

PROMPT Data Tools and Processes Data Webinar #1 11/7/2024



PREGNANCY-RELATED
PROMPT
OPTIMAL MANAGEMENT OF
HYPERTENSION

WELCOME!



Please mute yourself



If you have a question, please enter it in the chat or raise your hand (Reactions)



This webinar is being recorded

PREGNANCY-RELATED

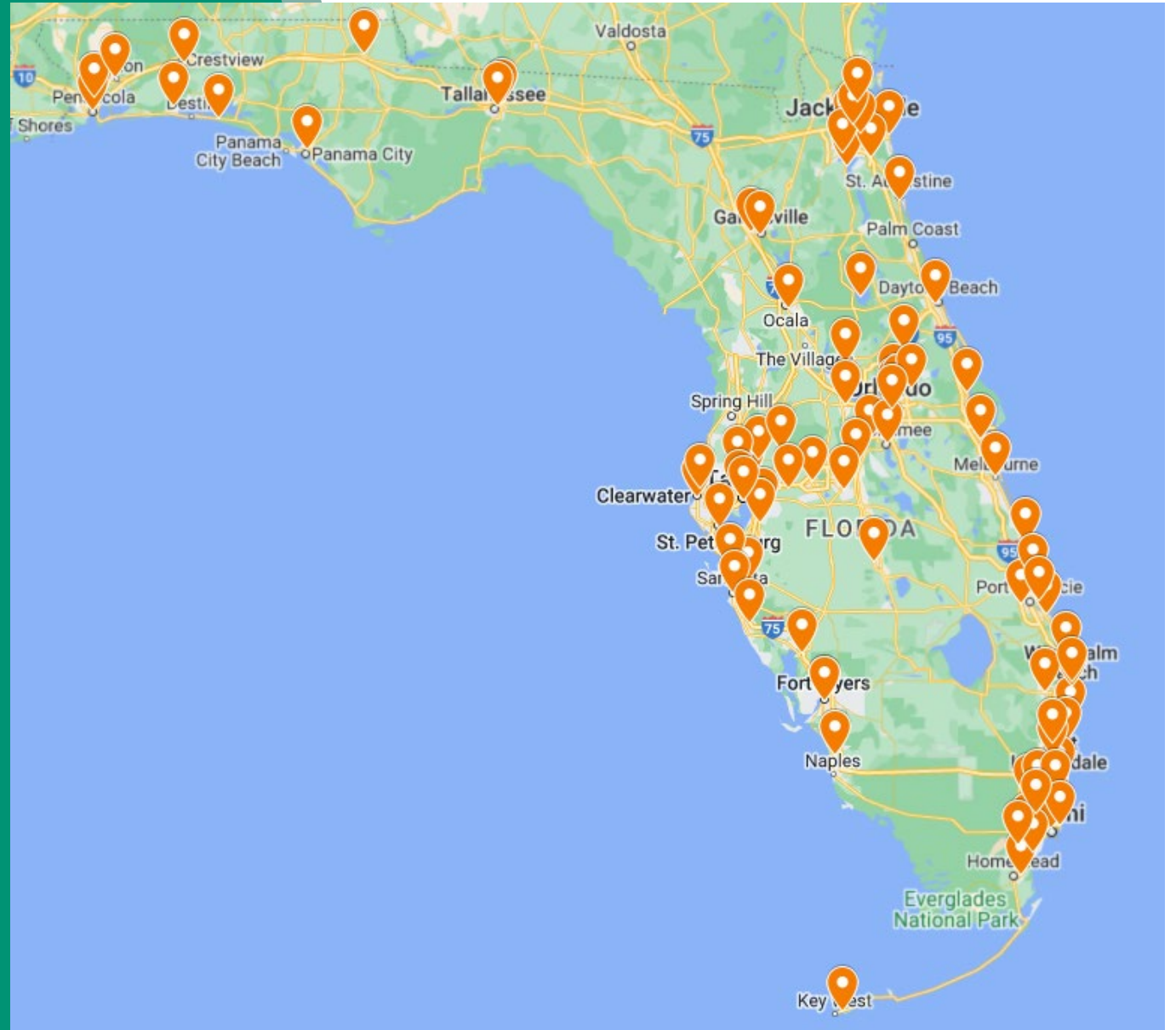
PROMPT

OPTIMAL MANAGEMENT OF
HYPERTENSION

92 PROMPT Hospitals:

89% of FL maternity hospitals

91% of births in FL, 2023





Why PROMPT?

