Severe Maternal Hypertension OB Teams Call

July 30, 2018
12:00 – 1:00 PM
Introductions

- Please enter for yourself and all those in the room with you viewing the webinar into the chat box your:
  - Name
  - Role
  - Institution
- If you are only on the phone line, please be sure to let us know so we can note your attendance
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• WebEx is currently unable to add the meeting to your calendar if you are accepting the meeting on a mobile device

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Call-in info
Tips for Accessing Webex

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Conference Line Logistics

• Use the **MUTE** button on your phone or

• You can use *6 to place the call on **MUTE** and *6 to come off of **MUTE**

• Please do not place the call on hold!

Thank you!
Overview

• Hypertension Sustainability
• Review of magnesium sulfate administration
• Dr. Larry Shields – Dignity Health Experience with Hypertension and Mag Sulfate
• Team Talks – Magnesium sulfate administration
  – AMITA Health Alexian Brothers Women and Children’s Hospital
  – University of Chicago
SUSTAINABILITY

Schedule a mid-year review of sustainability plans with your QI team – questions and key points to highlight are provide in the following slides.
**Compliance Monitoring** of key process measures:

1. Time to treatment for severe HTN <60 minutes
2. Magnesium provided
3. Early follow-up for BP check within 7-10 days
4. Patient discharge education
5. Demographic and basic descriptive information including BP

How will measures be collected? 

Will you continue to track additional data internally?  

Team member(s) in charge of reporting in REDCap: 

How often will your QI team meet to review hospital data reports via REDCap and develop and implement PDSA cycles if compliance on measures starts to slip?:  

- [ ] Weekly  
- [ ] Monthly  
- [ ] Quarterly  
- [ ] Other
NEW Compliance Data Form in REDCAP

Use this form!

No longer active
NEW Compliance Data Form Paper Version

SEVERE HYPERTENSION SUSTAINABILITY COMPLIANCE DATA FORM

Date of severe maternal HTN event:______________

HTN event occurred postpartum? □ YES □ NO

GA at HTN Event (weeks & days) OR # Days PP:______________

Maternal Race/Ethnicity (check all that apply): □ White □ Black □ Hispanic □ Asian □ Other ____________

Diagnosis (select all that apply): □ Chronic HTN □ Gestational HTN □ Preeclampsia □ Superimposed Preeclampsia □ Postpartum Preeclampsia □ Other ____________

Blood Pressure at initiation of antihypertensive treatment (SBP/DBP): ____________

*Record the confirmatory or repeat severe range BP measured prior to giving anti-HTN medications, if more than one confirmatory or repeat BP collected record the highest BP*

How long after the BP reached systolic ≥160 and/or diastolic ≥110 and persistent for 15 minutes was first BP medication given? □ <30 minutes □ 30-59 minutes □ ≥60 minutes □ No action taken/ Missed opportunity

Was Magnesium Sulfate administered? □ YES □ NO

GA at Delivery (weeks & days):______________

PROCESS MEASURE - Discharge Management

Discharge Education: Education materials about preeclampsia given? □ YES □ NO

Follow-up Appointment: Follow-up appt scheduled within 10 days (for all women with any severe range hypertension/preeclampsia) □ YES □ NO

Adverse Maternal Outcome (check all that apply):

□ 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

COMMENTS about Medical Management, Monitoring, Discharge

REDCap Hospital ID: ________________
Compliance Monitoring

• How often are you reviewing your compliance data in the ILPQC Data and Reporting System?
• How is compliance data shared with other team members? With hospital administration?
• How can you overcome challenges to data entry during sustainability?
• Do you have a plan in place to implement PDSA cycles if performance on compliance measures falls below the goal?
Sustainability Plans: Section-by-Section

**New Hire Education for all new hires**

What education tool(s) will you use for new hires?

