



Recognition and Treatment of Severe Hypertension in the Obstetrical Patient

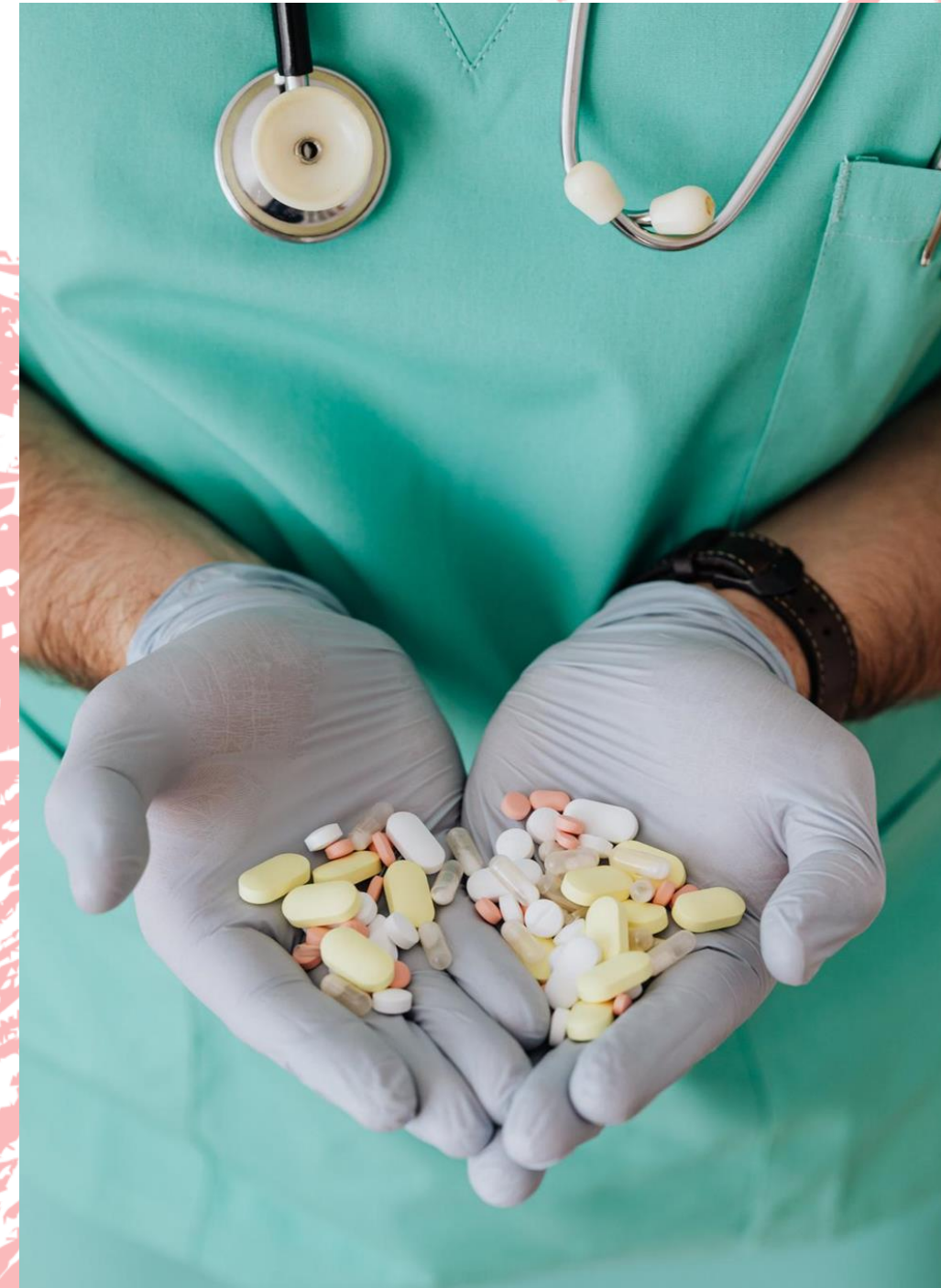
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I am the maternal
Clinical Development
Specialist at Northside
Hospital Cherokee. I have
spent a total of 13 years
of my nursing career at
Northside Hospital, all in

Women's Services.
No financial disclosures



Objective

- Overview of Hypertension Regimens
- Staff Education
- Workflow and Implementation
- Staff Recognition & Opportunities for Improvement
- Incorporation of Smart
- Ongoing Process Improvements related to Recognition and Treatment

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Goals

Severe Hypertension

- Per ACOG guidelines, severe hypertension is defined as a systolic BP greater than or equal to 160 mmHg OR a diastolic BP greater than or equal to 110 mmHg sustained for 15 minutes
- **GOAL** = To treat patient with approved antihypertensives no later than 60 minutes following initial severe BP elevation
- **RESULT** = Repeat treatment as necessary until
 - SBP <160 mmHg
 - DBP <110 mmHg

