Worcestershire Acute Hospitals NHS Trust

Home Blood Pressure Monitoring (HBPM) in pregnancy guideline

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

This Guideline will set a clear pathway for the process of home blood pressure monitoring in pregnancy.

This guideline is for use by the following staff groups:

All maternity staff involved in the provision of outpatient blood pressure monitoring during pregnancy. This includes Midwives in all areas and Obstetric Doctors of all levels.

Lead Clinician(s)

Mr Prabath Suraweera	Consultant Obstetrician and Gynaecologist - Maternity
Dr Reham Marie	Clinical Fellow in Obstetrics and Gynaecology
Sarah McDonagh	Day Assessment Unit Midwife
Approved by Maternity Governance on:	21st October 2022
Approved by Medicines Safety Committee on:	N/A
Review Date: This is the most current document and should be used until a revised version is in place	21st October 2025

Amendments to this guideline

Date	Amendment	Approved by:
21st October 2022	New Guideline and Implementation Launch	Maternity Governance Meeting

Contents

1.1 Introduction

Hypertensive disorders of pregnancy (HDP) affect up to 10% of all pregnant women. Despite improvements in antenatal care, HDP remain one of the leading causes of maternal mortality and morbidity. Therefore, the UK National Institute for Health and Care Excellence (NICE) recommends close monitoring of blood pressure (BP) in pregnancy.
The frequency of BP surveillance depends on the severity of hypertension and background risk of pre-eclampsia, but it usually involves one or two measurements per week. The traditional models of BP surveillance require the women to attend healthcare providers as face-to-face appointments, which could result in a significant burden on women's lives and healthcare systems. Frequent visits to the healthcare providers may not be logistically feasible for some women resulting in poor compliance with BP surveillance. Thus, leaving women at risk of uncontrolled hypertension and related morbidity/mortality.
In addition, the COVID-19 pandemic has required the NHS care providers to urgently consider introducing self-monitoring of BP in order to reduce face to face consultations for pregnant and postnatal women, whilst maintaining adequate safety for the woman and her baby.

Therefore, the Royal College of Obstetricians and Gynaecologists (RCOG) made recommendations published in March 2020 for the healthcare professionals on self-monitoring of BP in pregnancy as a reliable and acceptable means of monitoring hypertensive patients during pregnancy and postpartum compared with the traditional pathways of outpatient BP monitoring. Many maternity care providers in the UK have successfully implemented the new service model of Home Blood Pressure Monitoring (HBPM) and shown to reduce the number of hospital visits required by patients.

1.2 Current Service Provision at Maternity services WHAT

Currently BP surveillance is undertaken as face-to-face service either women attending the Antenatal Day Assessment Unit (DAU), GP, Hospital Antenatal Clinic or community midwife (either home visits or in clinic). Some women require inpatient stay to obtain a BP profile to assess the need for commencement or titrating the dose of antihypertensive therapy.

1.3 The new service model: Home Monitoring for Hypertension in Pregnancy

The new service will entail at risk women with hypertensive disorders are recognised and given the means of self-monitoring of their blood pressure.
The eligible women requiring BP surveillance are registered, educated on HBPM and provided with validated BP machines. The measurements are monitored through a computer/mobile based software (Badgernet) accessed by the women and the care providers. The new service will enable healthcare professionals to remotely monitor the BP and instigate the treatment and care needed.

The new service will be piloted at single centre (DAU at WRH) where the eligible women can be referred to register, initiate HBPM and for subsequent monitoring. Healthcare professionals caring for those women can access the BP profile via BP profile section of the Badgernet system. After the pilot evaluation, the service will be rolled out to other clinical sites where AN care is provided.

2.1

	Current process - health care-based BP monitoring	HBPM
Service Description	BP is monitored by a health care professional either at home or clinic.	BP is self-monitored by the patient at home.
The process	If BP is high, the woman may be reviewed immediately by health care provider and may be directed to Maternity Triage/DAU or the AN ward for further assessment.	If BP is high, woman contacts the DAU or triage and she may be recalled for further assessment.
Patient choice	No alternate option available.	Option of either HBPM or by health care-based BP monitoring.
Patient involvement	Less patient involvement in her own care.	More patient involvement in her own care.
Benefits and disadvantages	Time consuming, costly, increased face to face contacts and may need inpatient admission if BP needs to be monitored more than once daily.	BP can be monitored with any frequency without hospital admission. Cost effective, safe and user friendly. This option may disadvantage some women who are less digitally literate. Therefore, the current process is still an option for those women.

