ILPQC
Illinois Perinatal Quality Collaborative

Maternal Hypertension Initiative Teams Call *Response*

August 22, 2016

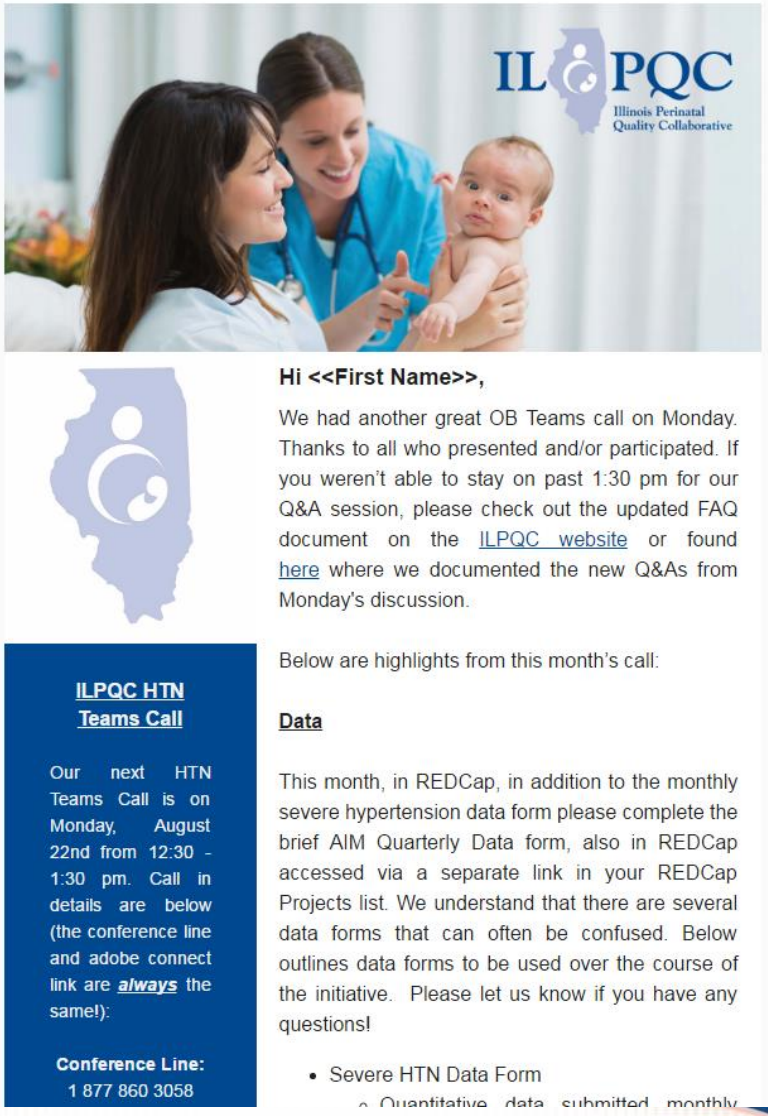
12:30 – 1:30 pm

Overview

- Tools for Communication & Collaborative Learning
- Data
- Quality Improvement Tools
- Clinical Education
  - Blood Pressure Medication and Treatment Algorithms – Drs. Jim Keller and Angelique Rettig
- CA Teams: Order Sets & Protocol Integration
  - Connie von Kholer, MSN, RNC-OB, C-EFM, CPHQ - Miller Children's Hospital, Long Beach, CA
- Team Talks
  - Peggy Boron – HSHS St. Elizabeth Hospital
- 4th Annual Conference
- Next Steps & Questions

HTN Communications

- ILPQC implemented bi-weekly emails to teams with important information
- Please review at team meeting
- 3 emails sent to date
- Please email Kate at info@ilpqc.org if you are not receiving HTN Team communications

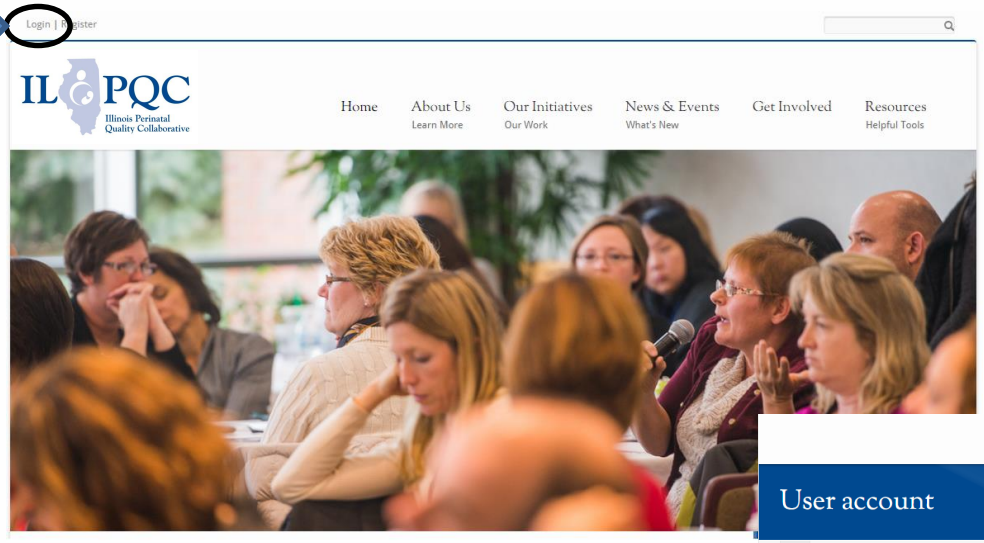


Additional Opportunities for Collaborative Learning

- Upcoming QI Topic Call on Thursday, September 1
  - Focus on getting started with HTN initiative
  - Please attend if you are still working to get started OR if you have tips to share for getting started
- Working FAQs posted to ILPQC website http://ilpqc.org/?q=Hypertension
- Discussion boards on in ilpqc.org member's area – topics posted will be listed in the twice monthly teams email
  - Current topics: BP kits & Changing provider practice around treatment
  - Goal to have one member of your hospital team, check the discussion board weekly, post or respond to discussion board at least 1x per month!

Sign Up for Member's Only Area on *ilpqc.org*

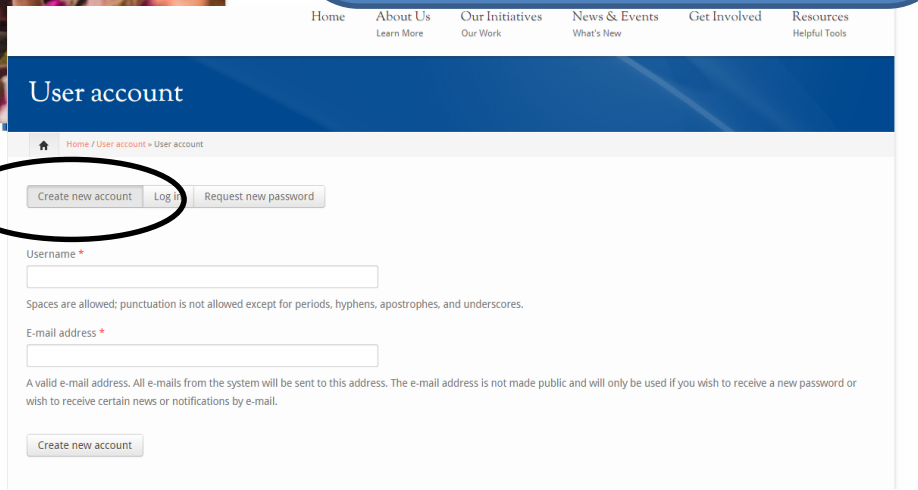
Click



Create your user account today to have access to discussion boards online!

