BP@home

**GP FAQs**

**What is the BP@home programme?**

CVD is the biggest cause of preventable early mortality and health inequalities in our communities. The risks from CVD have increased post covid. Controlling BP is one of the best ways to improve CVD outcomes.

**BP@home** is a programme to improve BP control in people with hypertension through home monitoring by

* **identifying** who is at greatest risk from their hypertension,
* **recruiting** patients to either buy their own BP monitor, or if unable to, supplying a free BP monitor, and providing resources for guided self-monitoring
* **monitoring** their average home BP using a structured process.

The flowchart and FAQs are provided to help speed up the implementation of BP@home. Practices are free to utilise their own methodology to identify who would benefit most, recruit them into the BP@home programme, and manage their BP. However, practices do need to use the correct coding when using BP machines that have been supplied (see 'Manage' section).

As a minimum, practices taking part should supply the 'free' BP machines to patients in greatest need but the ambition over the next 12 months is to try and increase the number of people with hypertension who are controlled by around 2500 patients across North Yorkshire CCG based on 2019/20 QoF data (equivalent to around an additional 5 or 6 patients per 1000 practice population. If that is achieved, it is halfway to the ambition that 80% of all patients with known hypertension are controlled. (see [here](https://fingertips.phe.org.uk/profile/cardiovascular-disease-prevention/area-search-results/E54000051?place_name=Humber,%20Coast%20and%20Vale&search_type=stp-area) for more information about where these number have come from)

The use of self and telemonitoring of blood pressure is supported by evidence as it is: [cost-effective](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2818%2930309-X/fulltext), [saves GP time](https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003124) by shifting care from GPs to other members of the multidisciplinary team, produces a [clinically significant reduction in BP](https://www.bmj.com/content/372/bmj.m4858) compared to usual care, and over five years [reduces the incidence of clinical events](https://www.ahajournals.org/doi/abs/10.1161/HYPERTENSIONAHA.120.15492?download=true&) such as death, heart attack or stroke.

1. **Identify**
	1. **What criteria should I use to prioritise who is reviewed first?**

GP practices should decide which patients have the greatest need and, therefore, should be prioritised for regular home blood pressure monitoring. Search and 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.

* 1. **What tools are available to help prioritise patients?**

There are a few tools available that could be used for searching and stratifying patients in GP systems (SystmOne and EMIS). [UCL Partners: Proactive Care Frameworks](https://uclpartners.com/proactive-care/search-and-risk-stratification-tools/) (prioritisation based on blood pressure level) is the preferred methodology

* 1. **What are the search criteria UCL Partners tools?**

|  |  |  |
| --- | --- | --- |
| Priority 1 |  | Clinic BP ≥ 180/120mmHg |
| Priority 2 | a. | Clinic BP ≥ 160/100mmHg |
| b. | Clinic BP ≥ 140/90mmHg if BAME with CVD, CKD, diabetes, or BMI >35 |
| c. | No BP reading in 18 months  |
| Priority 3 | a. | Clinic BP ≥ 140/90mmHg if BAME or CVD, CKD, diabetes |
| b. | Clinic BP ≥ 140/90mmHg – all other patients |
| Priority 4 |  | Clinic BP < 140/90mmHg (under 80 years) Clinic BP < 150/90mmHg (80 years and over) |

* 1. **Do we need to prioritise patients, and can we use our own methodology?**

Identifying who will benefit from having the monitors, starting with the most at risk makes sense. If you have other methodologies to prioritise/identify who would benefit most – please feel free to use them.

1. **Recruit**
	1. **What monitors should patients buy?**

The British and Irish Hypertension Society has a list of validated home BP machines [here](https://bihsoc.org/bp-monitors/for-home-use/).

The [British Heart Foundation](https://giftshop.bhf.org.uk/blood-pressure-monitors) has an online shop with monitors starting from around £20. Other retailers are available.

Patients should be instructed how to use the monitors, ensure they are <5 years old, and use the correct cuff size.

* 1. **Why recommend that BP machines should be less than 5 years old?**

Machines that have not been calibrated can give erroneous results. Clinicians can be confident in the readings if the [BP machine less than 5 years old](https://bjgp.org/content/70/697/e548)

* 1. **How should patients do a pulse check?**

Patients should be asked to feel their own rhythm before being entered into the programme. If there is a query whether they have an irregular pulse, there are some digital remote tools available:

* Fibricheck (needs smartphone) [www.fibricheck.com/](http://www.fibricheck.com/)
* Mobile ECG
	+ Kardia by AliveCor (needs smartphone): [www.alivecor.co.uk/kardiamobile](http://www.alivecor.co.uk/kardiamobile)
	+ MyDiagnostick: [www.mydiagnostick.com/](http://www.mydiagnostick.com/)
	+ Zenicor: <https://zenicor.com>

If AF is detected, assessment with ECG is recommended.

