



# UCLPartners Proactive Care Framework:

**Atrial Fibrillation – Stroke Prevention  
and Managing Cardiovascular Risk**

Version 7

The Proactive Care Frameworks can be used independently. To request the search tools please visit: [UCLPartners Proactive Care Frameworks - UCLPartners](#)

They can also be used in conjunction with [CVDACTION](#)

# Background to the Frameworks



# The Challenge of Long-Term Condition Management in Primary Care



## Historical challenge in long term condition care:

- Late diagnosis, suboptimal treatment, unwarranted variation
- Lack of self-management support
- Holistic care not always provided



## Real world primary care:

- Complexity, multimorbidity and time pressures
- Soaring demand and shifting priorities
- Winter pressures



## Pandemic impact:

- Disruption of routine care in long term conditions
- Risk of poorer outcomes for patients and health inequalities
- An increase in health care demand

# UCLPartners Proactive Care Frameworks Address Core Challenges in Primary Care

## Aim

Help people with long term conditions to stay well longer

## Objectives

1. Mobilise data - Identify patients whose care needs optimising and prioritise those at highest risk
2. Harness wider workforce - standardise delivery of holistic proactive care by wider primary care team
3. Support GPs to safely manage workflow, improve care and outcomes by releasing capacity

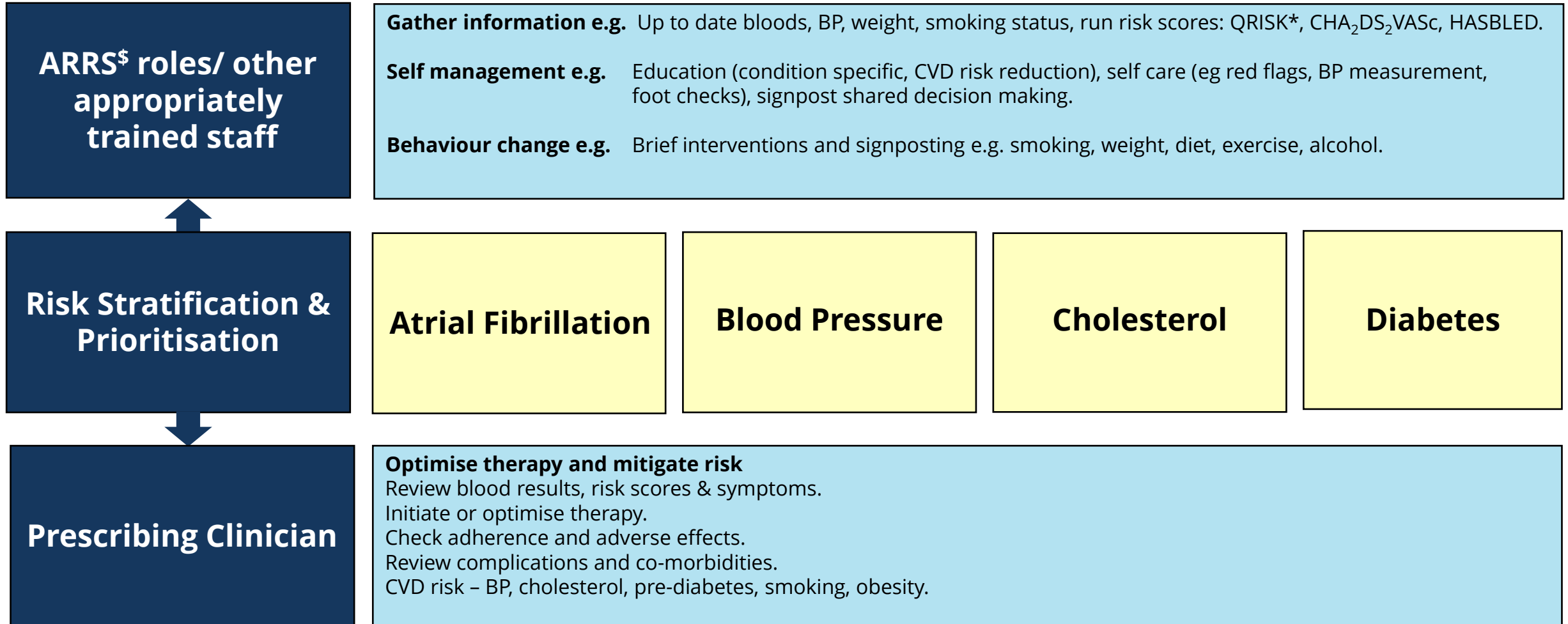
## Framework components

- ✓ Risk stratification & prioritisation tools
- ✓ Locally adaptable resources to support real world management
- ✓ Systematic use of wider primary care team (eg ARRS\* roles) to deliver structured support for education, self-management and behaviour change

## Framework Development

- Led by primary care clinicians
- Based on NICE guidelines and clinical consensus
- Patient and public support

# Cardiovascular Disease (CVD) Conditions – Stratification and Management



\*QRISK 3 score is recommended to assess CV risk for patients with Severe Mental Illness, Rheumatoid Arthritis, Systemic Lupus Erythematosus, those taking antipsychotics or oral steroids

<sup>\$</sup>Additional Roles Reimbursement Scheme



# Why Atrial Fibrillation? – The Case for Change

# Why the Focus on Atrial Fibrillation and Cardiovascular Risk?

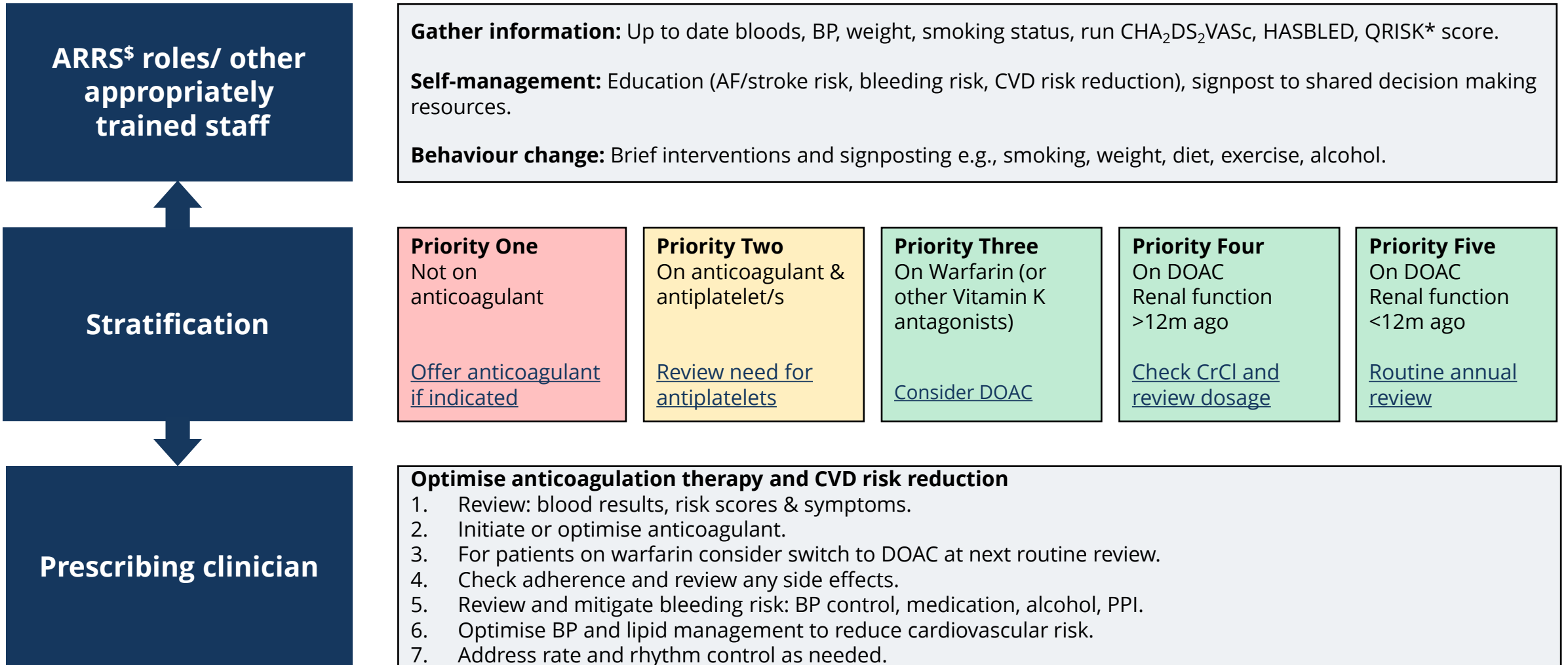
- 1 Atrial fibrillation (AF) leads to a 5-fold increased risk in stroke and is responsible for 20% of all strokes. Anticoagulation reduces the risk of stroke by up to two thirds<sup>1</sup>.
- 2 If not anticoagulated, 25% of people who experience an AF-related stroke will die and over 50% of people will be left with moderate to severe disability<sup>2</sup>. Each stroke costs the NHS and social care over £45k over 5 years<sup>3</sup>.
- 3 For most people, the benefits of anticoagulation significantly outweigh the risks.
- 4 People with AF are more likely to also have high blood pressure, high cholesterol, obesity or smoke. These factors should be addressed routinely to reduce the risk of heart attack, peripheral arterial disease, and dementia.



