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Complications In Pregnancy Part II: Hypertensive Disorders Of Pregnancy And Vaginal Bleeding
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This issue of Emergency Medicine Practice focuses on hypertensive disorders of pregnancy and vaginal bleeding. For a more detailed discussion of this topic, including figures and tables, critical appraisal of the literature, and risk management pitfalls, please see the complete issue at **www.EBmedicine.net.**

EVIDENCE-BASED CLINICAL RECOMMENDATIONS FOR PRACTICE

Key Points	References*	Comments
Hypertensive Disorders Of Pregnancy		
If a pregnant patient in the latter half of pregnancy presents with hypertension, a single sample, normal urinalysis does not rule out the development of preeclampsia.	3-7	Due to discrepancies between random urine protein and 24-hour samples, it is generally advised that the diagnosis be made based on a 24-hour sample. Any patient with newly diagnosed preeclampsia should be admitted to the hospital for further management and stabilization
Severe preeclampsia is characterized by systolic blood pressure >160 mm Hg, diastolic blood pressure > 110 mm Hg, and proteinuria > 5 gm on a 24-hour sample.	3-7	Delivery may be necessary in patients with severe preeclampsia despite the associated neonatal morbidity and mortality.
HELLP syndrome is a life-threatening obstetric complication usually considered to be a variant of preeclampsia.	66	HELLP syndrome develops in 5% to 10% of all preeclamptic patients.
Eclampsia is the occurrence of seizures in the patient with signs of preeclampsia.	55,57,58	Eclampsia may occur at any point during the puerperium period but is most likely to occur during the intrapartum period or within 48 hours after delivery.
Magnesium sulfate is the most effective treatment for prophylaxis and prevention of recurrent eclamptic seizures.	87	Magnesium sulfate is ineffective in controlling blood pressure that is significantly elevated in severe preeclampsia. Hydralazine and labetalol are 2 common agents that are safe and effective for control of severely elevated blood pressure in pregnancy.
Vaginal Bleeding During Pregnancy		
Placental abruption is the premature separation of the placenta from the uterine wall. It accounts for approximately one-third of vaginal bleeding episodes during the second half of pregnancy.	16,19	Small subclinical or marginal separations may go undetected until the placenta is examined at delivery. These separations probably account for many of the other self-limited episodes of bleeding for which no diagnosis is made.
The classic presentation of placental abruption includes vaginal bleeding, abdominal pain, uterine tenderness, and uterine irritability.	25,62	In a prospective study of patients with confirmed abruptions, vaginal bleeding was present in 78%, uterine tenderness in 66%, and uterine contractions in 34%.
Placenta previa is defined as the implantation of the placenta in the lower uterine segment and is responsible for potentially life-threatening antenatal and postpartum hemorrhage.	26,27,30,31	Placenta previa diagnosed prior to the 20th week of gestation will resolve in more than 90% of the cases. Although placenta previa is the most common cause of clinically significant third trimester uterine bleeding, it is a relatively rare condition, developing in only 2 to 5 of 1000 pregnancies.
The placental location in relationship to the cervical os is vital in making the diagnosis of placenta previa.	57	Ultrasonography is the diagnostic imaging modality of choice for localizing the placenta in any patient who presents with vaginal bleeding during the latter half of pregnancy.
Patients who experience vaginal bleeding during late pregnancy require immediate obstetric consultation.		Emergency department management consists of maternal stabilization, with establishment of 2 large-bore intravenous lines and fluid resuscitation as well as continuous fetal monitoring if available.

** See reverse side for reference citations.*

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These references are excerpted from the original manuscript. For additional references and information on this topic, see the full text article at ebmedicine.net.

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CLINICAL RECOMMENDATIONS

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