The role of the Practice Nurse in managing hypertension

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British Hypertension Society
Royal College of Nursing
General Practice Nurse Framework

• Level 2 and 3 - Health Care Assistants
• Level 4 - Assistant Practitioners
• Level 5 - General Practice Nurses
• Level 6 - Senior GPN
• Level 7 Lead GPNs/Advanced Practitioners
• Level 8 - Advanced Nurse Practitioners
• Level 9 - Nurse Partners/Managers.
Topics to be covered

• Equipment Procurement and maintenance
• Blood Pressure measurement clinic, home and 24 hr ABPM
• Cardiovascular Risk Assessment
• Patient education on diagnosis
• Lifestyle changes
• Prescribing
• Medication reviews
• Adherence support
• Audit and recall
• Training and CPD
• Policy writing
Hypertension overview

Person having blood pressure measured

Diagnosis and assessment of hypertension

Hypertension not diagnosed
- Review at least 5-yearly

Hypertension diagnosed
- Management of hypertension
- Review annually
Equipment

• Choose a validated monitor
• Ensure regular calibration and document dates
• Appoint lead nurse to be accountable for the process
• Clean cuffs regularly according to local policies.
For a list of independently validated monitors go to the British Hypertension Society website www.bhsoc.org.uk

Automatic blood pressure measuring devices suitable for use in the clinic and also at home for self-monitoring

All the monitors listed on this website have been clinically validated. This means that all the machines, regardless of their cost, give reliable readings when used correctly.

Please note that BP monitors are usually supplied with a standard cuff (see individual sizes listed below). If your upper arm circumference is outside of the standard range, you should purchase either a larger or smaller cuff as appropriate. This is important because a cuff that is too large or too small will give an inaccurate reading.

Cuff Sizes: Small 18.24cm (7.2 inches), Standard 23.35cm (9-14 inches), Large 35.40cm (14-16½ inches)

<table>
<thead>
<tr>
<th>Under £50</th>
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<tbody>
<tr>
<td>Manufacturer</td>
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<td>A&amp;D</td>
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<td>A&amp;D</td>
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**Blood pressure measurement recommendations**

1. **Auscultation method:**
   - **Should be available in all clinical areas**
   - Taught to healthcare workers
   - Auscultation method used to check oscillometric (automatic) monitors
   - **Always used in certain clinical conditions:** arrhythmias; pre-eclampsia; certain vascular disorders; severe hyper or hypotension

2. **Non-mercury auscultation method:**
   - **Available in all clinical areas** (e.g. Accoson, Greenlight 300)

3. **Mercury Spillage kits:**
   - **Available in all clinical areas if using mercury**
Use a formal estimation of cardiovascular risk to discuss prognosis and healthcare options with people with hypertension.

For all people with hypertension offer to:

- test urine for presence of protein
- take blood to measure glucose, electrolytes, creatinine, estimated glomerular filtration rate and cholesterol
- examine fundi for hypertensive retinopathy
- arrange a 12-lead ECG.

Not nurses!
Cuff Sizes
For HBPM and ABPM

- Child: 13 - 20cm
- Small Adult: 17 - 26cm
- Adult: 24 - 32cm
- Large Adult: 32 - 42cm
- Ex Large Adult: 38 - 50cm

Measure patients arm at diagnosis and record.
Diagnosis and Patient Education

- Management of long term condition
- CVD risk reduction
- Importance of self monitoring (If suitable) and regular follow up until target blood pressure achieved.
- Risk v benefit of life long medication.
- Empowering the patient to make sensible choices (NICE Medicine adherence 2009)
Home Blood Pressure Monitoring

- Some patients may find it more acceptable than ABPM
- Not suitable for all patients
- If patients own monitor, check device is independently validated and calibrated

Suggested condition of measurements:
- 5 min rest, 30 min without smoking or caffeine
- Seated, arm supported at heart level
- Ensure correct cuff size and placement
- Immobile, legs uncrossed, not talking, relaxing
- Write results down… monitor memory data may be inaccurate (other family members may use the monitor)!
ABPM Implementation

Service Development:

- Model of delivery
- Staff training/competences
- Appointment length and time
- Referral arrangements
- Reporting mechanisms
- Management of complex results
- Audit
- Quality assurance
ABPM Implementation

Fitting:

• Devise local SOP/ competences/ documentation
• Time – approx 30 minutes fitting
• ? which arm
  - ≤20mmHg difference use non dominant arm
  - ≥20mmHg difference use arm with higher blood pressure
• Cuff size - important
ABPM Implementation

Caution:

• Anti-coagulated patients
• CVA affected limb
• Mastectomy / lymphoedema
• Injury
• Friable skin
• Latex allergy
• Infection control issues
• Patient suitability to undertake procedure
What are you going to be when you grow up?

