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UCLPartners Proactive Care Framework:

Type 2 Diabetes – Managing Diabetes and Cardiovascular Risk

Supporting Primary Care to Restore and Improve Proactive Care

- COVID-19 has placed unprecedented pressure on our health system. This brings an added risk to people with long term conditions who need ongoing proactive care to stay well and avoid deterioration. Disruption to routine care may worsen outcomes for patients, increase their COVID risk and result in exacerbations that further increase pressure on the NHS – driving demand for unscheduled care in GP practices and hospitals.

- As primary care transforms its models of care in response to the pandemic, UCLPartners has developed real world frameworks to support proactive care in long term conditions. The frameworks include pathways for remote care, support for virtual consultations and more personalised care, and optimal use of the wider primary care team, e.g., healthcare assistants (HCA), link workers and pharmacists.

- Additionally, the frameworks include a selection of appraised digital tools, training and other resources to support patient activation and self-management in the home setting.

- This work has been led by primary care clinicians and informed by patient and public feedback.

- The UCLPartners frameworks and support package will help Primary Care Networks and practices to prioritise in this challenging time and to focus resources on optimising care in patients at highest risk. It will support use of the wider workforce to deliver high quality proactive care and improved support for personalised care. And it will help release GP time in this period of unprecedented demand.

UCLPartners Proactive Care Frameworks

UCLPartners has developed a series of frameworks for local adaptation to support proactive management of long-term conditions in post-COVID primary care.

- Led by clinical team of GPs and pharmacists.
- Supported by patient and public insight.
- Working with local clinicians and training hubs to adapt and deliver.

Core principles:

1. Virtual where appropriate and face to face when needed.

2. Mobilising and supporting the wider workforce (including pharmacists, HCAs, other clinical and non-clinical staff).

3. Step change in support for self-management.

4. Digital innovation including apps for self-management and technology for remote monitoring.

CVD High Risk Conditions – Stratification and Management Overview

Healthcare Assistants/other trained staff

Gather information e.g.	Up to date bloods, BP, weight, smoking status, run risk scores: QRISK, ChadsVasc, HASBLED.
Self management e.g.	Education (condition specific, CVD risk reduction), self care (eg red flags, BP measurement, foot checks), signpost shared decision making.
Behaviour change e.g.	Brief interventions and signposting e.g. smoking, weight, diet, exercise, alcohol.

Risk Stratification & Prioritisation

- **Atrial Fibrillation**
- **Blood Pressure**
- **Cholesterol**
- **Diabetes**

Prescribing Clinician

Optimise therapy and mitigate risk
Review blood results, risk scores & symptoms.
Initiate or optimise therapy.
Check adherence and adverse effects.
Review complications and co-morbidities.
CVD risk – BP, cholesterol, pre-diabetes, smoking, obesity.

Stratification and Management of Type 2 Diabetes

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Type 2 Diabetes Stratification and Management

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1 Identify & 2 Stratify

This search identifies all patients with T2 Diabetes. These patients are then stratified into priority groups based on HbA1c levels, complications, co-morbidity, social factors and ethnicity

High risk

Priority One

Hba1c >90 OR

Hba1c >75 WITH any of the following:

- BAME
- Social complexity**
- Severe frailty
- Insulin or other injectables
- Heart failure

** Social complexity includes Learning disability, homeless, housebound, alcohol or drug misuse

Priority Two

Hba1c >75 OR

Any HbA1c WITH any of the following:

- Foot ulcer in last 3 years
- MI or stroke/TIA in last 12 months
- Community diabetes team codes
- eGFR < 45
- Metabolic syndrome

(Except patients included in Priority 1 group)

Medium risk

Priority Three

Hba1c 58-75 WITH any of the following:

- BAME
- Mild to moderate frailty
- Previous coronary heart disease or stroke/TIA >12 months previously
- BP≥140/90
- Proteinuria or Albuminuria

(Except patients included in Priority 1 and 2 groups)

Priority Four

Hba1c 58-75 OR

Any HbA1c WITH any of the following:

- eGFR 45-60
- BP≥140/90
- Higher risk foot disease or PAD or neuropathy
- Erectile Dysfunction
- Diabetic retinopathy
- BMI >35
- Social complexity
- Severe frailty
- insulin or other injectables
- Heart failure

(Except patients included in Priority 1, 2 or 3 groups)

Low risk

Priority Five

All others

(Except patients included in Priority 1-4 groups)

Type 2 Diabetes Stratification and Management

3 Manage

Healthcare Assistants undertake initial contact for all risk groups to provide; check HBA1C up to date, provide information on risk factors, eg smoking cessation, diet and exercise, waist circumference

