Oct. 2025

KPQC Fall Conference

Please enter your name and agency in the chat

Agenda

9:00–9:30	Welcome and Introductions (KPQC Team)
9:30-11:00	Session 1: OB Emergencies & Transport (Heather Scruton, RNC-OB and Heather Morgan, MD)
11:00-11:30	Session 2: Hot Topics in OB: 2025 (Tara Chettiar, MD, FACOG)
11:30-12:00	Session 3: Preterm Babies in 2025, what's the big deal? (Jenny Espy, ARNP, NNP-BC)

Kansas Perinatal Quality Collaborative

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KPQC Advisory Committee

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Tara Chettiar, M.D.

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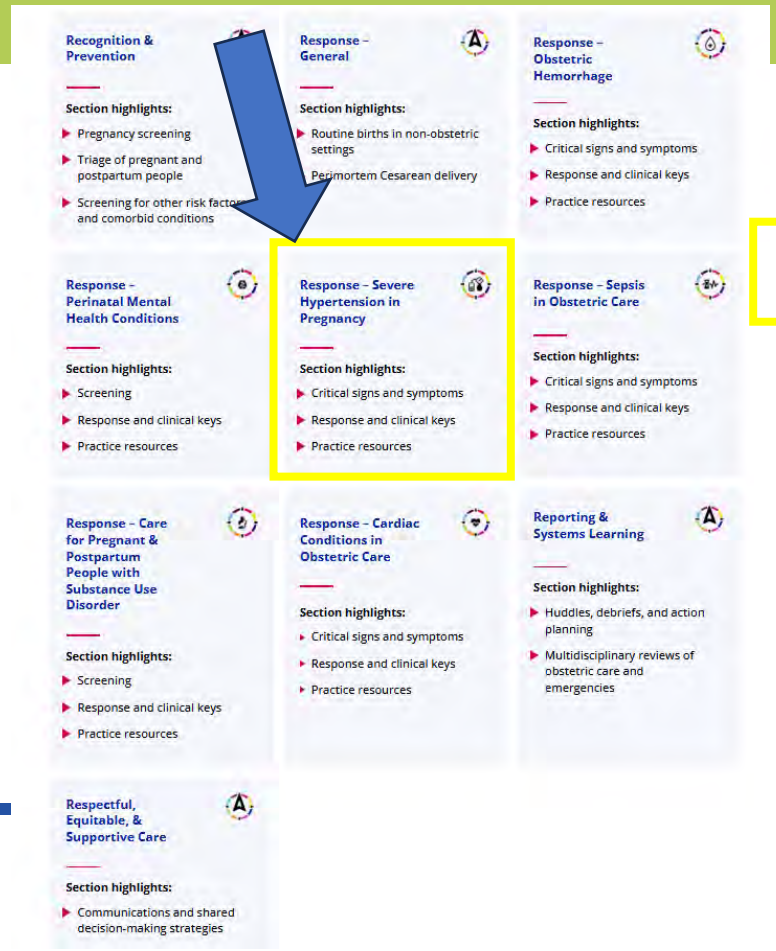
Rapid Response 2025

Rapid Response

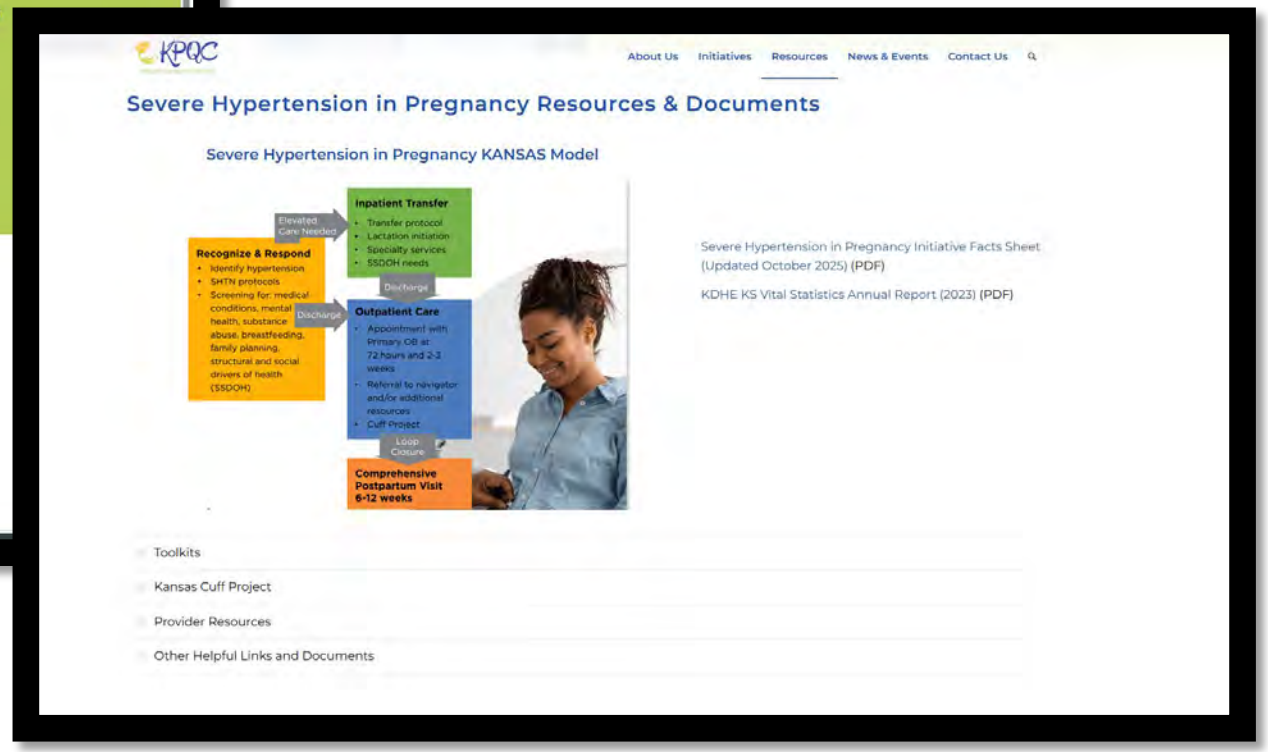


AIM: OB Emergency Readiness Resource Kit

https://saferbirth.org/aim-obstetric-emergency-readiness-resource-kit/

WEBSITE Updated!

www.kansaspqc.org



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SHTN Bundle Update: Resources

KPQC Website:

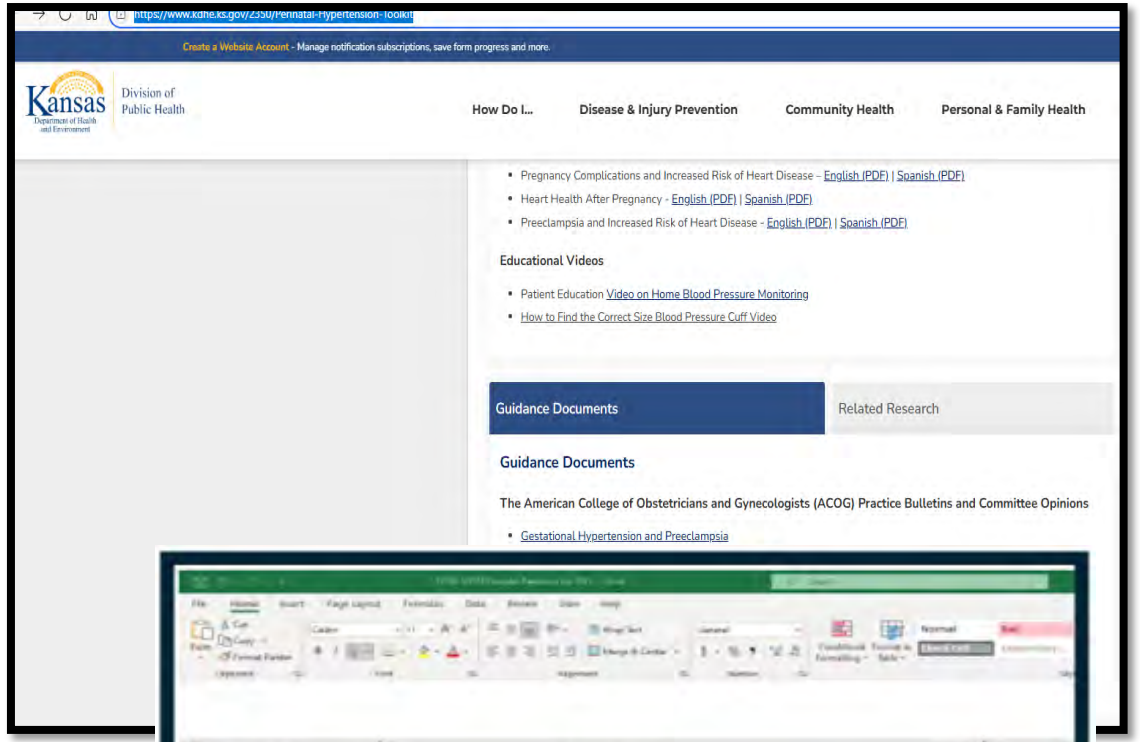
https://kansaspqc.kdhe.ks.gov/resources/severe-hypertension-initiative-resources/#toggle-id-4

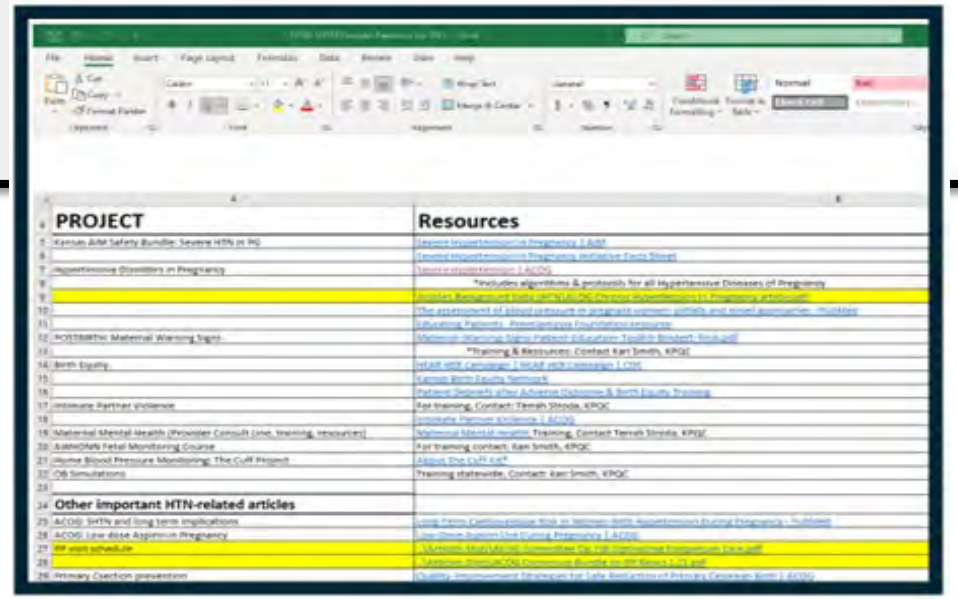
KDHE Website:

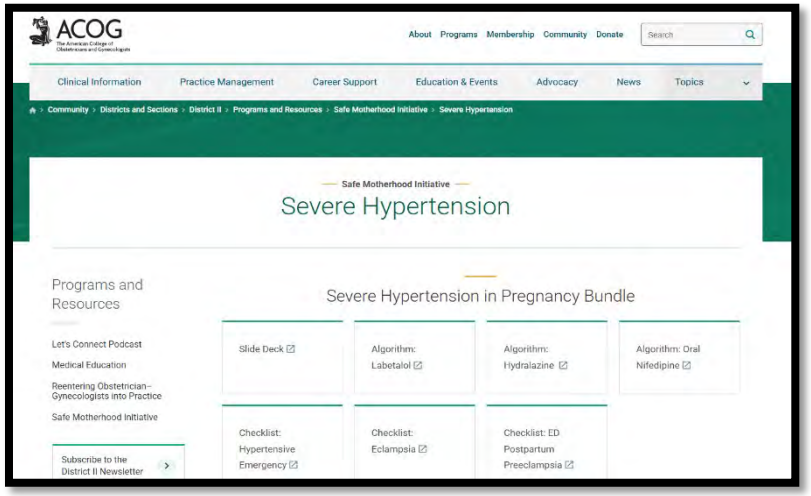
https://www.kdhe.ks.gov/2350/Perinatal-Hypertension-Toolkit

Provider resources and articles (sent!):

https://www.acog.org/community/districts-and-sections/district-ii/programs-and-resources/safe-motherhood-initiative/severe-hypertension







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AAP-Immunization-Schedule.pdf

Rapid Response

AAP Vaccine Update: 2025

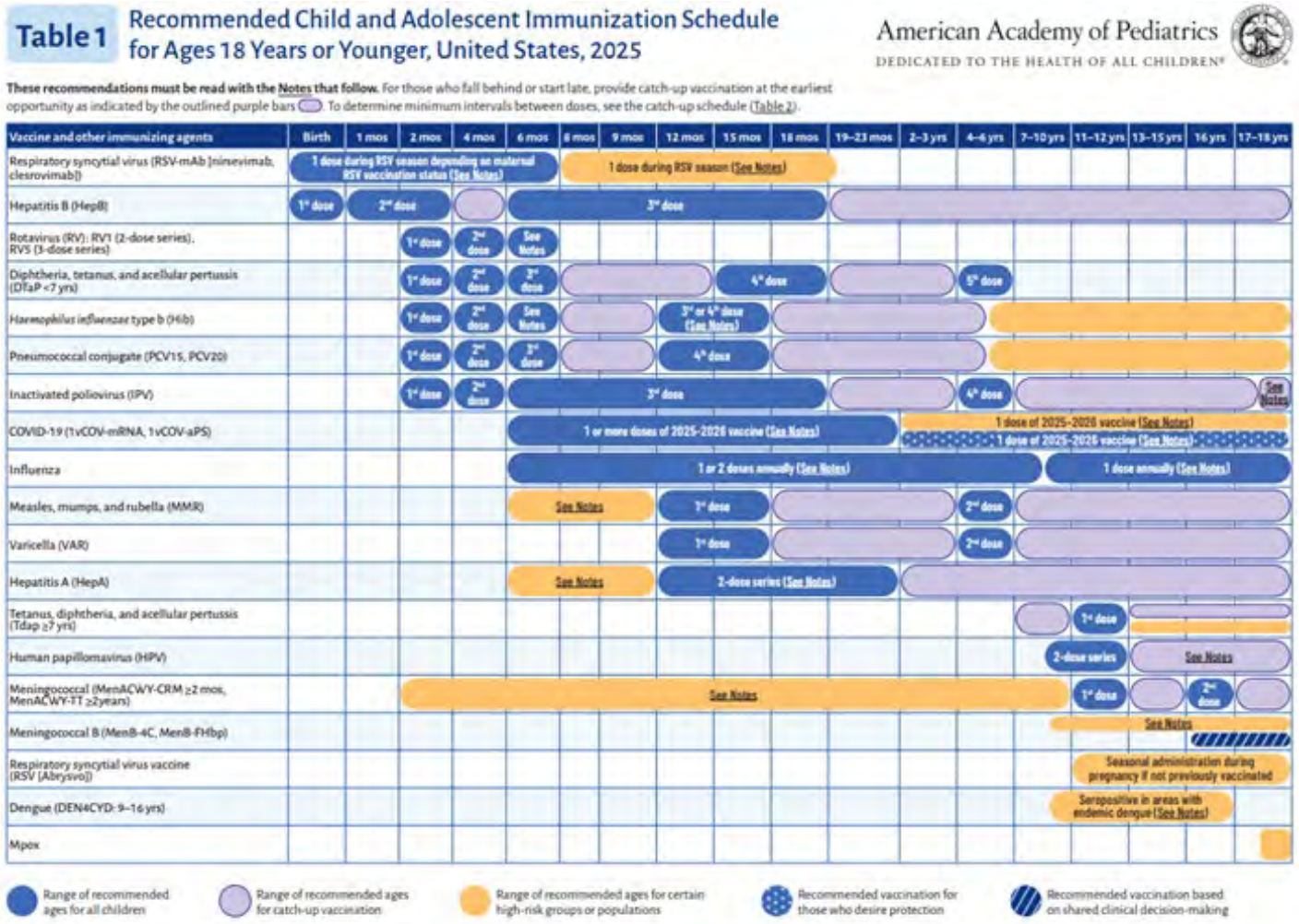

Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2025

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®

These recommendations must be read with the Notes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the outlined purple bars. To determine minimum intervals between doses, see the catch-up schedule (Table 2).