Hypertension Regimens

- In 2014, the Northside team initiated obstetric antihypertensive regimens made available in OB specific order sets
- In 2018, our Women's Services departments across the Northside system initiated specific OB Hypertension Order Sets per ACOG recommendations
- Included 4 primary antihypertensive regimens
 - IV Labetalol
 - IV Hydralazine
 - PO Labetalol
 - PO Nifedipine
- Available for order entry at the time of severe range blood pressure

Staff Education

- **With initial implementation of the hypertensive regimens, there was full staff education across Labor and Delivery and Family Centered Care (Postpartum) units**
- **Computer based learning is our typical method to provide educational updates as well as staff meetings and leadership meetings**
- **ED and ICU staff received equivalent education regarding recognition & treatment for OB patients**

Hypertension Protocols

- **In 2021, the team collaborated to further enhance the workflow so that no patient would fall through the cracks of treatment, if indicated**
- **An update to all OB admission order sets to include a communication order identifying the preferred regimen for treatment if severe hypertension occurs**
- **This order gives the nurse the authority by protocol to initiate selected antihypertensive regimen if indicated with severe range blood pressures and initiate treatment**

Hypertension Protocols

- Hydralazine was selected as the defaulted regimen for all OB order sets (Antepartum, Intrapartum, & Postpartum) but providers could choose to select an alternative regimen
- Hydralazine was specifically selected as the regimen of choice due to fewer incompatibility concerns
 - Active asthma or history of asthma
 - Heart disease
 - Congestive heart failure

Hypertension Protocols

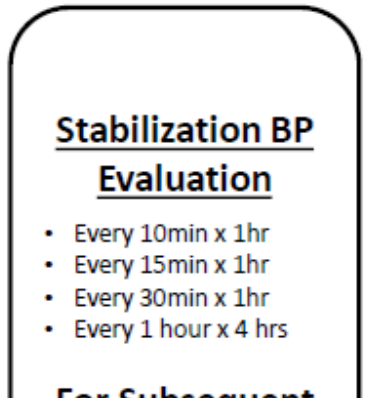
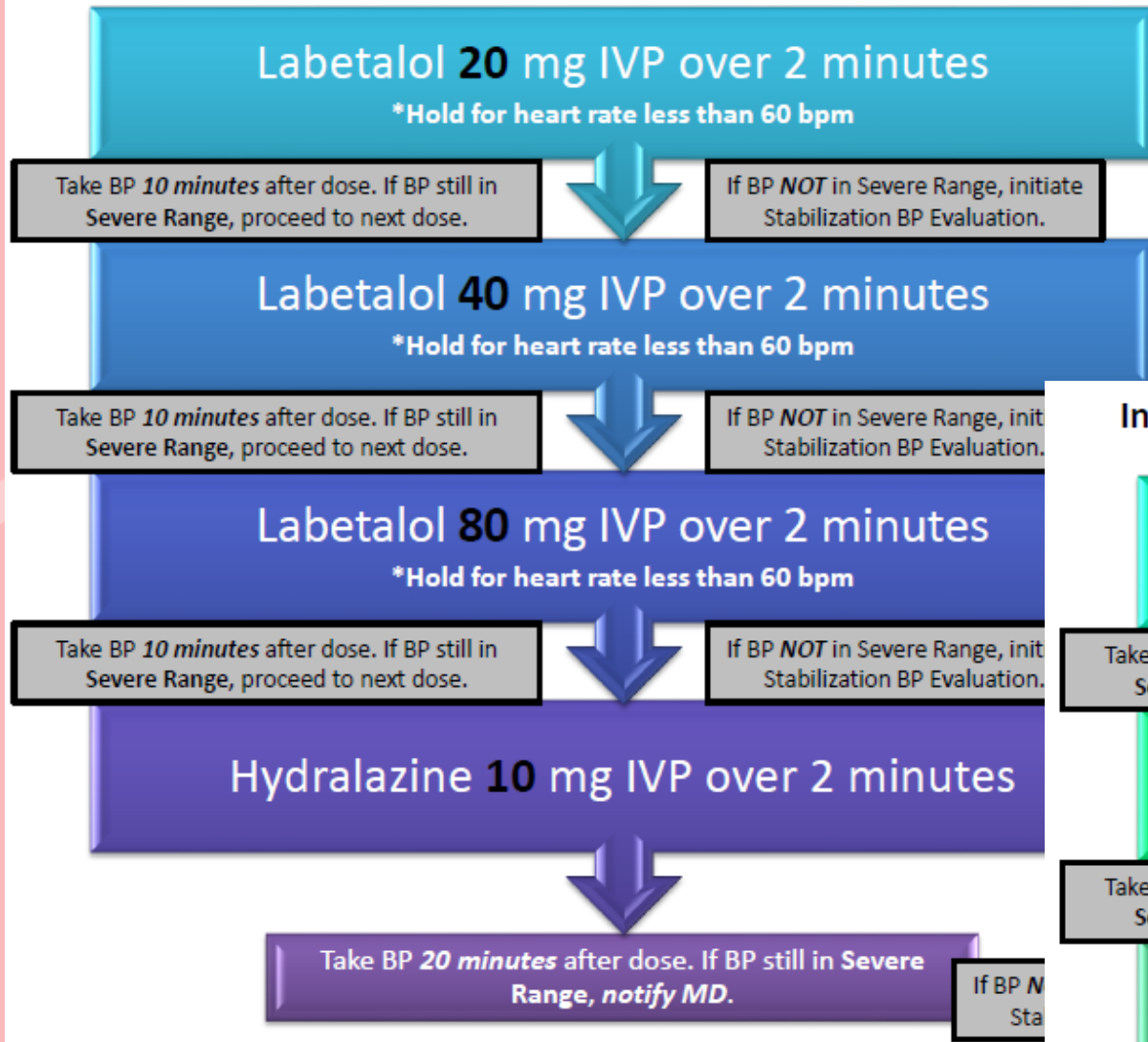
- If severe blood pressure elevation occurs, the nurse will review the orders to determine which regimen is selected by the provider and then enter the order for the appropriate antihypertensive regimen in Cerner as a protocol order via the OB Hypertension Acute order set
- Nursing should treat the hypertensive event then notify the provider of the incident
- Providers will address hypertension with each new order set (antepartum orders, intrapartum orders, postpartum orders)