High risk	Medium risk	Low risk
GP/Diabetes Specialist/ Nurse	**Clinical pharmacist/ Nurse/ Physician Associate**	**Healthcare Assistant/ other appropriately trained staff**
Medication: • Adherence • Titration & intensification as appropriate **Monitoring** • Blood sugar control & personal targets • Agree HBA1C targets • Lipids/lipid lowering therapy • BP optimisation • Screen and manage Diabetic Foot Disease and Diabetic Kidney Disease **Education (inc online tools)** • Sick day rules • DVLA guidance • Flu jab **Review & Discuss Red flags** • Vision: floaters/flashing lights • Blood sugar control: hypos • Infections • Signposting and Escalation • Diabetes community +- secondary care team/advice **Recall & Code**	**Medication:** • Adherence • Titrate as appropriate **Monitoring** • Blood sugar control • Lipids/lipid lowering therapy • BP optimisation • Screen and manage Diabetic Foot Disease and Diabetic Kidney Disease **Education** • Sick day rules • Signpost online resources • DVLA guidance • Flu jab **Review & Discuss Red flags** • Vision: floaters/flashing lights • Blood sugar control: hypos • Infections • Signposting and Escalation **Recall & Code**	**Medication:** • Adherence • Explore/ check understanding • Confirm supply and delivery **Education** • Signpost online resources • Risk factors – diet/lifestyle/smoking cessation • DVLA guidance • Flu jab • Advise and signpost re Diabetic Foot Disease **Review & Discuss Red flags** • Vision: floaters/flashing lights • Blood sugar control • Infections • Signposting and Escalation **Recall & Code**

Hypertension in Patients with Type 2 Diabetes

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Detection and Management of Hypertension in Patients with Type 2 Diabetes

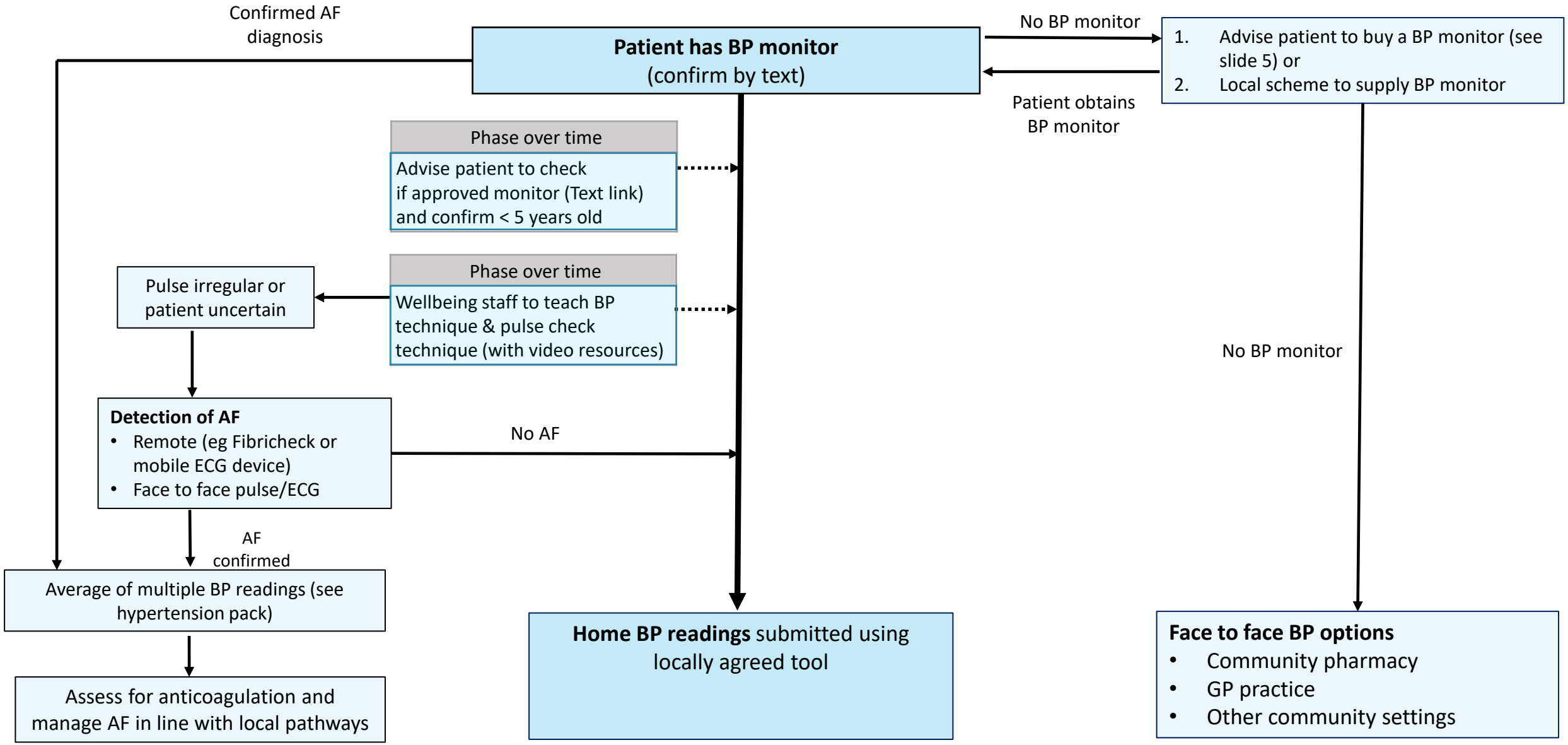
Blood pressure should be checked in patients with Type 2 diabetes to identify undiagnosed hypertension. If hypertension is suspected due to a high BP reading, the diagnosis should be confirmed using ABPM or home BP checks over 7 days.

