Why improve detection and management of high blood pressure (BP)?

**The challenges:**

1. Over 24% of people in England are estimated to have high BP.
2. High BP is one of the leading causes of premature death and disability in England, according to the Global Burden of Disease study.
3. At least half of all heart attacks and strokes are associated with high BP and it is a major risk factor for chronic kidney disease, heart failure and cognitive decline.
4. High BP costs the NHS an estimated £2bn, while social care and productivity costs are likely to be much higher.

**The opportunities:**

1. Treatment for high BP significantly reduces the risk of heart attacks, stroke, heart failure and all-cause mortality.
2. Every 10 mmHg reduction in systolic BP reduces the risk of major cardiovascular events by 20%.
3. Treatment is very effective at lowering BP and at improving outcomes.
4. For every ten people diagnosed with high BP, seven remain undiagnosed and untreated - this is more than 5.5 million people in England.
5. One in three people with diagnosed high BP are not treated to target.
6. Achievement in other countries shows the potential for improvement - for example, in Canada five out of six people with high BP achieve good control of BP.

Includes practical guidance from GPs, nurses and pharmacists on how you can improve detection and management of high BP in your practice and CCG.

Data collated and visualised by the National Cardiovascular Intelligence Network (NCVIN) in Public Health England.
There is an opportunity to improve detection of high BP in England

There are many people in England who have undiagnosed high BP

<table>
<thead>
<tr>
<th>Diagnosed</th>
<th>Estimated</th>
<th>Potential for improved detection</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,028,077</td>
<td>13,723,777</td>
<td>5,695,700</td>
</tr>
</tbody>
</table>

Data source: Diagnosed - QOF: 2016/17
Estimated - NCVIN: 2017

There is potential for all practices in England to improve detection of high BP

There is an opportunity to improve management of high BP in England

There are many people in England who are estimated to have poorly controlled high BP

<table>
<thead>
<tr>
<th>No. currently treated to target*</th>
<th>No. treated to target if practices within CCGs performed as well as top 25%</th>
<th>Opportunity for improved treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,423,017</td>
<td>7,464,952</td>
<td>1,041,935</td>
</tr>
</tbody>
</table>

*Treatment target defined as 150/90 mmHg

Data source: QOF: 2016/17; NCVIN: 2017

There is potential for all practices in England to improve BP control

There are many people in England who are estimated to have poorly controlled high BP

Variation in BP control in people with comorbidities shows scope for improving outcomes

<table>
<thead>
<tr>
<th>Stroke or TIA ≤150/90 mmHg</th>
<th>Diabetes ≤140/80 mmHg</th>
<th>Peripheral arterial disease ≤150/90 mmHg</th>
<th>Coronary heart disease ≤150/90 mmHg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variation in CCGs</td>
<td>England Average</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data source: QOF: 2016/17

Estimated population benefits if average BP in people with high BP is reduced by 10 mmHg*

<table>
<thead>
<tr>
<th>Stroke</th>
<th>Heart failure</th>
<th>Coronary heart disease</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>67,068</td>
<td>49,928</td>
<td>106,544</td>
<td>495,309</td>
</tr>
</tbody>
</table>

*Ettenad et al 2016: http://dx.doi.org/10.1016/S0140-6736(15)01225-8

Data source: NHS Digital: 2016/17; ONS 2017
Key messages on detection

What do we need to know?

1. High blood pressure rarely causes symptoms – detection generally relies on opportunistic testing or late presentation by individuals with conditions or complications related to high BP

2. Diagnosis of high blood pressure depends on accurate measurement, but poor measurement technique is believed to be common amongst healthcare professionals and the public

3. The substantial variation in prevalence between demographically similar CCGs and between practices illustrates the local potential to improve detection rates

4. On average each CCG in England has 26,000 people with undiagnosed high BP – these individuals are unaware of their substantially increased cardiovascular risk and are untreated

What can be done to improve detection?