Click

Fill in info



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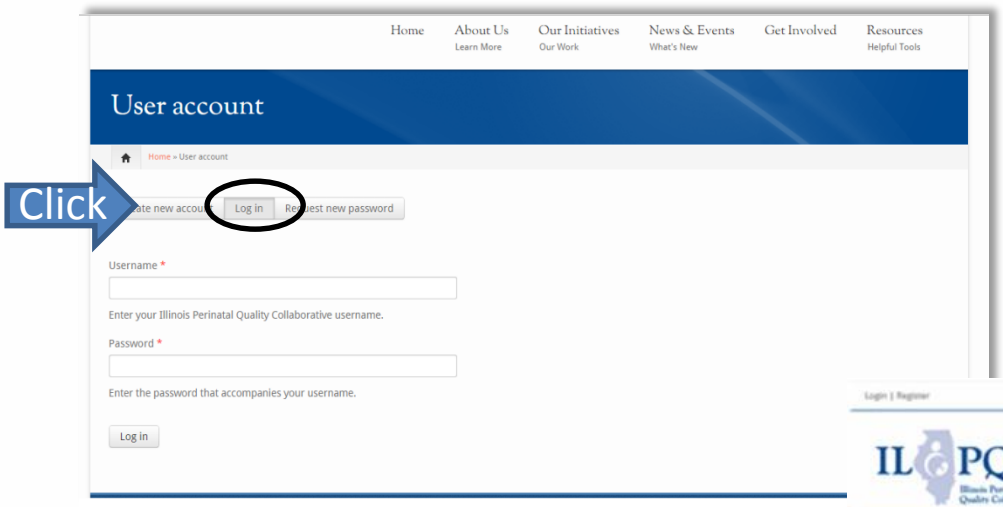
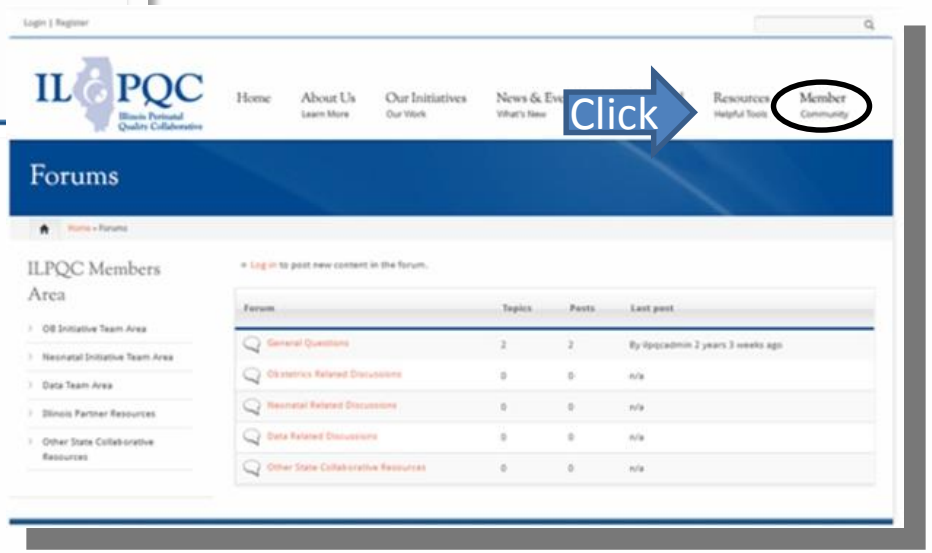




- **Share initiative specific resources**
- **Collaborate and communicate via online ILPQC initiative forums/discussion boards**

Data

AIM Quarterly Measures
Review of Severe HTN Data
SMM Data

AIM Quarterly Data

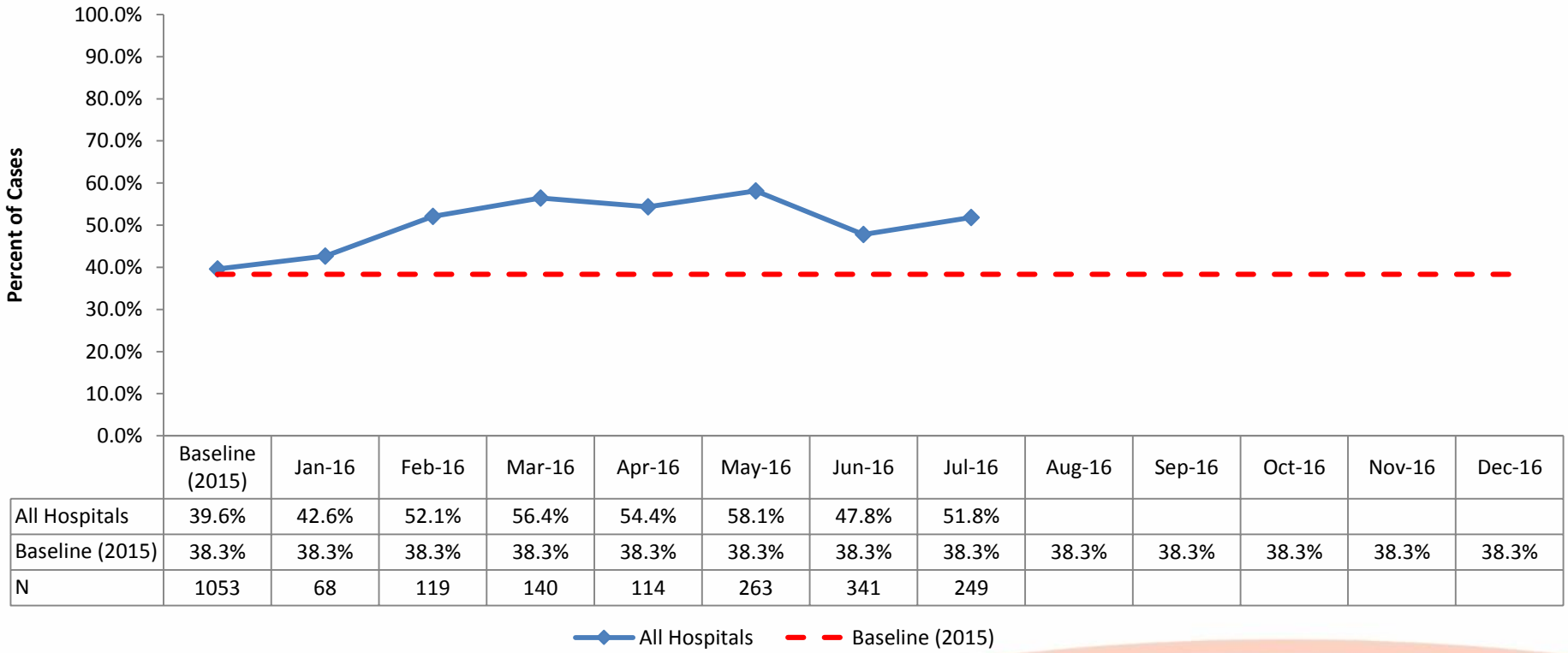
- To date, ***42 hospital teams (38%)*** have completed this form, all teams need to complete each quarter to track progress.
- If have not completed, due this week, next quarter 10/15
- Provider education on severe HTN/preeclampsia
  - Over 75% of responding hospitals have ≤50% of Providers who have received education on severe HTN/preeclampsia in last 2 years
- Nursing education on severe HTN/preeclampsia
  - Over 60% of responding hospitals have ≤50% of Nurses who have received education on severe HTN/preeclampsia in last 2 years
- Drills
  - Average # of drills Q2 2016 = 2.8
  - Most covered topics: Hemorrhage (23), Shoulder Dystocia (17), Maternal Code (11)
  - Severe HTN least covered drill – only 4 hospitals had a drill on severe HTN during Q2 2016