- [ ] AIM e-modules / webcast  
- [ ] ILPQC Grand Rounds Slide Set  
- [ ] ILPQC Severe Maternal HTN Toolkit Binder  
- [ ] Other: __________________________________________________

How will you incorporate Severe Maternal Hypertension education and hospital identification, treatment, and discharge workflows and protocols into hospital new hire education?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

- What steps have you taken to incorporate Severe Maternal Hypertension education into new hire education?
- What are some barriers to training new hires on Severe Maternal Hypertension? How can these be overcome?
Sustainability Plans: Section-by-Section

Ongoing Education for all providers and nurses

What education tool(s) will you use for ongoing education for all nurses and providers?

☐ Drills ☐ Simulations ☐ Laminated protocols ☐ Algorithms ☐ Active debrief ☐ AIM e-modules /webcast
☐ Other: ____________________________________________________________

How will you incorporate Severe Maternal Hypertension education and hospital identification, treatment, and discharge workflows and protocols into ongoing education?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

- Does your team know where to find the AIM e-modules? Grand rounds slide deck?
- What steps have you taken to incorporate education on Severe Maternal HTN into ongoing nursing and physician education?
- How will you incorporate Severe Maternal HTN drills, simulations, and e-modules into ongoing unit education?
Maternal Hypertension Data: Time to Treatment

ILPQC: Maternal Hypertension Initiative
Percent of Cases with New Onset Severe Hypertension Treated in <30, 30-60, ≥60 minutes or Not Treated
All Hospitals, 2016-2018

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Maternal Hypertension Data: Time to Treatment

ILPQC: Maternal Hypertension Initiative
Percent of Women with New Onset Severe Hypertension Treated Within 60 Minutes and Proportion of Hospitals in Collaborative Treating Women Within 60 Minutes
All Hospitals, 2016-2018
Maternal Hypertension Data: Patient Education

ILPQC: Maternal Hypertension Initiative
Percent of Women with New Onset Severe Hypertension Who Received Discharge Education Materials and Proportion of Hospitals in Collaborative Giving Discharge Education to Women
All Hospitals, 2016-2018

- Proportion of Hospitals with 80% of women who received discharge materials
- Proportion of Hospitals with 0-79% of women who received discharge materials
- Percent overall women in collaborative who received discharge materials
Maternal Hypertension Data: Patient Follow-up

ILPQC: Maternal Hypertension Initiative
Percent of Women with New Onset Severe Hypertension Where Follow-up Appointments were Scheduled within 10 Days and Proportion of Hospitals in Collaborative Where Follow-Up Appointments were Scheduled within 10 Days All Hospitals, 2016-2018

- Proportion of hospitals with 80-100% of women with follow up
- Proportion of hospitals with 0-79% of women with follow up
- Percent overall women in collaborative with follow up
Maternal Hypertension Data: Magnesium Sulfate Administration

ILPQC: Maternal Hypertension Initiative
Percent of Cases with New Onset Severe Hypertension with Magnesium Sulfate Administered
All Hospitals, 2016-2018
Congratulations!

• 42 teams will receive letter of commendation and QI Excellence Certificate for completing 2017 data entry and reaching T2T treatment goal for Q4 2017

• We review data quarterly and all teams who have not yet reached the T2T goal and who do so by the end of 2018 will be recognized!

• 7 additional teams will be recognized for meeting the T2T goal in Q1 2018
MAGNESIUM SULFATE ADMINISTRATION
Magnesium Therapy

- Magnesium sulfate therapy for seizure prophylaxis (DOES NOT TREAT HTN) 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.
    - Do not need to wait for +protein or wait 6 hours for confirmation, if new onset severe HTN start Mag
  - New onset severe HTN
    - treat BP and start Magnesium for seizure prevention
  - Eclampsia
    - Should be considered in patients with preeclampsia without severe features
Severe Hypertension Treatment Algorithm