Checking BP in patients with established hypertension:

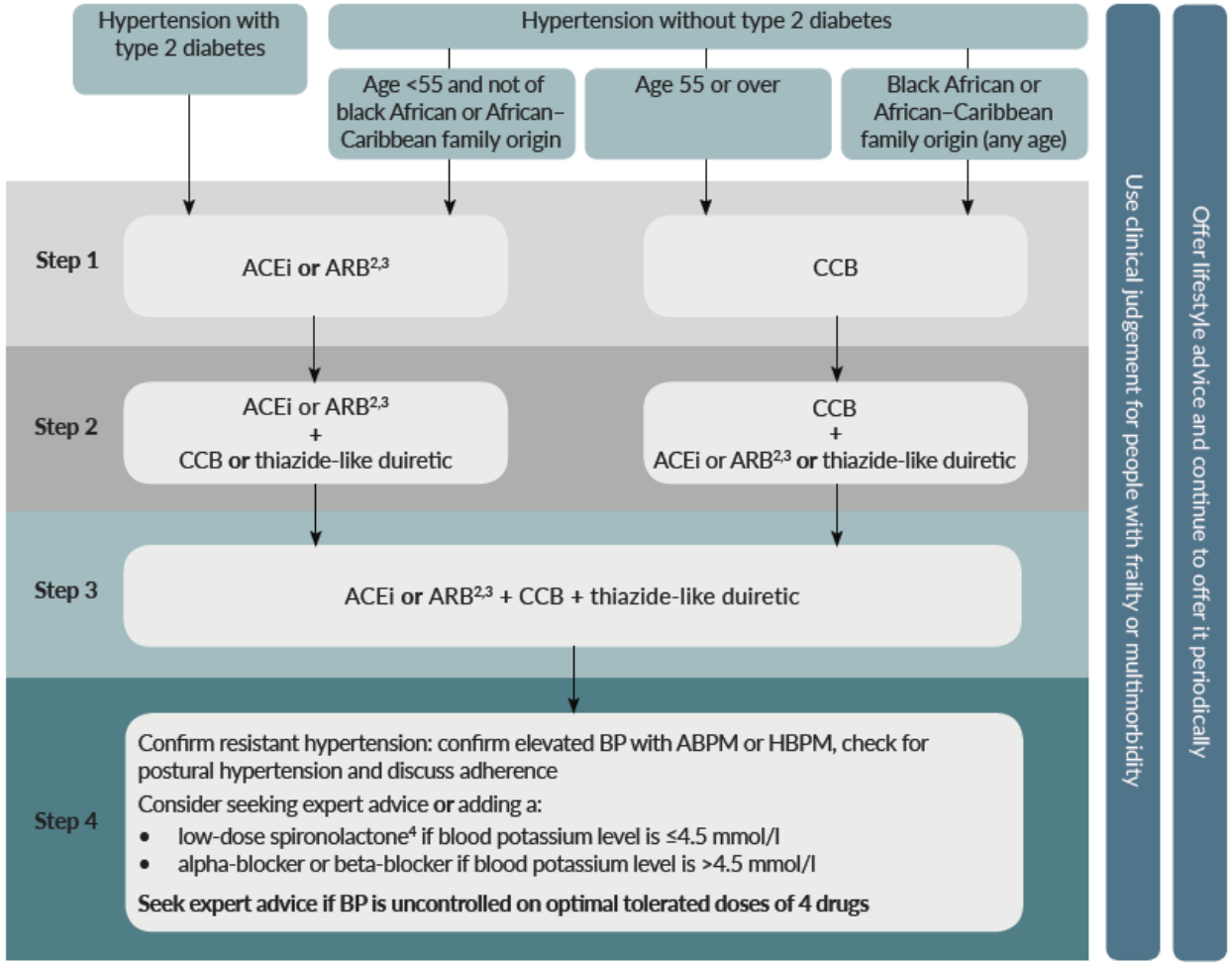
- Patients **without** AF:
  - Submit lowest of 3 Home BP readings
- Patients **with** AF:
  - Submit 2 BP readings each morning and evening over 4 days. Calculate the average systolic and diastolic values.