Severe Hypertension Data Entry Status

	Total Records	# Teams with Data
Baseline (2015)	1282	73
January	71	17
February	135	24
March	164	22
April	137	22
May	301	39
June	399	58
July	273	51
Overall	**2762**	**84**

Maternal HTN: Time to Treatment

ILPQC: Maternal Hypertension Initiative
Percent of Cases with New Onset Severe Hypertension Treated within 60 Minutes
All Hospitals, 2016

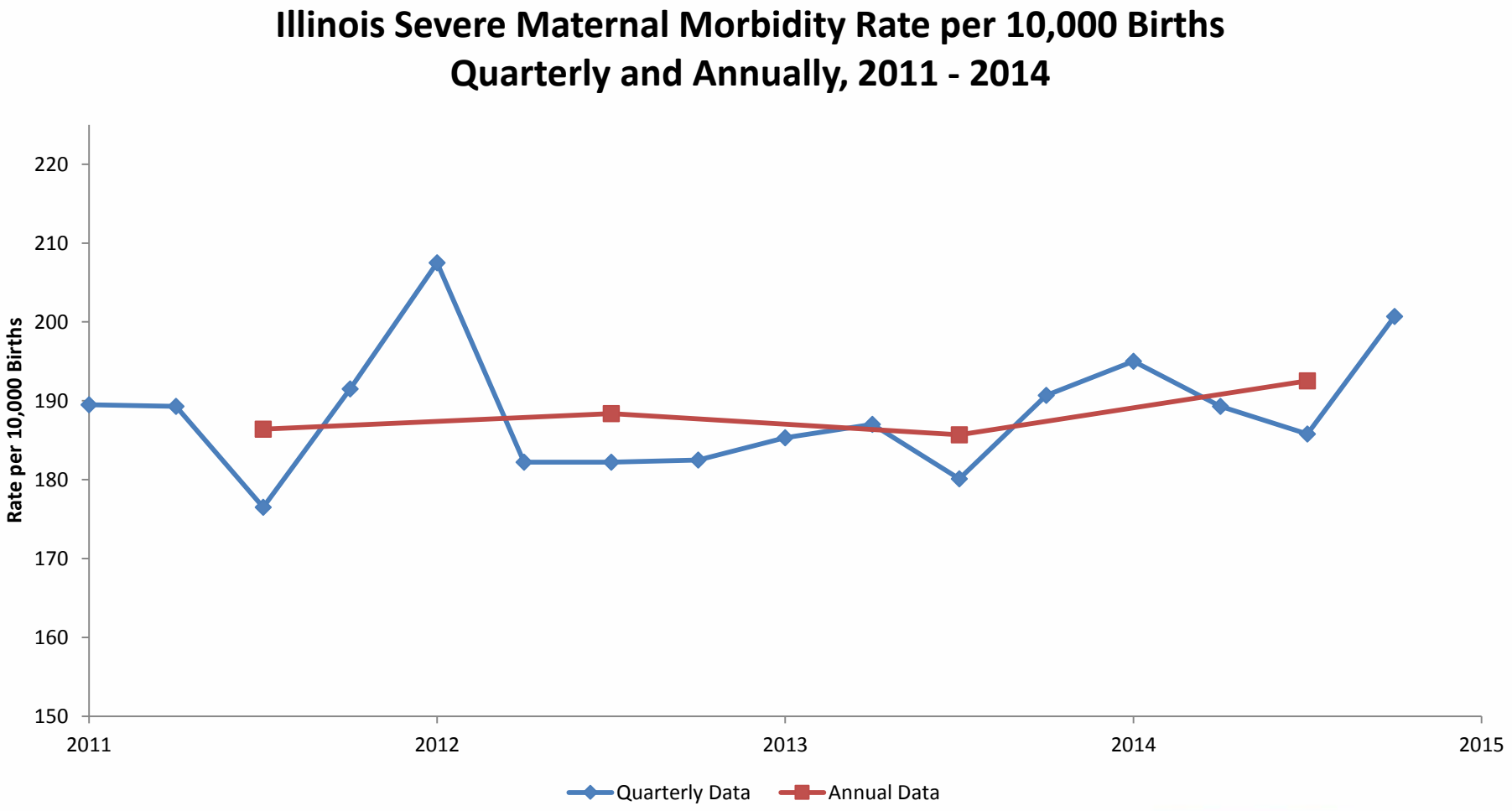


	Baseline (2015)	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
All Hospitals	39.6%	42.6%	52.1%	56.4%	54.4%	58.1%	47.8%	51.8%					
Baseline (2015)	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%
N	1053	68	119	140	114	263	341	249					

IL State SMM Data

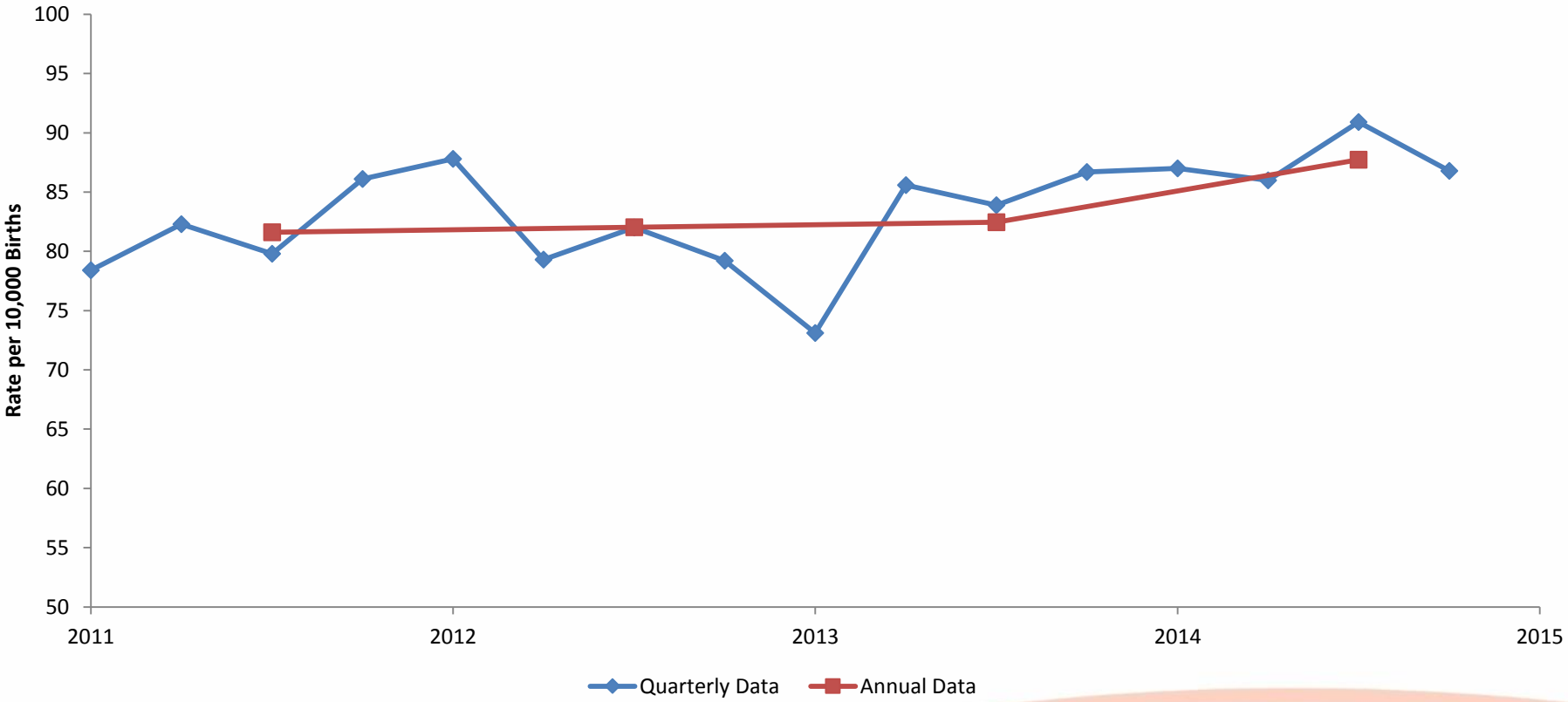
- ILPQC, in collaboration with IDPH, providing AIM with SMM data at the aggregate state level
- SMM data reported quarterly for 2011 – 2014 to provide baseline
- Data reported with and without hemorrhage and by race/ethnicity
- ILPQC will use as an additional mechanisms to track initiative outcome measure to reduce SMM by 20% by December 2017

