Patient Perception and Utilization of Home Blood Pressure Monitoring Kits – The Cuff Kit Program

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Problem
• Pregnant patients of racial and ethnic minorities have higher baseline rates of preeclampsia and related complications
• Preeclampsia rate is 60% higher in Black patients compared to White
• Home blood pressure monitoring (HBPM) has been investigated as a possible monitoring system during pregnancy and postpartum
• HBPM has been utilized in non-pregnant patients with promising results
• Limited data exists in United States on patient and provider perception and utilization of HBPM during pregnancy

Goal
• The primary objective was to evaluate patient perception and utilization of Home Blood Pressure Monitoring Kits. The secondary objective was to describe patient perception by race

Intervention Design
• Prospective study from April 2020 – September 2021

Cuff Kits were advertised through the Alliance for Innovation on Maternal Health (AIM), the Preeclampsia Foundation, and other funding partners

Interested clinics, hospitals, and perinatal collaboratives responded and kits were distributed

Providers distributed kits to patients, prioritizing those of racial and ethnic minorities at highest risk

Quarterly surveys were administered to providers and one-time surveys given to patients to assess perception

Results

Provider Questions
• How many cuff kit recipients presented blood pressure logs at visits?
• Did the cuff kit influence patient care?
• What challenges did you encounter implementing the program?

Patient Questions
• Was taking your blood pressure at home valuable to you?
• How often did you take your blood pressure?
• How helpful was information provided?
• How often did you review your log with a provider?

Figure I. Demographics of Cuff Kit Recipients by Race

Figure II. Frequency of Home Blood Pressure Monitoring by Patient Report

Figure III. Provider Perception of How Cuff Kits Influenced Care

Figure IV. Patient Perception of Home Blood Pressure Monitoring

Conclusions
• Most patients monitored their blood pressure daily
• Though response rates were poor, most patients found this a "very valuable" intervention
• Most providers felt HBPM influenced their care – more research in this area is needed to determine impact on outcomes
• Higher percentage of non-white patients reported HBPM to be "very valuable" than white patients

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