- Hypertension is Common, but Often Poorly Controlled and Underreported.
- Hypertension Disproportionately Affects non-Hispanic Black patients.
- Hypertension Causes Serious Harm.
- Hypertension is Expensive.
- We know what works – its time to ACT!

Timely Treatment of Persistent Acute-Onset SHTN

Well-understood best practice, endorsed by ACOG. Consistent implementation of treatment protocols remains challenging:

- **Less than half** of persistent acute-onset severe hypertension (SHTN) cases receive treatment within the recommended **60 minutes**¹
- 61% of preeclampsia-related deaths in California were due to stroke, and 96% of these stroke cases were **preceded by a systolic blood pressure over 160 mmHg**²
 - Good-to-strong chance to alter the outcome in 66% of stroke cases.
 - The main issues were slow response to warning signs in 91% and ineffective treatment in 76% of cases.

Aim

By 6/2026, PROMPT hospitals will increase by 20% the percentage of patients receiving:

Timely treatment for persistent acute-onset severe hypertension **within 1 hour** from the first severe range BP reading

Appropriate **discharge education** and scheduled **follow-up** encounters within **3-7 days** post-discharge.

* Baseline will be established with the first quarter of hospital data

Timely treatment for persistent severe hypertension



ELSEVIER



American Journal of Obstetrics and Gynecology

Volume 226, Issue 2, February 2022, Pages B2-B9



SMFM Special Statement

Society for Maternal-Fetal Medicine Special Statement: A quality metric for evaluating timely treatment of severe hypertension

Society for Maternal-Fetal Medicine (SMFM), C. Andrew Combs MD, PhD, John R. Allbert MD, Afshan B. Hameed MD, Elliott K. Main MD, Isabel Taylor MS, Christie Allen MSN, RN, SMFM Patient Safety and Quality Committee  

LET'S FIRST DEFINE PERSISTENT SEVERE HYPERTENSION

Persistent Severe Hypertension Definition

Severe HTN: Systolic BP \geq 160 mm Hg or diastolic BP \geq 110 mm Hg, or both.

Persistent Severe HTN:

- One or more repeat severe HTN observations documented 15-60 minutes after episode onset – Severe BP values **do not need to be consecutive!**

OR

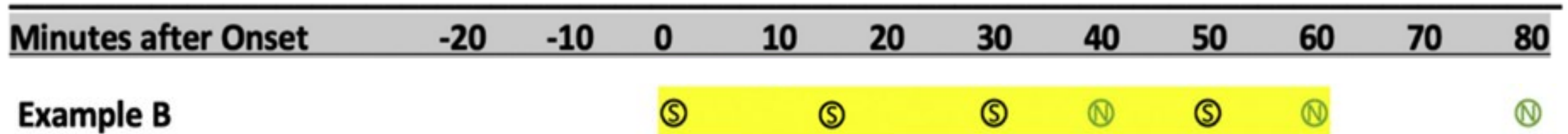
- BP is not documented to have decreased to nonsevere HTN within 15 minutes.

Persistent Severe Hypertension: one or more repeat severe HTN observations documented 15-60 minutes after episode onset

Severe BP values do not need to be consecutive!

Case Scenario

Pregnant patient (GA: 32 weeks) is admitted to OBED;
BP is 170/105 at admission; 15 minutes later BP is 165/105



Persistent Severe Hypertension

Case Scenario

Pregnant patient (GA: 32 weeks) is admitted to OBED;
BP is 170/105 at admission; 10 minutes later BP is 145/105;
20 minutes later BP is 175/105;

Minutes after Onset	-20	-10	0	10	20	30	40	50	60	70	80
Example B			Ⓢ	Ⓝ		Ⓢ	Ⓝ	Ⓢ	Ⓝ		Ⓝ

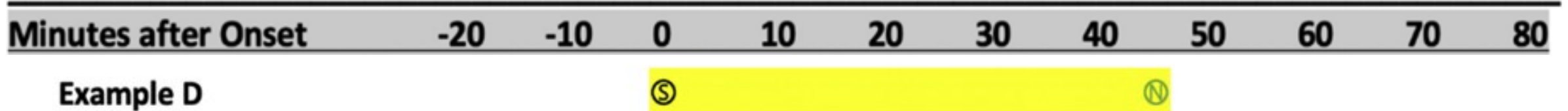
Persistent Severe Hypertension

Also Persistent Severe Hypertension: BP is not documented to have decreased to nonsevere HTN within 15 minutes

