Severe Hypertension in Pregnancy and Postpartum Community Midwife Toolkit

Oregon Perinatal Collaborative

Acknowledgments:
The Oregon Perinatal Collaborative (OPC) gratefully acknowledges the volunteer multidisciplinary members, representing clinical and non-clinical expertise, of the Hypertension Bundle Workgroup who helped develop and review the content of the toolkit, as well as plan for implementation.

We are also grateful for the members of the Hypertension Focus Group that included Black, Indigenous, and Pacific Islander people who experienced pregnancy related severe hypertension or preeclampsia in Oregon and shared their experiences to help inform the toolkit elements, including specific recommendations.

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Inclusive language notice:
This toolkit is intended to improve care and outcomes for pregnant and postpartum people who have a wide range of gender identities. For this reason, we use both gendered and non-gendered terms including "birthing person/people," "patient," "mother," and "maternal," to reflect this range of identities. We affirm that respecting individual patient preferences regarding gendered language throughout their care is essential to respectful, patient-centered care.

Suggested Citation (V1, May 31st, 2024):
Oregon Perinatal Collaborative (2024) Oregon Perinatal Collaborative Severe Hypertension in Pregnancy and Postpartum Toolkit

Section I: Purpose and Background

Hypertensive disorders of pregnancy are a leading cause of maternal and perinatal morbidity and mortality in the United States. Oregon's prevalence of hypertensive disorders of pregnancy is 15.7% (Oregon Health Authority Center for Health Statistics, n.d.). Hypertensive disorders of pregnancy have an impact on short term outcomes like seizures and stroke in the birthing person during pregnancy and cardiovascular disease risk after the pregnancy ends. The postpartum period is increasingly recognized as an important time to monitor for symptoms and seek care when needed. Hypertensive disorders of pregnancy can also lead to health problems throughout the person's life after pregnancy, including increased risk of kidney disease and high blood pressure many years later. Hypertension during pregnancy also increases the risk of preterm birth, leading to short- and long-term impact on newborns.

Clinical quality improvement work must be thoughtfully designed and consider the impact of factors, such as housing, social support, reliable transportation, healthy food, and other basic needs. The long history of systemic racism in the United States has shaped the access and experience of Black, Indigenous, and all people of color inside and outside of healthcare. Quality improvement work aimed at the prevention of pregnancy related morbidity and mortality must consider this history. Mirroring available national data, Black, Indigenous, and Pacific Islander mothers and birthing people in Oregon are disproportionately impacted by morbidity from hypertension and preeclampsia (Oregon Maternal Data Center, n.d.). Proposed solutions must be developed with input from those who experience barriers to health.

Perinatal Quality Collaboratives (PQCs), including the Oregon Perinatal Collaborative, are state or multistate networks of teams working to improve the quality of care for mothers, birthing individuals, and babies. Members identify health care processes that need to be improved and use the best available methods to make changes as quickly as possible (CDC).

In 2024, the Oregon Perinatal Collaborative has partnered with the Alliance for Innovation on Maternal Health (AIM) to improve Oregonians' perinatal outcomes related to hypertension. The severe hypertension in pregnancy and postpartum toolkit is designed by and for clinical (doctors, nurses, midwives, etc.) and non-clinical (doulas, community health workers, etc.) individuals and teams caring for pregnant and postpartum people with hypertensive disorders of pregnancy to improve processes, outcomes, and clinical decision making and promote quality and equity statewide. The goal of this project is to

decrease preventable maternal morbidity and mortality from hypertensive disorders in pregnancy and improve the health and wellbeing of birthing people and babies in Oregon.

To support teams implementing this toolkit, quality improvement information and tools are included. Simple tools, like those provided by the Institute for Healthcare Improvement (IHI) can be used by teams with minimal introduction or training. These tools help teams take complex topics like management of severe hypertension in pregnancy and organize them into a simplified workflow that can be implemented, resulting in meaningful change that benefits clinicians, birthing individuals, and our communities.