2.2 Objectives of implementation of HBPM

a) To provide patient care better aligned with NICE guidelines on Hypertension in Pregnancy recommending HBPM.

b) To align with the NHSE/Trust's strategic objective of adopting digital technology for remote monitoring of patient care.

c) To reduce the number of face-to-face (F2F) contacts within the community, antenatal clinic (ANC) and day assessment unit (DAU) for blood pressure and urine monitoring during pregnancy and the immediate postnatal period without compromising maternal and pregnancy outcomes.

d) To reduce inpatient admission for BP monitoring.

e) To improve the Hypertension monitoring services provided by the Trust by facilitating a reliable monitoring and timely clinical review, hence to improve patient care and safety.

f) To enhance patient centred care, more patients' involvement and increase their sense of control on their own care.

g) To make BP monitoring easier and less time consuming which allows better compliance

h) To enable a wider choice for the women for BP surveillance.

i) To reduce the healthcare costs and workload associated with monitoring of Hypertension in pregnancy/postpartum through reducing face-to-face contacts within the community, ANC, DAU and inpatient admissions for blood pressure and urine monitoring during pregnancy and the immediate postnatal period

j) To reduce the patient costs, time and inconvenience associated with accessing these services as an out/in-patient for BP monitoring.

k) To provide effective solution for white coat hypertension and masked hypertension.

3. Purpose of the guideline

- Set clear criteria of the women suitable for the HBPM pathway.
- Ensure that the pathway for HBPM process is clear and robust.

4. Scope of this guideline

This guideline only applies to women requiring BP surveillance during pregnancy. Postnatal women requiring BP monitoring is outside the scope and the inclusion of this cohort will be considered after the post-implementation review.

5. Criteria for HBPM

5.1 Inclusion Criteria

Group 1 **Currently hypertensive women**	**Group 2** **Normotensive women considered at higher risk of pregnancy hypertension by NICE guideline NG133**	**Group 3** **Suspected PIH/PET who will need short term monitoring to confirm/refute diagnosis**
Women with • Chronic hypertension • Gestational hypertension • Pre-eclampsia (mild to moderate or surveillance of antenatal women with severe PET who have been discharged following initial inpatient management)	• **Women with one of the following risk factors:** 1. Hypertensive disease during a previous pregnancy 2. Chronic kidney disease 3. Autoimmune disease (e.g., systemic lupus erythematosus or antiphospholipid syndrome) 4. Type 1 or type 2 diabetes 5. Low Papp-a in current pregnancy	For example: women with a -Single high BP reading -PET symptoms with normal BP -Significant proteinuria with normal BP.

	Women with two of the following risk factors: 1. First pregnancy 2. Age 40 years or older 3. Pregnancy interval of more than 10 years 4. Body mass index (BMI) of 35 kg/m2 or more 5. Family history of pre-eclampsia 6. Multi-fetal pregnancy	

5.2 Exclusion Criteria

1. Women who decline the option of HBPM or prefer healthcare-based BP monitoring.
2. Women who require admission under local trust guidelines (e.g., severe hypertension, pre-eclampsia with adverse features such as epigastric pain, vomiting, headache, feeling unwell).
   NB: HBPM can be started if she improves clinically and is appropriate for outpatient care at the discretion of consultant /registrar.
3. Women with no access to telephone or who do not understand the written instructions e.g., non-English speaking, learning disability or illiterate.
4. Women under difficult social circumstances where compliance might be compromised.
5. Evidence of non-compliance with attendance or monitoring.
6. Women who are not booked under WHAT and are only reviewed or admitted with high BP.
7. Arm circumference greater than 42cm.

6.1 The referral process to DAU at WRH

Group 1

- The women in group 1 are identified after an obstetric review at ANC, Triage, DAU or ANW.
- The obstetric registrar or consultant to discuss the option of HBPM with the eligible woman and provide the information leaflet (Also available on Badgernet patient App).
- If the woman agrees for HBPM, the obstetrician should decide the frequency of BP monitoring (e.g., three times a week) and the timing of their next ANC appointment if required.
- Patients must be given a clear plan for how often to check their BP and the timing of their next appointment.
- Arrange for woman to attend DAU to initiate HBPM.