- SHTN may have persisted for the entire time because there is no evidence to the contrary
- “Burden of proof” is on providers to document that the BP has decreased to nonsevere HTN levels by 15 minutes
- Delay in obtaining the follow-up BP is a “gap” in patient safety

Case Scenario

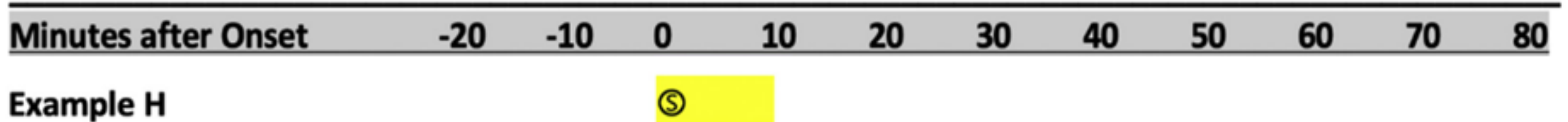
Postpartum patient (5 weeks PP) is admitted to OBED;
BP is 165/110 at admission; BP 45 minutes later is 150/100



Persistent Severe Hypertension

Case Scenario

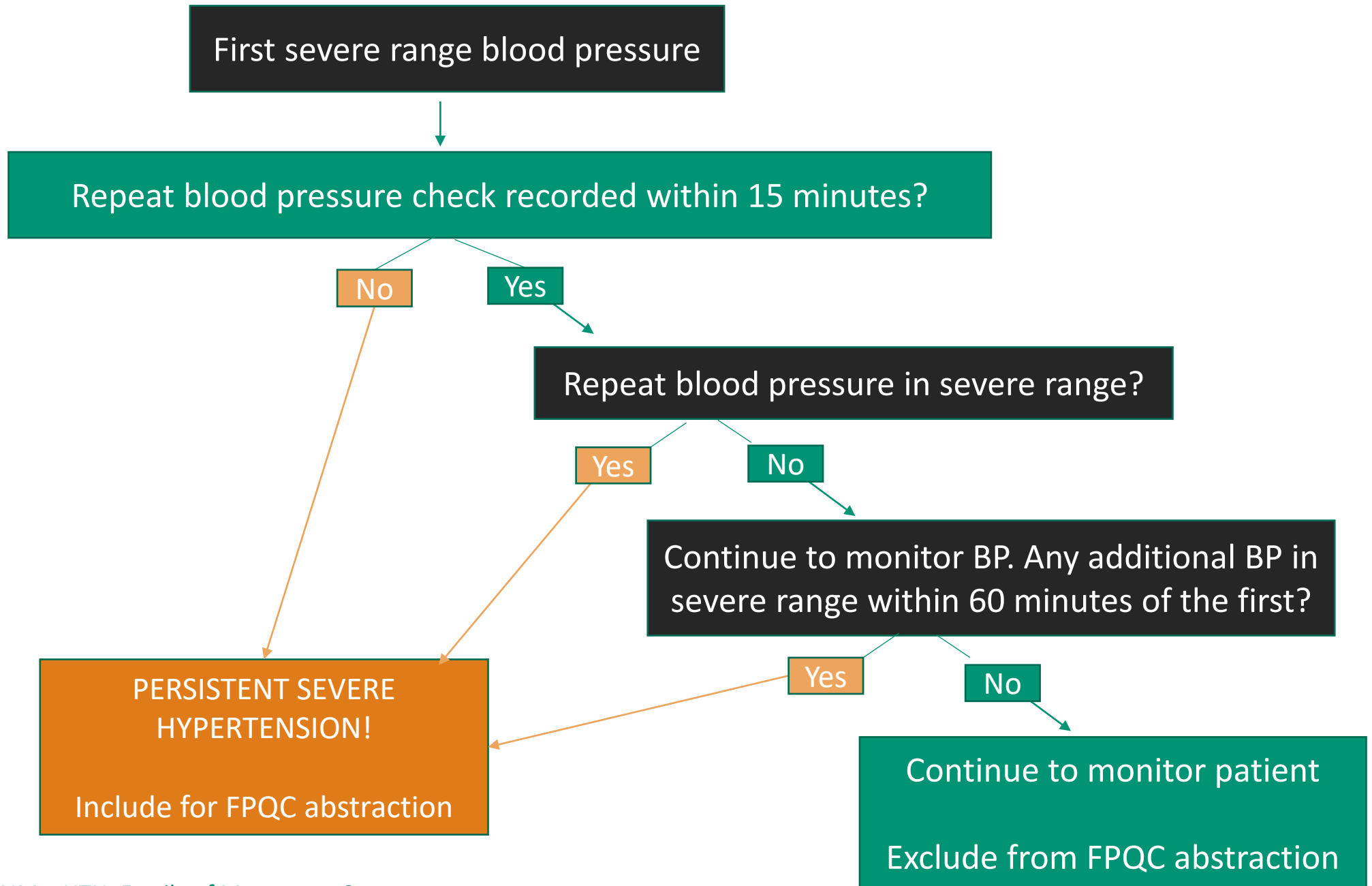
Pregnant patient (GA: 32 weeks) is admitted to OBED;
BP is 170/105 at admission; 10 minutes later patient leaves
AMA



