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Integrated Care

Hypertension Medication Pathway

Toolkit for Health and Care Professionals in Greater Manchester

Last updated: September 2023

Part of Greater Manchester Integrated Care Partnership

For any comments, suggestions or feedback please visit feedback.gmcvd.com

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How to use this toolkit

Intended audience

This toolkit is for Primary Care health and care professionals in Greater Manchester

Intended aims & outcomes

Understand:

- Why we need a new GM hypertension pathway
- How to use the new GM hypertension pathway
- GM hypertension treatment summary guidance
- The importance of effective supported self-management and informed shared decision making
- How to effectively support self-management

Icons


Background information


'How to': Practical guidance


Further resources

Access each section that is most relevant to you.

- The **tabs** at the top of each page will indicate where you are within the toolkit.
- Use the **contents page** to take you to a specific page.

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Why do we need a new pathway?

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Although the NICE Hypertension Guideline was published in 2019, more than 30% of known hypertensive patients across Greater Manchester remained uncontrolled as of the March 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, Heart attacks and Strokes), prevalence of multimorbidity, premature mortality and its inextricable link with worsening and perpetuating inequalities. Indeed controlling blood pressure is one of the single biggest things that we can do to help combat inequalities and keep people well.

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

Find out more about why CVD Prevention is important and what we are doing in GM: **www.gmcvd.com**

The importance of managing hypertension

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Hypertension is now globally the leading cause of disability and is solely implicated in up to 50% of strokes and heart attacks

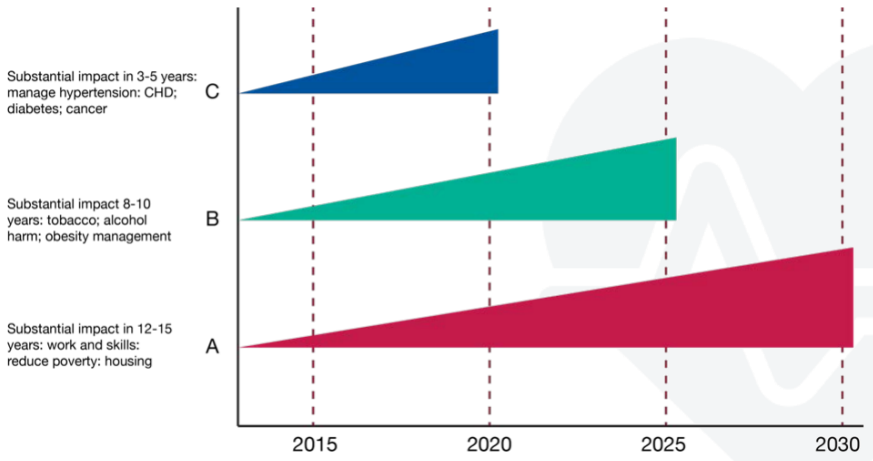
Despite hypertension being clinically well understood, the overlap with **inequalities and social and wider determinants of health**, adds significant complexity. Indeed, hypertension becomes even more important in the context of multi-morbidity.

Furthermore, those in the most deprived decile (which accounts for roughly 23% of GM residents) are four times more likely to die prematurely due to CVD, which is largely mediated through hypertension, making hypertension a core part of the CORE20+5 approach and the major way that we can help tackle inequalities.

It is estimated that **the optimum control of BP in people with diagnosed hypertension could save 470 heart attacks and 700 strokes** over three years in GM which would provide a financial saving of over £13.2 million, just to the NHS, let alone the savings to individuals, social care and the wider system.

Overcoming the **high levels of pain, disability and multi-morbidity** associated with Hypertension and Cardiovascular disease will in turn facilitate the more longer-term transformation in the social and wider determinants of health (Figure 3) and promises to be the single biggest impact and return on investment of any illness.