Group 2

- Women in group 2 are identified by the Community midwives at booking in community after carrying out the NICE PET risks assessment.

- At risk women are referred by the community midwives to ANC for obstetric review and to check eligibility for self-monitoring of blood pressure.
- At the time of the referral, the community midwives should discuss the options of HBPM and the traditional healthcare-based BP monitoring. Women should be directed to read the Patient information leaflet on HBPM available on Badgernet APP).
- At the ANC, Obstetric registrars/consultants should re-discuss the BP surveillance options and identify the eligible women for HBPM.
- If the woman agrees for HBPM, the obstetrician should decide the frequency of BP monitoring (e.g., three times a week) and the timing of their next ANC appointment if required.
- Patients must be given a clear plan for how often to check their BP and the timing of their next appointment.
- Arrange for woman to attend DAU to initiate HBPM.

Group 3

- The obstetrician (registrar or consultant) should discuss the option of HBPM and direct the woman to read the information leaflet on HBPM available on Badgernet APP.
- If the woman agrees for HBPM, the obstetrician should decide the frequency of BP monitoring (e.g. three times a week), the duration (e.g. 3 weeks) and the timing of their next ANC appointment if required.

A plan should be made to discharge from HBPM in 21-28 days if all readings are normal.

- Patients must be given a clear plan for how often to check their BP and the timing of their next appointment.
- Arrange for woman to attend DAU to initiate HBPM.

6.2 Documentation

A clear plan should be documented on management plan section on Badgernet. This should include

- Frequency of BP monitoring.
- Duration of BP monitoring.
- Criteria for discharge from HBPM for group 3.
- Next AN clinic appointment/ DAU or CMW review.

7. Implementation of HBPM at the DAU- Duties and responsibilities of DAU midwives

- Ensure that woman's contact details are up to date on Badger (home, mobile phone number, email) and update these as necessary.
- The machines provided to patients are automated machines, which have been validated in pregnancy and in hypertension. If the patient has her own BP monitor, make sure it is a validated monitor. (Appendix 6)
- Woman to be provided with a validated BP monitor and an appropriately sized cuff (check upper arm measurement).

Table 1: Cuff size selection

Cuff size	for circumference of upper arm
S	17 - 22 cm (6.75 - 8.75 inches)
M	22 - 32 cm (8.75 - 12.5 inches)
L	32 - 42 cm (12.5 - 16.5 inches)
M – L	22 - 42 cm (8.75 - 16.5 inches)

- The blood pressure monitor should be labelled with the name of Worcestershire Acute Hospital Trust, and should be recorded on the BP machines folder.

- Ensure the woman completes and signs a blood pressure monitor loan form (Appendix 4).

- Give written instructions on how to take a blood pressure reading. (Appendix 5).
    - Advise the patient to take their BP when they are relaxed and have been sitting down for 5 minutes. They should take their BP from the same arm each time.
    - Demonstrate to the patient how and where to site the cuff. The bottom edge of the cuff should sit 2cm above the antecubital fossa (elbow fold) and the artery mark on the cuff should line up with the brachial artery (the inside front of the arm). The cuff should be done up so that it stays on, but not too tight.
    - Demonstrate to the patient how to start the machine to record the BP (Press the 'POWER' button once and it will automatically start recording).
    - Once recorded, show them which numbers to record as systolic and diastolic BP. Demonstrate the re-call function to obtain the last recorded BP.
    - Ensure that you are happy that the patient is confident with the technique before continuing.
    - Ask the woman to take her blood pressure twice, at least one minute apart and record the second blood pressure on Badgernet.
    - Ensure woman is aware of pre-eclampsia symptoms.

- Give clear instructions on the expected frequency and the duration of BP monitoring.
- Give written instructions about interpreting blood pressure readings and confirm that the woman knows how to follow the rainbow chart (Appendix 2), and check that she understands who to contact with an abnormal reading. (DAU during 8 am-8 pm and maternity triage after 8 pm)

- Give a demonstration on how the Badgernet functions and how to record BP on Badgernet. Direct the woman to read the patient information leaflet on HBPM.

