



Maternal Hypertension Initiative: Kick-off!

May 2, 2016
12:30 – 2:30 pm

HTN Kick-off Webinar

- ILPQC welcome
- HTN Initiative Overview, Importance, Timeline
- Overview of California's Experience
 - Nancy Peterson, MSN, RNC-OB, PNNP, IBCLC
 - Clinical Program Manager, CMQCC
 - Holly Champagne, MSN, RNC-OB, CNS
 - Kaiser Permanente, Roseville, CA
 - Connie von Kholer, MSN, RNC-OB, C-EFM, CPHQ
 - Miller Children's Hospital, Long Beach, CA
- Forming your QI team
- Baseline/Data Collection Process
- ILPQC Data System Training
- HTN process flow examples from 2 Wave 1 teams
 - Roma Allen, MSN, RNC-OB – Elmhurst Memorial Hospital
 - Dawn Varacalli, MSN, RN, CLS – Rockford Memorial Hospital
- Next Steps
 - Process Flow Diagrams
 - Storyboards
 - AIM Baseline Survey
- Questions

ILPQC Vision



A statewide perinatal quality collaborative that involves all perinatal stakeholders; utilizes data-driven, evidence-based practices; improves perinatal quality resulting in improved birth outcomes, improved health for women and infants, and decreased costs; builds on Illinois' existing state-mandated Regionalized Perinatal System, and operates with long-term sustainable funding.

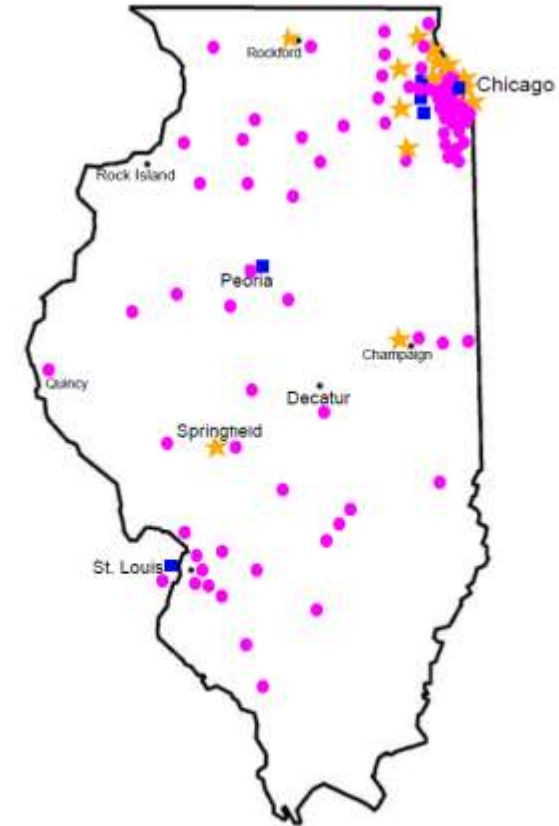


Working Together on State-wide Initiatives

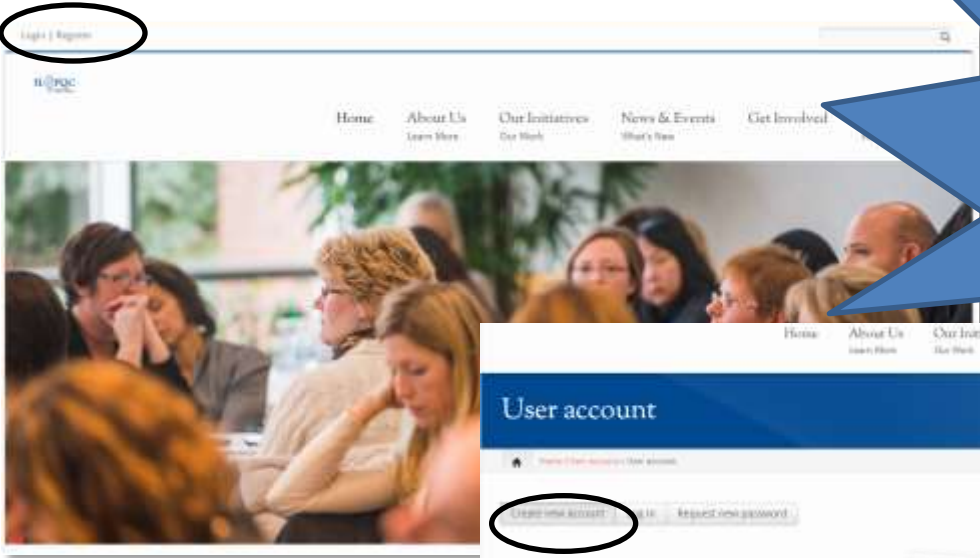


Hospital Engagement

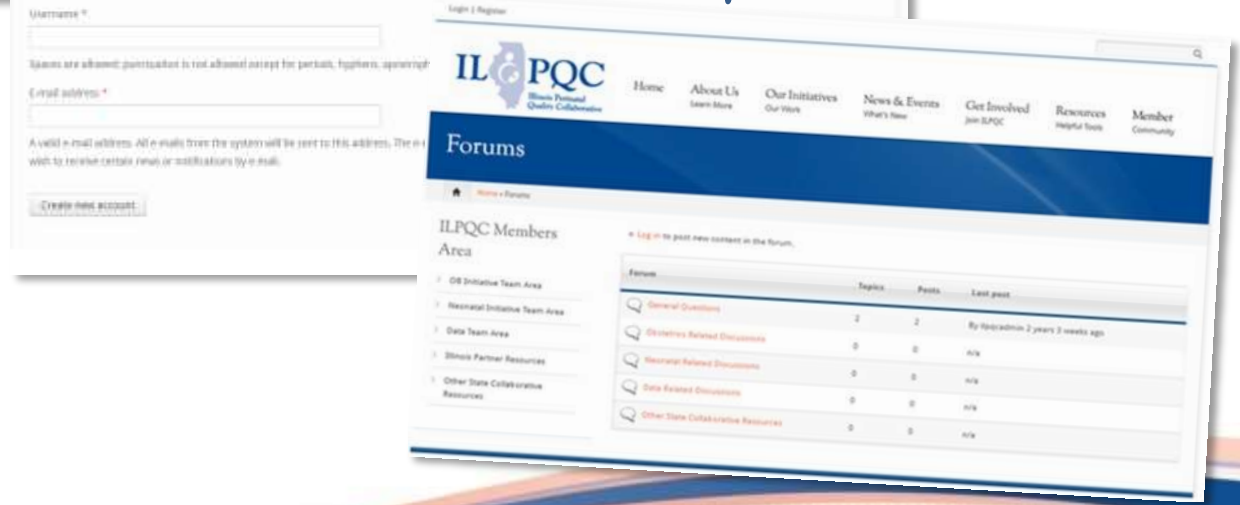
- 109 hospitals participating in one or more ILPQC Initiative
- 107 hospitals in OB Initiatives
 - Over 95% of IL births covered by ILPQC
- 26 hospitals in Neonatal Initiative
 - Over 85% of IL NICU beds covered by ILPQC



www.ilpqc.org



Includes initiative resources and members-only area to collaborate via discussion boards

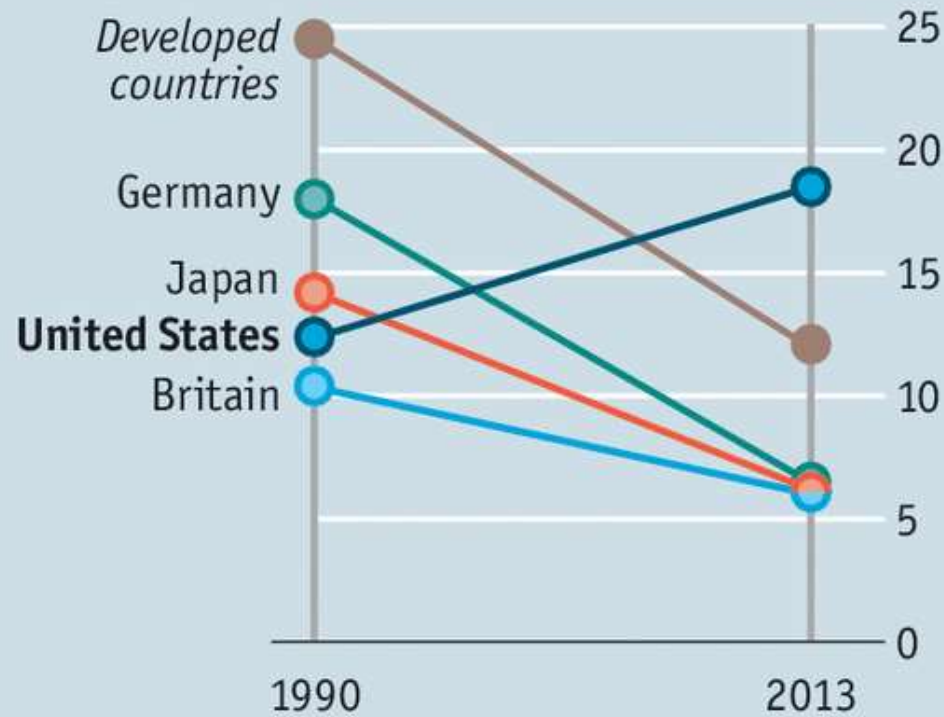


Forum	Topics	Posts	Last post
General Questions	2	2	By Stephanie 2 years 3 weeks ago
Electronic Related Discussions	0	0	n/a
Neonatal Related Discussions	0	0	n/a
Data Related Discussions	0	0	n/a
Other State Collaborative Resources	0	0	n/a

Maternal Mortality

Odd one out

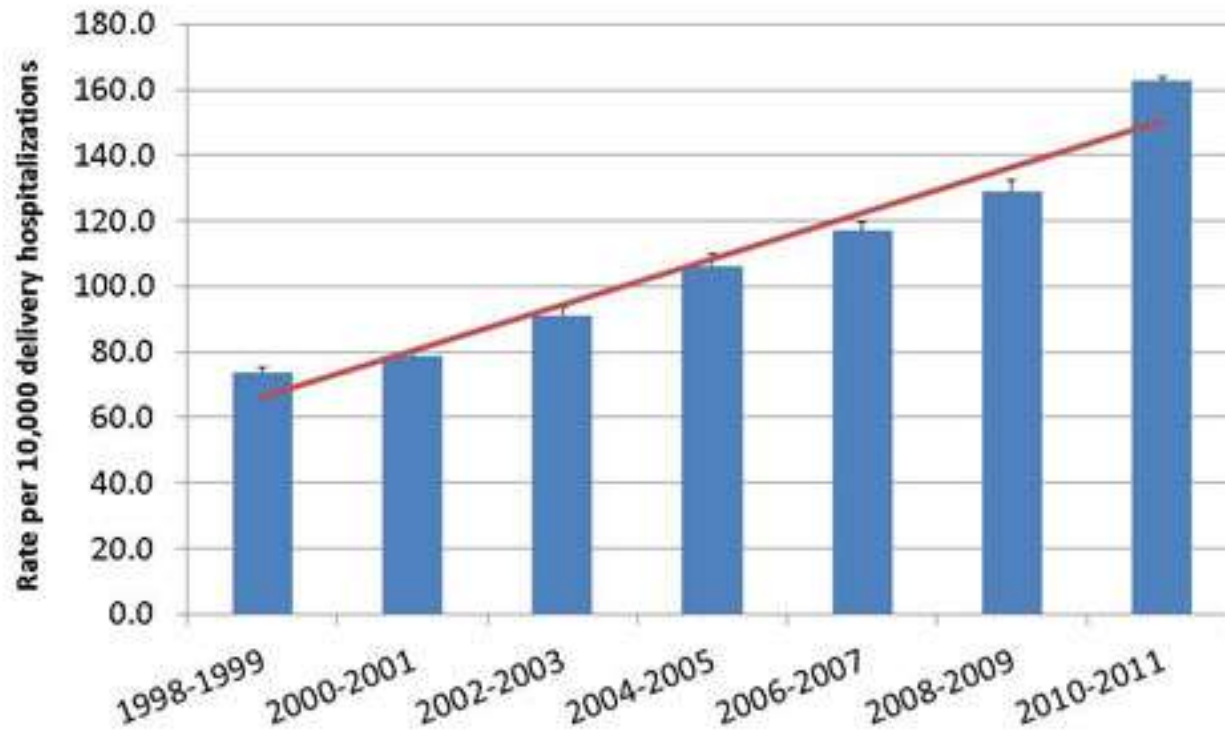
Maternal-mortality rate, per 100,000 live births