Hypertension Protocols

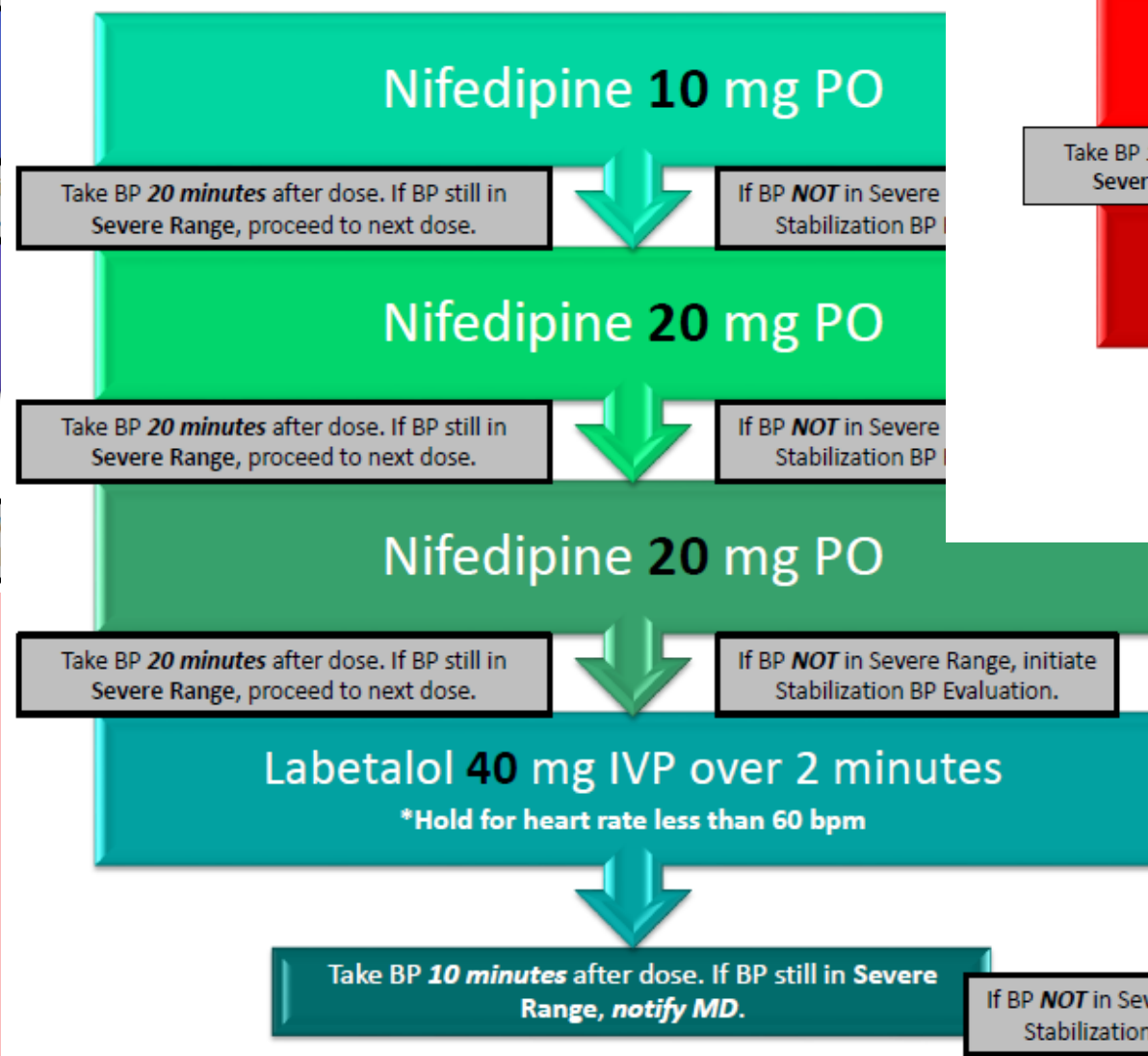
- **As workflows continue to evolve, the team identified opportunities to default the PO Nifedipine regimen for the Postpartum patient population, in case IV access was not currently available**
- **Hydralazine remains the defaulted regimen for the Antepartum and Intrapartum patient population**
- **Providers do have the option to select an alternative regimen or can defer regimen selection at their discretion**

