

**Hypertension with poor control/newly diagnosed & chronic kidney disease [CKD]  
Stages 3-5 with need for BP goal <130/80mmHg i.e. also has diabetes or ACR≥ 70mg/  
mmol – protocol WMAHSN-09**

**Purpose**

- To improve patient compliance with medication use
- To encourage patient to adhere to shared management plan agreed with clinician, to achieve good BP control to maintain their blood pressure ≤130/80 mmHg
- To help the patient adopt a healthier lifestyle – exercise, eating sensibly (e.g. avoiding salt), within ideal weight range, happy mood.

**Setting:**

General practice, but can be any healthcare setting if a clinician takes continuing responsibility.

**Selection of patients**

Patient with CKD (Stages 3-5 i.e. sustained eGFR<60) who also has diabetes and/or ACR≥ 70mg/ mmol and who:

- is on the practice hypertension register and on regular medication but their blood pressure is poorly controlled; and/or
- has newly diagnosed hypertension, so their blood pressure control needs careful management to optimise the use of anti-hypertensive medication; and/ or
- does not comply with their anti-hypertensive medication
- in addition may have poor lifestyle habits e.g. drinks alcohol excessively, takes little exercise, has poor diet.

**Expected outcomes:**

1) Changes in healthcare usage:

- Fewer unnecessary admissions to hospital or attendances at A&E; less face to face contact at GP surgery

2) Improved clinical outcomes:

- Improved BP control- see below

**Success criteria**

- At least 25% of patients who previously had a BP≥130/80 mmHg, now have BP <130/80 mmHg (clinic – 125/75mmHg at home) which is sustained for at least 4 weeks

**Protocol summary (12 weeks):**

- Patient issued with sphygmomanometer and weighing scales
- Patient signs contract
- Twice daily blood pressure readings for 8 weeks, remotely monitored weekly by clinician; then twice daily on Mondays and Thursdays for further 4 weeks
- Twice weekly information messages
- Monthly text enquiry of patient experience starting at baseline

**BP reading**

**Default: systolic (80-124 mmHg) diastolic (60-74 mmHg)**

**Daily for 8 weeks, then every Monday and Thursday for 4 weeks:**

**Message at 8.00am: *Hi. Don't forget to take your blood pressure this morning and again this evening, and text it in. Text BP, then your reading, e.g. BP 140 80. Thanks, Flo.***

**12 hours later if the patient has not replied to the first message:**

***Hi . I've noticed you haven't sent in your readings today. Could you please text in BP, then the readings. Thanks Flo.***

**Within normal range:**

Your BP reading is normal. Flo.

**Above desirable range:**

Your blood pressure is a little high today. Follow the advice in your management plan, and take the readings again at your usual time. Thanks, Flo.

**Below desirable range:**

Your blood pressure is a little low today. Take it again, and follow the advice in your management plan. Take care, Flo.

**Breach message** triggered when the readings reach either 200 mmHg (systolic) or 105 mmHg (diastolic) or if the BP is below 70 mmHg (systolic) or 50 mmHg (diastolic).

Your BP is outside the safe range - so contact a doctor today as agreed in your management plan. Take care, Flo.”

**Information messages (twice weekly for 8 weeks)**

When measuring your BP, support your arm at the level of your heart and avoid talking. Take care, Flo.

When you measure your BP, don't forget to remove any tight clothing and ensure your arm is relaxed. Thanks, Flo

Remember - don't have a caffeine containing drink like Coke or coffee, or smoke 30 minutes before taking your BP, if possible. Take care, Flo.

Some foods don't taste of salt because of the sugar in them as well. Read the label; it's easy to eat more than the adult maximum of 6 grams (one teaspoonful)<sup>5</sup>. Try to eat at least 3 servings of fruit and vegetables daily to boost your health. Thanks, Flo.

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Exercise will help get your BP down; try to do 30 minutes, 3 to 5 times per week - the more, the better. Take care Flo.

Limit the amount of alcohol you drink: 3 units / day or less for men; 2 units / day or less for women. Regards, Flo.

Sit quietly for at least 5 minutes with your arm exposed and supported at the level of your heart when you take your BP. Kind regards, Flo.

Try to get your weight down to a body mass index between 20 -25. If you don't know yours, ask your GP or nurse next time you see them. Flo.

If you become over-anxious about your BP measurements, then stop taking your BP for a couple of days. Take care, Flo.

Regular exercise helps keep your BP and weight down - so walk a bit further, or use stairs rather than the lift, and make it a part of your normal life.

A home BP reading is typically lower than a BP taken in your GP's surgery. Take care, Flo.

If you're confused about the drugs you're on, then ask your pharmacist to go through each drug and explain why you must take each one regularly. Take care, Flo.

Don't rush when taking your BP – you want to register a low reading. Take care, Flo.

You've got a choice: sit around, or do regular activity which will help keep your joints flexible, your bones and muscles strong, and your BP controlled. Take care, Flo

Don't stop taking your BP medication on a whim; talk through your concerns with your doctor or nurse. Take care, Flo.

Make your lifestyle as healthy as you can -avoid smoky settings (don't smoke if you do), get down to your ideal weight, exercise regularly, cut down on alcohol. Flo.

With the right treatment for any health condition you should live longer – so take your blood pressure treatment regularly. Flo.

Your home BP readings are just as reliable as those taken in your GP's surgery if you take your BP correctly. Thanks Flo

Empty your bladder before taking your BP reading. Take care, Flo.

Don't talk or move when taking your BP, just sit still and stay quiet. Take care, Flo. Try to fit in regular exercise - as much as is comfortable every day. Take care, Flo.

Ask yourself how much exercise you actually did yesterday. Decide if it was enough. Be honest if you could have done more. Take care, Flo.

Be careful about taking other drugs that you buy yourself from pharmacies or supermarkets -ask your doctor if they could interact or give you side effects. Take care, Flo.

### Patient experience questions (monthly at 6.15pm)

BASELINE: (xEvalQ1 & xEvalQ2)

6.30pm ***Are you confident about taking your blood pressure at home? If you are, text CC1; if not, text CC2; if you're unsure, text CC3. Thanks, Flo.***

***Do you prefer to text in your readings via Flo rather than go to the surgery? Please text CC1 if yes, or CC2 if no. Thanks, Flo***

***Thank you. Home blood pressure readings can help because you feel more relaxed at home than in the surgery.***

AFTER MONTHS 1,2, AND 3 : (xEvalQ-03 / xEvalQ-04 ; xEvalQ-05 / xEvalQ-06 & xEvalQ-07 / xEvalQ-08)

6.30pm ***Are you confident about taking your blood pressure at home? If you are, text CC1; if not, text CC2; if you're unsure, text CC3. Thanks, Flo.***

***Do you prefer to text in your readings via Flo rather than go to the surgery? Please text CC1 if yes, or CC2 if no. Thanks, Flo***

***Thank you. This information helps us to know how useful the Flo system is.***