Source: Kassebaum *et al*, *Lancet*

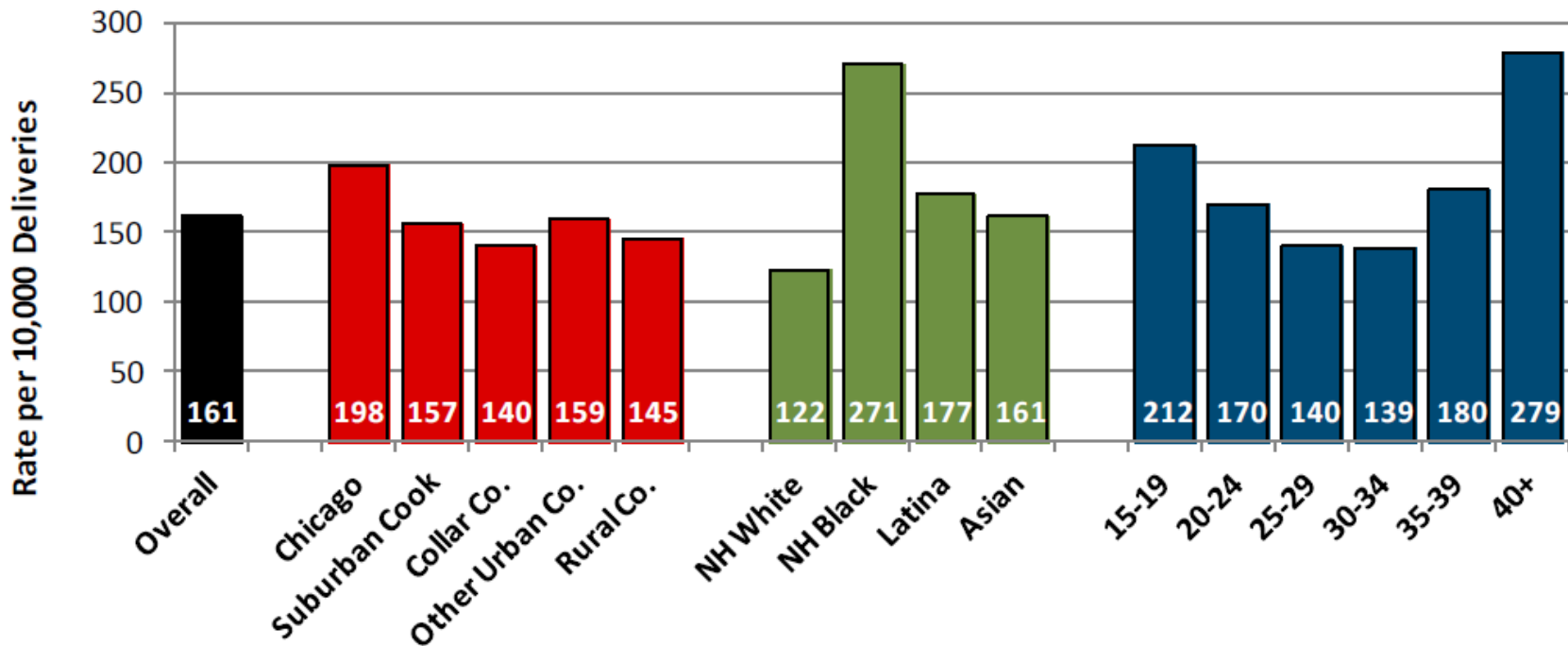
Maternal Morbidity

**Severe Maternal Morbidity During Delivery
Hospitalizations: United States, 1998-2011**



Maternal Morbidity: Disparities in Illinois

Severe Maternal Morbidity among Illinois Delivery Hospitalizations, 2011-13



In Illinois in 2011-2013, 7,239 women were affected by severe maternal morbidities — a rate of 161 cases for every 10,000 delivery hospitalizations. This is higher than the published national rate of 129 per 10,000.

ILPQC Maternal Hypertension Initiative

Aim: Reduce the rate of severe morbidities in women with severe preeclampsia, eclampsia, or preeclampsia superimposed on pre-existing hypertension by 20% by December 2017

Approach: Established workgroup (1/2015), identify hospital teams (5/2016), implement evidence-based practices / protocols / AIM HTN Bundle (6/2016-12/2017)



- OB Advisory Workgroup and HTN Clinical Leadership Team developed process/outcome measures, toolkit/education, data form and reports
- Input from IDPH SQC / Perinatal Network Administrators / AIM Initiative / CA, NY, and NC collaboratives
- Launched Wave 1 in January 2016, Wave 2 May 2016 – TODAY!

Support from Other State Collaboratives Working on HTN



- **CMQCC (California Collaborative) Preeclampsia Initiative**
 - HTN Clinical Lead Team multiple meetings with CMQCC to leverage their measures, data form, and process
- **PQCNC (North Carolina)– Conservative Management of Preeclampsia**
 - Ongoing work with PQCNC to use lessons learned from their initiative and education plan resources
- **New York ACOG – Safe Motherhood Initiative**
 - Ongoing calls to use components of their education plan and quality improvement processes (have 117 hospitals)

ILPQC HTN:

Proposed Timeline 2016



Activity		11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16
Wave 1	Launch initiative at ILPQC annual meeting	█													
	Wave 1 Teams calls			█	█	█	█								
	Test data collection process and implementation, collect baseline data			█	█	█	█								
	Wave 1 feedback				█	█	█								
Wave 2	Enroll Wave 2 teams						█	█							
	2-hour educational webinar for all teams – <i>May 2, 12:30-2:30</i>							█							
	Face-to-face meeting to launch QI work – <i>May 23, 10am – 3:30</i>								█						
	Monthly data collection/team calls (<i>June 2016-Dec 2017</i>)								█	█	█	█	█	█	█

Initiative Goals

- Early recognition of hypertension and correct diagnosis during and after pregnancy
- Reduce time to treatment of severe range blood pressure, 160/110(105)
- Deliver not too early and not too late
- Provide patient education and appropriate follow up
- Implementation of evidence based protocols

Keys to Success



- Monthly Team Call (all teams members join)
 - We will review data, discuss QI strategies for HTN bundle implementation, review education topic and Team Talks (hear from teams across IL sharing progress, barriers and successes)
- Submit monthly data into RedCap
 - You will be able to track your progress across time and compare to over 100 hospitals in initiative on reducing time to treatment for severe range BP
- Schedule regular meetings with your HTN Team to review your data and drive QI

Three types of measures

- **Outcome Measures** – Identify whether changes are leading to improvement and achieving aims
 - How is the system performing?
 - What is the result?
- **Process Measures** – identify changes to processes of care that can affect outcome measures. Measuring the results of these process changes will tell you if the changes are leading to an improved, safer system
- **Balancing Measures** – identify changes in one part of the system that may result in new problems in other parts of the system.

ILPQC HTN Initiative

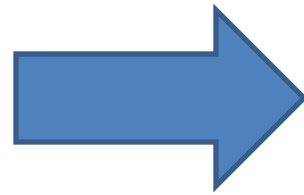
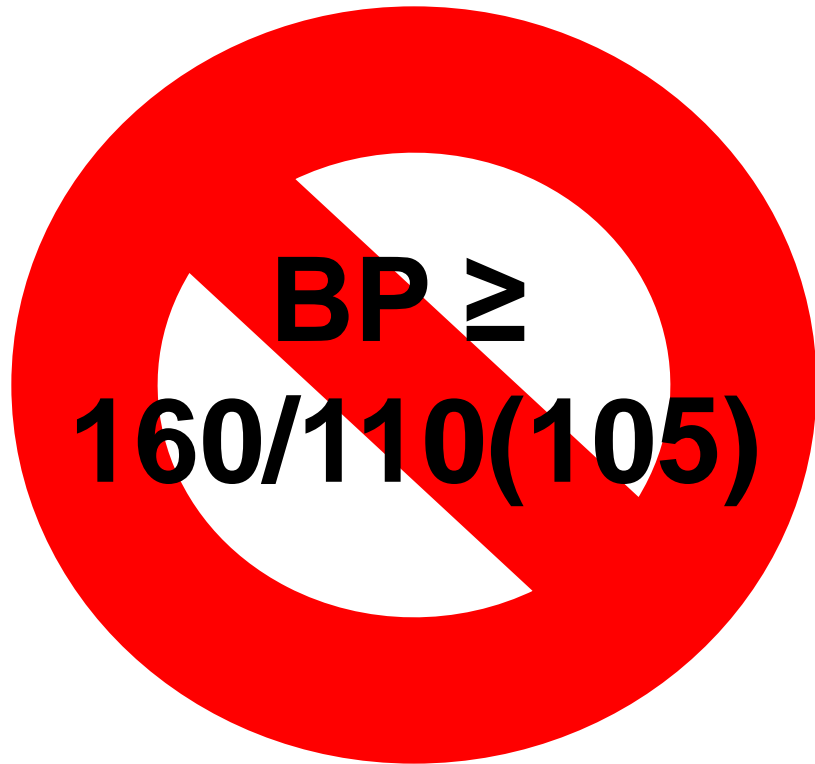
Goal & Measures



Goal: Reduce preeclampsia maternal morbidity

IL Measure	Type	Goal
Severe Maternal Morbidity No. of women with severe maternal morbidities (e.g. Acute renal failure, ARDS, Pulmonary Edema, Puerperal CNS Disorder such as Seizure, DIC, Ventilation, Abruptio) / No. pregnant & postpartum women with new onset severe range HTN	Outcome	20% reduction
Appropriate Medical Management in under 60 minutes No. of women treated at different time points (30,60,90, >90 min) after elevated BP is identified / No. of women with new onset severe range HTN	Process	100%
Debriefs on all new onset severe range HTN cases	Process	100%
Discharge education and follow-up within 7-10 days for all women with severe range HTN, 72 hours with all women with severe range HTN on medications	Process	100%

Severe range HTN >160sys / >110 (105) diastolic per hospital standard



**Need
To
Treat***

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

Alliance for Innovation on Maternal Health (AIM)



- ILPQC has been accepted as an AIM mentor state
- Hospitals report AIM variables of interest to ILPQC
- ILPQC will be able to compare IL HTN data to all AIM participating states quarterly
- AIM resources and materials available to IL hospitals include toolkits, webinars, educational materials and provider / nursing training focused on:
 - Readiness - Recognition
 - Response - Reporting

AIM - Hypertension Measures



- Provider education - % completed
- Nursing education - % completed
- Preeclampsia protocol – yes/no
- Preeclampsia EHR integration – yes/no
- Unit drill protocols – yes / no
- Patient/family support protocols –yes/no
- Debrief and multi-disciplinary case review protocols – yes/no

All measures are reported quarterly or upon completion.