IL State SMM Data

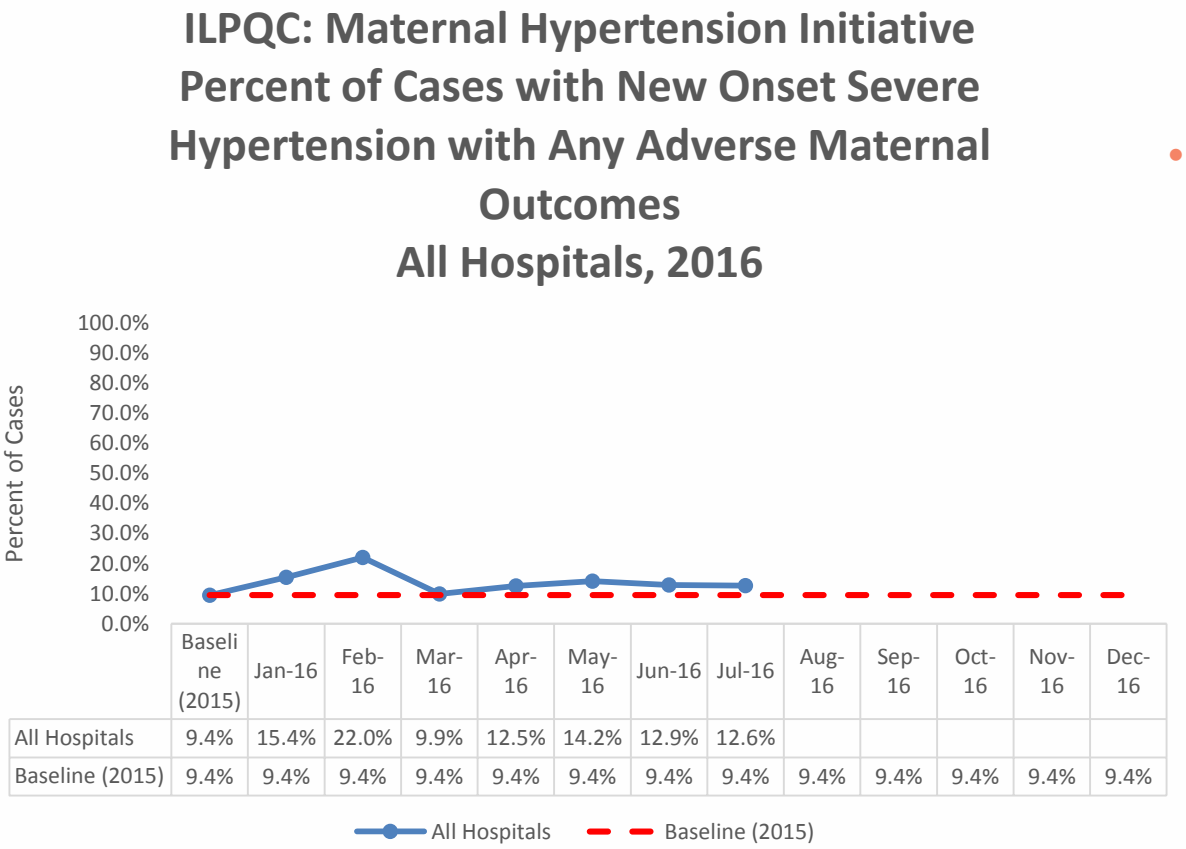


IL State SMM Data: Excluding Hemorrhage

Illinois Severe Maternal Morbidity Rate per 10,000 Births Excluding Hemorrhage
Quarterly and Annually, 2011 - 2014



ILPQC Severe Maternal HTN: SMM Data



	Baseline (2015)	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
All Hospitals	9.4%	15.4%	22.0%	9.9%	12.5%	14.2%	12.9%	12.6%					
Baseline (2015)	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%

- ILPQC initiative outcome goal to reduce SMM by 20% by Dec. 2017
- Need to ensure hospitals are accurately reporting outcome measures
  - ILPQC data form does not capture ALL SMM codes
  - May be entering outcome data at time points during pregnancy/postpartum
    - Potentially leads to falsely lowered SMM rate
    - ILPQC continue to track at state aggregate level

Quality Improvement Tools

Opportunities for Quality Improvement
HTN Toolkit Binder

Opportunities for Quality Improvement

- Early recognition of hypertension and response to clinical triggers of preeclampsia (pregnant and pp)
- Importance of accurate BP measurement and identify severe range BP across all units.
- Reduce time to treatment for BP ≥160/110(105)
- Implement standardized use of ACOG protocols for acute treatment of severe range BP
- Coordination of care (L&D, PP, ED, ICU) and timely evaluations and consultations
- Standardize postpartum follow-up and patient education at discharge all pts severe range BP

HTN Education Plan for OB Teams Calls

Call Date	Topic	Team Members
June 27 12:30 – 2:30 pm	Readiness and Reporting - Drills, Simulation, and Debriefs	Sherry Jones, Melissa Claudio, Sam Schoenfelder
July 25 12:30 – 1:30 pm	Recognition - Accurate BP Measurement & Diagnosis	Heather Stanley Christian, Soti Markuly, Debbie Schy, Mona LaGrand, Sam Schoenfelder, Robbin Uchison
August 22 12:30 – 1:30 pm	Response - BP Medication and Treatment Algorithms	Jim Keller, Angelique Rettig, Felicia Fitzgerald, Deena Layton, Roma Allen
September 26 12:30 – 1:30 pm	Response - Timing of Delivery	Jim Keller, Deena Layton, Sue Fulara
October 24 12:30 – 1:30 pm	Response - Patient Education/Engagement and Postpartum Follow-up	Angelique Rettig, Debbie Schy, Roma Allen

HTN Toolkit Binder

- August clinical education topics linked to HTN Toolkit Binder:
  - Under Tab 6 in the Binder (or click hyperlink below):
    - ACOG Sample Order Sets:
      - Labetalol
      - Hydralazine
      - Nifedipine
  - Under Tab 7 in the Binder (or click hyperlinks below):
    - BP Medication and Treatment Algorithms
      - ACOG Committee Opinion 623, Emergent Therapy for Acute-Onset, Severe Hypertension During Pregnancy
      - CMQCC Sample Preeclampsia/Elcampsia Medication Toolbox
      - CMQCC Steps for Preparation, Storage, Ordering and Administration of Magnesium Sulfate
      - Algorithms for Treatment
        - ACOG DII (New York) Labetalol Algorithm
        - ACOG DII (New York) Hydralazine Algorithm
        - ACOG DII (New York) Oral Nifedipine Algorithm
        - ACOG DII (New York) Algorithm for Postpartum Education
- All resources available on ILPQC Maternal Hypertension page

Response

Blood Pressure Medication & Treatment Algorithms

BP Medication and Treatment Algorithms

August 22, 2016

R. Allen, L. Brach, C. Burke, F. Fitzgerald, J. Keller, D. Layton,
A. Rettig, P. Toledo

- *Readiness (every Provider and Unit)*
- *Recognition & Prevention (every patient)*
- *Response (every case of HIP)*

  Process for timely triage and evaluation of pregnant and postpartum women with hypertension including emergency department and outpatient

Key Clinical Pearl

Controlling blood pressure
is the optimal intervention
to prevent deaths due to stroke
in women with preeclampsia.