**SBP > 155 and/or DBP > 105**
Provider Notified

**Blood Pressure Triggers**
SBP ≥ 160 and/or DBP ≥ 110
Repeat in 15 minutes.
Notify Provider and Proceed

**IV Anti-Hypertension Meds**
First Line Medications

- **IV Labetalol**
  - 20 mg (over 2 min)
  - Repeat BP in 10 min
  - If elevated, administer
  - **IV Labetalol 40 mg**
  - Repeat BP in 10-15 min
  - If elevated, administer
  - **IV Labetalol 80 mg**
  - Repeat BP in 20 min
  - If elevated, administer
  - **IV Hydralazine 10 mg**

- **IV Hydralazine**
  - 5 or 10mg (over 1-2 min)
  - Per physician’s order
  - Repeat BP in 20 min
  - If elevated, administer
  - **IV Hydralazine 10 mg**

**Seizure Prophylaxis**

- **Magnesium Sulfate**
  - **Bolus Dose**: 4gm over 20 minutes
  - **Maintenance Dose**: 2gm per hour

**PO Nifedipine**
If no IV access

- **Initial Dose**: 10 mg
  - May repeat dose at 20 minute intervals for a maximum of 5 doses.

**IV Access**
FHR monitoring
Labs per PIH Order Set
Pulse Oximeter
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
- Ensure medications appropriate given patient history
- Administer seizure prophylaxis (magnesium sulfate first line agent, unless contraindicated)
- Antihypertensive therapy within 1 hour for persistent severe range BP
- Place IV; Draw preeclampsia labs
- Antenatal corticosteroids (if <34 weeks of gestation)
- Re-address VTE prophylaxis requirement
- Place indwelling urinary catheter
- Brain imaging if unrelenting headache or neurological symptoms
- Debrief patient, family, and obstetric team

**MAGNESIUM SULFATE**

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

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

**No IV access:**
- 10 grams of 50% solution IM (5 g in each buttock)

**ANTIHYPERTENSIVE MEDICATIONS**

For SBP ≥ 160 or DBP ≥ 110 (See SMH algorithms for complete management when necessary to move to another agent after 2 doses.)

- Labetalol (initial dose: 20mg): Avoid parenteral labetalol with active asthma, heart disease, or congestive heart failure; use with caution with history of asthma
- Hydralazine (5-10 mg IV* over 2 min): May increase risk of maternal hypotension

*Active asthma* is defined as:
- Occurs at least once a week, or
- Use of an inhaler, corticosteroids for asthma during the pregnancy, or
- Any history of intubation or hospitalization for asthma

**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

**Eclampsia Checklist**

**MAGNESIUM SULFATE**

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

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

**No IV access:**
- 10 grams of 50% solution IM (5 g in each buttock)

**ANTIHYPERTENSIVE MEDICATIONS**

For SBP ≥ 160 or DBP ≥ 110 (See SMH algorithms for complete management when necessary to move to another agent after 2 doses.)

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

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

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

**ANTICONVULSANT MEDICATIONS**

For recurrent seizures or when magnesium sulfate contraindicated

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

**Postpartum Preeclampsia Checklist**

**MAGNESIUM SULFATE**

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

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

**No IV access:**
- 10 grams of 50% solution IM (5 g in each buttock)

**ANTIHYPERTENSIVE MEDICATIONS**

For SBP ≥ 160 or DBP ≥ 110 (See SMH algorithms for complete management when necessary to move to another agent after 2 doses.)

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

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**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

**REVISED JULY 2017**
Implementation in your Network: Mag Sulfate

Discussion Questions

• Have you reviewed your hospital’s magnesium sulfate administration data in the ILPQC Data and Reporting System?
• What provider and nurse education is needed to increase the number of patients with sustained severe hypertension receiving magnesium sulfate?
• What changes can you make to your orders sets, protocols, and policies/procedures to increase the number of patients with sustained severe hypertension receiving magnesium sulfate?
• How will you incorporate monitoring of your magnesium sulfate administration in the ILPQC Data and Reporting System into your team’s routine ILPQC data monitoring?
The Dignity Health Experience with Hypertension and Magnesium

