Home Blood Pressure Monitoring for NEW Diagnosis of Hypertension

In 2011, NICE issued new guidance which recommended the use of home blood pressure monitoring.

Clinicians should offer patients the choice of either Home BP monitoring or 24 hour Ambulatory BP monitoring

Advantages of home blood pressure monitoring:

- Frequent measurement produces average values that can be more reproducible and reliable than traditional clinic measurements.
- Self-monitoring might improve blood pressure control by improving compliance as people become more involved in their care
- Self-monitoring might predict cardiovascular outcome better than clinic measurements.
Investigation of high blood pressure

Patients will enter this flowchart at various points. A new patient / first BP will enter at the diamond shape. If a patient has had a recent BP check within the surgery, please insert the initial BP into the flowchart and follow as necessary.
Home BP Monitoring

Home blood pressure monitoring (HBPM) should ideally be completed in a “normal” week for the patient. For example, not when the patient is on holiday from work.

When using HBPM to confirm a diagnosis of hypertension, ensure that:

1. The patient should be seated for each blood pressure measurement
2. Take two readings each time, with at least 1 minute in between measurements
3. Write down the lowest of these two readings on the Gresleydale Home Monitoring Chart
4. Record the blood pressure twice daily, once in the morning and once in the evening
5. Record the blood pressure for at least 4 days, ideally for 7 days

Discard the measurements taken on the first day and use the average value of all the remaining measurements to confirm a diagnosis of hypertension.

A patient can use their own BP machine – so long as it has been calibrated by staff at Gresleydale.

<table>
<thead>
<tr>
<th>Date</th>
<th>Morning</th>
<th>Evening</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When a patient returns a completed home monitoring chart – please ensure you calculate the average reading.

To do this – ignore the readings from day one. Take the remaining readings from the other six days and use the Excel programme to calculate the average.

This is the average reading that can be entered into the following “Management of BP” protocol. It is the reading that the clinicians are particularly interested in.
Analysis of Home Blood Pressure Measurements

BP <135/85
reassure not hypertensive, recheck in 5 years- letter of reassurance

BP > 135/85 but <180/110

Systolic >180 or diastolic>110 = SEVERE HYPERTENSION

If newly found – discuss with referring doctor or duty doctor same day URGENT
Also arrange for the following investigations

Appointment 1
HCA requirement: (20 minute appointment)
1. Bloods (U&E, fasting Cholesterol, fasting glucose)
2. ECG
3. BMI
4. Dip Urine if +blood then send MSU, if ++ protein send for urinalysis to measure the PCR.
5. Smoking cessation advice – referrals to HCA

Appointment 2
Nurse requirement: (20 minute appointment)
1. Readcode New Episode Hypertension- follow TPP protocol
2. Do Q-risk score
3. Lifestyle advice
4. GPPAQ & advice on exercise

BP > 135/85 and above in presence of risk factors (diabetes, CKD, established CVD, if under 40 years or 10 year risk >20% *

Paper Number 4 6/12/13

*these values have been chosen for use at Gresleydale – other practices may want to refer to the NICE guidelines 2011 prior to implementing this protocol
Appendix 1 – BHS Guidelines for Treatment of Hypertension

**Abbreviations:**

A = ACE inhibitor  
(consider angiotensin-II receptor antagonist if ACE intolerant)  
C = calcium-channel blocker  
D = thiazide-type diuretic

Black patients are those of African or Caribbean descent, and not mixed-race, Asian or Chinese patients

---

**Step 1**  
Younger than 55 years  
- A

---

**Step 2**  
- A + C or A + D

---

**Step 3**  
- A + C + D

---

**Step 4**  
Add  
- Further diuretic therapy  
- Alpha-blocker  
- Beta-blocker  
Consider seeking specialist advice