

# FTI: Maternal Warning Signs

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Workflow Resources

Standardized DC Summary

POSTBIRTH Resources

5.22



# The new PP Model: Recognition & Prevention

## Establish

- Establish system for scheduling postpartum care visits & needed immediate specialty care visits prior to discharge

## Screen

- Screen each patient for postpartum risk factors and provide linkage to community resources prior to discharge

## Assess and Document

- In all care environments assess and document if a patient is presenting pregnant or has been pregnant in the past year

## Offer

- Offer reproductive life planning discussions and resources, including contraceptive options

# Best Practice Model: Standardized Postpartum Care

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## **POSTPARTUM Screenings should include:**

- Medical conditions
  - Pre-PG and PG
- Mental health needs or conditions
- Substance use disorder needs
- Structural and social drivers of health
- Breastfeeding
- Family Planning

# Best Practice Model: Standardized Postpartum Care

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**All provided resources** should align with the postpartum patient's:

- Health literacy
- Cultural needs
- Language proficiency
- Geographic location and access

# AIM: Essential Elements of DC Education

## Should include:

- ✓ Who to contact with medical and mental health concerns
  - stratified by severity of condition or symptoms
- ✓ Physical and mental health needs
- ✓ Review of warning signs/symptoms including what conditions they might be related to
  - allowing for advocacy if an approached provider is not obstetrical or of another clinical specialty
- ✓ Reinforcement of the value of outpatient postpartum visits
- ✓ Summary of birth events
- ✓ Home monitoring process and parameters for blood pressure, blood glucose, and/or other monitoring metrics

# The NEW Postpartum Model

In every patient, in every birth setting, in every protocol:

- ❑ Maternal Warning Signs
  - ❑ POSTBIRTH Education & Recognition
  - ❑ Screen all
  - ❑ Identify Medical/Social Red Flags: refer prior to discharge
- ❑ Maternal Mental Health
  - ❑ Screen all
  - ❑ Refer + Screen
  - ❑ Educate All (POSTBIRTH)
- ❑ PP Appointment prior to discharge
- ❑ Breastfeeding
  - ❑ High 5 for Mom & Baby, Baby Friendly
- ❑ Family Planning
  - ❑ Offer prior to discharge, Refer for services
- ❑ SSDOH
  - ❑ Screen all
- ❑ PP Care Team: Pt included
  - ❑ Who? How? When?
- ❑ Pt debriefs
- ❑ ED/EMS Triage
- ❑ Link Up! (MCH, Outpatient clinics, etc)

# MWS, MMH, Breastfeeding

In every patient, in every birth setting, in every protocol:

- ❑ Screen
- ❑ Educate
- ❑ Identify
- ❑ Refer

In every patient, in every birth setting:

- PP Appt prior to DC
- SDOH assessment
- Standardized Discharge Summary

# ACOG: Standardized DC Summary

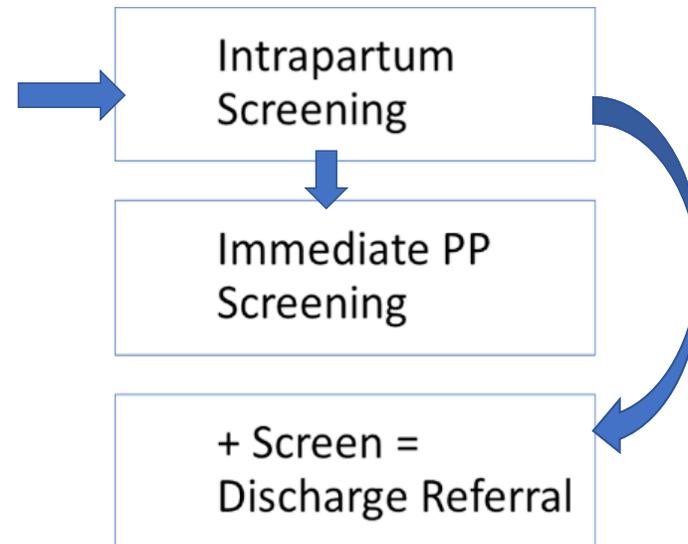
## Should include:

- ✓ Name and age
- ✓ Support person contact information
- ✓ Gravida/para status
- ✓ Date and type of birth, gestational age at birth, relevant conditions and complications
- ✓ Name, contact information and appointments for relevant providers, including OB/GYN specialists, mental health provider, etc.
- ✓ Positive screening for medical risk factors, mental health, and substance use
- ✓ Medications and supplements
- ✓ Unmet actual and potential social drivers of health needs
- ✓ Suggested community services and supports
- ✓ Need for specific postpartum testing such as glucose testing or CBC

# It starts at Admission in LABOR

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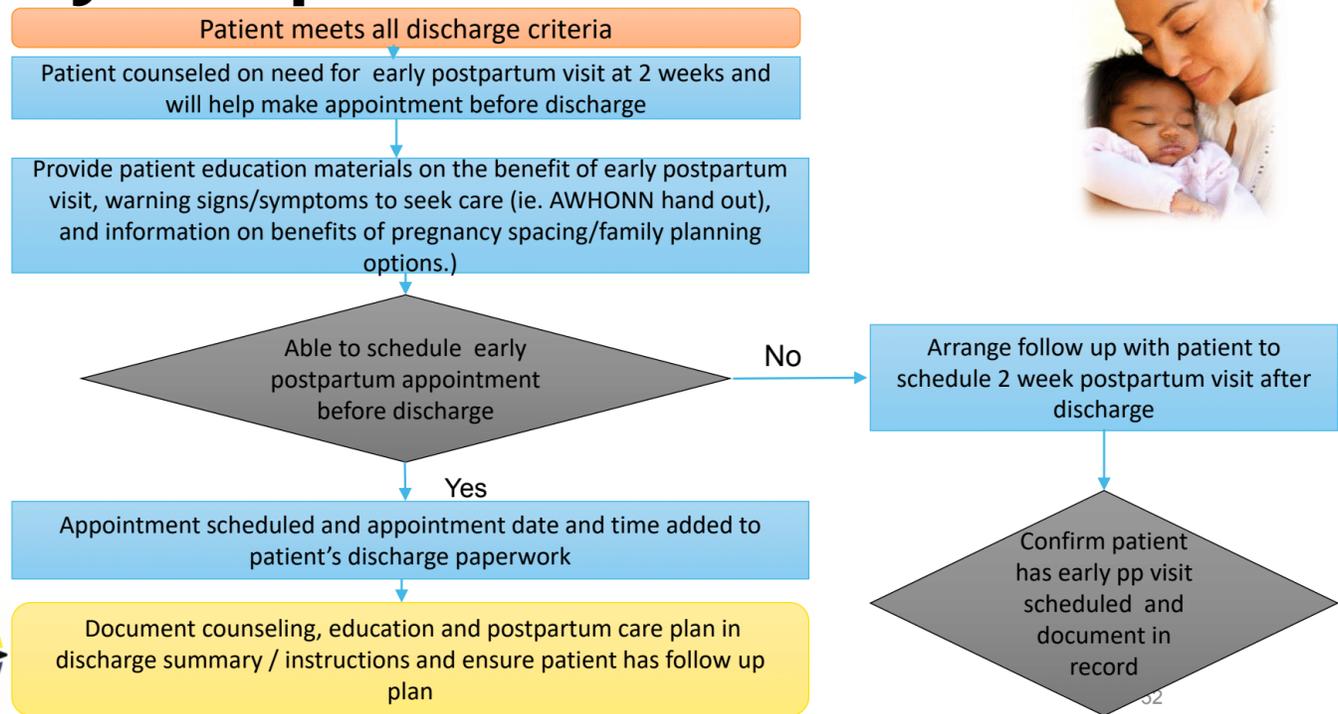
## Draft Your Process Flow: Maternal Warning Signs



