

Hypertension

Definition and incidence

- Raised arterial blood pressure
- Blood pressure is measured in mm mercury (mm Hg)
- Systolic (top number) – pressure in the arteries during ventricular contraction ie. heart beat
- Diastolic (bottom number) – related to blood flow and elasticity of arteries ie when heart relaxes
- Affects over 30% of the adult population
- Affects 70% of people aged over 75

Causes

- Primary hypertension (90%) – no identifiable cause
- Secondary hypertension (10%) – result of underlying cause ie.
 - diabetes
 - kidney disease
 - atherosclerosis
 - drug induced

Risk factors

- Age: increase in age increases risk
- Family history
- Ethnicity
- Diabetes
- Obesity
- Hypercholesterolaemia
- Renal disease
- Lack of exercise or other physical activity
- Moderate-to-high alcohol intake
- Stress

Complications

- Increased risk of other diseases including:
 - coronary heart disease / heart failure / peripheral vascular disease
 - stroke
 - retinopathy
 - renal failure

NB: 350 preventable strokes or heart attacks per day are linked to hypertension

Signs and symptoms

- Most patients are asymptomatic
- Occasionally:
 - headache
 - visual changes
 - dyspnoea (shortness of breath)
 - chest pain

Treatment

- Good adherence essential (asymptomatic – patient has no perceived benefit)
- Initial treatments:
 - ACE inhibitor or angiotension-II receptor antagonist for under 55 years
 - calcium channel blocker (or diuretic if CCB not appropriate) for over 55 years or patients of African / Caribbean decent (any age)
 - beta-blockers not first line; but useful for some specific patients

Lifestyle changes

- Alcohol: max per day - 3-4 units for men, 2-3 units for women: ideally 1-2 units per day
- Body weight: each 1kg weight loss can reduce systolic BP by 2.5mmHg and diastolic BP by 1.5mmHg
- Smoking cessation
- Activity: aim for 150 minutes a week ie. 30 minutes activity 5 times a week
- Healthy diet:
 - reduce fat intake
 - five portions fruit / vegetables per day
 - two portions of fish per week
 - reduce coffee / caffeine intake
 - reduce salt intake / use of low sodium alternative

Other support

- Blood Pressure Association - www.bpassoc.org.uk
- British Hypertension Society - www.bhsoc.org
- NHS Choices - www.nhs.uk
- Patient.co.uk - www.patient.co.uk