# Stratification and Management of Atrial Fibrillation (AF)



# Atrial Fibrillation: Stratification and Management of Stroke Risk



\*QRISK 3 score is recommended to assess CV risk for patients with Severe Mental Illness, Rheumatoid Arthritis, Systemic Lupus Erythematosus, those taking antipsychotics or oral steroids

<sup>\$</sup>Additional Roles Reimbursement Scheme

# Pathways and Resources



# Pathways and Resources

1. [Initiating Direct Oral Anticoagulants \(DOACs\)](#)
2. [Assessing stroke and bleeding risk](#)
3. [DOACs: Calculating creatinine clearance](#)
4. [DOACs: Dosing in non-valvular atrial fibrillation](#)
5. [DOACs: Reviewing condition management](#)
6. [DOACs: Considerations](#)
7. [Anticoagulation in people taking antiplatelet therapy](#)
8. [Warfarin: Time in therapeutic range \(TTR\) monitoring](#)
9. [Warfarin to DOAC switching](#)
10. [DOAC to DOAC switching](#)

# Initiating Direct Oral Anticoagulants (DOACs)\*

## Action

- 1 Check the patient has Non-Valvular AF (NVAf) and has no other contraindications to therapy
- 2 Check CHA<sub>2</sub>DS<sub>2</sub>VASc
- 3 Check:
  - Bloods for renal function, LFTs, clotting and FBC
  - Bodyweight
  - Creatinine Clearance (CrCl)
- 4 Check bleeding risk with HASBLED score or ORBIT score, in line with local guidance
- 5 Shared Decision Making (SDM) - agree which DOAC to initiate. Correct choice of dose
- 6 Counsel patient and agree a plan for follow up including monitoring blood tests

## Resource

DOAC contraindicated if mechanical prosthetic valve or known moderate to severe mitral stenosis  
DOAC contraindicated if pre-existing clotting disorder, such as antiphospholipid syndrome (APS) pregnant, breastfeeding or planning pregnancy, mechanical heart valves – seek specialist advice.  
For full list of contraindications see SmPCs at [www.medicines.org.uk](http://www.medicines.org.uk)

Offer anticoagulation if **CHA<sub>2</sub>DS<sub>2</sub>VASc** ≥ 2 (consider if = 1 in men)

### **Creatinine clearance calculation**

Dabigatran contraindicated if CrCl < 30ml/min  
Apixaban, Edoxaban, Rivaroxaban, are not recommended if CrCl < 15ml/min

Address modifiable risks identified by **HASBLED or ORBIT score** to reduce bleeding risk. Review other medication – [including antiplatelets](#) and NSAIDs; consider PPIs

### **DOAC dosing**

### **DOAC monitoring**

Provide written information, an anticoagulant alert card and point of contact should issues arise

**\*NICE guidance 2021 recommends DOACs first line. If DOAC is unsuitable, consider warfarin following local pathways for initiation & monitoring**

# Stroke Risk Assessment

CHA <sub>2</sub> DS <sub>2</sub> VASc			Stroke Risk	
		CHA <sub>2</sub> DS <sub>2</sub> VASc Score	Number of AF-related strokes avoided per 1,000 AF patients treated with anticoagulant therapy per year*	
Congestive Heart failure	1			
Hypertension	1			
Age >75 years	2			
Diabetes	1	1	4	
Prior stroke/TIA	2	2	17	
Vascular disease	1	3	25	
Age 65-74 years	1	4	38	
Female	1	5	57	

## Interpretation

1. Offer anticoagulation to all patients (male or female) with CHA<sub>2</sub>DS<sub>2</sub>VASc ≥ 2
2. Consider anticoagulation in all men with CHA<sub>2</sub>DS<sub>2</sub>VASc = 1
3. Antiplatelet monotherapy (Aspirin/Clopidogrel) is not recommended for stroke prevention in AF

# Bleeding Risk Assessment

## Bleeding Risk (HASBLED)

HASBLED Score		HASBLED Score	Number of major bleeds caused per 1,000 AF patients treated with anticoagulant therapy per year*
Uncontrolled hypertension (systolic >160mmHg)	1		
Abnormal liver function (Bili >2x ULN or AST/ALT/ALP >3x ULN)	1		
Abnormal renal function (Creat>200µmol/L, dialysis, transplant)	1		
Prior stroke/TIA	1		
History of major bleed or predisposition (anaemia)	1	1	4
Labile INR (on warfarin (TTR<60%))	1	2	12
Age >65 years	1	3	15
Medication usage predisposing to bleeding (Antiplatelets/ NSAIDS)	1	4	21
Alcohol (>8units/week)	1		

### Interpretation

1. HASBLED ≥3 indicates a higher bleeding risk
2. Address modifiable bleeding risk factors to reduce HASBLED score e.g. lower BP, review concomitant drug therapy, reduce alcohol intake
3. Consider a proton pump inhibitor to reduce upper GI bleeding

<https://www.mdcalc.com/has-bled-score-major-bleeding-risk>

## Bleeding Risk - ORBIT

ORBIT Score**		ORBIT Score	Risk level	Number of major bleeds caused per 1,000 AF patients treated with anticoagulant therapy per year
Haemoglobin <13 mg/dL for males and <12 mg/dL for females, or haematocrit <40% for males and <36% for females	2			
Age >74 years	1			
Bleeding history - Any history of GI bleeding, intracranial bleeding, or haemorrhagic stroke	2	0-2	Low	24
GFR <60 mL/min/1.73 m <sup>2</sup>	1	3	Medium	47
Treatment with antiplatelet agents	1	4-7	High	81

\*\*NICE 2021 indicated that ORBIT is the best tool for bleeding risk assessment, other tools may need to be used until it is embedded in clinical pathways and electronic systems

### Interpretation

1. Address modifiable bleeding risk factors to reduce bleeding risk e.g. lower BP, review concomitant drug therapy, reduce alcohol intake
2. Consider a proton pump inhibitor to reduce upper GI bleeding

