**Table II. Evaluation of Normal & Abnormal Pregnancy Using b-hCG and Ultrasound**

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|  | **Ultrasound (TV-US) findings** | **Expected Labs (Serum b-hCG levels)** |
| ***Normal Intrauterine*** |  |  |
| 4 weeks EGA | May be unremarkable or have slightly thickened uterine lining;  True gestational sac is round, located in fundus, with double ring sign of decidual reaction | b-hCG rises by at least 53% in 48 hours, should see gestational sac on TV-US when b-hCG > 1500-2000 mIU/mL. |
| 5 weeks EGA | Must see gestational sac by vaginal US;  Yolk sac confirms true gestational sac & intrauterine pregnancy |  |
| 6 weeks EGA | Must see embryo |  |
| 7 weeks EGA | Must see evidence of cardiac activity | b-hCG levels >6000-10,000  rise slower, not constant |
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| ***Abnormal*** |  |  |
| **Extra-uterine**  **Ectopic** | Risk Factors - PID, prior ectopic pregnancy, pregnant with IUD in place, tubal surgeries  Discordance between LMP, TV-US, b-hCG  Tubal most common  Heterotopic 1/4000 | b-hCG increase less than 53% in 48 hours, however, serial b-hCG levels in ectopic pregnancy can mimic both spontaneous abortion and viable pregnancies |
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| **Intrauterine**  **Early Pregnancy Failure** | Definitions  Using Ultrasound and Physical Exam | b-hCG increase less than 53% in 48 hours |
| Threatened abortion | Vaginal bleeding before 20 wks gestation in the presence of an embryo with cardiac activity and closed cervix  Occurs in 30-40% all pregnancies |  |
| Inevitable abortion | Vaginal bleeding & cervical dilation <20 wks without explusion of products of conception |  |
| Incomplete abortion | Explusion of some but not all products of conception before 20 wks gestation |  |
| Complete abortion | Expulsion of all products of conception before 20 weeks gestation | Rapid fall in b-hCG level (at least 21-35% fall over 2 days) |
| Anembryonic pregnancy | Presence of a gestational sac larger than 20mm without evidence of embryonic tissues (yolk sac or embryo) |  |
| Embryonic demise | An embryo larger than 5 mm by crown rump length without cardiac activity |  |