

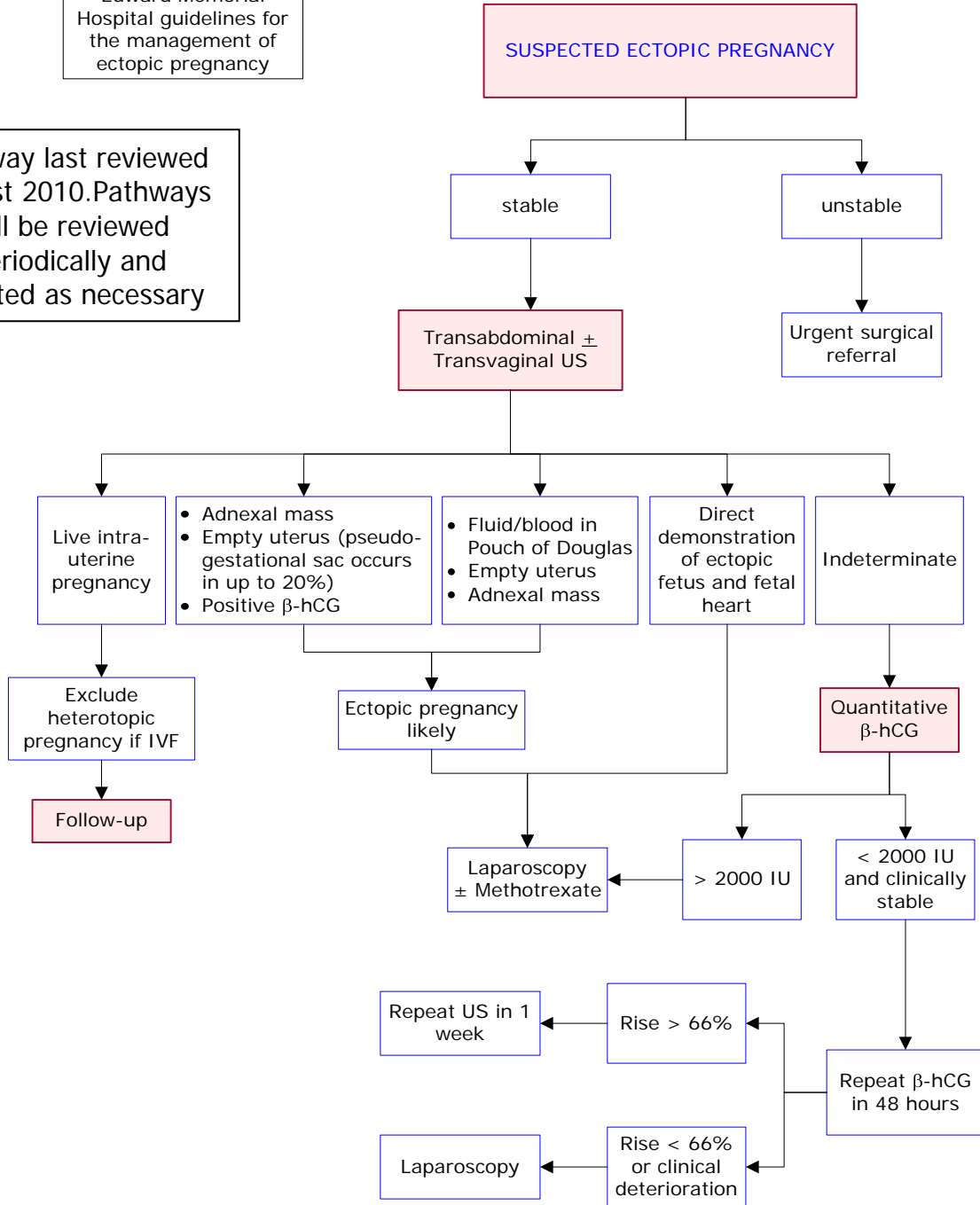


DIAGNOSTIC IMAGING PATHWAYS

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Adapted from King Edward Memorial Hospital guidelines for the management of ectopic pregnancy

Pathway last reviewed August 2010. Pathways will be reviewed periodically and updated as necessary



ECTOPIC PREGNANCY

- Clinical diagnosis may be difficult as classical features of pain, vaginal bleeding and an adnexal mass/tenderness may not be reliable. [1,2](#)

TRANSABDOMINAL +/- TRANSVAGINAL ULTRASOUND

- Pelvic ultrasonography (transabdominal US +/- transvaginal US) combined with measurement of serum β -hCG levels, is an effective screening strategy for diagnosing ectopic pregnancy. [3-6](#)
- Allows identification of an intrauterine pregnancy, which is the single most important finding for the exclusion of ectopic gestation as the presence of both intra- and extra-uterine pregnancy, is very rare. [1,3-6](#)
- Compared to transabdominal ultrasonography, transvaginal ultrasonography is more sensitive and has a lower discriminatory zone (the range of serum β -hCG concentrations above which gestational sac can be visualised consistently). This allows earlier diagnoses of intrauterine or ectopic pregnancies. [7-11](#)
- Sensitivity for transvaginal ultrasonography ranges from 69 to 96% and specificity from 84 to 99%. [1,3,9,12](#)
- When used in conjunction with serum β -hCG levels, transvaginal ultrasound has comparable sensitivity and specificity for ectopic pregnancy to laparoscopy. [13](#)
- Presence of an adnexal mass and/or free pelvic fluid is strong predictor of an ectopic pregnancy. [10,14-17](#)
- Findings suggestive of ectopic pregnancy include: [13](#)
 1. Fluid in the pouch of Douglas, an adnexal mass and an empty uterus.
 2. An adnexal mass, empty uterus or pseudogestational sac and a positive β -hCG.
 3. Direct demonstration of ectopic fetus and fetal heart.
- Normal US does not exclude the diagnosis of ectopic pregnancy. [3,14,15](#)
- Patients with indeterminate ultrasonography findings require further evaluation with quantitative β -hCG levels +/- follow-up US or laparoscopy as about 15-20% of these patients will have a final diagnosis of ectopic pregnancy. [18,19](#)

SERUM HUMAN CHORIONIC GONADOTROPHIN (β -HCG) LEVELS

- Levels of 1000-1500iu/l should be associated with the presence of an intrauterine gestation on transvaginal US (6000-6500 iu/l for transabdominal), although in multiple pregnancy this level may be higher. [8](#)
- Serum β -hCG levels double approximately every 48 hours in 85% of normal intrauterine pregnancies of between 4 and 6 weeks' gestation. [20](#)
- 80% of ectopic pregnancies are associated with a rise in β -hCG of less than 66%. [19,20](#)

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Further Reading

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Website

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