AIM Participation



- ILPQC hospitals report into ILPQC REDCap Data System:
 - Monthly data from the ILPQC Severe Maternal Hypertension Data Form
 - Quarterly and yearly AIM measures (focused on quality improvement initiative process)
- De-identified data shared with AIM to compare IL progress to national data
- Data sharing agreements between hospitals and ILPQC to share de-identified data with AIM

Overview of California's Experience



- Nancy Peterson, MSN, RNC-OB, PNNP, IBCLC
 - Clinical Program Manager, CMQCC
- Holly Champagne, MSN, RNC-OB, CNS
 - Kaiser Permanente, Roseville, CA
- Connie von Kholer, MSN, RNC-OB, C-EFM, CPHQ
 - Miller Children's Hospital, Long Beach, CA



Hypertension Initiative Lessons Kaiser Permanente, Roseville

Holly Champagne, MSN, CNS, RN-C

Labor and Delivery and Mother/baby units

Snapshot



- KP Roseville part of No. California system, largest delivery volume
 - Model- OB providers, CNMs, residents-around the clock
 - Part of CMQCC collaborative for hemorrhage toolkit
 - Culture of improvement
-
- Perspective: How were we doing?

Process

Team formation- RNs both unit, MFM, OB,Quality

Walked the process

Work and rework the algorithm

Lessons learned

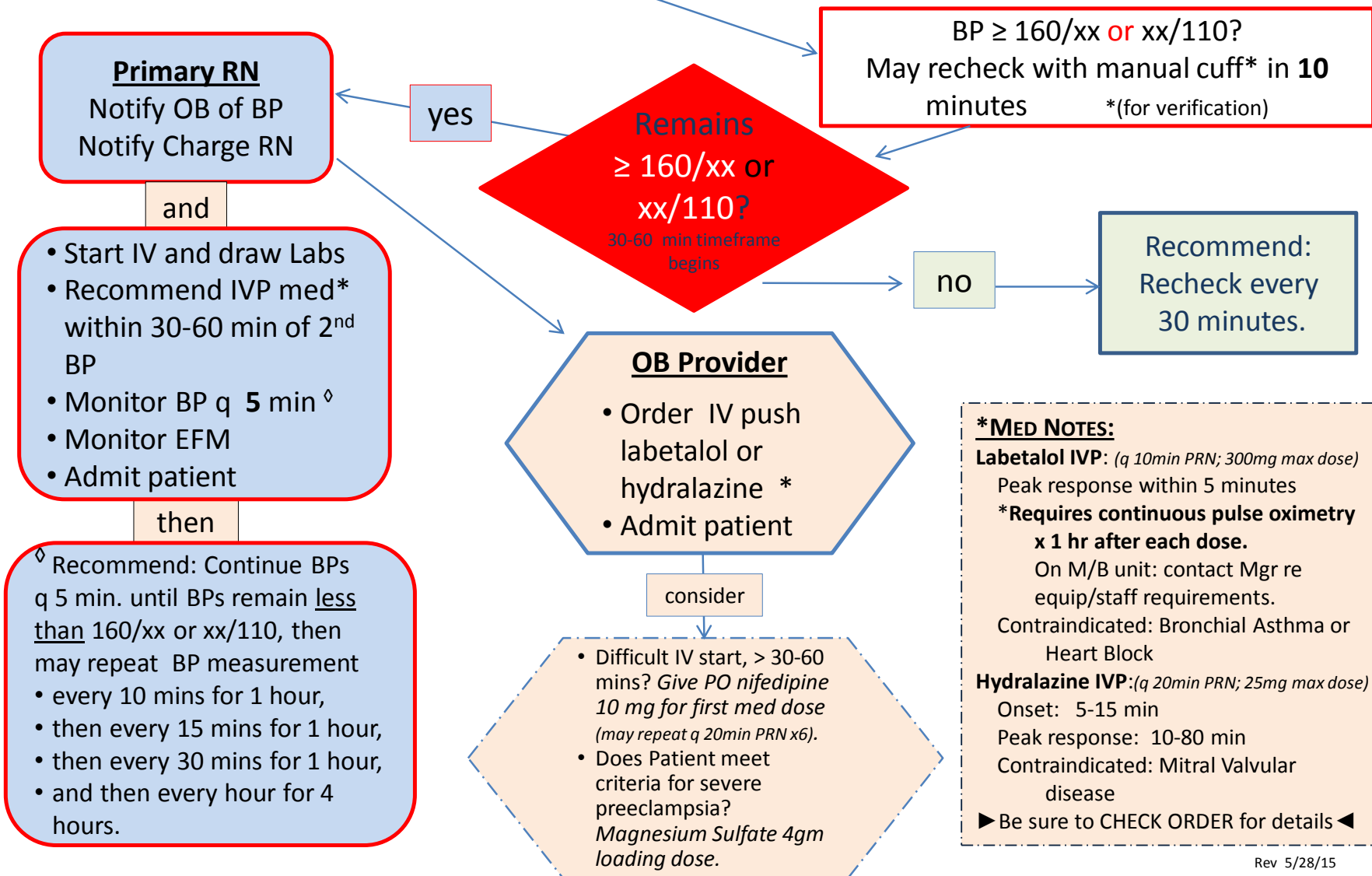
Input accepted and welcomed



- The clinicians used the tool and made many suggestions about how to modify the document
- Some information from debriefs, most from hallway conversations
- What information necessary to implement EBP

Treatment of Blood Pressure greater than or equal to 160/xx OR xx/110:

Position: semi-fowlers; cuff at level of heart; displace uterus

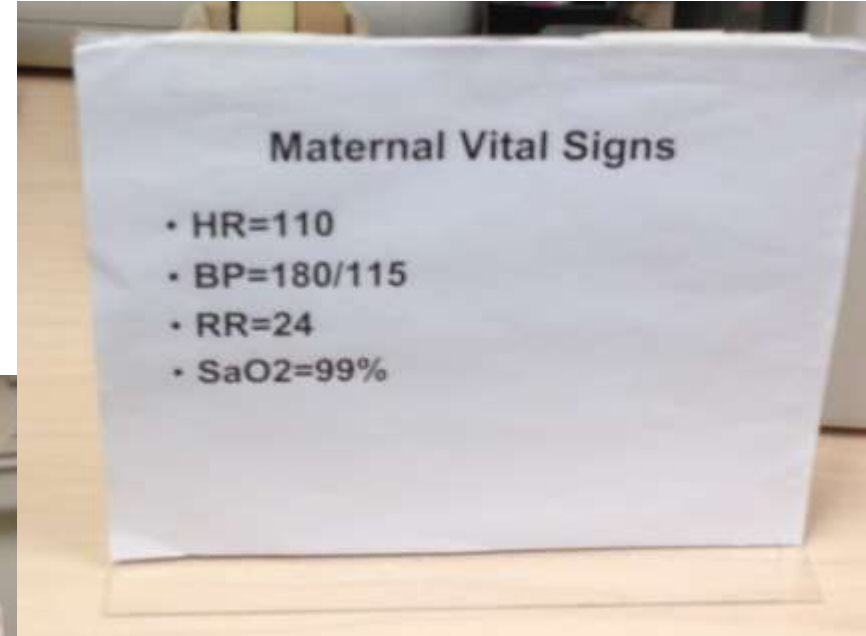


***MED NOTES:**
Labetalol IVP: (q 10min PRN; 300mg max dose)
 Peak response within 5 minutes
***Requires continuous pulse oximetry x 1 hr after each dose.**
 On M/B unit: contact Mgr re equip/staff requirements.
 Contraindicated: Bronchial Asthma or Heart Block
Hydralazine IVP:(q 20min PRN; 25mg max dose)
 Onset: 5-15 min
 Peak response: 10-80 min
 Contraindicated: Mitral Valvular disease
 ► Be sure to CHECK ORDER for details ◀

Rev 5/28/15

Lessons learned

Critical to success: team training



Lessons learned

Culture change: the “BP Protocol”



Data Collection Strategy

Multifaceted

- Initial small audit by mini-team
 - Board sign out for other patients, readmits
 - Charge RN binder, stickers
 - Pharmacy reports for IVP hydralazine and labetalol
 - Reminder programmed into med dispensing machine (Pyxis)
 - ICD9 codes for all patients with hypertension
-
- Results...

Best Wishes!



Sharing from Long Beach, CA

Connie von Köhler, MSN, RNC-OB, CPHQ
Program Director,
Perinatal Outreach Education Program





Regional Tertiary Center Long Beach Memorial Medical Center-

Southeast Los Angeles County

- 24/7 in-house Perinatology & Neonatology
- Teaching Service
- 80 Obstetricians on staff
- 500 deliveries monthly
- 107 licensed NICU beds

Developing our team:

★ Nurses representing:

- ★ Labor & Delivery
- ★ High Risk Antepartum
- ★ Mother/Baby
- ★ Emergency Department

- Educators
- Directors
- Assistant managers
- Staff nurses
- Both shifts

★ Pharmacist

★ Perinatologist

Preeclampsia Collaborative

Team meetings:

- CMQCC monthly conference calls
 - Monthly calls on Tuesday 12N
- Miller team meetings
 - Monthly on Thursday prior to the CMQCC calls
 - Standing Agenda – collaborative objectives
 - Reported out the data / PDSA-outcomes
 - Develop the report out slide for Tuesday
 - Questions for collaborative

Process of Recognition & Treatment

- Online module for staff
 - Reviewed the primary aspects of the toolkit
 - Case scenarios
- Debrief tool
 - Specific for this collaborative
 - Close-loop communication
 - Data Collection

Debriefing Issues

- Staff uncomfortable completing
- Leadership vague on process
- Forms not completed
- Couldn't find forms
- Submission process unclear

Drop off for completed debriefing tools on phase 1 is outside of fishbowl in blue folder. On phase 2, in supply room in blue folder.

MOCC
MCH-LBMMC PREECLAMPSIA: DEBRIEF TOOL

Maternity service teams review and document sequence of events, successes with and barriers to swift and coordinated response to preeclampsia or eclampsia (≥160 DBP or ≥105 diastolic BP or ≥160 DBP or ≥105 diastolic BP) or chromosomal hyperextension with eclampsia (see inclusion table) (include patients from L&D, PP, ED) (Process Measure, P3)

Participants: Primary RN and MD participate in the debriefing session; ideally any and all providers participate.

