

2 Cardiovascular System

1. Arrhythmias		Primary Care	Acute/ Specialist Services
Anti-arrhythmias			
	Adenosine		✓
	Amiodarone	⊕	✓
	Disopyramide	⊕	✓
	Dronedarone	⊕	✓
	Flecainide	⊕	✓
	Lidocaine (lignocaine) hydrochloride		✓
	Propafenone		✓
	Verapamil	⊕	✓
Cardiac glycosides			
	Digoxin	✓	✓
	Digoxin specific antibody (DigiFab®)		✓
2. Bleeding disorders		Primary Care	Acute/ Specialist Services
Antifibrinolytics			
	Tranexamic acid	✓	✓
3. Blood clots		Primary Care	Acute/ Specialist Services
Blocked catheters and lines – <i>No Formulary choices</i>			
3.2 Thromboembolism		Primary Care	Acute/ Specialist Services
Antidotes and chelators			
	Andexanet alfa		✓
Comment: To be prescribed in line with local protocol			
Antithrombotics - antiplatelet drugs			
	Aspirin	✓	✓
	Clopidogrel	✓	✓
	Prasugrel (Efient®) – (for clopidogrel intolerance, stent, thrombosis on clopidogrel or for continuation of therapy recommended by tertiary centre)	⊕	✓

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	Ticagrelor (Brilique®)	⊕	✓
Comment: Ticagrelor – Continuation of treatment initiated in a tertiary centre ACS patients intolerant of clopidogrel Stent thrombosis while on clopidogrel Consultant cardiologist initiation for ACS patients with positive troponins			
Antithrombotics - Factor XA inhibitors			
	Edoxaban (1 st line DOAC for AF) – Also see. Direct Oral Anticoagulants for Stroke Risk Reduction in Atrial Fibrillation	✓	✓
	Rivaroxaban (1 st line for DVT & PE)	✓	✓
	Apixaban – (follow SMC guidance)	✓	✓
	Fondaparinux sodium inj. (to be used with guidance)		✓
Antithrombotics - Heparins			
	Enoxaparin	⊕	✓
	Heparin	⊕	✓
Antithrombotics - Vitamin K antagonists			
	Warfarin	✓	✓
	Phenindione		✓
4. Blood pressure conditions		Primary Care	Acute/ Specialist Services
4.1 Hypertension			
Comment: For Hypertension guidance, please refer to NICE Hypertension Guidance http://guidance.nice.org.uk/CG127 and the British and Irish Hypertension Society .			
Alpha-adrenoceptor blockers			
	Doxazosin (standard release tablets only)	✓	✓
Centrally acting antihypertensive drugs			
	Methyldopa	⊕	✓
Alpha- and beta-adrenoceptor blockers			
	Carvedilol	⊕	✓
	Labetalol	⊕	✓
Beta-adrenoceptor blocker non-selective			
	Propranolol	✓	✓
Beta-adrenoceptor blockers - selective			
	Bisoprolol (1 st line)	✓	✓
	Atenolol	✓	✓
	Esmolol (iv for arrhythmia)		✓

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	Metoprolol	✓	✓
	Nebivolol	⊕	✓
Calcium-channel blockers			
	Amlodipine	✓	✓
	Felodipine	✓	✓
Rate-limiting calcium – channel blockers			
	Diltiazem (Tildiem [®] LA, Tildiem Retard [®])	✓	✓
Comment: Available as both standard release and sustained release preparations. Sustained release preparations may be produced by many different manufacturers and may not have the same bioavailabilities, therefore, these products should be prescribed by brand name (the locally recommended brands are specified). Standard release preparations may be prescribed generically.			
	Verapamil	✓	✓
Thiazides and related diuretics			
	Indapamide (1 st line)	✓	✓
	Bendroflumethiazide	✓	✓
Angiotensin-converting enzyme inhibitors			
	Lisinopril	✓	✓
	Perindopril erbumine	✓	✓
	Ramipril	✓	✓
Angiotensin-II receptor antagonists			
	Candesartan (1 st line)	✓	✓
	Valsartan (2 nd line)	✓	✓
	Irbesartan	✓	✓
	Losartan	✓	✓
Vasodilator antihypertensive			
	Hydralazine	⊕	✓
4.1a Hypertension associated with pheochromocytoma		Primary Care	Acute/ Specialist Services
No formulary choices			
4.1b Hypertensive crises		Primary Care	Acute/ Specialist Services
No formulary choices			

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4.1c Pulmonary hypertension		Primary Care	Acute/ Specialist Services
	Macitentan (Opsumit [®])	⊕	⊕
	Riociguat film coated tablets (Adempas [®])	⊕	⊕
	Sildenafil (Revatio [®])	⊕	⊕
4.2 Hypotension and shock		Primary Care	Acute/ Specialist Services
Inotropic sympathomimetics			
	Dopamine		✓
Vasoconstrictor sympathomimetics			
	Midodrine	⊕	✓
	Noradrenaline (norepinephrine)		✓
5. Cardiovascular risk assessment and prevention		Primary Care	Acute/ Specialist Services
No formulary choices			
6. Heart failure		Primary Care	Acute/ Specialist Services
Potassium-sparing diuretics			
	Spironolactone (1 st line)	✓	✓
	Eplerenone (2 nd line)	✓	✓
Angiotensin II receptor antagonists			
	Sacubitril/valsartan (Entresto [®]) - <i>as per local guidance</i>	⊕	✓
Sodium glucose co-transporter 2 inhibitors			
	Dapagliflozin (Forxiga [®])	⊕	✓
	Empagliflozin (Jardiance [®])	⊕	✓
Comment: Dapagliflozin and empagliflozin are approved as an add-on for the treatment of symptomatic chronic heart failure with reduced ejection fraction in patients who are on optimised therapy but remain symptomatic. To be prescribed in Primary Care on the recommendation of a heart failure specialist.			