# Draft your Process/Education Flow: PP

## Scheduling Early PP Visit

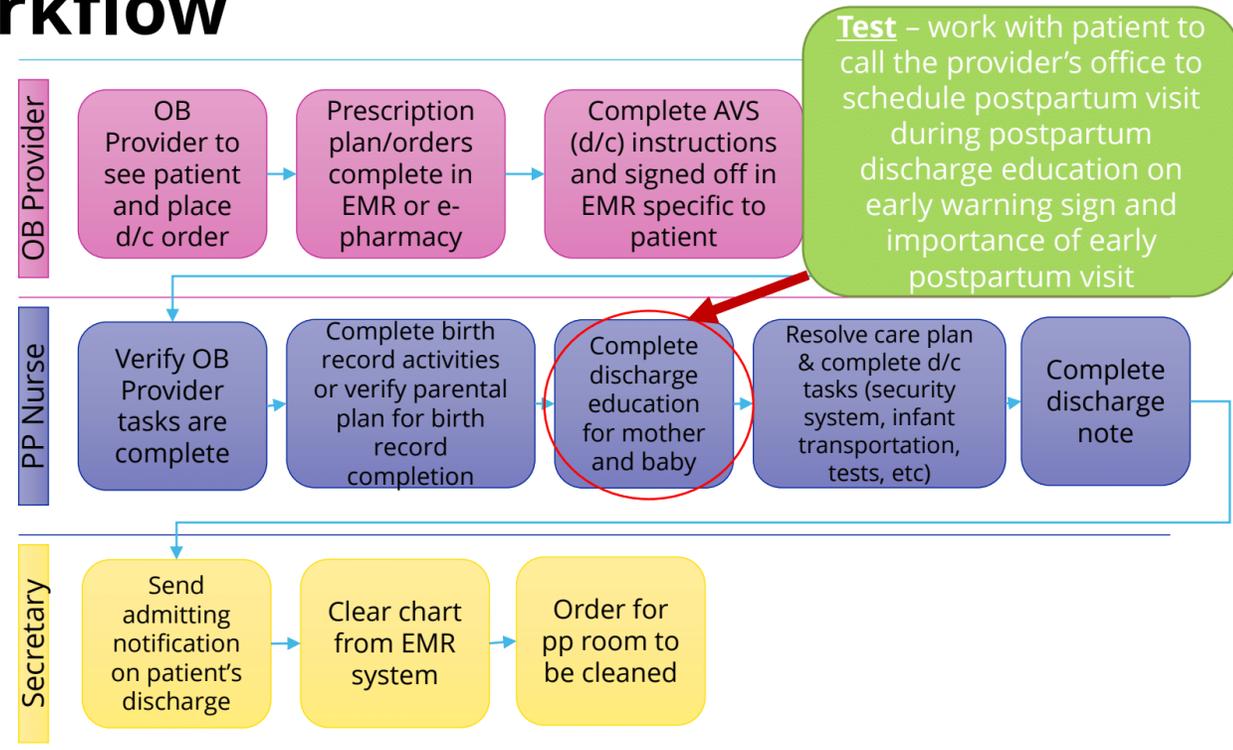
### Process Flow for Scheduling Early Postpartum Visit



# PP Discharge: Draft your Process/Education Flow

## Education & Discharge

### Process map current discharge workflow

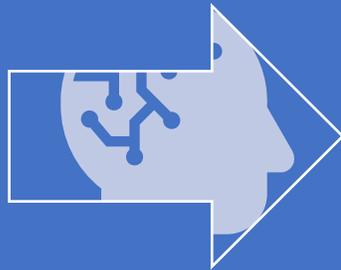


# Draft Your Process Flow: Medical Risk Factors



## Postpartum Care Team

- Inpatient Referral
- Outpatient Referral



## Inpatient Referral

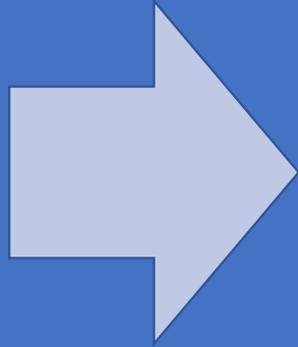
- Who
- Completion, further referrals?



## Outpatient Referral

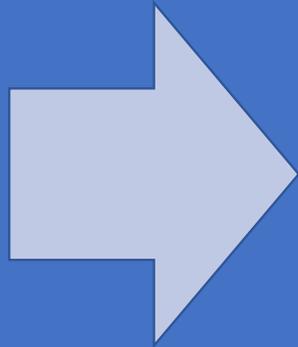
- Who
- Navigation needed? SDOH impact?
- Referral & Appt Made prior to discharge

# Connecting Dots



## Postpartum Visit

- Primary OB Provider, Home Visito~~r~~etc
- Breastfeeding, Family Planning
- High Risk Needs: Internal Med,etc
- MWS, MMH referral?



## Standardized PP Visit

- Visit Schedule
- Visit Template
- Navigation needed? SDOH impact?
- Referrals



# Draft your Process/Education Flow: PP

## Education

### SAVE YOUR LIFE:

### Get Care for These POST-BIRTH Warning Signs

Most women who give birth recover without problems. But any woman can have complications after the birth of a baby. Learning to recognize these POST-BIRTH warning signs and knowing what to do can save your life.

