

# Blood Pressure Optimisation – Back to Basics

Tuesday, 10th December, 2024, 13:00-14:00, Online

## **House Keeping**

- Please ensure your microphone and video are turned off during the session.
   This is to help with the quality of the call.
- If you need to take a break, please feel free to drop off the call at any time and re-join.
- Live captions are available if required. To turn on click on the 3 dots on your toolbar and select 'Turn on Live Captioning'.
- This event will be recorded, and photographs may be taken.
- Please ask any questions you have through the chat facility. We will try to address questions during the event, but if we don't manage to do this we will follow up after the event.
- Speaker presentations and recording will be circulated following the event.



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## The Health Innovation Network – who are we?

In October 2023, Health Innovation North East and North Cumbria (HI NENC) changed its name from the Academic Health Science Network.

The new name reflects the organisation's key role to continue to support the development and spread of innovation across the region's health service.

But while our name has changed, our vision remains the same: to improve health outcomes, reduce inequalities, and boost the regional economy. Working alongside partners across the system, we will continue to accelerate health innovation in the region, and beyond.

Established in 2013 by NHS England we are one of 15 Health Innovations.





## In the North East and North Cumbria, CVD causes:

# 690 deaths a month





1 in 5 deaths (in some areas of the region)



# **CVD Prevention Portfolio programme**

## HI NENC is delivering a Cardiovascular Disease Prevention Portfolio programme with a focus on:

- Hypertension
- Chronic Kidney Disease
- Familial Hypercholesterolaemia
- Lipid Optimisation and Management in Secondary Prevention



# Why do we do it?

**Better health outcomes -** Our vision is to reduce the risk of CVD and lower the incidence of related events, thereby improving population health by reducing morbidity and mortality. We aim to deliver programmes that address multiple health conditions, helping people live longer, healthier lives.

**System partners working together -** This vision will be realised through collaboration with regional partners, facilitating the development of tools, pathways, and services that can be scaled and adopted both within our region and beyond.

**Economic growth benefits -** We aim to drive a positive financial impact by enhancing service efficiencies, fostering partnerships with industry, and supporting the adoption of innovative solutions across the NHS.

**Reducing health inequalities** - We are committed to working with health organisations, community leaders, and local populations to ensure our initiatives support the reduction of health inequalities, helping to create fairer access to healthcare and prevent the widening of existing disparities.





# Tracy Marshall High blood pressure (Hypertension) – an overview

'High blood pressure is the leading cause of preventable death worldwide'\*

'Through treating high blood pressure with antihypertensives, one heart attack for every 100 patients and one stroke for every 67 patients is prevented.'\*\*



# High blood pressure – what are the risks?

- High blood pressure (hypertension) is one of the most important risk factors for Cardiovascular Disease (CVD) and is very common, especially in older adults.
- If blood pressure is too high, it can damage blood vessels.
- There are usually no symptoms, so people may not realise they have it.
  - High blood pressure can lead to serious problems like heart attacks or strokes.
  - Lifestyle changes and blood pressure medicines can help people stay healthy.



# Things that increase someone's chance of having high blood pressure:

- Age you're more likely to get high blood pressure as people get older
  - Having close relatives with high blood pressure
- Ethnicity higher risk ethnicities include Black African, Black Caribbean and South Asian.
- An unhealthy diet especially a diet that's high in salt
  - Being overweight
  - Smoking
    - Drinking too much alcohol
    - Feeling stressed over a long period





# 'Know your numbers'

## **Current NHS guidance states:**

Aged under 80 years of age, blood pressure is considered high if the reading is either:

- 140/90 or higher when checked by a healthcare professional
- 135/85 or higher when checked at home

**Aged 80 or over**, blood pressure is considered high if the reading is either:

- 150/90 or higher when checked by a healthcare professional
- 145/85 or higher when checked at home

However..... An <u>ideal</u> blood pressure reading is under 120/80





# What can you do?

**Find hypertension:** Use searches, such as CDRC, to identify patients who are not treated to target.

**Do:** take accurate measurements and provide patients with self-management information, including know your numbers.

**Take a MECC\* approach to hypertension** - Offer all patients with CVD, CKD and diabetes a blood pressure check annually.