Vaccine and other immunizing agents	Birth	1 mos	2 mos	4 mos	6 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2–3 yrs	4–6 yrs	7–10 yrs	11–12 yrs	13–15 yrs	16 yrs	17–18 yrs
Respiratory syncytial virus (RSV-mAb [nirsevimab, clesrovimab])	1 dose during RSV season depending on maternal RSV vaccination status (See Notes)						1 dose during RSV season (See Notes)											
Hepatitis B (HepB)	1st dose	2nd dose			3rd dose													
Rotavirus (RV): RV1 (2-dose series), RV5 (3-dose series)			1st dose	2nd dose	See Notes													
Diphtheria, tetanus, and acellular pertussis (DTaP <7 yrs)			1st dose	2nd dose	3rd dose				4th dose				5th dose					
Haemophilus influenzae type b (Hib)			1st dose	2nd dose	See Notes			3rd or 4th dose (See Notes)										
Pneumococcal conjugate (PCV15, PCV20)			1st dose	2nd dose	3rd dose			4th dose										
Inactivated poliovirus (IPV)			1st dose	2nd dose	3rd dose								4th dose					See Notes
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)					1 or more doses of 2025–2026 vaccine (See Notes)							1 dose of 2025–2026 vaccine (See Notes)						
Influenza					1 or 2 doses annually (See Notes)										1 dose annually (See Notes)			
Measles, mumps, and rubella (MMR)					See Notes			1st dose					2nd dose					
Varicella (VAR)								1st dose					2nd dose					
Hepatitis A (HepA)					See Notes			2-dose series (See Notes)										
Tetanus, diphtheria, and acellular pertussis (Tdap ≥7 yrs)															1 dose			
Human papillomavirus (HPV)															2-dose series	See Notes		
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2 years)			See Notes												1st dose		2nd dose	
Meningococcal B (MenB-4C, MenB-FHbp)																See Notes		
Respiratory syncytial virus vaccine (RSV [Abrysvo])															Seasonal administration during pregnancy if not previously vaccinated			
Dengue (DEN4CYD: 9–16 yrs)															Seropositive in areas with endemic dengue (See Notes)			
Mpox																		

Range of recommended ages for all children
Range of recommended ages for catch-up vaccination
Range of recommended ages for certain high-risk groups or populations
Recommended vaccination for those who desire protection
Recommended vaccination based on shared clinical decision-making

Rapid Response: SSRIs in Pregnancy

Statements from leading maternal mental health organizations:

ACOG Statement on the Benefit of Access to SSRIs During Pregnancy | ACOG

SMFM Statement on SSRIs and Pregnancy - Society for Maternal-Fetal Medicine

PSI Response: FDA Panel Discussion Regarding SSRI in Pregnancy | Postpartum Support International (PSI)

Our Response to the FDA SSRI Roundtable - Policy Center for Maternal Mental Health

“Once again, the mother’s wellbeing is sidelined.” MMHLA Executive Director Responds to FDA Panel on SSRIs and Pregnancy — Maternal Mental Health Leadership Alliance: MMHLA

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The American College of Obstetricians and Gynecologists

CLINICAL PRACTICE UPDATE

SEPTEMBER 2025

An Update to Clinical Guidance for Delayed Umbilical Cord Clamping After Birth in Preterm Neonates

This Clinical Practice Update was developed by the American College of Obstetricians and Gynecologists Committee on Clinical Consensus–Obstetrics in collaboration with Mark Turrentine, MD, Allison Bryant, MD, Adetola F. Louis-Jacques, MD, Jessica L. Illuzzi, MD, and Christopher M. Zahn, MD. The American College of Nurse-Midwives and the Association of Women's Health, Obstetrics and Neonatal Nurses endorse this Clinical Practice Update. The American Academy of Family Physicians affirms the value of this Clinical Practice Update.

This Clinical Practice Update provides guidance related to management of the umbilical cord at birth based on recently published data regarding short, medium, and long deferral of cord clamping; cord milking; and immediate cord clamping in preterm neonates. In this document, the terms "deferred" and "delayed" are used interchangeably as they relate to management of the cord at birth. This document updates Committee Opinion No. 814, *Delayed Umbilical Cord Clamping After Birth* (Obstet Gynecol 2020;136:e100–6).

BACKGROUND

This Clinical Practice Update is provided to update American College of Obstetricians and Gynecologists' (ACOG) clinical guidance related to the management of the umbilical cord at birth based on recently published data regarding short, medium, and long deferral of cord clamping; cord milking; and immediate cord clamping in preterm neonates. Prior guidance, based on clinical trials from more than a decade ago, noted no clear difference in rates of preterm neonatal death between groups with deferred umbilical cord clamping (30–180 seconds) compared with immediate cord clamping (1).

On November 14, 2023, the findings from two systematic reviews and individual participant data meta-analyses of deferred umbilical cord clamping or cord milking compared with immediate cord clamping at preterm birth were published (2, 3). These two systematic reviews and meta-analyses, with neonates delivered at less than 37 weeks of gestation, contained 48 and 47 randomized controlled trials with 6,367 and 6,094 neonates, respectively, and compared deferred umbilical cord clamping or umbilical cord milking with immediate cord clamping. The median gestational duration at birth for both analyses was 29 weeks. For the primary outcome–death before hospital discharge for all neonates born before 37 weeks of gestation–deferred cord clamping (ranging from 30 seconds to at least 180 seconds) compared with immediate cord clamping (within 15 seconds) was associated with a reduction in the rate of neonatal death before hospital discharge (odds ratio [OR] 0.68, 95% CI, 0.51–0.91) (2).

For umbilical cord milking compared with immediate cord clamping, there was no difference in rate of neonatal death before discharge (OR 0.73, 95% CI, 0.44–1.20) (2). When results were stratified by prespecified categories of duration of deferred cord clamping, long deferral (120 seconds or more) was associated with a reduction in rate of neonatal death before discharge when compared with immediate clamping (OR 0.31, 95% CI, 0.11–0.80) (3). Short deferral (15 seconds to less than 45 seconds), medium deferral (45 seconds to less than 120 seconds), or any cord milking (3) were not associated with a reduction in rate of neonatal death compared with immediate cord clamping. Incidence of any grade of neonatal intraventricular hemorrhage did not differ across the comparison groups (2, 3). For neonates delivered at less than 32 weeks of gestation, deferred cord clamping (OR 0.59, 95% CI, 0.47–0.73) and umbilical cord milking (OR 0.69, 95% CI, 0.51–0.93) were each associated with lower transfusion rates when compared with immediate cord clamping (2).

It is important to recognize that, although deferred cord clamping is encouraged in most clinical situations, studies included in these systematic reviews and meta-analyses varied with respect to scenarios in which immediate cord clamping was considered or care was individualized (Box 1) (2, 3). Although a long deferral of cord clamping by at least 120 seconds was associated with a relative reduction in rate of death before discharge for preterm neonates, these observations may not be generalizable to neonates assessed at birth as requiring immediate resuscitation or to settings in which adequate newborn assessment and support are not available while the cord is intact. To guide the consideration of these two systematic reviews and meta-analyses for the development of a consensus statement about optimal umbilical cord management for preterm neonates at birth, the ILCOR (International Liaison Committee on Resuscitation) Advanced Life Support Task Force noted the following limitations of the systematic reviews (4). Long deferral of cord clamping for 120 seconds or more was based on five small trials (fewer than 121 extremely preterm neonates), with reported adherence to long deferral of cord clamping for 120 seconds or more as low as 67%. In clinical trial settings, long deferral of cord clamping for 120 seconds or more was considered if there were no contraindications and if appropriate preterm newborn stabilization could be provided while on the intact cord (eg, skilled team, proper training, enough space and ability to provide thermal management). Taking into consideration the selectivity of this small group of newborns, the lower adherence rate, and the clinical trial settings in which long deferral of cord clamping occurred in contrast to the larger numbers of newborns (n=3,260) across more trials (n=20) and greater adherence to cord clamping after 60 seconds or more (80%), ILCOR, in a post hoc analysis, calculated the odds of mortality after deferred cord clamping of 60 seconds or more compared with immediate cord clamping (OR 0.63, 95% CI, 0.44–0.88), suggesting that durations of deferred cord clamping of 60 seconds or more are also associated with a reduction in rate of preterm neonatal death before discharge. Though these results may prompt changes in clinical protocols guiding duration of cord clamping for selected preterm neonates, such alterations require careful and multidisciplinary collaboration to ensure safe and high-quality care. More evidence is needed before recommending the routine practice of long deferral of cord clamping for 120 seconds or more in preterm newborns.

Box 1. Clinical Situations in Which Immediate Umbilical Cord Clamping Should Be Considered or Care Should Be Individualized*

- Neonates requiring resuscitation at birth or those deemed nonvigorous
- Multiple gestations
- Fetal congenital malformations
- Placenta previa
- Antepartum hemorrhage
- Diabetes during pregnancy
- Hypertensive disorders of pregnancy
- Umbilical cord abnormalities
- Fetal growth restriction
- Category III fetal heart rate tracings
- Meconium-stained amniotic fluid

Data from Seidler, Libesman S, Hunter KE, Barba A, Aberoumand M, Williams JG, et al. Short, medium, and long deferral of umbilical cord clamping compared with umbilical cord milking and immediate clamping at preterm birth: a systematic review and network meta-analysis with individual participant data. Lancet 2023;402:2223–34. doi: 10.1016/S0140-6736(23)02469-8.
*This list represents exclusions applied to studies included in the systematic reviews and meta-analyses.

CLINICAL RECOMMENDATIONS

Based on these findings, obstetrician–gynecologists and other obstetric care professionals should:

- Defer umbilical cord clamping for at least 60 seconds in preterm neonates born at less than 37 weeks of gestation who are deemed not to require immediate resuscitation at birth.
- In preterm neonates born at 28 0/7–36 6/7 weeks of gestation who do not receive deferred cord clamping, umbilical cord milking is a reasonable alternative to immediate cord clamping to improve neonatal hematologic outcomes.

Use of Language

The American College of Obstetricians and Gynecologists recognizes and supports the gender diversity of all patients who seek obstetric and gynecologic care. In original portions of this document, authors seek to use gender-inclusive language or gender-neutral language. When describing research findings, this document uses gender terminology reported by investigators. To review ACOG's policy on inclusive language, see https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2022/inclusive-language.

REFERENCES

1. Delayed umbilical cord clamping after birth: ACOG Committee Opinion No. 814. Obstet Gynecol 2020;136:e100–6. doi: 10.1097/AOG.0000000000004167
2. Seidler AL, Aberoumand M, Hunter KE, Barba A, Libesman S, Williams JG, et al. Deferred cord clamping, cord milking, and immediate cord clamping at preterm birth: a systematic review and individual participant data meta-analysis. Lancet 2023;402:2209–22. doi: 10.1016/S0140-6736(23)02468-6
3. Seidler AL, Libesman S, Hunter KE, Barba A, Aberoumand M, Williams JG, et al. Short, medium, and long deferral of umbilical cord clamping compared with umbilical cord milking and immediate clamping at preterm birth: a systematic review and

KPQC: What's on the "MENU"?

Birthing & Non-birthing hospitals: SHTN Protocols sharing

KPQC options for shared resources and education: more than just HTN!

1	**SHTN Birthing & Non-birthing Facilities**		
2	**Resource Menu**	**6.25**	
3			
4	**Project**	**Project Lead**	**Resource Available**
5	**Maternal Warning Signs**	Kansas Perinatal Quality Collaborative (KPQC)	POSTBIRTH training, KDHE MWS Toolkit
6	**Hypertensive Disease in Pregnancy & Postpartum**	KPQC	Training on inpatient & outpatient identification, treatment, and follow up of hypertensive disea
7	**Maternal Mental Health**	Kansas Connecting Communities (KCC)	Maternal Mental Health & Substance Abuse Disorder: Inpatient/outpatient screening and local refer
8	**Intimate Partner Violence**	Maternal Anti-Violance Innovation and Sharing (MAVIS) & KCC	Intimate Partner Violence: screening and local referrals
9	**Breastfeeding: training & education**	Kansas Breastfeeding Coalition	The Kansas Breastfeeding Coalition provides staff education, support, and resources to help hospital
10	**Breastfeeding: Hospital Designation A**	High 5 for Mom & Baby, KS	High 5 designation including Premier; update or new designation
11	**Breastfeeding: Hospital Designation B**	Baby Friendly, KS	Baby Friendly designation; update or new designation
12	**Birth Equity**	KS Birth Equity Network	Birth Equity work: state or local level
13	**Fetal monitoring**	Fetal monitoring	Education and resources for inpatient and outpatient fetal monitoring
14	**SSDOH needs: Inpatient to Outpatient referral options (local)**	Kansas Perinatal Community Collaborative	Connecting inpatient care to outpatient public health partners (Home visiting, OB Navigation, WIC, B
15	**OB Navigation, Community Health Workers, Doula, Home Visiting options (loca**	Kansas Dept of Health & Environment: Maternal Child Health	Inpatient and outpatient connections via navigation, social work, home visiting
16	**OB Simulations**	KPQC	Inpatient OB, ED, Nursery Simulations (ie. PP Hemorrhage, NRP, HTN Emergency)
17	**OB Emergency Readiness Kit**	KPQC	AIM OB Readiness Bundle for Non-birthing facilities, Birthing Facilities with lower volume OB units,
18	**Family Planning**	KPQC	Family planning education, resources. Includes LARC toolkit.
19	**EMS Transfers (local)**	KPQC	Collaboration with and protocols for EMS transfer into and between hospitals
20	**Neonatal Abstinence Syndrome**	KPQC	Continuation or connection to resources related to KPQC NAS Initiative (prior to 2020)
21			
22			

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Update on SHTN AIM Bundle

Kansas: SHTN Model

Recognize & Respond
- Identify Hypertension
- SHTN Protocols
- Screening for: medical conditions, mental health, substance abuse, breastfeeding, family planning, health related social needs

Elevated Care Needed

Inpatient Transfer
- Transfer protocol
- Lactation initiation
- Specialty services
- Health related social needs

Discharge

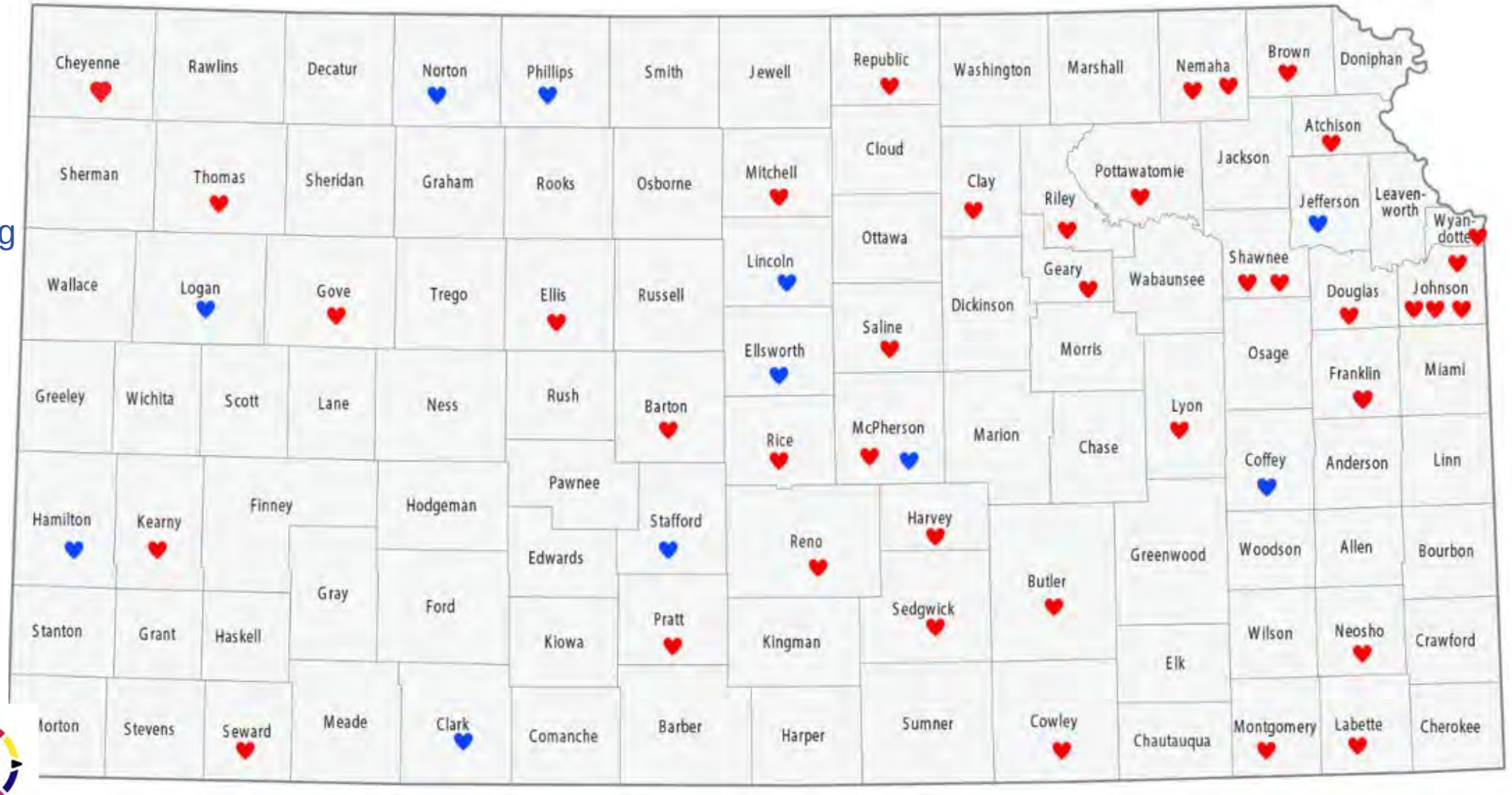
Outpatient Care
- Appointment with Primary OB at 72 hours and 2-3 weeks
- Referral to navigator and/or additional resources
- Cuff Project