Larry Shields, MD
Director Perinatal Safety Dignity Health
Monitored 3 items

**Management:**
1. Recognize Symptoms
2. *BP control*
3. *Seizure prevention*
4. Delivery - 34 wks, 37 wks
5. *Postpartum surveillance*

*Meet BP criteria: CHTN = GHTN = PreE*
Maternal Early Warning Trigger Tool (MEWT)
Six Trial Sites Oct'14- Oct '15

Maternal Assessment
Temp, BP, HR, RR, O2 sat

Two Maternal Triggers
- Temp: ≥100.4° or ≤ 96.9°
- O₂ Sat: <94%
- RR: >24/min or <12/min
- Dia.BP ≥ 160 or <80 mmHg
- HR > 110 bpm
- FHR > 160 (infection only)

Single Maternal Triggers
- Temp: ≥100.4° or ≤ 96.9°
- O₂ Sat: <94%
- RR: >24/min or <12/min
- Sys.BP ≥ 160 or <80 mmHg
- Dia.BP ≥ 110 or <45 mmHg
- HR > 110 bpm
- FHR > 160 (infection only)

Infection-Sepsis  Cardiopulmonary  Hypertension  Obstetrical Hemorrhage

Gestational HTN = Preeclampsia = CHTN = SuperPreE

AJOG 2016; 214:527.e1-6
29 Perinatal Centers

6 Trial Hospitals

23 Non-Trial Hospitals

TABLE 2
Results from pre- and post-Maternal Early Warning Trigger time periods

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</tr>
<tr>
<td>CDC-SMM</td>
<td>2.0%</td>
<td>1.6%</td>
<td>↓</td>
<td>&lt;.01</td>
<td>2.4%</td>
<td>2.4%</td>
<td>→</td>
<td>.9</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Composite morbidity</td>
<td>5.9%</td>
<td>5.1%</td>
<td>↓</td>
<td>&lt;.01</td>
<td>6.2%</td>
<td>6.2%</td>
<td>→</td>
<td>.9</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Eclampsia/1000(a)</td>
<td>2.0</td>
<td>0.4</td>
<td>↓</td>
<td>&lt;.01</td>
<td>1.1</td>
<td>1.1</td>
<td>→</td>
<td>.9</td>
<td>.02</td>
</tr>
</tbody>
</table>

AJOG 2016;214:527 e.1-6
### TABLE 2
Results from pre- and post-Maternal Early Warning Trigger time periods

<table>
<thead>
<tr>
<th></th>
<th>Pre-MEWT</th>
<th>Post-MEWT</th>
<th>Trend</th>
<th>P_value</th>
<th>Prenonpilot</th>
<th>Postnonpilot</th>
<th>Trend</th>
<th>P_value</th>
<th>Postpilot vs postnonpilot P_value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliveries</td>
<td>24221</td>
<td>12611</td>
<td></td>
<td>&lt;.01</td>
<td>95,718</td>
<td>50,641</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDC-SMM</td>
<td>2.0%</td>
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<td>.9</td>
<td>.02</td>
</tr>
</tbody>
</table>

AJOG 2016;214:527 e.1-6
23 Perinatal Centers

- Pre-Intervention
  - Gestational HTN = Preeclampsia = CHTN = SuperPreE
  - IV Labetalol or Hydralazine or PO Nifedipine + Magnesium

- Post-Intervention
Magnesium and BP Treatment Changes

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Phase I</th>
<th>Phase II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mag</td>
<td>85%</td>
<td>92%</td>
<td>96%</td>
</tr>
<tr>
<td>BP Rx</td>
<td>57%</td>
<td>79%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Delta 10.8% p<0.01
Delta 33.2% p<0.01

AJOG. 2017 216:415.e1-5
Rates of Eclampsia/1000 births and SMM/100 births

Baseline Phase I Phase II
Eclampsia 1.16 2.4 2.1
SMM 0.82 0.62

Delta 20.1% p<0.01
Delta 46.5% P=0.02

23 Hospitals, N=69,449
AJOG. 2017 216:415.e1-5
Who Should Get Magnesium?

ACOG 33: there is no unanimity of opinion regarding the prophylactic use of magnesium sulfate for prevention of seizure in women with gestational hypertension or mild preeclampsia

- Should be considered: **NNT = 109 for mild**, **NNT = 63 for severe**

*(NNT = number needed to treat)*
Who Should Get Magnesium?