Timeline: Complete within 24 hours after event.

Location (Check all that apply)

OB Triage
 L&D
 P/ICU
 Postpartum
 ED

Participants: Primary MD: YES NO
Primary RN: YES NO
Coordinator: YES NO
AUMMC: YES NO
Resident: YES NO
Anesthesia: YES NO

Medications (Check all that apply)

Labetalol
 Hydralazine
 Nifedipine
 Other _____

Magnesium Sulfate
Leading Dose: Agn Ogm Other _____
Maintenance Dose: 1gm/hr 2gm/hr 3gm/hr
 Other _____

Monitor Medical Management
1. Did diastolic pressure fall to <90 within one hour after meals given?
 YES NO

2. If yes, was there a corresponding deterioration of fetal heart rate?
 YES NO NA

BP reached ≥160 or >105 (M,mm) _____ (M,mm) _____
First IV BP med given (M,mm) _____ (M,mm) _____
diastolic BP <105 (M,mm) _____ (M,mm) _____

IGER SET INITIATED (Acute Hypertension in Pregnancy (P))

Case Management: What went well? (Check all that apply)
communication went well Decision-making went well
workup went well Assessing the situation went well
admission went well Other _____
by describe: _____

Opportunities for improvement: "non-human factors" (Check all that apply)
 Delay in HTN medications Inadequate support (in-unit/other areas)
 Other Medication issues Equipment issues
 Delays in transport (unit, inter-hospital transport)
 Other _____
Briefly describe: _____

Opportunities for improvement: "human factors" (Check all that apply)
communication needed improvement Assessing needed improvement
workup needed improvement Delay in recognition
admission needed improvement Other _____
decision-making needed improvement: _____
by describe: _____

Label: _____

DEBRIEF TOOL
PRINT NAME OF PERSON COMPLETING FORM _____
DATE & TIME COMPLETED: _____

MCH-LBMMC PREECLAMPSIA: DEBRIEF TOOL

Topic: Maternity service team review and document sequence of events, successes with and barriers to swift and coordinated response to preeclampsia.

Goal: De-brief 100% of cases of new onset severe hypertension with preeclampsia or eclampsia (≥ 160 OR >105) or chronic/gestational hypertension with superimposed preeclampsia (see inclusion table) (Include patients from L&D, PP, ED) (Process Measure, P3)

Minimum Participants: Primary RN and MD participate in the de-briefing session; ideally any and all providers participate along with the shift Coordinator.

Instructions: Complete **immediately** after event and review with Coordinator before the end of the shift.

Patient Location (Check all that apply)

OB Triage
 L&D
 PCSU
 Postpartum
 ED

Debrief Participants:

Primary MD: YES NO
 Primary RN: YES NO
 Coordinator: YES NO
 AUM/RC: YES NO
 Resident: YES NO
 Anesthesia: YES NO

Medical Management

Highest B/P prior to treatment: _____

Time BP reached ≥ 160 or >105 : _____ (hh:mm)
 (after validation)

Time of first treatment: _____ (hh:mm)

ORDER SET INITIATED (Acute Hypertension in Pregnancy IP)

Medications (Check all given)

Labetalol IV PO
 Hydralazine IV PO
 Nifedipine
 Other _____
 (Drug, dose, route)

Magnesium Sulfate

Loading Dose:

4gm 6gm Other _____

Maintenance Dose:

1gm/hr 2gm/hr 3gm/hr
 Other

Monitor Medical Management

Lowest B/P for first hour after completing TX: _____

Was there a SUDDEN change in the FHR that required intervention?

YES NO

If YES, did the intervention require emergent delivery? YES NO

Patient is Antepartum Postpartum

Medical Management: What went well? (Check all that apply)

Communication went well Decision-making went well
 Teamwork went well Assessing the situation went well
 Leadership went well Other _____

Briefly describe:

Opportunities for improvement: "human factors" (Check all that apply)

Communication needed improvement Assessing needed improvement
 Teamwork needed improvement Delay in recognition
 Leadership needed improvement Other _____
 Decision-making needed improvement

Briefly describe:

Opportunities for improvement: "non-human factors" (Check all that apply)

Delay in HTN medications Inadequate support (in-unit/other areas)
 Other Medications issues Equipment issues
 Delays in transport (intra-, inter-hospital transport)
 Other _____

Briefly describe:

Label:

Person completing form: _____

Date & Time: _____

Coordinator Review: _____ Date: _____
(Signature)

Follow-up action taken: _____

Manager/AUM/Educator Review: _____ Date: _____

Follow-up action taken: _____

Referred to Dr. McNulty for: _____

Referred to Collaborative Committee: Date: _____

Action: _____

Closing the Loop

Debrief tool easy to find and return

Preeclampsia Debrief Tool Completed Debrief Tool

CMQCC
CHILDREN'S & WOMEN'S HOSPITAL
LONG BEACH

MCH-LBMMC PREECLAMPSIA: DEBRIEF TOOL

Topic: Maternity services teams review and document sequence of events, successes with and barriers to swift and coordinated response to preeclampsia superimposed preeclampsia (see inclusion table) (include patients from L&D, PP, ED) (Process Measure, P3)

Minimum Participants: Primary RN and MD participate in the debriefing session. Ideally any and all providers participate.

Instructions: Complete immediately after event.

Patient Location (Check all that apply)

OB Triage ORDER SET INITIATED (Acute Hypertension in Pregnancy IV)
 L&D Check All (check)
 PSCU N PO
 Postpartum ED Magnesium Sulfate
Loading Dose:

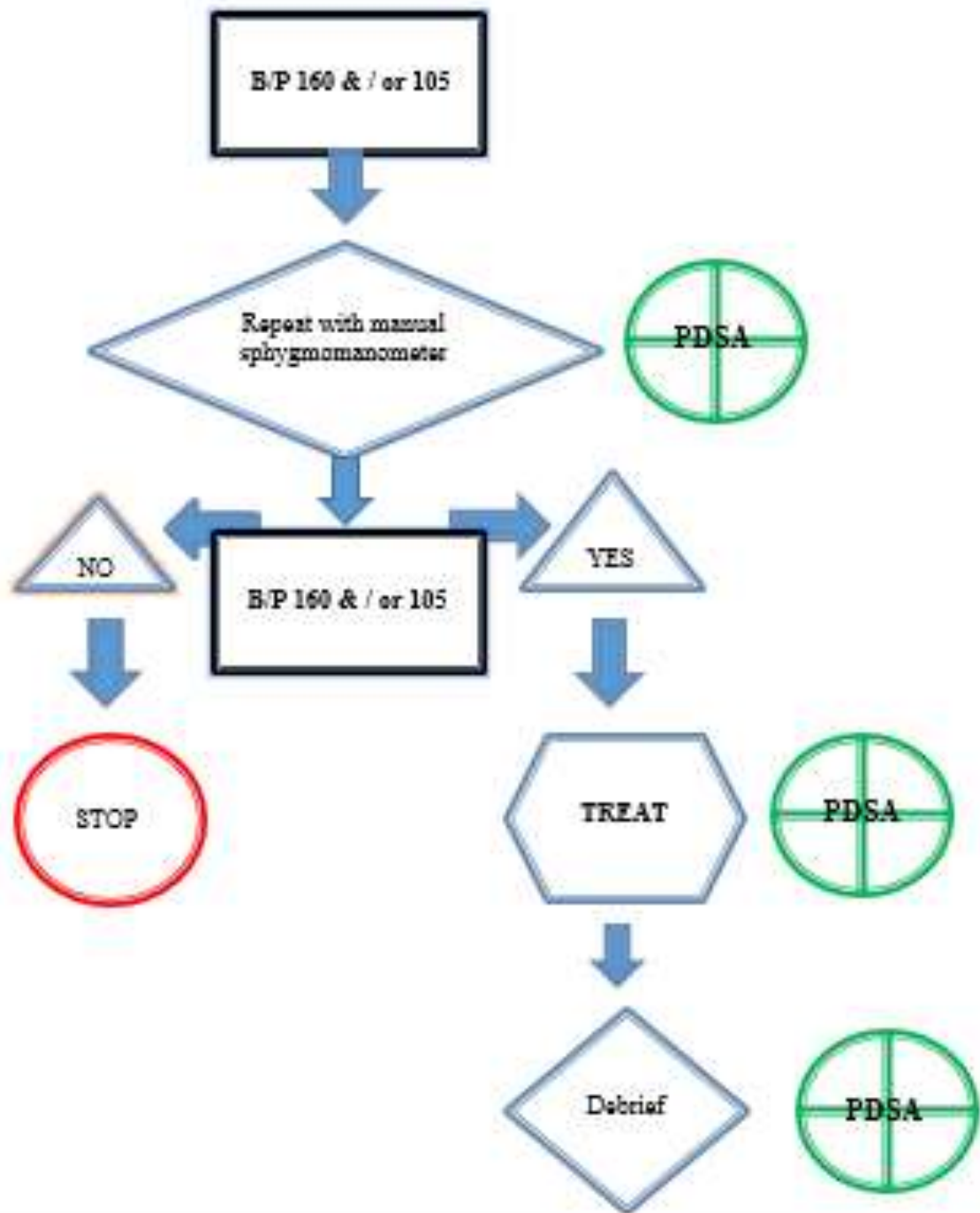
Debrief Participants: _____

Medical Measurement: _____

Reluctance/Refusal?
1. CMQCC Preeclampsia Debrief form (lower left)
2. Contact Jan: jtiral@memorialcare.org or x30612

CMQCC ACTION PLAN & MEASUREMENT GUIDE
Measurement for this tool is **PROVIDER COMPLIANCE** with the debriefing process and documentation.
If not on the list, please contact the CMQCC team at cmqcc@memorialcare.org or x30612.
If you have any questions, please contact the CMQCC team at cmqcc@memorialcare.org or x30612.