Loop Closure

Comprehensive Postpartum Visit 6-12 weeks

SHTN AIM Safely Bundle Enrollment

- 39 Birthing Facilities
- 11 Non-birthing Facilities



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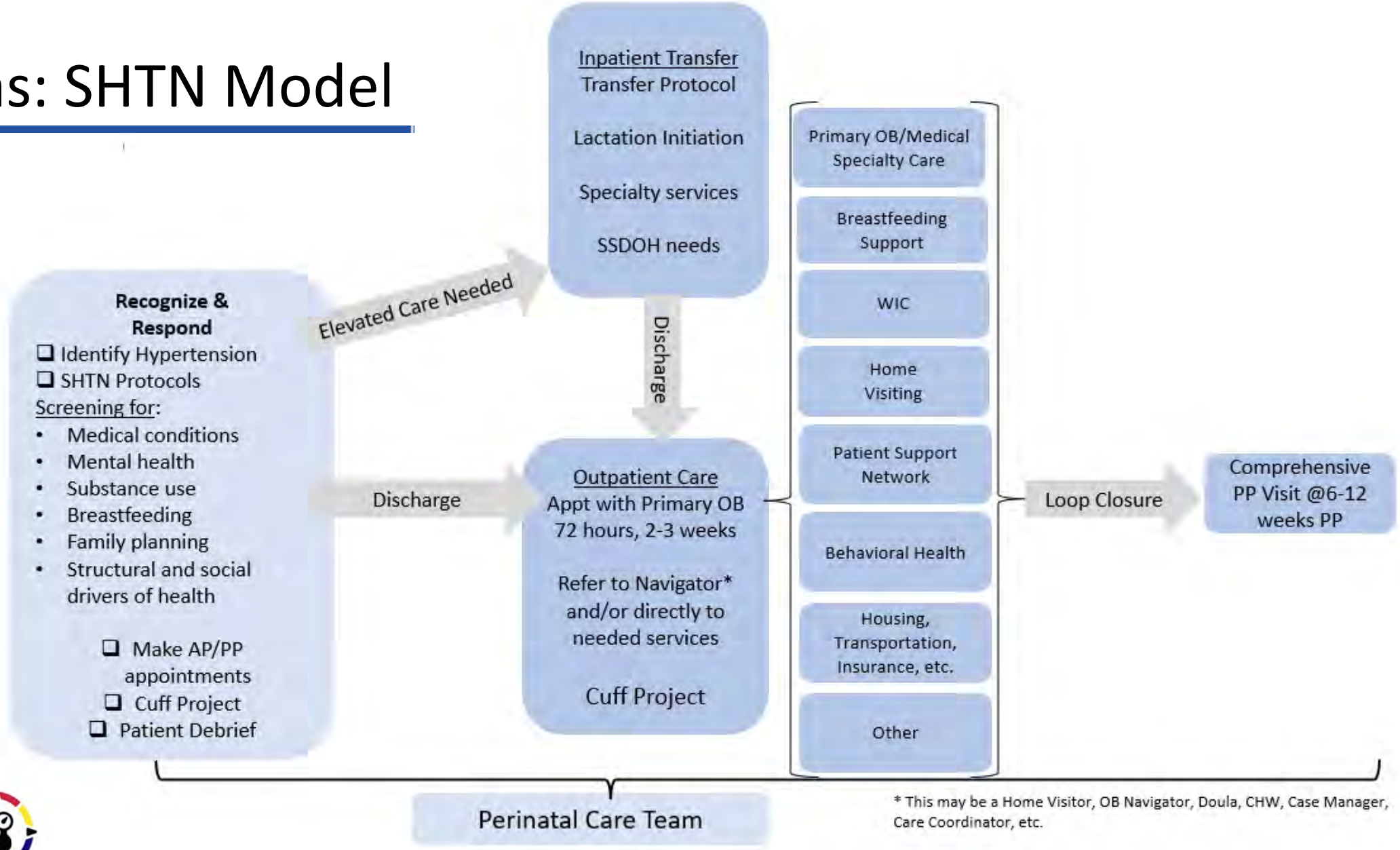
Kansas: SHTN Model



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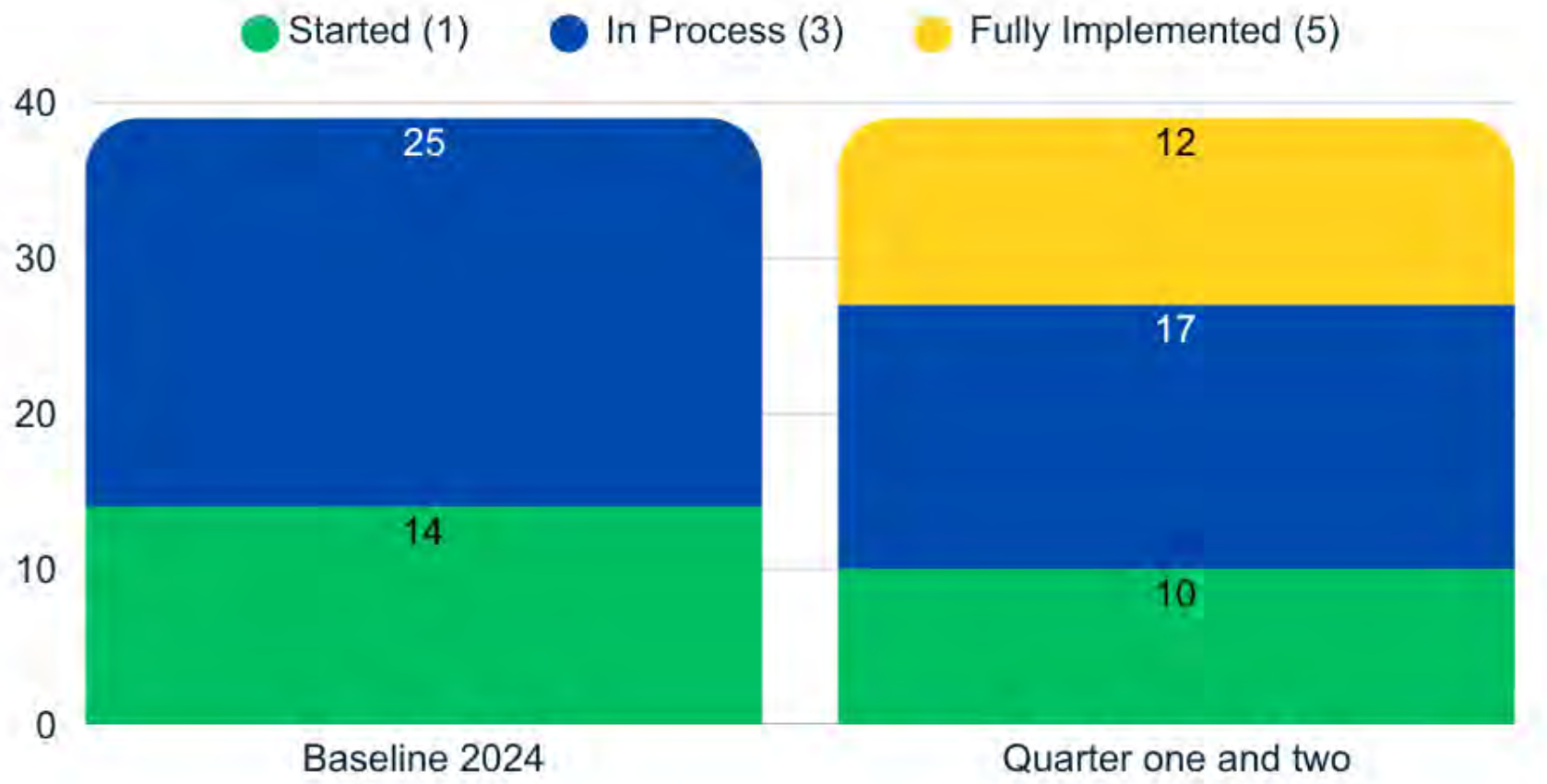
SHTN AIM Safety Bundle Update

Statewide Data for Quarter One and Two of 2025

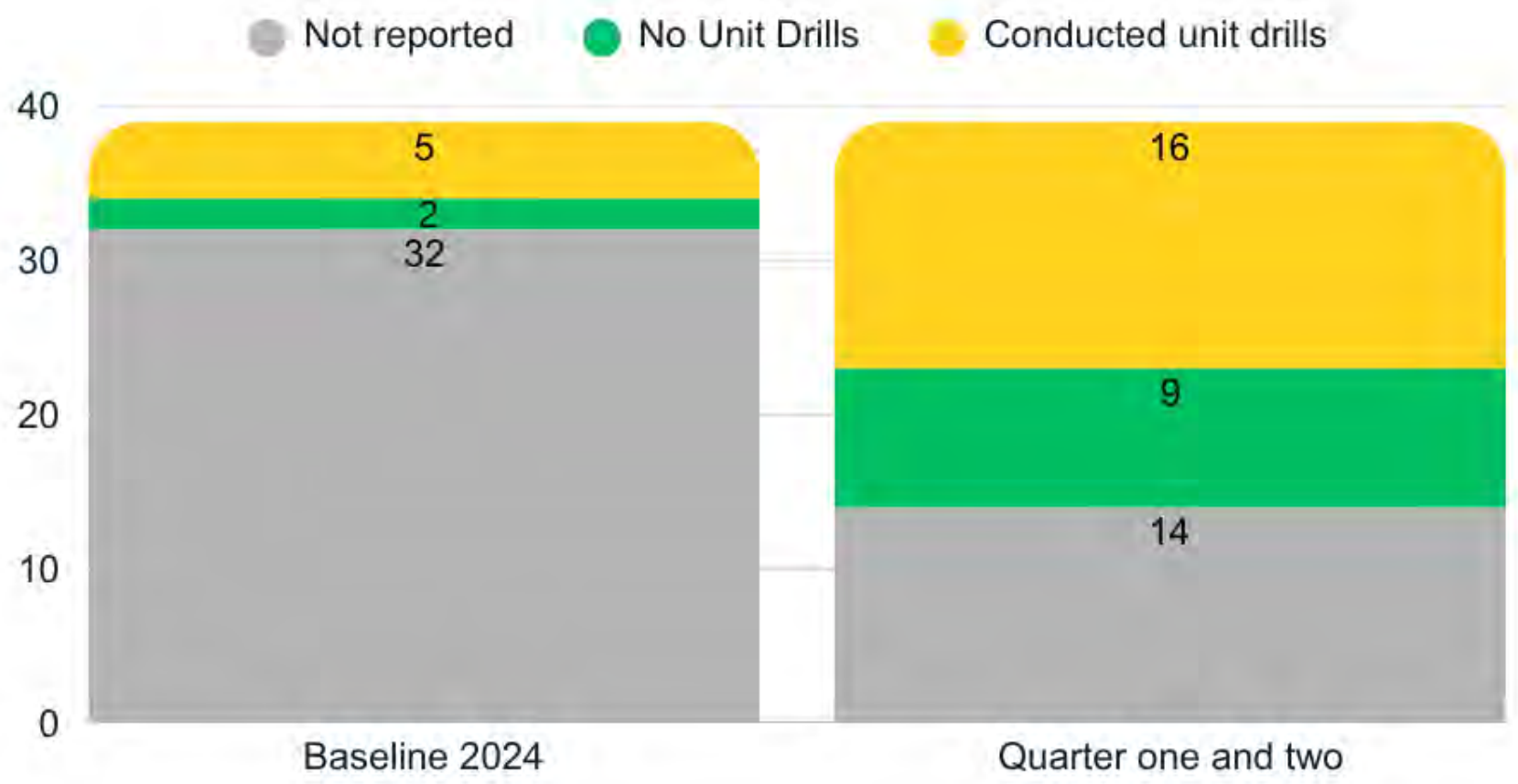
Policy and Procedure for SHTN

SHTN S1: Does your hospital have a Severe HTN/Preeclampsia policy and procedure (reviewed and updated in the last two years)?



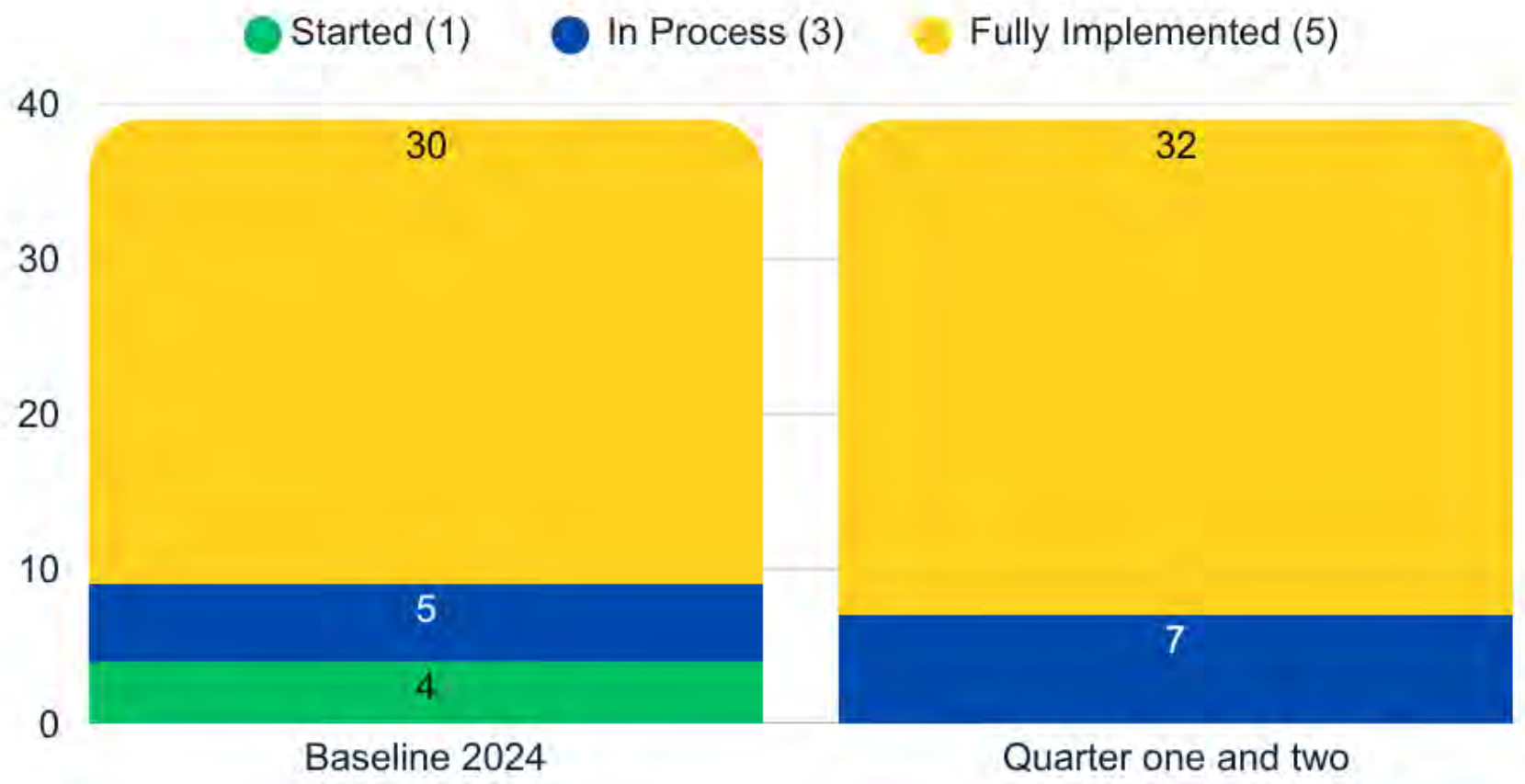
Unit Drills

All P3A: During this reporting period, how many total OB drills (in Situ and or Sim Lab) were performed on your unit for any maternal safety topic?



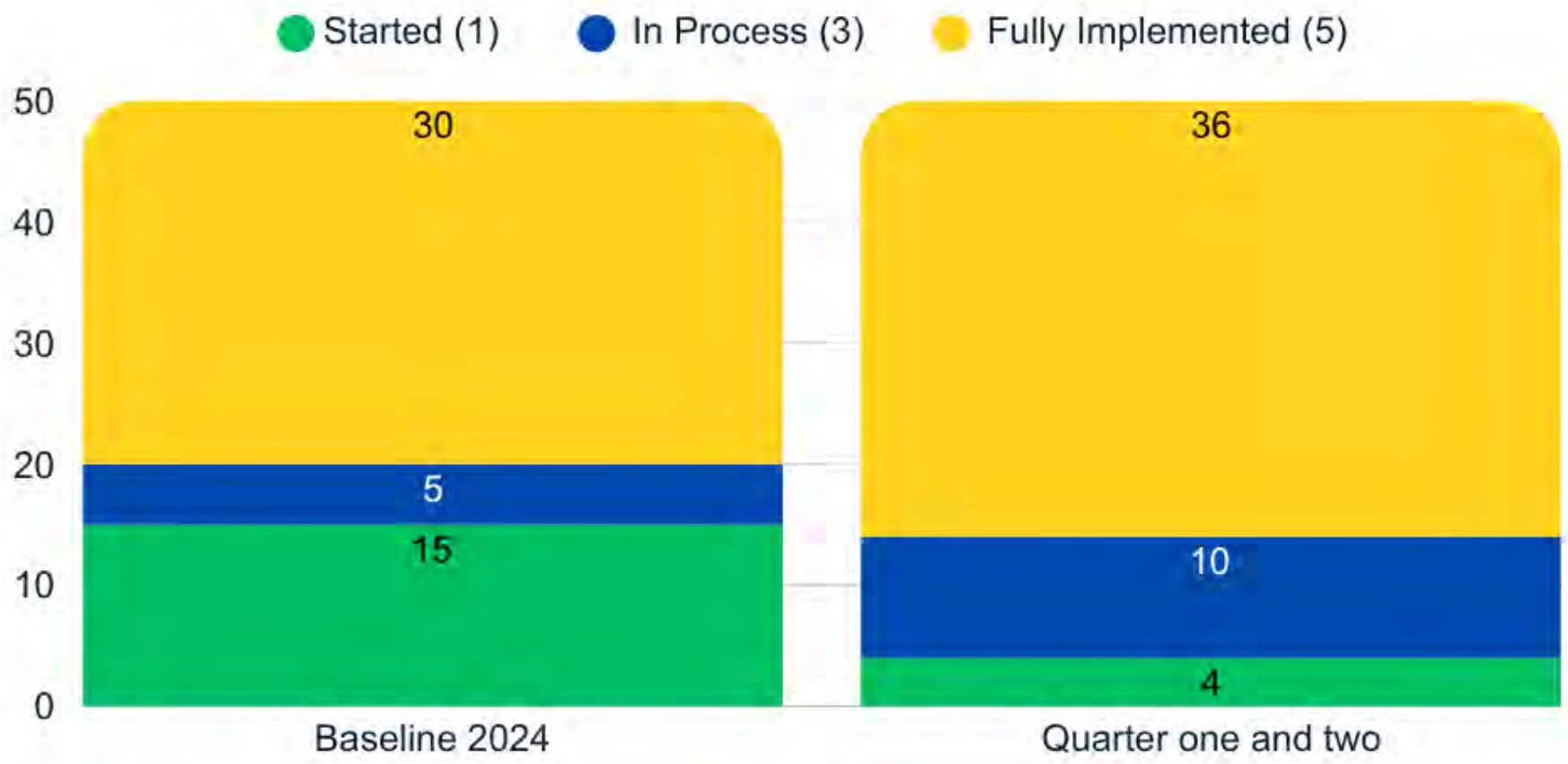
POSTBIRTH – Birthing facilities enrolled in SHTN AIM bundle

ALL S4: Has your department developed/curated patient education materials on urgent postpartum warning signs that align with culturally and linguistically appropriate standard?



