

Maine Medical

PARTNERS

Women's Health

A department of Maine Medical Center

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 contribute to one or more of the following objectives:

- facilitate the diagnosis of maternal-fetal conditions associated with adverse outcomes;
- provide information salient to or allow prognosis for future pregnancies and their outcomes;
- 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. An exception is recommendation for review in stillbirth; review yields additional relevant information in 30% of cases.⁵

Some have advised that all placentas be submitted to pathology for examination; however, most pathology departments do not advise such. CRICO/RMF supports submission for gross and microscopic review for specific maternal or fetal clinical conditions (listed below); however individual judgment concerning the appropriateness of submitting such material for evaluation is strongly recommended.

Pathology examination is recommended when one of the following conditions are identified.

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 (\leq 36 weeks 6 days)
- Post-maturity (\geq 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

- Stillbirth
- Multiple births
- Congenital anomalies
- Fetal growth restriction
- Hydrops
- Meconium, either on admission or in labor
- Seizures
- Neonatal ICU admission
- Apgar scores of 5 or less at 5 minutes, low cord pH, elevated base excess
- Suspected infection

4. Gross Placental Anomalies

- All placentas should be visually examined at time of delivery, with submission to pathology for any abnormality (eg: abnormal color, length of cord, abnormal membranes, masses)

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

Special Considerations

When the decision is made to submit the placenta for pathologic examination, all requested information should be completed, 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:

1. Hargitai B, Marton T, Cox PM. Best practice no 178: Examination of the human placenta. J Clin Pathol 2004;57:785-792.
2. Langston C. Practice guideline for the examination of the placenta. Arch Pathol Lab Med 1997;121:449-47;
3. Guidelines for Placental Examination. Medical Mutual Insurance Company of Maine. September 1, 1992.
4. CRICO OB Guideline 29: Placental Pathology Evaluation: <https://www.rmhf.harvard.edu/Clinician-Resources/Guidelines-Algorithms/2017/OB-Guideline-Files/Guideline29-Placental-Pathology-Evaluation>. Accessed 4/17/2020.
5. Management of Stillbirth. ACOG Obstetric Care Consensus No. 10. Obstet Gynecol 2020;35:e110-32.