ACOG 33: there is no unanimity of opinion regarding the prophylactic use of magnesium sulfate for prevention of seizure in women with gestational hypertension or mild preeclampsia.

- Should be considered: **NNT = 109 for mild**, **NNT = 63 for severe**

Who is Safer on your L&D unit?

- The patient on Magnesium Sulfate
- Or
- The patient having a Seizure?

*(NNT = number needed to treat)*
Patient Improvement With New Guidelines

- **MEWT Trial**: specific BP and Magnesium treatment guidelines:
  - 20% reduction in SMM
  - 80% reduction in Eclampsia

- **Hypertension In Pregnancy Trial**: BP and Mag guidelines:
  - 20% reduction in SMM
  - 46% reduction in Eclampsia
  - Reduction in eclampsia greater than expected from the increase in the use of magnesium sulfate
TEAM TALKS
Administration of Magnesium Sulfate for Maternal Hypertension
ON-GOING EVALUATION
About Us

• The facility does approximately 300 deliveries per month
• We have 14 LDR’s, 3 OR’s, 2 Recovery bays, 6 OB/ED beds, and 8 ante beds
• The NICU has 26 private suite
• The Mother Baby unit has 32 beds
SITUATION

• We had 2 events where MgSO4 was not appropriately started that lead eclampsia
• Worked with physicians to improve order sets
• New documentation system/system wide order sets do not promote the use of MgSO4
Data

ILPQC: Maternal Hypertension Initiative
Percent of Cases with New Onset Severe Hypertension with Magnesium Sulfate Administered
Hospital 015 & Select Comparisons, 2016 - 2018

Percent of Cases

Baseline 2015

All Hosp Hospital 015 Goal
Data
ASSESSMENT

• Still have physicians who prefer to give an epidural for pain relief before they will treat

• Physicians unclear when to treat with MgSO4

• Physicians reluctant to start MgSO4 early
  – Prefer to wait until they have lab values to confirm diagnosis

• With new EMR system, vital signs must be carried over. They no longer automatically appear
Read-Back

- Mandatory simulation training on HTN for all nursing staff. Training is offered on a monthly basis.
- Incorporated scripted SBAR that is being taught during mandatory simulation training for nursing staff to use when giving report to physicians.
- Ongoing Auditing and reporting.
- Re-Education as needed based off of auditing findings.
- Included algorithm on auditing form to ensure it was easily accessible to all nurses.
QUESTIONS?
THANK YOU
Macaria Solache RNC-OB
Labor and Delivery Team Lead
Magnesium Sulfate Therapy
When to Use

- Seizure prophylaxis
- Preeclampsia with severe features (new ACOG recommendation)
- Eclampsia episode
- Used during labor and/or 24hrs postpartum
Severe Features of Preeclampsia

<table>
<thead>
<tr>
<th>BOX E-1. Severe Features of Preeclampsia (Any of these findings)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Systolic blood pressure of 160 mm Hg or higher, or diastolic blood pressure of 110 mm Hg or higher on two occasions at least 4 hours apart while the patient is on bed rest (unless antihypertensive therapy is initiated before this time)</td>
</tr>
<tr>
<td>• Thrombocytopenia (platelet count less than 100,000/microliter)</td>
</tr>
<tr>
<td>• Impaired liver function as indicated by abnormally elevated blood concentrations of liver enzymes (to twice normal concentration), severe persistent right upper quadrant or epigastric pain unresponsive to medication and not accounted for by alternative diagnoses, or both</td>
</tr>
<tr>
<td>• Progressive renal insufficiency (serum creatinine concentration greater than 1.1 mg/dL or a doubling of the serum creatinine concentration in the absence of other renal disease)</td>
</tr>
<tr>
<td>• Pulmonary edema</td>
</tr>
<tr>
<td>• New-onset cerebral or visual disturbances</td>
</tr>
</tbody>
</table>
Magnesium Sulfate Therapy