- Please refer to UCLP hypertension pathway for detailed guidance: https://s31836.pcdn.co/wp-content/uploads/Hypertension-Framework_UCLPartners-LTCs-April-2021-v2.0.pdf

Home Blood Pressure Monitoring Pathway



Choice of antihypertensive drug[1], monitoring treatment and BP targets



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.

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

Consider ABPM 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 <135/85 mmHg

Age ≥80 years:

- Clinic BP <150/90 mmHg
- ABPM/HBPM <145/85 mmHg

Postural hypotension:

- Base target on standing BP

Frailty or multimorbidity:

- Use clinical judgement

[1] For women considering pregnancy or who are pregnant or breastfeeding, see NICE's guideline on hypertension in pregnancy. For people with chronic kidney disease, see NICE's guideline on chronic kidney disease. For people with heart failure, see NICE's guideline on chronic heart failure

[2] See MHRA drug safety updates on ACE inhibitors and angiotensin-II receptor antagonists: not for use in pregnancy, which states 'Use in women who are planning pregnancy should be avoided unless absolutely necessary, in which case the potential risks and benefits should be discussed', ACE inhibitors and angiotensin II receptor antagonists: use during breastfeeding and clarification: ACE inhibitors and angiotensin II receptor antagonists. See also NICE's guideline on hypertension in pregnancy.

[3] Consider an ARB, in preference to an ACE inhibitor in adults of African and Caribbean family origin.

[4] At the time of publication (August 2019), not all preparations of spironolactone have a UK marketing authorisation for this indication.

Abbreviations: ABPM, ambulatory blood pressure monitoring; ACEi, ACE inhibitor; ARB, angiotensin-II receptor blocker; BP, blood pressure; CCB, calcium-channel blocker; HBPM, home blood pressure monitoring.

BIHS British and Irish Hypertension Society
Committed to preventing cardiovascular disease

This visual summary builds on and updates previous work on treatment published by the BIHS (formerly BHS)

Atrial Fibrillation in Patients with Type 2 Diabetes

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Detection and Management of AF in Patients with Type 2 Diabetes

- Palpate pulse and if irregular or patient uncertain:
- Assess for AF using ECG or remote devices:
  - Fibricheck (needs smartphone) www.fibricheck.com/ and ask them to monitor morning and evening for 7 days
  - Kardia by AliveCor (needs smartphone): www.alivecor.co.uk/kardiamobile
  - MyDiagnostick: www.mydiagnostick.com/
  - Zenicor: https://zenicor.com/
- If AF is confirmed, undertake stroke and bleeding risk assessment and anticoagulate as appropriate.
- **Please refer to UCLP AF pathway for detailed guidance:**
  https://s31836.pcdn.co/wp-content/uploads/Atrial-Fibrillation-Framework_UCLPartners-LTCs-April-2021-v2.0.pdf