Hypertension Protocols

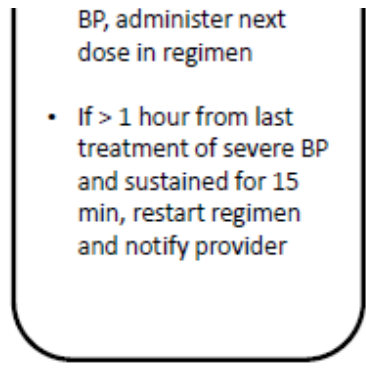
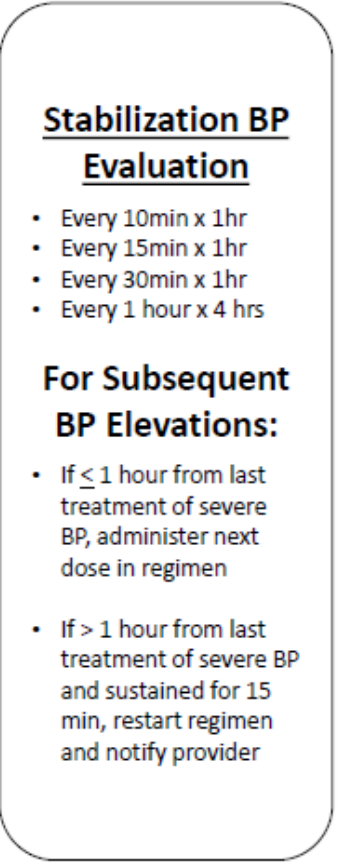
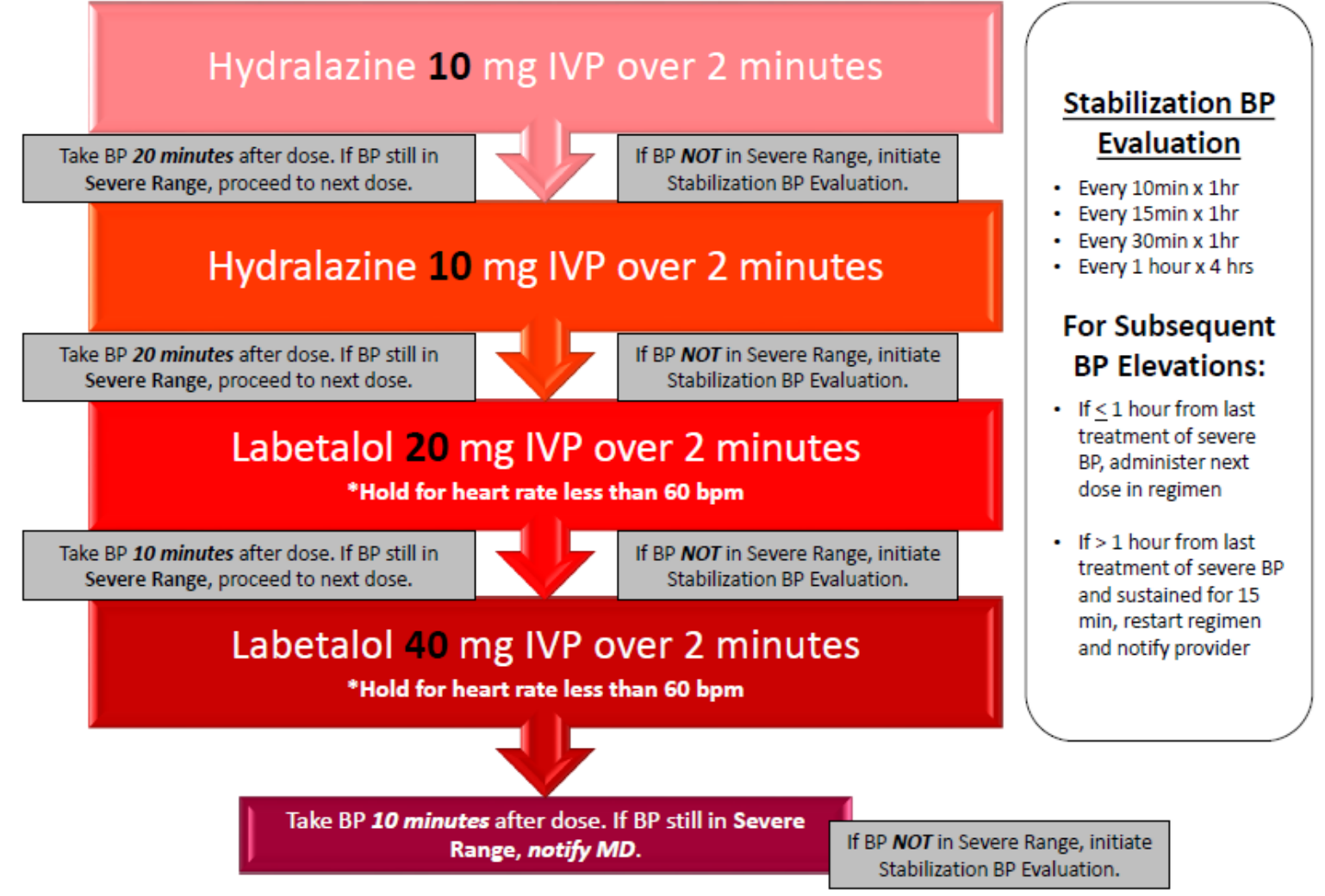
Initiate **Labetalol** Regimen for Severe Range BP - Systolic BP \geq 160 OR Diastolic BP \geq 110