- Ask the patient to demonstrate the whole process (checking BP and recording it) before leaving the DAU. Inform the woman that BP readings will be checked by DAU midwife, but the responsibility for informing and acting on high blood pressure sits on the woman.

- Confirm next appointment with the woman, and whether this will be telephone or face-to-face. Ask the woman to call her midwife or the maternity unit as she would normally if she has any concerns about herself or her baby or if she thinks that she needs medical review.

- All signed forms ((loan form/ disclaimer) should be scanned on to Badgernet.

- Explain arrangements to the woman for return of the blood pressure monitor at the end of the period of monitoring /as requested by the midwife.

- Add a maternal alert on Badgernet that the woman is undergoing HBPM, and set the frequency required for BP monitoring on Badgernet.

- HBPM for the patient should be added on Badgernet on management plan.

8 Hospital monitoring of HBPM results

- A midwife from DAU should check the HBPM patients list on Badgernet twice a day (08:30 and 1800 hrs) for any readings not already been reviewed.
- If any abnormal result is seen, please phone the patient, discuss the plan with her (check appendix 1).
- Once a plan is agreed with the woman, enter plan and discussion on Badgernet.
- The BP measurements chart will be reviewed on Badgernet on the patient's follow up appointment.

9.1 Discharge from HBPM Instructions for DAU midwives:

Group 1 and 2
Continue monitoring until delivery

Group 3
- Review readings on day 21
- Those who have normal readings:
  I. discharged from follow up.
  II. Document this decision and remove the alert from Badgernet.
  III. Contact the woman, inform the decision, any further plans/appointments and make arrangements to recover the blood pressure monitor.
- For those who have high readings, patient should be moved to group 1.
- Seek assistance from Obstetric registrar or the consultant if required.

9.2 Returning of monitor:

- The machine needs to be returned to DAU after the period of monitoring.
- The returned BP machines must be cleaned with Clinell wipes, check all the components are correct (e.g., cuff, connector, batteries), check machine is in working order and records updated that the monitor has been returned.

Explain to the patient:
a) That having high blood pressure in pregnancy, increases the risk of high blood pressure outside of pregnancy and in future pregnancies and of heart disease.
b) Advise a healthy diet and exercise to maintain a normal weight.
c) Advise that they get their BP checked annually by their GP.
d) Advise that they get their BP checked by their GP before planning any future pregnancies and if it is high, that they have treatment to control it before falling pregnant.
e) If they fall pregnant, to contact their midwife or GP urgently to make sure they are on the correct medication.

9.3 Maintenance/Calibration of Monitors

Monitors will be replaced every two years of use. This should be monitored through a log in the Day Assessment unit of all monitors in circulation.

References

1-NICE (2019) Hypertension in pregnancy: diagnosis and management NICE, London

2-RCOG (2020) Coronavirus (COVID-19) Infection in Pregnancy
https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-17-coronavirus-covid-19-infection-in-pregnancy.pdf

3-RCOG (2020) Guidance for maternal medicine services in the evolving coronavirus (COVID-19) pandemic
https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-24-guidance-for-maternal-medicine.pdf

4-RCOG (2020) Self-monitoring of blood pressure in pregnancy
https://www.rcog.org.uk/globalassets/documents/guidelines/2020-03-30-self-monitoring-of-blood-pressure-in-pregnancy.pdf