- **LD**: 4 grams given over 30 min
  The 4 gram loading dose of magnesium sulfate will be achieved by administering: 2 grams in 50 ml sterile water x 15 minutes, followed by 2 grams in 50 ml sterile water x 15 minutes.

- **MD**: 2 grams/hr
  Concentration – 20g:500cc Water
  Rate- 50ml/hr using pharmacy department specific hospital pump
  - Preprogramed pump
  - Second RN sign off
Magnesium Sulfate Order set

- Loading Dose: 4g
- Maintenance dose: 2g/hr
- Calcium Gluconate 1gram IVP (Magnesium sulfate toxicity)

Bolus + Infusion +Calcium Gluconate
Documentation and Assessments

- The RN will remain in the room during the infusion of the bolus.
- The following is assessed every 15 minutes for the 1st hour of the maintenance drip, then every 30 minutes for the 2nd hour, and hourly thereafter for the duration of the continuous infusion:
  - Temperature
  - Pulse
  - Respiratory rate (RR) and breath sounds
  - **Blood pressure**: Notify the physician of a systolic > 160 or diastolic > 100
  - Hourly I&O
  - Oxygen saturation
  - Level of consciousness
  - Deep tendon reflexes (DTRs) and clonus
  - Signs/symptoms of magnesium toxicity (absent DTRs, RR < 14/min., oxygen saturation <95%, decreased level of consciousness) or of central nervous system excitation (brisk DTRs 3+/4+, clonus, unremitting headache) will be reported to the physician.
  - Fetal heart rate if the patient is undelivered (continue assessment every 30 minutes)
  - Uterine activity if the patient is undelivered (continue assessments every 30 minutes)
Challenges

- Magnesium Sulfate shortage
- Switching to premixed bags
- Maintaining stock in our Omni Cell at all times
- Preeclampsia and additional comorbidities
- Readmissions and ICU transfers
Opportunities

- Educate ER and other departments on Severe HTN/preeclampsia signs and symptoms, magnesium therapy, medication algorithm and immediate OB consults
- Incorporate Epic to flag potential Postpartum Preeclampsia (“Are you or have you been pregnant in the last 8 weeks?”) with triaging
SMM Resources

• ILPQC abstract presented at the Society for Maternal Fetal Medicine (SMFM) 38th Annual Pregnancy Meeting: Reducing time to treatment for severe maternal hypertension through statewide quality improvement.
  – Congratulations to all teams for their hard work to reduce time to treatment!
• Black Mamas Matter Alliance – resources for promoting reproductive justice and reducing health disparities
• Report from Nine MMRCs (Maternal Mortality Review Committees). This report provides analysis of maternal mortality, prevention, and recommendations.
ACOG/ASAM

Buprenorphine Training

• 4 hour online course + 4 hour in-person led by an addiction medicine specialist & OB/GYN for physicians
  – MOC Part IV credits
  – CME for 8 hours credit (via ASAM)
• 4 hours in-person + 20 hours of online-training for NPs and APNs
  – Contact hours (via ASAM)
• Working with ACOG to host 2 in-person maternal-focused Buprenorphine Trainings for physicians, nurse practitioners and APNs in Illinois
• Initiates buprenorphine waiver process
  – National waiver from DEA and added to MD prescribing number

SAVE THE DATE!

• September 14, Springfield, IL OR
• October 22, Chicago, IL

Recent survey showing a shortage of providers certified to prescribe buprenorphine