References

- CDC Press Release Pregnancy Related Deaths
- ACOG Preeclampsia and High Blood Pressure During Pregnancy
- Oregon Health Authority Center for Health Statistics
- Oregon Maternal Data Center
- Healthy People 2030 Social Determinants of Health

Key resources for this toolkit include:

- AIM Severe Hypertension in Pregnancy Patient Safety Bundle
- AIM Reduction of Peripartum Ethnic and Racial Disparities Patient Safety Bundle
- CDC Severe Hypertension in Pregnancy Change Package
- CMQCC Hypertensive Disorders of Pregnancy Toolkit
- IHI Severe Hypertension in Pregnancy Change Package

Section II: The 5 R's

NOTE: *While not repeated in individual sections, teams are encouraged to incorporate trauma informed principles-trauma awareness, safety, choice & empowerment, and strength based—throughout development of tools/ processes/ workflows.*

Community Midwives (Home Birth and Freestanding Birth Center) Severe Hypertension Toolkit

Readiness

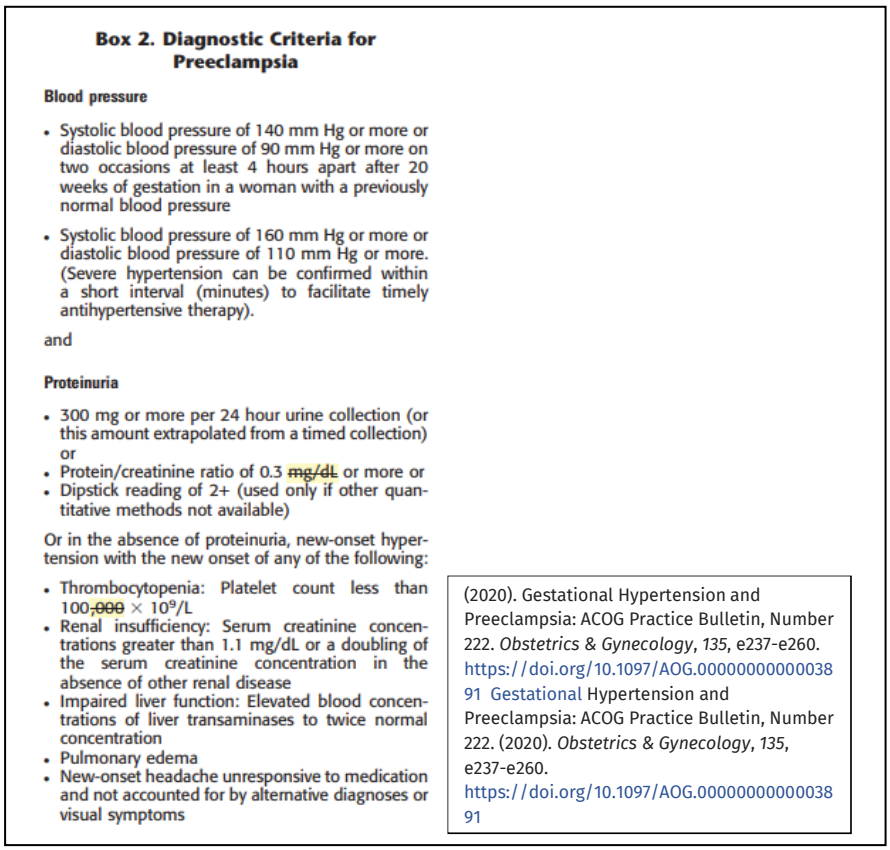
- Participate in continuing education on evidence- based diagnosis and treatment of severe hypertension and preeclampsia.
    - ACOG Practice Bulletin: Gestational Hypertension and Preeclampsia

- Review blood pressure techniques to ensure accurate blood pressure measurement during prenatal and postpartum care.
    - Target BP measure accurately resource
- Identify the resources for consultation, referral, and transfer of clients with hypertension in the community you serve.
    - Special focus on pathways for consultation and referral for postpartum clients may be needed as there may be more barriers to care for postpartum clients, especially those who gave birth outside of a hospital.
    - Create a transfer plan prenatally with each client.

