Kent and Medway Standard Operating Policy (SOP)

Blood Pressure Monitoring @Home
For People with Diagnosed Hypertension

V1.0

Contents

1. Recommendation

It is recommended that all clinical commissioning groups (CCGs) support general practice to implement home blood pressure monitoring at home (BPM@home) for patients with a diagnosis of hypertension which is poorly controlled, to allow treatment to be optimised, where it would be of benefit.

2. Background and Context:

During the COVID-19 pandemic, patients with cardiovascular risk factors may not be receiving their usual reviews and subsequent treatment adjustment for their hypertension. Evidence shows that every month of disruption to pro-active hypertension management and intensification of medication where needed will likely result in additional acute cardiovascular events. NHS England modelling has estimated that a 9 month period of disruption to the delivery of routine care for those diagnosed with hypertension could result in around 12,000 additional acute cardiovascular events (strokes and heart attacks) or deaths over a three year follow up, as compared to what might have been expected from pre-COVID levels of achievement. Therefore, home blood pressure monitoring has been identified as a priority for cardiovascular disease (CVD) management to ensure that patients who are vulnerable to becoming seriously ill with COVID-19 can manage their hypertension well and remotely, without the need to attend GP appointments.

The use of self and telemonitoring of blood pressure is also supported by evidence as it is: cost-effective[1], saves GP time by shifting care from GPs to other members of the multidisciplinary team[2], and over five years reduces the incidence of clinical events such as death, heart attack or stroke[3]. Blood Pressure Monitoring@home forms one part of a range of initiatives being developed by NHS @Home to provide better connected, more personalised care in people's homes including care homes, supported by technology where appropriate. NHS England and NHS Improvement has procured around 220,000 blood pressure (BP) monitors

1 McManus et al, 2018 for clinical teams to target patients with poorly controlled hypertension, prioritising those most at risk of becoming seriously ill with COVID, or suffering heart attacks and strokes.
2 Hammersley et al, 2020
3 Margolis et al, 2020

This SOP has been developed for Kent and Medway through guidance from the National SOP (appendix 3) and in particular the learning from the phase 2 BPM@Home programme.

The approach to remote monitoring is supported by the NHS England NHS @ home programme of work that aims to maximise the use of technology to provide better connected, more personalised care.

This SOP uses the national evidence and policy SOP as well as local learning from the Covid-19 pandemic response and clinical leadership to describe a phased approach to increasing digitally enabled remote monitoring to patients in their homes.

This SOP is intended to support the delivery of remote monitoring pathways to patients at home, introducing digital enablers provided such as DOCOBO. AccuRX is already widely used across practices for text messaging patients.

The SOP identifies the key elements of the pathway and the areas of clinical intervention that needs to be considered when introducing digital and remote monitoring solutions.

3. Governance and oversight

When CCGs accept delivery of blood pressure monitors and cuffs from NHS England and NHS Improvement, ownership of those devices will transfer to that CCG to use for healthcare purposes for their local population, including supporting primary healthcare services.

Legal responsibility, including ensuring appropriate clinical governance, remains with the relevant CCG, which should have a named person responsible for the establishment of the service in their area. Clinical, governance and administrative responsibilities included in the pathway can be provided by any appropriately trained person and best use of resources should be made. For example, NHS Volunteer Responders can deliver blood pressure monitors to patients' homes, and non-clinical staff, such as healthcare assistants, care navigators or volunteers, can undertake appropriate activities and use of standardised scripts to do so.

For assurance we are pleased to confirm the DPIA for this programme has been approved by the Head of Information Governance, NHS Kent and Medway CCG.

A combined Impact Assessment has been approved by Sharmani Ripley, Head of Quality, NHS Kent and Medway CCG.