Management of Broader Cardiovascular Risk in Type 2 Diabetes: Cholesterol

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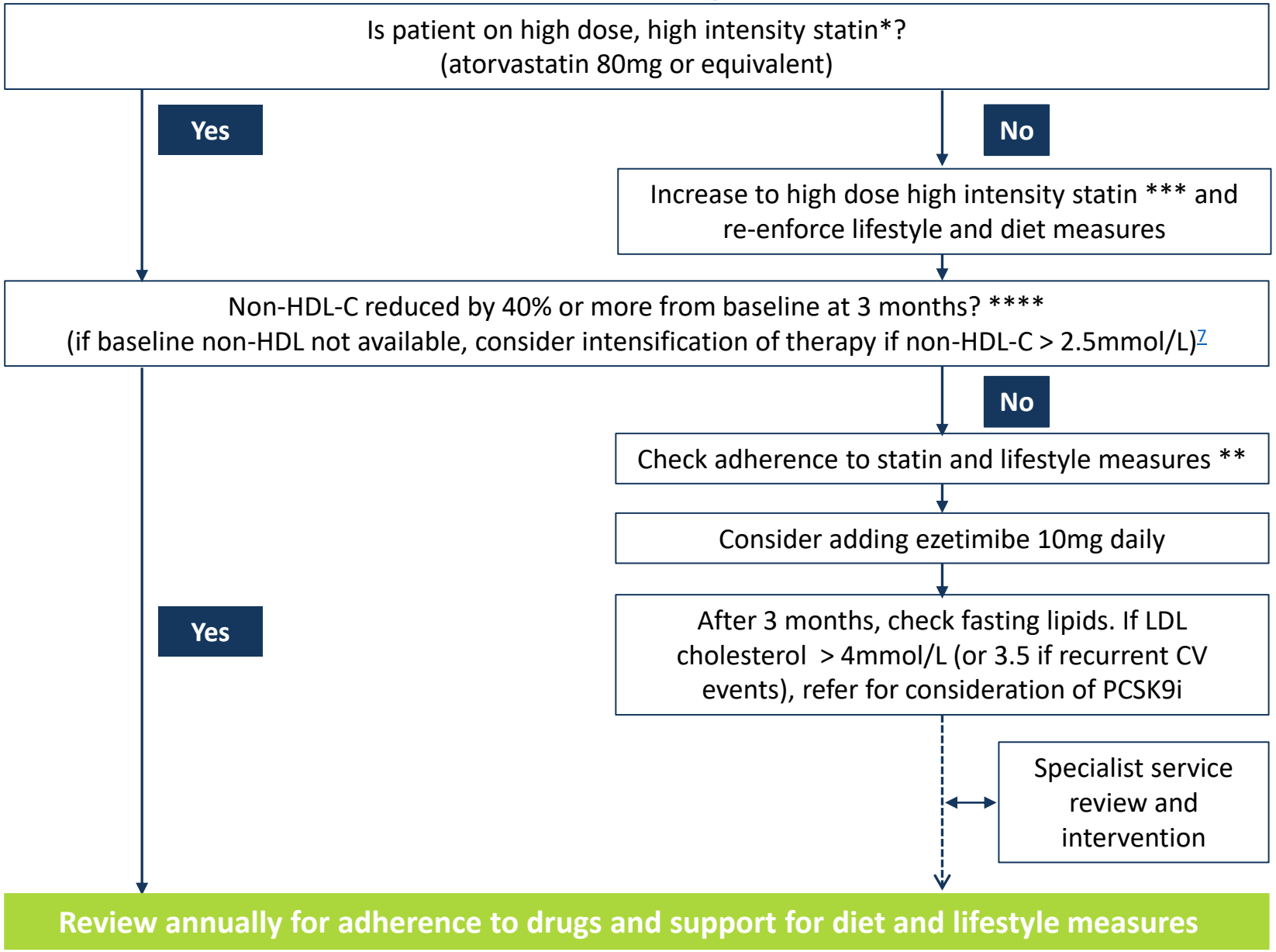
Managing High Cholesterol and Cardiovascular Risk in People with Type 2 Diabetes

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

- **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
- **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://s31836.pcdn.co/wp-content/uploads/Lipids-and-FH-Framework_UCLPartners-LTCs-April-2021-v4.1.pdf

Optimisation of Lipid Management in People with Type 2 Diabetes and CVD – Secondary Prevention



Optimal High Intensity Statin for secondary prevention
(High intensity statins are substantially more effective at preventing cardiovascular events than low/medium intensity statins)

Atorvastatin	80mg
Rosuvastatin	20mg

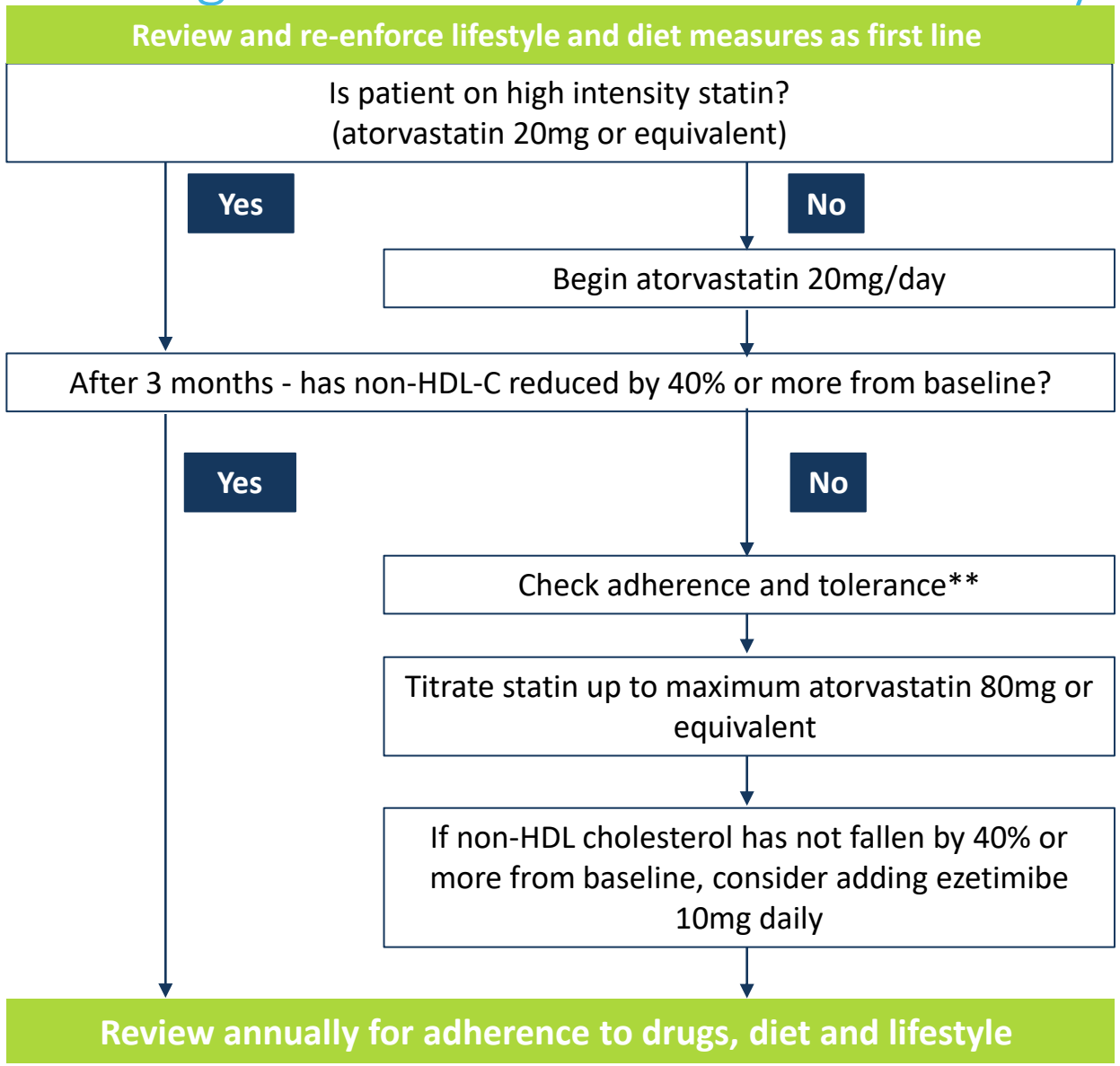
* Dose may be limited if:
- eGFR<30ml/min
- Drug interactions
- Intolerance

