###### Purpose

To provide a procedure for the gross examination of a fetal tissue specimen.

1. **Principle**

To examine the fetal tissue specimen according to the departmental guidelines and to take histologic sections only when instructed to do so by the perinatal pathologist that is assigned to the case.

###### Equipment

1. Ruler
2. Forceps
3. Scalpel
4. Scissors
5. **Safety**
6. **PPE** should be worn.
7. **FORMALIN** is a known carcinogen.
8. **Supplies and Reagents**

**10% NEUTRAL BUFFERED FORMALIN** (pH range 6.9 – 7.2)

1. **Quality Control**

All remaining tissue should be retained.

1. **Limitations/ Notes**

The following may influence the validity of test results:

1. If chromosome analysis is requested, the specimen must be sent to cytology in the fresh state.
2. The specimen should be fixed in formalin.
3. **Procedure**
4. The specimen will arrive fresh.
5. Before adding formalin to the specimen, make sure that cytogenetic testing is not required.
6. Include the following verbiage at the beginning of the gross description: “Notice to patient: The following contains sensitive material that may be disturbing to read. Recommend reviewing this material with your health care provider.”
7. The specimen will consist of an intact fetus or fetal tissue in pieces and possible placental tissue.
8. Determine the extent of the examination (EXAM vs. NO EXAM).
   1. Products of conception (<13 weeks)
9. No consent is needed prior to examination
10. Grossed by PA or resident on surgical gross
11. If received with an intact fetus, call the perinatal pathologist.
12. Affix a “SAVE” label on specimen container to be placed on designated cart.
    1. Intrauterine fetal demise/products of conception (≥13 weeks)
13. Completed autopsy permit and disposition permit are required
14. If for full exam and intact, grossed by autopsy resident.
15. If for No Exam or for full exam and fragmented, grossed by PA.
16. Affix a "SAVE" label on specimen container to be placed on designated save cart.
17. Separate the fetal tissue from the placental tissue and describe separately. Describe, weigh, and measure the placental tissue components.
18. If the fetus is for NO EXAM, NO fetal tissue should be cut or submitted in cassettes. Only placental tissue and umbilical cord should be submitted.
19. A complete external exam should be done. (See part I)
20. If the fetus is fragmented, any identifiable viscera with weights should be dictated (but nothing should be cut). Include in the dictation that the fetus is fragmented and to what extent.
21. If the fetus is for EXAM, (PA or resident on surgical gross will gross if fragmented) a full external and internal exam should be done.
22. Describe the extent of fragmentation of the fetus.
23. Describe and include all measurements and descriptions of external exam (see part I) that are possible with the fragmentation.
24. Identify and describe any identifiable viscera including (but not limited to):
25. Kidneys (intact?, normal morphology?, weight, attached adrenals?)
26. Lungs (intact?, normally lobated?, weight)
27. Heart (normal size and shape?, normal situs?, weight). If intact, call the perinatal pathologist to assess if it should be dissected by them or the resident.
28. Liver (intact?, weight)
29. If possible, examine internal genitalia and mention if gender can be determined.
30. Submit all organs and include in cassette summary.
31. A full external exam should include:
32. Weight of fetus (g).
33. Measurements of
34. Head, chest, and abdominal circumference (cm)
35. Crown to heel (cm)
36. Crown to rump (cm)
37. Foot length (cm)
38. Describe skin surfaces (intact, skin slippage, edematous)
39. Note if there is nuchal edema.
40. Describe the eyes (fused/non-fused), the nares (patent/not patent), the mouth (patent/not patent), and the anus (patent/not patent).
41. Mention if a portion of umbilical cord is attached, measure, and describe.
42. Dictate how many digits are present on hands and feet.
43. Describe any identifiable anomalies. Include presence or absence of cleft lip or palate (right, left, or bilateral?), abnormal palmar creases, overlapping digits, or rocker bottom feet.
44. Dictate the gender of the external genitalia (male, female, immature).
45. Load the cassettes on the appropriate processor.
46. **Related Documents**

Products of Conception – RA.SP.PR.GR.PO.01

1. **References**

Hruban RH, Westra, WH, Phelps, PH, & Isacson, C: Surgical Pathology Dissection An Illustrated Guide, New York, NY, Springer-Verlag Inc., 1996.

Lester, SC: Manual of Surgical Pathology, New York, NY, Churchill

Livingstone, 2001.

1. **Authorized Reviewers**
2. Medical Director, Anatomic Pathology
3. Chief, Surgical Pathology

##### Document Control

##### Location of Master: Master electronic file stored on the Beaumont Laboratory server under

S:\AP\_Grossing\_Manual

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