OBSTETRIC EMERGENCIES

Bophal Sarha Hang, MD Assistant Professor of Emergency Medicine & Director of Medical Simulation Beaumont Health Dakland University & William Beaumont School of Medicine









TREATMENT

- Seizure prophylaxis RR 0.41; 95% CI, 0.29-0.58
- Magnesium sulfate 4-6 g loading over 20-30 mins then 1-2 g/hr
- For difficult access, IM 10 g initially (divided bilateral 5 g IM)
- Benzodiazepines and phenytoin ONLY for antiepileptic treatment or when magnesium is contraindicated (*i.e. myasthenia* gravis, hypocalcemia, moderate-severe renal failure, heart block or myocarditis)

MAGNESIUM TOXICITY

Renal and cardiac monitoring

Adjust for renal impairment creatinine 1.0-1.5 mg/dL

Calcium gluconate 10% solution, 10 mL IV over 3 minutes with Lasix IV

mg/dL	mEq/L	Effect
1.8-2.4	1.2-2	Normal
4.8-9.6	4-8	Therapeutic
6-12	5-10	EKG changes (prolonged PR interval, widened QRS)
12	10	muscle weakness; loss of deep tendon reflexes
18	15	SA/AV node block; respiratory paralysis
24	20	Cardiac arrest

ANTIHYPERTENSIVES





ECLAMPSIA

- New-onset tonic-clonic, focal, or multifocal seizures
- Incidence preeclampsia (1.9%) and severe preeclampsia (3.2%)
- ~ 20-38% DO NOT HAVE HTN OR PROTEINURIA BEFORE SEIZURES
- Often preceded by SIGNS (78-83%)
 - Frontal headaches
 - Blurred vision and photophobia
 - Altered mental status



MATERNAL CARDIAC ARREST Bleeding, DIC Embolism, PE, amniotic fluid Aesthesia complications (25%) Uterine Atony Cardiac, ischemia, cardiomyopathy (23%) Hypertension, preeclampsia/eclampsia (18%) Other: Standard differential ACLS Placental abruption, previa Sepsis

























REFERENCES

- Gestational Hypertension and Preeclampsia: ACOG Practice Bulletin, Number 222. Obstet Gynecol. 2020 Jun; I 35(6):e237-e260.
- Duley et al. Magnesium sulphate and other anticonvulsants for women with pre-eclampsia. Cochrane Database of Systemic Reviews 2010, issue 11.
- 3. Douglas KA, Redman CW. Eclampsia in the United Kingdom. BMJ. 1994; 309:1395-400.
- 4. https://www.openanesthesia.org/magnesium_side_effects
- 5. http://aa2day.org/wp-content/uploads/2014/04/obstetric-CPRsortof.jpg
- Lipman, Steven MD et al. The Society for Obstetric Anesthesia and Perinatology Consensus Statement on the Management of Cardiac Arrest in Pregnancy, Anesthesia & Analgesia. 2014 May; 118(5):1003-16.
- Beckett VA, Knight M, Sharpe P. The CAPS Study: incidence, management and outcomes of cardiac arrest in pregnancy in the UK: a prospective, descriptive study. BJOG. 2017 Aug;124(9):1374-81.
- JeeJeebhoy FM et al. Cardiac arrest in pregnancy: A Scientific Statement for the American Heart Association. Circulation. 2015 Nov;132 (8): 1747-73.
- 9. https://soap.memberclicks.net/assets/docs/CPR-consensus-statment.pdf