** If statin not tolerated, follow statin intolerance pathway and consider ezetimibe 10mg daily +/- bempedoic acid

*** See statin intensity table

**** NICE Guidance recommends a 40% reduction in non- HDL cholesterol

Optimisation of Lipid Management in People with Type 2 Diabetes and High Cardiovascular Risk* – Primary Prevention



Optimal High Intensity statin for Primary Prevention (High intensity statins are substantially more effective at preventing cardiovascular events than low/medium intensity statins)	
Atorvastatin	20mg
Rosuvastatin	10mg

* High CVD risk

- QRisk >10% in ten years
- CKD 3-5
- Type 1 Diabetes for >10 years or over age 40

** If statin not tolerated, follow statin intolerance pathway and consider ezetimibe 10mg daily +/- bempedoic acid

Statin Intolerance Pathway

Important considerations

- Most adverse events attributed to statins are no more common than placebo*
- 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

1. Stop for 4-6 weeks.
2. If symptoms persist, they are unlikely to be due to statin
3. Restart and consider lower initial dose
4. If symptoms recur, consider trial with alternative statin
5. If symptoms persist, consider ezetimibe

*(*Collins et al systematic review, Lancet 2016)*

Muscle Symptoms Pathway

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Muscle Symptoms

Check CK

Exclude other possible causes e.g. rigorous exercise, physiological, infection, recent trauma, drug or alcohol addiction. Stop statin if intolerable symptoms, or clinical concern

CK>50x ULN

Consider rhabdomyolysis. Stop statin and seek specialist advice urgently

CK >10-50 ULN

Check renal function

Renal function deteriorating?

Yes

No

CK >4-10 ULN

CK 0-4x ULN

No improvement in CK or symptoms intolerable

Tolerable symptoms

Discuss with patient. Continue statin and review at 2 weeks. Consider lower dose or alternative statin

Monitor CK , continue statin and review at 6 weeks

Stop statin for 4-6 weeks. **2 weeks after symptoms resolved and CK normalised,** restart statin at lower dose (Or consider low dose rosuvastatin if on atorvastatin and titrate up)

