

Clinician Adherence to ACOG Guidelines based on the Chronic Hypertension and Pregnancy (CHAP) Trial

Siera Lunn BS, Alana Davidson BS, McKenzie Pile BS, Monique Vilme BS, Tracy Truong MS, Kristin Weaver CCRC, Sarahn Wheeler MD

Introduction: We assessed adherence to ACOG guidelines for antihypertensive medication initiation or titration among pregnant chronic hypertensive patients with blood pressure (BP) \geq 140/90 and patient characteristics associated with adherence.

Methods: Retrospective cohort including all outpatient obstetric visits of pregnant patients with chronic hypertension (cHTN) who attended at least two prenatal care visits \leq 20 weeks and 6 days gestation between May 1, 2022, and July 31, 2023, at a tertiary care clinic in the Southeastern US. We excluded patients with secondary hypertension, multiple gestation, contraindications to nifedipine and labetalol, chronic kidney disease, and prior stroke. The primary outcome was the adherence rate to ACOG's recommendations when a change (i.e., initiating or titrating medication) in patients' cHTN management was indicated (i.e., BP \geq 140/90). We also evaluated adherence when no change was indicated and examined whether patient age, race, ethnicity, insurance status, or primary language were associated with adherence. Analyses were conducted in R 4.1.2 (R Core Team, 2021).

Results: Our cohort included 74 patients with a total of 147 prenatal visits. During 29 visits, there was an indication for initiating or titrating the antihypertensive medication. Adherence was observed in 10 visits (34.5%). Non-adherence (n=19) occurred when there was no documentation of medication initiation (n=17) or titration (n=2) despite a BP \geq 140/90. Providers adhered to the guidelines in 115 (99.1%) of the 116 visits where no adjustment was indicated. The antihypertensive medication was changed due to side effects in two visits. Among the 29 visits where a change in treatment was indicated, Medicaid coverage was significantly higher in the adherence group (50%) compared to the non-adherence group (10.5%) (p=0.03).

Conclusion: We found a low adherence rate to ACOG's cHTN management guidelines when medication initiation was indicated. Medicaid coverage was associated with adherence. Future research and QI initiatives will investigate and address barriers to medication initiation.