

STANDARD OPERATING PROCEDURE

HOME BLOOD PRESSURE MONITORING FOR MATERNITY

PREPARED BY : Dr Karin Leslie – Maternal Medicine Consultant Sian De Cruz- Transformation Lead Midwife	DATE: 15/06/2023 Reviewed:
RATIFIED BY : Perinatal Guidelines Group	DATE: July 2023
VERSION 1.0	REVIEW DATE: July 2026

CONTENTS	PAGE
Background & Purpose	2
Scope	2
Indications / Pathway	2-3
Process	3-6
Responsibilities	6

BACKGROUND AND PURPOSE

- Home Blood Pressure Monitoring (HBPM) allows a woman to self-monitor her blood pressure at home. Home readings may provide a more frequent or accurate picture of a woman's BP than intermittent DAU or clinic readings. There is growing evidence for its role in pregnancy.
- Women report a positive experience.
- HBPM is not intended to replace necessary clinical reviews and monitoring of proteinuria, maternal blood tests or fetal wellbeing.
- The K2 Hampton home monitoring software, accessed via a web browser on their smartphone or desktop allows women to record their HBPM readings and for healthcare professionals to review their results. Women who do not have access to a smartphone may use an alternative paper based recording approach.
- HBPM requires excellent compliance from patients and vigilance from staff to make sure it is being used safely.

SCOPE

This guidance is relevant to following staff groups:

- All midwifery and maternity assistant staff who work in maternity
- All medical staff working within the Obstetrics and Gynaecology team – Consultants, Middle Grades and Juniors

INDICATIONS / PATHWAY

Staff working in DAU or maternity can offer HBPM to any woman who they think would benefit from it. The majority of these women will fulfil standard criteria for DAU referral and monitoring (gestational hypertension after 20 weeks gestation). Women with chronic hypertension who are booked for antenatal care with the maternal medicine team will have HBPM initiated through the complex care team and maternal medicine team. Women who are seen in antenatal clinic with hypertension who do not fulfil DAU referral criteria (such as gestation less than 20 weeks) should be referred to DAU for the initiation of HBPM.

- Each team (DAU/Complex Care team) will be responsible for overseeing their own patients and ensuring appropriate follow-up plans are in place.

Maternal medicine patients will be assessed by a member of the maternal medicine team regarding their suitability for HBPM whilst DAU patients should fit the criteria listed below.

Inclusion criteria for DAU women:

- Women with new hypertension in pregnancy
 - Gestational Hypertension (GH)
 - Chronic Hypertension
 - White coat hypertension / borderline BP profiles
- White Coat Hypertension / 'borderline BP profiles'.
- Gestational proteinuria.
- Higher risk of superimposed preeclampsia – such as known FGR.
- Preeclampsia - ONLY with a clear Consultant plan and a shared decision that outpatient care is appropriate (as per Hypertension guideline).

- Women must have a good understanding of English (written and spoken) so that they can follow the instructions and give informed consent.
- No clinical indication for in patient care.

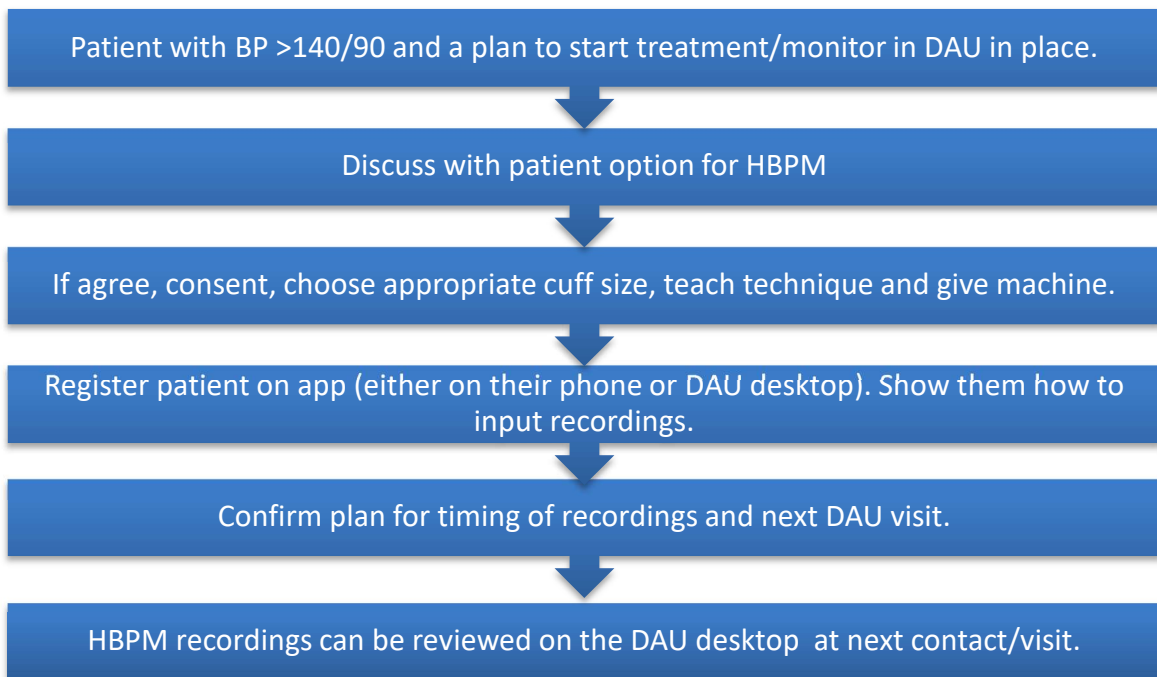
Exclusion Criteria:

- Unable to give consent or understand the instructions.
- Declines HBPM.
- Evidence of non-compliance with attendance or monitoring.
- Arm circumference greater than 42cm.
- Delivery planned within 7 days.
- Severe, uncontrolled hypertension that requires the woman to be admitted for stabilisation (HBPM can be started if she improves clinically and is appropriate for outpatient care).

Women who have a confirmed diagnosis of Pre-eclampsia (PET) or who do not fulfil these criteria may have HBPM initiated as part of an individualised plan of care by a Consultant. The local hypertension in pregnancy guideline should be followed for these cases.

PROCESS

Process of initiating HBPM:



Discussing HBPM with the patient:

The following should be explained to the woman:

- there is a need to monitor their BP more frequently.
- the purpose of HBPM is to reduce the number of unnecessary visits and offer the patient some control in the monitoring of her BP.
- the importance of compliance and accurately recording the results.
- They should contact the Call a Midwife advice line if they have any abnormal readings or symptoms of severe hypertension/pre-eclampsia (persistent headache, visual disturbance, vomiting, facial swelling, upper abdominal pain) or reduced fetal movements.
- If the patient agrees to HBPM, go through the web browser on their smartphone (or paper record) with her and give her the information sheet.

Teaching HBPM technique to a patient:

- The machines provided to patients are Microlife® automatic machines.
- Each patient will be loaned their own machine for the duration of monitoring in pregnancy. The machines are numbered and the patient's details should be documented next to the appropriate number in the log book (held by DAU / Complex care). The machine number will also need to be logged on the K2 system.
- An appropriate cuff size should be provided for the patient (see table 1).
- 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 tightly.
- 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.
- If the patient is to perform urinalysis at home, show them how to use the dipsticks.
- Ensure that you are happy the patient is confident with the technique before continuing.

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)

Registering a patient on the app:

On their phone:

- Use the web browser address www.k2hampton.com to access the system. (You can save the link to the home screen on their device).
- Click 'Register' and ask patient to fill in details. Select 'St Peters (Ashford)' for institution. Ask patient to choose a password they will remember easily.
- Show the patient how to add a BP recording and highlight the warning sign that will flag with an abnormal reading.

On the desktop:

- Use the web browser address www.k2hampton.com to access the system. (You can save the link to the home screen on the desktop).
- Click 'Register' and ask patient to fill in details. Select 'St Peters (Ashford)' for institution.
- Ask patient to choose a password they will remember easily.
- Show the patient how to add a BP recording and highlight the warning sign that will flag with an abnormal reading.

Monitoring/Visit Schedule:

- **Patients must be given a clear plan for how often to check their BP and the timing of their next appointment. The plan and HBPM machine number must be documented on the antenatal management plan.**

-

MDAU and Complex Care will be required to check the system daily Monday- Friday.

DAU patients:

Follow the existing hypertension guideline 'ongoing care of gestational hypertension' flowchart.

Follow-up in DAU:

- When patients return for follow-up in DAU, their HBPM recordings should be reviewed by the midwife/doctor via the Desktop login or within the Smart phone web-based application.
- Patients should be asked about symptoms of pre-eclampsia and fetal movements.
- A holistic review of maternal and fetal wellbeing should be undertaken and documented within the BadgerNet record.

Patients who present with abnormal readings:

- If patients call the pregnancy advice line to report abnormal BP recordings, they should attend on the same day for a BP profile and review. The pregnancy advice line will either liaise with DAU or triage to arrange suitable place for same day review. Out of hours review will automatically be for labour ward triage.
- Their HBPM trend should be reviewed as part of the assessment.

Patients on HBPM who are admitted to hospital:

- Patients who have been using HBPM should have their blood pressure recorded by a healthcare professional whilst an inpatient. Standard BP machines should be used, and the results should be documented on a MEWS chart.

Timing of delivery:

The optimal timing of delivery should be discussed on an individual basis as per the Hypertension guideline.

On admission for delivery:

Please ensure the HBPM and cuffs are returned to the labour ward office. These will be collected by the DAU/ Complex Care team. Please ensure you document in the BadgerNet notes they have been returned.

Postnatal BP checking:

- If HBPM is to continue after delivery, arrangements must be made to return the BP machine to DAU or Complex Care in due course.
- Community midwives are required to collect the HBPM kit on discharge and return to the box in the community office.
- Women should be given a written plan for their blood pressure targets, times of review and contact numbers (see postnatal letters Hypertension guideline)
- The frequency of monitoring and target readings should be set by a member of the obstetric team before the patient is discharged. This will depend on their underlying diagnosis and whether they are on treatment or not.

RESPONSIBILITIES

All clinical staff are responsible for complying with this policy