<https://www.mdcalc.com/orbit-bleeding-risk-score-atrial-fibrillation>

# DOACs: Calculating Creatinine Clearance

eGFR should not be used to guide dosing decisions for DOACs<sup>1</sup>

**Use actual bodyweight (within 1 year) to calculate Creatinine Clearance (CrCl)**

- If weight < 50kg or > 120kg or if BMI >40 : seek specialist advice

**Use renal function checked within last 3 months**

**Calculate CrCl using Cockcroft Gault equation**

- Be cautious with calculators integrated into GP IT systems as they may default to ideal bodyweight resulting in underdosing of DOAC
- Use [MDCalc](#)

CrCl	Monitoring interval
>60ml/min	Annually
30-60ml/min	6-monthly
<30ml/min	3-monthly

**Adjust DOAC dose if necessary**

See slide on [DOAC dosing in NVAF](#)



# DOACs: Dosing in Non-Valvular Atrial Fibrillation

	Apixaban*	Dabigatran*	Edoxaban*	Rivaroxaban*
<b>Standard dose</b>	5mg BD	150mg BD	60mg OD	20mg OD
<b>Reduced dose</b>	2.5mg BD	110mg BD	30mg OD	15mg OD
<b>Criteria for dose reduction</b>	<b>2 or more of:</b> <ul style="list-style-type: none"> <li>• Age ≥80</li> <li>• Body weight ≤60kg</li> <li>• Cr ≥133µmol/L</li> </ul> <b>Or</b> CrCl 15-29ml/min	<ol style="list-style-type: none"> <li>1. Age≥80</li> <li>2. On verapamil</li> <li>3. Consider ↓dose:               <ul style="list-style-type: none"> <li>• Reflux/gastritis</li> <li>• Age75-80</li> <li>• CrCl 30-50ml/min</li> <li>• "Bleed risk"</li> </ul> </li> </ol>	<b>1 or more of:</b> <ul style="list-style-type: none"> <li>• CrCl 15-50ml/min</li> <li>• Body weight ≤60kg</li> <li>• On ciclosporin, dronedarone, erythromycin, ketoconazole</li> </ul>	CrCl 15-49ml/min
<b>Contraindicated / Not recommended</b>	CrCl <15ml/min	CrCl <30ml/min	CrCl <15ml/min	CrCl <15ml/min

Check for common drug interactions & possible contraindications	Bleeding risk increased by
Antifungal agents	NSAIDs
Rifampicin	Antiplatelets
Phenytoin and anti-epileptics	Long term oral steroid use
Antiretrovirals	Antidepressants: SSRIs/SNRIs
Chemotherapy	

# DOACs: Reviewing Management

This review template is designed for review 1 month after initiation and according to the monitoring interval

Eligibility	Monitoring interval	Parameter
<ul style="list-style-type: none"><li>All patients on DOAC</li></ul>	Annually	FBC, Renal & Liver function (calculate CrCl, weight)
<ul style="list-style-type: none"><li>CrCl 30–60 mL/min</li></ul>	6 monthly	Renal function
<ul style="list-style-type: none"><li>Patients over 75 years and / or frail</li></ul>	6 monthly	FBC, Renal & Liver function, weight
<ul style="list-style-type: none"><li>CrCl 15–30 mL/ml</li></ul>	3 monthly	Renal function
<ul style="list-style-type: none"><li>Other e.g. intercurrent illness that may impact on renal or hepatic function</li></ul>	Individually agreed	Renal & Liver function +/- FBC

Alternatively, NICE CKS recommends that where CrCl < 60ml/min, monitoring frequency should be guided by the CrCl divided by 10. For example, every 3 months if CrCl is 30 mL/minute. <https://cks.nice.org.uk/topics/anticoagulation-oral/management/edoxaban/>

## Annual clinical review\* to include:

- Stroke risk assessment using CHA<sub>2</sub>DS<sub>2</sub>VASc
- Review of QRISK and manage CVD risk factors including BP and lipids
- Address bleeding risk
- Check adherence
- Medicines review and check appropriate dosing
- Missed/delayed dose advice
- Alert card check

# DOACs: Considerations

Consideration	Option	Most suitable DOAC
Frequency of tablets/capsules	One tablet once a day	Edoxaban/rivaroxaban
	One tablet or capsule twice a day	Apixaban/dabigatran
With or without food	Take with or without food	Apixaban/dabigatran/edoxaban
	Take with food	Rivaroxaban
Use of a compliance aid (dosette box)	Suitable to go in compliance aid (Cannot use dabigatran in dosette box)	Apixaban/edoxaban/rivaroxaban
Swallowing difficulties or feeding tube	CAN be crushed	Apixaban/edoxaban/rivaroxaban
	Capsules CANNOT be opened	Dabigatran
Lactose intolerant patient		Dabigatran/edoxaban

# Anticoagulation in People Taking Antiplatelet Therapy

- Antiplatelet therapy is not recommended for stroke prevention in AF; oral anticoagulants should be used.
- Some patients with AF are on antiplatelet therapy as treatment for vascular disease. See guidance below

Indication for antiplatelets	Antiplatelet	Action when initiating anticoagulation for AF
Primary prevention of CVD	Antiplatelet monotherapy	Stop antiplatelet therapy (antiplatelet therapy not recommended for primary prevention of CVD)
Secondary prevention of CVD <ul style="list-style-type: none"> <li>• Stroke / Transient Ischaemic Attack (TIA)</li> <li>• Stable coronary heart disease (CHD)</li> <li>• Peripheral arterial disease (PAD)</li> </ul>	Antiplatelet monotherapy or Low dose rivaroxaban with aspirin	Stop antiplatelet therapy  Increase DOAC dose (to AF stroke prevention dose) and stop aspirin
Patients within 12 months of an ACS or stent placement (cardiac or vascular)	Aspirin plus clopidogrel, ticagrelor or prasugrel	Seek specialist advice to agree the preferred drug regimen. Triple therapy (dual antiplatelet plus anticoagulant) duration must be clearly defined.
Patients more than 12 months after an ACS or stent placement (cardiac or other vascular)	Antiplatelet monotherapy / dual antiplatelet therapy  If discharge summary indicates dual antiplatelet required long-term	Stop antiplatelet therapy, unless otherwise advised by specialist (check discharge summary)  Seek specialist advice – do not initiate triple therapy without advice

**When using an anticoagulant plus an antiplatelet – add a proton pump inhibitor (PPI)**

Adapted from: <https://b-s-h.org.uk/guidelines/guidelines/oral-anticoagulation-with-warfarin-4th-edition/> Page 318-319  
and <https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines/Atrial-Fibrillation-Management> Page 61

# Warfarin: Time in Therapeutic Range (TTR) monitoring

- For effective stroke prevention with warfarin, time in therapeutic range (TTR) should be maintained  $\geq 65\%$
- INR should be checked at least 12 weekly in patients with stable INR – target INR in AF is 2.5 (range 2-3)
- All patients should have TTR calculated at each INR visit
- Reassess anticoagulation if poor control as shown by:
  - 2 INR values  $> 5$  or 1 INR value  $> 8$  within the past 6 months
  - 2 INR values  $< 1.5$  within the past 6 months
  - TTR less than 65%
- If possible, address modifiable factors that may contribute to poor control:
  - Adherence, illness, interacting drugs, diet and alcohol consumption

NICE guidance recommends that patients prescribed warfarin for stroke prevention in AF should be considered for a switch to DOAC. Switching to a DOAC should be discussed with patients who are stable on warfarin at their next routine review, taking into account their time in therapeutic range.