**Follow hypertension annual review guidance** - including taking a urine sample and HbA1c test.





# **BP & Chronic Kidney Disease**

There are usually no symptoms of kidney disease in the early stages.

Chronic Kidney Disease is commonly caused by other conditions that put strain on the kidneys, such as hypertension, a risk factor for cardiovascular disease.

We are looking for practices to participate in the campaign, "Are You Taking The Pee?" to co-design materials to remind staff to take urine for uACR (a key CKD test). This will take 1.25hrs for a couple of staff members. There is a prize draw! Interested?

Contact Karen Verrill <u>karen.verrill@healthinnovationnenc.org.uk</u>





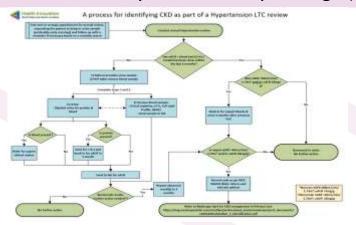
## **BP & Chronic Kidney Disease: coming soon.....**

Make every contact count - take a comorbid approach to CKD

Offer annual testing to all adults with CVD, hypertension and diabetes. This should comprise of

- a blood test to measure eGFR
- AND a urine test to detect uACR.

Both tests are required to accurately detect kidney damage (NICE recommendation)









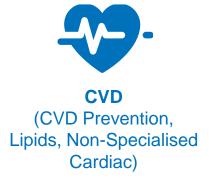
# NENC ICB Long Term Conditions The CVD Workstream

Jack Lyon - Project Delivery Lead - CVD

## **Long Term Conditions**

The all-age programme will support the delivery of related priorities within the NENC ICB clinical conditions strategic plan and national priorities.

## Core Workstreams:







<sup>\*</sup>Other workstreams will exist or task and finish groups

# NENC ICB Clinical Conditions Strategic Plan Cardiovascular Health Recommendations

The cardiovascular health recommendations were developed in collaboration with the long term conditions & physical health clinical networks.

#### Prevention

• We will **proactively manage risk factors** within primary care such as atrial fibrillation, hypertension, hyperlipidemia, stroke, diabetes and chronic kidney disease management.

### Case finding and diagnostics

 We will proactively case find for hypertension, atrial fibrillation, diabetes, hyperlipidemia, chronic kidney disease, stroke and heart failure and deliver access to timely diagnostics and effective treatment, addressing unwarranted variation, ensuring capacity for diagnostic and treatment services.

#### Treatment

• We will commission and deliver high quality nationally agreed models of care.

### Rehabilitation

 We will ensure secondary prevention/optimisation is embedded in our care pathways and at each contact point to target atrial fibrillation, hypertension, stroke, hyperlipidemia, diabetes and CKD management.

## **CVD National Priorities**

### **CVD PREVENTION**

### NHSE Planning metric 2024/25:

- Increase the percentage of patients with hypertension treated according to NICE guidance to 80% by March 2025.
- Increase the percentage of patients aged 25–84 years with a CVD risk score greater than 20% on lipid lowering therapies to 65% by March 2025.
- Continue to address health inequalities and deliver on the Core20PLUS5 approach, for adults and children and young people.

### **NON-SPECALIST CARDIAC**

### **NHSE Planning Metric:**

- Cardiac Rehabilitation: 85% of acute coronary syndrome and 33% of heart failure eligible patients to start cardiac rehabilitation by 2029.
- Diagnostics: Increase the percentage of patients receiving a diagnostic test within six weeks in line with the March 2025 ambition of 95%.
- Heart Failure: Improve early detection, diagnosis, and treatment.