Recognition & Prevention

- Screen all pregnant people for preeclampsia risk factors prior to 16 weeks and consider low dose aspirin per the ACOG Practice Advisory.
- Ensure accurate measurement and assessment of blood pressure for every pregnant and postpartum client at every visit.
- Screen for signs/ symptoms of preeclampsia at every visit.
- Screen for community support needs (such as housing, food, mental health) and provide resources.
- Provide client education on the signs and symptoms of hypertension and preeclampsia and when to call the midwife.
- Assist clients with elevated blood pressure in acquiring a home blood pressure monitoring device and provide clear education on correctly monitoring blood pressure at home.
    - Home blood pressure monitoring

- Obtain labs for preeclampsia when clients have elevated blood pressure and/or symptoms of preeclampsia but do not yet meet diagnostic criteria.



Box 2. Diagnostic Criteria for Preeclampsia

Blood pressure

- Systolic blood pressure of 140 mm Hg or more or diastolic blood pressure of 90 mm Hg or more on two occasions at least 4 hours apart after 20 weeks of gestation in a woman with a previously normal blood pressure
- Systolic blood pressure of 160 mm Hg or more or diastolic blood pressure of 110 mm Hg or more. (Severe hypertension can be confirmed within a short interval (minutes) to facilitate timely antihypertensive therapy).

and

Proteinuria

- 300 mg or more per 24 hour urine collection (or this amount extrapolated from a timed collection) or
- Protein/creatinine ratio of 0.3 ~~mg/dL~~ or more or
- Dipstick reading of 2+ (used only if other quantitative methods not available)

Or in the absence of proteinuria, new-onset hypertension with the new onset of any of the following:

- Thrombocytopenia: Platelet count less than 100,~~000~~ $\times 10^9$/L
- Renal insufficiency: Serum creatinine concentrations greater than 1.1 mg/dL or a doubling of the serum creatinine concentration in the absence of other renal disease
- Impaired liver function: Elevated blood concentrations of liver transaminases to twice normal concentration
- Pulmonary edema
- New-onset headache unresponsive to medication and not accounted for by alternative diagnoses or visual symptoms

(2020). Gestational Hypertension and Preeclampsia: ACOG Practice Bulletin, Number 222. *Obstetrics & Gynecology*, *135*, e237-e260. https://doi.org/10.1097/AOG.0000000000003891 Gestational Hypertension and Preeclampsia: ACOG Practice Bulletin, Number 222. (2020). *Obstetrics & Gynecology*, *135*, e237-e260. https://doi.org/10.1097/AOG.0000000000003891

- Establish a mechanism for clients and families to give feedback to the practice, or report, experiences of inequitable care, miscommunication or disrespect.

Response

- Consult with a hospital-based physician or nurse-midwife with questions or concerns related to client care around hypertension or preeclampsia.
    - Transfer care of clients who meet diagnostic criteria for preeclampsia to the hospital.
- Provide a summary, complete records and a warm-handoff to the receiving provider.
- Advocate for postpartum clients with blood pressure 140/90 or greater to be seen and treated quickly through the emergency department, clinic, or hospital Labor & Delivery.

    - Provide information on postpartum blood pressure treatment criteria if needed. ACOG Practice Bulletin 222: Gestational Hypertension and Preeclampsia
- Make a coordinated plan for postpartum follow-up when a client has had severe hypertension or preeclampsia during pregnancy, labor, or the immediate postpartum. These clients should be seen at a minimum by day 3 after hospital discharge for blood pressure check and evaluation and should be given education about warning signs and when to call.
- Provide trauma-informed support for patients, including identified support people, and staff for serious complications of severe hypertension, including discussions regarding birth events, follow up care, resources, appointments, and referral to therapy and/or peer support groups.
    - Consider referral for support groups/ short term therapy for all patients with preeclampsia diagnosis, regardless of complications.
    - Preeclampsia Foundation Birth Trauma Resource site may provide helpful links.

Reporting & Systems Learning

- Debrief after cases of preeclampsia in your practice.
- Collect and review data in your practice on hypertension and preeclampsia.
- Peer review cases of preeclampsia to identify systems issues and areas for improvement.

Respectful, Equitable, and Supportive Care

- Engage in open, transparent, and empathetic communication with pregnant and postpartum people and their support people to understand diagnoses, options and treatment plans.
- Include pregnant and postpartum people as part of the care team to establish trust and ensure informed, shared decision-making that incorporates the pregnant and postpartum person's values and goals.