# Warfarin to DOAC Switching

- 1 Confirm the indication for warfarin is stroke prevention in AF
- 2 Exclude patients with contraindications to DOACs
- 3 Involve the patient in a [shared decision](#) to switch from warfarin to a DOAC
- 4 Check bodyweight and bloods for INR, renal function, LFTs, and FBC
- 5 Calculate CrCl using [Cockcroft Gault equation](#)
- 6 Decide which [DOAC to use](#) and what [dose](#)
- 7 Advise patient when to stop the warfarin and start the DOAC:
  - INR should be <2.5 before initiating DOAC
  - DOAC may need to be withheld or 24-48 hours after stopping warfarin depending on the measured INR
- 8 Provide written information, an anticoagulant alert card and ensure they have a point of contact should issues arise

Anticoagulation for non-valvular atrial fibrillation (NVAf) following NHSE DOAC commissioning recommendations

Published July 2022

Additional information on switching from warfarin to a DOAC

It is for the prescribing clinician to determine which DOAC(s) are clinically appropriate for an individual patient based upon the relevant NICE technology appraisal guidance.

When switching to a DOAC, care should be taken to follow the recommendations in the relevant SAC:

- Apixiban (3D trade) <https://www.medicines.org.uk/sums/3dtrade/3dtrade>
- Edoxaban (Lixiana) <https://www.medicines.org.uk/sums/lixiana/lixiana>
- Rivaroxaban (Xarelto) <https://www.medicines.org.uk/sums/xarelto/xarelto>
- Dabigatran (Pradaxa) <https://www.medicines.org.uk/sums/pradaxa/pradaxa>

A switch from warfarin to a DOAC should not be considered for patients:

- With a significant renal impairment
- With moderate to severe liver disease
- With an ongoing and/or body system (ALL except where advised by a specialist) drug-drug interaction
- Who are pregnant based on their planning a pregnancy
- Requiring a higher INR than the standard INR range of 2.0 - 3.0
- With various oral appliances - Check for DOAC use (DOAC - 24h/48h)
- With various contraindications of various sites (e.g. ports, catheters)

Switching from warfarin to a DOAC should not be considered for patients:

- At the end of their life expectancy
- Prescribed interacting drugs - check DOAC drug-drug interactions
- Some ADRs (e.g. bleeding and hepatotoxicity) - check with ADR drug interaction website at <https://www.medicines.org.uk/sums/3dtrade/3dtrade>
- Some comorbidities - e.g. alcohol, liver disease, renal impairment or other factors which may affect DOAC use or which may affect the patient's ability to take the DOAC
- On other therapy which is a potential drug-drug interaction

Suggested reasons for safe switching from warfarin to a DOAC:

1. Check renal (eGFR, LFTs and FBC) stability within the last 6 months and calculate a renal dose-adjusted DOAC <https://www.medicines.org.uk/sums/3dtrade/3dtrade> or <https://www.medicines.org.uk/sums/lixiana/lixiana> or <https://www.medicines.org.uk/sums/xarelto/xarelto> or <https://www.medicines.org.uk/sums/pradaxa/pradaxa> based on their weight from last 12 months (unless recent weight loss/gain) (use adjusted body weight if patients < 50kg/ > 140kg)
2. Check INR
3. Discuss options with your patient and/or carer(s) if appropriate (e.g. with consent, patients DOAC at appropriate dose - discuss a detailed list of side effects and cost)
4. Review warfarin - take the repeat prescription after initiating DOAC
5. Specify the individual DOAC's recommended different INR thresholds for starting DOACs after stopping warfarin - The DOAC gives prescriber guidance and recommendations that the INR should be < 2.5 when the DOAC is started:
  - If INR < 2: Commence DOAC that day
  - If INR between 2 and 2.5: Commence DOAC the next day (ideally for the same day)
  - If INR between 2.5 and 3: Withhold warfarin for 24-48 hours and then start DOAC

<https://www.medicines.org.uk/sums/3dtrade/3dtrade/3dtrade> or <https://www.medicines.org.uk/sums/lixiana/lixiana/lixiana> or <https://www.medicines.org.uk/sums/xarelto/xarelto/xarelto> or <https://www.medicines.org.uk/sums/pradaxa/pradaxa/pradaxa>

1. Provide written information and involve family members, where possible to minimise the risk of patient taking both warfarin and the DOAC concurrently. This written care should be taken where patients are taking medication concurrently to minimise the risk of incorrect dosing
2. Provide an up-to-date Anticoagulant Alert and DOAC counselling (see checklist)
3. Where the switch to a DOAC is undertaken outside the GP practice, provide written information including the medication, location and monitoring requirements for other points of contact to verify when necessary, if appropriate
4. Inform community nursing teams if they have been monitoring INR of individual patient
5. Provide a point of contact for any queries relating to patient taking the anticoagulant. For those - frequency will depend on local practice, age and frailty

<https://pccsuk.org/2020/en/page/resources-page>

# DOAC to DOAC Switching

- 1 Confirm the indication for DOAC is stroke prevention in AF
- 2 Identify any reasons why a switch to an alternate DOAC may not be suitable e.g, specific contraindications or cautions etc
- 3 Involve the patient in a shared decision to switch to an alternative DOAC
- 4 Check bodyweight and bloods for INR, renal function, LFTs, and FBC
- 5 Calculate CrCl using Cockcroft Gault equation
- 6 Decide which DOAC to use and what dose
- 7 Advise patient when to stop the existing DOAC and to start the alternative DOAC:
  - Continue existing DOAC as normal on day before the switch
  - Initiate alternative DOAC when next dose is due on day of switch.
  - Ensure patient understands if dosing is once or twice daily, depending on DOAC
- 8 Provide written information, an anticoagulant alert card and ensure they have a point of contact should issues arise

Primary Care Cardiovascular Society | PCPA | UKCPA

## Anticoagulation for non-valvular atrial fibrillation (NVAf) following NHSE DOAC commissioning recommendations

Published July 2022

**Additional Information on switching from another DOAC to edoxaban**

*It is for the practising clinician to determine which DOAC(s) are clinically appropriate for an individual patient based upon the relevant NICE technology appraisal guidance.*

<p><b>When switching therapy, you should follow the recommendations in the relevant NICE:</b></p> <ul style="list-style-type: none"> <li>• <b>Edoxaban (Lixiana)</b> <a href="https://www.nice.org.uk/guidance/TA2073">https://www.nice.org.uk/guidance/TA2073</a></li> <li>• <b>Dabigatran (Pravain)</b> <a href="https://www.nice.org.uk/guidance/TA2073">https://www.nice.org.uk/guidance/TA2073</a></li> <li>• <b>Rivaroxaban (Xarelto)</b> <a href="https://www.nice.org.uk/guidance/TA2073">https://www.nice.org.uk/guidance/TA2073</a></li> </ul>	<p><b>Suggested actions for each patient:</b></p> <ol style="list-style-type: none"> <li>1. Check renal (CrCl), LFT, and FBC (fully within 14 days of next edoxaban or rivaroxaban (DOAC) dose). Do not switch to edoxaban or rivaroxaban until you are fully within all bodyweight from day 12 months (to edoxaban weight band) (see separate guidance) if patient is &gt;120kg (male) or &gt;40kg (female).</li> <li>2. Discuss with the patient and/or carer to ensure appropriate choice, with consent, possible education at appropriate dose - see overview.</li> <li>3. <b>Remove current DOAC from repeat prescription after adding edoxaban.</b></li> <li>4. Advise patient to continue with existing DOAC until next day of switch - ideally the patient should switch to edoxaban after ending up for a repeat supply of the other DOAC.</li> <li>5. Advise patient when to stop the alternative DOAC and when to start edoxaban:                     <ul style="list-style-type: none"> <li>• For patients on rivaroxaban: continue as usual on the day before the switch. Start edoxaban as usual daily when the next dose is due on the day of the switch. Continue as usual thereafter.</li> <li>• For patients on apixiban or dabigatran: continue with normal morning and evening dosing on the day before the switch; start edoxaban once daily when the next dose is due on the day of the switch. Continue once daily thereafter.</li> </ul> </li> <li>6. Provide patient information and ensure family members / carers aware as above - the patient card should be given where patients are using mechanical oral care devices to reduce the risk of bleeding.</li> <li>7. Provide an up-to-date Anticoagulant Alert card and DOAC counselling leaflet checklist.</li> <li>8. Where the DOAC switch is undertaken outside the GP practice, provide accurate information to allow primary care to safely take over prescribing responsibility.</li> <li>9. Inform community pharmacy of the change and encourage follow up for new medicines service or change medicines service.</li> <li>10. It is not appropriate to give monitoring in a GP using the clinical system built for this - frequency will determine time of further age and body.</li> </ol>
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\*Please refer to an ongoing anticoagulation therapy or alert / approach