Figure 3: Time needed to deliver outcomes from different intervention types



Refs: https://nhsengland.sharepoint.com/sites/CVDRecoveryandPrevention/Shared%20Documents/Admin%20-%20Prevention/Hypertension/GM_Hypertension_Guidance_v0.25_Aug22_AM.docx
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/731682/Reducing_health_inequalities_system_scale_and_sustainability.pdf

Eliminating hypertension would play a significant role in reducing mortality rates amongst men and women

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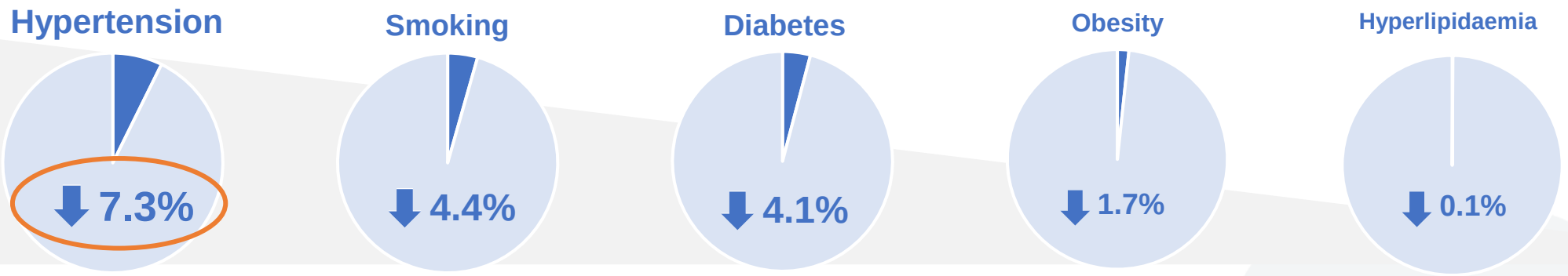
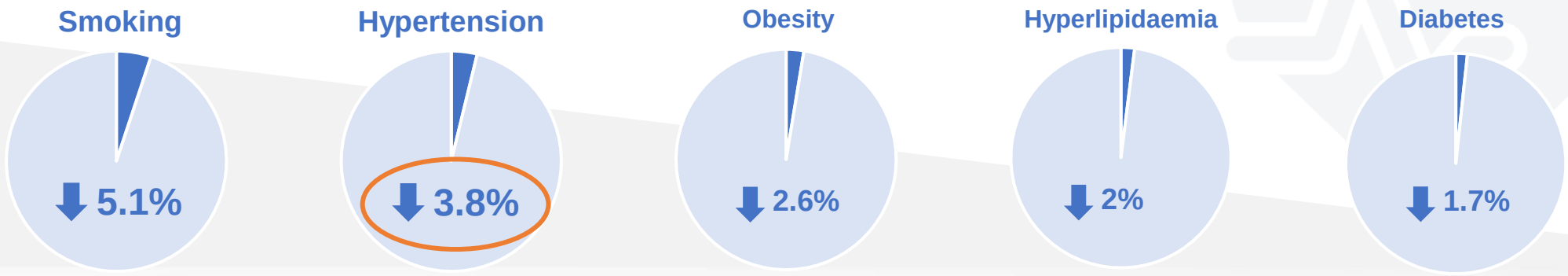
Reduction in mortality rates if the following conditions were eliminated:

For women:



For men:



(JAMA 2022;328:1849)

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Informed shared decision making

While hypertension may be easily protocoled, this guideline is meant as a guide to inform treatment recommendations. It is envisaged that such discussions are underpinned by **shared decision making and person-centred consultations**, with treatment recommendations being informed by the GM Hypertension guideline.

Many people with hypertension may not have a causative lifestyle factor or not be in a change mindset. While the diagnosis of hypertension can be a frightening experience for many, we must ensure we reframe high blood pressure as positive. **We can do something about it** and have many tools and support available to help people bring it under control; ranging from anti-hypertensives through to lifestyle factors. Managing high blood pressure is not about feeling good today, but keeping well going forwards.

Many people have a subconscious bias and over-value immediate gains over long term ones (Present Bias). Thus, preventative consultations can be difficult and require good consultations skills, respecting individuals' autonomies, while empowering and facilitating them to help themselves.

It is of upmost importance we remain non-judgmental and focus on the needs of the individual in context with their social and wider determinants of health.