POST-BIRTH  
WARNING  
SIGNS

<b>Call 911</b> if you have:	<input type="checkbox"/> <b>Pain in chest</b> <input type="checkbox"/> <b>Obstructed breathing or shortness of breath</b> <input type="checkbox"/> <b>Seizures</b> <input type="checkbox"/> <b>Thoughts of hurting yourself or your baby</b>
<b>Call your healthcare provider</b> if you have: <small>(If you can't reach your healthcare provider, call 911 or go to an emergency room)</small>	<input type="checkbox"/> <b>Bleeding, soaking through one pad/hour, or blood clots, the size of an egg or bigger</b> <input type="checkbox"/> <b>Incision that is not healing</b> <input type="checkbox"/> <b>Red or swollen leg, that is painful or warm to touch</b> <input type="checkbox"/> <b>Temperature of 100.4°F or higher</b> <input type="checkbox"/> <b>Headache that does not get better, even after taking medicine, or bad headache with vision changes</b>

Trust your instincts.  
ALWAYS get medical care if you are not feeling well or have questions or concerns.

**Tell 911 or your healthcare provider:**

"I had a baby on \_\_\_\_\_ and \_\_\_\_\_"  
(Date)

I am having \_\_\_\_\_"  
(Specific warning signs)

# The “Mom Card”



Mom's Name: \_\_\_\_\_

Date of Delivery: \_\_\_\_\_ Vaginal Birth C-Section Birth

Complications in pregnancy: Asthma Diabetes  
Depression/Anxiety Hypertension Thyroid Disease

Other: \_\_\_\_\_

Medications at discharge: \_\_\_\_\_

**Upcoming Appointments:**

Date: \_\_\_\_\_ Time: \_\_\_\_\_ With: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ With: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ With: \_\_\_\_\_

**What happens at a Postpartum Check?**

<https://www.marchofdimes.org/pregnancy/your-postpartum-checkups>

Baby's Name: \_\_\_\_\_

Term Preterm \_\_\_\_\_ weeks

Birth Weight: \_\_\_\_\_ Birth Length: \_\_\_\_\_

Infant Feeding: Breast Milk Formula Both

**Upcoming Appointments:**

Date: \_\_\_\_\_ Time: \_\_\_\_\_ With: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ With: \_\_\_\_\_

Created by: Delivering Change, Inc.



**FOURTH TRIMESTER INITIATIVE**

## SAVE YOUR LIFE: Get Care for These POST-BIRTH Warning Signs

Most women who give birth recover without problems. But any woman can have complications after the birth of a baby. Learning to recognize these POST-BIRTH warning signs and knowing what to do can save your life.

**Call 911**  
if you have:

**Call your healthcare provider**  
if you have:

(If you can't reach your healthcare provider, call 911 or go to an emergency room)

POST-BIRTH WARNING SIGNS

- Pain in chest**
- Obstructed breathing or shortness of breath**
- Seizures**
- Thoughts of hurting yourself or your baby**
- Bleeding, soaking through one pad/hour, or blood clots, the size of an egg or bigger**
- Incision that is not healing**
- Red or swollen leg, that is painful or warm to touch**
- Temperature of 100.4°F or higher**
- Headache that does not get better, even after taking medicine, or bad headache with vision changes**

Trust your instincts.

ALWAYS get medical care if you are not feeling well or have questions or concerns.

**Tell 911 or your healthcare provider:**

"I had a baby on \_\_\_\_\_ and  
(Date)

I am having \_\_\_\_\_."  
(Specific warning signs)

# Draft your Process/Education Flow: PP

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## Referrals: Each FTI Site

### Steps for completing mapping tool

Identify local referral services/ resources using provided lists/ databases.

Begin preliminary list of potential resources for each referral need in your service area.

Contact resources to gather information and specifics about each resource.

Complete mapping tool and create process flow to show care team key linkage steps

Finalize mapping tool & process flow and distribute per hospital protocol (intranet, EMR, etc.)

Review and update mapping tool annually



# Maternal Warning Signs: Policy/Protocol

## POST-BIRTH WARNING SIGNS: TEACHING GUIDE



This guide is a teaching guide for nurses to use when educating all women about the essential warning signs that can result in maternal morbidity and/or mortality.

### Instructions:

- Instruct ALL women about all of the following potential complications. All teaching should be documented on this form or in your facility's electronic health record.
- Focus on risk factors for a specific complication first; then review all warning signs.
- Emphasize that women do not have to experience ALL of the signs in each category for them to seek care.
- Encourage the woman's significant other or designated family members to be included in education whenever possible.

The information included in this guide is organized according to complications that can result in severe maternal morbidity or maternal mortality. Essential teaching points should be included in all postpartum discharge teaching.

The parent handout, "Save Your Life", is designed to reinforce this teaching. This handout is organized according to AWHONN's acronym, POST-BIRTH, to help everyone remember the key warning signs and when to call 911 or a health provider. A portion of this handout is below for reference.

<b>Call 911</b> if you have:	<input type="checkbox"/> <b>Pain in chest</b> <input type="checkbox"/> <b>Obstructed breathing or shortness of breath</b> <input type="checkbox"/> <b>Seizures</b> <input type="checkbox"/> <b>Thoughts of hurting yourself or someone else</b>
<b>Call your healthcare provider</b> if you have: <small>(If you can't reach your healthcare provider, call 911 or go to an emergency room)</small>	<input type="checkbox"/> <b>Bleeding, soaking through one pad/hour, or blood clots, the size of an egg or bigger</b> <input type="checkbox"/> <b>Incision that is not healing</b> <input type="checkbox"/> <b>Red or swollen leg, that is painful or warm to touch</b> <input type="checkbox"/> <b>Temperature of 100.4°F or higher</b> <input type="checkbox"/> <b>Headache that does not get better, even after taking medicine, or bad headache with vision changes</b>

### Below is a suggested conversation-starter:

*"Although most women who give birth recover without problems, any woman can have complications after the birth of a baby. Learning to recognize these POST-BIRTH warning signs and knowing what to do can save your life. I would like to go over these POST-BIRTH warning signs with you now, so you will know what to look for and when to call 911 or when to call your healthcare provider."*

# Maternal Warning Signs: Policy/Protocol

Venous Thromboembolism	Essential Teaching Points
What is Venous Thromboembolism?	Venous thromboembolism is when you develop a blood clot usually in your leg (calf area).
Signs of Venous Thromboembolism	<ul style="list-style-type: none"> <li>• Leg pain, tender to touch, burning, or redness, particularly in the calf area</li> <li>• Swelling of one leg more than the other</li> </ul>
Obtaining Immediate Care	Call healthcare provider immediately for above signs of venous thromboembolism. If symptoms worsen or no response from provider/clinic, call 911 or go to nearest emergency room.