The ICB is working on developing CVD action plan that aligns with the NENC ICB clinical conditions strategic plan and national priorities.

# Some of the recent pieces of Work on Blood Pressure...

## Blood Pressure Kiosk Project

Improving access to blood pressure checks through the placement of blood pressure kiosks in community centres.

- 6 community centres across NENC are hosting the blood pressure kiosks. Each centre also has 30 home blood pressure monitors to loan to kiosk users when appropriate.
- The areas targeted were based on the relevant data.
- 82 blood pressure champions have been trained to support the use of the kiosks, advise on results and appropriate signposting.



## Comms, Engagement and Education











Know your Numbers

Targeted Social Media

Case study for GP Practice/PCN Engagement Work Learning Academy MECC Gateway





## The NENC ICB Learning Academy

https://academy.boost.org.uk/programmes



The Learning Academy offers a wide range of courses, seminars, and events, all designed to support our collective commitment to delivering the highest standards of care to the population we serve.



### Cardiovascular Disease (CVD)

A programme to privide an overview of cardiovascular disease (CVD) and promote better care and outcomes. Providing all teams with improved knowledge and skills to support effective CVD prevention and care to people with CVD, and at risk of CVD.

### About this programme

theirt and dimulatory disease, also known as cardiovescular disease or CYC, is one of the main cause of death and disstalling in the UK and is the largest cause of permature montality in deprived areas. CYD can often largely be prevented by leading a healthy life-tyle.

Working with partners, we aim to support areas in CVD by supporting the workforce through training, continuous development and workforce planning to improve early and accorate diagnosis, reedicine optimisation, rehabilitation, and supporting self-management.

This programms will provide information, resources and learning across the entire

### Hypertension

Modul

#### Summary

This projection incorporates with to date publishes and indisnet used alone probability districting the resets the free files primary part criticipages in the disposal and crisicoperioris of hypertension and carbonization disease (CVD) size, including families, hypertension and carbonizations, deployments and other carbonization and others existed contains. The projection of action and is accompared by a short gold to test knowledge and understanding of the roads.

What clinical or professional competencies does the module support?

N/A

#### Who is the module for?

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#### Learning objectives

- Uncertaint of MEZ baryoner Society of Cardiology (SE) garbour or establishing a diagram of bapaterson.
- Receptive blood pressure targets depending on in-markety.
- Understand the Hypertension Treatment algorithms and to also to follow accordingly.
- To diff it man technology to and larget organ density introducing both fields foreign recommendations on the presentant of Continuencies Donne and Strikt ment Countries": "Next age".
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## **MECC Gateway – CVD Tile**

https://www.meccgateway.co.uk/nenc/services/Cardiovascular%20Disease





# **Regional Hypertension Data**

## **Hypertension Prevalence**

(per 100,000 population)

	Estimated Prevalence	Actual Prevalence	Gap/Hidden Prevalence
North East North Cumbria	27.3	21.4	5.9%
County Durham	27.7%	23%	4.7%
Gateshead	27.0%	21.9%	5.1%
Newcastle	21.4%	14.9%	6.5%
North Cumbria	29.5%	22.0%	7.5%
North Tyneside	27.9%	21.4%	6.5%
Northumberland	30.7%	23.5%	7.2%
South Tyneside	28.0%	20.6%	7.4%
Sunderland	27.5%	22.9%	4.6%
Tees Valley	27.0%	21.5%	5.5%

**Estimated Prevalence** – recorded high blood pressure with no prescribed medication or self-reported drug treatment – *Health Survey for England* 

**Actual Prevalence** – hypertension diagnosis documented on primary care record – *GP Clinical Systems* 

## **CVD PREVENT**

CVDPREVENT is a national primary care audit that automatically extracts routinely held GP data. This data tool provides open access to the data, with clear, actionable insights for those tasked with improving cardiovascular health in England. Key features of CVDPREVENT include:

- Access to CVD data at a National, ICS, PCN and individual practice levels to enable teams to understand the performance of their services and potential improvement opportunities.
- New data published every quarter, see the data publications dates here:
   Home | CVDPREVENT

Data shown in the following slides is extracted from GP Systems June 2024, new data will be published in the new year



## Hypertension - blood pressure monitoring



CVDP004HYP: Patients with GP recorded hypertension, with a record of a blood pressure reading in the preceding 12 months.

