

**Self-monitoring of blood pressure in pregnancy guidance**

**during COVID19 pandemic**

**COVID-19 – Clinical Guidelines**

**Warning – Document uncontrolled when printed**

**Warning – Document ONLY applicable during COVID-19 Pandemic**

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Method

E-mail Intranet 

**Self monitoring of blood pressure in pregnancy guidance during COVID19 pandemic**

**Introduction**

In view of the current COVID 19 pandemic there is a need to minimize face to face consultations and consider self monitoring of blood pressure in pregnancy and postnatal period while maintaining safety for you and your baby.

Blood pressure (BP) self monitoring can either be done intermittently i.e. on the day of a scheduled clinic or more frequently e.g. daily or weekly in addition to your usual care.

There have been no concerns regarding the safety of blood pressure self monitoring till to date, and it has been used informally by many pregnant women with chronic hypertension.

**Women for whom self monitoring of blood pressure in pregnancy should be considered**

**Inclusion criteria**

Three groups of women for BP self monitoring are summarized in the table below.

|  |  |  |
| --- | --- | --- |
| **Group** | **Description** | **Illustrative prevalence** |
| 1. Currently hypertensive women (Priority) | Women with chronic hypertension, gestational hypertension or pre-eclampsia | c.10% |
| 2. Normotensive women considered at higher risk of pregnancy hypertension by NICE guidelines | Women with one of the following risk factors   * Hypertensive disease during a previous pregnancy * Chronic kidney disease * Auto immune disease(e.g SLE or antiphospholipid syndrome) * Type 1 or Type 2 Diabetes   Women with two of the following risk factors:   * First pregnancy * Age 40 years or older * Pregnancy interval of >than10 years * Body mass index (BMI) of 35 or more * Family history of pre-eclampsia * Multi-fetal pregnancy |  |
| 3 . Normotensive women | All other normotensive pregnant women as part of standard antenatal care (including those who may need to self-isolate for a period). |  |

**Exclusion criteria**

Patients with severe hypertension or pre eclampsia with adverse features who require admission

**Pathway**

1. Arrange for pregnant woman to attend a face to face appointment with the community midwife, or day assessment unit or (antenatal clinic) and check eligibility for self monitoring of blood pressure.
2. Ensure her contact details are up to date on the hospital electronic system.
3. Provide her with a semi automated or automated home blood pressure monitor validated for use in pregnancy and pre-eclampsia, an appropriate size cuff after checking upper arm measurement.
4. Provide written instructions on how to take her blood pressure reading. Ask the woman to take her blood pressure twice at least one minute apart and write the second blood pressure down or send the second reading via text message or smart phone app.
5. Provide written instructions on how frequently her blood pressure has to be monitored, making it clear whether this will be done in place of usual care or in addition to usual care(e.g once a week or three times a week)
6. Provide written instructions about interpreting blood pressure readings and check that she understands who to contact with an abnormal reading.
7. If she requires additional investigations like (e.g. growth scan and blood testing) arrange this as indicated. If a woman is asked to self monitor urine for proteinuria, arrange this.
8. If you are using app or text based system, set this up and check that she is able to log in before leaving the hospital and ask her to demonstrate sending a blood pressure reading. Make it clear whether the readings will be reviewed by a healthcare professional remotely and that the responsibility for acting on high blood pressure readings sits with the woman.
9. Confirm her next appointment whether by telephone or face to face. Ask the woman to call her midwife or maternity unit as she would normally do if she has any concerns about herself, baby or thinks she requires medical attention.
10. Explain arrangements to the woman for the return of the blood pressure monitor either at the time of coming in for birth or postnatally if a woman needs postnatal blood pressure monitoring. Options for returning the BP monitor may include handing it back to a hospital staff, community midwife hub or posting it in a freepost envelope.
11. Once returned, wipe the blood pressure monitor thoroughly with a cleaning wipe and check all the components are correct.
12. Consider how to record details of blood pressure loans and associated uptakes and outcomes as a service evaluation.
13. A list of validated blood pressure monitors is maintained on the STRIDEBP website

References:

1. Guidance for Maternal Medicine Services in the evolving Coronavirus (COVID-19) Pandemic. April 2020: RCOG.

**Appendix 1**

**Blood pressure thresholds for self monitoring**

|  |  |  |
| --- | --- | --- |
| Level | Blood pressure /mmHg | Action |
| High | Systolic150 or more  OR  Diastolic BP 100 or more | Your blood pressure is high.  Sit quietly for 5 minutes then measure it again and note the reading.  If your repeated reading is raised, please contact your maternity unit for review today (within 4 hrs) and continue to monitor your BP daily. If your repeated SYS (systolic) reading is 160 or more make sure that you make contact with a healthcare professional within this time. |
| Raised | Systolic140 – 149  OR  Diastolic 90-99 | 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 your maternity unit within 24 hrs and continue to monitor your BP daily. |
| High Normal | Systolic  135 – 139  OR  Diastolic 85- 89 | 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. |
| Normal | SYS 110 – 134 AND DIA 70-84 | Your blood pressure is normal. Continue blood pressure monitoring and your current care. |
| Low | Systolic  109 or less AND  Diastolic  69 or less | If you are not taking blood pressure medication: Your blood pressure is normal. If you are feeling well this blood pressure does not require any further action.  If you are taking blood pressure medication: Your blood pressure is low. Repeat once more in 5 minutes. If you repeat reading is still low, contact your maternity unit within 24 hours or within 4 hours if you feel unwell (e.g. dizzy or faint).You may require dose adjustment. |

**Appendix 2.**

**Loan agreement template**

**Loan agreement for blood pressure monitor**

Hospital logo

**Blood pressure monitor number:**

**Cuff size:**

**Declaration:**

I accept responsibility for the above equipment and understand I have been asked to monitor my blood pressure through pregnancy (and postnatally) after the baby is born. I will return the blood pressure monitor as requested. If the blood pressure monitor becomes damaged, lost or stolen, I understand that I must report this information to the Maternity Unit on the below number and that I am not responsible for the cost of replacement or repair.

|  |  |
| --- | --- |
| Name |  |
| Hospital number |  |
| Date of birth |  |
| Signature of agreement to conditions: |  |
| Staff name: |  |
| Staff signature: |  |
| Date: |  |

**Maternity team contact:**

**Telephone:**

Please copy and give one copy to the woman and retain one copy.

**Appendix 3**

**Patient Information**

How to take your blood pressure at home using an upper arm monitor

* You will be asked to take either
  + On the morning of your clinic appointment if you have normal blood pressure
  + Once a week if you are at higher risk of getting high blood pressure
  + One to three times a week if you have high blood pressure.
* Check with your midwife or doctor how often they would like you to monitor your blood pressure.
* 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 yellow 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.
* 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)
  + You may also get the pulse displayed, usually called PUL
* Measure your blood pressure twice, at least one minute apart.
* Write down the second blood pressure reading (on your phone, in your maternity notes), or send it by text or smartphone app if you are using one of these systems.