<https://pccsuk.org/2020/en/page/resources-page>

# Hypertension in Patients with Atrial Fibrillation

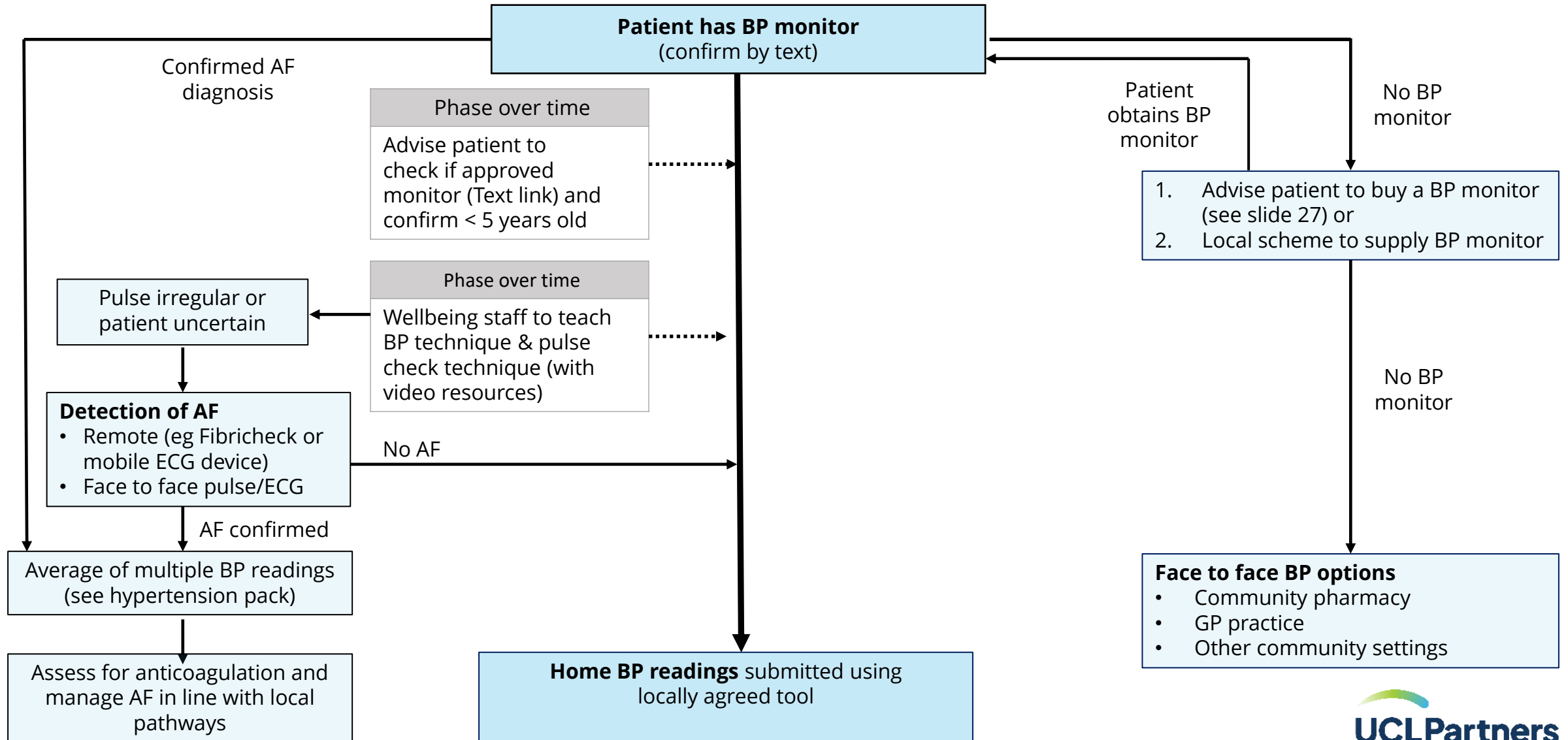




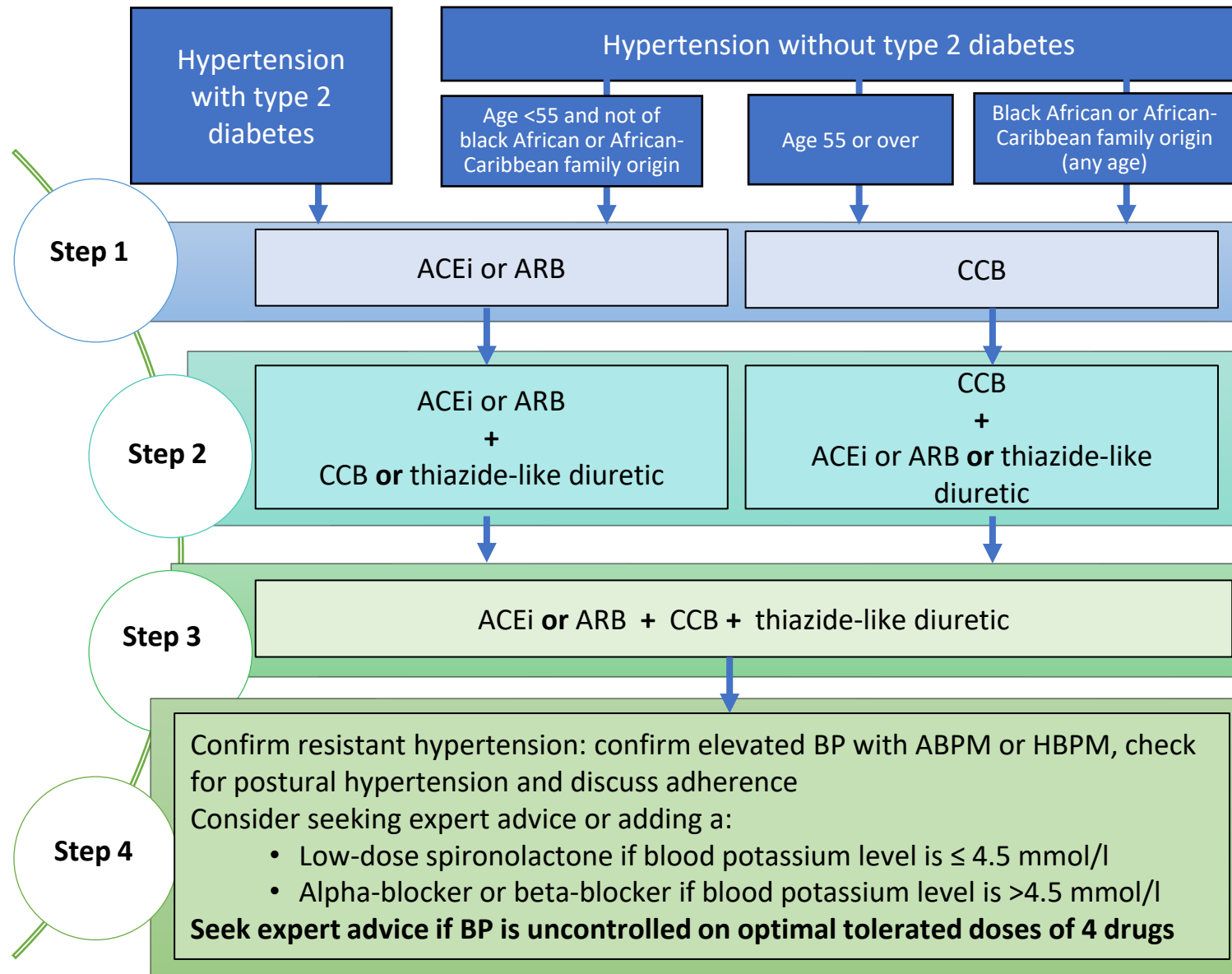
# Detection and Management of Hypertension in Patients with Atrial Fibrillation