POSTBIRTH – All enrolled in the SHTN AIM bundle

ALL S4: Has your department developed/curated patient education materials on urgent postpartum warning signs that align with culturally and linguistically appropriate standard?



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Collaborations

SHTN Bundle Update: Collaborations

POST BIRTH TRAINING: 7/17 request additional training

HTN in Pregnancy Education: 11/17 request and includes ED staff as well as provider buy in and how to incorporate into policies

Maternal Mental Health (PSI): 6/17 requested direct TA from KCC

IPV (CUES): 11/17 stated they needed IPV education including CUES training

Breastfeeding: 4/17 needed

Fetal Monitoring: 3/17 need

Inpatient to outpatient referral: 5/17 request this

Sims: 3/17 requested this (coming in 2026 for all)

Family Planning: 8/17 request this

EMS Transfer Collab: 7/17 request this

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Best practice models

SHTN Protocols

Univ of KS KC- July 2025 policy!

Status Active PolicyStat ID 18326955

THE UNIVERSITY OF KANSAS HEALTH SYSTEM

Origination	07/2019
Approved	06/2025
Last Revised	06/2025
Next Review	06/2028
Owner	Melissa Donovan: Nurse Manager
Area	Patient Care
Applicability	39th Rainbow/ Great Bend Hospital/Olathe

Antepartum and Postpartum Hypertensive Urgency Management

SCOPE

This guideline is applicable to antepartum or post-partum patients with hypertensive urgency.

SPECIAL CONSIDERATIONS

In patients that have chronic hypertension or pre-eclampsia, significant morbidity and mortality is associated with a systolic blood pressure ≥160 mmHg, or a diastolic blood pressure ≥110 mmHg.

These patients require specialized and immediate assessment and treatment to decrease the risk for stroke and significant related sequelae.

GUIDELINE OBJECTIVE(S):

The objectives of treating severe hypertension are to prevent congestive heart failure, myocardial ischemia, renal injury or failure, and ischemic or hemorrhagic stroke.

Patient care guidelines are evidence-based and designed to assist clinicians and patients make decisions about appropriate health care for specific clinical circumstances. CMS requires that standards of practice and standards of care be entered into P&P and guidelines. These guidelines should not be considered inclusive of all appropriate methods of care or exclusive of other methods of care reasonably directed at obtaining the same results. The ultimate judgment regarding care of a particular patient must be made by the clinician in light of the individual circumstances presented by the patient and the needs and resources particular to the locality or institution.

DEFINITIONS

- Antepartum: any patient for whom immediate delivery is not planned
- BP: blood pressure
- SBP: systolic blood pressure in mmHg
- DBP: diastolic blood pressure in mmHg
- Severe range BP: A systolic BP of ≥160 mmHg, and/or a diastolic BP of ≥110mmHg
- Persistent severe range BP: severe range BP on two occasions 15 minutes apart
- Laboring patient: patient actively being delivered
- Postpartum: Patient who has delivered, from time of delivery through the subsequent 6 weeks
- MFM: Maternal-Fetal Medicine
- CEFM: Continuous electronic fetal monitoring

Clinical Management:

The nurse will assess blood pressure at the following intervals:

- Every 15 minutes if in severe range (SBP >160mmHg, DBP ≥110mmHg)
- Patient complaint of:
  - New onset headache
  - New onset right upper quadrant pain
  - Significant visual changes
  - Shortness of air

Management of first severe range BP:

- For first severe range BP (I.e. SBP ≥160 mmHg, or DBP ≥110 mmHg):
  - Review EMR for presence of preeclampsia and magnesium orderset
  - Notify provider stat (at KC this is a text page to High Risk OB)
    - Ask for verbal order for placement of preeclampsia and magnesium orderset if not already ordered
  - Obtain IV access if no IV
  - Pull antihypertensive medication and hold. Do not administer at this time
  - Repeat BP in 15 minutes.
- If severe range BP is NOT persistent after 15 minutes, SBP <160 ***and*** DBP < 110
  - Notify provider (at KC this is a text page to High Risk OB)
  - Repeat BP in 30 minutes or per order from physician.
- If the severe range BP is persistent after 15 minutes, administer first line agent, following

  - Nitroglycerin and derivatives
- For all postpartum patients diagnosed with any hypertensive disorder (CHTN, gHTN, preE, and/or HELLP) the following guidelines can be used to guide discharge timing:
  - Patient should not be discharged before PPD #2 (but can be prior to 48 hours if deemed clinically stable).
  - Patient must stay a minimum of 24 hours after magnesium has been discontinued.
  - It is recommended patients continue hospitalization if any of the following signs or symptoms are present. The patient may be re-evaluated in 12-hour intervals, or as clinically indicated, to assess readiness for discharge:
    - More than one SBP > 150 or DBP > 100 in the past 12 hours
    - If max SBP intrapartum or postpartum was 160 or higher, consider continuing hospitalization until PPD #3.
    - They currently have symptoms of preeclampsia including new-onset headache unresponsive to medication and not accounted for by alternative diagnoses, visual disturbances, and/or severe persistent right upper quadrant or epigastric pain unresponsive to medications.
    - Abnormal labs (LFTs, creatinine, platelets, Hgb) that have not stabilized

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- American College of Obstetricians and Gynecologists. Hypertension in pregnancy. Washington, DC: American College of Obstetricians and Gynecologists; 2013.
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REVIEWED/APPROVED BY

Dr. Angela Martin, OB Medical Director - KC

Dr. Yeats & Dr. Blevins, SWKC OB

Great Bend:

- OB Manager
- Director of Nursing
- OB Medical Director
- Great Bend Leadership, 5/2025

Kansas Perinatal Quality Collaborative

Univ of KS KC- July 2025 policy!

ordered algorithm pathway below:

Management of *persistent* severe range BP (follow treatment algorithm below):

Treatment Recommendations for Sustained (after 15 min recheck) Systolic BP≥160mmHg or Diastolic BP≥110mmHg

Consider hydralazine or nifedipine if maternal history of bradycardia, severe asthma, or cocaine use

Consider labetalol for maternal HR >110BPM

Labetalol IV as Primary Hypertensive	Hydralazine IV as Primary Hypertensive	Nifedipine PO as Primary Hypertensive
Initial dose 20mg labetalol IV	Initial dose 5mg hydralazine IV	Initial dose 10mg nifedipine PO immediate release
Repeat BP in 15 minutes. Text page provider STAT with BP.	Repeat BP in 15 minutes. Text page provider STAT with BP.	Repeat BP in 15 minutes. Text page provider STAT with BP.
SBP≥160 or DBP≥110 Give 40mg labetalol IV	SBP≥160 or DBP≥110 Give 10mg hydralazine IV	SBP≥160 or DBP≥110 Give 20mg nifedipine PO
Repeat BP in 15 minutes. Text page provider STAT with BP.	Repeat BP in 15 minutes. Text page provider STAT with BP.	Repeat BP in 15 minutes. Text page provider STAT with BP.
SBP≥160 or DBP≥110 Give 80mg labetalol IV	SBP≥160 or DBP≥110 Convert to labetalol pathway Give 20mg labetalol IV per algorithm	SBP≥160 or DBP≥110 Give 20mg nifedipine PO
Repeat BP in 15 minutes. Text page provider STAT with BP.	Repeat BP in 15 minutes. Text page provider STAT with BP.	Repeat BP in 15 minutes. Text page provider STAT with BP.
SBP≥160 or DBP≥110 Give 10mg hydralazine IV	SBP≥160 or DBP≥110 Give 40mg labetalol IV *and obtain emergent consultation* from maternal-fetal medicine, anesthesia, or critical care for transfer of care or continuous IV infusion	SBP≥160 or DBP≥110 Give 40mg labetalol IV *and obtain emergent consultation* from maternal-fetal medicine, anesthesia, or critical care for transfer of care or continuous IV infusion
Repeat BP in 15 minutes. Text page provider STAT with BP.		
SBP≥160 or DBP≥110 Give 10mg hydralazine IV *and obtain emergent consultation* from maternal-fetal medicine, anesthesia, or critical care for transfer of care or continuous IV infusion		

Target BP: 130-150/80-100mmHg

Once BP threshold is achieved:

- Q15min for 1 hour
- Q30 minutes for 1 hour
- Q1 hour for 4 hours

For all patients with hypertension:

- If the BP is above threshold after 15 min recheck, initiate the ordered treatment pathway. **Do not wait for provider response.**
- Initiate CEFM if fetus is viable
- Consider concurrent magnesium sulfate for seizure prophylaxis.
- After third antihypertensive, provider should come to bedside if in house. If the patient is on antepartum at KC, transfer to L&D.
- If persistent hypertension after 2 different agents given:
  - Consider delivering patient, transfer to ICU, or continuous antihypertensive infusion in consult with critical care medicine.

Delivery Considerations:

Delivery should be considered* for the following maternal conditions: persistent severe range BPs not response to antihypertensives, HELLP syndrome, persistent headaches refractory to treatment, epigastric or right upper quadrant pain unresponsive to repeat analgesics and antacids, persistent visual disturbances, altered mental status, stroke, myocardial infarction, acute or acute on chronic renal failure with serum creatinine > 1.1 mg/dL or twice baseline, pulmonary edema, eclampsia, or placental abruption.

Delivery should be considered* for the following fetal conditions: category 3 fetal heart tracing, fetus without expectation for survival at the time of maternal diagnosis (i.e. lethal anomaly, previable gestational age), persistent reversed end-diastolic flow in the umbilical artery, fetal death.

*In some of the above conditions, delaying delivery by 48 hours or longer may be considered depending on the gestational age and severity of maternal illness to allow for antenatal corticosteroids or fetal growth under supervision of a maternal-fetal medicine specialist.

Other Considerations:

- The use of nifedipine IR or extended release (e.g., Procardia XL) is **NOT** contraindicated in patients receiving magnesium for fetal benefit or for prevention of seizures
- Usual seizure prophylaxis with magnesium sulfate is recommended for all patients with preeclampsia and gestational hypertension and severe features including persistent severely elevated blood pressures.
- All hypotensive medications should be used with caution in patients with underlying renal insufficiency, cardiac dysfunction, or pulmonary edema, especially in conjunction with magnesium sulfate. Maternal-fetal medicine, anesthesia, or critical care consultation and management may be advisable with hypertensive urgency in these patients.
- **Blood pressure urgency / emergency may occur in the antepartum or post-partum period and may be the presenting sign of hypertensive disorders of pregnancy**
- Extended release or standard antihypertensive medications (Procardia XL, Labetalol, Clonidine, etc.) may be initiated as indicated at any point without delay.
- Patients with hypertension **should not** receive methylergonovine maleate (Methergine™) as a uterotonic
- Allergies to the suggested medications should be the only contraindication to treatment of hypertensive urgency with very few exceptions:
  - Consider **alternatives to labetalol** in patients with **severe asthma or other reactive airway conditions**
  - Use calcium-channel blockers for hypertensive urgency caused by (or suspected to be caused by) cocaine or methamphetamine
- Post-partum patients may be candidates for antihypertensive medications not frequently used during pregnancy or intrapartum
  - ACE inhibitors and combinations (e.g., Enalaprilat, Vasotec)

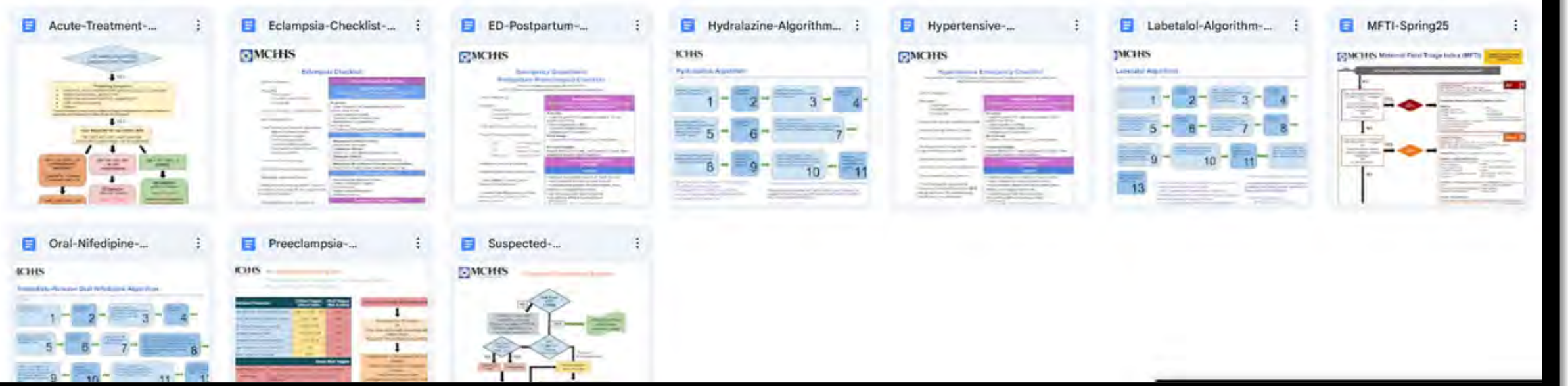
KPQC Kansas Perinatal Quality Collaborative

Mitchell County Hospital Health Systems
Champion: Nicki Cleveland

We finally got the HTN/Med protocols passed through Med Staff and are planning to have a lunch and learn with our Obstetrics nursing staff in the next couple of weeks to get these implemented into practice. We are going to use red 3 ring binders to put two in our nursery, one in our ER, and one in the providers clinic.
Additionally, we are taking the protocols and making them order sets in our EHR (Cerner).

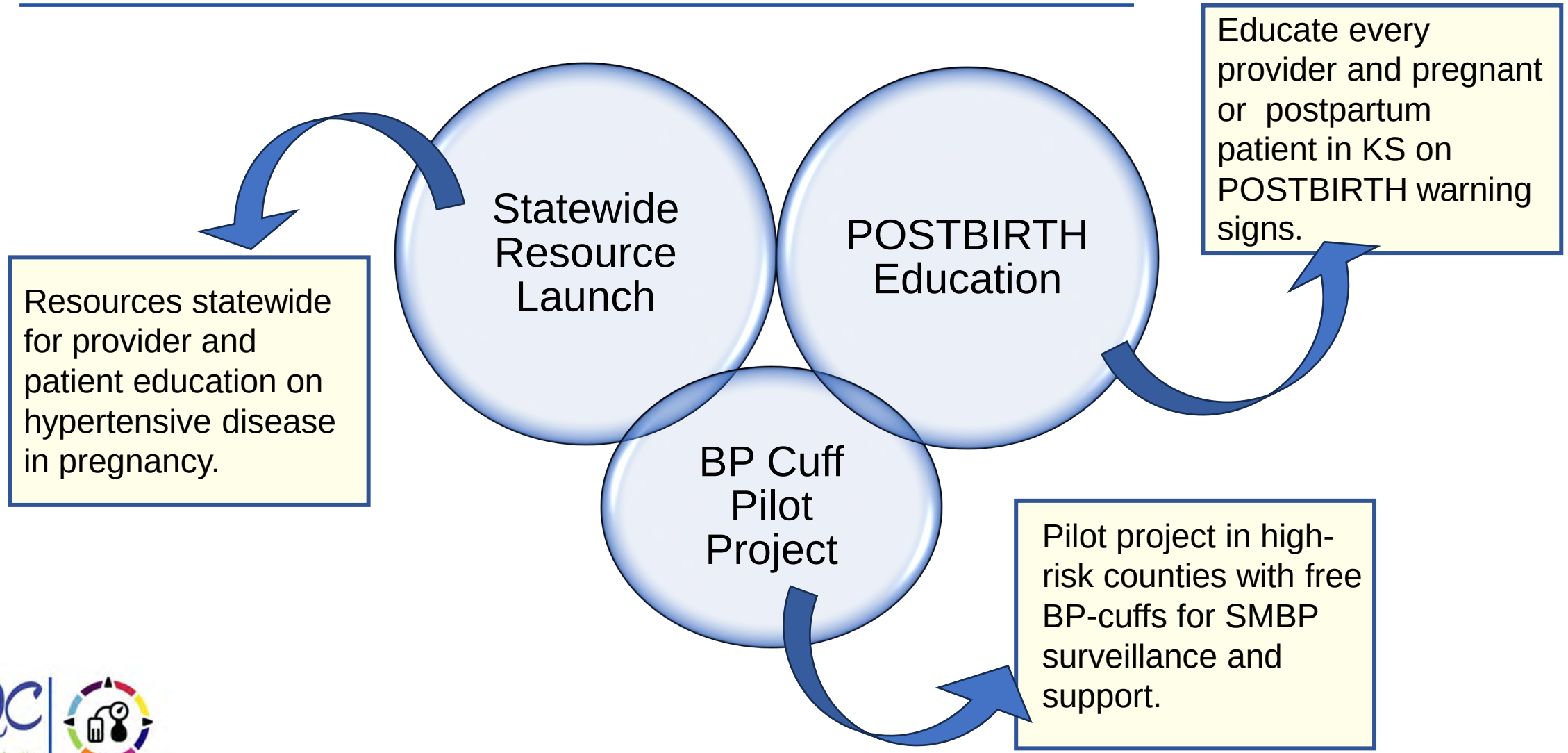
Exciting stuff! Just wanted to keep you in the loop.

