The following journal articles are available from the Library and Knowledge Service electronically or in print. Please follow links to access full text online, contact me to order copies, or call into your nearest library.

**A systematic review of patient-reported outcomes associated with the use of direct-acting oral anticoagulants.**  
Afzal SK. *British Journal of Clinical Pharmacology* 2019;doi.org/10.1111/bcp.13985.  
[Review of 21 studies reports patients appear to prefer treatment with DOACs vs warfarin, as shown by the higher quality of life, satisfaction and adherence described in the studies. However, heterogeneity in the analysed studies does not allow firm conclusions.]  
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**Advances in rehabilitation for chronic diseases: improving health outcomes and function.**  
Richardson CR. *BMJ* 2019;365:l2191.  
[This review summarizes the evidence for benefit of in-person cardiac and pulmonary rehabilitation programs. It also reviews the literature on newer developments, such as home based remotely mediated exercise programs developed to decrease cost and improve accessibility, high intensity interval training in cardiac rehabilitation, and alternative therapies such as tai chi and yoga for people with chronic obstructive pulmonary disease.]

**Cardiac Arrest Prior to Venoarterial Extracorporeal Membrane Oxygenation: Risk Factors for Mortality.**  
[Mortality after cardiac arrest remains high despite initiation of venoarterial extracorporeal membrane oxygenation. We aimed to identify pre-venoarterial extracorporeal membrane oxygenation risk factors of 90-day mortality in patients with witnessed cardiac arrest and with greater than or equal to 1 minute of cardiopulmonary resuscitation before venoarterial extracorporeal membrane oxygenation.]

**Cardiovascular Events and Mortality in White Coat Hypertension: A Systematic Review and Meta-analysis.**  
Cohen JB. *Annals of Internal Medicine* 2019;DOI: 10.7326/M19-0223.  
[Conclusion: Untreated white coat hypertension, but not treated white coat effect, is associated with an increased risk for cardiovascular events and all-cause mortality. Out-of-office BP monitoring is critical in the diagnosis and management of hypertension.]  
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**Caring for women with chronic hypertension.**  
[The number of women entering pregnancy with chronic hypertension is increasing,
predominantly because of rising rates of obesity and pregnancy at advanced maternal age. ‘Chronic hypertension’ is often used interchangeably with the term ‘pre-existing hypertension’, but it is important to remember that a significant proportion of women are newly diagnosed in pregnancy. Chronic hypertension significantly increases the risks in pregnancy for both the mother and the fetus.

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**Clinical Guidelines Synopsis: 2018 American Heart Association/American College of Cardiology/Multisociety Guideline on the Management of Blood Cholesterol—Secondary Prevention.**
[This article reviews secondary prevention trials in patients with established ASCVD which demonstrate therapy with statins reduces recurrent cardiovascular events, as well as statin add-on drugs e.g. ezetimibe and proprotein convertase subtilisin/kexin type 9 inhibitors.]
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**Dapagliflozin and Cardiovascular Outcomes in Patients With Type 2 Diabetes Mellitus and Previous Myocardial Infarction.**
Furtado RHM. *Circulation* 2019;139(22):2516-2527.
[Patients with type 2 diabetes mellitus and previous MI are at high risk of MACE and cardiovascular death/hospitalization for heart failure. Dapagliflozin appears to robustly reduce the risk of both composite outcomes in these patients. Future studies should aim to confirm the large clinical benefits with sodium glucose transporter-2 inhibitors we observed in patients with previous MI.]

**Diagnosis of obstructive coronary artery disease using computed tomography angiography in patients with stable chest pain depending on clinical probability and in clinically important subgroups: meta-analysis of individual patient data.**
[To determine whether coronary computed tomography angiography (CTA) should be performed in patients with any clinical probability of coronary artery disease (CAD), and whether the diagnostic performance differs between subgroups of patients.]

**Intensive care use and mortality among patients with ST elevation myocardial infarction: retrospective cohort study.**
Valley TS. *BMJ* 2019;365:l1927.
[To evaluate the effect of intensive care unit (ICU) admission on mortality among patients with ST elevation myocardial infarction (STEMI).]

**Multicenter Implementation of a Novel Management Protocol Increases the Outpatient Treatment of Pulmonary Embolism and Deep Vein Thrombosis.**
[Conclusions: A treatment protocol combining risk-stratification, rivaroxaban treatment and defined follow-up is associated with an increase in pulmonary embolism [PE] and deep vein thrombosis [DVT] patients treated as outpatients, with no increase in adverse outcomes. ]
Near-infrared spectroscopy monitoring during out-of-hospital cardiac arrest: can the initial cerebral tissue oxygenation index predict ROSC?
[Near-infrared spectroscopy is a modality that can monitor tissue oxygenation index (TOI) and has potential to evaluate return of spontaneous circulation (ROSC) during cardiopulmonary resuscitation (CPR). This study's objectives were to evaluate whether TOI could be associated with ROSC and used to help guide the decision to either terminate CPR or proceed to extracorporeal CPR (ECPR).]