Provider (last)	Cell Size
Small Adult? 12021 cm	
Medium Adult? 12021 cm	
Large Adult? 12021 cm	
Adult? 12021 cm	



On Going Data Review:

- Combination of:
 - CMDC list (45 days after end of month)
 - Weekly list from Women's pharmacist
 - Pts who received: Labetalol or/& Hydralazine
 - Debrief forms

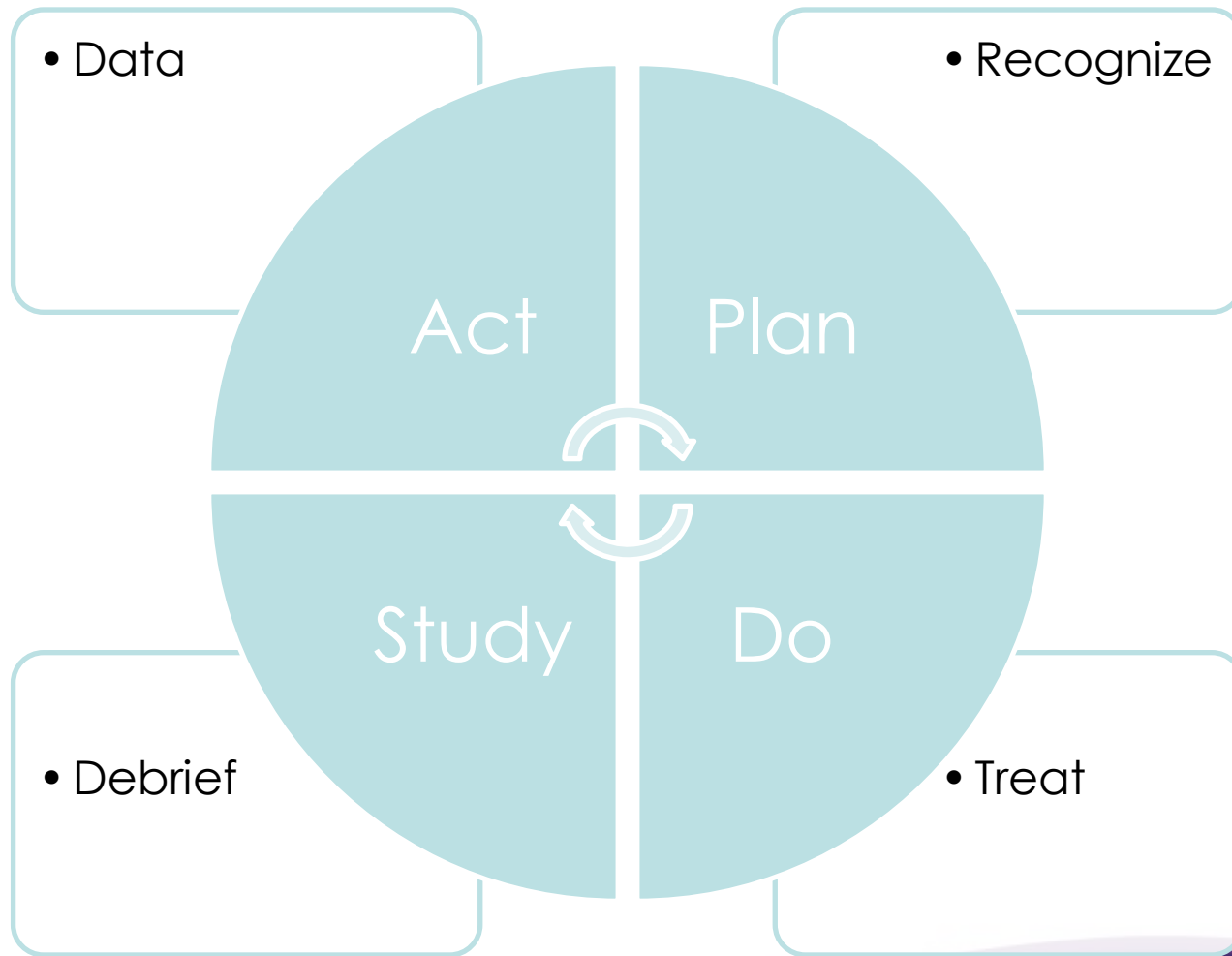
Closing the Loop

Electronic Message Boards

- Interprofessional
- Best Practice Reminders
- Addresses comment, concerns, questions
- New messages every 2 weeks

≥ 160 &/or ≥ 105
TREAT
within 30 min

Process Flow:



INTERPROFESSIONAL PARTICIPATION IN A STATEWIDE COLLABORATIVE TO RECOGNIZE AND TREAT HYPERTENSION IN PREGNANCY

Connie von Köhler, MSN, RNC-OB, C-EFM, CPHQ, Diane Beck, RNC, BSN
 Cathy Villarreal, BSN, RNC-MMN, Janet Trial, EdD, MSN, CNM,



BACKGROUND

Hypertensive disorders of pregnancy are a leading cause of maternal mortality occurring in 12-22% of pregnancies. The California Pregnancy Associated Mortality Review (CA-PAMR) found the overall rate for preeclampsia deaths between 2002 and 2004 is 1.6/100,000. These disorders are also one of the leading contributors to premature birth leading to significant neonatal morbidity and mortality.

AIM

The goal was to standardize identification and treatment of pregnant/post-partum women presenting with blood pressures ≥ 160 & / or over ≥ 105 within 30 minutes.

DESIGN

The BirthCare Center was one of 25 birthing hospitals in California to actively participate in the statewide CMQCC Preeclampsia Collaborative from February 2013 through December 2014.

The interprofessional team of physician, nurses & pharmacist were educated to the toolkit guidelines and "Acute Hypertensive" order set developed by the MemorialCare Women's Best Practice Team.

The team utilized PDSA cycles to implement the evidence-based guidelines from the CMQCC Preeclampsia Toolkit.



METHODS:

Initial elevated blood pressures (≥ 160 & / or over ≥ 105) were reevaluated within 15 minutes using a manual sphygmomanometer and appropriate size cuff.

Physicians are contacted, "Acute Hypertensive" order-set initiated, medication immediately administered.

Blood pressures are reassessed every 15-20 minutes and medication treatment continued until below threshold values.

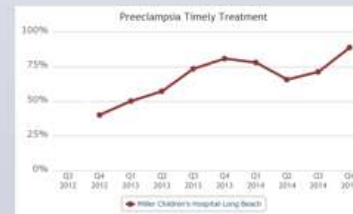
IMPLEMENTATION STRATEGIES:

- Perinatal nursing staff were educated including; use of manual sphygmomanometer and choice of appropriate cuff.
- Self-learning module with competency evaluation was required.
- Post-partum nurses were educated to give IV hydralazine.
- Physicians were provided written communication of the new protocol and order set.
- The pharmacist assured necessary level of drug stock.
- Rolling manual blood pressure "kits" with assorted cuffs and guidelines were distributed.
- Electronic message boards continually educated staff.
- Debrief forms provided feedback to the implementation team to complete PDSA cycles.

RESULTS:

The baseline data from 4th Quarter 2012 40% of women with blood pressures meeting the criteria were treated.

December 2014, 81.8% of women with blood pressures meeting criteria were treated within 30 minutes and 90.9% within 60 minutes.



CONCLUSION &

IMPLICATIONS FOR NURSING PRACTICE:

Understanding the potential morbidity and mortality has increased the care providers recognition and treatment of acute hypertension. Methodology and implementation strategies were effective in achieving the standardized, identification and treatment of pregnant/post-partum women presenting with hypertension.

Unanticipated challenges included providing training in the basic fundamentals of blood pressure measurement. Additionally, institutional approval for IV push hydralazine to become standard practice for postpartum nurses.

Next steps in nursing practice include:

- Evaluation of hypertensive patient within one week of hospital discharge.
- Implementation in emergency department.

REFERENCES:

ACOG. (2015). Emergent Therapy for Acute-Onset, Severe Hypertension During Pregnancy and the Postpartum Period. *American Congress of Obstetricians and Gynecologists Committee Opinion #623*.

ACOG. (2013). Hypertension in pregnancy: Report of the American College of Obstetricians and Gynecologists' Task Force on hypertension in pregnancy. *Obstet Gynecol.*, 122(5), 1122-1131.

ACOG. (2002). Diagnosis and Management of Preeclampsia and Eclampsia #33. *American Congress of Obstetricians and Gynecologists Practice Bulletin Number 33*. (Reaffirmed 2012).

Druzin, M. L., Shields, L. E., Peterson, H. L., Cape, V. (2013). Preeclampsia Toolkit: Improving Health Care Response to Preeclampsia. *California Maternal Quality Care Collaborative*.

Preeclampsia Foundation. www.preeclampsia.org

Sibat, B. (2011). Evaluation and management of severe preeclampsia before 34 weeks gestation. *American Journal of Obstetrics & Gynecology*, 205(3), 191-198.

INTERPROFESSIONAL PREECLAMPSIA COLLABORATIVE TEAM



Front row left: Jennifer McNulty, MD, Connie von Köhler, RN, Janet Trial, CNM, Cathy Villarreal, RN. Back row left: Sandra Jones, RN, Deborah Chang, RN, Susan McKamy, Pharmacist, Pennie Bray, RN, Amy Scott, RN, Patricia Alvarez-Ramirez, RN, Diane Beck, RN, Kathy Callanan, RN

Forming Your QI Team



- Your hospital team:
 - Physician Lead
 - Nurse Lead
 - Quality Lead
 - Other Team Members if available (ED, Anesthesiology, etc.)
- Team activities
 - Data form implementation
 - Monthly meetings to review data, identify opportunities for improvement and plan quality improvement work
 - Develop process flow diagram for different settings at your hospital and discuss opportunities for improvement
 - Protocol/policy review
 - Debriefs/case reviews

Data Collection Process

Frequency	Form	Content	Timeframe
Monthly	Severe HTN Data Form	Bedside and Chart Review	January 2016 (Wave 1) May 2016 (Wave 1 & 2)
Quarterly	Implementation checklist	Opportunities for improvement	May 2016
	AIM Report 3 items	Education Unit Drills	May 2016
Annual	AIM Report 5 items Y/N	EHR Family Support Debriefs Reviews	May 2016
	Discharge data with IDPH	SMM Rates	May 2016

Our focus before Face-to-Face

Details to follow

Severe HTN Data Form:

2 Options



- Single data form to be used both at the bedside and for chart abstraction
- Separate data forms
 - Bedside data form
 - Chart abstraction tool
- Both options gather the same information
- Use whatever works for your hospital team!

Option 1 – Single Form



SEVERE HYPERTENSION DATA FORM

Topic: Maternity service team review and document sequence of events, successes with and barriers to swift and coordinated response to preeclampsia with severe features.
Goal: Reduce time to treatment (< 60 minutes) for new onset severe hypertension (≥ 160 systolic OR ≥ 110 diastolic) with preeclampsia or eclampsia or chronic/gestational hypertension with superimposed preeclampsia (include patients from triage, L&D, Antepartum, PP, ED) in order to reduce preeclampsia morbidity in Illinois.
Instructions: Complete within 24 hrs. after all cases of new onset severe hypertension (≥ 160 systolic or ≥ 110 diastolic) event in pregnancy up to 6 wks postpartum. Debrief should include primary RN and primary MD to identify opportunities for improvement in identification and time to treatment of HTN.

Date: _____ GA at Event (weeks & days) OR # Days PP: _____

Patient Location (check all that apply) Triage L&D Postpartum
 Antepartum ED

Maternal Age: _____ Height: _____ Current Weight: _____

Diagnosis: Chronic HTN Gestational HTN Preeclampsia
 Superimposed Preeclampsia Postpartum Preeclampsia Other _____

PROCESS MEASURE (P1): Medical Management

Time: hh:mm	Measure
	BP reached ≥ 160 or diastolic ≥ 110 (sustained >15 min)
	First BP med given
	BP reached <160 and diastolic BP <110

Medications (check all given)

Medications	Dosage(s) given	Reason not given
<input type="checkbox"/> Labetalol		
<input type="checkbox"/> Hydralazine		
<input type="checkbox"/> Nifedipine		
Magnesium Sulfate Bolus	<input type="checkbox"/> 4gm <input type="checkbox"/> 6gm <input type="checkbox"/> Other	
Magnesium Sulfate Maintenance	<input type="checkbox"/> 1gm/hr <input type="checkbox"/> 2gm/hr <input type="checkbox"/> 3gm/hr <input type="checkbox"/> Other	
Any ANS (if <34 wks)?	<input type="checkbox"/> Partial Course <input type="checkbox"/> Complete Course <input type="checkbox"/> Not Given	

BALANCING MEASURE (B1,B2): Monitor Medical Management

B1. Did diastolic pressure fall to <80 within one hour after meds given?