RN initials \_\_\_\_\_ Date \_\_\_\_\_ Family/support person present? YES / NO

Infection	Essential Teaching Points
What is Infection?	An infection is an invasion of bacteria or viruses that enter and spread through your body, making you ill.
Signs of Infection	<ul style="list-style-type: none"> <li>• Temp is <math>\geq 100.4^{\circ}\text{F}</math> (<math>\geq 38^{\circ}\text{C}</math>)</li> <li>• Bad smelling blood or discharge from the vagina</li> <li>• Increase in redness or discharge from episiotomy or C-Section site or open wound not healing</li> </ul>
Obtaining Immediate Care	Call healthcare provider immediately for above signs. If symptoms worsen or no response from provider/clinic, call 911 or go to nearest emergency room.

RN initials \_\_\_\_\_ Date \_\_\_\_\_ Family/support person present? YES / NO

Postpartum Depression	Essential Teaching Points
What is Postpartum Depression (PPD)?	Postpartum depression is a type of depression that occurs after childbirth. PPD can occur as early as one week up to one year after giving birth.
Signs of Postpartum Depression	<ul style="list-style-type: none"> <li>• Thinking of hurting yourself or your baby</li> <li>• Feeling out of control, unable to care for self or baby</li> <li>• Feeling depressed or sad most of the day every day</li> <li>• Having trouble sleeping or sleeping too much</li> <li>• Having trouble bonding with your baby</li> </ul>
Obtaining Immediate Care	Call 911 or go to nearest emergency room if you feel you might harm yourself or your baby. Call healthcare provider immediately for other signs of depression (sadness, withdrawn, difficulty coping with parenting).

RN initials \_\_\_\_\_ Date \_\_\_\_\_ Family/support person present? YES / NO

Follow-Up Appointment	Essential Teaching Points
	<ul style="list-style-type: none"> <li>• Discuss importance of follow-up visit with doctor, nurse practitioner or midwife in 4–6 weeks (or sooner if health status warrants it)</li> <li>• Provide correct phone number for appointment</li> <li>• Emphasize importance of notifying all healthcare providers of delivery date up to one year postpartum</li> <li>• Confirm date for postpartum appointment prior to discharge</li> </ul>

RN initials \_\_\_\_\_ Date \_\_\_\_\_ Family/support person present? YES / NO

I have received and understand the POST-BIRTH Warning Signs education and handout.

Patient Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_

The patient received the POST-BIRTH Warning Signs education and a copy of the "Save Your Life" handout.

Nurse Initials and Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_



# MWS Toolkit



## MATERNAL WARNING SIGNS Guidance on Use of Patient Education Resources

The intent and purpose of this Maternal Warning Signs (MWS) toolkit is to place a comprehensive selection of patient education materials, in the hands of all providers, across all sectors and settings, to ensure **consistent** and **repeat** messaging on this very important and **critical** health topic.

MWS resources should be implemented:

- by all provider types... inpatient and outpatient clinical providers, birthing facilities, home visitors, case managers, WIC dietitians, doulas, community health workers, etc.
- for different education and comprehension levels, learning styles, and opportunities for engagement
- in diverse settings, under particular time constraints, and with unique patient needs

The key to decreasing the burden of maternal mortality is for ALL provider types to:

- engage in this campaign
- do their part in educating patients and support persons
- provide **multiple doses** of this life saving information

At a Glance – Quick Guide to MWS Resources:

	Brief (touch point) i.e. routine clinical visit, WIC	Repeat messaging: in combination	Longer period of engagement (case management, prenatal education, inpatient)	Lower comprehension/ education level	Higher comprehension/ education level	Low literacy / language barrier
Prenatal - Client/Patient Focused <input type="checkbox"/>						
Perinatal – Client/Patient Focused <input type="checkbox"/>						
Postpartum – Client/Patient Focused <input type="checkbox"/>						
Support Person/Family Focused <input type="checkbox"/>						
Signs/Symptoms of Preterm Labor	✓	✓	✓	✓	✓	✓
Count the Kicks	✓	✓	✓	✓	✓	✓
Hear Her – You Know Your Body Best	✓	✓	✓	✓	✓	✓
Infographic – Urgent Warnings Signs	✓	✓	✓	✓	✓	✓
Action Plan for Depression	✓	✓	✓	✓	✓	✓
AWHONN – Save Your Life*	✓	✓	✓	✓	✓	✓
Hear Her – Listening and Acting	✓	✓	✓	✓	✓	✓
Talk About Depression	✓	✓	✓	✓	✓	✓

All handouts available in English and Spanish. \*Available in multiple other languages

These resources are funded and provided to you by Kansas Title V, as part of the Maternal Warning Signs Initiative, launched in partnership with the Kansas Perinatal Quality Collaborative's Fourth Trimester Initiative.



## Maternal Warning Signs Patient Education Resources – Description and Ideal Use

	Purpose:	Who should use this?	In what setting?	Ideal use:
Signs and Symptoms of Preterm Labor	Recognizing and acting quickly on the signs and symptoms of preterm labor	Anyone	Any setting	Early pregnancy Repeat in later pregnancy before 37 weeks gestation
Count the Kicks	Recognizing and acting quickly on changes in fetal movement	Anyone	Any setting	3 <sup>rd</sup> Trimester Encourage/assist to download app Follow-up during subsequent visit
Hear Her - You Know Your Body Best	Calls out the urgent warning signs Provides tips and prompts for more productive dialogue about one's concerns	Patient educator / Nurse Home visitor Case manager Doula	Initial OB visit Home visit Prenatal education class	Where/when there is opportunity for review and conversation about the resource
Infographic - Urgent Maternal Warning Signs	Uses easy to understand images to communicate urgent warning signs and what to do	Anyone	Any setting	Low literacy level Language barrier Brief encounter Repeat messaging
Action Plan for Depression and Anxiety Around Pregnancy	Focuses on the mental health warning signs Indicates level of severity or concern and need for action	Anyone	Any setting	Compare to a traffic light – red, yellow and green categories of symptoms – for easy digestion
AWHONN - Save Your Life	Calls quick attention to the urgent POST-BIRTH Warning Signs	Anyone	Any setting in postpartum period	Lower comprehension level Lower education level Brief encounter Repeat messaging
Hear Her - Listening and Acting Quickly	Provides messaging about the urgent warning signs to partners/family/support people in a pregnant person's life	Patient educator / Nurse Home visitor Case manager Doula	Any setting where the opportunity to engage partners/family/support persons presents itself	Where/when there is opportunity for review and conversation about the resource
Talk About Depression and Anxiety During Pregnancy and After Birth	Provides messaging about the mental health warning signs to partners/family/support people in a pregnant person's life	Patient educator / Nurse Home visitor Case manager Doula	Any setting where the opportunity to engage partners/family/support persons presents itself	Where/when there is opportunity for review and conversation about the resource

