockers): cont....

2- Valsartan:





ARBs (Angiotensin receptor blockers): cont....

3_lozartan:



CCBs (Calcium channel blocker):

ASIA

1- Amlodipine:





CCBs (Calcium channel blocker):

2- Diltiazem:







Diuretics:

1- spironolactone:







Diuretics: cont....

2- hydrochlorthyazide:



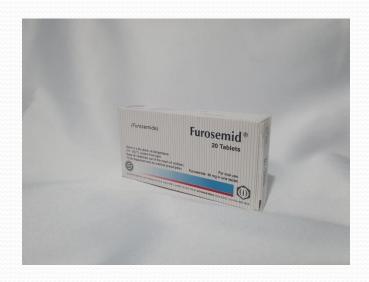


Diuretics: cont....

3- Ferosimide:







BB (BETA Blocker):

1-Bizoprolol:







BB (BETA Blocker): cont...

2- Atenolol:







BB (BETA Blocker): cont...

3- Metprolol:





BB (BETA Blocker): cont...

4- Cardivolol:





Thank you