YES NO

B2. If yes, was there corresponding deterioration in FH rate (Category 3)?

YES NO NA (for postpartum patients)

GA at Delivery (weeks & days): _____

OB Complications (check all that apply) _____ Date: _____
 Transport In? YES NO Date: _____
 Transport Out? YES NO Date: _____

Adverse Maternal Outcome: _____
 OB Hemorrhage with transfusion of ≥ 4 units of blood products
 Intracranial Hemorrhage or Ischemic event
 Pulmonary Edema ICU admission HELLP Syndrome
 Oliguria Eclampsia DIC
 Renal failure Liver failure Ventilation
 Placental Abruption Other _____ None

Adverse Neonatal Outcome: _____ Date: _____
 NICU/SCN admission IUFD Other _____ None

Maternal Race/Ethnicity (check all that apply):

White Black Hispanic Asian Other

PROCESS MEASURE (P2) Discharge Management

A. Discharge Education: Education materials about preeclampsia given?
 YES NO

B. Discharge Management: Follow-up appt scheduled within 3-10 days (for all women with any severe range hypertension/preeclampsia)

YES NO

Was patient discharged on meds?

YES NO

If YES: Was follow up appointment scheduled in <72 hours?

YES NO

COMMENTS about Medical Management, Monitoring, Discharge

Opportunities for improvement to reduce time to treatment (identification severe HTN to treatment goal <60 minutes): De-brief

Debrief Participants: Primary MD: YES NO Primary RN: YES NO

TEAM ISSUES	Went well	Needs improvement	Comment
Communication			
Recognition of severe HTN			
Assessing situation			
Decision making			
Teamwork			
Leadership			

SYSTEM ISSUES	Went well	Needs improvement	Comment
HTN medication timeliness			
Transportation (intra- inter-hospital transport)			
Support (in-unit, other areas)			
Med availability			
Any other issues:			

SEVERE HYPERTENSION DATA FORM: BEDSIDE

Option 2 – Two Forms Bedside Form

Topic: Maternity service team review and document sequence of events, successes with and barriers to swift and coordinated response to preeclampsia with severe features.

Goal: Reduce time to treatment (< 60 minutes) for new onset severe hypertension (≥ 160 systolic OR > 110 diastolic) with preeclampsia or eclampsia or chronic/gestational hypertension with superimposed preeclampsia (include patients from triage, L&D, Antepartum, PP, ED) in order to reduce preeclampsia morbidity in Illinois.

Instructions: Complete within 24 hrs. after all cases of new onset severe hypertension (> 160 systolic or > 110 diastolic) event in pregnancy up to 6 wks postpartum. Debrief should include primary RN and primary MD to identify opportunities for improvement in identification and time to treatment of HTN.

Date: _____ **GA at Event (weeks & days) OR # Days Postpartum:** _____

Patient Location (check all that apply) Triage L&D Postpartum Antepartum ED

Maternal Age: _____ **Height:** _____ **Current Weight:** _____

Diagnosis: Chronic HTN Gestational HTN Preeclampsia Superimposed Preeclampsia Postpartum Preeclampsia
 Other _____

PROCESS MEASURE (P1): Medical Management

Time: hh:mm	Measure
	BP reached ≥ 160 or diastolic ≥ 110 (sustained > 15 min)
	First BP med given
	BP reached < 160 and diastolic BP < 110

Medications (check all given)

Medications	Dosage(s) given	Reason not given
<input type="checkbox"/> Labetalol		
<input type="checkbox"/> Hydralazine		
<input type="checkbox"/> Nifedipine		
Magnesium Sulfate Bolus	<input type="checkbox"/> 4gm <input type="checkbox"/> 6gm <input type="checkbox"/> Other	
Magnesium Sulfate Maintenance	<input type="checkbox"/> 1gm/hr <input type="checkbox"/> 2gm/hr <input type="checkbox"/> 3gm/hr <input type="checkbox"/> Other	
Any ANS (if < 34 wks)?	<input type="checkbox"/> Partial Course <input type="checkbox"/> Complete Course <input type="checkbox"/> Not Given	

BALANCING MEASURE (B1,B2): Monitor Medical Management

B1. Did diastolic pressure fall to < 80 within one hour after meds given?

YES NO

B2. If yes, was there corresponding deterioration in FH rate (Category 3)?

YES NO NA (for postpartum patients)

Opportunities for improvement to reduce time to treatment (identification severe HTN to treatment goal < 60 minutes):

De-brief

Debrief Participants: Primary MD: YES NO Primary RN: YES NO

TEAM ISSUES	Went well	Needs improvement	Comment	SYSTEM ISSUES	Went well	Needs improvement	Comment
Communication				HTN medication timeliness			
Recognition of severe HTN				Transportation (intra-, inter-hospital transport)			
Assessing situation				Support (in-unit, other areas)			
Decision making				Med availability			
Teamwork				Any other issues:			
Leadership							



SEVERE HYPERTENSION DATA FORM: CHART ABSTRACT



Topic: Maternity service team review and document sequence of events, successes with and barriers to swift and coordinated response to preeclampsia with severe features.

Goal: Reduce time to treatment (< 60 minutes) for new onset severe hypertension (≥ 160 systolic OR > 110 diastolic) with preeclampsia or eclampsia or chronic/gestational hypertension with superimposed preeclampsia (include patients from triage, L&D, Antepartum, PP, ED) in order to reduce preeclampsia morbidity in Illinois.

Instructions: Complete within 24 hrs. after all cases of new onset severe hypertension (> 160 systolic or > 110 diastolic) event in pregnancy up to 6 wks postpartum. Debrief should include primary RN and primary MD to identify opportunities for improvement in identification and time to treatment of HTN.

GA at Delivery (weeks & days): _____

OB COMPLICATIONS (check all that apply)

Maternal Outcome:

Date: _____

- | | | |
|---|--|--|
| <input type="checkbox"/> OB Hemorrhage with transfusion of ≥ 4 units of blood products | <input type="checkbox"/> Pulmonary Edema | <input type="checkbox"/> Oliguria |
| <input type="checkbox"/> Intracranial Hemorrhage or Ischemic event | <input type="checkbox"/> HELLP Syndrome | <input type="checkbox"/> Renal failure |
| <input type="checkbox"/> ICU admission | <input type="checkbox"/> DIC | <input type="checkbox"/> Placental Abruption |
| <input type="checkbox"/> Eclampsia | <input type="checkbox"/> Ventilation | |
| <input type="checkbox"/> Liver failure | <input type="checkbox"/> None | |
| <input type="checkbox"/> Other _____ | | |

Neonatal Outcome:

Date: _____

- NICU admission IUFD Other _____ None

Maternal Race/Ethnicity (check all that apply):

- White Black Hispanic Asian Other

Maternal Transport:

Transport In? YES NO Date: _____

Transport Out? YES NO Date: _____

PROCESS MEASURE (P2) Discharge Management

A. Discharge Education: Education materials about preeclampsia given?
 YES NO

B. Discharge Management: Follow-up appointment scheduled within 3-10 days
 (for all women with any severe range hypertension/preeclampsia)
 YES NO
 Was patient discharged on meds?
 YES NO
If YES: Was follow up appointment scheduled in <72 hours?
 YES NO

COMMENTS about Medical Management, Monitoring, Discharge:

Option 2 – Two Forms Chart Abstract Form



Steps for Data Form Implementation



1. Implement the Severe HTN Data Form at the bedside for all women who have been identified with new onset severe HTN
2. Use chart review to collect discharge and outcome data on all women identified with new onset severe HTN
3. Use your EMR to identify all patients with new onset severe HTN to insure you've captured all cases through the bedside implementation of the Severe HTN Data Form, can use chart review to collect data on missed patients.
4. Enter data in REDCap by the 15th of the month for the previous month (i.e. May 15th for April data)

Key Driver Diagram: Maternal Hypertension Initiative

GOAL: To reduce preeclampsia maternal morbidity in Illinois hospitals

AIM: By December 2017, to reduce the rate of severe morbidities in women with preeclampsia, eclampsia, or preeclampsia superimposed on pre-existing hypertension by 20%

Key Drivers

Readiness: Implementation of standard processes for optimal care of severe maternal hypertension in pregnancy

Recognition: Screening and early diagnosis of severe maternal hypertension in pregnancy

Response: Care management for every pregnant or postpartum woman with new onset severe hypertension

Reporting/Systems Learning: Foster a culture of safety and improvement for care of women with new onset severe hypertension

Interventions

- Implement standard order sets and/or algorithms for early warning signs, diagnostic criteria, timely triage, monitoring and treatment of severe hypertension
- Ensure rapid access to medications used for severe hypertension with guide for administration and dosage
- Implement system plan for escalation, obtaining appropriate consultation, and maternal transport
- Perform regular simulation drills of severe hypertension protocols with post-drill debriefs
- Integrate severe hypertension processes (e.g. order sets, tracking tools) into your EHR

- Standardize protocol for measurement and assessment of blood pressure and urine protein for all pregnant and postpartum women
- Standardize response to early warning signs including listening to and investigating symptoms and assessment of labs
- Implement facility-wide standards for patient-centered education of women and their families on signs and symptoms of severe hypertension
- Educate OB, ED, and anesthesiology physicians, midwives, and nurses on recognition and diagnosis of severe hypertension that includes utilizing resources such as the AIM hypertension bundle and/or unit standard protocol

- Execute facility-wide standard protocols for appropriate medical management in under 60 minutes
- Create and ensure understanding of communication and escalation procedures (e.g. implementing a rapid response team through the use of TeamSTEPS)
- Develop OB-specific resources and protocols to support patients, families, staff through major complications
- Provide patient-centered discharge education materials on preeclampsia and postpartum preeclampsia
- Implement patient protocols to ensure follow-up within 7-10 days for all women with severe hypertension and 72 hours for all women on medications

- Establish a system to perform regular debriefs after all new onset severe hypertension cases
- Establish a process in your hospital to perform multidisciplinary systems-level reviews on all severe hypertension cases admitted to ICU
- Continuously monitor, disseminate, and discuss your monthly data in ILPQC REDCap system at staff/administrative meetings
- Add maternal hypertension assessment and treatment protocols and education to provider and staff orientations, and annual competency assessments

Live REDCap Demo:

Kate Finnegan



- <https://redcap.healthlnk.org/>
- Site navigation
 - Log in
 - How to find the HTN project
- Record entry
 - Saving and adding another record
- How to edit a record
- Troubleshooting - what to do if you forgot user name/password, don't have access to a project, etc.

