

First Trimester Bleeding Pre-test and Answer Key

1. Definitive diagnosis of early pregnancy loss can be made if: (Circle all that apply)
 - a. The patient is having heavy bleeding and says she “passed tissue at home”
 - b. Ultrasound shows a gestational sac with a 4mm embryo (CRL) without a fetal heartbeat
 - c. Products of conception are seen on speculum exam
 - d. An intrauterine pregnancy was previously seen on ultrasound and is now no longer seen on ultrasound

ANSWER: c and d

“Passing tissue at home” is not reliable because the endometrial cast from an ectopic pregnancy can look like “tissue”. A gestational sac must be identified or villi seen, preferably by the provider. While a fetal heart can sometimes be seen as early as 2 mm CRL, a miscarriage cannot be definitively diagnosed until the CRL is ≥ 7 mm without a fetal heartbeat visible.

2. An intrauterine pregnancy should be seen on transvaginal ultrasound: (Circle all that apply)
 - a. By 6 weeks gestation
 - b. When the β hCG reaches the “discriminatory zone” (1500-3000)
 - c. When the urine pregnancy test turns positive
 - d. As soon as the patient misses her period

ANSWER: a and b

A pregnancy test can turn positive with a β hCG as low as 25 on the most sensitive tests, so the pregnancy would not be seen on ultrasound at that point. When a patient first misses her period, she is 4 weeks from LMP and her gestational age is considered to be 4 weeks. This is generally too early to see a pregnancy on ultrasound. An intrauterine pregnancy can *sometimes* be seen by 4.5 weeks and can *always* be seen by 6 weeks. Presence of a yolk sac within the gestational sac is a definitive diagnosis of an intrauterine pregnancy and rules out a pseudo sac. A yolk sac is typically seen by 5 and ½ weeks. The “discriminatory zone” is the β hCG level at which an intrauterine pregnancy is expected to be seen on ultrasound and can vary, depending upon the machine, the skill of the sonographer and number of gestations. The range for a transvaginal ultrasound is generally between 1,000 and 2,000 mmol β hCG.

3. Which of the following are acceptable treatment options for early pregnancy loss: (Circle all that apply)
 - a. Expectant management or “wait and see”
 - b. Medical management with misoprostol
 - c. Uterine aspiration in the office using local anesthesia
 - d. Uterine aspiration under sedation

ANSWER: all of the above

It is best to include the patient in the decision-making about these treatment options, because they are all reasonable choices.

4. Which of the following are true regarding β hCG levels: (Circle all that apply)
- In an early, viable intrauterine pregnancy β hCG levels should increase by at least 53% every 48 hours
 - β hCG levels should always be followed to zero after miscarriage
 - In a normal pregnancy beyond 9 weeks gestation, β hCG levels may plateau or drop, instead of rising regularly
 - β hCG levels should be followed to zero in cases of first trimester bleeding where pregnancy location cannot be confirmed
 - β hCG levels should drop by at least 50% by 48 hours following the passage of tissue during a miscarriage

ANSWER: a, c, d, and e are all true

B is not true because there is no need to monitor β hCG levels when the location of the pregnancy has been confirmed and the diagnosis is miscarriage. Following to zero is for the purposes of knowing when the risk of rupture for an ectopic pregnancy (or a pregnancy that is possibly ectopic because its location was never identified) is ruled out, which is not until the β hCG level is zero.

5. Every woman presenting with first trimester bleeding needs to be evaluated for: (Circle all that apply)
- The need for Rhogam
 - Hemodynamic stability
 - Ectopic pregnancy

ANSWER: all of the above

Rhogam is indicated for any Rh negative woman with bleeding during pregnancy. Since 2% of all pregnancies in the US are ectopic, and because it is the most common cause of maternal mortality in the first trimester, assessment of first trimester bleeding should always include the possibility of an ectopic pregnancy and an assessment of hemodynamic stability due to the possibility of internal hemorrhage.

6. In the process of making the diagnosis of Early Pregnancy Loss, women should be told regarding the cause of the miscarriage:
- the most likely cause is a chromosomal abnormality that would not have allowed the pregnancy to develop normally
 - that nothing they did caused or brought on the miscarriage
 - that there is not anything they can do to stop the process once it has begun: there is no evidence for bedrest
 - that one pregnancy loss does not make them at higher risk of subsequent losses

ANSWER: all of the above are true