



Severe Maternal Hypertension

Measure Set Recommendations

January, 2022

Supporting documents

- Reference the full WisPQC Severe Maternal Hypertension Initiative Measure Set for complete definitions.
 - <https://wispqc.org/wp-content/uploads/2022/01/Severe-Mat-HTN-Meas-Set.01.05.22.pdf>
- This presentation includes recommendations for data collection and answers to frequently asked questions about inclusion in metrics.



PM4 Timely Treatment Denominator

Defining 'persistent':

- **Persistent:** one or more severe range blood pressure readings within 15-60 minutes of the first severe range reading.
 - **At least 2 severe range blood pressure readings taken within 60 minutes.**
- If case does not meet the definition of **persistent** the case does not get included in PM4 measure.

PM4 Timely Treatment Numerator

Treatment within 60 minutes of 1st severe range reading:

- **Was the patient treated with anti-hypertensive medications within 60 minutes from first severe range blood pressure?**
 - Yes= in the numerator
 - No= not in the numerator
- **Antihypertensive medications:** IV Labetalol, IV Hydralazine or PO Nifedipine (see ACOG CP #767 Feb 2019).
 - California BP Protocol and Dosing guidelines: https://wispqc.org/wp-content/uploads/2022/01/CA_HDP_Acute-Treatment-Algorithm_111621.pdf

PM4 Timely Treatment – Guidelines

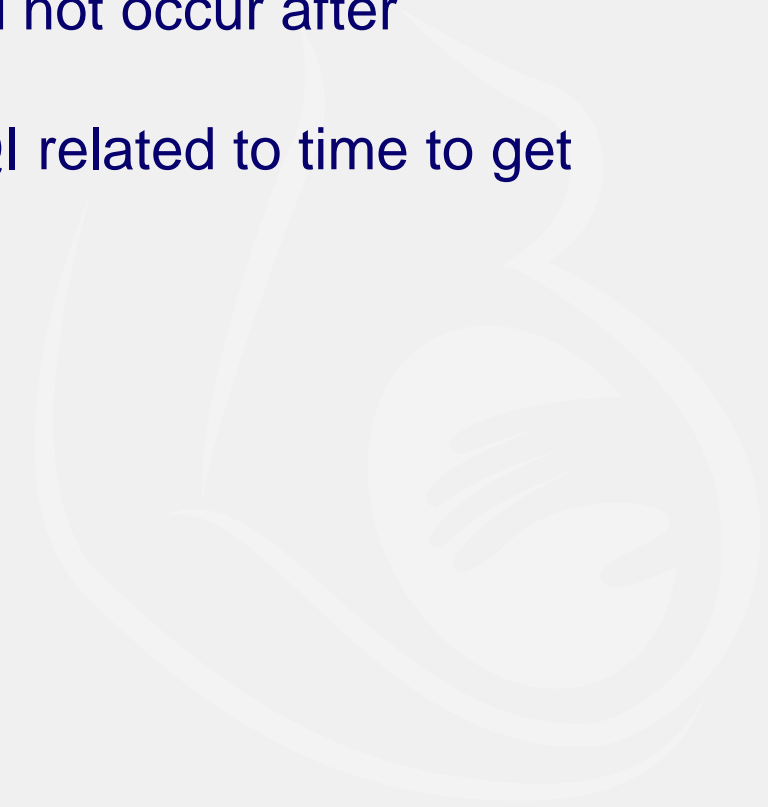
- **Gathering data**
 - Pull by patient admission date.
- **Readmissions**
 - If re-admitted at any time, they are counted as a separate episode with separate confirmation of persistent severe HTN.
- **During pushing or epidural** – from Dr. Main:
 - Regarding pushing, the BP should not be taken during val alva but right before the next push.
 - We are looking for persistence for 15 min so a repeat in 5 min, especially in these circumstances, would not count. Now, what if the procedure lasts more than 15min? Judgement time: if it is borderline and remains borderline and then normalizes at 20 min I could let it ride if it is really high during these other procedures, but those procedures should not account for that high a BP! Or if it rises again after the epidural is over it counts.
- **Outpatient readings/treatment**
 - The measure starts with hospital admission.
 - We don't count outpatient readings or treatment before admission – we are focused on how the staff at the hospital respond to severe BPs when they see them.