Further resources on behavior change

Attitudes to health segmentation: Research undertaken by the Department of Health suggests that less than two-fifths of the population put a high value on their health and are motivated to adopt a healthy lifestyle. The segmentation also shows a link between poor motivation and coming from a more deprived area. Click here.

NICE Behavior change approaches: This guideline covers changing health-damaging behaviours among people aged 16 and over using interventions such as goals and planning, feedback and monitoring, and social support. It aims to help tackle a range of behaviours including alcohol misuse, poor eating patterns, lack of physical activity, unsafe sexual behaviour and smoking. Click here.

Consultations about changing behaviour. Rollnick S, Butler CC, McCambridge J, Kinnersley P, Elwyn G, Resnicow K. BMJ. 2005 Oct 22;331(7522):961-3. doi: 10.1136/bmj.331.7522.961. PMID: 16239696; PMCID: PMC1261200. Click here.

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Hypertension Medication Pathway

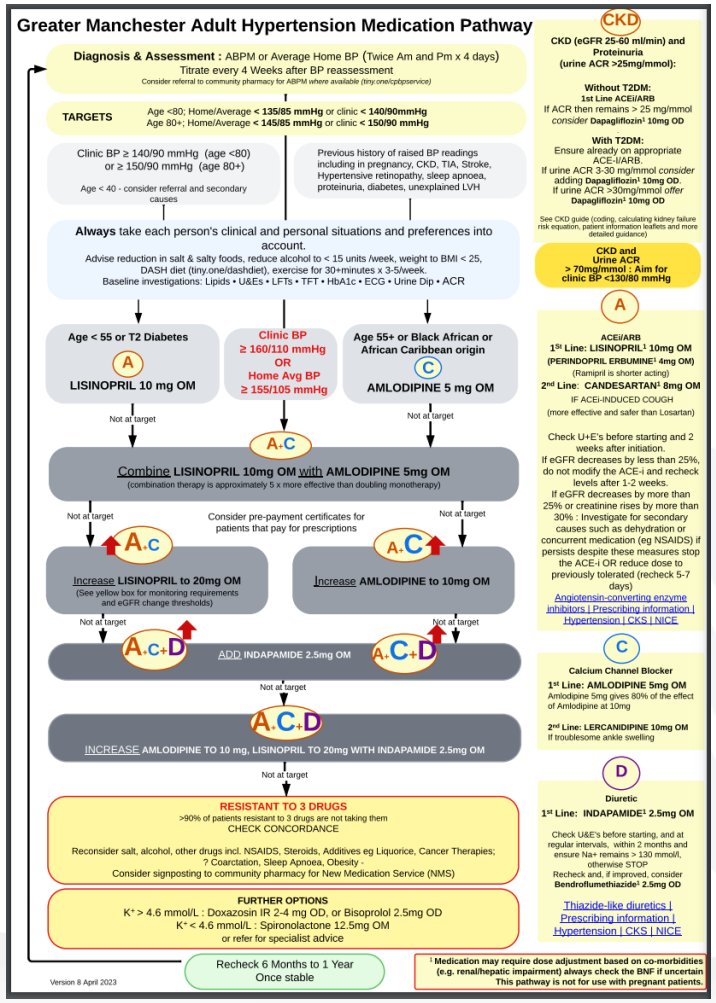
ACCESS THE HYPERTENSION MEDICAL PATHWAY HERE

Disclaimer:

The pathway and supporting information is not intended to be comprehensive, and is 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.



Key Principles of the Hypertension Medication Pathway

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

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.*

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).*

Further resources

- **ESC Guidelines** - read further guidance on the use of multiple medications. **Click here.**
- **Assessing Blood Pressure in Primary Care toolkit** - it is important to ensure smooth processes to manage readings, results and optimising treatments. **Access here.**
- **Making hypertension easier to manage in Primary Care toolkit -** supporting resources for primary care health and care professionals. **Access here.**

Different Targets

Situation	Clinic Target (mmHg)	Home/Average 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

* ESC Guideline

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Guidance for newly diagnosed people

Offer newly diagnosed people with high BP's (Clinic: >160/110mmHg or Avg >155/105mmHg) two anti-hypertensives at low doses

There is no single anti-hypertensive that will reduce BP by more than 10mmHg. Thus, for those with high BPs it is leading to missed opportunities and ineffective titrations, increasing likelihood of patient disengagement, while ultimately wasting our time and those of our patients.

