HTN and Cardiomyopathy Algorithm

Pregnant or Postpartum Patient Presenting to ED

- Exhibiting ANY of these SYMPTOMS
  - R/O Cardiomyopathy up to 1 yr. Postpartum
    - Shortness of Breath
    - Chest pain, tightness OR pressure
    - Tachycardia or Palpatations

- Exhibiting any of these vital sign changes
  - Resting Heart Rate ≥ 110
  - Respiratory Rate ≥ 24
  - O2Sat ≤ 95%
  - Heart Murmur
  - Lung Basilar Crackles

- Exhibiting ANY of these SYMPTOMS
  - R/O Preeclampsia if pregnant or < 6 wks. Postpartum
    - Persistent Headache
    - Visual Changes
    - Dizziness
    - Sudden weight gain (>than 4lbs in a week)
    - Epigastric Pain
    - B/P ≥ 140/90

- Two B/P ≥ 160 Diastolic or ≥ 110 systolic taken 15-60 minutes apart*
  *does NOT need to be consecutive

Do you Have In-House OB services

- Order:
  - ECG
  - BNP
  - IV access
  - Chest X-Ray

Contact In-House OB in < 15 min from arrival

Expedite Consult with MFM/OB in ≤ 30min from arrival, prepare for transfer to higher level of care
Initiate IV of LR or NS 125ml/hr., Strict I & O initiate protocols

- Draw Preeclampsia labs
  - CBC
  - PT, PTT, Fibrinogen
  - CMP
  - Urinalysis and Urine Protein/Creatinine Ratio
  - Type and Screen

Immediately Administer
- Antihypertensive Medication
- Initiate Magnesium Sulfate Infusion

IF IV ACCESS
- Begin 20 mg Labetalol IV over 2 min
- Repeat Bp in 10 min
- If SBP ≥ 160 or DBP ≥ 110, administer labetalol 40mg IV over 2 minutes; if BP below threshold, continue to monitor BP Closely

IF NO IV ACCESS
- Obtain IV access
- Give oral Nifedipine 10mg immediate release. Capsule is given orally and not punctured otherwise give sublingually
- Repeat BP in 20 min if ≥ 160 or ≥ 110 give 20mg Nifedipine
- Repeat BP in 20 min if ≥ 160 or ≥ 110 give 20mg Nifedipine

- Is SBP ≥ 160 or DBP ≥ 110, administer hydralazine 80mg IV over 2 minutes; if BP below threshold, continue to monitor BP Closely
- Repeat BP in 10 min
- Is SBP ≥ 160 or DBP ≥ 110, administer hydralazine 10mg IV over 2 minutes; If below threshold continue to monitor BP closely
- Repeat BP in 10 min
- Is SBP ≥ 160 or DBP ≥ 110 at 20 minutes, administer hydralazine 10mg IV over 2 minutes AND obtain emergency consultation from specialist in MFM, internal medicine, anesthesiology or critical care

- Administer Magnesium Sulfate 4Gms IVBP per infusion pump over 20minutes then at 2 gm/hr with mainline of LR or NS.
- Stop infusion if RR ≤ 12
- R/O Pulmonary Edema if O2 Sat < 93% or RR > 24
- *Do not give if pulmonary edema, renal failure or Myasthenia Gravis

Avoid Labetalol in Asthma or HF. Use Nifedipine

Antihypertensives:
- Labetalol IV 100mg/20ml vial
  - Initial: 20mg (4ml) IV bolus followed by 40mg (8ml) IV if not effective within 10 min; followed by 80mg (16ml) if not effective within 10 min
- Hydralazine IV 20mg/ml vial
  - Initial: 5-10mg (0.25-0.6ml) IV bolus followed by 10mg (0.5ml) IV if not effective within 20 min
- Nifedipine 10mg immediate release tablets
  - Initial: 10mg PO, followed by 20mg PO if not effective within 20 minutes; followed by another 20mg PO if not effective within 20 minutes