Are we needing to send each of these to you?



Kansas Perinatal Quality Collaborative

Kansas Cuff Project



KPQC
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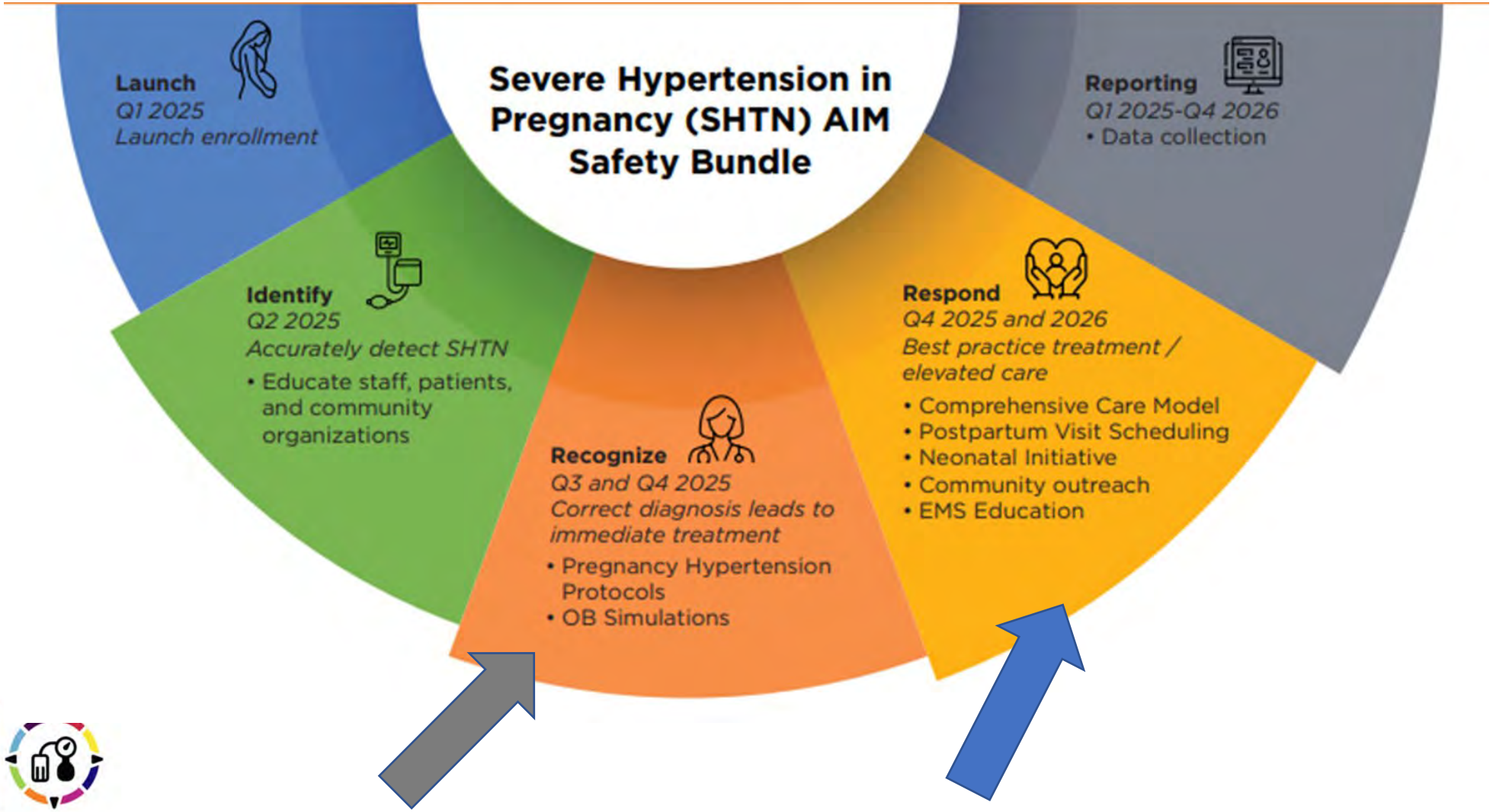
SHTN: Bundle Timeline



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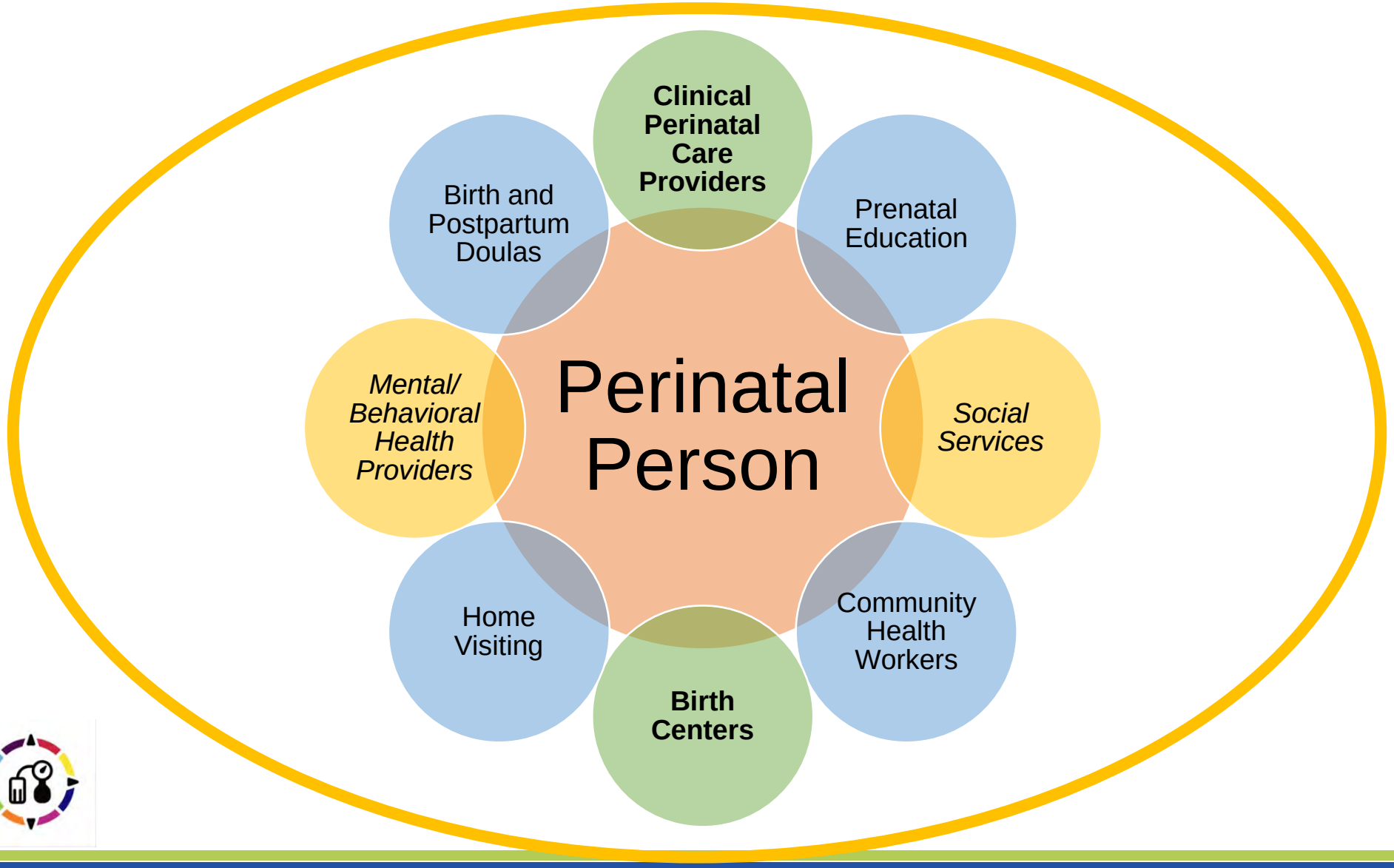
Community Support for Positive Clinical Outcomes



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Let's talk about Transport

KPQC
Kansas Perinatal Quality Collaborative

KPQC

Kansas Perinatal Quality Collaborative

Today's Presentations

Heather Scruton
MBA, MSN, RNC-OB

Heather Scruton graduated from the University of Kansas School of Nursing in 1997 and in 2014 received her master's degrees in nursing administration and business administration from the University of Mary. She currently works at Children's Mercy Hospital in Kansas City as the Director of Outreach for the Critical Care Transport Team. One of the busiest specialty transport services in the country, Children's Mercy Transport completes approximately 6,000 neonatal, pediatric, and maternal transports each year, having added the obstetric service in 2017. Previously, she helped design and open the CMH Fetal Health Center, which provides high-level fetal intervention and maternal/fetal medicine within a free-standing pediatric hospital; only the second of its kind.

Heather has presented nationally on the topics of nursing advances in fetal medicine, innovative program design and implementation, communication in healthcare, and maternal-fetal transport. In 2017, she received the Nurse in Washington Internship scholarship and attended legislative days on Capitol Hill in 2018, 2019, and 2021 where she educated federal lawmakers on issues including family medical leave, the opioid epidemic response and rising national maternal mortality rates. She serves on the Kansas Maternal Mortality Review Board and was the Kansas AWHONN Legislative Coordinator from 2015-2020. In 2018, she was awarded the March of Dimes Women's Health Nurse of the Year for Kansas City. She has worked in high-risk Obstetrics for 25 years.

Forgotten Partners: Integration of EMS in Maternal Mortality Reduction

Heather Scruton, MBA, MSN, RNC-OB

Children's Mercy Kansas City

Assistant Director, Critical Care Transport

Objectives:

Demonstrate	Recognize	Articulate
Demonstrate how to utilize emerging MMRC data to provide the “why” to non-obstetric specialties.	Recognize common historical and resistance barriers inherent in multi-specialty collaboration.	Articulate 3 differences in maternal compensatory response to injury/illness

Leading the World…*in a bad way.*

Source: March of Dimes, 2019

CDC's Strategies for Preventing Pregnancy-Related Deaths

- Step 1: Use data to understand the scope of the problem
- Step 2: Understand the context of the solution
- Step 3: Identify potential goals and strategies
- Step 4: Act on strategies

Source: Division of Reproductive Health, Centers for Disease Control, 2022

California Maternal Quality Care Collaborative

- Multi-stakeholder collaborative founded in 2006, Celebrating 15 years!
- Launched with funding from California Department of Public Health to address rise in maternal mortality
- Maternal Mortality Reviews to Action:
  - Quality Improvement Toolkits
  - Large-scale QI Change Collaboratives
  - Partner with everyone
  - Maternal Data Center

CMQCC Mission: End preventable morbidity, mortality and racial disparities in maternity care

Maternal Mortality Ratio in U.S. and California, 1999-2016

CA-PMSS Surveillance Report: Pregnancy-Related Deaths in California, 2008-2016. Sacramento: California Department of Public Health, Maternal, Child and Adolescent Health Division. 2021.

Hypertensive Disorders of Pregnancy Alerts in the ED

- Most important 1st step is to identify whether the patient is or has been pregnant in the last 6 weeks
  - If YES ❼ assess *immediately*
- ED and OB clinicians should be notified of the patient's arrival immediately to expedite evaluation and treatment

Improving Health Care Response to Hypertensive Disorders of Pregnancy, a CMQCC Quality Improvement Toolkit, 2021.

Hypertensive Emergency in Pregnancy/Postpartum

Applies to all forms of HDP: chronic, gestational, and preeclampsia with or without severe features

Systolic	Diastolic	Action
≥ 160	≥ 110	Repeat BP within 15 minutes. If BP remains within severe-range - treat within 30-60 minutes (ideally ASAP).

DO NOT WAIT TO TREAT THE HYPERTENSIVE EMERGENCY

ACOG Practice Bulletin #222, June 2020

CMQCC/Joint Commission/ACOG/ SMFM:

<u>Timely</u> Treatment of Hypertension – strongly recommended

Most important action to reduce severe maternal mortality and morbidity from hypertensive disorders of pregnancy is the rapid timely treatment of severe hypertension.

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 giving birth.** Learning to recognize these POST-BIRTH warning signs and knowing what to do can save your life.

POST-BIRTH WARNING SIGNS

Call 911
if you have:

- ❑ **P**ain in chest
- ❑ **O**bstructed breathing or shortness of breath
- ❑ **S**eizures
- ❑ **T**houghts of hurting yourself or someone else

Call your healthcare provider
if you have:

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

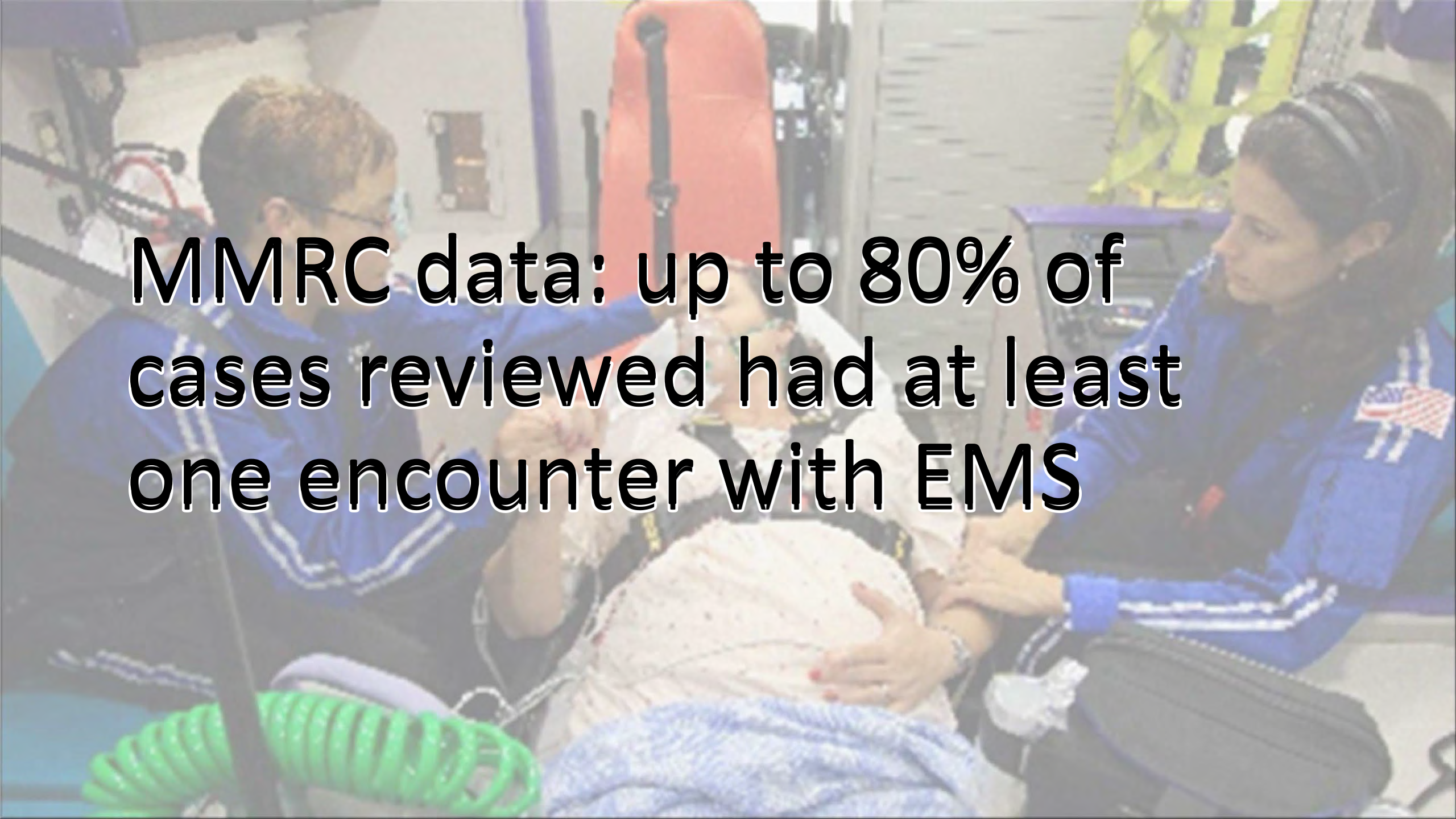
- ❑ **B**leeding, soaking through one pad/hour, or blood clots, the size of an egg or bigger
- ❑ **I**ncision that is not healing
- ❑ **R**ed or swollen leg, that is painful or warm to touch
- ❑ **T**emperature of 100.4°F or higher
- ❑ **H**eadache that does not get better, even after taking medicine, 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 gave birth on _____ and
(Date)
I am having _____."
(Specific warning signs)