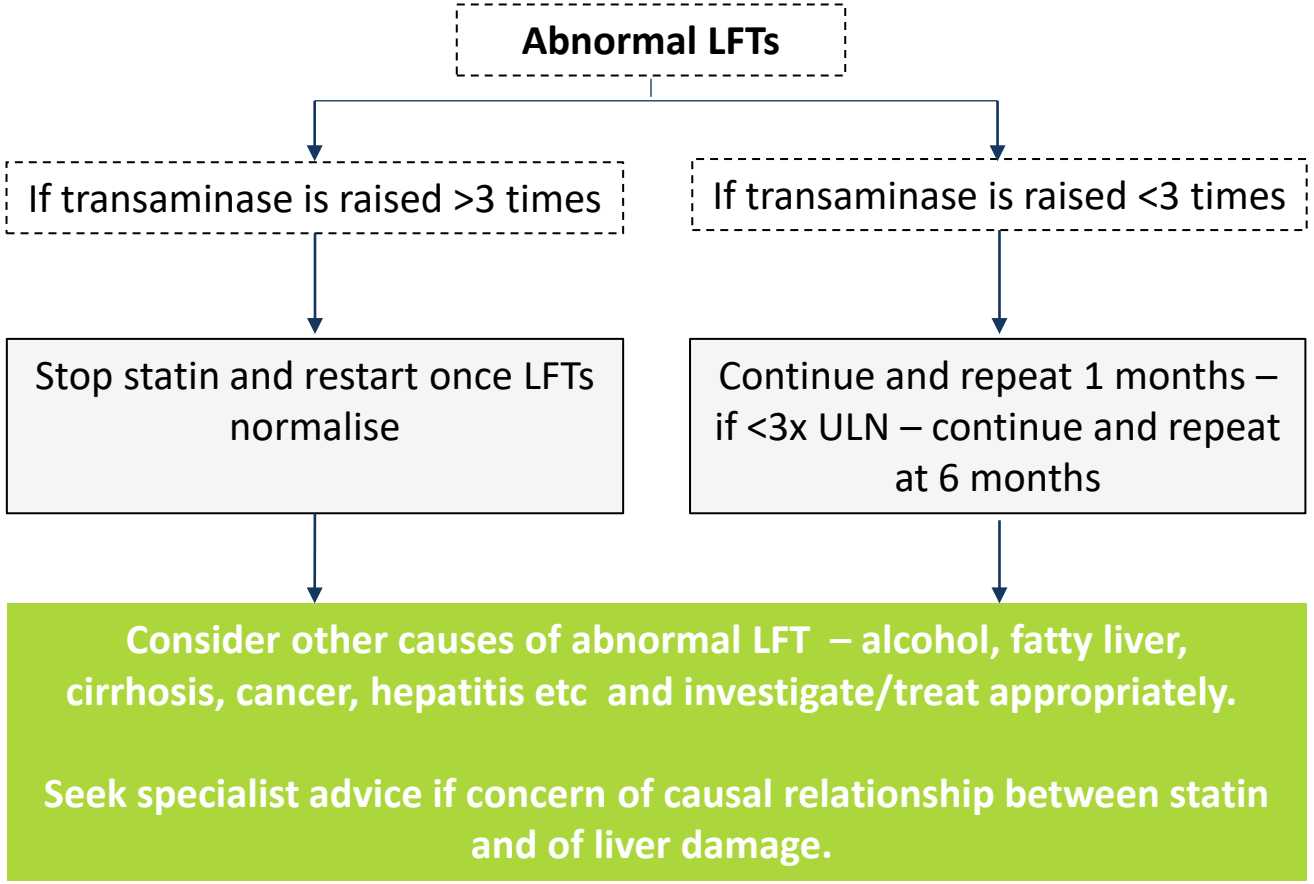
Seek specialist advice if CK not normalised

Titrate to higher dose if tolerated.

If recurrence of symptoms - Consider ezetimibe +/- bempedoic acid and/or referral for PCSK9i (for secondary prevention)

Detailed guidance:
https://www.england.nhs.uk/aac/wp-content/uploads/sites/50/2020/09/statin-intolerance-pathway-03092020.pdf

Statins: Abnormal Liver Function Test Pathway



- Do not routinely exclude from statin therapy people who have liver transaminase levels that are raised but are less than 3 times the upper limit of normal.
- Most adults with fatty livers are likely to benefit from statins and this is not a contraindication.
- Check Liver function at baseline, and once between 3 months and 12 months after initiation of statin therapy.

High Cholesterol: Shared Decision-Making Support

Benefits per 10,000 people taking statin for 5 years	Events avoided
Avoidance of major CVD events in patients with pre-existing CVD & a 2mmol/l reduction in LDL	1,000
Avoidance of major CVD events in patients with no pre-existing CVD & a 2mmol/l reduction in LDL	500
Reduction in CVD events for every 1mmol/l reduction in LDL	25%

Adverse Events per 10,000 people taking statin for 5 years	Adverse events
Myopathy	5
Haemorrhagic Strokes	5-10
Diabetes Cases	50-100

Shared decision-making resources:

- BHF information on statins
- Heart UK: Information on statins
- NICE shared decision-making guide

Collins et al 2016 Lancet Systematic Review Lancet 2016; 388: 2532–61

Statin Intensity table – NICE Recommends Atorvastatin and Rosuvastatin as First Line