Wave 1 Process Flow Examples

- Roma Allen, MSN, RNC-OB – Elmhurst Memorial Hospital
- Dawn Varacalli, MSN, RN, CLS – Rockford Memorial Hospital



Healthy DrivenTM

Edward-Elmhurst
HEALTH



Elmhurst Memorial Hospital

Team Members

Roma Allen MSN, RN; Michelle Kavanagh BSN, RN; Kimberly Darey, MD.; Rebecca Cazzato MSN, RN, IBCLC; Kimberly Harris MSN, RNC, C-EFM; Andrea White, BSN, RN; Adriana Calcev MSPHRD.

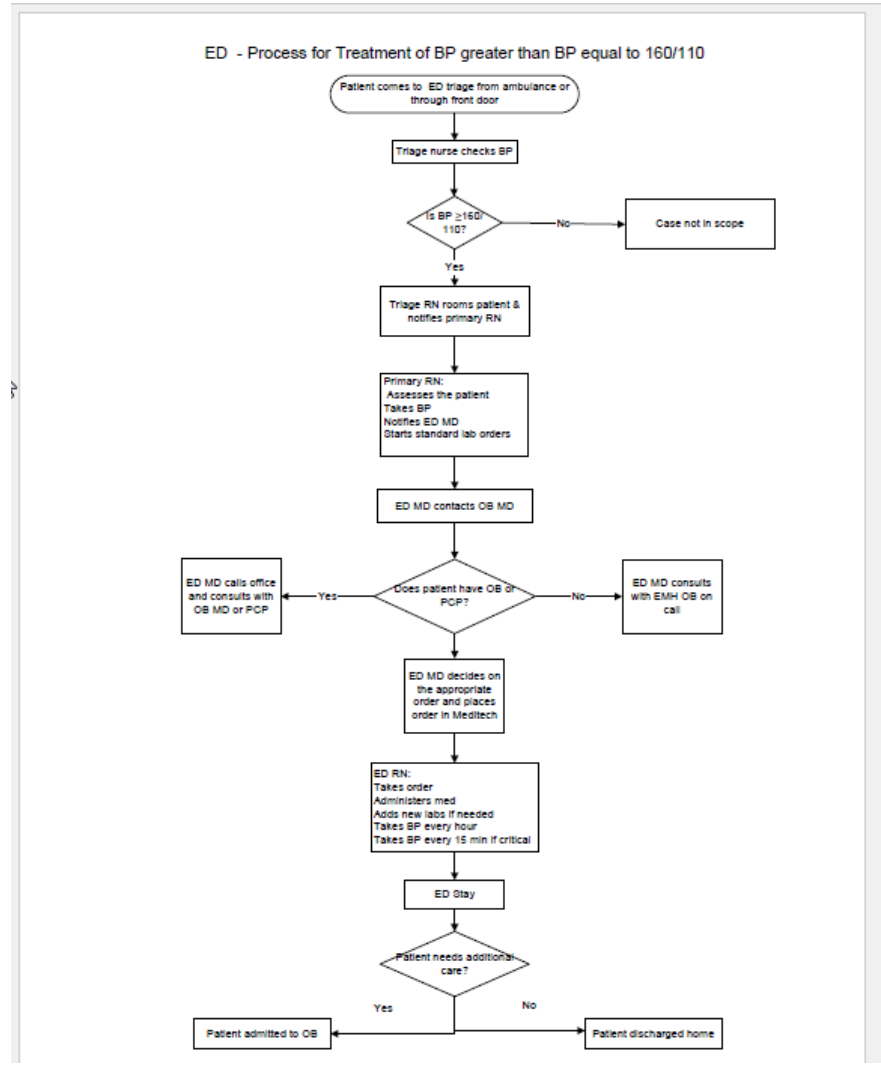
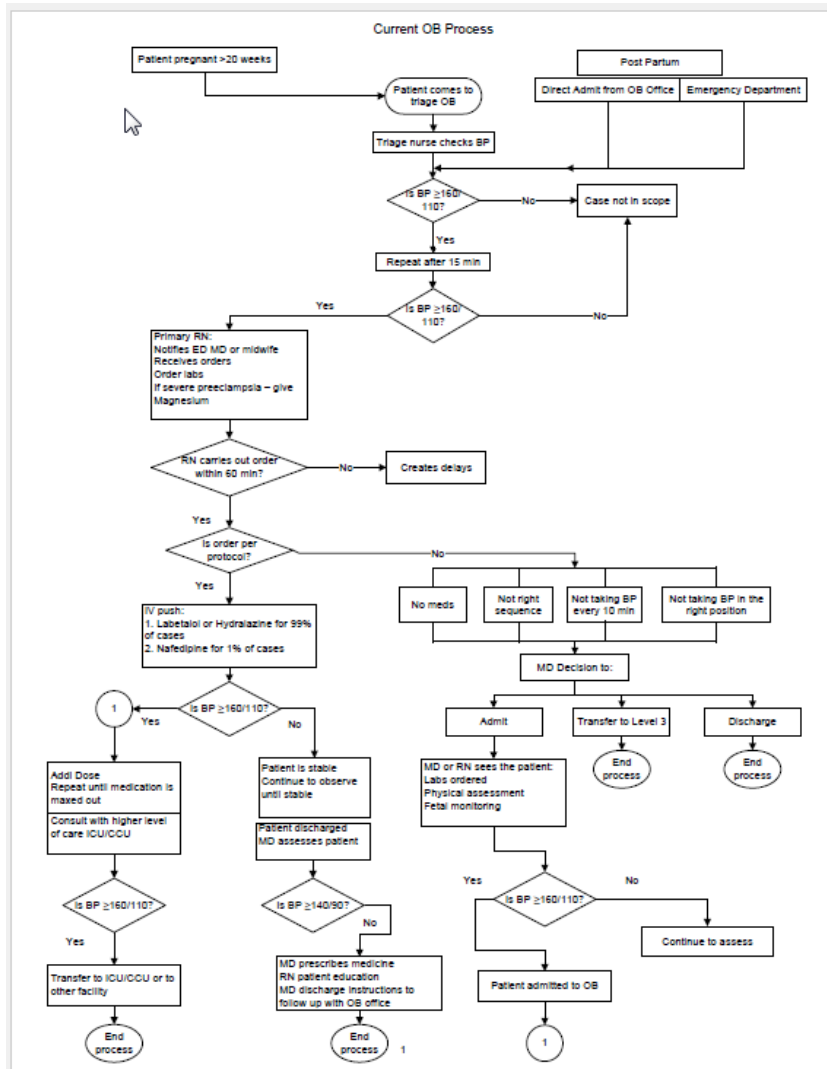
Family Birthing Center

Approximately 2000 deliveries/year
Level IIE nursery

Healthy Driven[™]
Edward-Elmhurst
HEALTH

- Team members meet monthly
 - Multidisciplinary
- Data collection began in February
 - Retrospective
 - Not at the bedside

CURRENT Process Flow Diagram



Plan → Do → Study → Act

Team Name: Elmhurst Memorial Hospital	Date of test: 2/25/16	Test Completion Date:
---------------------------------------	-----------------------	-----------------------

Overall team/project aim: Decrease time to treatment with appropriate resources available

What is the objective of the test? Immediate access to appropriate supplies for administering hypertensive medications

PLAN:

Briefly describe the test:

-1m syringe currently in stock to draw up appropriate hydralazine dose (10mg/0.25ml) did not fit into IV tubing. Transfer of hydralazine from 1ml syringe to 3ml syringe was needed in order to administer intravenously through IV tubing. Change in 1 ml syringe to one that fits into IV tubing needed.

How will you know that the change is an improvement?

1. Appropriate syringe available for IV administration
2. Time of medication order to administration < 30minutes
3. Staff feedback on availability and utilization of new syringe

What driver does the change impact?

- Will directly impact the process of administering hydralazine to a maternal patient with severe hypertension.
- Will decrease the amount of steps necessary to administer hydralazine.
- Care management for every pregnant or postpartum woman with new onset severe hypertension

What do you predict will happen?

- decrease in time → treatment
- decreased chance of error of amount of medication given, decrease chance of needle stick injuries

PLAN

List the tasks necessary to complete this test (what)	Person responsible (who)	When	Where
Research appropriate syringes. Find one that adapts to current IV tubing	Dr. Darey	March 1, 2016	OB Dept.
Ask unit manager to order correct 1 ml syringe for unit	Michelle Kavanagh	March 10, 2016	OB Dept.
Contact unit distribution to have new syringe stocked in unit stock room	Jen Stirrat	April 1, 2016	OB Dept.
Educate staff on presence and purpose of new syringe	Michelle Kavanagh	April 20, 2016	OB Dept.

Plan for collection of Data: Begin May 1, 2016

DO: Monitor availability of syringes, observe RN practice in utilization of syringe, analyze time of order to time of medication administration

Plan → Do → Study → Act

Team Name: Elmhurst Memorial Hospital	Date of test: 3/22/16	Test Completion Date:
---------------------------------------	-----------------------	-----------------------

Overall team/project aim: Improve access to maternal hypertensive medications

What is the objective of the test? Create consistency in medication access in the OB department and ED to improve diagnosis to treatment time

PLAN:

Current state: The OB department has a 'Mag Kit' that when accessed in the Pyxis system will also provide you with Labetalol. During a Maternal Hypertension Team Meeting medication, access was inconsistent in the ED and access to Hydralazine was not available in the 'Mag Kit'. ED had no clinical decision support in the Pyxis and all medication must be ordered and removed separately.

The Maternal Hypertension Team meeting recommended the following changes:

1. Pharmacy becomes an Adhoc team member
2. Hydralazine added to the 'Mag Kit'
3. Name changed for consistent messaging to 'Preeclampsia Kit'
4. Duplicate the process in the ED and create a 'Preeclampsia Kit' in the ED Pyxis

How will you know that the change is an improvement?

- Name change to 'Preeclampsia Kit' with access to all medications it provides a trigger for clinical decision support and decrease in the OB and ED department time to treatment
- Rapid access to medications used for severe hypertension with guide for administration and dosage
- Facility-wide standard protocols for appropriate medical management in under 60 minutes

What driver does the change impact?

- Implementation of standard processes for optimal care of severe maternal hypertension in pregnancy
- Care management for every pregnant or postpartum woman with new onset severe hypertension

What do you predict will happen?

Consistent access to medication in the ED prior to transfer to the OB Department

PLAN

List the tasks necessary to complete this test (what)	Person responsible (who)	When	Where
1. Add Hydralazine to the 'Kit'	Anne Burns PharmD	May 1, 2016	OB Department
2. Create Name Change in Pyxis System to 'Preeclampsia Kit'	Anne Burns PharmD	May 20, 2016	OB Department
3. Add 'Preeclampsia Kit' to ED Pyxis	Anne Burns PharmD	May 20, 2016	OB Department
4. OB depart. Education nurses & Drs.	Michelle Kavanagh Dr. Darey	May 15, 2016	OB Department
5. Ed Depart Education nurses & Drs.	Andrea White Dr. Darey	May 15, 2016	OB Department

Plan for collection of data:

Short Term Goals...