Click on the link icon in the top right corner to view this chart on the CVDPREVENT Data & Improvement Tool

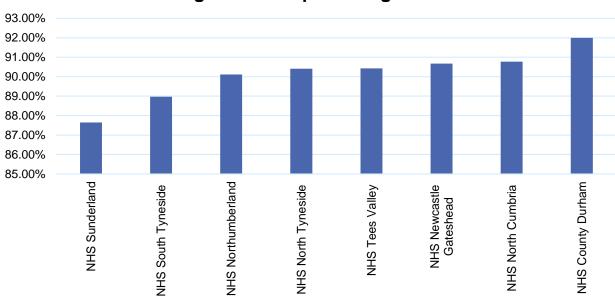


#### Your ICB achievement benchmarked against all other ICBs in England

- NHS North East and North Cumbria Integrated Care Board achievement (June 2024) = 90%
- . 51,650 people aged 18 and over with GP recorded hypertension did not have a recent blood pressure reading within the preceding 12 months

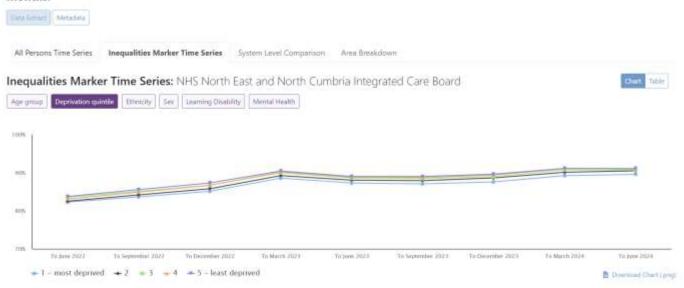
## **Blood Pressure Monitoring**

Percentage of patients aged 18 and over with GP recorded hypertension, who have had a blood pressure reading within the preceding 12 months



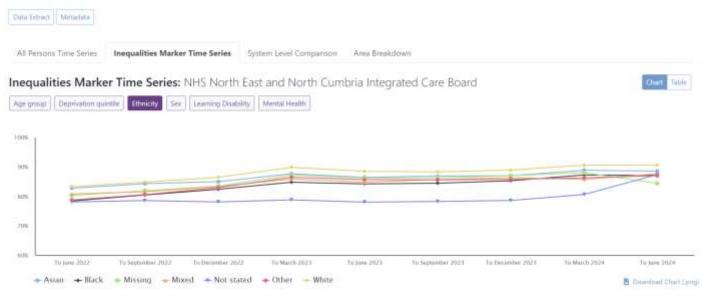
HYPERTENSION MONITORING

## CVDP004HYP: Patients with GP recorded hypertension, with a record of a blood pressure reading in the preceding 12 months.



HYPERTENSION MONITORING

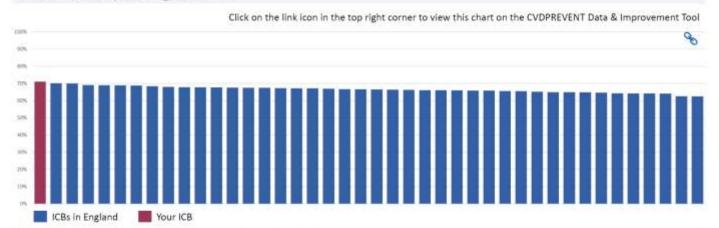
CVDP004HYP: Patients with GP recorded hypertension, with a record of a blood pressure reading in the preceding 12 months.