PM4 Timely Treatment - Scenarios

- **If patient has only 1 severe range BP and then follow up BP normalizes.**
 - *DO NOT* include in the denominator because there is not evidence of persistent severe range BP.
 - If the follow up normal range BP is taken outside of standard BP protocol timing *DO NOT* include in the denominator.
 - *DO* continue to monitor this patient according to the BP protocol.
- **Patient comes in with persistent severe HTN (confirmed with 2nd BP reading) and is treated within 60 minutes. Patient's BP then spikes again (either prenatal or postpartum but during the same admission), and protocol is not followed.**
 - For this metric only include the **first instance of persistent severe HTN in the hospital**. Subsequent episodes are opportunities for a debrief, case review, improvement opportunity, etc.
 - It is reasonable, that if your site would like to track additional episodes you can via a PDSA or creating a measure in Life QI.

PM4 Timely Treatment – Scenarios, cont.

- **Documentation of 2 severe range BPs, but then normalized by the time meds arrive to the patient.**
 - Include this patient in the denominator (due to meeting definition of persistent)
 - Do NOT include the numerator because treatment did not occur after documented “persistent” severe HTN.
 - Make a note and review as potential opportunity for QI related to time to get medication to patient.



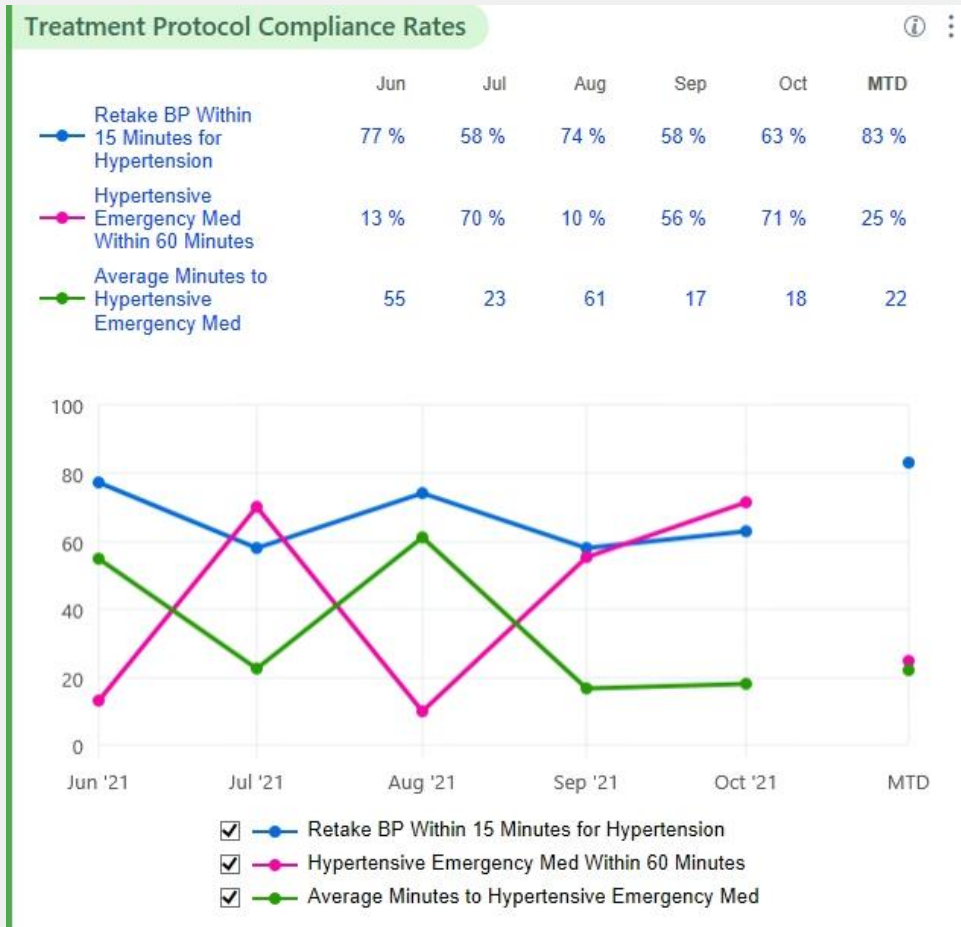
Is your team interested in measuring *adherence* to the follow-up BP check?

(i.e. did we re-check BP within 15-20 minutes of the 1st SHTN reading?)

- Optional for teams with at least 80% adherence to PM4:
 - Track PM4b *Adherence to BP protocol*
 - **Numerator:** Birthing patients with 1 or more SHTN BPs with a follow up BP reading documented within 15-20 minutes of initial reading.
 - **Denominator:** Birthing patients with 1 or more SHTN BP reading
 - *Data check:* all of your PM4 patients should also be in this denominator!
- *Note:* This measure may only need to be tracked for a few months or a sample collected to determine if this is an area needing improvement.