Persistent Severe Hypertension

Explain Why Treatment Was Not Initiated

Reason antihypertensive and/or Magnesium were not given	
<input type="checkbox"/> Clinical Judgement	<input type="checkbox"/> Patient declined
<input type="checkbox"/> BP not confirmed	<input type="checkbox"/> Patient left AMA
<input type="checkbox"/> BP improved to nonsevere – all subsequent BPs were nonsevere	<input type="checkbox"/> Other _____
<input type="checkbox"/> Immediate delivery planned	<input type="checkbox"/> Not documented/unknown



Who are we including?

Severe HTN Measurement Considerations

- **Population:** Include patients who are pregnant at any gestational age or up to 42 days (6 weeks) postpartum with persistent severe hypertension
- **Event:** Include only the first severe episode per admission
 - Reduces chart review workload and prevents outliers from skewing results

Severe HTN Measurement Considerations

Episode onset is defined as the time of **first SHTN on an obstetrical unit!**

- We will track the first documented event at non-obstetric units
- For state-wide comparison, we will use first SHTN on an obstetrical unit

Measure	Time Hh:mm 24h	Pt. location (mark one) T=Triage AP=antepartum PP=postpartum
BP first reached ≥ 160 or diastolic ≥ 110		EMS ED OBED T AP L&D PP
Confirmatory BP ≥ 160 or diastolic ≥ 110		EMS ED OBED T AP L&D PP
First BP ≥ 160 or diastolic ≥ 110 in <u>OB-unit</u>		OBED T AP L&D PP
First BP med given		EMS ED OBED T AP L&D PP
BP reached < 160 and diastolic BP < 110		EMS ED OBED T AP L&D PP

Comments?
Questions?



POLL TIME



Scenario 1

A pregnant patient in the ED has a BP of 150/100 mm Hg. After admission to the L&D unit, her BP reading is 164/118 mm Hg. No additional BP measurements are taken for 25 minutes when her BP reads 158/102 mm Hg.

Is this a persistent severe HTN episode?

A) Yes

B) No

Scenario 1

A pregnant patient in the ED has a BP of 150/100 mm Hg. After admission to the L&D unit, her first BP reading is 164/118 mm Hg. No additional BP measurements are taken for 35 minutes when her BP reads 153/102 mm Hg.

Is this a persistent severe HTN case?

- Yes**
- B) No**

Scenario 2



Select all cases with Persistent Severe Hypertension:

min	0	5	10	15	20	25	30	35	40	45	50	55	60
A	Ⓢ			Ⓝ			Ⓢ			Ⓝ		Ⓢ	
B	Ⓢ			Ⓝ			Ⓝ		Ⓝ		Ⓝ		Ⓝ
C	Ⓢ			Ⓢ			Ⓝ		Ⓢ			Ⓝ	

Ⓢ Severe BP range Ⓝ Non-severe BP range

Scenario 2

Select all persistent severe hypertensive episodes:

min	0	5	10	15	20	25	30	35	40	45	50	55	60
 A	Ⓢ			Ⓝ			Ⓢ			Ⓝ		Ⓢ	
B	Ⓢ			Ⓝ			Ⓝ		Ⓝ		Ⓝ		Ⓝ
 C	Ⓢ			Ⓢ			Ⓝ		Ⓢ			Ⓝ	

Ⓢ Severe BP range Ⓝ Non-severe BP range

Scenario 3

Select all cases with Persistent Severe Hypertension:

min	0	5	10	15	20	25	30	35	40	45	50	55	60
A	Ⓢ												
B	Ⓢ				Ⓝ				Ⓝ			Ⓝ	
C	Ⓢ		Ⓝ			Ⓝ			Ⓝ				