## Hypertension - treatment to target



**CVDP007HYP:** Patients with GP recorded hypertension, whose last blood pressure reading is to the appropriate treatment threshold, in the preceding 12 months.

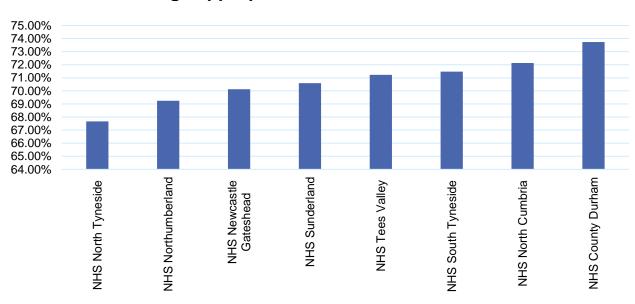


### Your ICB achievement benchmarked against all other ICBs in England

- NHS North East and North Cumbria Integrated Care Board achievement (June 2024) = 71% (national ambition 80%\*)
- . In your ICB at least 47,895 people with known hypertension need to be treated to meet the national ambition

# **Hypertension Treatment to Target**

Percentage of patients aged 18 and over, with GP recorded hypertension, in whom the last blood pressure reading (measured in the preceding 12 months) is below the age appropriate treatment threshold



HYPERTENSION MANAGEMENT

CVDP007HYP: Patients with GP recorded hypertension, whose last blood pressure reading is to the appropriate treatment threshold, in the preceding 12 months.



HYPERTENSION MANAGEMENT

CVDP007HYP: Patients with GP recorded hypertension, whose last blood pressure reading is to the appropriate treatment threshold, in the preceding 12 months.



# **CVDPREVENT ICB Quality Improvement Packs**

### Purpose of this pack

To provide KBs with data and practical actions to improve achievement in single risk factors, reduce variation between mackies, and facilitate peer support within the system.

This quality improvement pack will cover:

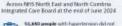
- 1. Hypertension monitoring
- 2. Hypertension treatment to target
- Prescriptions of lipid lowering thesapes in patients at risk of cardiovascular disease (CVD)
- 4. Light treatment to larget in patterns with CVD

....

## Time for Action Quality improvement in CVD prevention

SALES WHEN







155,705 people with hypersocion were not treated to the appropriate blood pressure threshold



64.785 people at a high risk of CVO\* did not have a current precordation for light breaking therapy.

Using the ICC Partners has all the Price resources. It's articulate that treating an additional 47,056 in proceedings absent to the resolution in 1919. Morth Cost and Roach Customs Images to Clare Read would general 387 femal statute and 429 strates, using 288 females, spring 288 females of Cost and Cost Strates.

- Top tipe to implement change for quality improvement

  CVD dinkel leadership in KRs and practices is key to
  facilitating continuous data-led quality improvement
- Educational outroach meetings provide protected and facilitated time to take a data-led approach. Outputs can range from simple actions to transformational change.
- Learning from local improvem can highlight actions that could be relevant to your local context
- Engagement with health innovation networks and other relevant stakeholders is a crucial component of improvement and translating enidence into practice
- Think equity-focused quality improvement and prioritize reviews in people who are known to experience healthcare inequalities.

### Hypertension - treatment to target



#### Key actions to improve



 SEARCH year GP chinical system for hypertensive partients whose fast BP is above the age oppropriate treatment threshold.
 Nations may then an included to supply because their last IBP reading was mere than ID norths age bas CVPROHIT include; To reach, blow the stopp couldnet is saled.



2) REVIEW picient

- But specifying prompting patients with SPs further from pages, according to CVD risk, and where there are injoint healthcare.
   Requalities to RP management (e.g., working age mater, black or related ethnicity).
- Explare population health insingement tools that may be available within your ICE. Other pre-entred electronic searches & rooks some free to help used, are also evaluable to help with not discribed as and prior treation.
- Decider of fight practice Additional Robin Facing exercises (ARTS) pharmacy workforce of other appropriately instead staff to getter information by to disc abods. Bit, weight, snoking status, ser OSSE score), to ecourage behaviour (harge and lighpost to other Mariation or acceleration).