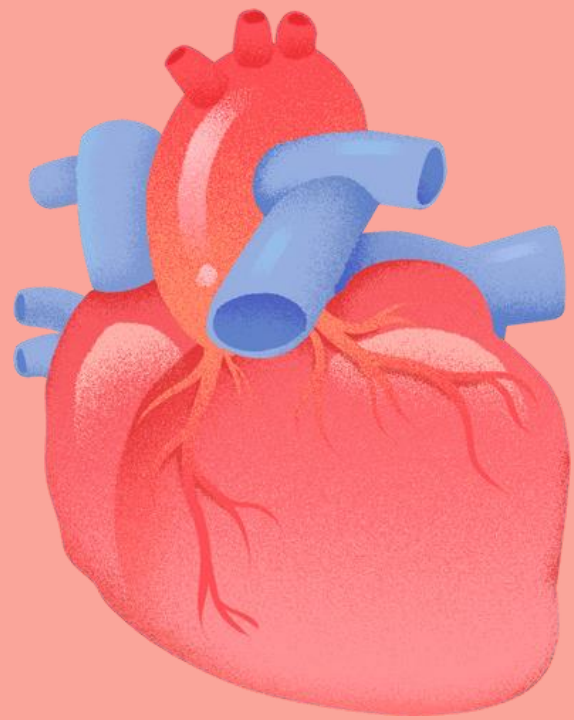


Initiate **Nifedipine** Regimen for Severe Range BP - Systolic BP \geq 160 OR Diastolic BP \geq 110



Initiate **Hydralazine** Regimen for Severe Range BP - Systolic BP \geq 160 OR Diastolic BP \geq 110





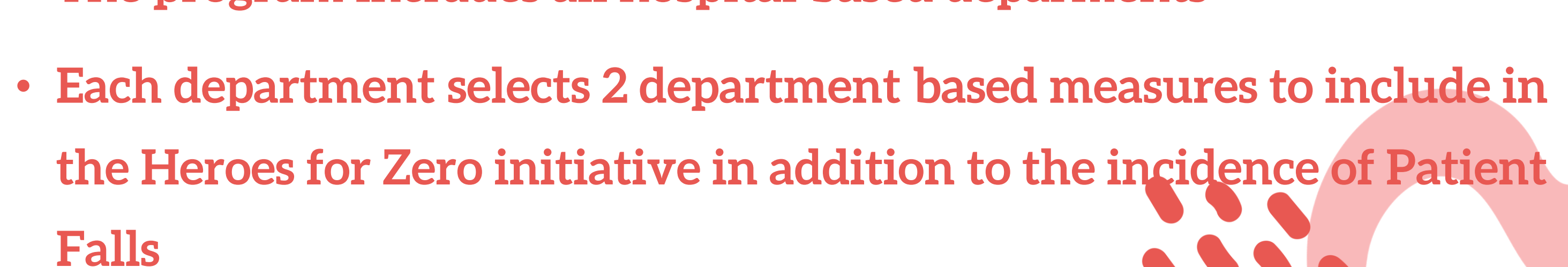
Staff Recognition

At Northside Cherokee, our goal has always been to recognize nurses who recognize severe blood pressure and treat within 1 hour, if sustained