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7. Hyperlipidaemia		Primary Care	Acute/ Specialist Services
Lipid modifying drugs			
Bile acid sequestrants			
	Colestyramine	⊕	✓
Cholesterol absorption inhibitors			
	Ezetimibe	✓	✓
Fibrates			
	Fenofibrate (1 st line)	⊕	✓
	Bezafibrate (2 nd line)	⊕	✓
Statins			
	Atorvastatin (1 st line)	✓	✓
Comment: Chewable atorvastatin tablets not to be prescribed			
	Simvastatin (2 nd line)	✓	✓
	Pravastatin	✓	✓
	Rosuvastatin	✓	✓
Others			
	Evolocumab (Repatha [®]) (1 st line PCSK9-inhibitor)	⊕	✓
	Alirocumab (Praluent [®]) (2 nd line PCSK9-inhibitor)	⊕	✓
	Bempedoic acid (Nilemdo [®])	⊕	✓
	Inclisiran (Leqvio [®])		✓
<p>Comment: Bempedoic acid is approved for use in combination with ezetimibe in patients who are:</p> <ul style="list-style-type: none"> • statin intolerant or for whom a statin is contra-indicated and • where ezetimibe alone does not appropriately control LDL-C and • where proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors are not appropriate. <p>Requires recommendation from the lipid clinic but can be initiated in primary care.</p> <p>Inclisiran is approved for use in line with SMC restrictions. To be prescribed by the lipid clinic and supplied via the approved Homecare service. Not for prescribing in Primary Care. Inclisiran can be prescribed after maximally tolerated statins, ezetimibe, bempedoic acid have been ineffective in reaching target cholesterol levels and be considered as an alternative to the PCSK9-inhibitors. May be used as monotherapy or as an add-on to other oral agents.</p>			
8. Myocardial ischaemia		Primary Care	Acute/ Specialist Services
Glycoprotein IIB/IIIA inhibitors			
	Tirofiban		✓

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Selective sinus node 1 _f inhibitors			
	Ivabradine -3 rd line after beta-blockers & diltiazem for IHD, heart failure as per SMC guidance	✓	✓
Potassium- channel openers			
	Nicorandil	✓	✓

8.1 Acute Coronary Syndromes		Primary Care	Acute/ Specialist Services
Antithrombotics - antiplatelet drugs			
	Prasugrel (Efient [®]) – (for clopidogrel intolerance, stent, thrombosis on clopidogrel or for continuation of therapy recommended by tertiary centre)	⊕	✓
	Ticagrelor (Brilique [®])	⊕	✓
Comment: Ticagrelor – Continuation of treatment initiated in a tertiary centre ACS patients intolerant of clopidogrel Stent thrombosis while on clopidogrel Consultant cardiologist initiation for ACS patients with positive troponins			
Fibrinolytic drugs			
	Alteplase (for ischaemic stroke & for life threatening P.E)		✓
	Tenecteplase (for ST elevation M.I.)		✓
Nitrates			
	Glyceryl trinitrate	✓	✓
Comment: Patches not recommended due to tolerance problems			
	Isosorbide mononitrate	✓	✓
Inotropic sympathomimetics			
	Dobutamine		✓
8.1a Cardiac arrest		Primary Care	Acute/ Specialist Services
Sympathomimetics vasoconstrictor			
	Adrenaline (epinephrine)		✓
Allergic emergencies			
Adrenaline (epinephrine)			
	Epipen [®] Auto-injector	✓	✓
	Jext [®] Auto-injector	✓	✓
	Adrenaline (epinephrine)	✓	✓
Comment: Adrenaline auto-injectors should be prescribed by brand name due to differences in administration			

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between different brands. Patients should be advised to carry two in-date auto-injectors with them at all times.

9.Oedema		Primary Care	Acute/ Specialist Services
Diuretics			
Loop diuretics			
	Furosemide (1 st line)	✓	✓
	Bumetanide (2 nd line)	✓	✓
	Co-amilofruse	✓	✓
<p>Comment: Diuretics should be prescribed separately except for patients with poor compliance where combination products may be indicated.</p> <p>Potassium containing diuretic combinations: Most patients do not require potassium supplementation. For those patients who may require potassium supplements, potassium-sparing diuretics should be used. Potassium containing diuretics do not contain adequate amounts of potassium to match the patients' requirements and are therefore not advised for use.</p>			
Osmotic diuretics			
	Mannitol		✓
Thiazides and related diuretics			
	Metolazone 5mg tablets (Xaqua [®])	⊕	✓
<p>Comment: Xaqua 5mg tablets are licensed and should be prescribed in all new patients. Xaqua tablets are scored and can be halved. The bioavailability between Xaqua and other unlicensed formulations can vary by up to two-fold</p>			
10. Vascular disease		Primary Care	Acute/ Specialist Services
Peripheral vasodilators			
	Naftidrofuryl	✓	✓
10.1 Vein malformations		Primary Care	Acute/ Specialist Services
<i>No formulary choices</i>			

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Forth Valley Formulary Last amended December 23