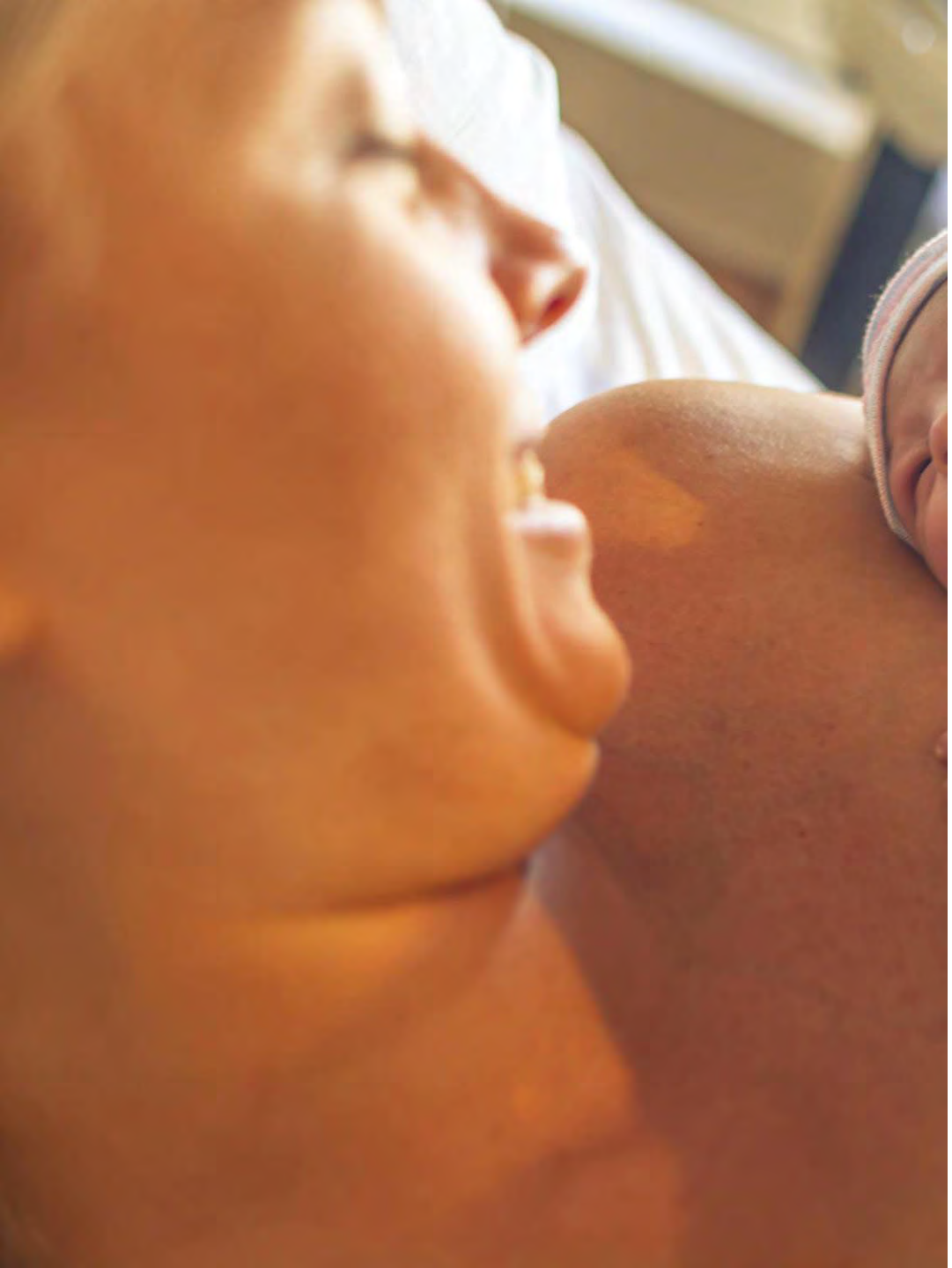
Who am I forgetting?



MMRC data: up to 80% of cases reviewed had at least one encounter with EMS

History of Time Critical Response in EMS

- Missouri was the first state in the nation to comprehensively integrate the *common processes involved in the medical treatment of time-critical conditions.*
- Encompasses stroke, trauma, STEMI.
- Dr. John Jermyn, a Barnes-Jewish ED physician and Missouri EMS medical director
- Started with simple identification of a TCD by EMS and transport to nearest hospital.
- “Right care. Right place. Right time.”



Time Critical Response Goals:

- Timely EMS triage
- Informed diagnosis
- Definitive multi-disciplinary treatment

Outcomes improve dramatically with rapid response and appropriate destination

Pulling together the entire team:

EMS Integration:

Find your partners and make new friends.

Discover what they know…and what they don't.

Discover what they can do…and what they can't.

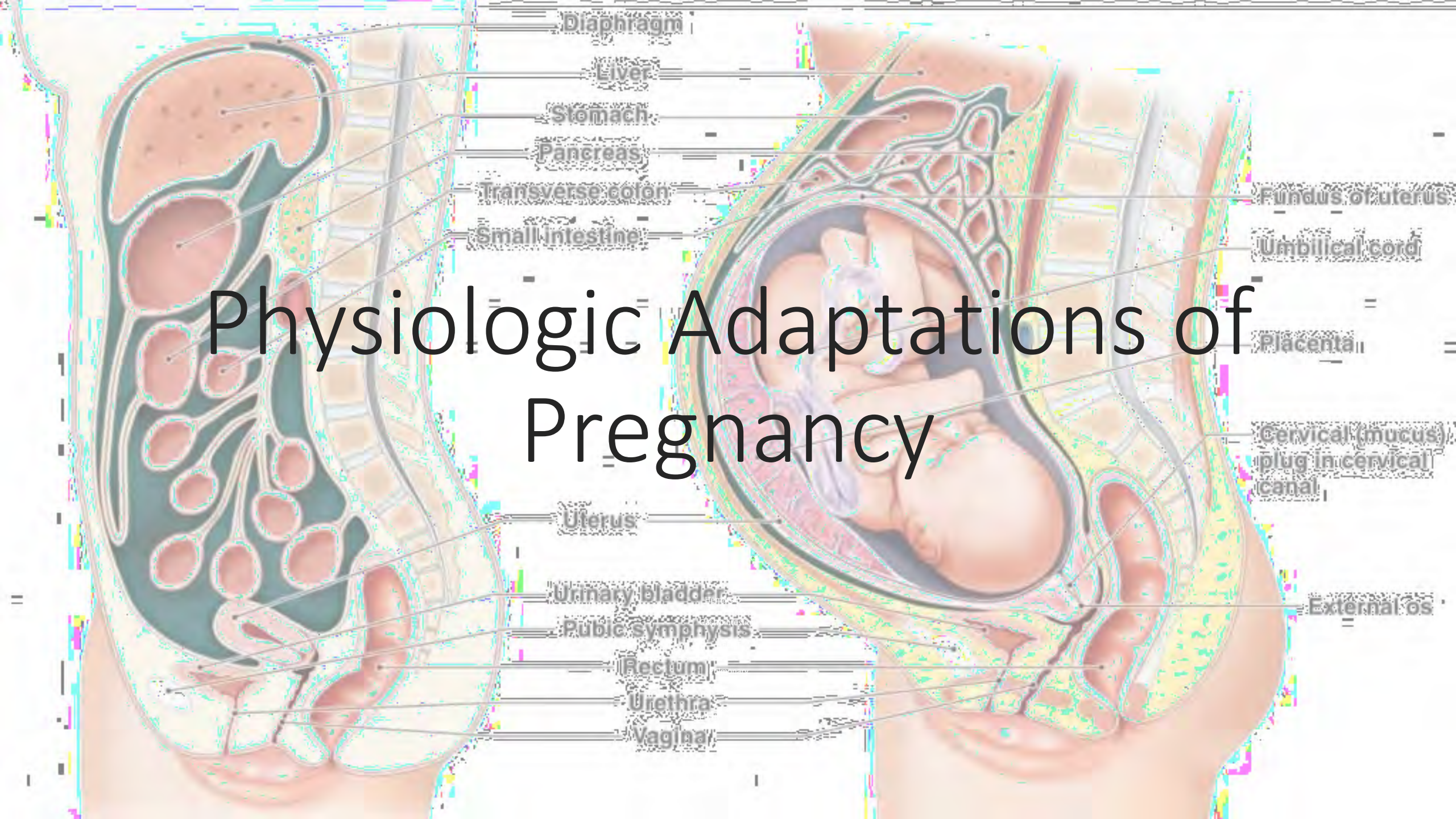
Make education free, because your friends are ***broke***.

Real stories make real impact.

Local/State EMS conferences need speakers!

Invite your hospital friends to the party: OB, ED, Transport.


This is not enough.



Physiologic Adaptations of Pregnancy

Hemodynamics of Pregnancy

CARDIOVASCULAR CHANGES DURING PREGNANCY	
Heart Rate	Increases 12%-20%
Blood Volume	Increases 30%-50%
Plasma Volume	Increases 40%-60%
Red Cell Mass	Increases 20%-30%
Cardiac Output	Increases 30%-50% (40%-45% average)
Stroke Volume	Increases 25%-30%
Systemic Vascular Resistance	Decreases 20%-30%
Colloid Oncotic Pressure	Decreases 20%
Diastolic Blood Pressure	Decreases 10-15 mm Hg by 24-32 weeks

Hypertensive Disorders of Pregnancy *AKA*

- Gestational Hypertension
- Eclampsia/Preeclampsia
- Preeclampsia with Severe Features
- Superimposed Preeclampsia
- HELLP Syndrome
- Pregnancy Induced Hypertension (PIH)
- "Toxemia"

Pulmonary Considerations

Metabolic rate increases

Increased oxygen requirements

Shunting to uterus and placenta

10x risk of failed intubation

High risk of aspiration

Cricoid pressure

- Hypercoagulable state
  - Protective at delivery – hemostasis
  - Risk of VTE quadruples *following* delivery

MgSO4: *so* easy to screw up.

- Used differently in obstetrics!
  - *Generally misunderstood by EMS*
  - *Neuroprotection?*
- Maternal Side Effects
  - *Burning at infusion site, flushing*
  - *Decreased LOC*
  - *Loss of DTRs*
  - *Respiratory depression*
- Safety measures
  - *On a pump, every time*
  - *Calcium gluconate, locked and loaded*

When “normal” sometimes isn’t…

- Fatigue
- Exertional dyspnea
- Dizziness
- Mild tachycardia
- LE edema
- Pain
- Headache
- Blurry vision

Maternal Code Blue

- Displace uterus manually
- Large bore IV(s)
- Delivery optimizes outcomes. Transport to facility with **surgical** capabilities

Maternal/Fetal: Emerging Specialty Transport

2020 ACOG/SMFM Joint Care Consensus Statement:

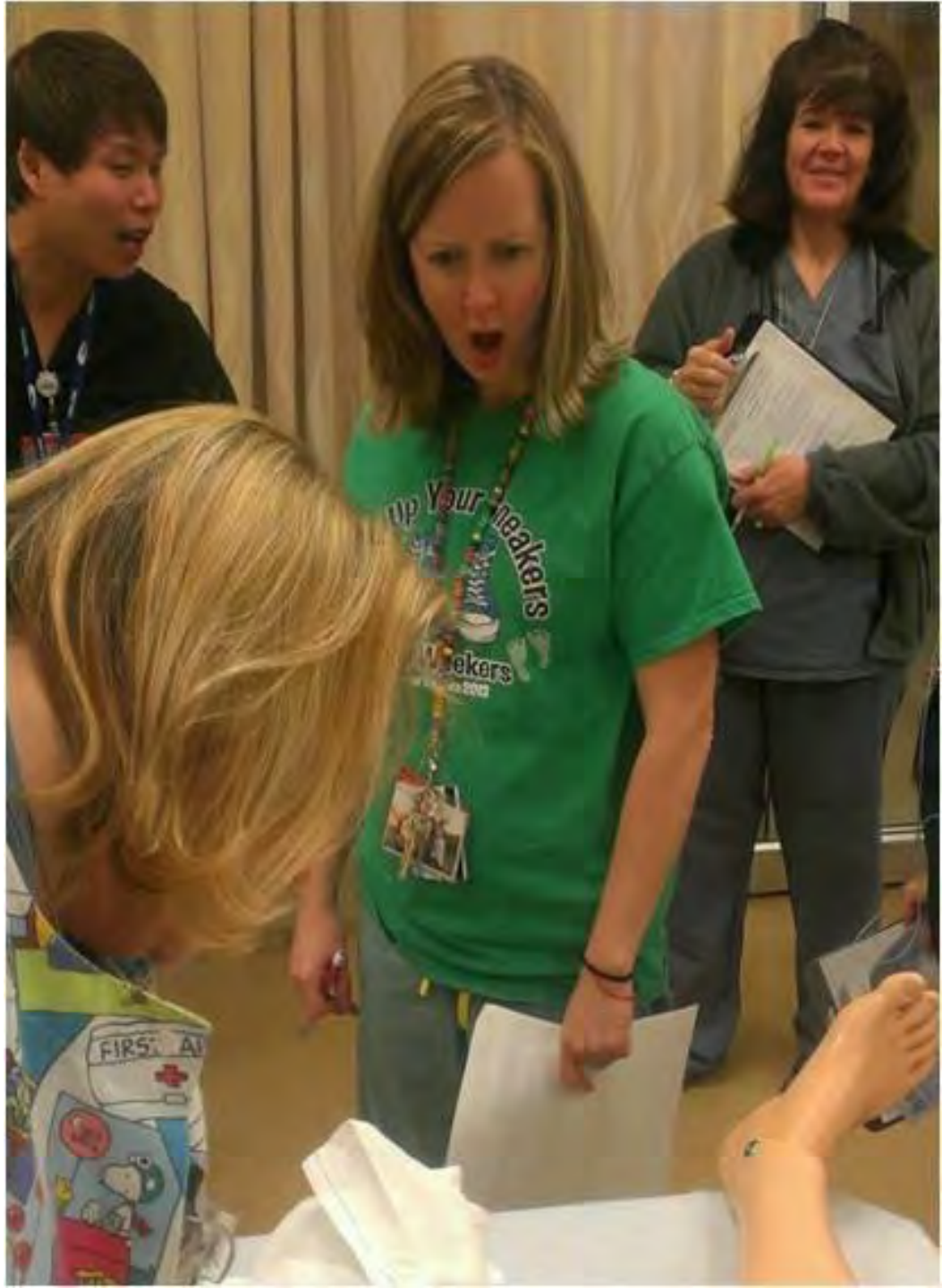
Specialty Transport Designation
Established perinatal levels of care to promote improved outcomes

2020 Joint Commission Standards for Maternal Safety:

Maternal transport plan
Obstetric education

Challenges:

- Fear
- No fear
- The wrong fear
- Arrogance
- Connections
- Habits
- Exposure
- It’s not always who you expect.



Solutions: Not a one-specialty task.

- Champions
  - OB nurses **and** providers
  - ED nurses **and** providers
  - EMS frontline, medical directors, leadership
  - Hospital/EMS Administration
  - State MMRC
  - State hospital association
  - Professional organizations
  - Even social media?