Offer those with very high Blood Pressures two medicines at lower doses as this will be far more likely to bring them under control. It is of course important to practice person-centred care and have an open discussion with patients as lifestyle changes may also reduce blood pressure, although this depends on that individual's lifestyle factors and willingness and motivation to change.

ACCESS THE NHS PRESCRIPTION PREPAYMENT CERTIFICATE (PPC) HERE

"You have high blood pressure. There are a lot of things we could do including supporting you with X lifestyle changes.

Medication is another important option and will reduce your blood pressure reducing your risk of pain and disability and help you to keep doing whatever is important to you"…

"Your blood pressure is high and it's likely you might need two medications to bring it under control.

It's not your fault that you have high blood pressure and you haven't done anything wrong… as it can often be genetic."…

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Adding in a second medicine

Globally, there is an emerging recognition that many people with high blood pressure may require multiple medications and may be unlikely to be controlled by one*.

Multiple medications targeting different parts of hypertensive pathophysiology are far more effective than monotherapies at maximum doses. Therefore it is suggested to offer a second medicine before increasing the first one. This alone should make it significantly quicker to bring people under control.

Cost of living is a concern. While 90% of NHS prescriptions are free, for those that pay for prescriptions the costs can be significant. Thus, ensure you discuss pre-payment certificates for those that pay for prescriptions.

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 pill burden and thus a balance was struck within the present iteration of the GM Hypertension Pathway.

Example: Amlodipine 5mg = 80% of the effect of Amlodipine 10mg. However, 10mg is far more likely to lead to unpleasant side effects such as ankle swelling.

"Once you are under control we can forget about it for another year.

If you prefer, we could try increasing the first medication you are already taking, however this may not be enough to bring your blood pressure under control, but it is another option.

Of course, changing X lifestyle factor may also help lower your blood pressure and we could support you in making this change aswell.

What are your thoughts?"

"I suggest the best option may be adding a second medicine as it will be far more likely you will be under control quicker.

We could try increasing the dose of the medication you are on, but it may not be enough and we might have to add in a second anyway…

What do you think?"

*ESC Guidelines

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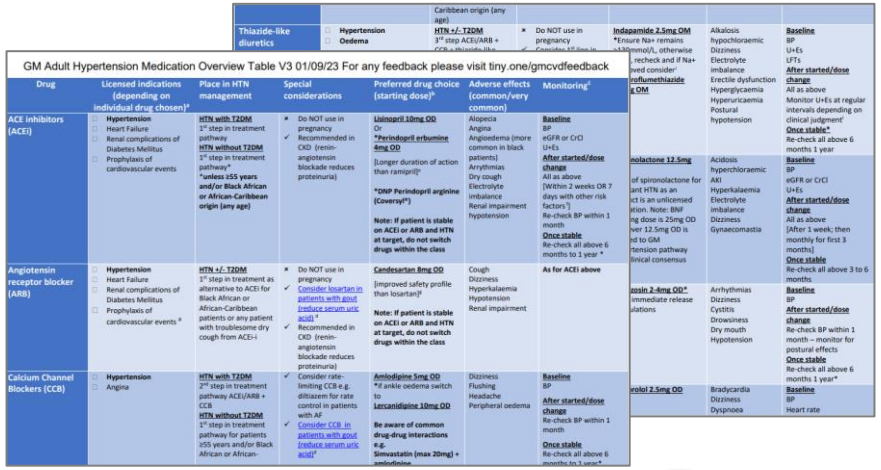
Hypertension treatment guidance

ACCESS THE GM ADULT HYPERTENSION MEDICATION OVERVIEW TABLE HERE



GM Adult Hypertension Medication Overview Table V3 01/09/23 For any feedback please visit tiny.one/gmcvdfeedback