For sites that use Epic...

- Reach out to Epic TS's for assistance with implementing these dashboard metrics.



Track Hypertension Response Times in Metric Dashboards

Starting in May 2020

L&D managers and obstetric providers can use dashboard metrics to track patients with severe hypertension or patients who experience hypertensive emergencies during their L&D encounter, as well as whether those patients received appropriate care within the expected timeframe.

Prerequisites

For data to appear in the hypertension-related metrics, you must activate the Pregnancy Registry, if you haven't done so already. For instructions, refer to the [Gather Pregnancy Episode Data with the Pregnancy Registry](#) topic.

ACOG's Maternal Safety Bundle for Severe Hypertension in Pregnancy defines a hypertensive emergency as when two high blood pressure readings are taken between 15-60 minutes of each other. High blood pressure readings are either greater than or equal to 160 systolic or greater than or equal to 110 diastolic. When a hypertensive emergency is identified, the following interventions should be taken:

- Clinicians should take additional blood pressure readings every 5 to 15 minutes after the first high blood pressure reading.
- A therapy medication should be administered within 60 minutes of the second high blood pressure reading.

L&D managers and providers can view data related to hypertensive emergencies and the recommended interventions in the following dashboard metrics:

- [72132-OB Rate Blood Pressure Retaken Within 15 Minutes of Severe Hypertension](#). Shows the percentage of pregnancies where the patient experienced hypertension, and another blood pressure reading was taken within 15 minutes of the first high blood pressure reading.
- [72133-OB Hypertensive Emergency Rate](#). Shows the percentage of pregnancies where two high blood pressure readings were documented between 15 to 60 minutes of each other.
- [72134-OB Rate Emergency Therapy Administered Within 60 Minutes of Hypertensive Emergency](#). Shows the percentage of pregnancies where the patient experienced severe hypertension, and a hypertensive emergency treatment medication was given within 60 minutes of the second high blood pressure reading.
- [72135-OB Average Minutes to Treatment After Hypertensive Emergency](#). Shows the average time between the start of the first hypertensive emergency for a patient and the administration of a hypertensive emergency medication.

These metrics appear automatically in the following components in Epic-released dashboards: [59001-OB Provider Metrics](#) and [59002-OB Nurse Manager Metrics](#):

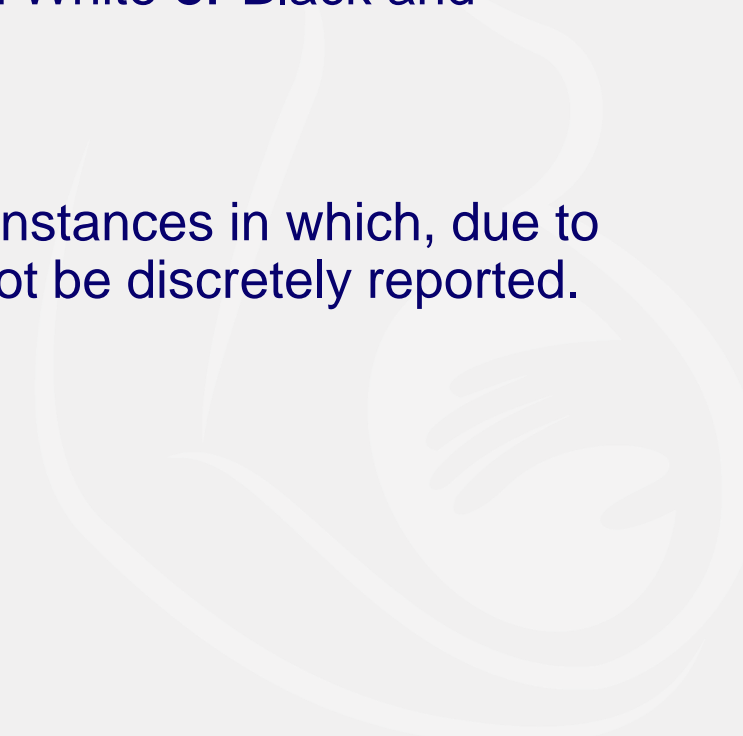
- [59014-OB Nurse Manager Risk Prevention Rates](#)
- [59019-OB Provider Risk Prevention Rates](#)
- [59021-OB Provider Treatment Protocol Compliance Rates](#)
- [59027-OB Nurse Manager Treatment Protocol Compliance Rates](#)

For data to appear in these metrics, you must complete these tasks, which are described in more detail in the sections that follow:

- Ensure that the correct identifier is mapped to your blood pressure flowsheet rows.
- Create a medication (ERX) grouper that contains the medications your organization uses for hypertensive emergency treatment.
- Specify your medication grouper in EMR System Definitions. You can use the Build Wizard in Hyperspace to complete this step.