Diabetic & Hypertensive

Robert Thompson
# The effect of lifestyle modifications on BP

<table>
<thead>
<tr>
<th>Modification</th>
<th>Recommendation</th>
<th>S-BP reduction</th>
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<tbody>
<tr>
<td>Weight reduction</td>
<td>Maintain normal weight (BMI 18.5 – 24.9 kg/m²)</td>
<td>1 mmHg/kg</td>
</tr>
<tr>
<td>DASH eating plan</td>
<td>Diet rich in fruit &amp; veg, low fat dairy prod, low sat &amp; total fat</td>
<td>8 - 14</td>
</tr>
<tr>
<td>Reduced Na⁺ intake</td>
<td>&lt;100 mEq/l (2.4 g Na⁺/day)</td>
<td>2 - 8</td>
</tr>
<tr>
<td>Physical activity</td>
<td>Regular aerobic activity (brisk 30 min walk / day)</td>
<td>4 - 7</td>
</tr>
<tr>
<td>Moderate alcohol</td>
<td>Not more than 2 drinks men, 1 drink women daily</td>
<td>2 - 3</td>
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Non medical prescribing

- Always in accordance with local and national guidance and framework NICE/BHS
- Underpinning and foundations = safe policies
- Adequate indemnity insurance required. RCN no longer offer adequate cover for non-medical prescribers/advance practitioners or practice nurses in extended roles
- Regular clinical supervision recommended together with CPD
Medication Reviews

- 6 - 9 monthly review, blood and urine tests
- Blood pressure check and/or review of home monitoring. Check patients monitors.
- Motivational interviewing to encourage lifestyle changes and adherence
- QOF
Adherence Support

- Arguably the most important role for any nurse managing hypertension
Medicines Adherence
(NICE 2009 CG No.76)

Outcome of uncontrolled blood pressure due to non-adherence

Health & economic loss to society
(NICE 2009 CG No.76)

Health Loss
More patients require long term medical and nursing care, physiotherapy, occupational therapy etc + increased number of medicines

Economic loss
- Increased unnecessary appointments with GP/nurse
- Increased unnecessary referrals to specialist centres
- Increased unnecessary admissions to hospitals
- Increased number of unnecessary investigations
- Large unnecessary drug wastage
- Unnecessary loss of wage earner through ill health
Picking up clues for non-adherence from drug boxes

Patients don’t tell us they don’t take their tablets.

• Drug name and dose correct
• Date dispensed?
• Are insufficient number of tablets missing from boxes
• Are the drugs are out of date
• Do they use different pharmacist to obtain their drugs.
• Checking patient records for prescription reordering
• Audit of ‘in house’ pharmacies
Supporting Adherence Continued

Patient Medicine Education/ Information

What treatment we have to offer

Benefits and effects of drugs

- Discuss how the tablets work (12 - 24 hour effect)
- Discuss likelihood of more than one drug needed & why
- Discuss practicalities, (repeat prescription, pre-payment certificates, use of local community pharmacist, aide-memoires, dosset box, support of family)
- Patient association website (Blood Pressure Association - bpassoc.org.uk)
Suggested Dialogue to support adherence

- Ask the patient to bring in all their medications and explain each drug action to them.
- Ask the patient how many times in the last 7 days might they have forgotten to take their medication.
- Ask the patient to describe any possible side effects and rationalize the risks and benefits.
- Ask them to describe their medication routine and ask where they store their pills. Ask how they think a different routine might work.
- Try to match their storage to their daily routine.
- Always use simple patient centred statements.
Audit and recall

Are target pressures being reached?

QOF targets

**BP 1** Register of patients with essential hypertension

**BP 4** Percentage of patients in whom a BP has been recorded in the last 9 months.

**BP 5** Percentage of patients in whom BP has been recorded at ≤150/90mmHg

New diagnosis with ABPM For 2014?

Medicine reviews
Training and CPD

Useful links

- Useful links and reading
  - British Hypertension Society [www.bhssoc.org](http://www.bhssoc.org)
  - Blood Pressure Association [www.bpasoc.org.uk](http://www.bpasoc.org.uk)
  - British Medical Journal
  - (Learning sets on line) [www.bmj.com](http://www.bmj.com)
  - Education for Health [www.educationforhealth.org.uk](http://www.educationforhealth.org.uk)
  - NICE link [http://guidance.nice.org.uk/CG127](http://guidance.nice.org.uk/CG127)
  - BHS NICE Guidance Stream [www.bhsoc.org/stream/index/html](http://www.bhsoc.org/stream/index/html)
  - Clinical Knowledge Summaries [www.cks.nhs.uk/home](http://www.cks.nhs.uk/home)

- Action planning: making change happen in clinical practice. O’Neal, Helen Nursing Standard,
- Volume 21 (35) Royal College of Nursing. May 9 2007
DO I HAVE HIGH BLOOD PRESSURE?

WELL, I REVIEWED THE READINGS YOU UPLOADED THROUGH THE WEB.

AND YOUR AVERAGE READING IS BELOW 135/85.
To conclude

- The role of the practice nurse in managing hypertension is ambient and continually evolving.
- Further evidence is required to highlight the importance and success of nurse led activity.