- 3) OPTIMISE anti-hypertensive therapy and CVD risk reduction in line with NKE guidance
- Review blood regults, risk scores and symptoms.
- Review committations and committee.
- Assess CVD disk optimize Epid management and other disk factors
- Encourage self-management and sate of type tension through perfect education
- Explain modification litting behaviour and any learners to adherence, lockuling adverse effects
- Initiate or optimise blood pressure medication; many people will require more than one antihopertensive.



4) ENSURE call and recall for BP checks, at least annually







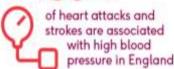
# Reducing Cardiovascular Disease: Finding and treating hypertension

Catherine Tucker
Senior Clinical Pharmacist Lipid clinic NTGH

## The national picture



Around 50%





### Atrial Fibrillation (AF)

Atrial fibrillation is one of the most common forms of abnormal heart rhythm (arrhythmia) and a major cause of stroke.

- Nearly 1.4 million people in England have been diagnosed with atrial fibrillation.
- It is estimated that there are at least 230,000 people aged over 65 with undiagnosed (or silent) atrial fibrillation in England.

### High Blood Pressure

- High blood pressure is the leading modifiable risk factor for heart and circulatory disease in England.
- An estimated 30 per cent of adults in England have high blood pressure and most are not receiving effective treatment.
- Around 9.4 million people in England are on a GP hypertension register.

#### Linked conditions

- Adults with diabetes are 2-3 times more likely to develop CVD, and are nearly twice as likely to die from heart disease or strake as those without diabetes.
- In England, one third of adults with diabetes die from a heart or circulatory disease

### High Blood Cholesterol

- High blood cholesterol is a significant risk factor for developing heart and circulatory diseases it's estimated that more
  than two in five (43 per cent) of adults in England have cholesterol levels above national guidelines (above 5mmol/L).
- In England around two thirds of NHS Health Check participants (age 40 to 74) have high cholesterol.
- More than six million adults in England are taking lipid-lowering drugs such as statins.

https://www.bhf.org.uk/-/media/files/for-professionals/research/heart-statistics/bhf-cvd-statistics-uk-factsheet.pdf



Every
6 minutes
someone in England
is admitted to hospital
due to a heart attack



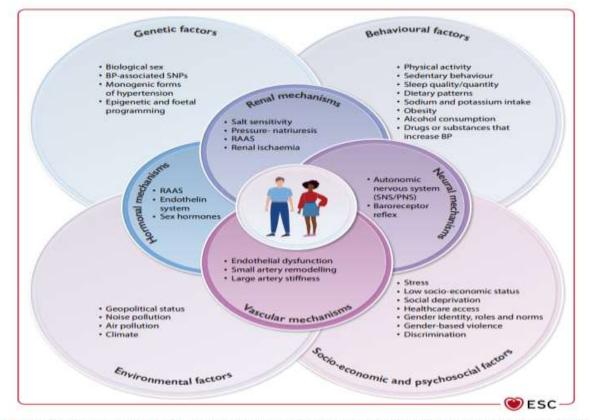


Figure 1 Pathophysiology of elevated blood pressure and hypertension. BP, blood pressure: PNS, parasympathetic nervous system; RAAS, renin-angiotensin-aldosterone system; SNP, single-nucleotide polymorphism; SNS, sympathetic nervous system. Complex interplay between genes, environmental, and behavioural factors, organs, physiological systems, and neurohumoral processes contribute to BP regulation. Dysfunction of these processes leads to hypertension. The contribution of these factors to elevated BP and hypertension may differ among males and females.

