

Hypertension (stable/occasional monitoring) – protocol AIM-16

Purpose

- To improve compliance with anti-hypertensive medication.
- To encourage patient to adhere to the shared management plan agreed with their GP practice team, to sustain well-controlled blood pressure (eg $\leq 140/90$ mmHg clinic; $\leq 135/85$ mmHg home BP reading).
- To provide a convenient alternative to visiting the GP surgery for occasional hypertension review while still providing the clinician with regular information about BP control.
- To remind the patient to adopt a healthier lifestyle – exercise, eating sensibly.

Setting

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

Selection of patients

- Patients who are on the practice hypertension register and on medication whose blood pressure is stable, ie $\leq 140/90$ mmHg clinic; $\leq 135/85$ mmHg home BP reading, who do not have diabetes or CKD with $ACR \geq 70$ mg/mmol (as this would require a different protocol with lower BP goal and more frequent monitoring).
- Patients who will benefit from occasional text messages that encourage compliance with medication.

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
- Regular pattern of repeat prescriptions for anti-hypertensive drugs

2 Patient empowerment:

- Greater confidence about their condition
- Maintain their health & wellbeing

3 Improved clinical outcomes:

- Maintenance of stable blood pressure readings (ie consistently $\leq 140/90$ mmHg clinic; $\leq 135/85$ mmHg home BP reading)

4 Popularity of Flo:

- Patients find Flo messages helpful and reassuring
- Clinicians find Flo helps to maintain stable blood pressure without excessive clinical time

5 Cost effectiveness:

- Reduction in costs of avoidable secondary care use

Success criteria

- 50% of patients who commit at start do at least bimonthly texting in of BP readings over a 12 month period
- 80% of patients maintain stable blood pressure control over any 3 month period (ie consistently $\leq 140/90$ mmHg; clinic; $\leq 135/85$ mmHg home BP reading)

Protocol

In summary:

- Patient issued with sphygmomanometer (but better to encourage patient purchase this)
- Patient signs contract
- Monthly blood pressure readings; taken twice at different times on same day
- Twice monthly information messages
- Three-monthly text enquiry of patient experience

Patient:

- signs contract, agreeing to respond to messages from Flo, to care for the sphygmomanometer (if lent one by practice) and return it when asked to do so.
- signs a consent form accepting that they remain responsible for their health, and understanding that readings are sent to an inanimate machine.
- takes their blood pressure monthly (two different times, same day) and sends the reading in to Flo when asked.
- receives twice monthly information messages, and tries to adopt the advice contained in them.

Clinician:

- agrees a shared management plan with the patient, which includes the use of Flo.
- issues sphygmomanometer and appropriate cuff, and trains the patient in its use.
- obtains patient's signed agreement to respond to Flo, to look after the sphygmomanometer (if borrowed from practice), and return it when asked.
- explains to the patient that readings are sent to an inanimate machine which is not monitored continuously, and obtains their signed consent form which states that the patient remains responsible for their own health.
- enrolls patient on Flo by using the patient's current mobile phone number and NHS number, then selecting the appropriate service for them.
- monitors the patient's readings monthly, and if unable to do so, ensures another clinician in the practice team does so.
- arranges face to face appointment to review blood pressure control/health & wellbeing eg annually, as in line with practice protocol.
- ensures patient understands what to do if the readings are not within anticipated limits/agreed goals – explains that a BP reading >135/85 mmHg will trigger repetitive responses from Flo to take the BP reading later that day/tomorrow and act on the agreed management plan.
- clinician acts appropriately in response to patient texted in readings (eg nil action if well controlled; ask patient to come to surgery to review medication or adjust medication by phone if BP readings consistently too high).
- after twelve months, asks patient to return equipment (if lent by practice), unless doctor wants them to continue using it.
- writes patient's details on evaluation form, and files this for access by project administrator.
- completes a questionnaire at the end of twelve months about the use of Flo for the patient (if the practice is evaluating uptake and outcomes).

Practice administrator:

- keeps a note of patients enrolled on telehealth project, and which patients complete twelve months of messaging.

Message Content

- Monthly BP reading Friday 8.00am every month for 1 year
- Depression/mood questions (every 4 weeks)
- Twice monthly information messages for 52 weeks
- Patient experience questions (every 90 days)
- Clinician monitored

BP reading

Default: systolic (80-134 mmHg) diastolic (60-84 mmHg)

Monthly reminder at 8.00am (but if patient sends in more frequent readings, they will receive the same reasons)

8.00am: *"Please take your BP at two different times today, and send me the readings. Please write BP, followed by each reading eg: 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:

- **Systolic:** *"Your blood pressure (systolic) is a little high today. Follow the advice in your management plan, and take the readings again at your usual time. Thanks, Flo."*
- **Diastolic:** *"Your blood pressure (diastolic) 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:

- **Systolic and diastolic:** *"Your blood is pressure 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 monthly for 52 weeks)

1. *When measuring your BP, support your arm at the level of your heart and avoid talking. Take care, Flo.*
2. *When you measure your BP, don't forget to remove any tight clothing and ensure your arm is relaxed. Thanks, Flo*
3. *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.*
4. *Check the salt content of your food; try for less than 3 grams per day. Kind regards, Flo.*

5. Try to eat at least 3 servings of fruit and vegetables daily - this should boost your health. Thanks, Flo.
6. 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.
7. 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.
8. 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.
9. Your home BP readings are just as reliable as those taken in your GP's surgery if you take your BP correctly. Thanks Flo
10. If you become over-anxious about your BP measurements, then calm down, and try and relax. Take care, Flo.
11. Empty your bladder before taking your BP reading. Take care, Flo.
12. Don't rush when taking your BP – you want to register a low reading. Take care, Flo.
13. Don't talk or move when taking your BP, just sit still and stay quiet. Take care, Flo.
14. Try to fit in regular exercise – as much as is comfortable every day. Take care, Flo.
15. 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.
16. With the right treatment for any health condition you should live longer – so take your blood pressure treatment regularly. Flo.
17. How much exercise did you actually do yesterday? Was it enough? Be honest if you could have done more. Take care, Flo.
18. 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.
19. Find ways to relax - and avoid comfort eating.
20. Some foods don't taste salty because of the sugar in them too. Read the label – it's easy to eat more than the adult maximum of 6 grams (one teaspoonful) of salt. Flo.
21. Try to relax and don't let stress get a hold of you as it could make your BP worse. Take care, Flo.
22. Don't stop taking your BP medication on a whim; talk through your concerns with your doctor or nurse. Take care, Flo.
23. 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. Take care, Flo.
24. 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.
25. Best thing you can do to control your BP is to take your tablets regularly.

Patient Experience Questions (every 3 months at 6.15pm)

“Hi, Shortly I'll ask three questions to see how you liked the Flo system. Your answer will be either #1 if you agree with what's said, or #2 if not. Thanks, Flo”

ANS1 Please text #1 if you agree with the statement "I would recommend this service to my family and friends", or #2 if you disagree.

*ANS2 Do you prefer to send your readings to the practice via Flo, rather than go to the surgery?
Please text #1 if you do, or #2 if you do not. Thanks, Flo*

ANS3 Finally, please text #1 if you agree with the statement "I take my tablets regularly", or #2 if you disagree.

“Thank you for answering these questions. It helps us to know how useful you are finding the texting service and how we can improve it for future patients.”