- Blood pressure should be checked in patients with AF to identify undiagnosed hypertension. If hypertension is suspected due to a high BP reading, the diagnosis should be confirmed using ABPM or home BP checks over 7 days.
- Checking BP in patients with established hypertension:
  - Patients **with** AF:
    - Submit 2 BP readings each morning and evening over 4 days. Calculate the average systolic and diastolic values.
- Please refer to UCLP hypertension pathway for detailed guidance: [CVD resources - UCLPartners](#)

# Home Blood Pressure Monitoring Pathway



# NICE Hypertension Treatment Pathway (NG136)



Use clinical judgement for people with frailty or multimorbidity

Offer lifestyle advice and continue to offer it periodically

**Monitoring treatment**

Use clinic BP to monitor treatment

Measure standing and sitting BP in people with:

- Type 2 diabetes or
- Symptoms of postural hypotension or
- Aged 80 and over

Advice people who want to self monitor to use HBPM. Provide training and advice

Consider AMPM or HBPM, in addition to clinic BP, for people with white-coat effect or masked hypertension

**BP targets**

Reduce and maintain BP to the following targets:

Age <80 years:

- Clinic BP <140/90 mmHg
- ABPM/HBPM <135/85mmHg

**Postural hypotension:**

- Base target on standing BP

**Frailty or multimorbidity:**

- Use clinical judgement

Pathway adapted from NICE Guidelines (NG136) Visual Summary  
<https://www.nice.org.uk/guidance/ng136/resources/visual-summary-pdf-6899919517>  
 Abbreviations: ACEi: ACE inhibitor, ARB: Angiotensin II Receptor Blocker, CCB: Calcium Channel Blocker, ABPM: Ambulatory Blood Pressure Monitoring, HBPM: Home Blood Pressure Monitoring



# Management of Broader Cardiovascular Risk in AF: Cholesterol

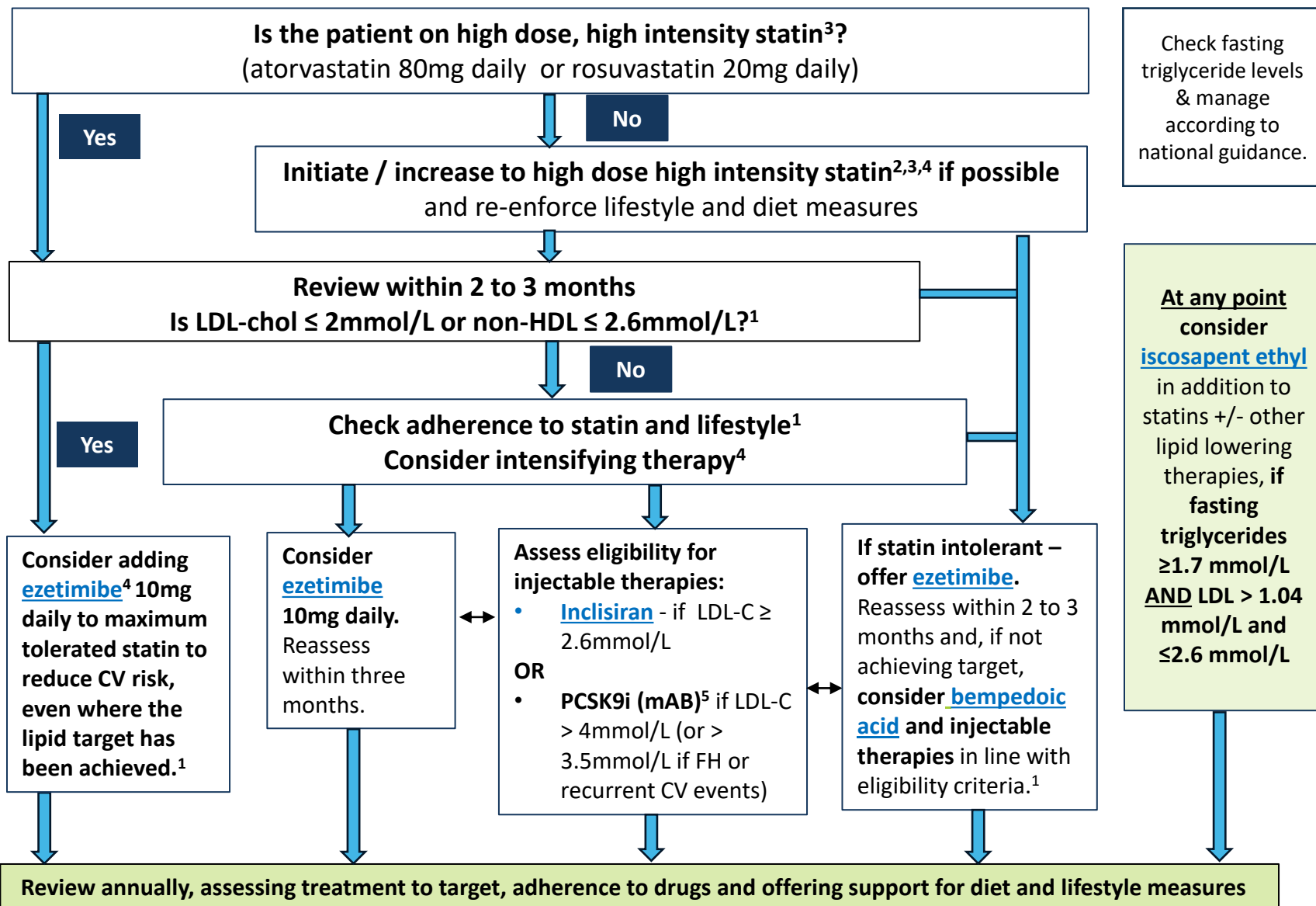
# Managing High Cholesterol and Cardiovascular Risk in People with Atrial Fibrillation

The following slides will help clinicians manage the broader cardiovascular risk in people with atrial fibrillation:

- **Pre-existing cardiovascular disease**
  - Optimise lifestyle
  - Use of high intensity statins at maximal appropriate dose
- **No pre-existing cardiovascular disease**
  - Optimise lifestyle and lipid lowering therapy as primary prevention in people with:
    - QRisk >10% in ten years
    - CKD 3-5
    - Type 1 Diabetes for >10 years or over age 40
- **All patients:**
  - Responding to possible statin intolerance
  - Managing muscle symptoms and abnormal LFTs in people taking statins
- **Please refer to UCLP lipid pathway for detailed guidance:**

<https://uclpartners.com/our-priorities/cardiovascular/proactive-care/cvd-resources/>