Contribution List

Contribution List

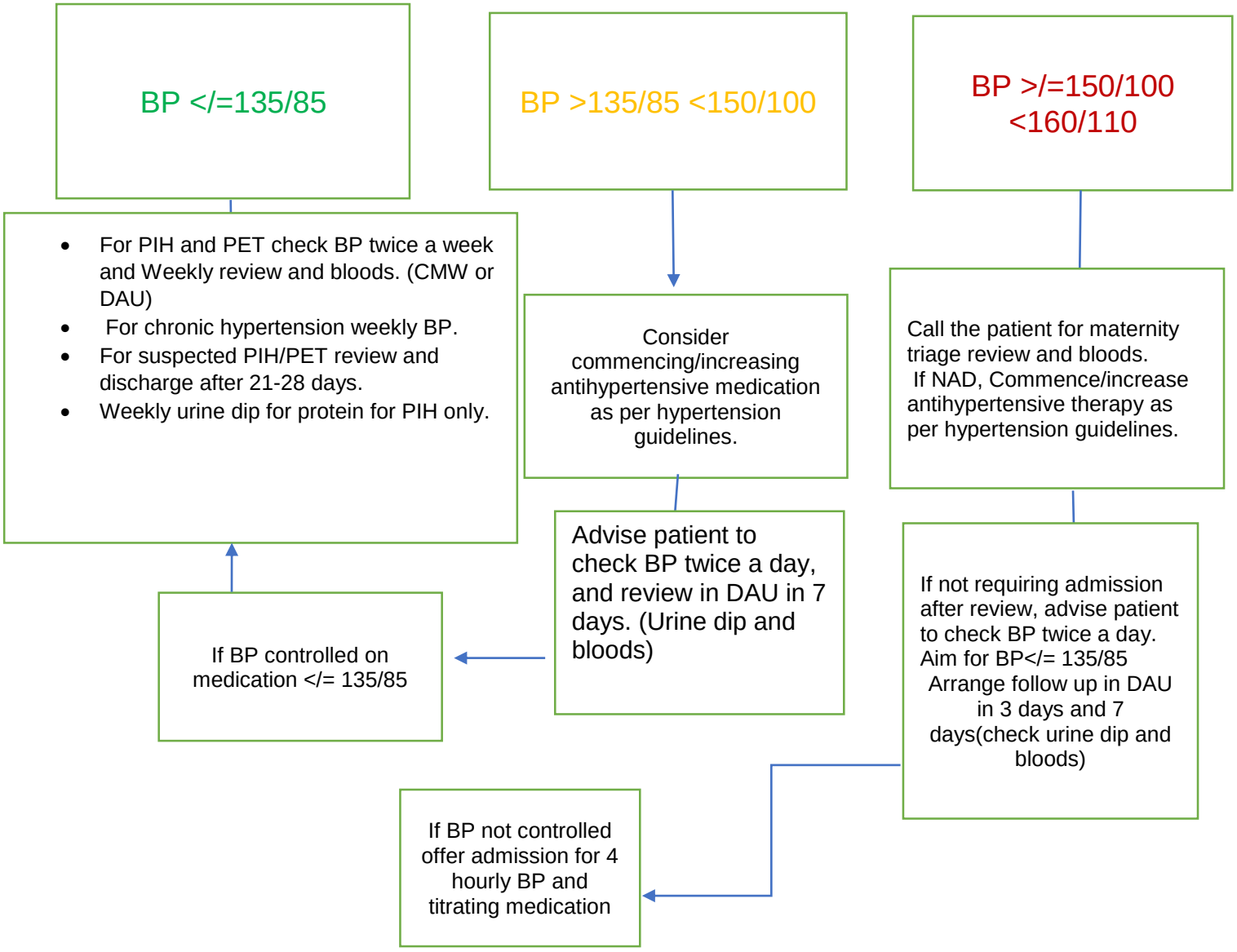
This key document has been circulated to the following individuals for consultation;

Designation
Consultant Obstetricians
Divisional Director of Midwifery
Junior Doctors
Maternity Ward Managers
Community Team Leaders
Maternity Governance team
Maternity Training team
Maternity Matrons

This key document has been circulated to the chair(s) of the following committee's / groups for comments;

Committee
Maternity Governance Meeting

APPENDIX 1: HOME BP AND URINE MONITORING FLOWCHART (NICE Guidelines Hypertension in pregnancy)



-Bloods should be done for all patients on the initial review on DAU (for group 1 and 3)
- Urine dipstick for proteinuria should not be done for patients with confirmed diagnosis of preeclampsia.

If BP
- >/=150/100
- or >/= 2+ protein on dipstick
- or 1+ protein on urine dipstick and BP >/=140/90
- or symptoms of PET