McEvoy J et al. European Heart Journal (2024) 45, 3912-4018 https://doi.org/10.1093/eurheartj/ehae178

# Long term complications

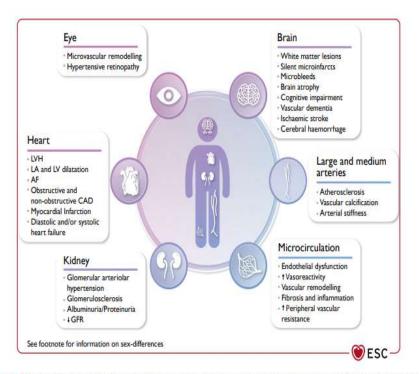
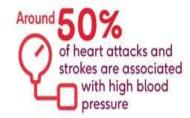


Figure 2 Persistently elevated blood pressure and hypertension lead to hypertension-mediated organ damage and cardiovascular disease. AF, atrial fibrillation; CAD, coronary artery disease; GFR, glomerular filtration rate; LA, left atrial; LV, left ventricular; LVH, left ventricular hypertrophy. See the supplementary data online for detailed information on sex differences.





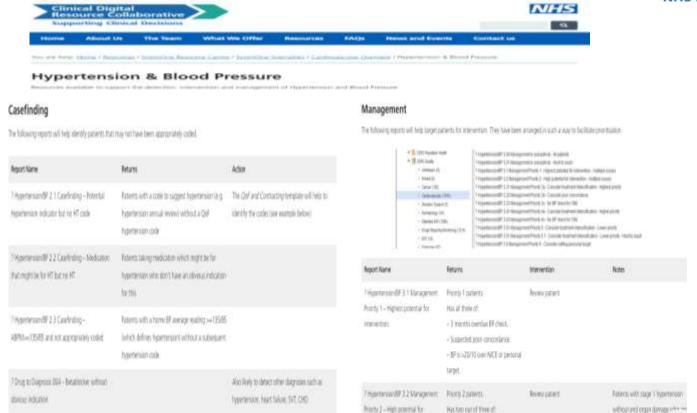
- Why blood pressure checks?
- Improve
  - Access
  - Detection
  - Management
- Reduce risk of CVD
- Increase conversations about health & wellbeing

McEvoy J et al. European Heart Journal (2024) 45, 3912-4018 https://doi.org/10.1093/eurheartj/ehae178

### **Clinical Digital Resource Collaborative**

www.cdrc.nhs.uk









NICE CKS Hypertension- treatment pathway

Clinic blood pressure versus Home Blood Pressure Monitoring

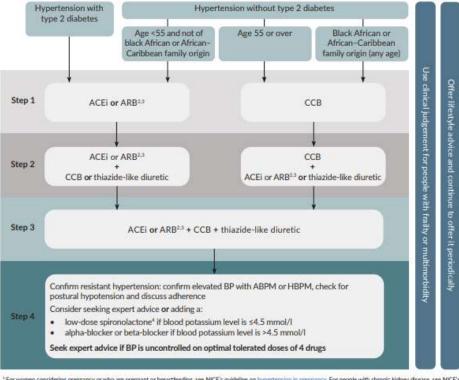
- <80y 140/90mmHg
- >80y 150/90mmHg
- CKD <130/80 mmHg

### Treat to target, treatment pathway:

- What have you tried: titrate dose, add in next step
- If side effects try alternative



#### Choice of antihypertensive drug1, monitoring treatment and BP targets





<sup>&</sup>quot;See MHRA drug safety updates on ACE inhibitors and angiotempin-II receptor areasonists not for use in pregnancy, which states "Use in women who are planning pregnancy, should be discussed." A El inhibitors and angiotems in I receptor antigonists use during presented in an electric should be discussed. "A El inhibitors and angiotems in Irreceptor antigonists use during presenteding and clarification." ACE inhibitors and angiotems if receptor antagonists, See also NICE's a guideline on hypertension in pregnancy.