Over the last decade, the UK has focused QI efforts on aggressive timely treatment of both systolic and diastolic blood pressure and has demonstrated a significant reduction in deaths.

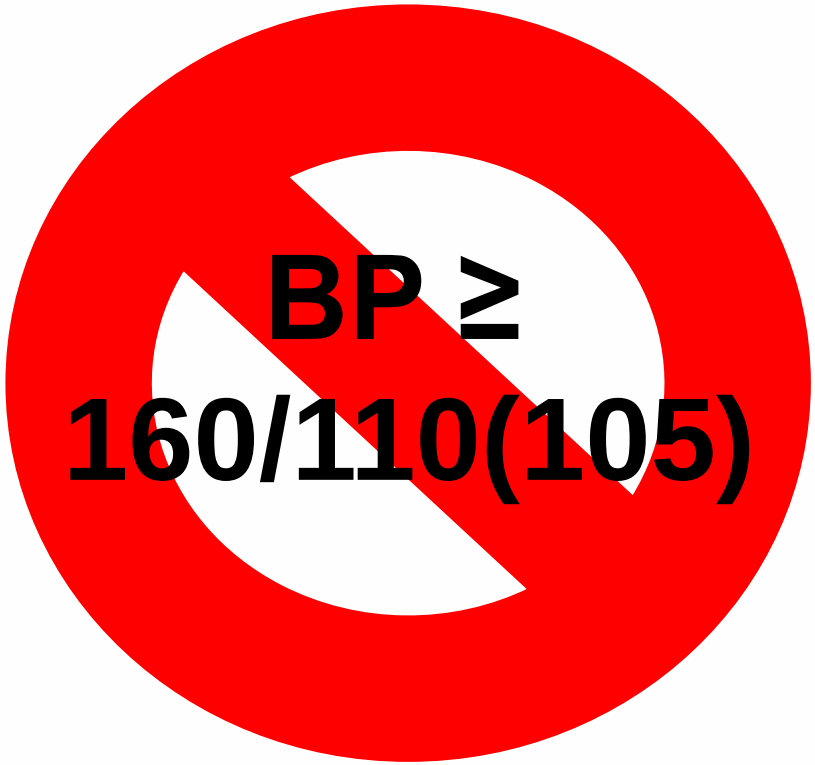
Key Clinical Pearl

- ***The*** critical initial step in decreasing maternal morbidity and mortality is to administer **anti-hypertensive** medications as soon as possible within 30-60 minutes of documentation of persistent (retested within 15 minutes) BP ≥160 systolic, and/or ≥105-110 diastolic.
- Ideally, antihypertensive medications should be administered as soon as possible, and availability of a "preeclampsia box" will facilitate rapid treatment.
- In Martin et al., stroke occurred in:
  - 23/24 (95.8%) women with systolic BP ≥ 160mm Hg
  - **24/24 (100%) had a BP ≥ 155 mm Hg**
  - 3/24 (12.5%) women with diastolic BP ≥ 110mm Hg
  - **5/28 (20.8%) women with diastolic BP ≥ 105mm Hg**

Martin JN, Thigpen BD, Moore RC, Rose CH, Cushman J, May. Stroke and Severe Preeclampsia and Eclampsia: A Paradigm Shift Focusing on Systolic Blood Pressure, Obstet Gynecol 2005;105-246.

Clinical Pearl

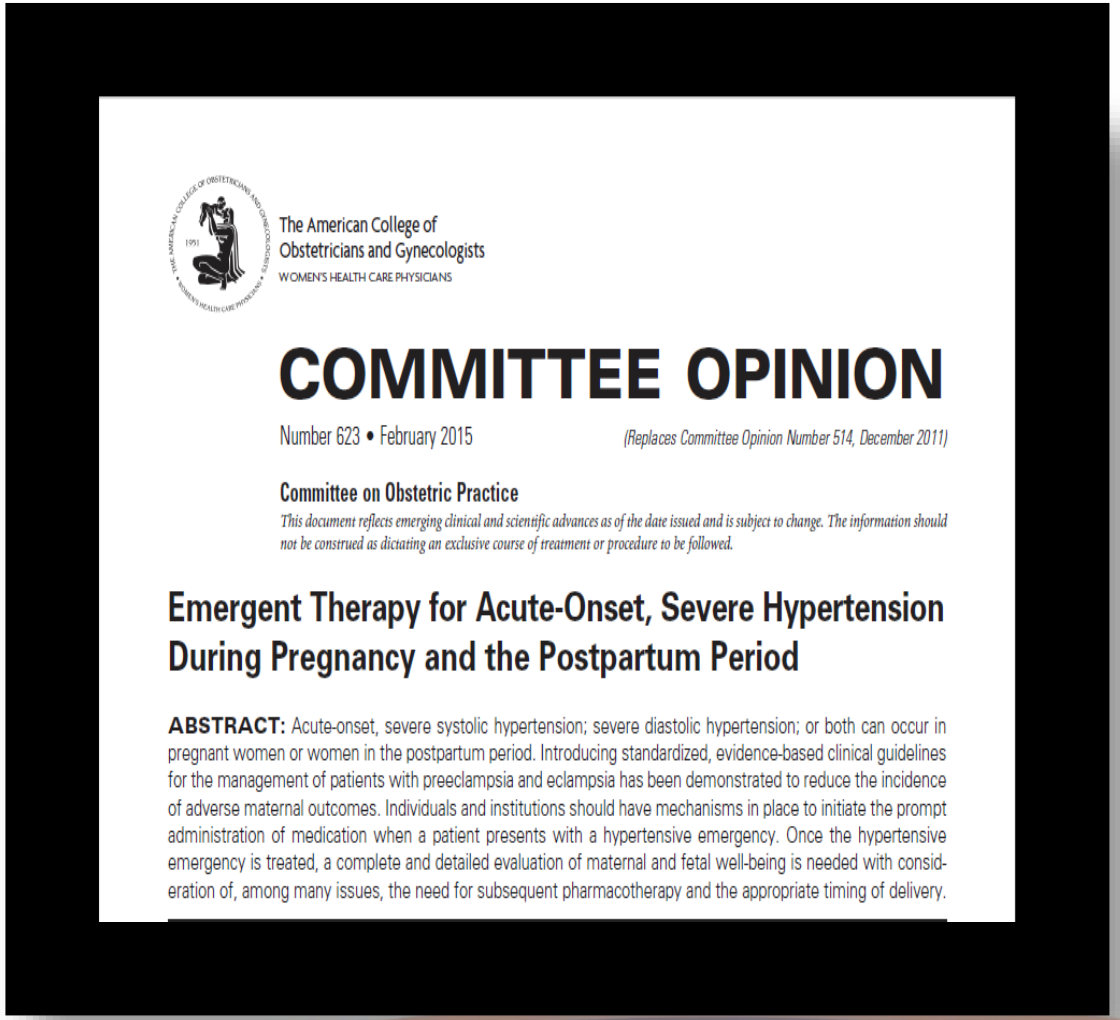
- Younger, healthier gravid patients are at risk for hemorrhagic stroke at lower blood pressure thresholds because their cerebral vasculature has not undergone vascular remodeling