for same day maternity triage review

APPENDIX 2 : Blood pressure thresholds for self- monitoring

Blood Pressure	Level	Action
SYS 150 or more OR DIA 100 or more	**High**	Your blood pressure is high. Sit quietly for 5 minutes then measure it again and note the reading. If your repeated reading is still high, please contact maternity triage straight away for review today.
SYS 140-149 OR DIA 90-99	**Raised**	Your blood pressure is raised. Sit quietly for 5 minutes then measure it again and note the reading. If your repeated reading is raised, please contact day assessment unit or triage (if out of hours) and continue to monitor your BP daily.
SYS 135-139 OR DIA 85-89	**High normal**	Your blood pressure is normal but moving towards the raised threshold. Sit quietly for 5 minutes then measure it again and note the reading. If your repeat reading is still high end of normal, please monitor your blood pressure daily.
SYS 110-134 AND DIA 70-84	**Normal**	Your blood pressure is in the target range. Continue with your current medication and continue HBPM.
SYS less than 109 AND DIA less than 69	**Low**	**If you are not taking blood pressure medication:** Your blood pressure is normal. If you are feeling well this blood pressure does not need any further action. **If you are taking blood pressure medication:** Your blood pressure is low. Repeat once more in 5 minutes. If your repeat reading is still low, withhold your BP medication and contact DAU within 24 hours or maternity triage urgently if you feel unwell (e.g. dizzy or faint).

Regardless of your blood pressure, contact maternity triage in case of any Symptoms including: headache, visual disturbances, nausea and vomiting, upper abdominal pain, fainting or falling, feeling dizzy or lightheaded.

Appendix 3: A Midwife's Guide to Home Blood Pressure Monitoring

clevermed

A Midwife's Guide to Home Blood Pressure Monitoring

Overview

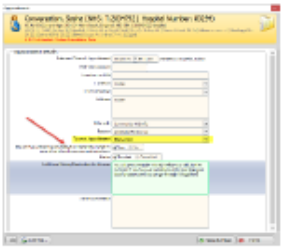
The purpose of this document is to provide a quick guide on using the latest feature in BadgerNet Maternity Notes of Home Blood Pressure monitoring. Please note that this describes the flow only for normotensive women attending routine appointments remotely.

Enabling Home Blood Pressure Monitoring

In order to use this feature, a local administrator will need to enable this setting within the portals tab of your unit administration as shown in the screen shot below:

Enabling a woman to record her blood pressure at home

How to create the appointment



Assuming that the Trust has equipped the woman with the necessary monitors and potentially urinalysis information, a midwife can then set up an appointment where the woman will be able to record her home blood pressure. This is done by creating an appointment note where the type of appointment field is anything but 'face to face'. As the appointment is remote, a further question asking whether remote blood pressure monitoring should be offered will appear. If this is ticked, this will be enabled on the woman's Maternity Notes app.

What the woman experiences in Maternity Notes

Once this appointment is created, this starts a timeline of events which is as follows:

1. If the appointment is more than fifteen minutes in the future, the woman will see the appointment with a statement that she will be able to enter her blood pressure within fifteen minutes of the appointment start time.

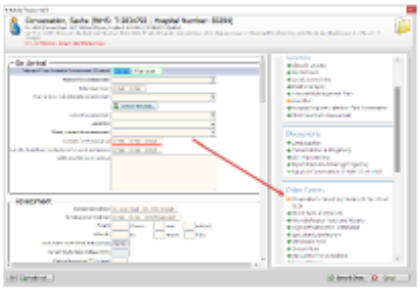
2. Within ½ an hour before the appointment start time, the woman will receive a push notification to remind her about recording her blood pressure if she has push notifications enabled.

3. Fifteen minutes before the appointment, she will be able to enter her blood pressure and urinalysis. After the start time of the appointment the woman will no longer be able to enter her recordings. The recordings will appear in the BadgerNet Maternity system as observations for the midwife to review.

4. Following the appointment time, the woman no longer sees this section in her 'upcoming appointments', but any readings will be viewable as part of her antenatal care in the 'my maternity record' section if the midwife publishes the observation to Mat Notes.

What the midwife experiences in BadgerNet

Once the appointment process is created, when the midwife comes to the record to record the visit, the woman's entry will be visible for review. This can be found by starting a standard antenatal assessment and clicking on the link for 'observations requiring review' in the side panel. Unlike observations entered by the midwife, when these are clicked on there is a field for the midwife to review and sign off on the authorize the observations. These will then be visible in the Notes During Pregnancy page.