Abbreviations: ABPM, ambulatory blood pressure monitoring; ACEi, ACE inhibitor; ARB, angiotensin-II receptor blocker; BP, blood pressure; CCB, calcium-channel blocker; HBPM, home blood pressure monitoring.

Monitoring treatment

Use clinic BP to monitor treatment.

Measure standing and sitting BP in people with:

- · type 2 diabetes or
- · symptoms of postural hypotension or
- · aged 80 and over.

Advise people who want to self-monitor to use HBPM. Provide training and advice.

Consider ABPM or HBPM, in addition to clinic BP, for people with white-coat effect or masked hypertension.

#### BP targets

Reduce and maintain BP to the following targets:

#### Age <80 years:

- Clinic BP <140/90 mmHg</li>
- ABPM/HBPM <135/85 mmHg</li>

#### Age ≥80 years:

- Clinic BP <150/90 mmHg</li>
- ABPM/HBPM <145/85 mmHg</li>

#### Postural hypotension:

· Base target on standing BP

#### Frailty or multimorbidity:

· Use clinical judgement



This visual summary builds on and updates previous work on treatment published by the BIHS (formerly BHS)

and process a marriage

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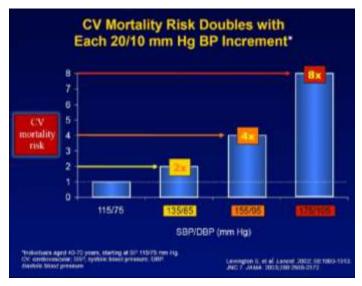


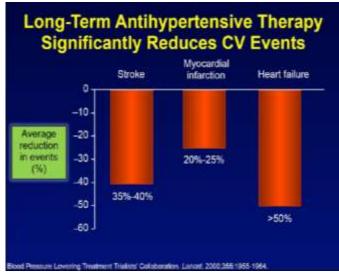
<sup>\*</sup>Consider an ARB, in preference to an ACE inhibitor in adults of African and Caribbean family origin.

<sup>\*</sup>At the time of publication (August 2019), not all preparations of spironolactone have a UK marketing authorisation for this indication.

### Reducing BP, reduces CVD events



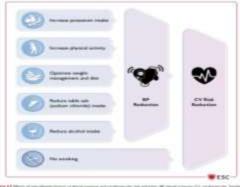




## **Key Messages**

Northumbria Healthcare
NHS Foundation Trust

- Identify high BP
  - BP checks
  - Digital searches (CDRC) and IT system support to prioritise higher risk CVD patients
- Treat high BP
- Optimise medications
- Make Every Contact Count
  - Lifestyle / medication adherence
- Communication of CVD messages across multiple sectors and professionals







Public Health England: Tackling high blood pressure 2018

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/672554/Tackling\_high\_blood\_pressure\_an\_update.pdf

### Resources



















**Next steps** 



# How do you monitor?

We would love to hear the methods you use to monitor your hypertension patients.

This will help us to identify if any PCNs / practices require support in this area, or identify areas of good practice to share

Please follow this link or scan the QR code to complete a short questionnaire



Many thanks





# **How can HI NENC support?**

Dedicated blood pressure optimisation page on the HI NENC <u>website</u> with numerous resources

HI NENC will support Primary Care Networks (PCNs) to identify underdiagnosed hypertension, ensuring patient treatment is optimised to NICE recommendations to reduce the number of CVD events.

### **Remote monitoring resources**

Remote monitoring for primary care clinicians

Two practices developed pathways for hypertension, taking different approaches and using different systems:

<u>Increasing uptake of annual Hypertension reviews SOP (Saville practice)</u>

**Blood Pressure Remote Monitoring using BP@HOME SOP (St Albans)** 





## **Contact details**

## **Catherine Tucker**

Senior Clinical Pharmacist Lipid clinic and Integrated Care Team,
Northumbria Healthcare NHS Foundation Trust
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