## URGENT MATERNAL WARNING SIGNS

**Call 911 if you have:**

- Trouble breathing
- Chest pain or fast beating heart
- Seizures
- Thoughts of hurting yourself or your baby

**Call your healthcare provider if you have:**  
(If you can't reach your healthcare provider, call 911 or go to an emergency room)

- Severe belly pain that doesn't go away
- Severe nausea and throwing up (not the morning sickness)
- Extreme swelling of your hands or face
- Changes in your vision
- Headache that won't go away, dizziness or lightheadedness
- Baby's movements stopping or slowing
- Vaginal bleeding or fluid leaking during pregnancy
- Fever
- Incision that is not healing
- Vaginal bleeding soaking through more than 1 pad/hour after pregnancy
- Swelling, redness, or pain of your leg
- Overwhelming tiredness
- Feeling intense anxiety
- Feelings of depression or having little interest in things
- Scary or upsetting thoughts that won't go away

## SEÑALES MATERNAS DE ADVERTENCIA URGENTES

**Llame al 911 si tiene:**

- Dificultad para respirar
- Dolor de pecho o latidos de corazón acelerados
- Convulsiones
- Pensamientos de hacerse daño a sí misma o a su bebé

**Llame a su proveedor de atención médica si tiene:**  
(Si no puede comunicarse con su proveedor de atención médica, llame al 911 o vaya a una sala de emergencias)

- Dolor de estómago intenso que no desaparece
- Náuseas intensas y vómito (no como las náuseas matutinas)
- Hinchazón extrema de las manos o la cara
- Cambios de la vista
- Dolor de cabeza que no desaparece, mareos o desmayos
- Los movimientos del bebé se detienen o disminuyen
- Sangrado vaginal o pérdida de fluido durante el embarazo
- Fiebre
- Incisión que no sana
- Sangrado vaginal que empapa más de 1 toalla sanitaria/hora después del embarazo
- Hinchazón, enrojecimiento o dolor en la pierna
- Cansancio agotante
- Sensación de ansiedad intensa
- Sentimientos de depresión o poco interés en las cosas
- Pensamientos aterradores o perturbadores que no desaparecen

**If you have any of these symptoms during or after pregnancy, contact your health care provider and get help right away.**

If you can't reach your provider, go to the emergency room. **Remember to say that you're pregnant or have been pregnant within the last year.** Learn more: [kshhs.kan.gov/healthcare/urgentmaternalwarning signs](http://kshhs.kan.gov/healthcare/urgentmaternalwarning signs)

**Si tiene alguno de estos síntomas durante o después del embarazo, comuníquese con su proveedor de atención médica y obtenga ayuda de inmediato.**

Si no puede comunicarse con su proveedor, vaya a la sala de emergencias. **Recuerde decir que está embarazada o ha estado embarazada durante el último año.** Más información: [kshhs.kan.gov/healthcare/urgentmaternalwarning signs](http://kshhs.kan.gov/healthcare/urgentmaternalwarning signs)

### Action Plan for Depression and Anxiety Around Pregnancy

Having a baby brings a mix of emotions, including feeling sad and overwhelmed. Depression and anxiety are some of the most common medical complications during pregnancy and the postpartum period.

**Be prepared. Watch for the signs. Ask for help.**

**If you...**

- Feel hopeless and total despair
- Feel out of touch with reality (you may see or hear things that other people don't)
- Feel that you may hurt yourself or your baby

**Get help now!**

These feelings will not go away on their own.

- Call 9-1-1 or go to your nearest emergency department for immediate help.

### Plan de acción para la depresión y la ansiedad en torno al embarazo

Tener un bebé trae una mezcla de emociones, que incluyen sentirse triste y abrumada. La depresión y la ansiedad son algunas de las complicaciones médicas más comunes durante el embarazo y el posparto.

**Esté preparada. Está atenta a las señales. Pida ayuda.**

**Si...**

- Se siente desesperanzada y totalmente desolada
- Se siente fuera de contacto con la realidad (lo posible que ve o escucha cosas que otras personas no ven)
- Siente que puede hacerse daño o hacerse daño a su bebé

**¡Busque ayuda ahora!**

Estos sentimientos no desaparecerán por sí solos.

- Llame al 9-1-1 o vaya al departamento de emergencias más cercano para obtener ayuda inmediata.

# POST-BIRTH Resources

# AWHONN POSTBIRTH Toolkit

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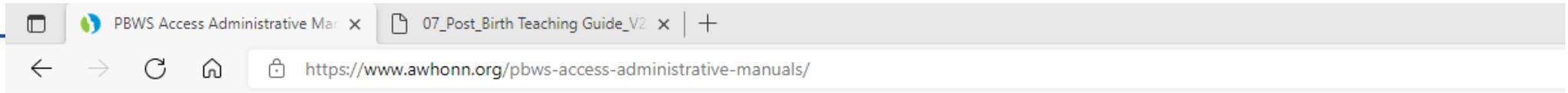
Accessing the PBWS Implementation Toolkit

<https://www.awhonn.org/page/PBWSDownloads>

Password: **#JR3EvT2018**

\*Once you have logged in, you will be able to access the items in the Implementation Toolkit.