* 1. **Can patients use an automated BP machine if they have an irregular pulse?**

Extract from [NICE Hypertension Guideline Update CG127 2011](http://www.nice.org.uk/nicemedia/live/13561/56008/56008.pdf):

“Because automated devices may not measure blood pressure accurately if there is pulse irregularity (for example, due to atrial fibrillation), palpate the radial or brachial pulse before measuring blood pressure. If pulse irregularity is present, measure blood pressure manually using direct auscultation over the brachial artery. [new 2011]”.

Patients with Atrial Fibrillation should therefore continue to be followed up with clinic BPs

* 1. **What training materials are available for patients?**

A Blood Pressure UK A4 sheet on how to take your BP at home [here](http://www.bloodpressureuk.org/media/bpuk/docs/CheckingBPathomeA4_web.pdf) which links to a [video](https://youtu.be/TItRBH7wbfk)

British Heart Foundation patient resources on how to take home BP [here](https://www.bhf.org.uk/informationsupport/support/manage-your-blood-pressure-at-home) including a [video](https://youtu.be/mfwBpBXUYHs)

* 1. **How to measure cuff sizes**

Advice from the BHF

* Take a piece of string and wrap around your upper arm at the midpoint between your shoulder and elbow.
* Measure the length of the piece of string.
* Choose the correct cuff size as per the table

|  |  |
| --- | --- |
| **Cuff (Code)** | **Arm circumference range** |
| Small (S) | 17-22cm |
| Medium (M) | 22-32cm [Standard/Normal cuff] |
| Large (L) | 32-42cm |
| Wide-range (W) | 22-42cm [i.e. ~ M+L] |
| Extra-large (XL) | 42-50cm [Uncertain availability] |

Cuffs are not interchangeable between devices. The correct cuff for the BP monitor brand and model must be used. Prior to a device being provided patients should provide their arm circumference to ensure the correct sized cuff is used.

* 1. **Whose responsibility are the BP machines provided by NHS England?**

To maximise the usage of available blood pressure monitors, practices may wish to consider offering patients a blood pressure monitor for a temporary basis until their hypertension is controlled, then redeploy the blood pressure monitor to another patient once it has been appropriately decontaminated (see below). Although the machines remain the property of the CCG, on receipt of the machines, practices are effectively being gifted the machines and can use them for healthcare purposes for their population. There will be no requirement to return the machines to the CCG. Practices will be responsible for maintaining, calibrating, and cleaning if required. However, participation in the evaluation programme through using the codes will be necessary.

* 1. **When do the NHS England machines need to be given to patients?**

The number of machines that have been allocated to practices should be a manageable number to be able to identify and give to patients as soon as practical by the end of June 2021.

* 1. **If patients are struggling to pick up a BP monitor from the practice, are there alternatives?**

Ideally, if the patient cannot attend themselves, ask the patient to send a friend or family member to pick up the BP monitor in person from the practice. If the patient is unable to arrange collection themselves, collection can be arranged through the NHS Volunteer programme. Referrals for support can be made via the NHS Volunteer Responders portal:

**How to refer:**

Referrals can be made by submitting a referral online via the [NHS Volunteer Responders referrer’s portal](https://www.goodsamapp.org/NHSreferral) **using your nhs. or .gov email account**or calling 0808 196 3382.

The first time you make a request using your email address, you will be sent a verification email by GoodSAM. Please ensure that you check your emails for this verification, noting to check the junk folder if it has not arrived within 10 minutes.

 **The process:**

* Check with your patient to gain their consent for making a referral
* Go to the [goodsamapp.org/NHSreferral](https://www.goodsamapp.org/NHSreferral)
* Click on NHS Transport Support
* Enter the patient's contact information
* Submit your request and confirm via email
* GoodSam will match your referral with volunteers who are 'on duty'

You can log into your account at any time to view or cancel your referrals.

[Monitoring, amending or cancelling a referral | NHS Volunteer Responders](https://nhsvolunteerresponders.org.uk/faqs-for-referring-organisations/monitoring-amending-or-cancelling-a-referral)

* 1. **What if patients decline using home monitoring?**

Patients can continue to use the current practice process for hypertension monitoring using clinic BPs. Please record:

* 1085031000000100 | Home blood pressure monitoring declined (situation)
1. **Manage**
	1. **How frequently should BP recordings be asked for?**

For monitoring purposes, the average systolic and diastolic from 2 readings taken twice a day for 4 days is the ideal. However, any readings are better than none and a degree of pragmatism is needed.

When titrating, the period between asking for average BP will be clinically led but reviewing monthly until controlled is advised.

Once controlled, 6 monthly BP averages should be asked for – but yearly for someone who is well controlled is pragmatic.

