

## HTN in Pregnancy: DDx

There are four categories of hypertensive disorders of pregnancy:

- **Chronic hypertension:** Hypertension that exists prior to pregnancy or develops before 20 weeks of gestation.
- **Gestational hypertension:** Hypertension that develops after 20 weeks of gestation that does not meet the definition of pre-eclampsia.
- **Chronic hypertension with superimposed preeclampsia:** Chronic hypertension with new onset proteinuria or other features of preeclampsia.
- **Preeclampsia:** Hypertension with proteinuria or any severe features.

Hypertension, as it relates to preeclampsia, is defined as a systolic pressure  $\geq 140$  mmHg and/or a diastolic pressure  $\geq 90$  mmHg, 4 hours apart. Severe hypertension (a feature of preeclampsia with severe features) is defined at a systolic pressure  $\geq 160$  mmHg and/or a diastolic pressure  $\geq 110$  mmHg. Although a 4 hour time would be nice in severe hypertension, it typically is not observed as urgent treatment is indicated.

The proteinuria level required for a diagnosis of preeclampsia is  $\geq 0.3$ g/24hr, a spot urine protein:creatinine ratio  $\geq 0.3$ , or a dipstick reading of 2+ (if quantitative methods unavailable).

Any of the below findings, along with hypertension, result in a diagnosis of preeclampsia with severe features. Proteinuria is not required for this diagnosis:

- Systolic pressure  $\geq 160$  mmHg or diastolic pressure  $\geq 90$  mmHg.
- Thrombocytopenia (platelets  $< 10^6/\mu\text{L}$ ).
- Creatinine  $> 1.1$ mg/dL or a doubling of the baseline.
- Liver impairment evidenced by elevated AST or ALT over twice the upper limit of normal or severe RUQ or epigastric pain.
- Pulmonary edema.
- New onset cerebral or visual symptoms.

Preeclampsia can develop postpartum as well, although hypertension that persists past 12 weeks is indicative of chronic hypertension.

The “typical” causes of secondary hypertension can also manifest during pregnancy and should not be ignored. For example: pheochromocytoma, hyperthyroidism, hyperparathyroidism, renal artery stenosis, Cushing’s disease, sympathomimetic drug use.

Likewise, remember to maintain suspicion for “typical” causes of the symptoms of preeclampsia with severe features or HELLP. For example (non-exhaustive list):

- RUQ Pain: Cholecystitis, peptic ulcer disease, hepatitis.

- Thrombocytopenia: TTP, HUS.
- Proteinuria: PCKD, lupus nephritis, IgA nephropathy.

Note: Symptoms of preeclampsia can appear prior to 20 weeks with a hydatidiform mole