A Digital Safety certification process (DCB0160) will be managed by a Clinical Safety Officer (via a party Ethos to support the digital submission of blood pressure readings for Docobo doc@Home

The programme is supported with engagement as follows:

Weekly BPM @ home Trailblazer Operational Group meetings
Bi-weekly Combined Assurance meetings
Bi-weekly Digital Support Operational Group meetings
Bi-weekly NHS England & NHS Improvement BP @home implementation meetings

4. Patient pathway

The pathway describes implementation in general practice to support the routine management of at-risk patients with diagnosed, poorly controlled hypertension (a flowchart is shown in Appendix 1).

4.1 Identification of patient populations

GP practices should decide which patients have the greatest need and, therefore, should be prioritised for regular home blood pressure monitoring. Search and risk stratification criteria could be based on age, blood pressure level, deprivation, ethnicity, pre-existing cardiovascular disease (e.g. coronary heart disease / peripheral arterial disease / atrial fibrillation / chronic kidney disease / patient has had a prior-stroke / TIA) and diabetes.

Available tools such as Ardens could be used for searching and stratifying patients within the EMIS GP systems.

4.2 Identification of patients with a blood pressure monitor

It is estimated that 30-40% of people with a diagnosis of hypertension have access to a home blood pressure monitor[4, 5]. Therefore, practices should contact patients in the identified groups, e.g. using an iPlato or MJog survey, to identify those who already have access to a blood pressure monitor, and therefore can be invited to enter onto this clinical pathway.

4 Baral-Grant S et al, 2012

5 Hodgkinson et al, 2020

4.3 Patients without access to a blood pressure monitor

The practice can provide the patient with a BP monitor and appropriately sized cuff, if they meet the locally agreed criteria. Please note, to ensure accurate blood pressure readings, patients must use a blood pressure monitor fitted with the right cuff size for their upper arm circumference[5].

Alternatively, patients may wish to buy their own blood pressure monitor, and this should be a validated blood pressure monitor with an appropriately sized cuff. If the patient declines to participate in home blood pressure monitoring, this should be appropriately coded (1085031000000100 | Home blood pressure monitoring declined (situation)) and alternative ways of regularly measuring their blood pressure should be pursued, for example face to face in the GP practice, via community pharmacy or other venues as available locally.

5 It is recommended that a mid-upper arm circumference measurement is obtained to confirm the appropriate cuff size, or a patient's Body Mass Index could be used as a proxy-measure for cuff size

4.4 Patients with access to a blood pressure monitor

4.4.1 Suitability

The programme plans to distribute all 5,737 BPM devices to practices and then onwards to patients. Practices should expect to receive between 10-80 devices depending upon list size, prevalence and deprivation. More devices will be provided to practices in areas with higher levels of deprivation to overcome any barriers in remote monitoring where patients cannot afford to buy their own devices.

Before any patient is entered onto the pathway, there should be a shared decision making conversation with the appropriate clinician, including discussion of any support requirements for patients and/or carers. Shared decision making ensures that patients are supported to make decisions that are right for them.

Once suitability is established, consent to home blood pressure monitoring should be confirmed.

If the patient is using a blood pressure monitor that they have bought themselves, the practice should ensure that the patient's blood pressure monitor is both:

a. validated for home use (see list on the British and Irish Hypertension Society website: https://bihsoc.org/bp-monitors/for-home-use/)

b. less than five years old

c. has an appropriately sized cuff

4.4.2 Supported Self-Management

Consideration should be given to the patient's knowledge, skills and confidence (activation) to effectively use the blood pressure monitor. The patient and/or carer should be educated on how to use the blood pressure monitor and how to submit blood pressure readings and given supporting information (see appendix 4 CSU patient on-boarding pack)

Taking blood pressure measurements: Patients should be advised to take two blood pressure readings, each morning and evening, ideally on four consecutive days, and to record each of the blood pressure readings.

Submitting blood pressure measurements: All readings should be submitted to the GP practice using a locally agreed digital remote monitoring platform (see Section 6) or manual method (text, email or paper copy diary; see Appendix 2) as agreed with the patient.

Patients should be told that if they record consecutive blood pressure readings over 170/115 mmHg, they should contact the GP practice for an urgent same day appointment for investigations.