# POSTBIRTH Resources: Multiple languages



About Us    Nurse Resources    Education    Professional Development

## Welcome to PBWS Resources

Introductory Items	Clinical Tools	Implementation Tools
	<ul style="list-style-type: none"><li><a href="#">06.1 PBWS Save Your Life Handout Arabic</a></li><li><a href="#">06.2 PBWS Save Your Life Handout Chinese Mandarin</a></li><li><a href="#">06.3 PBWS Save Your Life Handout English</a></li><li><a href="#">06.4 PBWS Save Your Life Handout Spanish</a></li><li><a href="#">06.5 PBWS Save Your Life Handout Haitian Creole</a></li><li><a href="#">06.6 PBWS Save Your Life English Poster Size</a></li><li><a href="#">07 PBWS Teaching Guide</a></li><li><a href="#">08 PBWS References for Online Course</a></li></ul>	<a href="#">Maternal Warning Signs: Policy...</a>



# POSTBIRTH Resources: Teaching Guide

07\_Post\_Birth Teaching Guide\_V2 x | +

https://www.awhonn.org/pbws-access-administrative-manuals/

AWHONN

About Us Nurse Resources Education Professional Development

### Welcome to PBWS Resources

Introductory Items Clinical Tools Implementation Tools

- [06.1 PBWS Save Your Life Handout Arabic](#)
- [06.2 PBWS Save Your Life Handout Chinese Mandarin](#)
- [06.3 PBWS Save Your Life Handout English](#)
- [06.4 PBWS Save Your Life Handout Spanish](#)
- [06.5 PBWS Save Your Life Handout Haitian Creole](#)
- [06.6 PBWS Save Your Life English Poster Size](#)
- [07 PBWS Teaching Guide](#)
- [08 PBWS References for Online Course](#)

Maternal Warning Signs: Policy...



# Magnet: Multiple Languages



About Us

Nurse  
Resources

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## Welcome to PBWS Resources

Introductory Items

Clinical Tools

Implementation Tools

- [09 PBWS Audit Final](#)
- [10.1 PBWS Magnet Arabic](#)
- [10.2 PBWS Magnet Chinese Mandarin](#)
- [10.3 PBWS Magnet English](#)
- [10.4 PBWS Magnet Spanish](#)
- [10.5 PBWS Save Your Life Magnet Haitian Creole](#)
- [11 PBWS Sample News Release](#)
- [12 PBWS Sample Timeline](#)
- [13 Bulletin Board Communication Materials](#)



# Maternal Hypertensive Disease POSTPARTUM

## Maternal Hypertensive Disease PP

POST-BIRTH trained/educated  
Identification/Diagnosis (aka Screen POSITIVE)  
Postpartum Care Team alerted  
Maternal Hypertensive Checklist= Protocol  
Preeclampsia Checklist = Protocol

PP Discharge Summary

- Mom Card completed

Referral from PP Discharge provider to Primary OB  
Provider

\*Internal Medicine, Cardiology may also be consulted

PP Appointment(s) Made:

3-5 days Post-Discharge

7-10 days by Primary OB Provider

Pt has had POST-BIRTH education for red flags

“Mom Card” utilized

# ACOG: HTN Bundles

[www.acog.org/community/districts-and-sections/district-ii/programs-and-resources/safe-motherhood-initiative/severe-hypertension](http://www.acog.org/community/districts-and-sections/district-ii/programs-and-resources/safe-motherhood-initiative/severe-hypertension)

The screenshot displays the ACOG website interface. At the top, there is a navigation bar with links for 'ACOG Clinical', 'Obstetrics & Gynecology', 'For Patients', 'Store', and 'ACOG Engage'. The main header includes the ACOG logo and a search bar. Below the header, a breadcrumb trail reads: 'Community > Districts and Sections > District II > Programs and Resources > Safe Motherhood Initiative > Severe Hypertension'. The main content area features a green banner with the text 'Safe Motherhood Initiative' and 'Severe Hypertension'. Below this, a section titled 'Severe Hypertension in Pregnancy Bundle' contains four resource cards: 'Slide Deck', 'Algorithm: Labetalol', 'Algorithm: Hydralazine', and 'Algorithm: Oral Nifedipine'. On the left side, there is a sidebar with the heading 'Programs and Resources' and a list of items: 'Let's Connect Podcast', 'Medical Education', and 'Safe Motherhood Initiative'. The bottom right corner of the page features the logo for the Kansas Perinatal Quality Collaborative (QPQC).

# Maternal Warning Signs: ACOG

Types of Hypertension	
Chronic Hypertension	<ul style="list-style-type: none"> <li>SBP <math>\geq</math> 140 or DBP <math>\geq</math> 90</li> <li>Pre-pregnancy or &lt;20 weeks</li> </ul>
Gestational Hypertension	<ul style="list-style-type: none"> <li>SBP <math>\geq</math> 140 or DBP <math>\geq</math> 90 on at least two occasions at least 4 hrs apart after 20 weeks gestation in women with previously normal BP</li> <li>Absence of proteinuria or systemic signs/symptoms</li> </ul>
Preeclampsia – Eclampsia	<ul style="list-style-type: none"> <li>SBP <math>\geq</math> 140 or DBP <math>\geq</math> 90</li> <li>Proteinuria with or without signs/symptoms</li> <li>Presentation of signs/symptoms/lab abnormalities but no proteinuria</li> </ul> <p><i>*Proteinuria not required for diagnosis eclampsia seizure in setting</i></p>
Chronic Hypertension with Superimposed Preeclampsia	<ul style="list-style-type: none"> <li>Preeclampsia in a woman with a history of hypertension before of gestation</li> </ul>
<p>Preeclampsia with severe features</p> <p><i>(ACOG Practice Bulletin #202, Gestational Hypertension and Preeclampsia, &amp; ACOG Practice Bulletin #203, Chronic Hypertension in Pregnancy)</i></p>	<ul style="list-style-type: none"> <li>SBP <math>\geq</math> 160 or DBP <math>\geq</math> 110 (can be confirmed within a short interval with antihypertensive therapy)</li> <li>Thrombocytopenia (platelet count less than 100,000/micro)</li> <li>Impaired liver function that is not accounted for by alternative causes (abnormally elevated blood concentrations of liver enzymes above normal concentrations), or by severe persistent right upper quadrant tenderness unresponsive to medications.</li> <li>Renal insufficiency (serum creatinine concentration more than 1.1 mg/dl or a doubling of serum creatinine concentration in the absence of other renal causes)</li> <li>Pulmonary edema</li> <li>New-onset headache unresponsive to medication and not attributed to other causes</li> <li>Visual disturbances</li> </ul>



## First Line Therapies



- Intravenous labetalol
- Intravenous hydralazine
- Oral nifedipine

### Magnesium sulfate not recommended as antihypertensive agent

- Should be used for: seizure prophylaxis and controlling seizures in eclampsia
- IV bolus of 4-6 grams in 100 ml over 20 minutes, followed by IV infusion of 1-2 grams per hour. **Continue for 24 hours postpartum**
- If no IV access, 10 grams of 50% solution IM (5 g in each buttock)
- Contraindications: pulmonary edema, renal failure, myasthenia gravis

### Anticonvulsants (for recurrent seizures or when magnesium is C/I):

- Lorazepam:** 2-4 mg IV x 1, may repeat x 1 after 10-15 min
- Diazepam:** 5-10 mg IV every 5-10 min to max dose 30 mg
- Phenytoin:** 15-20 mg/kg IV x 1, may repeat 10 mg/kg IV after 20 min if no response. Avoid with hypotension, may cause cardiac arrhythmias.
- Keppra:** 500 mg IV or orally, may repeat in 12 hours. Dose adjustment needed if renal impairment.

