Evaluation and Management of Pregnancy of Unknown Location
Guideline for OBHG Providers

The accurate and timely diagnosis of an ectopic pregnancy is important to avoid the potential adverse outcomes of this condition. Modern diagnostic techniques and therapies have greatly aided in this process; however, pitfalls do exist. Early diagnosed ectopic pregnancies can be treated medically with methotrexate therapy\(^1\) helping patients to avoid the risks associated with surgery. When used in patients with an intrauterine pregnancy, methotrexate can lead to significant teratogenic effects and miscarriage. Therefore, it is important that the location of the pregnancy is identified prior to the administration of this medication.

**Diagnostics**
1. Transvaginal Ultrasound is the primary diagnostic modality to identify the location of the pregnancy. Typically, an intrauterine pregnancy can be detected by TVUS above a discriminatory hCG threshold of 1500 to 2000 IU/L.\(^2\)
2. Quantitative hCG. In most normal pregnancies the hCG will double every 2 days.

**Potential Algorithm for Management\(^3\)**
- Step 2 – TVUS
  - IUP diagnosed – outpatient management.
  - Ectopic pregnancy identified – appropriate therapy (medical vs. surgical).
  - Location not identified – go to Step 3.
- Step 3 – hCG level
  - Less than 1500 IU/L – repeat level in 72 hours.
  - Greater than 1500 IU/L – go to step 4.
- Step 4 – Correlate with US findings.
  - Mass in adnexa suspicious for ectopic – mange medically or surgically for ectopic pregnancy
  - No mass and no IUP – REPEAT hCG AND TVUS in 48 hours – go to Step 5.
- Step 5 – no IUP identified on 2\(^{nd}\) ultrasound
  - hCG increasing or plateaued – treat as ectopic pregnancy (medical or surgical)
  - hCG decreasing – treat as failed pregnancy and follow hCG weekly until zero.

**Key Points**
1. hCG levels above the discriminatory zone in a stable patient with unknown pregnancy location does not equal ectopic pregnancy. There is potentially a 40% initial misdiagnosis rate.\(^4\)
2. In patients with an unknown pregnancy location and stable, it is best to follow up with US and repeat hCG in 48 hours (or 72 for lower levels).
3. Appropriate counseling and documentation is required when giving methotrexate for PUL.

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\(^{1}\) See OBHG guideline on the use of Methotrexate in the management of ectopic pregnancies.
\(^{3}\) Adapted from Tulandi T, Clinical manifestations, diagnosis, and management of ectopic pregnancy. In: UpToDate, Basow, DS (Ed), Waltham, MA: UpToDate, 2013.