PM4 Race and Ethnicity Clarifications

- When to categorize Hispanic
 - Patient selects Hispanic and any other race or multi-race
- When to categorize “multi-race”
 - Patient selects 2 or more race categories (e.g. Black and White **or** Black and American Indian/Alaska Native)
- When to categorize “other/unknown”
 - May refer to patients who do not report race/ethnicity or instances in which, due to small numbers, a particular racial and ethnic group cannot be discretely reported.



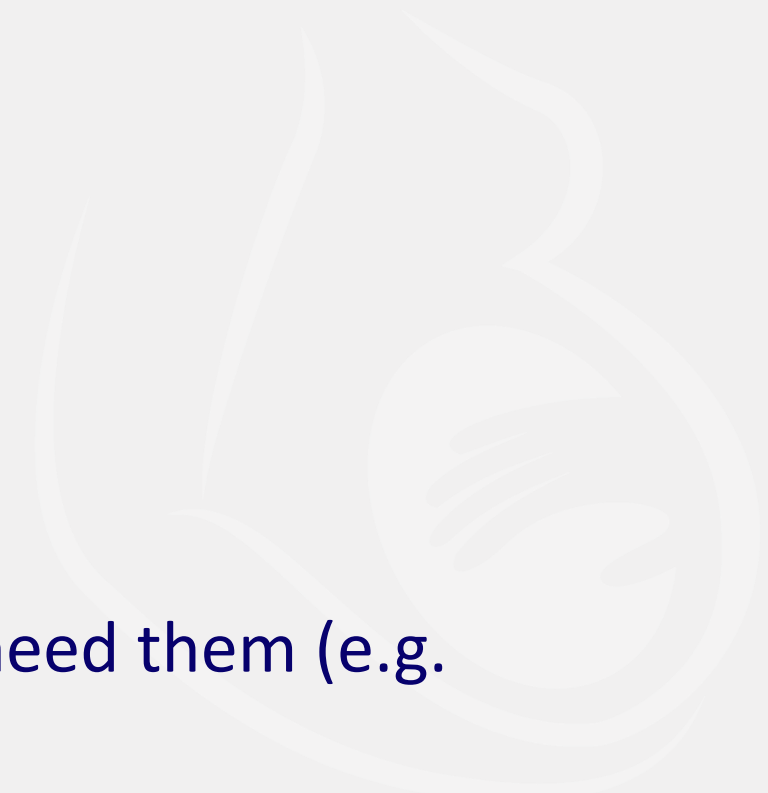
Charts in Life QI can include:

Charts

Search...

Treatment of Severe Hypertension (NH White) Monthly Data Overdue
Treatment of Severe Hypertension (NH Black) Monthly Data Overdue
Treatment of Severe Hypertension (Hispanic/Latinx) Monthly Data Overdue
Treatment of Severe Hypertension (NH American Indian/ Alaska Native) Monthly Data Overdue
Treatment of Severe Hypertension (NH Asian/ Pacific Islander) Monthly Data Overdue
Treatment of Severe Hypertension (Other) Monthly Data Overdue

- Note: Only add these charts into Life QI when you need them (e.g. when there is a first occurrence in your data)

