West Yorkshire and Harrogate
HEALTHY HEARTS

West Yorkshire and Harrogate Healthy Hearts

Hypertension Guidance
Background Information

West Yorkshire and Harrogate
Health and Care Partnership

Yorkshire & Humber AHSN

Contents

1. Summary

- There is still a huge number of people with high blood pressure (hypertension) world-wide who are not achieving their blood pressure target, despite lots of guidance; either because they are not being identified, or once identified their blood pressure is not being effectively controlled
- Guidance varies from country to country since the evidence base is broad
- National Institute for Health and Clinical Excellence (NICE) guidance is only one type of guidance that is used by UK cardiology specialists. European Society of Cardiology is one of two world leaders of cardiology learned societies and its guidance is used in specialist cardiology in the UK.
- There is clear evidence that the main benefit from hypertension treatment is from the improvement in blood pressure, not the drug chosen
- We have examples that local guidance can really help quality improvement work across large populations

2. Background

There have been several programmes around the country to try to improve hypertension treatment. Some have required extra funding for outside clinicians to do the work, some have not.

One of the local West Yorkshire and Harrogate (WY&H) Clinical Commissioning Groups (CCGs) previously used localised guidance for treatment of hypertension. By using a treatment pathway which was easier to implement on a large-scale, the CCG achieved an additional 13% improvement in attainment of the NICE blood pressure (BP) target of less than 140/90. This equated to **6,200 people with improved treatment of hypertension**. Feedback from the practices involved was that this was achieved with little impact on practice workload. If similar gains could be upscaled and achieved across WY&H, an additional 39,000 patients could achieve NICE BP targets, reducing strokes, heart attacks and chronic kidney disease.

An aim of the West Yorkshire and Harrogate Health Care Partnership Healthy Hearts programme was for locality clinical leads to build upon the work of above CCG, and agree local guidance for use in practices across WY&H HCP. All the Healthy Hearts clinical leads across WY&H have developed and agreed this WY&H local guidance, with support from the HCP's hospital Medical Directors, and with support from a broad range of local consultant specialties (including input from cardiologists, stroke consultants, geriatricians, renal physicians, diabetologists and vascular surgeons).

During locality visits, some have asked how this WY&H guidance fits with NICE guidance, for further details on the evidence base behind the guidance, and for clarity on the process by which this guidance has been adapted. This paper provides answers to these questions.

3. Local Guidance and national NICE guidance on hypertension

NICE is limited to issuing guidance and cannot adapt guidance to local need. That is not its remit. NICE states:

"The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations… . They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties."[1]

In discussions with NICE, they have reiterated to us that they recognise that it is not mandatory to follow guidance such as the hypertension guideline, and it is only the NICE "Technology Appraisals" that carry a statutory obligation for CCGs to implement.

This has further been supported following discussions and co-presentations between Dr Youssef Beaini and Dr Terry McCormack (GP and NICE hypertension guideline development group member 2011 and 2019 / Secretary and Trustee of the British Hypertension Society 2012 – 2016). Dr McCormack summarised that *national guidance* is a national role and *local treatment guidance* must take into account

the needs of the local populations. The two can and should co-exist together. Sometimes they will be different where there is a clinical need.
See *Appendix 2 Key Differences from NICE* for further details.

4. Support for the local guidance approach from National Leaders

The principles underpinning this local guidance (and preceding/allied local projects) have long been supported and championed by the National Clinical Director for Cardiovascular Disease for NHS England (NHSE), Professor Huon Gray, and Dr Matt Kearney, National Clinical Director for Cardiovascular Disease Prevention for NHSE and National Advisor to Public Health England.

5. Rationale for Local Clinical Guidance

Hypertension is one of the leading risk factors for premature death and disability. In England only around 4 in 10 adults have their blood pressure diagnosed and controlled. In Canada the rate achieved is 7 in 10 (with similar resources)[5]. We also know that the sheer numbers of people make improvement on a significant scale a daunting task. There are an estimated 69,700 people[6] on the hypertension register in WY&H with uncontrolled hypertension. This is why a simplified, but still evidence-based approach, is needed to make a significant improvement in population health given the finite resources available in general practice.

Guidelines have increasingly focused on the stepped-care approach, initiating treatment with different single treatments and then sequentially adding other drugs until BP control is achieved. This traditional method requires numerous attendances at the GP practice and lots of repeated blood tests early on in treatment.

The European Society of Cardiology (2018)[7] stated that:
"Despite this [worldwide efforts to treat BP better], BP control rates have remained poor worldwide. As shown by recent observations, irrespective of the world region, whether high- or low-income economies, or the level of sophistication of healthcare provision, only ~40% of patients with hypertension are treated; of these, only ~35% are controlled to a BP of <140/90 mmHg. This failure to achieve BP control in **most** hypertensive patients, despite numerous iterations of previous guidelines, suggests that these treatment strategies are not working and that a different approach is needed."

Currently locally, there are inequalities in implementation of NICE hypertension guidance since a large proportion of the population is NOT controlled to NICE BP targets. Clearly, therefore, whatever we are doing at present in most of the HCP is NOT sufficient to meet the NICE BP target for a good percentage of hypertensives. In work done so far, many local GPs and nurses have fed back that 2011 NICE guidance in hypertension is not straightforward, in their view. They have also found the myriad of BP targets over the years confusing and a barrier to quality improvement.

