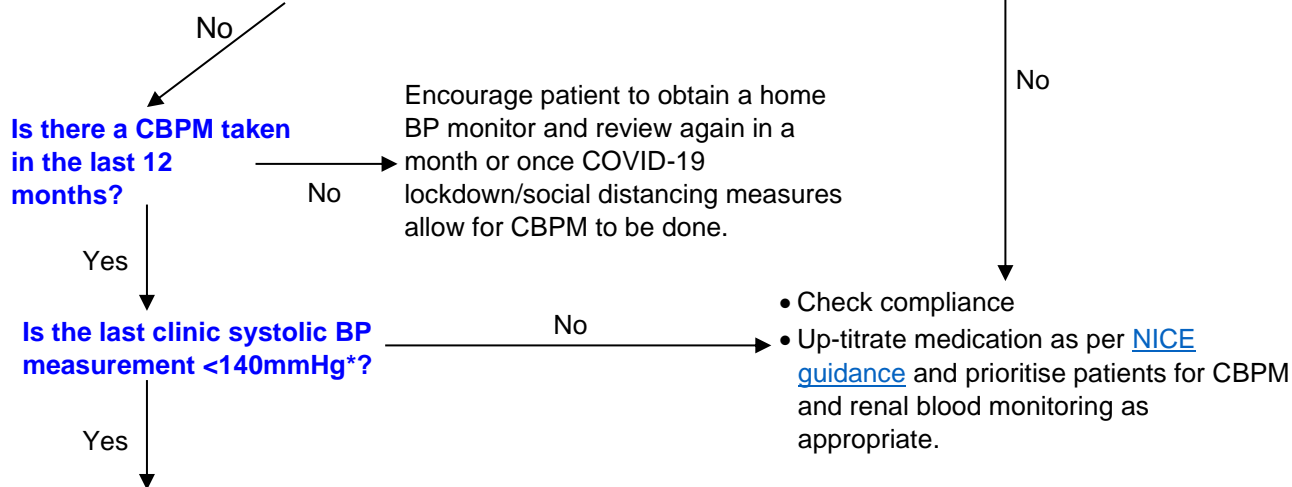


## Treatment and assessment of hypertension during COVID-19: guidance for general practice.

The advice and algorithm included in this document assumes the diagnosis of hypertension has been made and is to support ongoing review and management of hypertension while the COVID-19 lockdown or social distancing measures are still in place.

**Does patient have a home BP monitor or is willing to obtain one? Otherwise, is it possible to obtain a home visit CBPM?**

NB- Consider writing to patients encouraging them to obtain a home BP monitor prior to their review due date.



- Review in 3-6 months
- Do not routinely provide sick day guidance to patients on ACEIs/ARBs for the prevention of AKI<sup>2</sup>.

\*or 150mmHg if aged 80yrs or over. Please note the diversion from the NICE HBPM target of <135mmHg. We have kept the HBPM and CBPM target at 140mmHg in order to reduce the need for drug up-titration for the purpose of achieving an extra 5mmHg reduction. However, do take this into consideration when setting review dates.

<sup>1</sup>See link to Sheffield CCG template for obtaining 7-day HBPM.

<sup>2</sup>See also the Renal Association's [position statement](#) on COVID-19 and ACEi/ARB use.

BP– Blood pressure, AKI– Acute Kidney Injury, ACEi– Angiotensin converting enzyme inhibitor, ARB– Angiotensin II receptor blocker, CKD– Chronic Kidney Disease, CBPM– Clinic Blood Pressure Monitoring, HBPM– Home Blood Pressure Monitoring, NSAID– Non-Steroidal Anti-Inflammatory Drug.

- Review in 6-12 months. See [things to consider](#) below with regards to blood monitoring.
- Do not routinely provide sick day guidance to patients on ACEIs/ARBs for the prevention of AKI<sup>2</sup>.

