Guideline for Submission of Placenta to Pathology for Examination

The decision to submit the placenta to the hospital’s Department of Pathology for gross and microscopic examination should be based upon a reasonable likelihood that such an examination will:

- facilitate the diagnosis of maternal-fetal conditions associated with adverse outcomes;
- provide information salient to or allow prognosis for future pregnancies and their outcomes; and
- be of assistance in anticipated medico-legal, investigative or research efforts.

The American College of Obstetricians and Gynecologists offers no formal guidelines recommending placental examination based on specific clinical conditions. Some have advised that all placentas be submitted to pathology for examination; however, most of pathology departments do not advise such. CRICO/RMF supports placental examination under the following maternal or fetal clinical conditions; however individual judgment concerning the appropriateness of submitting such material for evaluation is strongly recommended.

Pathology examination is required when one of the following conditions are identified. The placenta will be transported to the laboratory with a Placenta Examination Request, and appropriate documentation completed.

1. **Maternal Conditions**
   - Polyhydramnios
   - Severe trauma
   - Oligohydramnios
   - Maternal systemic illness (e.g. hypertension, diabetes, rheumatologic, etc)
   - Prior reproductive failure (two or more spontaneous abortions, stillbirths, neonatal deaths, premature births)
   - Maternal substance abuse
   - Prematurity (≤ 36 weeks 6 days)
   - Post-maturity (≥ 42 weeks 0 days)

2. **Peripartum Conditions**
   - Temperature greater than 100.4°F (intrapartum)
   - Suspected or proven infection
   - Bleeding
   - Suspected abruptio placenta
   - Rupture of membranes > 24 hours
3. Fetal/Neonatal Conditions
   • Still birth
   • Multiple births
   • Congenital anomalies
   • Fetal growth restriction
   • Hydrops
   • Meconium, either on admission or in labor
   • Seizures
   • Neonatal ICU admission
   • Apgar scores of 3 or less at 5 minutes, low cord pH, elevated base excess
   • Suspected infection

4. Gross Placental Anomalies

5. Other (abnormal delivery, infant, medicolegal concerns)

Special Considerations
When the decision is made to submit the placenta for pathologic examination, the pathology request form should be completed in its entirety, including enough maternal, fetal, or neonatal clinical information to facilitate the pathologist’s search for key histopathologic features, and to interpret findings in light of the clinical scenario.

References:

2. Langston C. Practice guideline for the examination of the placenta. Arch Pathol Lab Med 1997;121:449-47;