GM Hypertension Medication Pathway – Improving the efficiency and effectiveness of hypertensive care in GM

Disclaimer:

The pathway and supporting information are not intended to be comprehensive and are not a substitute for your own professional medical judgement when faced with individual patients. All medical professionals are responsible for their own clinical decisions. Please ensure you fully read through and understand the supporting material before using at the point of care (about 15 minutes reading) as the underlying understanding is critical in supporting effective and meaningful shared decision-making, while the pathway can then be used as a look up at the point of care.

Patients currently stable with well-controlled blood pressure should not be changed from their current anti-hypertensive medication because of this guidance.

Why do we need a new GM Hypertension pathway?

Although the NICE Hypertension Guideline was published in 2019, more than 30% of known hypertensive patients across Greater Manchester remained uncontrolled as of May 2023 CVD Prevent National Audit. CVD prevention and hypertension specifically is a formal priority for the NHS GM ICS due to the incredibly strong evidence base for controlling blood pressure in reducing incidence of CVD (such as Heart failure, MI's, Strokes), prevalence of multimorbidity, premature mortality and its inextricable link with worsening and perpetuating inequalities. To find out more about why CVD Prevention is important and what we are doing in GM visit our website www.gmcvd.com.

The purpose of this Greater Manchester Hypertension guideline is to make it simpler, easier, and quicker to follow while also incorporating the latest clinical evidence and expertise. More patients should achieve better control with fewer titrations, fewer appointments, and a better quality of life for all involved.

Effective supported self-management and Informed Shared Decision Making

This guideline is meant to inform treatment recommendations, underpinned by **shared person-centred decisions**.

GM is very committed to person centred care. We recognise the value of having robust non-medication approaches to high quality cardiovascular care. Patients and clinicians should have options to choose from. There is strong evidence for lifestyle interventions (depending on an individual's specific lifestyle) and building peoples skills knowledge and confidence to consider and adopt self-management approaches (alongside medication as required).

To make this as robust as possible, primary care is developing new roles and skill sets. You may already have access to health coaches, care co-ordinators or link workers who are often well set up to build patients capability (activation) and connect them with supportive local assets (groups, clubs, services). We are actively seeking to develop and support this further to enhance the care we offer in GM and we will soon be releasing our CVD Toolkit with more guidance and information on how you

could incorporate such approaches as part of your standard clinical practice. We will update this with a link direct to this information when available.

Key Medication Principles, targets, and updates

Fewer and quicker titrations to bring blood pressure under control results in a greater proportion of time spent in theraputic range and better outcomes, while also requiring fewer clinic appointments and number of titrations.

It is important to ensure smooth processes to manage readings, results and optimising treatments. A GM Home Blood Pressure Monitoring Toolkit is currently in production and will be linked here once available.

Two drug combinations are required to get blood pressure to target in half to two thirds of patients. Three drug combinations may be required in a further 20% and even then, may leave 10% of hypertensives above target. Link: ESC guideline

Multiple medications at lower doses are far more effective than fewer medications at higher doses. For instance, it is 5 times more effective to add a second drug at the starting dose than to double the dose of a single medication. Higher doses may increase side effects without a proportional increase in therapeutic effect. (E.g. Amlodipine 5mg gives 80% of the antihypertensive effect of Amlodipine at 10mg, which is far more likely to lead to side effects such as ankle swelling). Link: ESC guideline

Different Targets

Situation	Clinic BP Target (mmHg)	Average Home or Day-Time Ambulatory BP Target (mmHg)
<80 years old	<140/90	<135/85
>80 years old	<150/90	<145/85
CKD and (ACR>70mg/mol) (1)	<130/80	<125/75
Stroke and TIA (2)	<130/80	<125/75

1. NICE CKS CKD Guidelines
2. RCP Stroke Guidelines 2023

Offer newly diagnosed people with high BP's (Clinic BP ≥ 160/110mmHg or a home or ambulatory average ≥ 155/105mmHg) two anti-hypertensives at low doses

No single anti-hypertensive is likely to reduce BP by more than 10mmHg.

Lifestyle changes including reduction in salt and alcohol intake, weight reduction and increased aerobic exercise may have important BP lowering benefits on top of medication depending on that individual's specific circumstances.

Evidence Review :

Note mono-therapy vs dual therapy for step 1 was evaluated by NICE in 2019 and Cochrane in 2020. Both concluded that the quality of evidence was very low with few high quality, large scale randomised control studies, specifically answering this question (at the time of their review) and not enough to support inclusion within the previous iteration of the NICE guideline. Importantly the Cochrane review and NICE evidence review did not find any strong evidence of increase of side effects from dual therapy.
International consensus exists that the benefits of initiating dual therapy outweigh costs and risks and lead to quicker and more sustained reductions in blood pressure. European Society of Cardiology Guideline , American College of Cardiology Guideline

Stakeholders within GM have approved this approach to improve the quality of care received by patients whilst reducing clinical workload.

Cost of living is a concern. Always discuss pre-payment certificates for those that pay for prescriptions for whom multiple prescription costs may be significant. NHS Prescription Prepayment Certificate (PPC) | NHSBSA

While adding a third before increasing the first two medicines would be far more effective than two medicines at maximum doses, there was concern over polypharmacy, cost of living and tablet burden and thus a balance was struck within the present iteration of the GM Hypertension Pathway.

CKD and proteinuria management (NICE NG203)

Albuminuria is one of the single largest independent risk factors for CVD. This makes it an important issue in the context of hypertension, which is one of the most frequent causes of chronic kidney disease.

Early recognition and management of CKD is important in primary care to prevent or delay end stage renal disease and the need for dialysis.

For patients with CKD and proteinuria we may now also try Dapagliflozin once their ACE-I/ARB doses have been optimised, regardless of diabetic status (NICE TA775)**.** These patients will also benefit from tighter BP control (clinic BP <130/80mmHg) as their absolute CVD risk is higher.

Lisinopril as the chosen ACE inhibitor of choice.

There are relatively small differences in outcomes between different ACE inhibitors, however Ramipril is shorter acting. Lisinopril has more dose choices allowing for greater flexibility than with Ramipril. **It is not envisaged those stable and within BP target on Ramipril are switched to Lisinopril.** Perindopril **erbumine** is also a suitable option as per the GMMMG formulary. Do not prescribe Perindopril **arginine**.