4.4.3 Coding

The following SNOMED codes should be used to code blood pressure readings received from patients.

413606001 | Average home systolic blood pressure (observable entity)

413605002 | Average home diastolic blood pressure (observable entity)

4.4.4 Follow-up

The average of the submitted readings should be calculated. Patients who report a:

Raised blood pressure (≥135/85 mmHg if younger than 80 years or ≥145/85 mmHg if 80 years or over) should be followed up with an appointment with a prescribing clinician, to agree next steps in treatment – with lifestyle modifications and/or medicines – in line with NICE guideline NG136. Patients should be asked to submit blood pressure readings again in one month to assess the effectiveness of any intervention. – Patients should be advised to submit blood pressure readings monthly until their blood pressure is adequately controlled and then, ideally, every six months but at least annually thereafter.

Normal blood pressure (<135/85 mmHg if younger than 80 years or <145/85 mmHg if 80 years or over) should be reassured by text or telephone, and reminded to submit blood pressure reading again, ideally in six months, but at least annually thereafter.

Irregular pulse should be followed up with an appointment with a prescribing clinician, to be investigated to confirm diagnosis of atrial fibrillation in line with NICE guideline CG180.

5. Care homes

People living in care homes should receive the same standard of care as someone in their own home. Access to home blood pressure monitoring for patients in care home settings should be facilitated by care home staff and other supporting services. Support with setting up the pathway within the care home can be provided through the care home's named clinical lead in the first instance.

6. Remote monitoring digital platforms

Digital platforms have created electronic pathways for patients, that enable messaging and submission of readings, which can be reviewed and actioned by clinicians instead of traditional GP appointments.

The system's design is focused on simplicity and accessibility. Patients have the option to record their BP and related symptoms into a secure app (Docobo), via text message or online. The BP readings can then be securely viewed in the patient's record on the GP system or the data can be accessed in Docobo, doc@HOME – an online clinical database - that displays the data in a trended format on a data graph.

AccuRX - a text message service enabling GP Practices to communicate directly with patients to deliver care already widely used in Kent & Medway Practices.

7. Data requirements

All relevant information should be recorded in the patient record, including for patients who decline to participate in home blood pressure monitoring.

Docobo doc@HOME is a MDD compliant class I medical device, which along with strict data security and IG compliance, provides assurance to clinicians and patients that clinical data is reliable and safe.

AccuRX - All data is encrypted when stored and when being sent as is already being used within Practices as part of the Covid 19 response.