There has also been feedback that many GPs and nurses like the use of specific medicines in a guidance since is streamlines their approach. When one combines this with a clear message that it is the BP reduction that is the main thing that benefits patients, not specifically the type of BP medication, then

we are led to a simple conclusion that streamlining the treatment for our localities may help implementation of the NICE BP target (and European BP targets which are lower).
The European Society of Cardiology clearly states this[4, 12]. The European Society of Cardiology (ESC) is led by expert clinicians and is a very highly respected organisation world-wide as an international leader in cardiology. ESC guidance is up to date and was published a few months ago in 2018.

In this Healthy Hearts programme across West Yorkshire, we want to improve care beyond current levels, and so the clinical need we are highlighting is that we could improve outcomes for the population by using a treatment pathway that is easier to implement at a large scale whilst still following an evidence-based algorithm.

6. What is the evidence base underpinning the localised WY&H guidance?

The first choice is a drug called amlodipine, a calcium channel blocker (CCB). A Lancet meta-analysis[2] in 2016 found that CCBs and diuretics showed some superiority in preventing strokes or heart failure, respectively. So amlodipine is a perfectly reasonable first choice for our guidance (but also see below evidence that any of the five classes of drugs can be used). Another review of 50 RCTs to date in the Journal of Hypertension[2] found that overall, "most BP-lowering classes are equally effective in preventing risk of fatal and nonfatal cardiovascular events both in older and younger patients, whereas beta-blockers, though being equally effective as the other agents in patients younger than 65, lose some of their effectiveness at an older age."

The European Society of cardiology[4] issued guidance as far back as 2013 (after NICE 2011) which stated a broadly similar message:

"Although meta-analyses occasionally appear claiming superiority of one class of agents over another for some outcomes [(391 – 393)], this largely depends on the selection bias of trials and the largest meta-analyses available do not show clinically relevant differences between drug classes (Eur Soc Cardiology, 2013)" [4]

The European Society of Cardiology has updated its 2018 hypertension guidance to include several key points of the WY&H guidance: use of combination therapy for higher BPs to bring BP under control more quickly, and more emphasis on the use of spironolactone in resistant hypertension. All five major classes of antihypertensive medication are supported by ESC 2018:

"In the previous Guidelines, five major drug classes were recommended for the treatment of hypertension: ACE inhibitors, angiotensin receptor blockers (ARBs), beta-blockers, calcium channel blockers (CCBs), and diuretics (thiazides and thiazide-like diuretics such as chlortalidone and indapamide), based on:
(i) proven ability to reduce BP;
(ii) evidence from placebo-controlled studies that they reduce cardiovascular (CV) events;
(iii)evidence of broad equivalence on overall CV events and mortality, with the conclusion that benefit from their use predominantly derives from BP lowering.

These conclusions have since been confirmed by recent meta-analyses.[1,2,217,292]. These meta-analyses have reported cause-specific differences on outcomes between some drugs (e.g. less stroke prevention with beta-blockers, and less heart failure prevention with CCBs); however, <u>overall, major CV outcomes</u>

and mortality were similar with treatment based on initial therapy with all five major classes of treatment."

7. Guidance Adoption / Shared Decision Making

Of course no guidance should be expected to be mandatory for all patients at all times: if clinically needed, flexibility can and should continue to be used by primary care clinicians at each treatment step, as would be expected as standard for all aspects of medical care. A local guidance is simply proposed as a facilitator to quality improvement.

As is standard practice, informed decision making remains the norm and multiple sources of information can help this: localities will be supported and encouraged to use services such as local community pharmacy services, along with initiatives such as *me +my medicines* .

8. References

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9. Author

Dr Youssef Beaini

Clinical Lead - West Yorkshire and Harrogate Healthy Hearts
Clinical Lead - Cardiovascular Disease, Bradford Districts CCG, Bradford City CCG, and Airedale, Wharefedale and Craven CCG
Board member - Primary Care Cardiovascular Society UK
Honorary Senior Lecturer, University of Bradford

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Programme Support provided by:

Yorkshire and Humber Academic Health Science Network
Contact: Pete Waddingham (Programme Manager) Pete.waddingham@yhahsn.com

Appendix 1 – West Yorkshire and Harrogate Healthy Hearts Hypertension Treatment Guidance

On the West Yorkshire and Harrogate Healthy Hearts website you will be able to access and download

The West Yorkshire and Harrogate Healthy Hearts Hypertension Treatment Guidance

Appendix 2 Key Differences from NICE

Key Differences between Healthy Hearts hypertension treatment guidance and NICE guidance

WY&H approach	NICE approach
Specific type and dose of medication used, to facilitate engagement	Classes of medications recommended, no specified member of a class is stipulated and no specific dose
First line is the same of all patients under 80 – amlodipine as a CCB	Different medication based on age or ethnicity – First line can be either CCB or ACEi/ARB
If BP is quite high (>150/95), first line treatment is to start two medications at once. This brings BP down more quickly and reduces CV events	There is no use of first line combination therapy
Second line is indapamide as a thiazide-like diuretic	Second line can be ACEi, ARB or CCB, whichever has not yet been prescribed.
Third line is Losartan as an ARB (to reduce side effects from ACEi. ARB is relegated to third line to reduce number of nurse/GP up-titration appointments and U&Es needed)	Third line is Thiazide-like diuretic: indapamide or chlortalidone
Fourth line is spironolactone (with careful kidney blood tests / U&Es)	Fourth line is either spironolactone, betablocker, alpha blocker, or loop diuretic