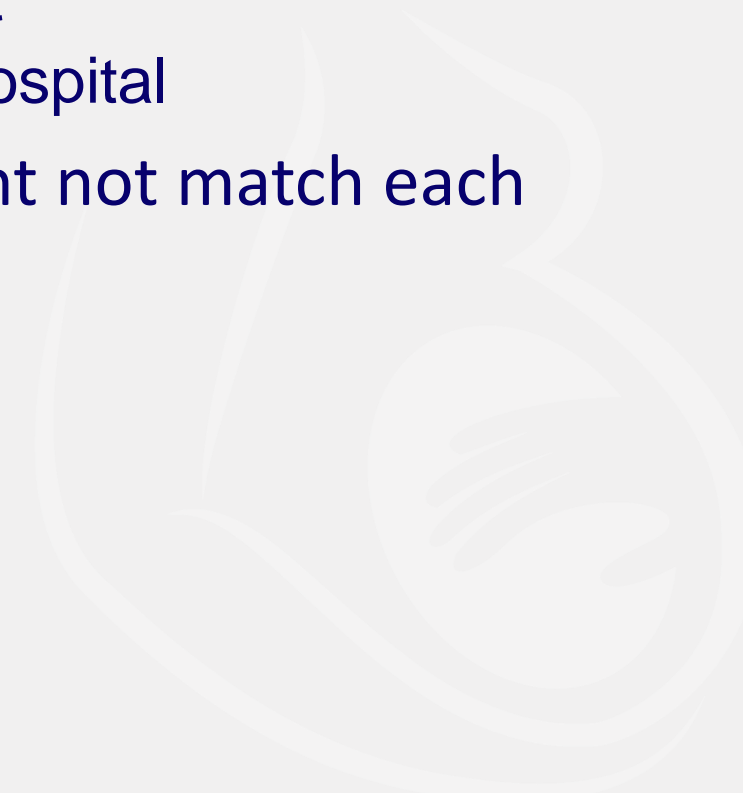


PM5- Postpartum Follow Up

- ‘Follow up plan’ is defined as documentation in patient chart of future blood pressure check either at office visit or at home via home monitoring program, in accordance with appropriate timing recommendations.
- Timing recommendations:
 - Plan for follow up BP check within 10 days postpartum (either via office visit or home monitoring program)
 - This is not measuring if the patient **attended/adhered to** the follow up plan, only if documentation of a plan was made.
 - *Reference:* ACOG recommends no later than 7-10 days postpartum, and women with severe hypertension should be seen within 72 hours; other experts have recommended follow-up at 3-5 days (ACOG CO 736, May 2018).

PM5- Postpartum Follow Up

- **Remove from PM5 denominator** if the patient is...
 - Readmitted post partum
 - Admitted antepartum and discharged still pregnant
 - Past 10 days postpartum when discharged from hospital
- This means that PM4 and PM5 denominators might not match each month.
 - That's okay, can add a note if you want to.



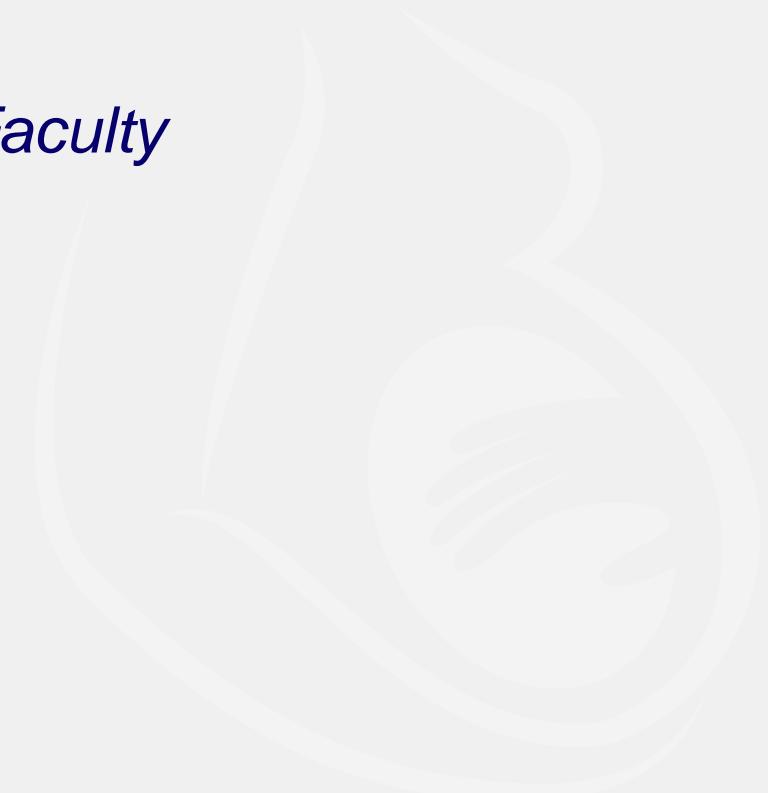
PM5- Postpartum Follow Up

- If you have greater than 20 persistent severe hypertension cases per month you will do chart review for PM5 denominator.
- How many charts should I review?
 - Chart review: up to 20 persistent severe hypertension charts, *pulled by patients' admission date*.
 - If <20 charts, include all in denominator.
 - If >20 charts, include every 5th chart until you have 20 charts identified.
 - If denominator is ever '0', do not enter any data into Life QI® that month

What should I reference when I have questions?

1. Full WisPQC measure set
2. This slide deck
3. Email Dana and Christine

We will answer what we can and consult our Lead Faculty





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