Practices

- Use the CVD Primary Care Intelligence Packs to identify the gap between recorded and expected prevalence of high BP in your practice
- Audit practice records to identify people with high BP recordings who do not have a high BP code. To prioritise, consider starting with those with readings above 150/90 mmHg
- Increase opportunistic blood pressure testing in the practice:
  - Think BP when you have time in routine consultations
  - Make blood pressure testing routine in all nurse-led clinics such as asthma, COPD, diabetes, weight management, smoking cessation, as well as other local enhanced service clinics – prompt by adding to templates
  - Encourage patients to take up the NHS Health Check which provides blood pressure measurement in eligible 40-74 year olds
- Always offer ambulatory or, when appropriate, home blood pressure monitoring in order to confirm a diagnosis of high BP and always include assessment of lifetime cardiovascular risk as part of the diagnosis
- Promote high standards in BP measurement, including machine calibration, signposting patients and staff to video training resources

CCGs

- Use the CVD Primary Care Intelligence Packs to compare recorded and expected prevalence across the CCG and estimate the total number of local people with undiagnosed high BP
- Examine the level of variation in detection rates between practices
- Adopt quality improvement methods to support all practices to perform as well as the top quartile in detecting high BP
- Work with partners to promote public awareness of blood pressure and opportunities for testing and self-testing
- Commission and promote access to ambulatory blood pressure monitoring
- Work with local authorities to maximise uptake of the NHS Health Check
- Consider commissioning community pharmacists to offer blood pressure testing
- Consider supporting practices to have self-test BP stations in the waiting room
Key messages on management

What do we need to know?

1. Support for behaviour change, targeting modifiable risk factors – such as dietary salt intake, physical inactivity, being overweight, smoking and excess alcohol consumption – is a core element of treatment for high BP, and can be as effective as adding another drug.

2. Most people with high BP require combination treatment with two or more anti-hypertensives in order to achieve satisfactory blood pressure control.

3. Across the long term conditions more than half of all patients do not take their medication as prescribed. Patients may also take some over-the-counter medication that can raise BP.

4. Evidence from the large SPRINT study suggests that more intensive treatment with a target systolic blood pressure of 120 mmHg is associated with improved survival and fewer cardiovascular events.

5. A meta-analysis by Ettehad et al found that every 10 mmHg drop in BP was associated with a 20% reduction in cardiovascular events.

6. Drug treatment should be tailored to the individual taking into account cardiovascular risk, co-morbidity, adverse effects of medication and patient preference.

What can be done to improve management?

Practices

- Audit practice records to identify individuals with poor control of high BP - focus first on people under 85 years old with BP above 140/90 mmHg who are not on a 3 drug combination.

- Use shared decision making resources to help the individual make informed decisions about behaviour change and drug treatment.

- Agree BP treatment targets with patients as part of shared management plan, taking account of comorbidity, adverse effects and patient preference.

- Offer therapy according to NICE/BHIS guidelines and have a clear protocol to ensure regular review and intensification of therapy to maintain BP targets.

- Make BP testing routine in nurse-led clinics and ensure that identification of poor BP control is the responsibility of all clinicians.

- When blood pressure is above target always ask about adherence to treatment.

- Advise patients of the option to buy clinically validated blood pressure machines and provide advice on how to monitor their own blood pressure.

- Explore use of remote monitoring via telehealth or blood pressure apps.

CCGs

- Use the CVD Primary Care Intelligence Packs and local data where available to estimate how many people with high BP are controlled to the NHS/BHS standard.

- Examine the level of variation in achievement rates between practices.

- Adopt quality improvement methods to support all practices to perform as well as the top quartile in treating high BP.

- Expand adherence support by community pharmacists as part of medicine review services.

- Consider commissioning community pharmacists to support BP monitoring and treatment optimisation.

- Support practices to evaluate emerging technologies that can help patients and clinicians to monitor and manage high BP.

- Commission educational activities for GPs, nurses, healthcare assistants and patients.

Glossary

CCG: Clinical Commissioning Group
TIA: Transient Ischaemic Attack
COPD: Chronic Obstructive Pulmonary Disease
NICE: National Institute for Health and Care Excellence
BHIS: British and Irish Hypertension Society
QOF: Quality and Outcomes Framework
ONS: Office for National Statistics

© British Heart Foundation 2018, a registered charity in England and Wales (225971) and Scotland (SC039426)