[Out-of-hospital cardiac arrest (OHCA) is prevalent in the UK. Reported survival is lower than in countries with comparable healthcare systems; a better understanding of outcome determinants may identify areas for improvement.]

Treatment for superficial thrombophlebitis of the leg.
[The authors of the review reported that the prophylactic use of fondaparinux for 45 days was a valid treatment strategy for most patients with ST of the legs. The results for topical treatment or surgery were too limited for conclusions to be drawn on the efficacy of these measures in preventing progression to VTE.]

[To assess the prospective associations between consumption of ultra-processed foods and risk of cardiovascular diseases.]

Vitamin D Supplementation and Cardiovascular Disease Risks in More Than 83 000 Individuals in 21 Randomized Clinical Trials: A Meta-analysis.
[Updated meta-analysis of 21 RCTs (n=83,291) found that vitamin D supplementation was not associated with reduced major adverse CV events, individual CVD end points (MI, stroke, CVD mortality), or all-cause mortality, and thus does not support supplementation for CV protection.]

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Weight change and the risk of incident atrial fibrillation: a systematic review and meta-analysis.
[Weight gain may increase the risk of AF, but there was no clear evidence that non-surgical weight loss altered AF incidence. Strategies to prevent weight gain in the population may reduce the global burden of AF. Given the lack of studies and methodological limitations,
Guidelines

The following new guidance has recently been published:

**Cardiac contractility modulation device implantation for heart failure.**
National Institute for Health and Care Excellence (NICE);2019.
https://www.nice.org.uk/guidance/ipg655/chapter/1-Recommendations
[1 Recommendations 1.1 The evidence on cardiac contractility modulation device implantation for heart failure raises no major safety concerns. However, the evidence on efficacy is inadequate in quantity and quality. Therefore, this procedure should only be used in the context of research...]
**Freely available online**

**Percutaneous insertion of a cerebral protection device to prevent cerebral embolism during TAVI.**
National Institute for Health and Care Excellence (NICE);2019.
https://www.nice.org.uk/guidance/ipg650
[1 Recommendations 1.1 The evidence on percutaneous insertion of a cerebral protection device to prevent cerebral embolism during TAVI raises no major safety concerns other than those associated with the TAVI procedure. However, the evidence on efficacy for preventing TAVI-related stroke is inconclusive. Therefore, this procedure should only be used with special arrangements for clinical governance, consent, and audit or research...]
**Freely available online**

**Percutaneous mechanical thrombectomy for acute deep vein thrombosis of the leg.**
National Institute for Health and Care Excellence (NICE);2019.
https://www.nice.org.uk/guidance/ipg651
[Evidence-based recommendations on percutaneous mechanical thrombectomy for acute deep vein thrombosis of the leg in adults. This involves removing the clot through a catheter inserted into the vein.]
**Freely available online**

**Percutaneous mitral valve leaflet repair for mitral regurgitation.**
National Institute for Health and Care Excellence (NICE);2019.
https://www.nice.org.uk/guidance/ipg649
[Evidence-based recommendations on percutaneous mitral valve leaflet repair for mitral regurgitation in adults. This involves attaching a clip to the leaflets of the mitral valve.]
**Freely available online**

**Valve-in-valve TAVI for aortic bioprosthetic valve dysfunction.**
National Institute for Health and Care Excellence (NICE);2019.
https://www.nice.org.uk/guidance/ipg653
[1 Recommendations 1.1 Current evidence on the safety and efficacy of valve-in-valve
transcatheter aortic valve implantation (ViV-TAVI) for aortic bioprosthetic dysfunction is adequate to support the use of this procedure provided that standard arrangements are in place for clinical governance, consent and audit. 1.2 Details of all patients should be entered into the UK TAVI registry...

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Reports

The following report(s) may be of interest:

Providing pressurised air through a mask may improve outcomes for people with deteriorating heart failure.
NIHR Dissemination Centre; 2019.
https://discover.dc.nihr.ac.uk/content/signal-000780/pressurised-air-through-a-mask-may-help-people-with-deteriorating-heart-failure

[NIHR Signal. This review evaluated 24 trials of 2,664 adults comparing a group who received air under pressure through a mask, to a group receiving standard medical care. These types of masks are not routinely used for all people with deteriorating heart failure currently. However, this review found that they may be beneficial earlier in the progression of the condition, and this can avoid escalation of care to more invasive ventilation.]

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