Ⓢ Severe BP range Ⓝ Non-severe BP range

Scenario 3

Select all persistent severe hypertensive episodes:

min	0	5	10	15	20	25	30	35	40	45	50	55	60
✓ A	Ⓢ												
✓ B	Ⓢ				Ⓝ				Ⓝ			Ⓝ	
C	Ⓢ		Ⓝ			Ⓝ			Ⓝ				

Ⓢ Severe BP range Ⓝ Non-severe BP range

TREATMENT CONSIDERATIONS

Persistent Severe HTN - treatment

Appropriate antihypertensive treatment includes:

- Medications listed by ACOG for prompt treatment of hypertensive emergencies or agents approved in your unit protocol

Data Source: Pharmacy Records

Antihypertensive Treatment Considerations

- **ACOG-Recommended:** Labetalol, Hydralazine, and Nifedipine
- **Facility Flexibility & Standardization:** Additional agents may be added per institutional protocol - maintain a limited list of agents – **Check you unit protocol for agents, dosage and timing!**
- **Discourage Individual Preferences:** Prevents miscommunication and reduces risk of medical errors



Medications (check all given)	Followed protocol (dosage and timing)	Check First Medication Given
<input type="checkbox"/> Labetalol	Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Hydralazine	Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Nifedipine	Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other antihypertensive _____	Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Magnesium Sulfate Bolus	Yes <input type="checkbox"/> No <input type="checkbox"/>	
<input type="checkbox"/> Magnesium Sulfate Maintenance	Yes <input type="checkbox"/> No <input type="checkbox"/>	

Persistent Severe HTN - treatment

Appropriate antihypertensive treatment includes:

- Medications listed by ACOG for prompt treatment of hypertensive emergencies or agents approved in your unit protocol

OR

- BP spontaneously improves to normal or nonsevere HTN without antihypertensive medications. All subsequent BPs must remain nonsevere within 60 minutes of episode onset.

Minutes after Onset	-20	-10	0	10	20	30	40	50	60
Example A			Ⓢ	Ⓢ	Ⓝ	Ⓝ	Ⓝ	Ⓝ	Ⓝ

Data Source: Pharmacy Records

Explain Why Treatment Was Not Initiated

Reason antihypertensive and/or Magnesium were not given	
<input type="checkbox"/> Clinical Judgement	<input type="checkbox"/> Patient declined
<input type="checkbox"/> BP not confirmed	<input type="checkbox"/> Patient left AMA
<input type="checkbox"/> BP improved to nonsevere – all subsequent BPs were nonsevere	<input type="checkbox"/> Other _____
<input type="checkbox"/> Immediate delivery planned	<input type="checkbox"/> Not documented/unknown

Important: Do not mark this box if subsequent BPs were not documented!

Timing

- ACOG recommends antihypertensive treatment “as soon as reasonably possible” and cites literature suggesting “within 30-60 minutes”
- **For statewide comparison:** Treatment should occur 60 minutes from the onset of the first episode recorded at obstetric unit.

NEXT STEPS

Data Sources – Case Identification

1. Electronic records of BP measurements – **Vital Stat records**
 - Strategy to account for BPs that were witnessed/confirmed
2. ICD-10 discharge diagnosis codes:
 - *Severe preeclampsia* - O14.10, O14.12, O14.13, O14.14, O14.15
 - *Severe hypertension* - I16.0, I16.1, I16.9
 - *HELLP syndrome* - O14.20, O14.22, O14.23, O14.24, O14.25
 - *Eclampsia* - O15.00, O15.02, O15.03, O15.1, O15.2, O15.9
 - *Preexisting hypertension* - O11.1, O11.2, O11.3, O11.4, O11.5, O11.9
3. Pharmacy reports: pregnant/postpartum patients who received hydralazine, labetalol and/or nifedipine
4. Debrief & Data forms

Create a data collection plan

- Can you access ED data?
- Does your facility have an updated protocol for Severe Hypertension? – antihypertensive agents, dosages, timing
- Can you partner with your health information and coders and start to build a report for case identification?

GET STARTED



Comments?
Questions?



PROMPT DATA WEBINAR

Part 2: Thursday, November 14 @ 12 pm

- Data tools - data collection sheets
- Processes to submit data
- Review of a sample report
- Using your report to guide improvement



Thank you for all that you do!

www.fpqc.org

fpqc@usf.edu



Florida Perinatal
Quality Collaborative