Approximate Reduction in LDL-C					
Statin dose mg/day	5	10	20	40	80
Fluvastatin			21%	27%	33%
Pravastatin		20%	24%	29%	
Simvastatin		27%	32%	37%	42%
Atorvastatin		37%	43%	49%	55%
Rosuvastatin	38%	43%	48%	53%	
Atorvastatin + Ezetimibe 10mg		52%	54%	57%	61%

Low/moderate intensity statins will produce an LDL-C reduction of 20-30%

Medium intensity statins will produce an LDL-C reduction of 31-40%

High intensity statins will produce an LDL-C reduction above 40%

Simvastatin 80mg is not recommended due to risk of muscle toxicity

Digital Resources

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Resources for Patients

Diabetes the basics
www.diabetes.org.uk/diabetes-the-basics

Living with Type 2 Diabetes
www.diabetes.org.uk/guide-to-diabetesto-diabetes
https://player.vimeo.com/video/215821359

Confidential diabetes helpline: 0345 123 2399*, Monday to Friday, 9am to 6pm

NHS UK video library: Diabetes

Healthy eating with Diabetes
www.diabetes.org.uk/preventing-type-2-diabetes/ten-tips-for-healthy-eating & what is cholesterol and how do I lower it?
NHS UK video library - Fats and Oils https://player.vimeo.com/video/215816344

Type 2 Diabetes and exercise
www.diabetes.org.uk/preventing-type-2-diabetes/move-more
www.nhs.uk/oneyou/for-your-body/move-more/

Foot care
www.diabetes.org.uk/guide-to-diabetes/complications/feet/taking-care-of-your-feet

Blood sugar – how to test:
www.diabetes.org.uk/guide-to-diabetes/managing-your-diabetes/testing

What health checks do you need when you have Diabetes
NHS UK video library https://player.vimeo.com/video/215816727

Support from others living with Type 2 Diabetes:
https://healthunlocked.com/

Mental Well-being
www.nhs.uk/oneyou/every-mind-matters/

Managing blood pressure
Managing blood pressure at home

Resources for Patients

Diet
Providing information and recipes for easy ways to eat better from the 'One You' website
NHS advice on lowering cholesterol levels

Smoking cessation
NHS support, stop smoking aids, tools and practical tips

Exercise
iPrescribe app offers a tailored exercise plan by creating a 12-week exercise plan based on health information entered by the user
Getting active around the home: tips, advice and guidance on how to keep or get active in and around the home from Sport England
Dance to health: Online dance programme especially tailored to people over 55 years old

Alcohol
Heart UK alcohol guidance & NHS Drink Less guidance

Digital Resources to Support Healthcare Professionals: Type 2 Diabetes

Diabetic kidney disease: One London DKD Pathway
ACR - home urine testing: Healthy.io https://healthy.io/urinalysis-products/

Diabetic Foot Disease:
www.diabetes.org.uk/guide-to-diabetes/complications/feet/taking-care-of-your-feet
selondonccg.nhs.uk/wp-content/uploads/2021/01/Proforma-for-Calling-High-Risk-Diabetes-Foot-Patients-v8_FINAL-Document.docx

Sick day rules:
www.england.nhs.uk/london/wp-content/uploads/sites/8/2020/04/3.-Covid-19-Type-2-Sick-Day-Rules-Crib-Sheet-06042020.pdf

NICE Guidance NG28: Type 2 Diabetes in Adults: www.nice.org.uk/guidance/ng28

Locally commissioned digital tools:
Healthy.io: Albumin-creatinine ratio (ACR) home urine test kits utilising the smartphone camera
My Diabetes My Way: structured education integrating with the GP record
Oviva Diabetes Support: Digital structured education and behaviour change programme including 1:1 remote dietician support
Low Carb Program: Digital support for people with type 2 diabetes to achieve a lower carbohydrate lifestyle

Implementation Support

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Proactive Care Frameworks: Implementation & Support Package

Implementation Support is critical to enable sustainable and consistent spread.
UCLPartners has developed a support package covering the following components:

Search and stratify

Comprehensive search tools for EMIS and SystmOne to stratify patients
- Pre-recorded webinar as to how to use the searches
- Online Q&A to troubleshoot challenges with delivery of the search tools

Workforce training and support

Training tailored to each staff grouping (e.g. HCA/ pharmacist etc) and level of experience
- **Delivery:** Protocols and scripts provided/ training on how to use these underpinned with motivational interviewing/ health coaching training to enable adult-to-adult conversations
- **Practical support**: 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

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Thank you

For more information please contact:

primarycare@uclpartners.com

www.uclpartners.com
@uclpartners

Version tracker

Version	Edition	Changes Made	Date amended	Review due
2	2.0	• Incorporated blood pressure and cholesterol management content for patients with multi-morbidity • Updated slide 3 to highlight a focus on virtual delivery where appropriate		
3	3.0	• Added option of bempedoic acid • Added slides on Atrial Fibrillation	August 2021	February 2022