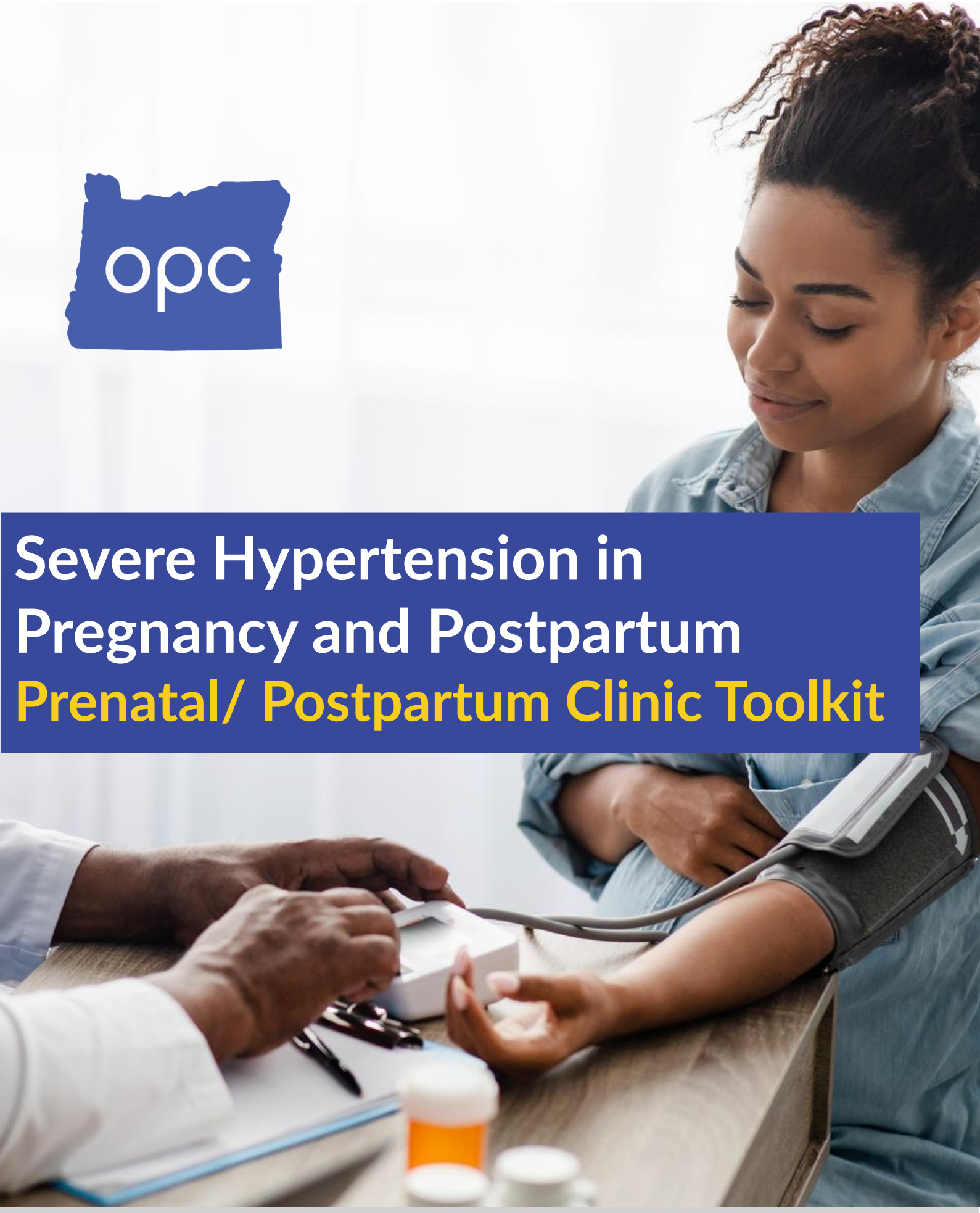

Severe Hypertension in Pregnancy and Postpartum

Prenatal/ Postpartum Clinic Toolkit

Oregon Perinatal Collaborative

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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.