Need To Treat*

*BP persistent 15 minutes, activate treatment algorithm with IV therapy ASAP, < 30-60 minutes

When to Treat (ACOG Committee Opinion 623)



The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

COMMITTEE OPINION

Number 623 • February 2015 *(Replaces Committee Opinion Number 514, December 2011)*

Committee on Obstetric Practice

This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

Emergent Therapy for Acute-Onset, Severe Hypertension During Pregnancy and the Postpartum Period

ABSTRACT: Acute-onset, severe systolic hypertension; severe diastolic hypertension; or both can occur in pregnant women or women in the postpartum period. Introducing standardized, evidence-based clinical guidelines for the management of patients with preeclampsia and eclampsia has been demonstrated to reduce the incidence of adverse maternal outcomes. Individuals and institutions should have mechanisms in place to initiate the prompt administration of medication when a patient presents with a hypertensive emergency. Once the hypertensive emergency is treated, a complete and detailed evaluation of maternal and fetal well-being is needed with consideration of, among many issues, the need for subsequent pharmacotherapy and the appropriate timing of delivery.

ACOG protocol Standing Order (Hydralazine)

Illinois Perinatal Quality Collaborative

Hydralazine 5 or 10 mg IV over 2 minutes

- Recheck in 20 min

If still elevated, hydralazine 10 mg IV over 2 min

- Recheck 20 min

If still elevated, labetalol 20 mg IV over 2 min

- Recheck in 10 min

If still elevated, labetalol 40 mg IV over 2 min

- Emergency consults: MFM and anesthesia

ECG not required

ACOG protocol Standing Order (Labetalol)

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ECG with CHTN, or heart disease

Labetalol 20 mg IV over 2 minutes
- Recheck in 10 min

If still elevated, **labetalol 40 mg** IV over 2 min
- Recheck in 10 min

If still elevated, **labetalol 80 mg** IV over 2 min
- Recheck in 10 min
- Seek consultation MFM, Critical Care, Anesthesia, Internal medicine

If still elevated, **Repeat labetalol 80mg** over 10 minutes to achieve total dosage of 220mg (includes all previous administrations)

Switch to hydralazine 10 mg IV over 2 min
- Recheck in 20 min

Do not exceed 80 mg in a single dose

ACOG protocol Standing Order (Oral Nifedipine)

Nifedipine 10 mg PO (never crush or give SL)

- Recheck in 20 min

If still elevated, nifedipine 20 mg PO

- Recheck 20 min

If still elevated, nifedipine 40 mg PO

- Recheck in 20 min

If still elevated, labetalol 40 mg IV over 2 min

Emergency consults: MFM and anesthesia

Goal

- Safely reduce the BP below the level that may cause a stroke or placental abruption but sufficient to maintain adequate arterial perfusion to vital organs

- *The* critical initial step in decreasing maternal morbidity and mortality is to administer anti-hypertensive medications as soon as possible *within 30 - 60 minutes* of documentation of persistent (retested within 15 minutes) BP ≥ 160 systolic, and/or ≥ 110(105) diastolic.

- Not lower than 140 / 90

ACOG Management of Preeclampsia *With Severe Features* &/or HELLP

IL PQC Illinois Perinatal Quality Collaborative

- Antihypertensive medications to control severe BP
- Magnesium Sulfate
  - ✓ 4 or 6 gram loading dose over 20 minutes
  - ✓ 2-3 grams per hour maintenance dose
- For labor analgesia or surgical anesthesia, neuraxial techniques recommended if time permits
- For cesarean delivery, continue intraoperative administration of magnesium sulfate
- Decision to deliver should not be based on the amount of proteinuria

Preeclampsia Seizure Prophylaxis

Preeclampsia *with* severe features or eclampsia

- magnesium sulfate

Quality of evidence: High

Recommendation: Strong

If Cesarean → *<u>continue</u> magnesium intraoperatively*

Preeclampsia *without* severe features

- magnesium is NOT universally needed

Quality of evidence: Low

Recommendation: Qualified

Task Force on Hypertension in Pregnancy. (2013). Hypertension in pregnancy. *The Task Force on Hypertension in Pregnancy* (pp. i-89). Washington, DC: American College of Obstetrics and Gynecology.

Task Force Recommendations

Strong:

- well supported by evidence
- appropriate for virtually all patients
- recommended

Qualified:

- appropriate for most patients
- suggested

Evidence quality:

- low
- moderate
- high

Task Force on Hypertension in Pregnancy. (2013). Hypertension in pregnancy. *The Task Force on Hypertension in Pregnancy* (pp. i-89). Washington, DC: American College of Obstetrics and Gynecology.

Magnesium Therapy: Key Clinical Pearl

- Magnesium sulfate therapy for seizure prophylaxis should be administered to any patients with:
  - Preeclampsia ***with*** "severe features" i.e., subjective neurological symptoms (headache or blurry vision), abdominal pain, epigastric pain, OR BP ≥ 160/110
  - Eclampsia
  - ***Should be considered*** in patients with preeclampsia ***without*** severe features

Recommendations for Women Who Should Be Treated With Magnesium

	Preeclampsia without severe features	Preeclampsia with Severe Features	Eclampsia
ACOG	**	X	X
NICE		X	X
SOGC	X*	X	X
CMQCC	X*	X	X
WHO	X	X	X

***ACOG Executive Summary, 2013: for preeclampsia without severe features, it is suggested that magnesium sulfate not be administered universally for the prevention of eclampsia.*

** Should be considered: Numbers needed to treat (**NNT**) = **109 for "mild"**, **63 for "severe"***

Facility-wide standard protocols with checklists, algorithms and escalation policies for management and treatment of severe range blood pressure

STRATEGIES TO REDUCE TIME TO TREATMENT ACROSS SETTINGS

RESPONSE

Every case of severe hypertension/preeclampsia

- Rapid access to medications used for severe hypertension:
  - medications should be stocked and immediately available
  - Include brief guide for administration & dosage.
- System plan for escalation for maternal hypertension, obtaining appropriate consultation, and maternal transport, as needed

RESPONSE

Every case of severe hypertension/preeclampsia

Facility-wide standard protocols with checklists and escalation policies for management and treatment of:

- severe hypertension
- eclampsia, seizure prophylaxis, and mag over-dosage
- postpartum presentation of severe hypertension/preeclampsia

RESPONSE

Every case of severe hypertension/preeclampsia

Minimum requirements for protocol:

- Notification of primary physician or primary care provider if systolic BP ≥160 or diastolic ≥110 for 2 measurements within 15 min
- After second elevated reading, treatment should be initiated ASAP (within 60 min of verification)
- Includes onset and duration of magnesium sulfate therapy
- Appropriate labs sent and fetal assessment

RESPONSE

Every case of severe hypertension/preeclampsia

Minimum requirements for protocol (cont):

- Includes escalation measures for those unresponsive to standard treatment
- Describes management and verification of follow-up within 7 to 14 days postpartum
- ILPQC recommends outpatient post-discharge follow-up:
  - within 3 days if medication was used during labor and delivery OR postpartum
  - within 7-14 days if no medication was used
- Describe postpartum patient education for women with preeclampsia
- Discharge instructions to include warning signs of HTN for ALL postpartum patients

RESPONSE

Every case of severe hypertension/preeclampsia

- **Postpartum patients presenting to the ED** with hypertension (BP ≥140/90), preeclampsia or eclampsia should either be **assessed by or admitted to an obstetrical service**

  Systems should be in place to screen all women for pregnancy **AND** postpartum status in the ER

Key Clinical Pearl

An organized tool to identify "**clinical signs**," of high concern or triggers can aid clinicians to recognize and respond in a more timely manner to avoid delays in diagnosis and treatment.

