Cardiovascular Health Summary

The role of the GP in cardiovascular health

- Manage the risk factors for cardiovascular disease as an essential part of health promotion activity in primary care. You should be able to describe the key research findings that influence management of cardiovascular risk and disease. A large part of our work in primary care involves working with patients to engage them in making healthy life style choices, and limiting unhealthy behaviours
- Communicate the risk of cardiovascular disease clearly and effectively in a non-biased manner, and use disease registers and data-recording templates effectively for opportunistic and planned monitoring
- Manage cardiovascular emergencies in primary care
- Accurately diagnose and manage symptoms that may potentially be caused by cardiovascular conditions
- Monitor and manage the care of patients with long-term cardiovascular conditions such as hypertension, chronic heart failure or atrial fibrillation
- Be aware of the impact that cardiovascular disease may have on disability and fitness to work, as well as the legal obligations relating to driving. You should also be able to recognise the cultural significance attached to heart disease
- Be aware of the potential psychological and social impact of cardiovascular conditions
- Advise on cardiovascular screening, such as the UK Aortic Aneurysm screening programme.

Key Areas for Exam preparation

Common and important conditions

- Acute cardiovascular problems including cardiac arrest, acute coronary syndrome, acute myocardial infarct, acute left ventricular failure, dissecting aneurysms, severe hypertension and life-threatening arrhythmias, cardiogenic shock, acute ischaemia of limbs and gut, TIA and stroke
- Arrhythmias including conduction defects such as atrial fibrillation and flutter, heart block, supraventricular tachycardia, ventricular rhythm abnormalities
- Cardiovascular conditions for which anticoagulation may be relevant such as Atrial Fibrillation (AF), myocardial ischaemia, peripheral vascular disease and TIA/stroke (including heparin, thrombolysis indications, oral anticoagulation)
- Cardiomyopathies: primary and acquired, including dilated, hypertrophic obstructive
- Cerebral disease for which cardiovascular risk factors are important e.g. stroke, vascular dementia (see also Topic Guide - Neurolog WHEELJAZ0Ny)
- Circulation disorders including:
    - arterial problems such as peripheral vascular disease, vasculitis, aneurysms (cerebral, aortic and peripheral); and
    - venous problems such as venous thromboembolism, pulmonary embolism, Raynaud's disease, varicose veins, venous and arterial ulcers
- Congenital heart disease such as coarctation of the aorta, Ventricular Septal Defect (VSD), Atrial Septal Defect (ASD), Patent Ductus Arteriosus (PDA) and presentation of these both in children and adults
- Coronary heart disease including complications such as mural thrombus, ventricular aneurysm, and rhythm disturbance
- Drug-induced heart disease (e.g. secondary to cancer treatment with chemotherapy/ radiotherapy, recreational drugs)
- Heart failure: acute and chronic including left ventricular dysfunction, right heart failure, and cor pulmonale
- Hypertension: essential (and its classification into stages), secondary, and malignant Infections such as viral myocarditis, infective endocarditis, pericarditis, rheumatic fever and complications
- Complications and malfunction of pacemakers relevant to primary care
- Pulmonary hypertension: primary and secondary to underlying causes such as fibrotic lung disease and recurrent pulmonary emboli
- Risk factors for coronary heart disease and other thromboembolic diseases such as lipid disorders, diabetes, hypertension
- Valvular problems such as mitral, tricuspid, pulmonary and aortic stenosis and regurgitation.

Suggested resources:

General information

- British Medical Association and Royal Pharmaceutical Society of Great Britain. The British National Formulary London: BMJ Books, updated annually
- Hobbs R, McManus RJ, Taylor CJ (eds). Cardiovascular Disease in Primary Care − a guide for GPs RCGP Publications, 2010
- Jones R, Britten N, Culpepper L, et al. (eds). Oxford Textbook of Primary Medical Care Oxford: Oxford University Press, 2005
- Warrell D, Cox TM, Firth JD (eds). Oxford Textbook of Medicine (5th edn) Oxford: Oxford University Press, 2010
- www.bcs.com
- www.bhf.org.uk
- www.bhsoc.org
- www.rcgp.org.uk/policy/rcgp-policy-areas/long-term- conditions.aspx
- www.nice.org.uk
- www.healthtalk.org
- www.sahf.org.uk

Heart disease statistics

- The best source of these can be downloaded as both PDF and Excel spreadsheets from the British Heart Foundation 'Heart Stats' website: www.bhf.org.uk/heart-health/statistics.aspx

