CLINICAL GUIDELINE

Hypertension Management, Heart MCN

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

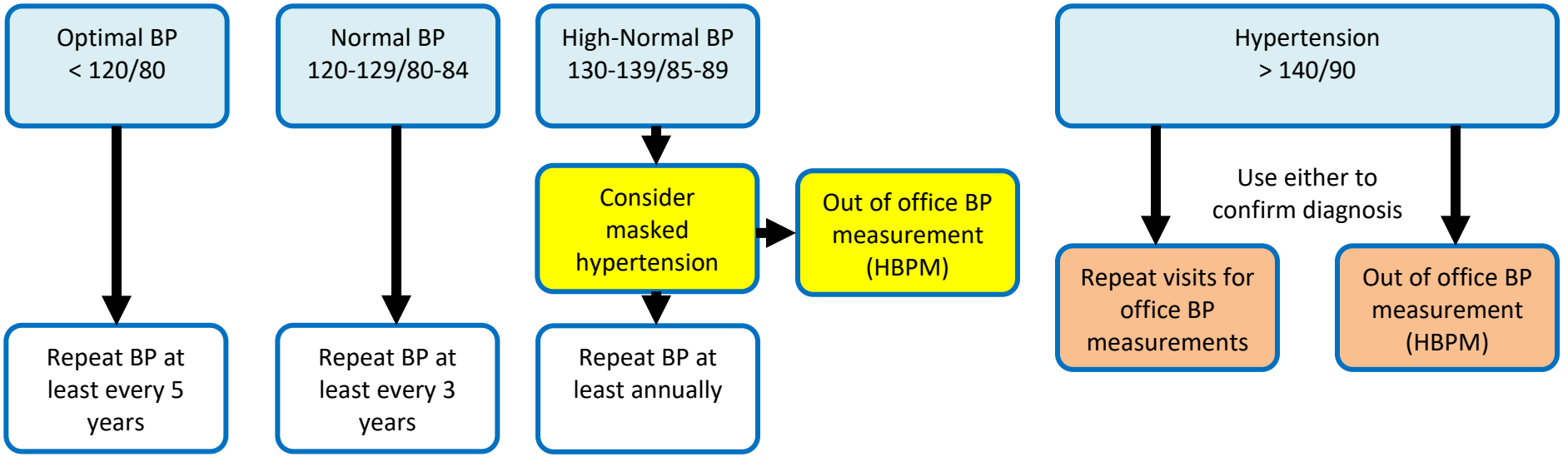
NHSGGC 2020 Heart MCN Hypertension Guidelines

Investigation and Assessment of Risk:
All adults ≥ 40 years should have their blood pressure recorded.
High Risk category patients are those with:

1. Target Organ Damage (TOD)
2. Known cardiovascular disease (CVD)
3. Previous stroke or TIA
4. Renal disease
5. Diabetes mellitus

Essential investigations in all hypertensives:

1. Urine dipstick for protein
2. U&Es and eGFR
3. Glucose (Fasting glucose preferable)
4. Lipid profile (fasting profile preferable)
5. ECG
6. Use ASSIGN score to define cardiovascular risk



Measurement of clinic blood pressure:

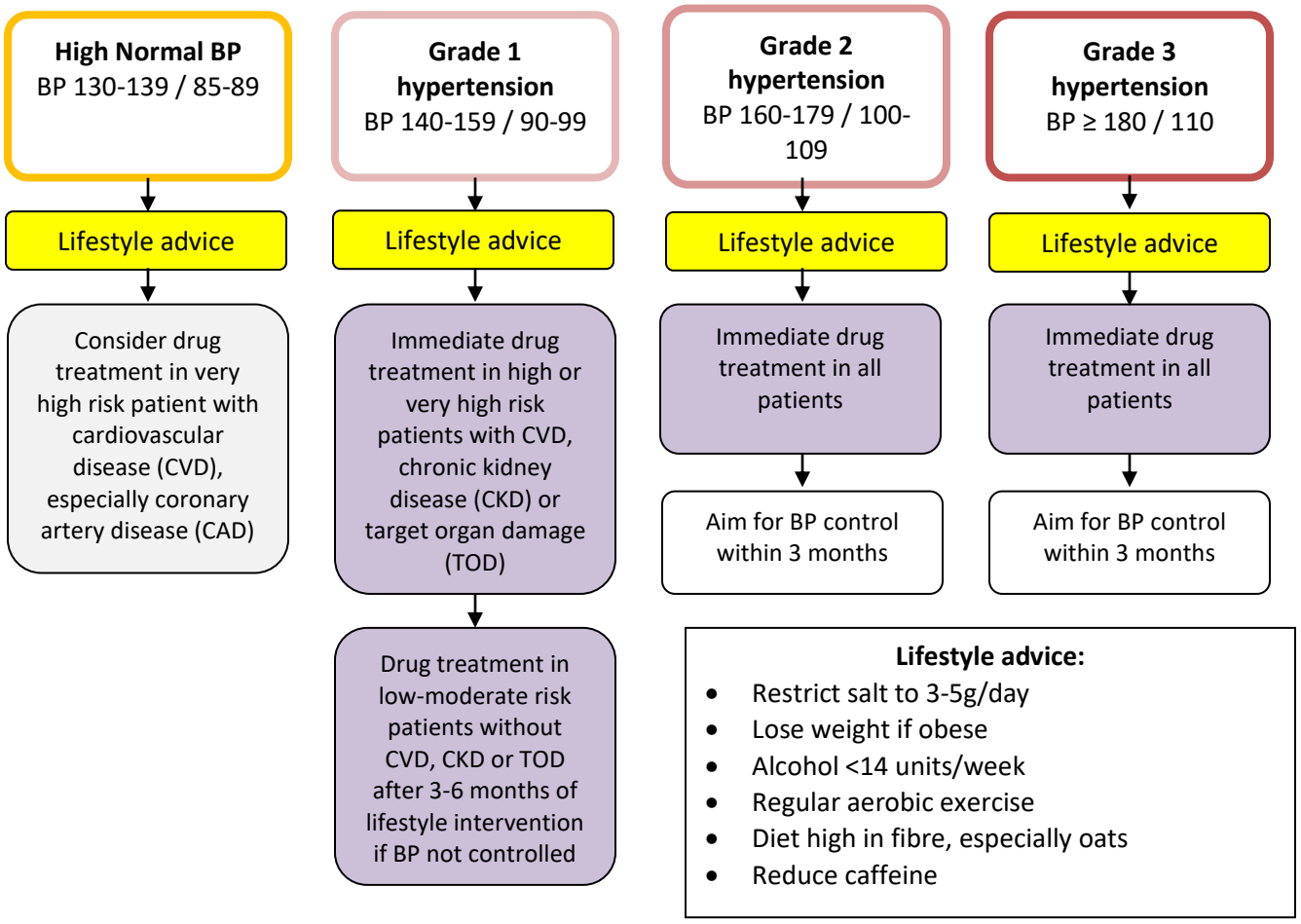
- The patient should be seated on an upright chair for 5 minutes, with the arm supported
- Blood pressure must be measured in silence, the patient not talking
- Ideally three readings should be taken. The first should be discarded, and the second and third averaged
- A validated automatic device is recommended if in sinus rhythm
- In atrial fibrillation, blood pressure must be measured manually
- If there are any postural symptoms, standing BP must be measured. Use standing BP as the target, if lower than seated BP

Notes on home blood pressure monitoring (HBPM):

- HBPM: Two measurements, one minute apart, twice daily, preferably morning and evening.
- Continue for four to seven days. Discard measurements on first day and average remaining measurements
- Threshold/targets for HBPM are 5/5mmHg lower than clinic values
- HBPM should be taken with a validated device

Classification of high blood pressure

Category	Systolic (mmHg)		Diastolic (mmHg)
Optimal	< 120	and	< 80
Normal	120-129	and/or	80-84
High normal	130/139	and/or	85-89
Grade 1 hypertension	**140-159**	**and/or**	**90-99**
Grade 2 hypertension	**160-179**	**and/or**	**100-109**
Grade 3 hypertension	**≥ 180**	**and/or**	**≥ 110**
Isolated systolic hypertension	≥ 140	and	< 90



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Initiate drug treatment and consider early implementation of dual therapy:

A+C or A+D

- Consider monotherapy in low-risk grade 1 hypertension or in patients ≥ 80 years, or frailer patients.
- Initiate an A drug for patients < 55 years; C or D if > 55 years or black person of African or Caribbean family origin of any age

Step 1

Indications for referral:

1. Urgent – malignant hypertension
2. BP > 160/100 mmHg despite the concomitant use of three antihypertensive drugs
3. Proteinuria or haematuria
4. eGFR < 30mL/minute/1.73m^2
5. < 30 years. Investigate for secondary causes.

If BP not at target, combine A+C+D

Step 2

If BP still not at target, add:

- Further diuretic therapy:
  Spironolactone 25mg daily (if $K^+ \leq 4.5$mmol/L and eGFR > 60mL/minute/1.73m^2)
  or **amiloride 5-10mg daily**
- Doxazosin or beta-blocker can be considered if additional diuretic therapy fails

Step 3

Consult the GGC Formulary Preferred List for choice of therapy in each class:
A = ACE inhibitor (ACEI) or angiotensin receptor blocker (ARB)
C = Calcium channel blocker (CCB)
D = Thiazide-like diuretic

Treatment of hypertension:
Consider compelling contraindications e.g. pregnancy (ACEIs, ARBs, spironolactone); Gout (thiazides); Asthma (beta-blockers)

BP Treatment Targets: < 140/90mmHg in all patients
Patients < 65 years old: There is substantial evidence that treating to a lower target of 130/80 is beneficial and should be considered in patients who are tolerating treatment well.