* 1. **What tools can help transfer data from the patient to clinical systems?**

AccuRx have developed a [BP monitoring Florey](https://support.accurx.com/en/articles/4890137-florey-blood-pressure-florey-questionnaire-screenshots) which can be set to send text message reminders and prompts to send systolic and diastolic readings. The Florey then calculates the average home BP reading and inserts it into the GP clinical systems using the codes below.

At present the Florey defaults to 7 days monitoring. However, this is being amended so that the clinician can set the number of days needed. 4 days of monitoring is recommended.

* 1. **How can I embed a Digital pathway for 2-way SMS based tools into practice?**

The following framework may help practices build digital pathways

|  |  |  |
| --- | --- | --- |
|  | Refer | * Online consultation or virtual consultation
* Refer patient to pathway
* Send follow up SMS
* Patient responds ‘yes’ or ‘no’
 |
| Onboard | * Register the patient into SMS service if new
* Capture patient consent via SMS
* Send a welcome text
 |
| Instruct | * Provide instructions in a leaflet/ email to patient or over the phone, or in ‘welcome pack’
 |
| Data input | * Schedule regular SMS messages to be sent to patient to remind them to measure BP & when to send back
* Question – who will average the readings and when? (NB AccuRx will do this)
 |
| Review | * Agree who, when and how frequently someone will review the data inflow
* Question – is data received into an inbox
* Question – how are the readings prioritised?
 |
| Manage | * Prioritisation of which patients to contact and when
* Transfer of, or manual recording of readings into GP system
* Scheduling of next review period
* Pause the sending of SMS messages/ exit
 |

* 1. **What codes are needed to record when the machines are being used?**

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

* 413606001 | Average home systolic blood pressure (observable entity)
* 413605002 | Average home diastolic blood pressure (observable entity)
* 1085031000000100 | Home blood pressure monitoring declined (situation)
	1. **What is the link to the Healthy Hearts Hypertension pathway?**

The link to the hypertension pathway is [here](http://build12.auracreativemedia.co.uk/wp-content/uploads/2021/04/Healthy-Hearts-Hypertension-guidance_updated.pdf). Please note this for uncomplicated hypertension under 80 years old and excludes patients with DM/CKD 3B+/IHD/MI/CVA/PAD.

* 1. **What lifestyle resources are there locally to signpost patients to?**

North Yorkshire County Council have a collection of local lifestyle interventions here: <https://www.northyorks.gov.uk/information-health-professionals>

* 1. **What are the equivalent average home BP readings compared to clinic readings?**

|  |  |
| --- | --- |
| **Clinic BP reading** | **Equivalent Home BP** |
| BP = 180/120mmHg | BP = 170/115mmHg |
| BP = 160/100mmHg | BP = 150/95mmHg |
| BP = 150/90mmHg | BP = 145/85mmHg |
| BP = 140/90mmHg  | BP = 135/85mmHg |

* 1. **How to decontaminate machines?**

Please use the published [guidance](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877533/Routine_decontamination_of_reusable_noninvasive_equipment.pdf)

1. **Data returns**
	1. How will data be collected on the evaluation of the BP@home programme.

We are still working through with NHS England how the evaluation of the programme will work. However, data (subject to any Data Sharing Agreements and finalisation of the process with NHS Digital) will be collected on the following:

|  |  |
| --- | --- |
| **What?** | **How?** |
| Type of search used to identify patients | Online form (one off) |
| Date of search | Online form (one off) |
| Number of eligible patients invited to remote monitoring pathway (digital and no-digital) | Online form  |
| Giving away or loaning scheme? | Online form (one off) |
| Use of digital platforms (eg accuRx) | Online form (one off) |
| Number of patients opted not to participate in remote monitoring | Automated data extraction |
| Number of patients issued a BP monitor | Online form (monthly) |
| Number of patients opted for the digital pathway (SMS or app) | Automated data extraction |
| Number of patients on remote monitoring pathway who submitted an average BP reading (systolic and diastolic) | Automated data extraction |

Data will be collected remotely wherever possible via automatic data extraction. If data is not able to be collected remotely, practices will be asked to complete very minimal data submissions.

Practices and some patients may be asked to participate voluntarily in evaluation surveys.

If there are any further questions, please email maria.lawson3@nhs.net

This FAQ distils practical information to save time looking through other guidance. However, more information is available here:

* CVD prevention data at practice level <https://tinyurl.com/35fz7929>
* PCCS pack – managing CVD during Covid <https://tinyurl.com/mzf9tty5>
* UCL Partners pack – population stratification and tools to improve virtual CVD management <https://uclpartners.com/proactive-care/cvd-resources/>
* National SOP for BP@home <https://future.nhs.uk/NHSatH/view?objectId=88639845#88639845> (registration on NHS Futures website needed)