- Break down the current process flow diagram to identify barriers and possible solutions.
 - Create ideal process flow diagram
- Identify topics to begin staff education
 - ILPQC Project focus and goals
 - Accurate and consistent blood pressure measurement
 - Importance of discharge teaching and follow up
- Plan for escalation of treatment and resources
- Ensure rapid access to medications
 - Currently working with pharmacy department



ROCKFORD MEMORIAL *Hospital*



- Perinatal Regional Center Northern Illinois
- Level I Trauma Center
- Maternal & Neonatal Transport Teams
- 46 bed NICU

HTN Project Team

Members: Dr. Phillip Higgins, Jen Geary, Donna Mathews, Kate Nieva, Amy Graceffa, Missi Byars, Justine Beaman, Jenni Bowling, Dawn Karcz, Jeff Campbell, Dawn Varacalli-
Team Leader

Ad Hoc Members: Riley Tipton and Brandi Smith- Mercy Hospital, Janesville, WI

Treatment of Blood Pressure greater than or equal to 160/xx OR xx/110 mmHg

Position: semi-fowler, legs uncrossed,
BP cuff at the level of the patient's heart

Primary RN:

Notify OB &
CSC of ↑ BP

and

- Start IV and draw Labs
- Recommend IVP med* within 60 min of 1st BP
- Monitor BP q 5 mins
- Monitor FHR
- Admit patient

then

- Continue BP check q 5 mins until BP remains less than 160/xx or xx/110, then repeat BP as follows:
- Q 5mins x 30 mins
- Q 30 mins x 2 hours
- Then hourly for 6 hours
- Continuous SpO2

YES

Remains
160/xx OR
xx/110?

BP ≥ 160/xx OR xx/110?
May recheck with manual cuff* in 10-15 minutes
*(for verification and correlation)
60 minute clock begins

NO

Recommend:
BP recheck Q30
minutes

OB Provider

- Order IVP Labetalol or Hydralazine
- Admit Patient

Consider

Difficult IV start, > 60 mins? Consider PO Nifedipine.
Does patient meet criteria for severe preeclampsia?
Consider Magnesium Sulfate 4 gm bolus

*Medication Notes

Labetalol IVP per policy
#2000.2025.194

Contraindications: Asthma, COPD, bradycardia, and/or heart block

Hydralazine per policy
#2000.2025.45

Contraindication: Mitral valve disease

Consider continuous pulse oximetry with use of either medication.

Where are we at?

Then

- Difficulty in isolating our patient populations for inclusion in this project (ICD-10/Pharmacy)
- Multiple initiatives at one time
- Hard to find the staff to help
- Issues with the DUA

Now

- Retrospective auditing to submit to RedCap
- Created education for staff in all 3 areas(L&D, M/B, ED)
- Go-Live with bedside audit 6/1/2016
- Still working on DUA, but can submit data to RedCap

Next Steps

- Still accepting teams for Wave 2!
 - Roster link:
<https://www.surveymonkey.com/r/HTNroster>
 - REDCap access form:
https://docs.google.com/forms/d/16F_IITLmDvesqhvwaq6bQxIC17nHGmMchav1-feAsMo/viewform?c=0&w=
- Test data form with one nurse, one patient
- Register for Face-to-Face meeting!
- Draft your process flow diagram and storyboard for Face-to-Face
- Overview of Implementation Checklist and AIM Survey

HTN Face-to-Face Meeting

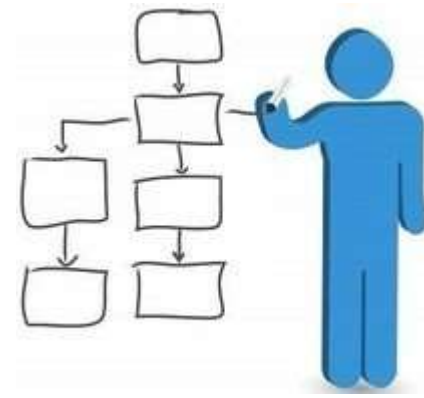
May 23 Springfield: Registration



- Registration is now live!
- Strongly encouraged to bring both nurse and provider teams leads – **currently limited to 3 members per hospital**
- <https://www.eventbrite.com/e/maternal-hypertension-face-to-face-collaborative-learning-session-tickets-24489550906>
- Registration fee of \$25 plus \$2.37 Eventbrite processing fee
- 134 individuals registered as of 4/28/16
- Registration closes on 5/16
- Begin work on process flow / storyboard to bring

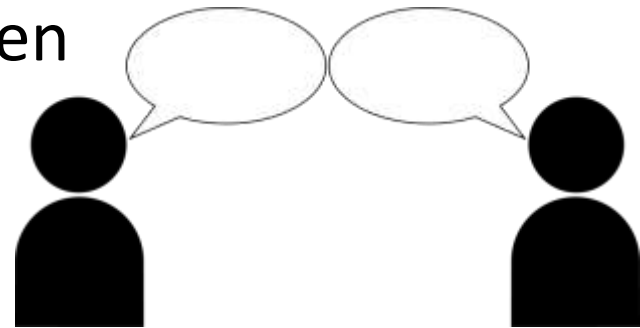
What is a Process Flow Diagram?

- Illustrates all of the activities involved - **what really happens** – **to** identify and treat severe range blood pressure in Labor and Delivery, Postpartum, and Emergency Department
 - Who is doing each activity, Where, Why, How?
- **Involve everyone** in the process to help your team understand
 - What steps are missing?
 - Where repetition is occurring?
 - Are the right people performing the right tasks?

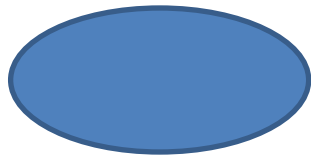


Discuss with your team before getting started:

- What is the process for blood pressure measurement and recording?
- When and how is the provider contacted when severe range blood pressure is identified
- How is severe range blood pressure treated?
- How is care coordinated between Units (L&D, PP, ED, ICU)



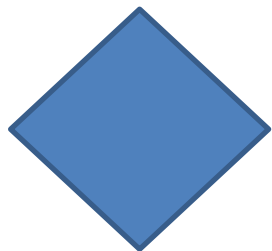
Process Flow Diagram Symbols



Start or End of the process



Task in the process



Decision point in the process

**See examples
from
Elmhurst and
Kaiser in this
slide set**

Storyboard Instructions



Adapted from the New York State Perinatal Quality Collaborative (NYSPQC)

- At the Face-to-Face Learning Session, use the Storyboard to tell your team's story descriptively, clearly and creatively – photos, collages and illustrations are welcome.
- There is no wrong way to create a Storyboard so don't be afraid to be creative. Additionally, be sure to keep it simple; the Storyboard is not meant to be an extremely time-consuming project.
- ***Storyboards must fit into a space approximately 28 x 40 inches.*** It may be created from a collection of letter-sized sheets (print outs of your power point slides or word documents) that are convenient for carrying while traveling. Ten to twelve sheets can fit in the available space – depending on arrangement. Boards for posting and pushpins will be provided at the Face-to-Face Learning Session.
- **Share your story:** about your hospital, about your team, describe your goals for this initiative, include process flow diagram draft, can include any barriers you have identified and opportunities for improvement, describe next steps or action items for your team

Display Tips

- Fewer words: More pictures and graphics
- Real people pictures... At least of your teams
- Font size as big as possible
- Fancy not necessary
- Color to highlight key messages (If you don't have a color printer, use bright highlighters)
- Clear titles and labels if you use graphs (X and Y axes, dates, brief explanation of what it shows)

AIM: Baseline Survey

- AIM baseline survey helps capture a snapshot of of your team's starting point and provides valuable information to ILPQC that we will use to provide you quality improvement support:
<https://www.surveymonkey.com/r/AIMbaselinesurvey>
- Please designate one team member to complete by May 16 so that we can review this information at our face to face meeting on May 23

AIM Baseline Survey

Bundle Implementation Questions



Readiness - For every unit in your hospital do you have (Yes/No):

1. Standard protocols for early warning signs, diagnostic criteria, monitoring and treatment of severe preeclampsia/eclampsia (include order sets and algorithms).
 - a. L&D
 - b. Antepartum/Postpartum
 - c. Triage/ED
2. Unit education on protocols, unit-based drills (with post-drill debriefs).
 - a. L&D
 - b. Antepartum/Postpartum
 - c. Triage/ED
3. Process for timely identification, triage, and evaluation of pregnant and postpartum women with hypertension including ED and outpatient areas.
4. Rapid access to IV medications used for severe hypertension/eclampsia: Medications should be stocked and immediately available on L&D and in other areas where patients may be treated. Include brief guide for administration and dosage.
 - a. L&D
 - b. Antepartum/Postpartum
 - c. Triage/ED
5. System plan for escalation, obtaining appropriate consultation and maternal transport, as needed for severe maternal hypertension, preeclampsia, and eclampsia.
 - a. L&D
 - b. Antepartum/Postpartum
 - c. Triage/ED

AIM Baseline Survey

Bundle Implementation Questions



Recognition - For every OB/postpartum patient in your hospital do you have (Yes/No):

6. Standard protocol for the measurement and assessment of BP and urine protein for all pregnant and postpartum women.
7. Standard response to maternal early warning signs including listening to and appropriately investigating patient symptoms and assessment of labs (i.e. CBC with platelets, AST and ALT)
8. Facility-wide standards for educating prenatal and postpartum women on signs and symptoms of preeclampsia and severe hypertension.

AIM Baseline Survey

Bundle Implementation Questions



Response - For every case of severe hypertension/preeclampsia in your hospital do you have (Yes/No):

9. Facility-wide standard protocols with checklists and escalation policies for management and treatment of: Severe hypertension; Eclampsia, seizure prophylaxis, and magnesium over-dosage; and Postpartum, emergency department and outpatient presentations of severe hypertension/preeclampsia.

10. Minimum requirements for protocol: Notification of physician or primary care provider if systolic BP \geq 160 or diastolic BP \geq 110 for two measurements within 15 minutes; After the second elevated reading, treatment should be initiated ASAP (preferably within 60 minutes of verification); Includes onset and duration of magnesium sulfate therapy when indicated; Includes escalation measures for those unresponsive to standard treatment; Describes manner and verification of timely follow-up for blood pressure check and evaluation within 7 to 14 days postpartum; Describes postpartum patient education for women with hypertension / preeclampsia describing postpartum preeclampsia.

11. Support plan for patients, families, and staff for ICU admissions and serious complications of severe hypertension.

AIM Baseline Survey

Bundle Implementation Questions



Reporting - In every unit of your hospital, do you (Yes/No):

11. Establish a culture of huddles for high-risk patients and post-event debriefs to identify successes and opportunities for improvement.

- a. L&D
- b. Antepartum/Postpartum
- c. Triage/ED

12. Multidisciplinary review of all severe hypertension/eclampsia cases admitted to ICU for systems issues.

- a. L&D
- b. Antepartum/Postpartum
- c. Triage/ED

13. Monitor quality outcomes and process metrics involving severe hypertension in pregnancy.

- a. L&D
- b. Antepartum/Postpartum
- c. Triage/ED

Getting Started 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



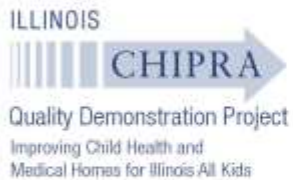
Contact

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- Visit us at www.ilpqc.org





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