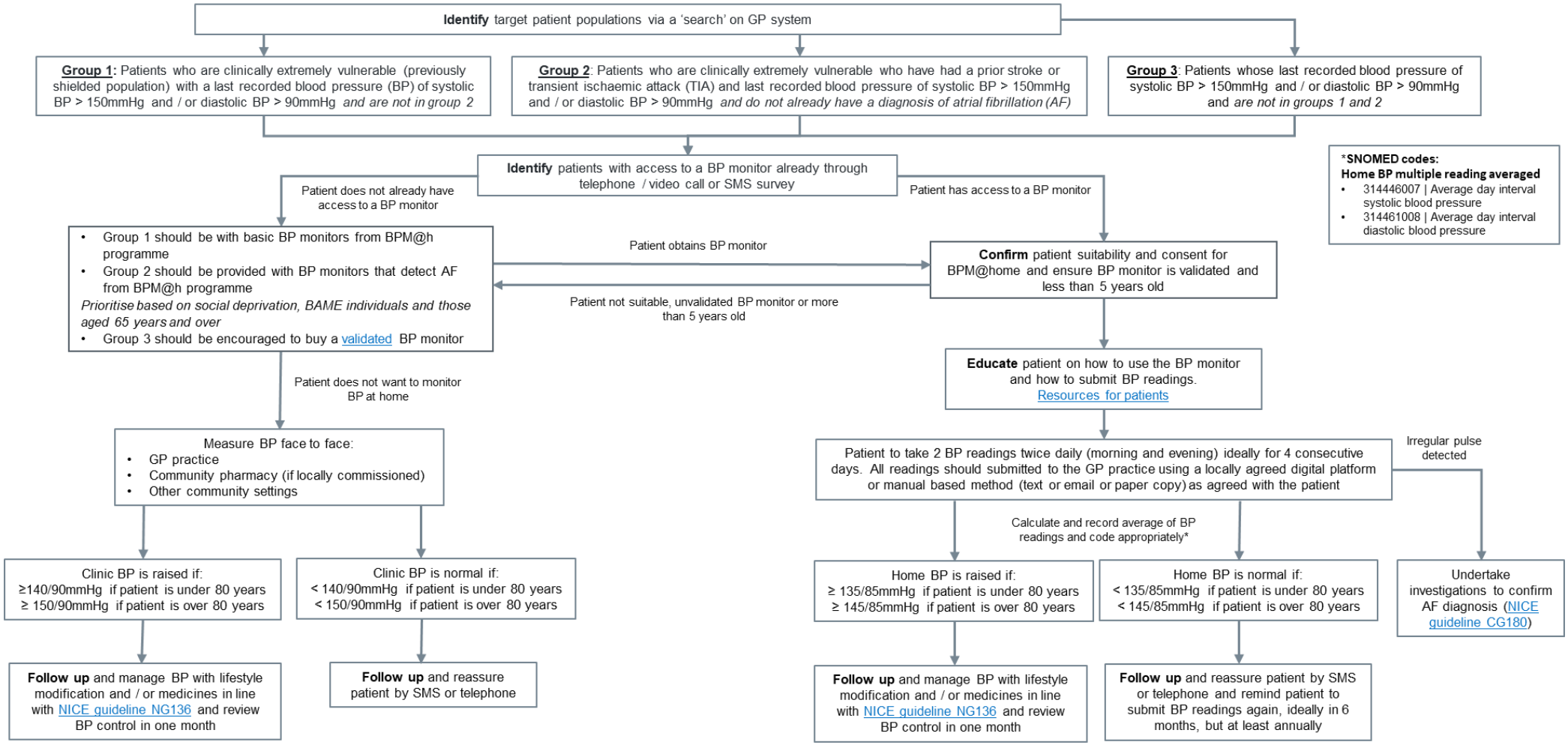
8. Reporting

Practice data collection will be complied via survey. There will be no need for the practices to collect SNOMED codes as these will be collected centrally by NHS Digital. Data on usability of AccuRX will also be collected centrally.

9. Further Support

All resources to support NHS staff and patients with home blood pressure monitoring can be found on the Blood Pressure @home programme FutureNHS workspace. If you are unable to access the workspace, please email england.home@nhs.net to request access.

Appendix 1: Blood pressure monitoring @home for people with diagnosed hypertension



Appendix 2: Home BP readings

Name: Tom Test-Test Patient

Date of Birth: 03 May 1977

NHS No:

Date	Time	Top number (systolic)	Bottom number (diastolic)	Pulse
	Eg 8am	**130**	**78**	**70**
	Eg 9pm	**145**	**86**	**82**
	am			
	pm			
	am			
	pm			
	am			
	pm			
	am			
	pm			

Appendix 3

Blood Pressure @home forms one part of a range of initiatives being developed by NHS @home to provide better connected, more personalised care in people's homes including care homes, supported by technology where appropriate. To date, the programme has developed a national clinical pathway (Standard Operating Procedure),

SOP - Blood Pressure @home v3.pdf

Appendix 4 – CSU Patient on-boarding pack (Draft Version 1.2_2. Final version scheduled to be published on 23rd July 2021)

These resources are designed to support GP practices to recruit patients to the BP@home pathway. The resources align with and supplement the Standard Operation procedure (SOP). GP practices can use a variety of techniques and tools to decide which patients have the greatest need and should be prioritised for regular home blood pressure monitoring.

Patient_onboarding_ V1_2_2.docx