Risk factors for CHD

- Hippisley-Cox J, Coupland C, Vinogradova Y, et al. Predicting cardiovascular risk in England and Wales: prospective derivation and validation of QRISK2 British Medical Journal 2008; 336(7659): 1475−82
- Sudlow CL, Mason G, Maurice JB, Wedderburn CJ, Hankey GJ. Thienopyridine derivatives versus aspirin for preventing stroke and other serious vascular events in high vascular risk patients Cochrane Database of Systematic Reviews 2009; 7(4): CD001246
- https://cks.nice.org.uk/cvd-risk-assessment-and-management
- https://www.bmj.com/content/336/7659/1475
- https://www.ncbi.nlm.nih.gov/pubmed/22901970

Acute Coronary Syndrome

- Hoenig MR, Aroney CN, Scott IA. Early invasive versus conservative strategies for unstable angina and non-ST elevation myocardial infarction in the stent era. Cochrane Database of Systematic Reviews 2010 Mar 17; 3: CD004815
- Pattenden J, Watt I, Lewin RJP, Stanford N. Decision making processes in people with symptoms of acute myocardial infarction: qualitative study British Medical Journal 2002; 324: 1006
- https://www.bmj.com/content/351/bmj.h5153
- https://www.sign.ac.uk/assets/sign148
- https://bnf.nice.org.uk?treatment-summary/acute-coronary-syndromes.html

Angina

- Pfisterer ME, Zellweger MJ, Gersh BJ. Management of stable coronary artery disease Lancet 2010; 375(9716): 763−72
- Chest Pain: www.evidence.nhs.uk/topic/chest pain

Cardiac rehabilitation

- Heran BS, Chen JM, Ebrahim S, et al. Exercise-based cardiac rehabilitation for coronary heart disease. Cochrane Database of Systematic Reviews 2011 Jul 6;(7): CD001800. doi: 10.1002/14651858.CD001800.pub2.
- Davies EJ, Moxham T, Rees K, Singh S, Coats AJ, Ebrahim S, Lough F, Taylor RS. Exercise based rehabilitation for heart failure Cochrane Database of Systematic Reviews New England Journal of Medicine 2010 Apr 14; 4: CD003331.

Hypertension

- McAlister FA, O'Connor AM, Wells G, Grover SA, Laupacis A. When should hypertension be treated? The different perspectives of Canadian family physicians and patients Canadian Medical Association Journal 2000; 163(4): 403–8
- Beevers G, Lip GHY, O'Brien E. ABC of Hypertension (5th edn) London: BMJ Books, 2007
- Beckett NS, Peters R, Fletcher AE, et al. Treatment of hypertension in patients 80 years of age or older New England Journal of Medicine 2008; 358:1887−1898
- Turnbull F, Neal B, Pfeffer M, et al. Blood Pressure Lowering Treatment Trialists' Collaboration: blood pressure-dependent and independent effects of agents that inhibit the renin−angiotensin system Journal of Hypertension 2007 May; 25(5):951-8. Erratum in: Journal of Hypertension 2007; 25(7):1524
- https://www.nice.org.uk/guidance/cg127
- Hypertension: www.evidence.nhs.uk/topic/hypertension
- https://bihsoc.org/hypertension-management
- www.bloodpressureuk.org

Heart Failure

- Davis RC, Davies MK, Lip GYH. ABC of Heart Failure (2nd edn) London: BMJ Books, 2006
- Arroll B, Doughty R, Andersen V. Investigation and management of congestive heart failure British Medical Journal 2010 Jul 14; 341: c3657. doi: 10.1136/bmj.c3657
- Paulus WJ. Novel strategies in diastolic heart failure Heart 2010 96(14): 1147–53 Patient's perspective
- https://www.nice.org.uk/Guidance/cg108
- https://cks.nice/heart-failure-chronic

Peripheral Vascular Disease

- Burns P, Gough S, Bradbury AW. Management of peripheral arterial disease in primary care British Medical Journal 2003; 326(7389): 584–8
- Simon RW, Simon-Schulthess A, Amann-Vesti BR. Intermittent claudication British Medical Journal 2007 Apr 7; 334(7596): 746. Review. Erratum in: BMJ. 2007 Apr 21; 334(7598)

Atrial Fibrillation

- https://www.nice.org.uk/Guidance/CG180
- https://www.bhf.org
- https://patient.info/doctor/atrial fibrillation-pro
- www.uhs.nhs.uk patient information AF
- https://www.stroke.org.uk

