

HOME BLOOD PRESSURE MONITORING IN PREGNANCY

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INTRODUCTION

- Hypertension (HTN) in pregnancy, including essential HTN, pregnancy-induced HTN (PIH) & pre-eclampsia (PET), is a common problem in clinical practice, complicating 5-10% of all pregnancies. [1]
- Home BP monitoring was introduced in April 2020 in our hospital to reduce face-to-face (F2F) contact during the pandemic, whilst ensuring safe monitoring

AIMS

- To compare the Home BP Monitoring (HBPM) in pregnancy programme with the standard operating procedure (SOP) in our trust
- To assess staff awareness of the scheme
- To assess patient satisfaction with the scheme

METHOD

- A multidisciplinary retrospective audit between doctors and midwives was carried out.
- All women enrolled onto the HBPM in pregnancy programme between May-October 2021 were included (n=39)
- Data extraction performed from electronic and paper records
- Following birth – structured telephone interviews were conducted to assess patient feedback and satisfaction
- Online survey to assess staff awareness emailed to O&G team (doctors & midwives)

THE PROGRAMME

- Inclusion criteria:** Essential HTN, PIH, PET, high risk of developing HTN in pregnancy (at consultant discretion)
- Exclusion criteria:** any HTN requiring admission
- Programme according to SOP illustrated in Figure 1.

RESULTS

- Out of 39 patients in total included in our audit, 24 had HTN in pregnancy, 15 had previous PIH or PET
- Average time between referral & 1st appointment was 1 month
- 34% were followed up according to the SOP
- 34% were counselled for future risks
- There were 3 adverse outcomes including placental abruption & IUD at 20 weeks
- 16 patients gave feedback: 100% would recommend HBPM in pregnancy to friends and family; 81%(13) felt well supported, 44% (7) reported difficulty getting through to unit by phone.
- 30 responses from staff awareness survey:
 - 46% aware of referral process
- 59/100 BP monitors missing or unreturned since patients completed programme

PATIENT QUOTES

- 'Home monitoring gave me the freedom to carry on working full time without taking time out for appointments'
- 'I felt I had more responsibility over my care' 'I felt empowered'
- 'I always find hospitals stressful and found my readings lower at home'
- 'I was admitted to HDU but did not feel as scared as I could have been as I understood what was happening'

DISCUSSION

- The recently published BUMP-1 and BUMP-2 randomised controlled trials did not show that HBPM improved earlier detection of high BP or with BP control in women who are pregnant.[1] [2] There were high levels of acceptability consistent with our audit findings.
- Our baseline audit highlighted multiple areas that could be improved upon.
- This has formed the basis for a quality improvement project to assess and prioritise factors we can improve and assess response with an ongoing prospective audit.

CONCLUSION

- The programme was well received by patients, allowing empowerment & involvement in own care
- Quality improvement is required in order to address areas of concern, including potentially avoidable adverse outcomes, lack of staff awareness, inadequate follow-up in DAU and the lack of safe return of BP monitors

Referral for women that meet inclusion criteria via paper form

60 mins F2F appointment in DAU

Weekly phone-calls from DAU midwives & regular blood tests

F2F appointments monthly in DAU + ANC at 26w & 38w

BP monitor returned after delivery

Figure 1.

[1] Luger RK, Kight BP. Hypertension In Pregnancy. [Updated 2021 Oct 9]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-

[2] Tucker KL et al JAMA. 2022; 327 (17) 1656-1665. BUMP-1 RCT

[3] Chappell LC et al JAMA. 2022; 327 (17) 1666-1678. BUMP-2 RCT