Preeclampsia Early Recognition Tool

ASSESS	NORMAL (GREEN)	WORRISOME (YELLOW)	SEVERE (RED)
Awareness	Alert/oriented	•Agitated/confused •Drowsy •Difficulty speaking	•Unresponsive
Headache	None	•Mild headache •Nausea, vomiting	•Unrelieved headache
Vision	None	•Blurred or impaired	•Temporary blindness
Systolic BP (mm HG)	100-139	140-159	≥160
Diastolic BP (mm HG)	50-89	90-105	≥105
HR	61-110	111-129	≥130
Respiration	11-24	25-30	<10 or >30
SOB	Absent	Present	Present
O2 Sat (%)	≥95	91-94	≤90
Pain: Abdomen or Chest	None	•Nausea, vomiting •Chest pain •Abdominal pain	•Nausea, vomiting •Chest pain •Abdominal pain
Fetal Signs	•Category I •Reactive NST	•Category II •IUGR •Non-reactive NST	•Category III
Urine Output (ml/hr)	≥50	30-49	≤30 (in 2 hrs)
Proteinuria (Level of proteinuria is not an accurate predictor of pregnancy outcome)	Trace	•≥ +1** •≥300mg/24 hours	
Platelets	>100	50-100	<50
AST/ALT	<70	>70	>70
Creatinine	<0.8	0.9-1.1	>1.2
Magnesium Sulfate Toxicity	•DTR +1 •Respiration 16-20	•Depression of patellar reflexes	•Respiration <12

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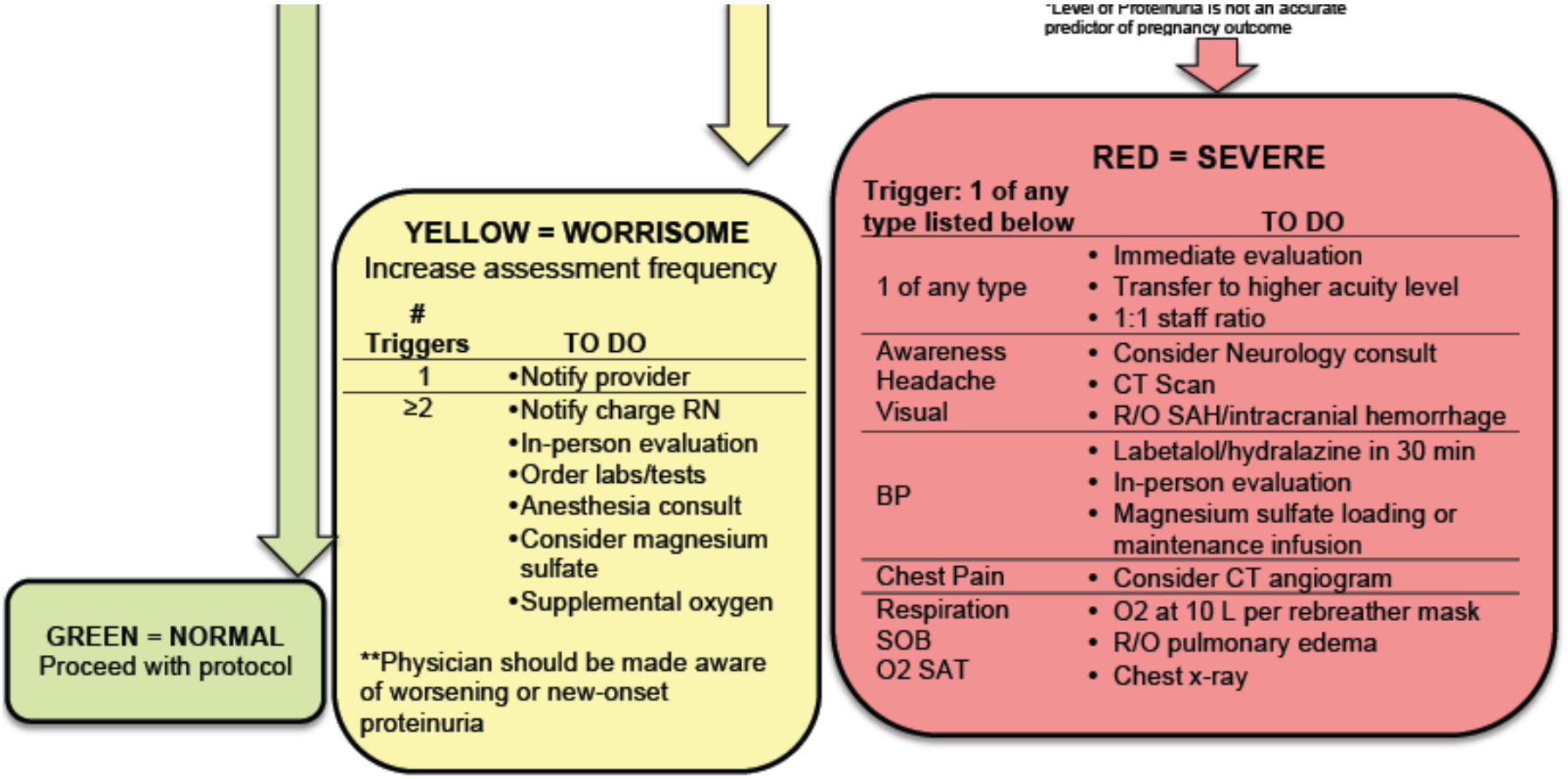
CMQCC
CALIFORNIA MATERNAL QUALITY CARE COLLABORATIVE

California Department of PublicHealth

Clinical Signs to Watch for:



Hypertensive Emergency Checklist

Hypertensive Emergency:

- Two severe BP values (≥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
- ☐ 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

Magnesium Sulfate

Contraindications: pulmonary edema, renal failure, myasthenia gravis

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 ≥ 160 or DBP ≥ 110

- ☐ **Labetalol** (20 mg, 40, 80 IV* over 2 min, escalating doses, repeat q 10 min); Avoid in asthma or heart failure
- ☐ **Hydralazine** (5-10 mg IV* over 2 min, repeat q 20 min until target BP reached)
- ☐ **Oral Nifedipine** (10, 20, 40 mg capsules; repeat BP q 20 min until target BP reached); 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

EXAMPLE 13

- ✓ 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

Eclampsia Checklist

EXAMPLE 14

- ☐ Call for Assistance
- ☐ Designate
  - ○ Team leader
  - ○ Checklist reader/recorder
  - ○ Primary RN
- ☐ Ensure side rails up
- ☐ Protect airway and improve oxygenation:
  - ○ Maternal pulse oximetry
  - ○ Supplemental oxygen (100% non-rebreather)
    - ☐ Lateral decubitis position
    - ☐ Bag-mask ventilation available
    - ☐ Suction available
- ☐ Continuous fetal monitoring
- ☐ Place IV; Draw preeclampsia labs
- ☐ Administer magnesium sulfate
- ☐ Administer antihypertensive therapy if appropriate
- ☐ Develop delivery plan, if appropriate
- ☐ Debrief patient, family, and obstetric team