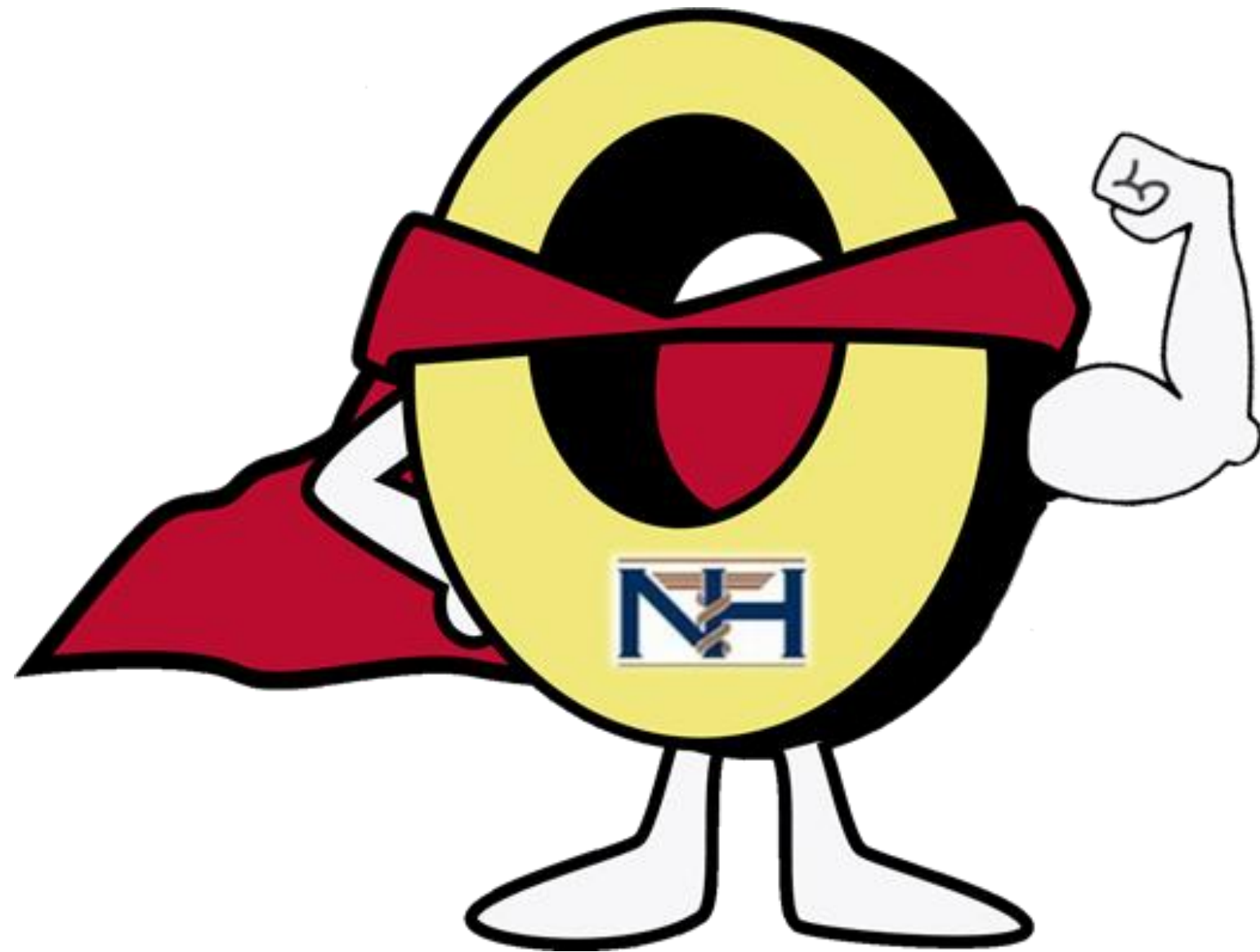
- **Heroes for Zero Campaign at Northside Cherokee**
- **Slam Dunk Certificates and Prize**
- **Certificates of Recognition and Incentives**



Heroes for Zero

- **Heroes for Zero is a Project Improvement program to help front line staff deliver high quality patient care**
 - **A program specifically initiated at Northside Cherokee in 2019**
 - **To improve the provision of high-quality patient care through an increased awareness and understanding of how performance improvement activities impact patient outcomes**
 - **The program includes all hospital based departments**
 - **Each department selects 2 department based measures to include in the Heroes for Zero initiative in addition to the incidence of Patient Falls**
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Heroes for Zero