*\*There may be adverse effects and additional contraindications. Clinical judgement should prevail*

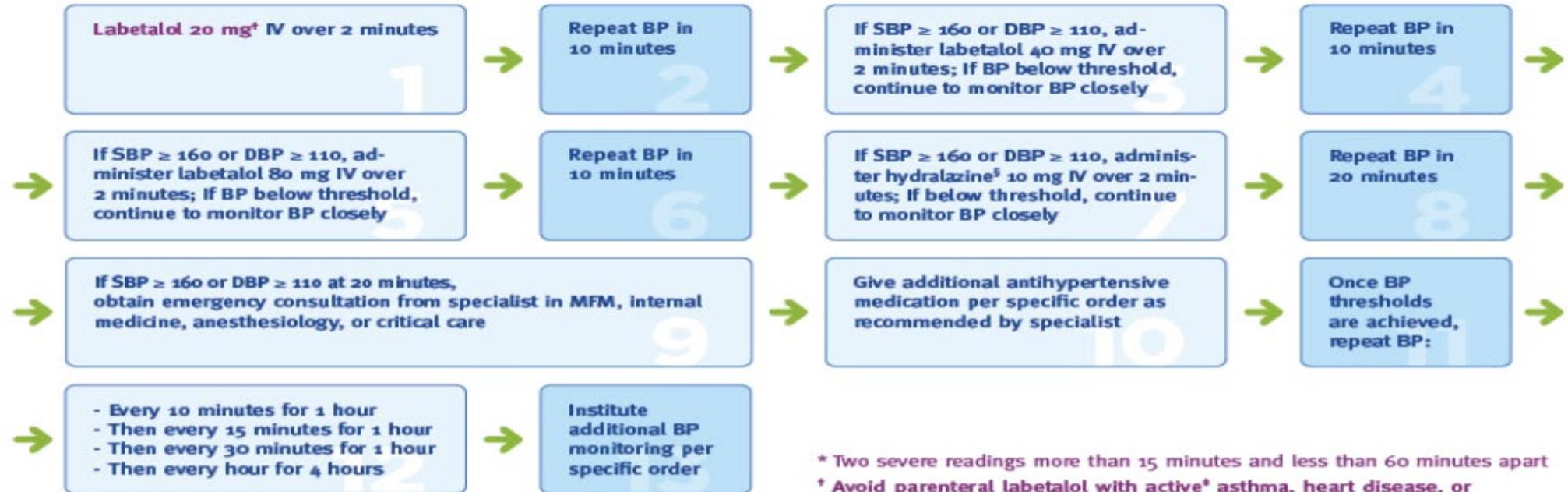
Safe Motherhood Initiative



# Labetalol Algorithm

EXAMPLE

Trigger: If severe elevations (SBP  $\geq 160$  or DBP  $\geq 110$ ) persist\* for 15 min or more OR If two severe elevations are obtained within 15 min and tx is clinically indicated



- Notify provider after one severe BP value is obtained
- Institute fetal surveillance if viable
- Hold IV labetalol for maternal pulse under 60
- Maximum cumulative IV-administered dose of labetalol should not exceed 300 mg in 24 hours
- There may be adverse effects and contraindications. Clinical judgement should prevail.

\* Two severe readings more than 15 minutes and less than 60 minutes apart

† Avoid parenteral labetalol with active<sup>‡</sup> asthma, heart disease, or congestive heart failure; use with caution with history of asthma. May cause neonatal bradycardia.

‡ "Active asthma" is defined as:

- (A) symptoms at least once a week, or
- (B) use of an inhaler, corticosteroids for asthma during the pregnancy, or
- (C) any history of intubation or hospitalization for asthma.

§ Hydralazine may increase risk of maternal hypotension.

Safe Motherhood Initiative

Revised February 2020



# Additional Therapy Recommendations



## IF NO IV ACCESS AVAILABLE:

- Initiate algorithm for oral nifedipine, or
- Oral labetalol, 200 mg *\*Repeat in 30 min if SBP remains  $\geq 160$  or DBP  $\geq 110$  and IV access still unavailable*

## SECOND LINE THERAPIES (if patient fails to respond to first line tx):

Recommend emergency consult with:

- Maternal Fetal Medicine
- Internal Medicine
- Anesthesiology
- Critical Care
- Emergency Medicine

*May also consider:*

- ✓ Labetalol or nicardipine via infusion pump
- ✓ Sodium nitroprusside for extreme emergencies *\*Use for shortest amount of time due to cyanide/thiocyanate toxicity*

# Hypertensive Emergency Checklist

## HYPERTENSIVE EMERGENCY:

- Two severe BP values ( $\geq 160/110$ ) taken 15-60 minutes apart. Values do not need to be consecutive.
- May treat within 15 minutes if clinically indicated

- Call for Assistance
- Designate:
  - Team leader
  - Checklist reader/recorder
  - Primary RN
- Ensure side rails up
- Ensure medications appropriate given patient history
- Administer seizure prophylaxis (magnesium sulfate first line agent, unless contraindicated)
- Antihypertensive therapy within 1 hour for persistent severe range BP
- Place IV; Draw preeclampsia labs
- Antenatal corticosteroids (if  $<34$  weeks of gestation)
- Re-address VTE prophylaxis requirement
- Place indwelling urinary catheter
- Brain imaging if unremitting headache or neurological symptoms
- Debrief patient, family, and obstetric team

\* "Active asthma" is defined as:

- (A) symptoms at least once a week, or
- (B) use of an inhaler, corticosteroids for asthma during the pregnancy, or
- (C) any history of intubation or hospitalization for asthma.

## Magnesium Sulfate

Contraindications: Myasthenia gravis; avoid with pulmonary edema, use caution with renal failure

### IV access:

- Load 4-6 grams 10% magnesium sulfate in 100 mL solution over 20 min
- Label magnesium sulfate; Connect to labeled infusion pump
- Magnesium sulfate maintenance 1-2 grams/hour

### No IV access:

- 10 grams of 50% solution IM (5 g in each buttock)

## Antihypertensive Medications

For SBP  $\geq 160$  or DBP  $\geq 110$   
(See SMI algorithms for complete management when necessary to move to another agent after 2 doses.)