Magnesium Sulfate

Contraindications: pulmonary edema, renal failure, myasthenia gravis

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 ≥ 160 or DBP ≥ 110

- ☐ **Labetalol** (20 mg, 40, 80 IV* over 2 min, escalating doses, repeat q 10 min); Avoid in asthma or heart failure, can cause neonatal bradycardia
- ☐ **Hydralazine** (5-10 mg IV* over 2 min, repeat q 20 min until target BP reached)

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

***Note:** If persistent seizures, consider anticonvulsant medications and additional workup*

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

For Persistent Seizures

- ☐ Neuromuscular block and intubate
- ☐ Obtain radiographic imaging
- ☐ ICU admission
- ☐ Consider anticonvulsant medications

- ✓ Call for assistance
- ✓ Designate team leader, checklist reader, primary RN
- ✓ Ensure side rails are up
- ✓ Protect airway + improve oxygenation
- ✓ Continuous fetal monitoring
- ✓ Place IV; Draw PEC labs
- ✓ Administer antihypertensive therapy if appropriate
- ✓ Develop delivery plan
- ✓ Debrief patient, family, OB team

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EMERGENCY DEPARTMENT

Postpartum Preeclampsia Checklist

EXAMPLE 19

- ✓ 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

IF PATIENT < 6 WEEKS POSTPARTUM WITH:

- BP ≥ 160/110 or
- BP ≥ 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
  - ◯ PT
  - ◯ PTT
  - ◯ Fibrinogen
  - ◯ Chemistry Panel
  - ◯ Uric Acid
  - ◯ Hepatic Function
  - ◯ Type and Screen
- ☐ 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

MAGNESIUM SULFATE

Contraindications: pulmonary edema, renal failure, myasthenia gravis

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 ≥ 160 or DBP ≥ 110

- ☐ **Labetalol** (20 mg, 40, 80 IV* over 2 min, escalating doses, repeat q 10 min); Avoid in asthma or heart failure
- ☐ **Hydralazine** (5-10 mg IV* over 2 min, repeat q 20 min until target BP reached)
- ☐ **Oral Nifedipine** (10, 20, 40 mg capsules; repeat BP q 20 min until target BP reached); 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

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Resources

- https://usfhealth.app.box.com/s/tzgt2d3l9bicoifhe3y7cov1b9ennxao
- http://health.usf.edu/publichealth/chiles/fpqc/hip_toolbox
- http://www.acog.org/Resources-And-Publications/Task-Force-and-Work-Group-Reports/Hypertension-in-Pregnancy
- http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Emergent-Therapy-for-Acute-Onset-Severe-Hypertension-During-Pregnancy-and-the-Postpartum-Period
- http://www.safehealthcareforeverywoman.org/aim-emodules-3.php
- https://www.cmqcc.org/resources-tool-kits/toolkits/preeclampsia-toolkit

CA Teams: Order sets & Protocol Integration

- Connie von Kholer, MSN, RNC-OB, C-EFM, CPHQ
  - Miller Children's Hospital, Long Beach, CA

Antihypertensive medications and treatment algorithms

Connie von Köhler, MSN, RNC-OB, C-EFM, CPHQ
Long Beach, California

Miller Children's & Women's Hospital Long Beach
MemorialCare Health System

“Acute Hypertensive” Order Set

- Follows the algorithm in the toolkit
- Eliminates the need for physicians to give exact orders & the nurse to remember the algorithm details to coach the orders.
- Develop sample SBAR
  - Recommendation: “Implement the Acute Hypertensive order set”

Administering IV Push Meds for severe HTN – building confidence

- What's allowed for the unit
- What's comfortable
  - Peer support
    - L&D coordinator to M/B coordinator
  - Physician support
    - Perinatologist provided mini educational sessions (24/7)

Team Talks

- Peggy Boron – Northwest Community Healthcare

Team Talks – HTN Initiative

- Teams assigned an OB Teams Call – look for email from Kate
  - September
    - Advocate Sherman
    - Norwegian American
  - October
    - St. John's
    - Silver Cross
- Generate discussion and learning through sharing
  - Good foundation for storyboard/poster presentations!
- Present 5-10 mins. on current QI work, including:
  - Implementation of the data form
  - Process for identifying opportunities for improvement
  - Organization of your team meetings
  - PDSAs testing strategies to
    - Reduce time to treatment
    - Incorporate debriefs
    - Implement changes to patient education processes

ILPQC 4th Annual Conference 11/3/16 Tentative Agenda

8:00-8:45	**Welcome** – Ann Ask Dir. Shah to give welcome

8:45-10:15	**Panel** – Bill Sappenfield (FPQC), Mike Marcotte (OPQC), Munish Gupta (MA)
	• 25 minutes each, 15 minutes for questions
	• Focus on 2 initiatives each (brief overview of all initiatives, deep dive into 2 initiatives)
	  ○ Bill – HTN, Golden Hour, Hemorrhage
	  ○ Mike – 17OHP, NAS, ANS
	  ○ Munish – NAS (maternal and NICU side), QI with Hemorrhage/HTN

10:15-10:30	Break
10:30-11:10	**Surviving a Perinatal Crisis: The Patient Perspective** – Eleni Tsigas
11:10-12:00	**Keynote on Maternal Morbidity** – Mary D'Alton
12:00-1:30	Lunch & Poster Session
1:30-2:15	**How to Use Quality Improvement Measurement in Hospital QI Efforts** – Munish Gupta
2:15-3:00	**Reduction of Primary Cesarean** – Maurice Druzin
3:00 – 3:15	Break
3:15 – 5:00	Breakouts • Hot Topics in Obstetrics • Hot Topics in Neonatal • Patient & Family Engagement
5:00 – 5:15	Wrap-up & Evaluation

ILPQC 4th Annual Conference: Call for Abstracts!

- Now accepting abstracts for 4th Annual Conference
  - https://www.surveymonkey.com/r/ILPQCposters2016
- Attendees to submit perinatal quality improvement abstracts in one of three categories:
  - Obstetrics
  - Neonatal
  - Patient & Family Engagement
- Abstracts in each category will be blindly reviewed for excellence on predetermined criteria by a panel of reviewers
- Top abstracts will be recognized in the program and on the day of the event
- Abstracts due by **September 9th EOB** for review
- Late breaking abstracts due by **October 1st EOB** (not reviewed)

Patient/Family Advisors

- Patient and family advisors help advance QI efforts by providing the vitally important patient perspective
- Patient and family advisors are best recruited from physician and staff recommendations
- Please identify potential patient advisors for your team!
- Invite patient/family team member to attend ILPQC Annual Conference on November 3rd
- One Pager is posted to front page of ILPQC website!

Next Steps

- Submit “ILPQC AIM Quarterly Measures” in REDCap
- Submit baseline data - July 31st
- Submit July maternal hypertension data - August 15th
- Submit August maternal hypertension data – September 15th
- Complete DUA
- Next call is Monday, September 29th, 12:30 – 1:30 pm
- Email info@ilpqc.org with any questions!

Q&A

- Ways to ask questions:
  - Raise your hand on Adobe Connect to ask your question by phone
  - Post a question in the Adobe Connect chat box

Contact

- Email info@ilpqc.org
- Visit us at www.ilpqc.org

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