Hypercholestraemia

- https://www.nice.org.uk/guidance/CG67
- https://cks.nice.org.uk/cvd-risk-assessment-and-management
- https://www.bmj.com/content/336/7659/1475
- https://www.bmj.com/content/345/bmj.e4535
- https://www.ncbi.nlm.nih.gov/pubmed/22901970

Stroke

- Mackintosh JE, Murtagh MJ, Rodgers H, et al. Why people do, or do not, immediately contact emergency medical services following the onset of acute stroke: qualitative interview study PLoS One 2012; 7(10):e46124. doi:10.1371/journal.pone.0046124. Epub 2012 Oct 4. PubMed PMID: 23056247www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0046124
- Wardlaw JM, Murray V, Berge E, Del Zoppo GJ. Thrombolysis for acute ischaemic stroke. Cochrane Database of Systematic Reviews 2009 Oct 7; (4):CD000213. doi:10.1002/14651858.CD000213
- Johnston SC, Rothwell PM, Nguyen-Huynh MN, et al. Validation and refinement of scores to predict very early stroke risk after transient ischaemic attack Lancet 2007; 369(9558): 283−92
- Lewington S, Whitlock G, Clarke R, et al. Prospective Studies Collaboration: blood cholesterol and vascular mortality by age, sex, and blood pressure – a meta-analysis of individual data from 61 prospective studies with 55,000 vascular deaths Lancet 2007; 370(9602): 1829–39
- Mant J, McManus RJ, Hare R. Applicability to primary care of national clinical guidelines on blood pressure-lowering for people with stroke: cross- sectional study British Medical Journal 2006; 332: 635–7
- Rothwell PM, Giles MF, Chandratheva A, et al. Effect of urgent treatment of transient ischaemic attack and minor stroke on early recurrent stroke (EXPRESS study): a prospective population- based sequential comparison Lancet 2007; 370(9596): 1432−42
- Stroke: www.evidence.nhs.uk/topic/stroke
- www.stroke.org.uk
- https://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2805%2966702-5/fulltext
- https://bjgp.org/content/65/636/e421.long
- https://cks.nice.org.uk/stroke-and-tia

Self-management

- Warsi A, Wang PS, LaValley MP, Avorn J, Solomon DH. Self-management education programs in chronic disease: a systematic review and methodological critique of the literature Archives of Internal Medicine 2004; 164(15): 1641–9

Venous thromboembolism

- McManus RJ, Murray E, Taylor CJ, Fitzmaurice DA. Thromboembolism in Clinical Evidence London: BMJ Online, updated yearly
- Tovey C and Wyatt S. Diagnosis, investigation, and management of deep vein thrombosis British Medical Journal 2003; 326(7400): 1180–4
- Deep vein thrombosis: www.evidence.nhs.uk/topic/deep-vein-thrombosis
- https://www.bmj.com/content/339/bmj.b2990.abstract
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3183832/
- https://www.medicalprotection.org/uk/publications/practice-matters

Chronic Kidney Disease

- Chronic Kidney Disease: www.evidence.nhs.uk/topic/chronic-kidney-disease

Genetics Cardiac Problems

- https://www.cardiomyopathy.org/downloads/hypertrophic-cardiomyopathy-(hcm).pdf
- https://www.heartuk.org.uk/FHToolkit/downloads/5.5/5C%20Taking%20and%20Drawing%20a%20Family%20Tree.pdf

Congenital Heart Problems

Coarctation of Aorta

- https://nice.org.uk/Guidance/IPG74
- https://patient.info/doctor/coarctation-of -the-aorta-pro
- https://bestpractice.bmj.com/topics/en-gb/698/treatment-algorithm

Ventricular Septal Defect VSD

- https://pathways.nice.org.uk/pathways/sructural-heart-defects
- https://www.evidence.nhs.uk/searcg?q=ventricular+septal+defect
- https://patient.info/doctor/ventricular-septal-defect-pro

Atrial Septal Defects ASD

- https://pathways.nice.org.uk/pathways/sructural-heart-defects
- https://www.nice.org.uk/guidance/IPG96/chapter /1-guidance
- https://patient.info/doctor/atrial-septal-defect-pro
- https://www.evidence.nhs.uk/search?q=Atrial heart septal defects
- https://newbp.bmj.com/topics/en-gb/1099

Patent Ductus Arteriosus PDA

- https://www.nice.org.uk/Guidance/IPG97
- https://www.evidence.nhs.uk/search?q=patent+ductus+arteriosus
- https://patient.inf/doctor/Patent-Ductus-Arteriosus