But one person can create big changes:

Join

- Join your state's MMRC

Create

- Create an OB/ED/EMS committee

Be Friendly

- Get to know your local OB experts

Volunteer

- Volunteer free education
  - *EMS*
  - *ENA*
  - *Critical access hospitals*
  - *Educational swag*

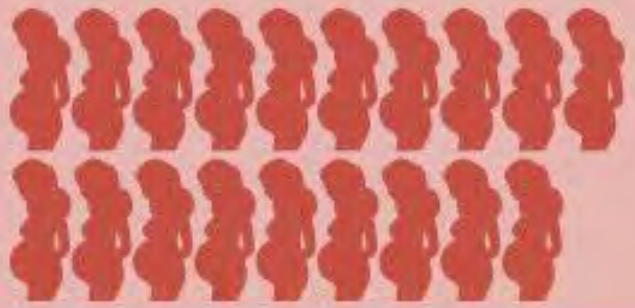
Here's what I did…

- Assistant Director, Critical Care Transport and EMS Relations
- Maternal transport program
- Outreach education
- Kansas MMRC
- State EMS meetings
- Relationship-building/sharing the why
  - Joseph House, Deputy Director, Kansas Board of EMS
  - *Mandatory statewide EMS documentation addition: "Are you now or have you been pregnant in the past 12 months?"*
  - National Association of State EMS Officials

Black Women Face Three Times the Maternal Mortality Risk as White Women

Black mothers: **55**

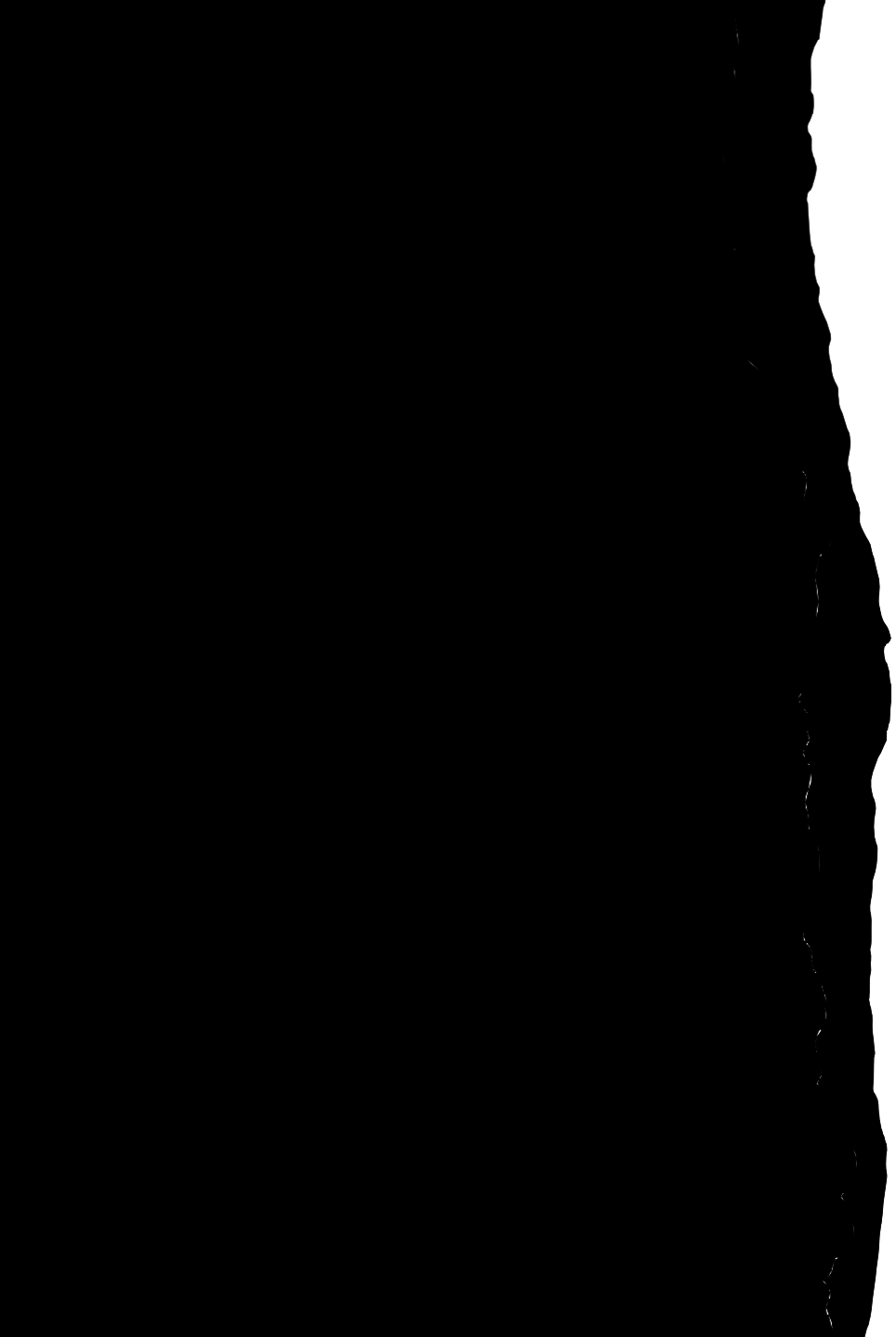
White mothers: **19**



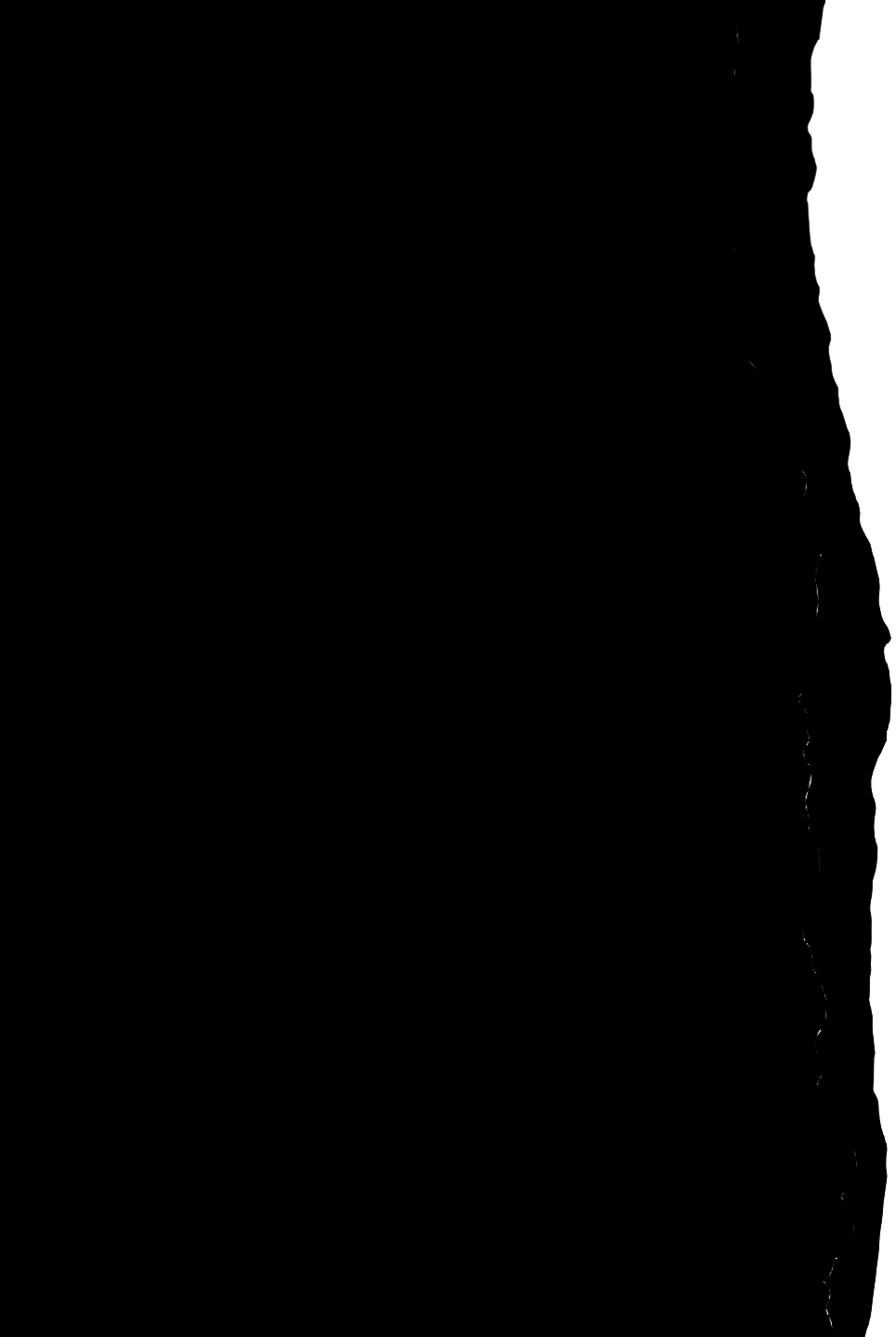
Hispanic mothers: **18**

*Deaths per 100,000 live births

Source: https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm



- 35yo African American G1P0
- 24 hours post-op C/S for NRFHTs
- Excellent physical condition, though h/o “blood clots” 7 years prior
- Pt. c/o cough, SOB, anxiety, post-surgical pain. “I think I’m dying!”



- Pt. requests CT/heparin, as she believes she is experiencing a blood clot.
- Nurse concludes patient is “not thinking clearly” due to pain medicine.
- Pt. continues to experience symptoms, vehemently insists her physician be paged.

- Physician to bedside, performs bilat leg u/s, which was “normal”.
- Patient persists in insisting on CT/heparin.
- CT performed: pulmonary embolus identified.
- Percutaneous embolectomy successful. Patient eventually d/c to home on heightened surveillance, heparin, and bedrest.

And now….this.


Cervical Dilation
- a visual guide -
Cheerio®
1 cm
Slice of Banana
3 cm
Cracker
4 cm
Soda Can
7 cm
Bagel
10 cm

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Heather Scruton, MBA, MSN, RNC-OB
Assistant Director, Critical Care Transport
Children's Mercy Kansas City
hkscruton@cmh.edu

Heather Morgan, MD

Dr. Morgan is a neonatologist at Via Christi Manhattan's Birth & Women's Center. She has more than 15 years of experience in a Level III Neonatal Intensive Care Unit.

Outside the Delivery Room: What Now?

Dr. Heather Morgan, Neonatologist

Conflicts of Interest

I do not have any conflicts of interest

Objectives

1. Identify patients that need to be transferred out of your facility.
2. Know how to contact facilities in the State that can help.
3. Know in general what resources are available in the different facilities.
4. What can you do until Transport arrives?
5. What information can you gather for transport.

Background

18 years of experience working with Transport Teams (Ground and Air)
UMKC: Medical Doctor
KU in Kansas City: Pediatric Residency
Saint Louis University: SSM Cardinal Glennon: NICU Fellowship
Stormont-Vail: 15 Years in the Level 3 NICU
Ascension Via Christi Manhattan: Nursery Medical Director

Higher level of care

Level 4: They can handle anything: Heart Surgery, All subspecialists, ECMO, Nitric Oxide and Jet ventilator available on transport.

- Children's Mercy: 1-800-GO-MERCY
- May need to transfer mom to Truman Medical Center (University Hospital): 816-404-1000

Level 3+: They have a surgeon and can do abdominal surgery but not Cardiac Surgery or ECMO, Many specialists available. Therapeutic Hypothermia, Transport team available. Nitric Oxide and Multiple ventilation strategies.

- Overland Park Regional: 913-541-5000

Level 3: May not have a surgeon, No ECMO, Some specialists, Therapeutic Hypothermia, Transport Team available. Nitric Oxide, Multiple Ventilation Strategies.

- Stormont Vail Medical Center: 877-354-5600
- Wesley Medical Center: 316-962-2000
- Ascension Via Christi Wichita: 316-268-5000

Decision to transfer: What now?

1. What resources does your patient need?
2. Who has the resources needed?
3. What does the transfer process look like at your facility?
4. S.T.A.B.L.E.
5. Contact outside facility
6. **PHYSICIAN TO PHYSICIAN CONVERSATION**
7. Accepting facility and physician
8. How will the patient be transported?
9. How long will it take for transport to get to you?

What to gather: Next steps

1. Mom’s facesheet
2. Infant’s facesheet
3. Maternal prenatal records and labs
4. Maternal History and Physical
5. Delivery Room Record (Apgars and birth story)
6. Infant’s History and Physical
7. Pertinent labs: Maternal and Infant
8. Cloud images or Burn to a disk
9. Obtain Newborn State Screen prior to transfer
10. Obtain pictures of newborn for family (Follow your hospital policy)
11. Get mom started pumping if she is going to breastfeed (If safe)
12. Emtala paperwork to sign (This is a medically necessary transfer)
13. Gather parents cell phone numbers for transport team
14. Summary sheet (Stormont and CMH)

Case Studies

Where do we send the patient?
What information do you need prior to calling transfer line?
What resources are needed?
Family's preference?

Case Study: No PNC

33 yo G3 P2002 non-english speaking mom from Guatemala (Speaks K'iche); presents to Labor and Delivery with abdominal pain. She has only been in the US for ~ 6 weeks and has not had any prenatal care in the US. She is having contractions.

FHTs are reassuring (Category 1). Cervical exam 2-3 cm 60% effaced -2 station. Membranes are intact. Mom states she is ~ 38 weeks pregnant. Fundal height 38 cm.

Case Study: No PNC

1. What is needed?
    - Prenatal Panel
      (Blood Type/Screen, HIV, RPR, Hep B panel, Rubella)
    - Interpreter
    - US: For dates/position/# of babies

Case Study: No PNC

Blood Type O+
Rapid HIV 1 and 2: Positive
Hepatitis B: Negative
RPR: Send Out
Rubella: Send Out

US: 1 Intrauterine fetus: Vertex BPP 8/8
Category 1 fetal heart rate tracing
After fluids contractions are now not as strong but continue every 4-5 minutes

What now?

Case Study: No PNC

Transfer Mom!

Where?
What resources need to be available?

Do you know if your hospital carries AZT IV for mom? Meds for baby? (Zidovudine, Lamivudine, Nevirapine)

Case #2 Surgical Abdomen

39 3/7 week AGA infant born by uncomplicated vaginal delivery to a 25 yo G2 now P2002 mom. No prenatal complications. Normal prenatal labs. Infant has been breastfeeding. At 12 hours of age infant has had 2 meconium stools and voided once. At 15 hours of age infant is noted to have bilious emesis and a tender abdomen.

What now?

Case #2 Surgical Abdomen

- Physician is notified and orders a KUB:
  - Infant is noted to have distended intestinal loops in the upper abdomen.
- Infant now has decreased tone and distended abdomen on exam.
- What are you concerned about?
  - Malrotation or intestinal atresia.
- What resources do you need?
- Infant needs evaluation by a surgeon.
  - Children's Mercy or
  - Overland Park Regional.

Preterm Labor or Infant

27 yo G1 mom at 32 4/7 weeks gestation presents with abdominal pain that is coming and going ~every 5 mins for the past 2 hours.

- Early and regular prenatal care.
- Normal prenatal labs.
- Blood type is B+.
- She had a GBS UTI at 8 weeks.
- Membranes are intact.
- Cervical exam 4 cm 70% effaced -2 station.

What now?

Preterm Labor or Infant

- Betamethasone (Dexamethasone if Beta unavailable.)
- Start GBS antibiotics.
- Call for transfer: Any of the Level 3-4 facilities would be appropriate.

Preterm Labor or Infant

27 yo G1 mom at 32 4/7 weeks gestation presents with abdominal pain that is coming and going ~every 5 mins for the past 2 hours.

- Early and regular prenatal care.
- Normal prenatal labs.
- Blood type is B+.
- She had GBS UTI at 8 weeks.
- Membranes are ruptured
- Cervical exam 6 cm 70% effaced -2 station.

What now?

Preterm Labor or Infant

- Betamethasone (Dexamethasone if Beta unavailable.)
- Start GBS antibiotics.
- Call for transfer:
    - Stormont Vail will come for delivery
        - <32 weeks Neonatologist will come
        - >32 weeks ARNP will come with team
    - CMH or Wichita will come after delivery

HIE due to prolapsed cord

31 yo G2 P1001 mom at 40 3/7 weeks presents in active labor.

Cervix is 6cm 90% effaced and -2 station.
Normal prenatal labs. GBS negative.
OB performs AROM.

2 hours later Fetal heart tones suddenly drop to the 70s and are not recovering. Drop is between contractions. On cervical exam the umbilical cord is palpated in front of the head.

What now?

HIE due to prolapsed cord

- Do not move your hand.
- Call for help!
- lift the fetal head off of the cord.
- Prepare for an emergency c-section.

At delivery infant is limp and floppy with only occasional gasping respirations. Heart rate is in the 50s. Infant does not respond to drying and stimulation. 1 min apgar is 2, 5 min apgar is 3, at 7 minutes infant is intubated. 10 min apgar: 7 with intubation and PPV.

What now?

HIE due to prolapsed cord

- Consider HIE: Turn the warmer off and monitor infant's temp rectally every 15 minutes.
- Obtain Cord gasses
- Place a PIV (Avoid antecubitals if possible)
- Transfer to any of the Level 3 or 4 hospitals is appropriate.
- Do not attempt active cooling.
- You have to have active cooling started by 6 hours of life.
- Please remember to call early and often!

THE END!
Questions?

Dr. Chettiar is a board-certified obstetrician and gynecologist. After attending medical school at Creighton University and completing her OB/GYN residency at the University of Missouri, Kansas City, she practiced in the metro for 7 years before returning to academic medicine. She is now working at the University of Kansas in KC and is the Assistant Program Director for the OB/GYN residency.

In addition to her work as a general OB/GYN, she has a Perinatal Mental Health Certification and leads a Maternal Mental Health Clinic within the clinic at KUMC. Dr. Chettiar is the current chair of Kansas Maternal Mortality Review Committee as well as the chair of the Kansas Section of the American College of Obstetrics and Gynecology and is a passionate advocate for women's health.

TARA CHETTIAR, MD, FACOG

WHAT'S NEXT?

OR: HOW I LEARNED TO STOP WORRYING AND LOVE SCIENCE


"WHAT'S NEXT?"
PRESIDENT BARTLETT
THE WEST WING

DISCLOSURES

- I LOVE WEST WING
- OH YOU MEAN FINANCIALLY? NONE.

LEARNING OBJECTIVES

- ADDRESS THE CURRENT ISSUES WITH MISINFORMATION
  - TYLENOL
  - VACCINES
  - SSRIS
- REVIEW UPDATED GUIDANCE ON
  - MECHANICAL POSTPARTUM HEMORRHAGE MANAGEMENT
  - CORD CLAMPING
  - RHOGAM GUIDANCE
  - THE INFECTION FORMERLY KNOWN AS CHORIO

SCIENCE IS SCIENCE

Resource Link Below:

Combating Misinformation | ACOG


The internet people have gone crazy!

