

First Trimester Bleeding Referral

Definition

- Vaginal Bleeding before 13 weeks gestation
- 12% of normal pregnancies can have a sub-optimal HCG slope
- 13% of ectopic pregnancies can have a normal HCG slope

Terminology (See Other Definitions, Table 3)

- 'Pregnancy of unknown location': No signs of either intra- or extrauterine pregnancy or retained products of conception in a woman with a positive pregnancy test (see Table 1)
- 'Pregnancy of 'uncertain viability': (For 'Findings suspicious for, but not diagnostic of, pregnancy failure', please see Table 2)
- 'Early pregnancy Loss'
Crown-rump length of ≥ 7 mm and no heartbeat
Mean sac diameter of ≥ 25 mm and no embryo
Absence of embryo with heartbeat ≥ 2 wk after a scan that showed a gestational sac without a yolk sac
Absence of embryo with heartbeat ≥ 11 days after a scan that showed a gestational sac with a yolk sac

Initial Diagnosis and Management

- Last menstrual period, recent contraceptive usage history
- Quantitative HCGs serially q 48 hrs - 72 hrs, if no clear intrauterine pregnancy
- Transvaginal Ultrasound (repeat in 11 days), if pregnancy of uncertain viability
- Blood type and Rh factor
- Presence of fetal heart tones
- Bleeding from cervical os, e. g. rule out local sources
- Query about loss of tissue, e. g., products of conception
- Provide comprehensive cervical screening history, obtain pap smear if due
- Aptima

Indications for Specialty Care Referral

- Hemodynamically unstable
- Serial quantitative HCGs not following expected HCG slope for normal SAB or normal pregnancy
- Unclear clinical scenario
- CO elects surgical management
- CO elects to receive medical management of ectopic with methotrexate

Customer Owner Information

- Normal pregnancy: Vaginal bleeding is common in the first trimester, occurring in 20 to 40 percent of pregnant women.
- Miscarriage: 15% of 'known' pregnancies can miscarry, 30% of all pregnancies can miscarry
- Ectopic pregnancy is much less common (2 % of pregnancies), but the most serious etiology of first trimester bleeding as rupture of the extrauterine pregnancy is a life-threatening complication. Therefore, this diagnosis must be excluded in pregnant women with bleeding.

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Table 1
Diagnostic and Management Guidelines Related to the Possibility of a Viable Intrauterine Pregnancy in a Woman with a Pregnancy of Unknown Location.

Finding	Key Points
No intrauterine fluid collection and normal (or near-normal) adnexa on ultrasonography	<p>A single measurement of hCG, regardless of its value, does not reliably distinguish between ectopic and intrauterine pregnancy (viable or nonviable). If a single hCG measurement is <3000 mIU/ml, presumptive treatment for ectopic pregnancy with the use of methotrexate or other pharmacologic or surgical means should not be undertaken, in order to avoid the risk of interrupting a viable intrauterine pregnancy.</p> <p>If a single hCG measurement is \geq3000 mIU/ml, a viable intrauterine pregnancy is possible but unlikely. However, the most likely diagnosis is a nonviable intrauterine pregnancy, so it is generally appropriate to obtain at least one follow-up hCG measurement and follow-up ultrasonogram before undertaking treatment for ectopic pregnancy.</p>
Ultrasonography not yet performed	<p>The hCG levels in women with ectopic pregnancies are highly variable, often <1000 mIU/ml, and the hCG level does not predict the likelihood of ectopic pregnancy rupture. Thus, when the clinical findings are suspicious for ectopic pregnancy, transvaginal ultrasonography is indicated even when the hCG level is low.</p>

Table 2
Failure Findings Suspicious for, but Not Diagnostic of, Pregnancy Failure

- -Crown–rump length of <7 mm and no heartbeat
- -Mean sac diameter of 16–24 mm and no embryo
- -Absence of embryo with heartbeat 7–13 days after a scan that showed a gestational sac without a yolk sac
- -Absence of embryo with heartbeat 7–10 days after a scan that showed a gestational sac with a yolk sac
- -Absence of embryo \geq 6 wk after last menstrual period
- -Empty amnion (amnion seen adjacent to yolk sac, with no visible embryo)
- -Enlarged yolk sac (>7 mm)
- -Small gestational sac in relation to the size of the embryo (<5 mm difference between mean sac diameter and crown–rump length)

Table 3
Other definitions

- **Anembryonic** pregnancy refers to a nonviable pregnancy with a gestational sac that does not contain a yolk sac or embryo. This terminology includes pregnancies in which an embryo may have been present but has since been resorbed. Anembryonic pregnancy contrasts with "embryonic or fetal demise" in which an embryo or fetus is visualized but cardiac activity is not present. An anembryonic pregnancy may be diagnosed when:
 - There is no embryo seen on endovaginal scanning in a gestational sac with mean sac diameter \geq 25 mm **or**
 - There is no embryo on follow-up endovaginal scan \geq 11 days after scan showing gestational sac with yolk sac, but no embryo, **or**

≥2 weeks after a scan showing gestational sac without yolk sac or embryo

- **Embryonic demise** is a pregnancy with a visible embryo ≥7 mm without cardiac activity. This terminology applies to pregnancies measuring less than 10 weeks by ultrasound.