Drug	Licensed indications (depending on individual drug chosen)*	Place in HTN management	Special considerations	Preferred drug choice (starting dose)[b]	Adverse effects (common/very common)	Monitoring[c]
ACE inhibitors (ACEi)	Hypertension Heart Failure Renal complications of Diabetes Mellitus Prophylaxis of cardiovascular events	HTN with T2DM 1st step in treatment pathway HTN without T2DM 1st step in treatment pathway* *unless ≥55 years and/or Black African or African-Caribbean origin (any age)	✗ Do NOT use in pregnancy ✓ Recommended in CKD (renin-angiotensin blockade reduces proteinuria)	Lisinopril 10mg OD Or *Perindopril erbumine 4mg OD [Longer duration of action than ramipril][b] *DNP Perindopril arginine (Coversyl®) Note: If patient is stable on ACEI or ARB and HTN at target, do not switch drugs within the class	Alopecia Angina Angioedema (more common in black patients) Arrythmias Dry cough Electrolyte imbalance Renal impairment hypotension	Baseline BP eGFR or CrCl U+Es After started/dose change All as above [Within 2 weeks OR 7 days with other risk factors'][] Re-check BP within 1 month Once stable Re-check all above 6 months to 1 year *
Angiotensin receptor blocker (ARB)	Hypertension Heart Failure Renal complications of Diabetes Mellitus Prophylaxis of cardiovascular events [a]	HTN +/- T2DM 1st step in treatment as alternative to ACEi for Black African or African-Caribbean patients or any patient with troublesome dry cough from ACE-i	✗ Do NOT use in pregnancy ✓ Consider losartan in patients with gout (reduce serum uric acid)[d] ✓ Recommended in CKD (renin-angiotensin blockade reduces proteinuria)	Candesartan 8mg OD [improved safety profile than losartan][b] Note: If patient is stable on ACEI or ARB and HTN at target, do not switch drugs within the class	Cough Dizziness Hyperkalaemia Hypotension Renal impairment	As for ACEI above
Calcium Channel Blockers (CCB)	Hypertension Angina	HTN with T2DM 2nd step in treatment pathway ACEi/ARB + CCB HTN without T2DM 1st step in treatment pathway for patients ≥55 years and/or Black African or African-	✓ Consider rate-limiting CCB e.g. diltiazem for rate control in patients with AF ✓ Consider CCB in patients with gout (reduce serum uric acid)[d]	Amlodipine 5mg OD *If ankle oedema switch to Lercanidipine 10mg OD Be aware of common drug-drug interactions e.g. Simvastatin (max 20mg) + amlodipine	Dizziness Flushing Headache Peripheral oedema	Baseline BP After started/dose change Re-check BP within 1 month Once stable Re-check all above 6 months to 1 year*

ACCESS THE GM ADULT HYPERTENSION PATHWAY SUPPORTING INFORMATION HERE

From supporting information final evidence note:

- 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 and time in theraputic range. European Society of Cardiology Guideline , American College of Cardiology Guideline

Effective supported self-management and Informed Shared Decision Making

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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.

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Supporting self-management #1

For a person to be a partner in their own healthcare we need to support their ability to self-manage, identify problems, and be a contributor to problem solving. Whilst the clinician is an expert in their field, the patient is an expert in their own life. Sometimes the patient needs help to develop self-management skills (supported by health coaching), as well as gaining the necessary knowledge of their own condition (via patient education programmes).

Even within a short consultation, using a few simple techniques, it is possible to support someone to feel more motivated and confident to better manage their health. **Approaches many find helpful include:**

1

Explicit agenda setting:

A good effective conversation is often topped and tailed by explicit agenda setting, agreeing what issues are most important to discuss today from the patients point of view.

Ideally they would have received a prompt or template to think about this in advance.

To see what additional support might be helpful, considering asking the following at the end of the consultation:

"Thinking about what we have talked about in this consultation, how confident do you feel you will be able to…..?"