VACCINES

THE DEBATE THAT WONT SEEM TO DIE

Resource Links Below:

ACOG Explains: Vaccines During Pregnancy | ACOG

Facts Are Important: COVID-19 Vaccines | ACOG

FDA PANEL ON SSRI USE IN PREGNANCY

Resource Link Below:

ACOG Statement on the Benefit of Access to SSRIs During Pregnancy | ACOG

MENTAL HEALTH IS ALL IN YOUR HEAD

THE GREAT TYLENOL EVENT OF 2025

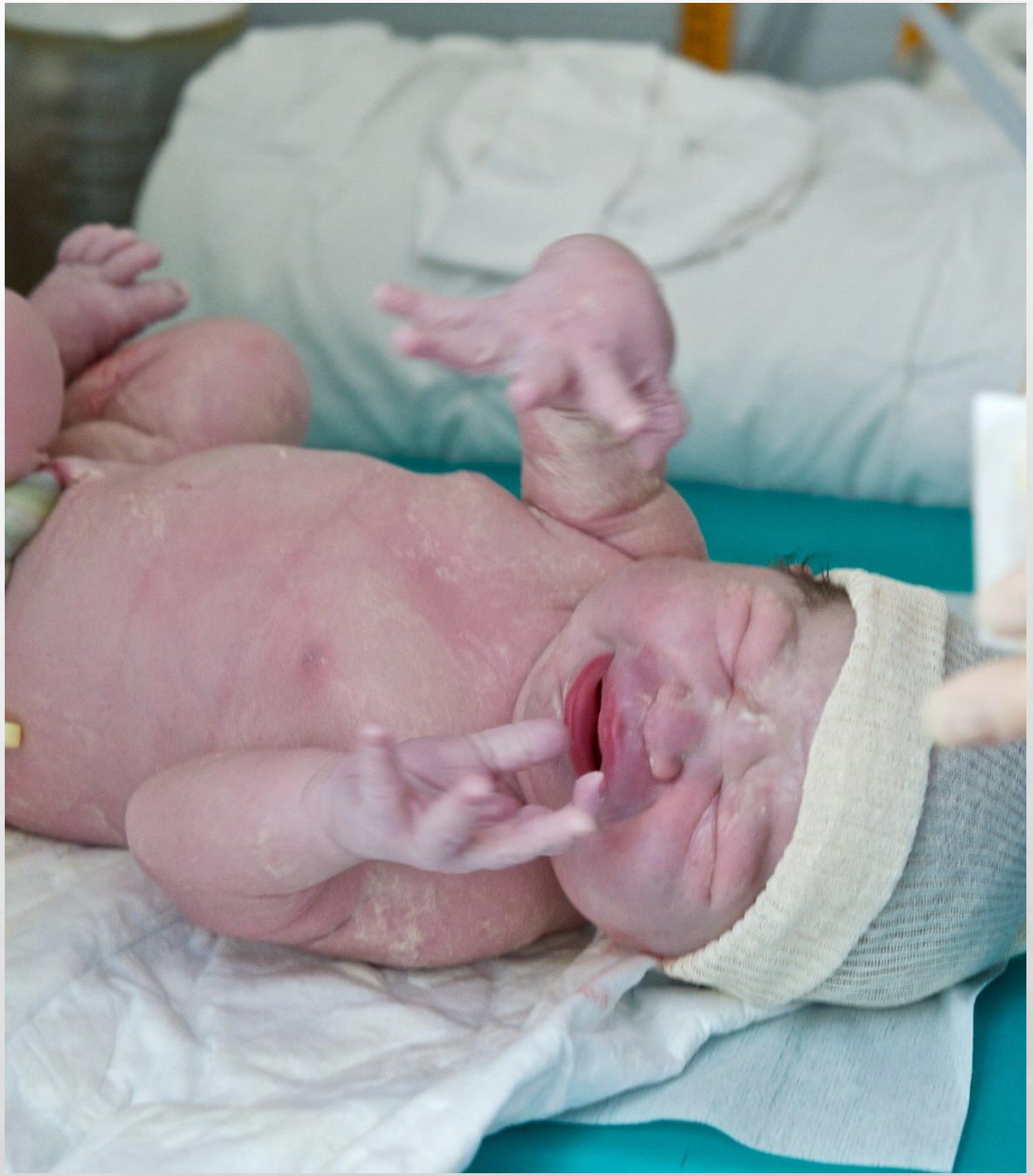
Resource Link Below:

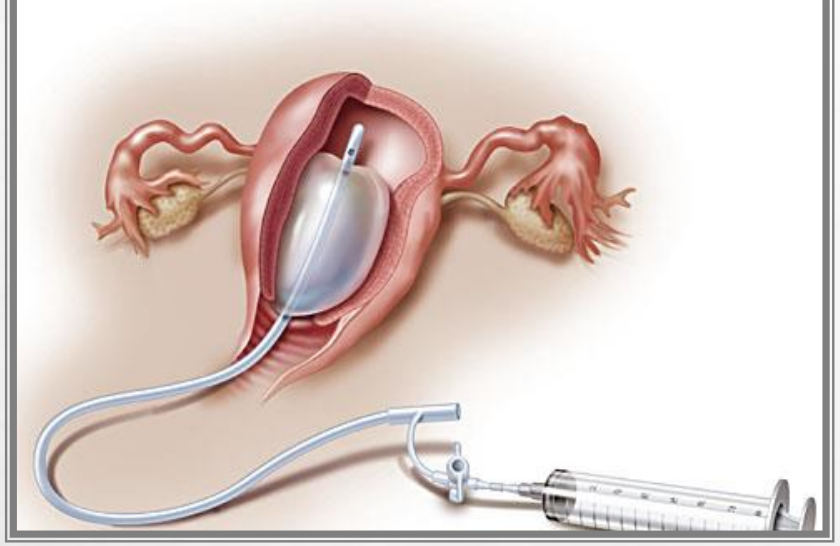
Acetaminophen Use in Pregnancy and Neurodevelopmental Outcomes | ACOG

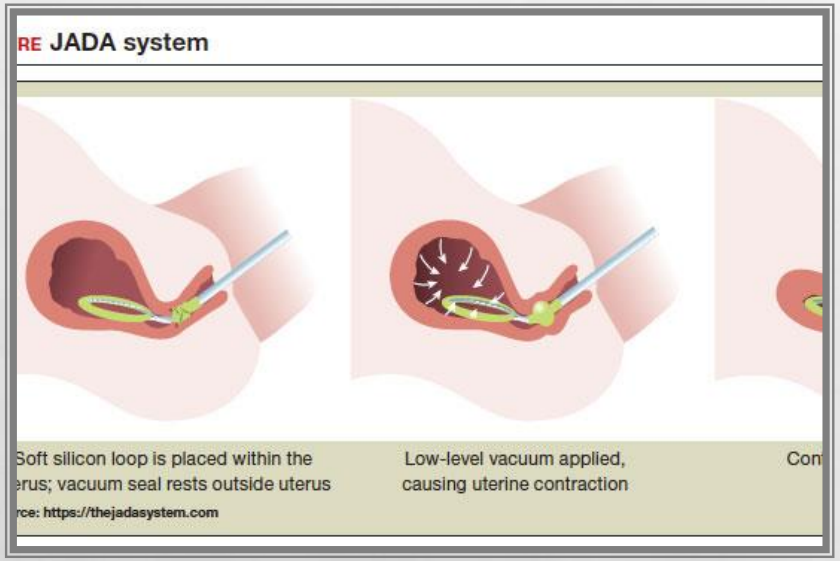
NOTHING IS SAFE

CORD CLAMPING

- DEFER UMBILICAL CORD CLAMPING FOR AT LEAST 60 SECONDS IN PRETERM NEONATES BORN AT LESS THAN 37 WEEKS OF GESTATION WHO ARE DEEMED NOT TO REQUIRE IMMEDIATE RESUSCITATION AT BIRTH.
- IN PRETERM NEONATES BORN AT 28 0/7–36 6/7 WEEKS OF GESTATION WHO DO NOT RECEIVE DEFERRED CORD CLAMPING, UMBILICAL CORD MILKING IS A REASONABLE ALTERNATIVE TO IMMEDIATE CORD CLAMPING TO IMPROVE NEONATAL HEMATOLOGIC OUTCOMES.







MECHANICAL CONTROL OF HEMORRHAGE

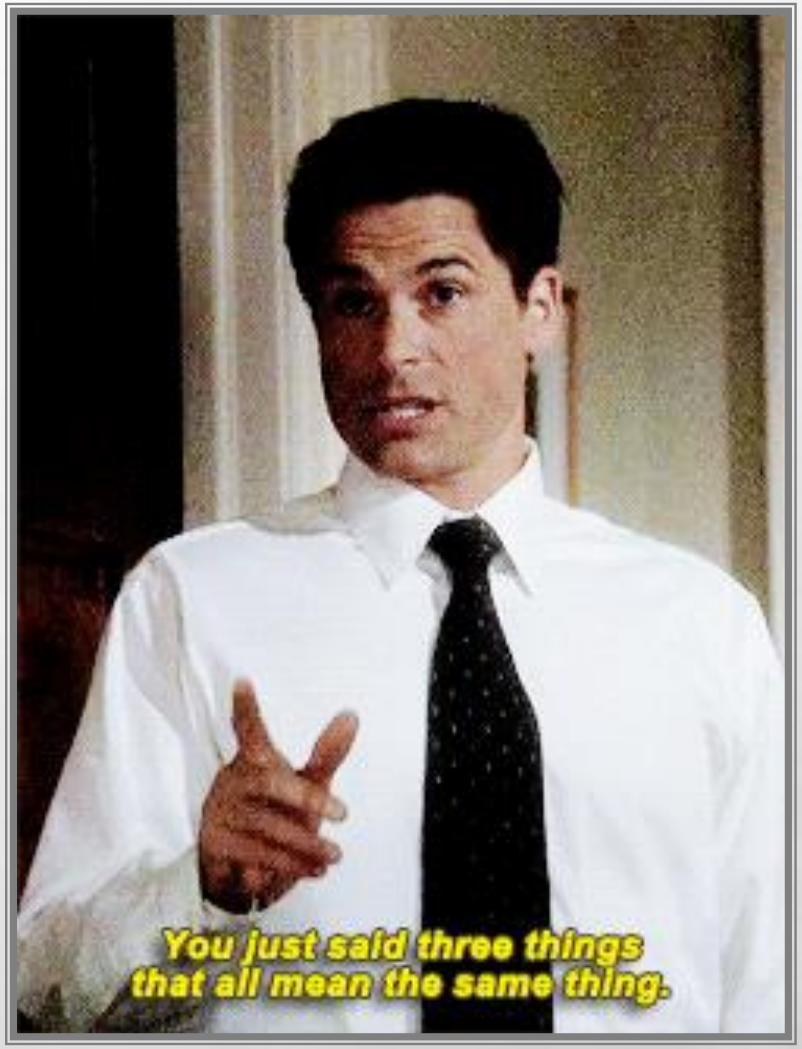
- GIVEN THE AVAILABLE EVIDENCE, THERE IS NOT ENOUGH INFORMATION TO PREFERENTIALLY RECOMMEND ONE INTRAUTERINE HEMORRHAGE-CONTROL DEVICE OVER ANOTHER.
- EVERY HOSPITAL AND FACILITY THAT CARES FOR OR TRANSPORTS OBSTETRIC PATIENTS SHOULD PROVIDE ACCESS TO EITHER TYPE OF DEVICE AS PART OF A COMPREHENSIVE MANAGEMENT ALGORITHM FOR PPH.

RHOGAM GUIDANCE

- NIPS APPROVED FOR FETAL BLOOD TYPE AND IF RH NEGATIVE FOREGO RHOGAM
- FOR PATIENTS **AT LESS THAN 12 0/7 WEEKS** OF GESTATION WHO ARE UNDERGOING ABORTION OR EXPERIENCING PREGNANCY LOSS:
  - **FOREGO** ROUTINE RH TESTING AND RHIG PROPHYLAXIS.
  - ALTHOUGH NOT ROUTINELY INDICATED, RH TESTING AND RHIG ADMINISTRATION CAN BE CONSIDERED ON AN INDIVIDUAL BASIS IN THE CONTEXT OF A SHARED DECISION-MAKING DISCUSSION ABOUT THE POTENTIAL BENEFITS AND RISKS.

INTRAAMNIOTIC INFECTION

- FORMERLY KNOWN AS CHORIOAMNIONITIS
- THE DIAGNOSIS OF SUSPECTED INTRAAMNIOTIC INFECTION IS MADE WHEN
  - THE MATERNAL TEMPERATURE IS GREATER THAN OR EQUAL TO 39.0°C OR
  - WHEN THE MATERNAL TEMPERATURE IS 38.0–38.9°C AND ONE ADDITIONAL CLINICAL RISK FACTOR IS PRESENT.



RESOURCES

- AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS
- SOCIETY FOR MATERNAL FETAL MEDICINE
- KANSAS CONNECTING COMMUNITIES

1-800-332-6262

Mental Health Consultation & Resource Network

Empowering clinicians. Elevating patient care.

Jennifer B. Espy
MSN, APRN, NNP-BC

With over 30 years of experience in neonatal care, Jennifer B. Espy is a seasoned Neonatal Nurse Practitioner (NNP-BC) specializing in the care of critically ill neonates. Currently serving as the Lead NNP at Menorah Medical Center in their Level II NICU, and working with Sunflower Neonatology, Jennifer has built a reputation for her deep clinical expertise and compassionate approach to both neonates and their families.

Throughout her career, Jennifer has been dedicated to improving neonatal outcomes, and most recently has been focused on the intersection of maternal health and neonatal care. Her passion for educating and mentoring others is reflected in her active involvement in teaching essential neonatal resuscitation skills, including Neonatal Resuscitation Program (NRP) and S.T.A.B.L.E. courses, which are critical in supporting healthcare professionals who care for neonates in high-risk situations.

A passionate advocate for both neonatal and maternal health, Jennifer remains at the forefront of trends and practices in neonatal care. Her hope is that her leadership and mentorship continue to inspire the next generation of neonatal care providers to treat not only our tiniest of patients, but also their families, in the most compassionate of ways.

Preterm Babies in 2025, What's the Big Deal?

Presented by Jennifer B. Espy MSN, APRN, NNP-BC

OBJECTIVES

- Discuss why we are delivering more preterm/late preterm babies
- Discuss risk factors babies of mothers with hypertension face
- Discuss effective ways of supporting families with preterm, late preterm, and term babies in the NICU

Preterm Deliveries-

There are a number of maternal, fetal, and placental complications in which either a late-preterm or early-term delivery is warranted. The timing of delivery in such cases must balance the maternal and newborn risks of later-preterm and early-term delivery with the risks associated with further continuation of pregnancy (ACOG, 2021).

Today, we are going to be looking specifically at maternal hypertension in relation to preterm deliveries.

As we know, maternal hypertension (HTN) is a contributing factor in the need for preterm inductions (<37 weeks), and deliveries.

-Mother's with well controlled CHTN may not need to deliver until 39 6/7 weeks, whereas mothers with difficult to control CHTN may need to deliver at 36 weeks (ACOG, 2021).

-Those with GHTN without BP's in the severe range may be delivered at 37 weeks, vs those with BP's in the severe range delivered at 34 weeks (ACOG, 2021).

-Those with Pre-E without severe features may be delivered at 37 weeks, with those who are stable with severe features, needing to be delivered at 34 weeks, while those that are unstable with severe features would need to be delivered as soon as mom is stabilized, regardless of gestation, and sometimes viability (ACOG, 2021).

Increased risks of babies born to mothers with HTN-these risks stem from impaired placental blood flow, which can deprive the fetus of oxygen and nutrients. (ACOG, 2013)

- Increased risk of preterm deliveries
- Growth Restriction
- Long Term Health Issues

Preterm deliveries < 37 weeks

Late Preterm babies (34-36 6/7 weeks)

- Risk of Respiratory Distress Syndrome (RDS)/Transient Tachypnea of the Newborn (TTNB)/Persistant Pulmonary Hypertension of the Newborn (PPHN)- need for respiratory support such as HFNC, CPAP, PPV, surfactant administration (Wu et al., 2009).
- Difficulty breast/bottle feeding- may require NG feedings, mom's milk supply may be delayed due to medications, illness. Use of Donor EBM, high caloric preterm formulas, BM fortifications (Wu et al., 2009).
- Babies affected by maternal magnesium sulfate administration- babies may need respiratory support due to poor respiratory drive, may initially need IV fluids due to need for NPO status, and poor gut motility

Growth Restriction

Weight < 10 percentile for gestational age (Wu et al., 2009)

- Feeding Difficulties-may require feeding specialists, such as OT, Speech Pathologist. Follow unit's feeding plans for weight and gestational age.
- Glucose Instability-use of gastric feedings of EBM/DEBM, fortifying with high calorie, high protein formulas and breast milk fortifiers. May require TPN and other IV fluids to support glucose levels.
- Temperature Instability-may need support of radiant warmers, and isolette's.
- Will need long term follow up of growth, adjusting caloric and protein intake as needed.

Long Term Health Issues

Exist even for those babies born at term, yet exposed to maternal HTN, Pre-Eclampsia (Korzeniewski et al., 2022).

- Developmental Delays
- Learning Disorders
- Autism Spectrum Disorders
- ADD/ADHD
- Cardiovascular Diseases-especially increased risk of developing high blood pressure later in life (Doran, 2023)
- Metabolic Diseases

Supporting Families in the NICU

Family Centered Care (Lee, 2024)

- Presence of parents in the NICU and participation in their babies' daily care and decision making
- Skin-to-skin contact
- Lactation and breastfeeding support
- Single Family Rooms
- Teaching families appropriate neonatal developmental support

Educating Families Prior to Delivery

What may contribute to need for NICU stay, or extended hospital stay

- Maternal use of SSRI's- baby's may have withdrawal syndrome requiring NICU stay due to respiratory difficulties, poor feeding, GI issues (Mamillapalli, 2025).
- If Mom's have used opiates, or have been on Methadone, Subutex, or Suboxone during pregnancy- baby will require a minimum of 5 day stay in the hospital, not necessarily in the NICU, for Eat, Sleep, Console (Joint Commission, 2022).

Our Goal is Healthy Mothers and Babies, and Well Supported Families!

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CEU's

Eval for each presentation is required

KPQC: OB Emergencies & Transport

KPQC: Hot Topics in OB: 2025

KPQC: Preterm Babies in 2025, What's the Big Deal?

Reminder:
NO November or December KQPC Learning Forum

Next up: On-site champion workdays!

Important Dates and Events

In-person CHAMPION Workdays (9 a.m. – 1 p.m.)

“West” November 18 at Hays Medical Center

“East” December 2 at Lawrence Memorial Hospital

**Registration information emailed!*

KPQC
Kansas Perinatal Quality Collaborative

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