Clinical/Diagnostic Problem	Investigation	Recommendation (Grade)	Dose	Comment
I01. Screening in pregnancy	US	Indicated [B]	0	Screening in early pregnancy accurately dates a pregnancy by measuring the total crown-rump length. This reduces the intervention rate for infants born at or after full term. US accurately assesses fetal number and chorionicity and amnionicity, and improves outcome for multiple pregnancies. US accurately identifies fetal demise. First trimester ultrasound is important for aneuploidy screening to confirm dates and measurement of nuchal translucency (NT) by accredited operators. Nuchal translucency is performed between 11-14 weeks. The scan at 18-20 weeks is recommended for fetal anatomy. However, screening at this time has not been shown to alter perinatal mortality except where selective termination of pregnancy is applied in the presence of gross fetal abnormality and in cases where fetal therapy or direction of delivery to a high-risk center has proven useful. US has a proven value in assessing placenta previa and intrauterine growth restriction and incompetent cervix and fetal demise at any stage of pregnancy.
I02. Assessment and management of high risk pregnancy	US	Indicated [A]	0	Ultrasound is important In the specialist care of high-risk pregnancies. US including Doppler assessment is essential for the safe practice of intervention and therapeutic procedures such as amniocentesis, fetal blood sampling, and transfusions during pregnancy.
I03. Suspected pregnancy	US	Not indicated	0	There is no evidence that diagnosing pregnancy by US is appropriate. Hcg testing is the most appropriate.
I04. Symptomatic early pregnancy	US	Indicated [C]	0	US is indicated if early pregnancy is symptomatic: pain, vaginal bleeding, or excessive vomiting.
I05. Pregnancy dating	US	Indicated [B]	0	US may be used in the first trimester to accurately date the pregnancy, if menstrual dates are uncertain or to confirm dates if there is any clinical doubt.
I06. Possible non-viable pregnancy	US	Indicated [C]	0	In a normal pregnancy, an embryo should be present when the mean diameter of the gestational sac measures > 16 mm and an embryonic heartbeat detected when the embryonic crown-rump length measures >5 mm. Lack of these findings suggest a non-viable pregnancy. However, these findings should be correlated with quantitative hcg levels. In a normal pregnancy, hcg has a doubling time of approximately 2 days. In a non-viable pregnancy, hcg will decrease. When there is any doubt, a repeat US within a week should be done, prior to any intervention in a desired pregnancy.

Clinical/Diagnostic Problem	Investigation	Recommendation (Grade)	Dose	Comment
I07. Suspected pregnancy of unknown location (PUL)	US	Indicated [B]	0	The uterus should be thoroughly scanned for the presence of a gestational sac. An intrauterine gestational sac should be seen when the quantitative hcg is >2000 IU. However many intrauterine or extrauterine pregnancies can be detected by US at much lower hcg levels. Therefore, if an intrauterine gestational sac is not identified, the adnexa should be thoroughly scanned for the presence of a mass. If there is no US evidence of either intra or extrauterine pregnancy, correlation should be made with hcg levels. In patients undergoing assisted reproduction techniques, the adnexa should be should be scanned thoroughly even in the presence of an intrauterine pregnancy, as the incidence of heterotopic pregnancy is much higher in these patients. Serial quantitative hcg in an ectopic pregnancy is variable (may be similar to normal pregnancy, increase less than normal pregnancy, decrease or show a fluctuating increase, decrease, increase pattern)
I08. Post-menopausal bleeding: to exclude significant endometrial pathology	US	Indicated [B]	0	Endometrial thickening of 5 mm or greater is considered abnormal and warrants further clinical investigation. Focal endometrial thickening or mass may require hysterosonography or hysteroscopy for further evaluation. Doppler may be useful in diagnosing an endometrial polyp by showing a feeding vessel.
I09. Clinically suspected adnexal mass **(See also K54 – K55)**	US	Indicated [C]	0	Combination of transabdominal and transvaginal US is often required. US should confirm the presence of a lesion and determine the likely organ of origin. Transvaginal scanning should be used to better characterize the internal morphology of the lesion. MRI is the best second-line investigation, although CT is still widely used but is not recommended in premenopausal age group.
I10. Acute pelvic pain in the reproductive age group **(See also G12, G20)**	US	Indicated [C]	0	Where the gynaecological cause and etiology are highly suspected and serum hCG negative, US is indicated, especially when clinical examination is difficult or impossible. US can diagnose cyst leak or haemorrhage. Focal uterine tenderness can be elicited by the transvaginal probe with focal palpation of the uterus in some cases of adenomyosis. Doppler exam can be an aid to diagnosis of torsion along with the 2D ultrasound. US has a poor predictive power when diagnosing pelvic inflammatory disease and some forms of endometriosis.
	CT	Specialized investigation [B]	☢☢☢	CT may be requested by a specialist for further investigation in assessing pelvic masses and other pathologies such as abscesses but should be avoided in the reproductive age group.
	MRI	Specialized investigation [B]	0	Can be useful to localize the larger foci of endometriosis or other ovarian pathology when US inconclusive.

Clinical/Diagnostic Problem	Investigation	Recommendation (Grade)	Dose	Comment
I11. Lost IUCD	US	Indicated [C]	0	To confirm or refute the presence of the IUCD in uterus, and to check for position. 3D US with coronal reconstruction is valuable in determining location of IUCD.
	pelvic XR	Indicated only in specific circumstances [C]	☢ – ☢☢	Indicated only when IUCD is not seen in uterus on US.
I12. Recurrent miscarriages	US	Indicated [C]	0	Will show the major uterine congenital and acquired problems and is useful to identify ovarian pathology. 3D US with coronal reconstruction is valuable in detecting congenital uterine abnormalities.
	MRI	Specialized investigation [C]	0	Supplements US for uterine anatomy.
I13. Basic infertility	US	Indicated [C]	0	US should be used to confirm the presence of normal uterus and ovaries.
I14. Suspected cephalo-pelvic disproportion	XR pelvimetry	Not indicated [B]	☢☢	The need for pelvimetry is increasingly being questioned. Local policy should be determined in agreement with obstetricians. MRI or CT should be used wherever possible.
	MRI / CT	Specialized investigation [C]	0/☢	MRI is best as it avoids irradiation. CT generally delivers a lower dose than standard XR pelvimetry.
I15. Ovarian cyst	US	Indicated in appropriate circumstances	0	US is the appropriate initial imaging modality for following up simple ovarian cysts when this is indicated. The indications are: cysts > 5 cm and < 7 cm. in the reproductive age group or > 1 cm. and < 7 cm. in the postmenopausal age group should have yearly follow-up. Smaller cysts do not need any follow-up. Hemorrhagic cysts > 5 cm. should be have a follow-up examination in 6-12 weeks at a different stage of the menstrual cycle. In patients with pelvic pain and hemorrhagic cysts < five cm, a follow up ultrasound is recommended to rule out endometriosis.
I16. Polycystic ovarian syndrome/ disease	US	Not indicated	0	Definitive diagnosis of this syndrome is made by laboratory tests. Although characteristic sonographic abnormalities can be seen in some patients with polycystic ovarian syndrome, not all patients have these findings.

Impending guidelines:

I17 Premenopausal bleeding
I18 Nuchal translucency imaging
I19 Follow-up of a twin pregnancy