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HTN in Pregnancy

HYPERTENSIVE DISORDERS

Terminology	Definition
Hypertension in pregnancy	>139 systolic or >89 diastolic
Severe hypertension	>159 systolic or >109 diastolic
Proteinuria (suspect if dipstick >1)	0.3 g/d on 24 h urine protein OR 0.03 g/mmol urine protein/creatinine
Preeclampsia	Hypertension with proteinuria OR adverse conditions OR severe complications (see below)
Severe Preeclampsia	Preeclampsia with severe complications (see below)
HELLP	Hemolysis, elevated liver enzymes, low platelets
Eclampsia	Hypertension with seizures

ADVERSE CONDITIONS AND SEVERE COMPLICATIONS

System	Adverse Conditions	Severe Complications (Deliver!)
CNS	headache/visual symptoms	GCS <13, stroke, seizure, blindness
Cardio/ Resp	chest pain/dyspnea/O2 <97%	MI, O2 <90%, inotropes, pulm. edema, severe HTN >12h on 3 agents
Haem	elevated WBC, INR, PTT low platelets	platelets <50 x 10 ⁹ /L transfusion of any blood product
Renal	elevated creatinine elevated uric acid	AKI/ARF (new onset Creat. >150 µmol) new indication for dialysis
Hepatic	N/V, RUQ or epigastric pain; elevated AST, ALT, LDH, Bili, low albumin	INR >2 (no DIC or warfarin), hepatic hematoma or rupture
Feto- placental	AbN FHR, IUGR, Oligo; absent/ reversed end-diastolic flow	abruption with compromise, stillbirth, reverse ductus venous A wave

HYPERTENSIVE DISORDERS TREATMENT

Consider delivery if term Consider obstetrical consult, especially if preterm

Disorder	Treatment		Caution
Hypertension, targets: - No comorbidities 130-155/80-105 - Comorbidities <140/<90	labetalol	100-400 mg PO bid-tid	Max 1200 mg/d
	nifedipine XL	20-60 mg PO OD	Max 120 mg/d
	methyldopa	250-500 mg PO bid-qid	Max 2 g/d
Severe Hypertension - target: <160/110	labetalol	20 mg IV bolus then 60 - 120 mg/h	Max 300 mg Risk: neonatal bradycardia CI: asthma or heart failure
	nifedipine	5 - 10 mg PO q30min	CI: pre-exist DM
	hydralazine	5 mg IV bolus then 0.5 - 10 mg/h IV	Max 20 mg Risk: maternal hypotension
HELLP	platelet transfusion if <20 x10 ⁹ /L OR <50 x 10 ⁹ /L for Caesarean OR excess bleed, plt dysfunction, coagulopathy		
Seizures (prophylaxis or treatment)	magnesium sulphate	4 g IV bolus then 1 g/h	Risk: loss of patellar reflexes, resp depression
Magnesium Sulphate Toxicity	calcium gluconate	10% 10 cc IV over 3 min	

Key References: Magee L, Pels A, Helewa M, Ray E, von Dadelszen P. Diagnosis, Evaluation, and Management of the Hypertensive Disorders of Pregnancy: Executive Summary. *Journal of Obstetrics and Gynaecology Canada* 2014, 36(5):416-438; SOGC Content Review Committee. ALARM Course Syllabus, 18th Edition, 2011;