- Early recognition and treatment of severe hypertension quickly became a staple measure for the OB patient population
- These measures are reported as part of our department performance improvement data
- Quarterly data is shared on department PI boards
- Recognition and treatment of severe hypertension has been Womens' biggest 'H4Z' accomplishment to date!
 - *L&D received MOST IMPROVED AWARD in 1st quarter 2020!*
 - *FCC received MOST IMPROVED AWARD in 2nd quarter 2020!*

Smart Goals

- In addition to the Heroes for Zero campaign, at Northside Cherokee each department develops very specific Smart Goals based on department and staff member role related to Performance Improvement opportunities
- Severe HTN is a smart goal for the nurse role in both L&D and FCC, so we are constantly striving for excellence with this measure
- Severe hypertension data collected for GaPQC is then evaluated at the department level
 - Fall Outs include:
 - Treatment takes greater than 1 hour
 - Failure to recognize and treat when hypertension remains in severe range

Smart Goals

There are scenario specific considerations that may count as a throw out, meaning the data does not count against the department based on certain factors

Exclusions:

- RN was able to document why BP not repeated within expected time frame (ie. patient up to bathroom)
- MD chose not to treat when clinically indicated upon nurse to provider communication, as evidenced in documentation
- Erroneous BPs requiring repositioning of BP cuff or patient actively getting epidural, as evidenced in documentation

SLAM DUNK!

You contributed to a success for our Hero for Zero initiative by accurately recognizing and treating severe hypertension last month.

Great job!

Thanks for your dedication to our patients!

SLAM DUNK

Each month as hypertension data is analyzed, we recognized all nurses (L&D and PCC) who appropriately treated severe hypertension in 1 hour or less with a SLAM DUNK AWARD, which included a Dunkaroo snack!



Current

Recognition

CERTIFICATES

Individualized certificates highlighting the date of proper treatment

ATTENTION IN LEADERSHIP MEETINGS

Keeping leadership in the loop on the status of all Smart Goal measures month to month

STAFF RECOGNITION

AMONGST PEERS

Staff meeting slides specifically recognizing each individual staff member who appropriately treated severe hypertension each month

BASED ON A POLL DISTRIBUTED TO STAFF A FEW YEARS AGO, NURSES LIKE TO BE RECOGNIZED IN FRONT OF THEIR PEERS

Each month as hypertension data is analyzed, we currently recognize all nurses who appropriately treated severe hypertension in ONE hour or less with certificate.

Certificate of Recognition great job!

thanks for your dedication to our patients



you contributed to the
success of our
Hero for Zero
initiative by accurately
recognizing and treating
severe hypertension

NH
NORTHSIDE HOSPITAL

GaPQC Newsletter!

*Northside Cherokee nursing staff
featured in the GaPQC Quarterly
Newsletter*



GaPQC
GEORGIA PERINATAL QUALITY COLLABORATIVE

Quarterly Newsletter

July 2023 | Georgia Perinatal Quality Collaborative | Edition #1

Celebrating the Bright Spots

Northside Cherokee Hospital GaPQC Severe Hypertension Initiative

The L&D nursing staff have been very successful lately in their recognition and treatment of severe hypertension. We present the data in every staff and leadership meeting every month and post the results on our PI bulletin board as well. We also present a Dunkaroo cookie treat called a "slam dunk" to any nurse that successfully recognize and treat severe HTN. For any nursing misses an improvement form is shared with that nurse as a learning opportunity.

SUBMIT YOUR "BRIGHT SPOT" [HERE!](#)


Education Opportunities

Staff re-education focused on the following steps for treatment

- **Identify severe hypertension**
 - **Systolic BP greater than or equal to 160 mmHg**
 - **Diastolic BP greater than or equal to 110 mmHg**
- **Repeat BP in 15 minutes and proceed to treatment if still in severe range**
- **Enter specific hypertension protocol order set**
 - **IV Labetalol**
 - **IV Hydralazine**
 - **PO Nifedipine**
- **Treat patient with selected regimen within ONE HOUR of initial blood pressure**
- **Notify the provider**

OFI Form for Staff

- Opportunity for Improvement Forms
 - Reviews scenario at hand
 - Provides direction on element of failure
 - Repeating BP
 - Using orders already available
 - Treating severe BP
 - Treating in less than 1 hour
- Provides staff with the tools to better understand the minimum expectations, as outlined in both