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Supporting self-management #2

2

Taking into account the person's 'activation level':

Patients vary greatly in the knowledge skills and confidence they have in managing their own health and care – we call this their level of activation. These differences significantly affect health outcomes, experience, and costs of health care.

To effectively support a person to better manage their health, lifestyle and behaviour, our conversations and interventions need to be tailored to a person's starting point – meeting a person where they're at.

Useful questions include:

"Please tell me what you already do to look after yourself"

"Are you the kind of person who likes to go away and find out more about their health, or do you prefer it if we give you the answers and arrange things?"

The approach you take from there can then be tailored to that person's starting point.

How to tailor your support to each individual

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Level 1

Individuals tend to be passive and feel overwhelmed by managing their own health.

Our job: Develop basic knowledge, self-awareness, and confidence

Support the patient to understand relationship between behaviours and symptoms. If not yet ready to play a role in improving their health, continue to build rapport and trust, to build on confidence and self-awareness. Gain understanding of what matters to the patient to identify motivational factors. The person should lead when choosing areas to work on.

"If you could find any time to care for yourself, would it help you…"

Level 2

Individuals may lack the knowledge and confidence to manage their own health

Our job: Increase Knowledge and Initial Skills Development

The patient will benefit from gaining understanding of health-related information to enable them to "join the dots" between symptoms and behaviour. It is important to support the person to continue to build on self-management skills such as monitoring symptoms, behaviours and triggers. The focus is on small steps. Continue to build trust and rapport and understanding of what is important to them.

"What is the first step you could take…do you have any ideas, would you be prepared to explore this with more time?"

(Offer to connect with ARRS Personalised Care role such as Health and wellbeing coach, social prescribing link worker)

Level 3

Individuals appear to be taking action, but may still lack the confidence and skill to support their behaviours

Our job: Encourage, explore motivation for action and initiate new behaviours

The person is motivated, and might already have adjusted behaviours, and developed techniques to manage triggers. Support working towards refining these, by providing encouragement, noticing successes and problem-solving skills. Continue using health coaching/motivational interviewing techniques and offer support/ patient education information and opportunities.

More substantial health coaching might be of use, e.g., Personalised ARRS role practitioners, or via patient education offers

"How is it going…what's working well, what do you need to support you now?"

Level 4

Individuals have adopted many of the behaviours needed to support their health but may not be able to maintain them in the face of life's stressors

Our job: Maintain Behaviours and Provide Support around Triggers

The patient is already acting, and it is important to continue using brief MI/health coaching approaches to explore how to sustain these. Focus on recognising positive achievements and on the things that "get in the way" for maintaining progress and support the person to adhere to the behavioural change which have already taken place to avoid relapse. They may be interested in connecting into peer support, to grow their support network around managing their long-term condition.

Increasing level of activation →

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Supporting self-management #3

3

Adopting elements of health coaching and motivational interviewing:

These techniques can be more effective than straight advice giving, because they better engage the patient, can help shift their mindset and build their confidence. Many GPs find it is helpful to skill themselves up in these areas, as well as to utilize the skills of additional colleagues that may be available – such as Health and Wellbeing Coaches, or Social Prescribing Link Workers.

Further resources

- **Dr Ollie Hart unpicks coaching principles** through an Island Metaphor in a 7-minute video. Click here.
- **The Personalised Care Institute** has many free e-learning modules in addition to other resources. Click here.
- **RCGP Person-centred care toolkit**. Click here.
- **Nesta's 'Good Help Bad Help' project** explored the evidence and practicalities underpinning good effective support that enables people to feel hopeful and take action. Click here.

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Governance

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For any urgent issues or requests please contact:

- Catherine Cain
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For feedback, issues or requests for more guidance please use feedback.gmcvd.com

We will be monitoring all feedback to help guide further iterations and inform future work.

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- Anthony Carter, Senior Medicines Optimisation Pharmacist, NHS GM Integrated Care (Manchester locality)
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Dr Aseem Mishra,

CVD Prevention lead NHS GM ICS, ACF GPST4 UoM/Bowland Medical Practice

This toolkit is part of GM's effort to tackle CVD, health inequalities and improve the life of all who live and work in GM