# Lipid Optimisation Pathway for Secondary Prevention<sup>1</sup>

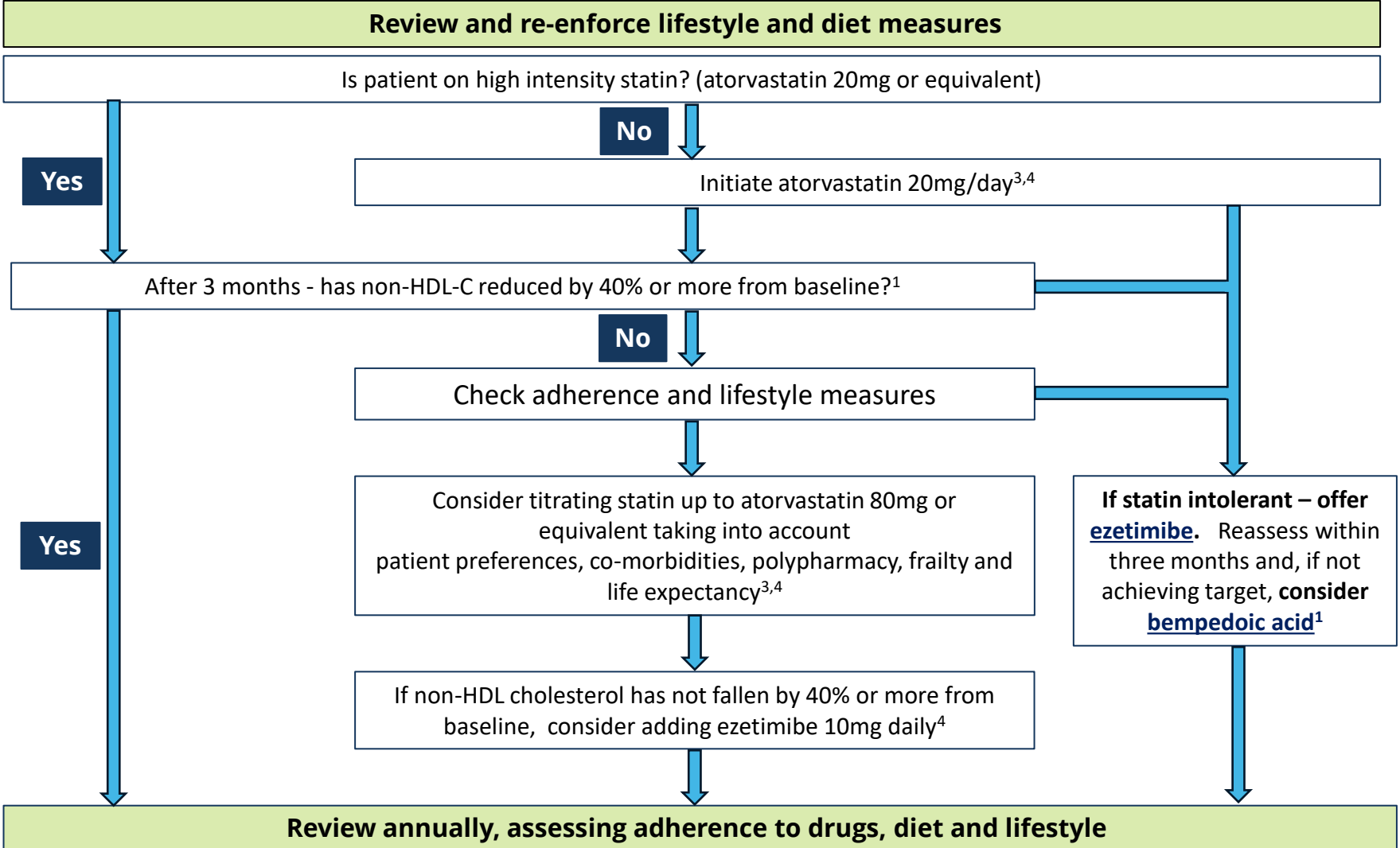


**Lipid lowering therapies should be offered to all patients with established CVD<sup>1</sup>**

1. [NICE NG238: Cardiovascular disease: risk assessment and reduction, including lipid modification](#)
2. Dose may be limited, for example if:
  - CKD: eGFR<60ml/min – recommended starting dose - atorvastatin 20mg
  - Drug interactions
  - Drug intolerance
  - Older age / frailty / end of life
3. See [statin intensity table](#).
4. Use shared-decision making and incorporate patient preference in treatment and care decisions.
5. NICE Guidance: [Evolocumab](#), [Alirocumab](#)

Monitoring statin therapy	
Initiation	Full lipid profile, LFTs
Within 3 months	Lipid profile, LFTs
Annually	Full lipid profile, LFTs (first year only)

# Optimisation Pathway for Patients with High Cardiovascular Risk – Primary Prevention<sup>1,2</sup>



Primary prevention should be offered to all patients with a QRisk  $\geq 10\%$  after addressing lifestyle modification (It may also be considered in individuals with QRisk  $< 10\%$ )<sup>1</sup>

Optimal High Intensity Statin for Primary Prevention	
Atorvastatin	20mg
Rosuvastatin	10mg

1. [NICE NG238: Cardiovascular disease: risk assessment and reduction, including lipid modification](#)
2. High cardiovascular risk:
  - QRisk  $>10\%$  in ten years
  - CKD 3-5
  - Type 1 Diabetes for  $>10$  years or over age 40
3. See [statin intensity table](#).
4. Use shared-decision making and incorporate patient preference in treatment and care decisions.

# Statin Intolerance Pathway

## Important considerations

- Most adverse events attributed to statins are no more common than placebo<sup>1</sup>
- Consider food and drug interactions which may be contributing to adverse effects – see Summary of Product Characteristics (SmPC)<sup>2,3</sup>
- Stopping statin therapy is associated with an increased risk of major CV events. It is important not to label patients as ‘statin intolerant’ without structured assessment
- If a person is not able to tolerate a high-intensity statin, aim to treat with the maximum tolerated dose
- A statin at any dose reduces CVD risk – consider annual review for patients not taking statins to review cardiovascular risk and interventions

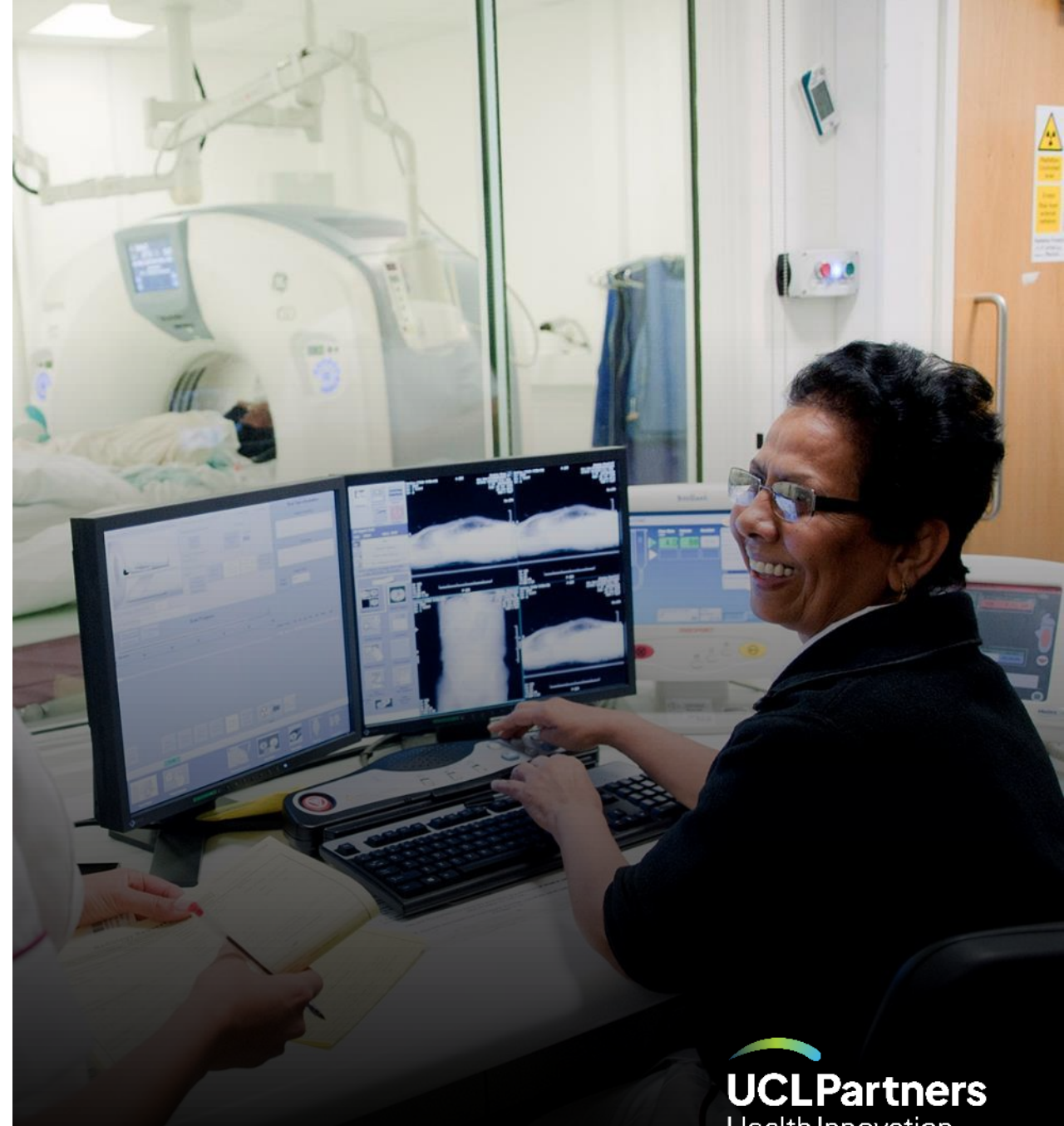
## A structured approach to reported adverse effects of statins