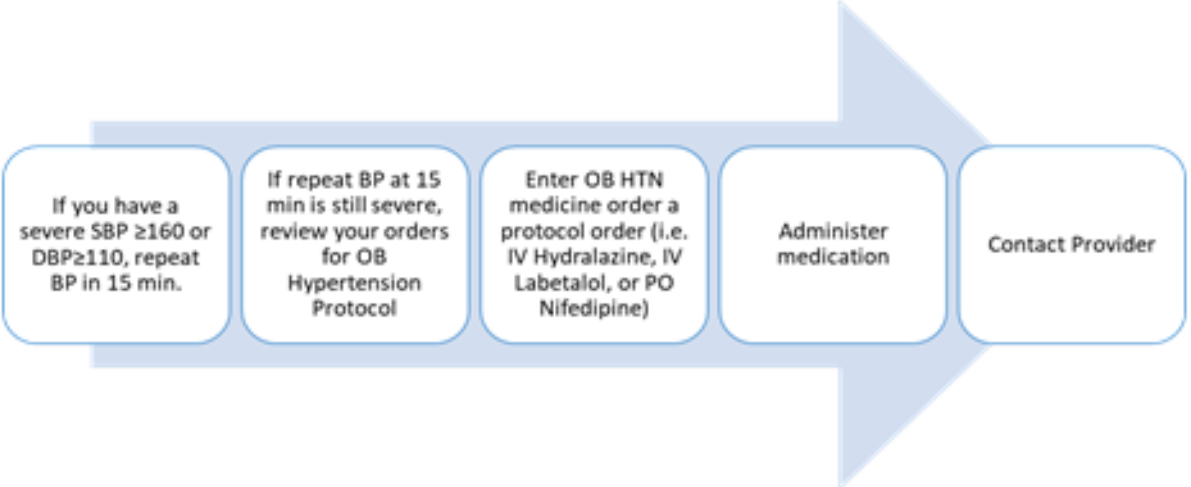


Hero for Zero
Severe Hypertension Improvement

Employee: _____
Incident Date/Time: _____
Patient FIN: _____

The goal for our **Hero for Zero** initiative is to have zero failures in the following:

- Repeat any severe range blood pressure (SBP \geq 160 and/or DBP \geq 110) in 15 minutes



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graph LR; A["If you have a severe SBP ≥160 or DBP ≥110, repeat BP in 15 min."] --> B["If repeat BP at 15 min is still severe, review your orders for OB Hypertension Protocol"]; B --> C["Enter OB HTN medicine order a protocol order (i.e. IV Hydralazine, IV Labetalol, or PO Nifedipine)"]; C --> D["Administer medication"]; D --> E["Contact Provider"];
```

- The objective is to treat all sustained severe range blood pressures within 1 hour with IV Labetalol, IV Hydralazine, or PO Nifedipine (immediate release).
- This includes any time the BP is the severe range, no matter the reason!

Refer to policy: Clinical Guidelines for the Management of Hypertension in the Obstetric Patient

Documentation Issue:

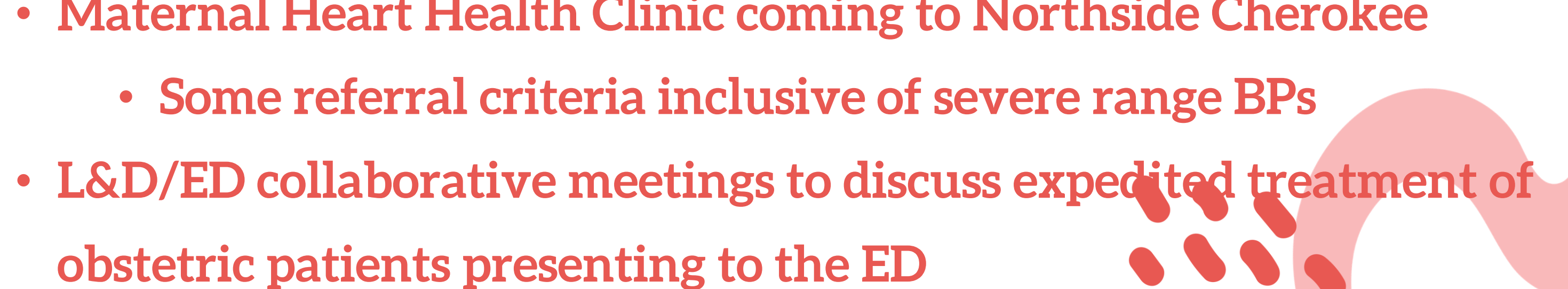
Severe Range BP was not repeated in 15 minutes

No treatment of sustained severe range hypertension OR documentation that OB provider was notified of sustained severe range BPs

Comments: _____



Next Steps

- **The Northside system is always working on ways to improve patient safety and provide an excellent patient care experience**
 - **Working towards updating the IV Hydralazine protocol to update first dose to 5 mg IV per ACOG recommendations**
 - **Coming this Spring with comprehensive staff education**
 - **Continue to meet with our OB groups monthly to review the data and discuss opportunities for improvement**
 - **Maternal Heart Health Clinic coming to Northside Cherokee**
 - **Some referral criteria inclusive of severe range BPs**
 - **L&D/ED collaborative meetings to discuss expedited treatment of obstetric patients presenting to the ED**
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Questions?