### Also...

- Prioritise patients at higher CVD risk with hypertension for CBPM and renal blood monitoring e.g. diabetic patients and secondary prevention patients.
- Take every opportunity to check compliance with current repeat medication, as well as, any OTC medicines regularly taken that can affect BP control. These could include, NSAIDs, antacids, decongestants containing pseudoephedrine and soluble analgesia.
- Promote a healthy lifestyle as an integral part of self-management and provide information on the following below as is relevant to the COVID-19 pandemic crisis
  - \* Diet
  - \* Smoking cessation- see SmokeFree Sheffield website for information on [#QuitForCOVID](#)
  - \* Exercise
  - \* Alcohol
  - \* Adverse effects of medication
- Lipid management– Provide information and/or treatment regarding lipid modification as per [Sheffield Lipid guidelines](#). However, **do not** invite patients for blood monitoring for the sole purpose of statin initiation.
- There is an STH drive through phlebotomy service at the DSA arena for those who can access it. This can help to reduce the pressure and risk associated with inviting patients to the practice for renal monitoring.

| Drug Class                             | Things to Consider                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Calcium Channel Blockers (CCBs)</b> | No renal monitoring required although recommended starting doses and max doses apply for different formulations of diltiazem. Rate-limiting CCBs (diltiazem and verapamil) should not be used in heart failure. Peripheral oedema is most common side effect and risk is increased with increasing doses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ACEi/ARBs</b>                       | Can cause renal impairment and hyperkalaemia and so monitoring recommended before starting and 1-2 weeks after each dose increase ( <a href="#">NICE CKS Hypertension</a> ). Risk of these is increased in the following- diuretic use, hypovolemia, elderly patients, PVD or general atherosclerosis and CKD. Renal monitoring should be prioritised particularly in patients at increased risk of renal impairment and/or hyperkalaemia. Consider a shorter review interval for stable patients on ACEi/ARB treatment so that renal monitoring can be done at the earliest opportunity. Maximum doses apply in people with reduced renal function. See BNF for more details. Do not routinely provide <a href="#">sick-day guidance</a> to patients on ACEi/ARBs without a proper clinical assessment. The Renal Association have published a <a href="#">position statement</a> on COVID-19 and the use of ACEi/ARBs as well as a suggested algorithm for managing patients with AKI or worsening renal function on a Renin Angiotensin-Aldosterone System (RAAS) drug.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Thiazide-like Diuretics</b>         | Now recommended as an option at step 2 (or step 1 in patients >55yrs or of African-Caribbean heritage, intolerant of CCBs) of the <a href="#">NICE Hypertension guidelines</a> . Renal monitoring required; can worsen glucose control.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Other antihypertensives</b>         | <p><b>Alpha blockers</b> are contraindicated in people with a history of postural hypotension and can worsen heart failure. No renal monitoring is required and dose of doxazosin can be increased in small increments of 1mg every 1-2 weeks.</p> <p>Use <b>Beta Blockers</b> in preference to alpha blockers especially in patients with heart failure or ischaemic heart disease. No renal monitoring is required with beta blockers however lower starting doses or maximum daily doses may apply in renal impairment. See the BNF or individual product SPCs for more information.</p> <p><b>Spironolactone</b> should be used with caution when added to ACEi/ARBs due to increased risk of hyperkalaemia. Do not initiate spironolactone in patients with hyperkalaemia or with a potassium level &gt;4.5mmol/L. Patients on concomitant spironolactone and ACEi/ARB should be prioritised for renal blood monitoring. See the <a href="#">common blood monitoring schedule</a> for details on the frequency of monitoring.</p> <p><b>Aliskiren</b> is a direct renin inhibitor. Dual therapy with drugs affecting the renin angiotensin system increases the risk of hyperkalaemia, hypotension and renal impairment and should be used with extreme caution. Aliskiren is also contraindicated in people with diabetes or who have an eGFR of &lt;60ml/min/1.73m<sup>2</sup> and is included in the <a href="#">NHS England list of drugs of low priority</a> for funding. The addition of aliskiren is therefore not recommended when up-titrating antihypertensive treatment for patients.</p> |

In summary:

- Where possible, patients should be encouraged to obtain a home blood pressure machine as this will support ongoing self-management of their condition beyond the current pandemic situation.
- Encourage the reporting of adverse effects and always check compliance with all prescribed and OTC medication before up-titrating medicines. Where possible, use medicines that do not require renal blood monitoring in the first instance and up-titrate medicines as slowly as possible to reduce the risk of adverse effects. Prioritise patients at increased CVD risk or increased risk of renal injury and electrolyte disturbances for CBPM and renal blood monitoring. For more information on this see [NICE CKS Hypertension \(not diabetic\)](#).

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**Approved by** Dr Andrew McGinty (Clinical Director, NHS Sheffield CCG) under delegated authority on behalf of APG **Date:** 07/05/2020

**Review date:** November 2020