Worcestershire Acute Hospitals NHS Trust

Appendix 4

Blood Pressure Monitor Loan Form and Disclaimer

I have opted self-monitoring of my Blood Pressure and I hereby accept the responsibility for

- Monitoring my blood pressure as instructed below and recording it on the Badgernet App
- Reporting the Day Assessment Unit if the blood pressure monitor becomes damaged, lost or stolen. I am **not** responsible for the cost of replacement or repair.
- Returning the blood pressure monitor as requested.

Name	
Hospital Number	
DOB	
Patient signature	
Staff Name	
Staff Signature	
Date	
Monitor Number	
Cuff size	

For any concerns, please contact the Day Assessment unit (01905760594)

MONITORING INSTRUCTIONS:

Check your Blood Pressure as follows:
Days (please circle): - **Mon / Tues / Wed / Thurs / Fri / Sat / Sun**
Frequency: - Three times a week/ Twice weekly/ **Weekly / 2 weekly / 4weekly /Other (please specify)**

Target Bp: - _____

Duration of BP/Urine monitoring (please circle): in entire pregnancy/21days/other-specify

Blood Pressure Monitor Returned: Date - _____ **Signed -** _____

Appendix 5: How to self-monitor your blood pressure (patient information leaflet)

 You will be asked to take your blood pressure at specified frequency by your midwife or doctor.

 You can check your BP any time of the day, but it is better to measure it during office hours (8.00 -20.00), as it will be easier to access your midwife or DAU.

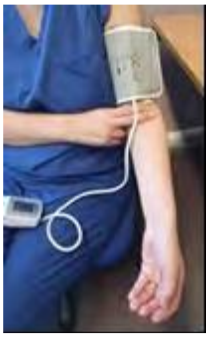
 Always measure your blood pressure using the same arm (normally the left arm). Wear loose clothing with sleeves that roll up easily and do not feel tight when rolled up (you will need to fit the cuff onto your bare arm) or take your arm out of the clothing.

 Sit on a chair with your back supported and both feet flat on the floor. Rest for 5 minutes before beginning to take blood pressure readings.

 Slip the cuff onto your arm so that the air tube points towards your wrist. The line on the cuff should be over the inside of your elbow.

 Adjust the bottom edge of the cuff so that it is about 2cm above the inside of the elbow joint.

 Tighten the cuff around the arm and secure using the Velcro.


Correct placement of cuff

 Rest your arm on a table or across your lap with your hand slightly open and the palm facing upward.

 Once the machine is set up and you have the cuff in the correct position, and you are ready to start, press the “start” button on the front of the machine to take a reading.

 Relax, do not move your arm muscles and do not talk until the measurement is completed. Each time you measure your blood pressure you will get two readings:
 The top number (usually called SYS, short for systolic),
 The bottom number of your blood pressure, (usually called DIA, short for diastolic)

Systolic Blood Pressure
Diastolic Blood Pressure
Heart Rate
 You may also get the heart rate (pulse) displayed

 Measure your blood pressure twice, at least one minute apart.

 Write down the second blood pressure reading on Badgernet. And follow the instructions on the rainbow flow chart.

 If your blood pressure is in the red zone, please contact DAU (800-2000) or maternity triage (2000-8.00) straightaway.

If you experience symptoms such as
 Headache,
 Epigastric pain (beneath the rib cage),
 Visual disturbance
 Sickness and vomiting or
 If you notice a decrease in your baby's normal movements

You should immediately contact maternity triage and arrange to be assessed.

Appendix 6: List of validated BP machines in pregnancy

The following devices are all known to give accurate blood pressure readings in pregnancy;

- Andon health Track
- Microlife 3AS1-2 (Cradle VSA)
- Microlife WatchBP Home
- Microlife WatchBP Home A
- Microlife WatchBP Home A BT
- Microlife WatchBP Home S
- Omron MIT Elite
- Omron BP760N (HEM-7320-Z)
- Omron Evolv (HEM-7600T-E)
- Omron HEM-9210T
- Omron M3 Comfort (HEM-7134-E)
- Omron M6 Comfort (HEM-7321-E)
- Omron M7 Intelli IT (HEM-7322T-E)
- Microlife BP 3BTO-A
- Omron MIT
- Omron M7 (HEM-780-E)