- Labetalol** (initial dose: 20mg); **Avoid parenteral labetalol with active asthma, heart disease, or congestive heart failure; use with caution with history of asthma**
- Hydralazine** (5-10 mg IV\* over 2 min); **May increase risk of maternal hypotension**
- Oral Nifedipine** (10 mg capsules); Capsules should be administered orally, not punctured or otherwise administered sublingually

\* Maximum cumulative IV-administered doses should not exceed 220 mg labetalol or 25 mg hydralazine in 24 hours

**Note:** If first line agents unsuccessful, emergency consult with specialist (MFM, internal medicine, OB anesthesiology, critical care) is recommended

## Anticonvulsant Medications

For recurrent seizures or when magnesium sulfate contraindicated

- Lorazepam (Ativan):** 2-4 mg IV x 1, may repeat once after 10-15 min
- Diazepam (Valium):** 5-10 mg IV q 5-10 min to maximum dose 30 mg

- ✓ Call for assistance
- ✓ Designate team leader, checklist reader, primary RN
- ✓ Ensure side rails are up
- ✓ Administer seizure prophylaxis
- ✓ Antihypertensive therapy within 1 hr for persistent severe range BP
- ✓ Place IV; Draw PEC labs
- ✓ Antenatal corticosteroids is  $<34$  wks gestation
- ✓ Re-address VTE prophylaxis requirement
- ✓ Place indwelling urinary catheter
- ✓ Brain imaging if unremitting headache or neurological symptoms
- ✓ Debrief patient, family, OB team

# Postpartum Surveillance



Necessary to prevent additional morbidity as preeclampsia/eclampsia can develop postpartum

## INPATIENT

- Measure BP every 4 hours after delivery until stable
- Do not use NSAIDs for women with elevated BP
- Do not discharge patient until BP is well controlled for at least 24 hours

## OUTPATIENT

- For pts with preeclampsia, visiting nurse evaluation recommended:
  - ✓ Within 3-5 days
  - ✓ Again in 7-10 days after delivery (earlier if persistent symptoms)

## ANTIHYPERTENSIVE THERAPY

- Recommended for persistent postpartum HTN: SBP  $\geq$  150 or DBP  $\geq$  100 on at least two occasions at least 4 hours apart
- Persistent SBP  $\geq$  160 or DBP  $\geq$  110 should be treated within 1 hour

# Postpartum Preeclampsia Checklist

## IF PATIENT < 6 WEEKS POSTPARTUM WITH:

- BP  $\geq$  160/110 or
  - BP  $\geq$  140/90 with unremitting headache, visual disturbances, epigastric pain
- Call for Assistance
  - Designate:
    - Team leader
    - Checklist reader/recorder
    - Primary RN
  - Ensure side rails up
  - Call obstetric consult; Document call
  - Place IV; Draw preeclampsia labs
    - CBC
    - Chemistry Panel
    - PT
    - Uric Acid
    - PTT
    - Hepatic Function
    - Fibrinogen
    - Type and Screen
  - Ensure medications appropriate given patient history
  - Administer seizure prophylaxis
  - Administer antihypertensive therapy
    - Contact MFM or Critical Care for refractory blood pressure
  - Consider indwelling urinary catheter
    - Maintain strict I&O — patient at risk for pulmonary edema
  - Brain imaging if unremitting headache or neurological symptoms
- \* "Active asthma" is defined as:
- (A) symptoms at least once a week, or
  - (B) use of an inhaler, corticosteroids for asthma during the pregnancy, or
  - (C) any history of intubation or hospitalization for asthma.

### Magnesium Sulfate

Contraindications: Myasthenia gravis; avoid with pulmonary edema, use caution with renal failure

#### IV access:

- Load 4-6 grams 10% magnesium sulfate in 100 mL solution over 20 min
- Label magnesium sulfate; Connect to labeled infusion pump
- Magnesium sulfate maintenance 1-2 grams/hour

#### No IV access:

- 10 grams of 50% solution IM (5 g in each buttock)

### Antihypertensive Medications

For SBP  $\geq$  160 or DBP  $\geq$  110  
(See SMI algorithms for complete management when necessary to move to another agent after 2 doses.)

- Labetalol** (initial dose: 20mg); **Avoid parenteral labetalol with active asthma, heart disease, or congestive heart failure; use with caution with history of asthma**
- Hydralazine** (5-10 mg IV\* over 2 min); **May increase risk of maternal hypotension**
- Oral Nifedipine** (10 mg capsules); Capsules should be administered orally, not punctured or otherwise administered sublingually

\* Maximum cumulative IV-administered doses should not exceed 220 mg labetalol or 25 mg hydralazine in 24 hours

**Note:** If first line agents unsuccessful, emergency consult with specialist (MFM, Internal medicine, OB anesthesiology, critical care) is recommended

### Anticonvulsant Medications

For recurrent seizures or when magnesium sulfate contraindicated

- Lorazepam (Ativan):** 2-4 mg IV x 1, may repeat once after 10-15 min
- Diazepam (Valium):** 5-10 mg IV q 5-10 min

- ✓ Call for assistance
- ✓ Designate team leader, checklist reader, primary RN
- ✓ Ensure side rails up
- ✓ Call OB consult; Document call
- ✓ Place IV; Draw PEC labs
- ✓ Administer seizure prophylaxis
- ✓ Administer antihypertensive therapy
- ✓ Consider indwelling urinary catheter. Maintain strict I&O
- ✓ Brain imaging if unremitting headache or neurological symptoms

## EMERGENCY DEPARTMENT

# Postpartum Preeclampsia Checklist

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# Post-Discharge Evaluation

## ELEVATED BP AT HOME, OFFICE, TRIAGE

### Postpartum triggers:

- SBP  $\geq 160$  or DBP  $\geq 110$  or
- SBP  $\geq 140$ -159 or DBP  $\geq 90$ -109 with unremitting headaches, visual disturbances, or epigastric/RUQ pain



- Emergency Department treatment (OB /MICU consult as needed)
- AntiHTN therapy suggested if persistent **SBP  $\geq 150$  or DBP  $\geq 100$**  on at least two occasions at least 4 hours apart
- Persistent **SBP  $\geq 160$  or DBP  $\geq 110$**  should be treated within 1 hour



Good response to antiHTN treatment and asymptomatic



Admit for further observation and management  
(L&D, ICU, unit with telemetry)



Signs and symptoms of eclampsia, abnormal neurological evaluation, congestive heart failure, renal failure, coagulopathy, poor response to antihypertensive treatment



Recommend emergency consultation for further evaluation  
(MFM, internal medicine, OB anesthesiology, critical care)



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