Fetal cardiac and uterine artery Doppler for 2nd tri pregnancy loss, stillbirth and neonatal death.

Unless excluded by fetal autopsy and placental evaluation by perinatal pathologist, congenital heart disease and placental histopathology must be considered in the differential diagnosis as a risk factor for the recurrence in the current pregnancy.

Pathoclinical differential diagnosis for second and/or third trimester miscarriages includes impaired placentation and its placenta-related adverse obstetrical outcomes including IUGR, chromosomal and nonchromosomal syndromes without and with congenital heart disease.

Current pregnancy should be considered at increased risk for this differential diagnosis. This increased risk necessitates performance of 2D fetal cardiac ultrasound and uterine artery Doppler to complete and optimize recurrence risk assessment and possible institution of low-dose aspirin treatment.

Uterine artery Doppler is a validated non-invasive proxy for placenta ischemia due to impaired placentation and defective trophoblastic invasion. Uterine artery Doppler is a marker for defective remodeling of spiral arteries with consequent placental malperfusion and associated impaired fetal growth.

*Scazzoccchio. Ultrasound Obstet Gynecol 2017; 49:435 - 441.
*Mifsud. Placental pathology in early onset and late onset fetal growth restriction.Fetal Diagn Ther 2014;36:117-128

Abnormalities of the heart and great arteries are the most common congenital defects, accounting for approximately 20% of all stillbirths and 30% of neonatal death due to congenital defect. Z84.89

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*Llurba. Ultrasound Obstetrics and Gynecology 2013; 42: 169-174.