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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.*

Prenatal/Postpartum Clinics

Readiness

- Develop:
  - Process for identification of undiagnosed chronic hypertension prior to pregnancy with adequate plans for monitoring pregnancy according to risk factors.
  - Processes for timely identification, evaluation, and treatment of severe hypertension/ preeclampsia.
  - A plan for escalation, obtaining appropriate consultation and maternal transfer as needed.
    - Confirm a process for direct admission to the hospital following confirmation of need through clinic evaluation to avoid delays in ED when appropriate.
- Provide staff-wide education on:
  - Warning signs for severe hypertension/ preeclampsia.
    - Ensure all members of the team, including administrative staff (receptionist, etc.) have role appropriate training.
  - Racial and ethnic disparities in birth outcomes and their root causes, implicit bias, use of cultural humility, and best practices for shared decision making.
- Clearly post warning signs for severe hypertension/ preeclampsia.
  - Seek expertise from diverse groups that have built trust within your community in sharing information about hypertension warning signs and response.
- Develop and maintain a set of referral resources and communication pathways between obstetric providers, community-based organizations and state and public health agencies to enhance services and supports for pregnant and postpartum families.
- Foster a diverse workforce that is representative of the communities you serve.

Recognition and Prevention

- Assess and document if a patient presenting for care is pregnant or has been pregnant within the past year.
- Screen all pregnant people for preeclampsia risk and consider low dose aspirin per ACOG Practice Advisory.
- Ensure accurate measurement and assessment of blood pressure for every pregnant and postpartum patient.
- Screen for community support needs and resources provided.
    - Consider impact of access to transportation, social support, cost to the individual for medication/ blood pressure cuffs, and other social drivers of health as treatment plans are developed. Partner with the pregnant or postpartum person on addressing any barriers that are identified and ensure health literacy, cultural needs, and language proficiency are addressed.
- Provide ongoing education to all patients through a variety of modalities (e.g. written, video, audio) on the signs and symptoms of hypertension and preeclampsia and empower them to seek care.
- Assist patients in acquiring a home blood pressure monitoring device and clear education on correctly monitoring blood pressure at home (e.g. how to take accurate blood pressure, when to call doctor or seek care).
    - Oregon Health Plan (Medicaid) provides coverage for blood pressure cuffs through durable medical equipment (DME) coverage.
        - Example: CareOregon DME benefit explainer
- Ensure that people who experience severe hypertension/ preeclampsia during pregnancy and/or post birth know about long term complications and help connect to primary care for ongoing monitoring.

Response

- Have clear protocol for escalation to a higher level of care (labor and delivery and/or emergency department) for additional monitoring and evaluation of severe hypertension during pregnancy and postpartum.
- Arrange for postpartum follow up visit within 3 days of birth post hospitalization discharge date for individuals whose pregnancy was complicated by hypertensive disorders.
    - Follow up if patient does not make it to their follow up appointment.
- 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.

Reporting and Systems Learning

- Monitor outcomes and process data related to severe hypertension, with disaggregation by race and ethnicity due to known disparities in rates of severe hypertension.
    - **NOTE:** Smaller numbers may prevent trending/ themes but will still allow individual level learning.

Respectful, Equitable, and Supportive Care

- Engage in open, transparent, and empathetic communication with pregnant and postpartum people and their identified support network to understand diagnoses, options, and treatment plans.
    - A 2023 CDC report noted that ~40% of patients hold back from asking questions (for multiple reasons), so it is important for care teams to use tools such as the AHRQ's Teach Back to confirm understanding.
- Include pregnant and postpartum persons as part of the multidisciplinary care team to establish trust and ensure informed, shared decision-making that incorporates the pregnant and postpartum person's values and goals.

Section III: Operational Considerations for Clinics

- Do you have a process established with hospitals for direct admissions of patients (pregnant and postpartum) who have been evaluated in clinic and do not require additional evaluation in the emergency department?
- What role in the clinic is best to track and follow up if patients do not come to their scheduled postpartum appointment?
- Who are your partners who support patients that you care for in the community (i.e community health/ home visiting nursing, community-based programs, etc) and do you have effective communication channels with them?
    - Is there a direct invitation to these partners to accompany patients to appointments if acceptable to patient and/or discussion about their role with patients to ensure coordination?
- What barriers need to be addressed prior to supporting home blood pressure monitoring?
    - Equipment, standard protocols, staffing, etc
- Who can support patients with challenges accessing primary care in your community?
- What is the process for reviewing and updating patient education?
- What systems/ structures do you have or need to ensure providers have adequate time to ask about and respond to patient questions and fears in the clinic?
    - Does a diagnosis of preeclampsia or hypertension reliably trigger asking patients about fears and questions?
    - Are there barriers other than time (knowledge, comfort, material, etc) that would prevent providers and all clinical team in engaging in individualized teaching/ discussions in the clinic?