Appendix 7: Initiation Checklist - Midwives

Task	Completed
Ensure the woman fits the inclusion criteria.	
Woman has opted HBMP and aware of the healthcare-based BP monitoring	
Check doctors plan for HBPM and make sure frequency of BP monitoring and follow up is recorded.	
Ensure Woman's contact details are up to date on Badger.	
Measure the woman's arm circumference to ensure the available cuff is suitable 22-42cm.	
Make sure that the BP monitor is labelled with the name of WHAT and record it in BP monitors folder.	
Provide with monitor and leaflet on how to check blood pressure. (leaflet on Badgernet App)	
Complete Loan agreement/disclaimer with the woman.	
Scan and upload to Badgernet. Paper copy to be filed in the HBPM monitoring folder on DAU for audit and monitoring	
Show the woman how to use BP monitor, and record the reading on Badgernet. Ask her to repeat the whole process to make sure she understood.	
Show the patient how to access the rainbow chart on Badger and how to follow it. Make sure she is aware who to contact if BP is abnormal.	
Open women's notes in Badger and complete the following: • Add maternal alert that woman is undergoing HBPM • On management plan, set BP range. Critical high 150/100 and target BP, record any management plan. • Ensure next follow up app on DAU is planned and next clinic appointment is arranged as per plan.	

Worcestershire Acute Hospitals NHS Trust

Appendix 8: HBPM Pathway

Group 2
- Identified by CMW at booking after NICE PET risks assessment
- Discuss HBPM/healthcare-based BP surveillance

Group 1 +3
- Identified after obstetric review at ANC, Triage, DAU or ANW by the Reg/Con
- Discuss HBPM/healthcare-based BP surveillance
- Fulfills inclusion criteria

- Review on ANC by consultant/Reg
- Discuss option of HBPM
- Fulfills inclusion criteria

Woman declines HBPM

Woman agrees for HBPM

- To arrange for BP monitoring with CMW, GP or DAU
- Decide regarding frequency of BP monitoring.
- Plan next appointment.

- Provide with leaflet
- Refer to DAU
- Decide frequency of BP monitoring
- Plan next appointment

Review on DAU by MW
- Answer all questions.
- Add a maternal alert on Badgernet to indicate HBPM
- Explain the process (Badgernet functions and how to record BP on Badgernet)
- Provide with validated BP monitor+ an appropriately sized cuff.
- Patient sign forms for BP monitor loan form
- Demonstrate how to take BP and recheck understanding
- Inform the frequency and the duration of BP monitoring, next appt

At home - Measures BP
- Follows Rainbow chart
- Records BP on Badgernet

Woman contacts DAU (or triage out of hours) if high BP.
Woman reviewed at DAU/Triage

Monitoring of HBPM results at DAU

- DAU MW checks the HBPM patients list on Badgernet twice a day (08:30 and 1800 hrs) for any readings not already been reviewed (fail safe)
- If any abnormal result not actioned, MW phones the patient, discuss the plan with her
- Once a plan is agreed with the woman, enter plan and discussion on Badgernet.
- The BP measurements chart will be reviewed on Badgernet (notes during pregnancy page) on the patient's follow up appointment.

Group 1 and 2: Continue monitoring until delivery

Group 3:
- Review readings on day 21
- DAU MW will discharge those who have normal readings:
- Recall the BP monitor
- Remove alert from Badgernet
- Those who have high readings, move to Group 1

Monitoring

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the Policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
	These are the 'key' parts of the process that we are relying on to manage risk. We may not be able to monitor every part of the process, but we MUST monitor the key elements, otherwise we won't know whether we are keeping patients, visitors and/or staff safe.	What are we going to do to make sure the key parts of the process we have identified are being followed? (Some techniques to consider are; audits, spot-checks, analysis of incident trends, monitoring of attendance at training.)	Be realistic. Set achievable frequencies. Use terms such as '10 times a year' instead of 'monthly'.	Who is responsible for the check? Is it listed in the 'duties' section of the Policy? Is it in the job description?	Who will receive the monitoring results? Where this is a committee the committee's specific responsibility for monitoring the process must be described within its terms of reference.	Use terms such as '10 times a year' instead of 'monthly'.

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	Yes
2.	Does the implementation of this document require additional revenue	Yes
3.	Does the implementation of this document require additional manpower	No
4.	Does the implementation of this document release any manpower costs through a change in practice	Yes
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	Yes
	Other comments:	Business Case Not Required due to low costs involved but completed.

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.