- Stop for 4-6 weeks.
- If symptoms persist, they are unlikely to be due to statin
- Restart and consider lower initial dose
- If symptoms recur, consider trial with alternative statin
- If symptoms persist, consider [ezetimibe](#) +/- [bempedoic acid](#)

1. (Collins et al systematic review, Lancet 2016)
2. SmPC: Atorvastatin  
<https://www.medicines.org.uk/emc/product/5274/smpc#gref>
3. SmPC: Rosuvastatin  
<https://www.medicines.org.uk/emc/product/4366/smpc#gref>



# Digital Resources



# Digital Resources to Support Self-Management: Atrial Fibrillation

## Living with Atrial Fibrillation

British Heart Foundation [Living with Atrial Fibrillation; AF causes, symptoms and treatments](#)

The AF Association [Patient resources](#)

NHS website – [Anticoagulant medicines](#)

Stroke Association – [Blood thinning medication and stroke](#), [AF symptoms, diagnosis and treatment](#), [AF and stroke](#)

## Blood Pressure

British Heart Foundation [Managing blood pressure at home](#)

## Starting anticoagulation

Starting anticoagulation with Jack - <https://vimeo.com/206257430>

**Educational video resources for patients created by UCLPartners** - <https://uclpartners.com/work/anti-coagulation-videos/>

## Diet

Providing information and recipes for easy ways to eat better from the '[Better Health](#)' website

[NHS advice on lowering cholesterol levels](#) & [what is cholesterol and how do I lower it?](#)

## Smoking cessation

[NHS support](#), stop smoking aids, tools and practical tips

## Alcohol

[Heart UK alcohol guidance](#) & [NHS Drink Less guidance](#)

## Exercise

NHS '[Better Health](#)'

Tips, advice and guidance on how to keep or get active in and around the home: [Getting active around the home](#)

Dance to health: [Online dance programme](#) especially tailored to people over 55 years old

The Richmond Group of Charities: [Physical activity videos and information](#)

# Digital Resources to Support Clinical Management: Atrial Fibrillation

**Video resources** (*What is anticoagulation; I am on a DOAC; Starting a DOAC; Anticoagulation in VT; Anticoagulation in atrial fibrillation; Switching from warfarin to a DOAC*) created by UCLPartners <https://uclpartners.com/work/anti-coagulation-videos/>

**Cockcroft-Gault Equation** <https://www.mdcalc.com/creatinine-clearance-cockcroft-gault-equation>

## **RCGP Module**

The Royal College of General Practitioners e-module on Atrial Fibrillation: diagnosis and management. Access [here](#) (log in details required)

## **Locally commissioned digital tools:**

AF Toolkit – [www.aftoolkit.co.uk](http://www.aftoolkit.co.uk)

**UCLP Proactive Care resources to address additional CVD and respiratory conditions can be accessed [here](#)**



# Implementation Support

# Proactive Care Frameworks: Implementation & Support Package

Implementation Support is critical to enable sustainable and consistent spread. UCLPartners has developed a support package for the Integrated Care Systems within our geography covering the following components. The resources below can be accessed via the UCLP website: [Proactive care frameworks – UCLPartners](#).

UCLPartners is one of 15 [Health Innovation Networks](#) (HINs) across England and all 15 have a priority around CVD. Please reach out to your local HIN to understand what support they might be able to provide. Please note each varies in its approach and offer.

## Search and stratify

**Comprehensive search tools** for EMIS and SystmOne to stratify patients

- Pre-recorded webinar as to how to use the searches.
- Online FAQs to troubleshoot challenges with delivery of the search tools.

## Workforce training and support

**Training tailored to each staff grouping (e.g. some ARRS\* roles) and level of experience**

- **Delivery:** Scripts provided as well as training on how to use these underpinned with motivational interviewing/ health coaching training to enable adult-to-adult conversations.
- **Practical support:** [Recommended training](#) e.g. correct inhaler technique; correct BP technique, Very Brief Advice for smoking cessation, physical activity etc.
- **Digital implementation** support: how to get patients set up with appropriate digital.
- **Education** sessions on conditions.
- **Communities of Practice.**

## Digital support tools

**Digital resources** to support remote management and self-management in each condition.

**Implementation** toolkits available where required, e.g. MyCOPD.

Support available from UCLP's commercial and innovation team for implementation.

# Thank you

Sign up to our monthly newsletter to receive the latest news, opportunities and events from UCLPartners



[UCLPartners.com/newsletter](https://UCLPartners.com/newsletter)

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# Version tracker

Version	Edition	Changes Made	Date amended	Review due
2	2.0	<ul style="list-style-type: none"> <li>Incorporated hypertension and cholesterol management content for patients with multi-morbidity</li> </ul>		
2	2.1	<ul style="list-style-type: none"> <li>Amended version control table to include dates and removed date from first slide</li> </ul>	June 2021	December 2021
3	3.0	<ul style="list-style-type: none"> <li>Removed slide on resources for remote diagnostics and monitoring</li> <li>Amended information on cholesterol management</li> <li>Removed statistics on statins and statin intensity table</li> <li>Added ORBIT bleeding risk tool</li> <li>Added option of bempedoic acid</li> </ul>	August 2021	February 2022
4	4.0	<ul style="list-style-type: none"> <li>Updated warfarin to DOAC slide</li> <li>Updated DOAC to DOAC slide</li> <li>Updated cholesterol pathways</li> <li>Updated resource slides</li> </ul>	October 2022	October 2023
5	5.0	<ul style="list-style-type: none"> <li>Introduction slides updated</li> <li>HCA roles amended to ARRS roles</li> <li>Lipid pathway treatment targets updated to align with NICE and AAC guidance</li> </ul>	December 2022	December 2023
5	5.1	<ul style="list-style-type: none"> <li>Updated cholesterol pathway slides</li> <li>Amended introduction slides</li> </ul>	September 2023	September 2024
6	6.0	<ul style="list-style-type: none"> <li>Cholesterol pathways updated</li> <li>Implementation slide updated</li> </ul>	January 2024	January 2025
6	6.1	<ul style="list-style-type: none"> <li>New UCLP template</li> </ul>	April 2024	January 2025
7	7	<ul style="list-style-type: none"> <li>Lipid Optimisation pathway for secondary prevention updated.</li> </ul>	June 2024	January 2025