Prenatal and Pregnancy Loss Specimen Requirements

**Amniotic Fluid**
- **15 ml** Chromosome analysis
- **15 - 20 ml** Chromosome analysis and FISH
- **25 - 30 ml** Chromosome analysis/FISH/chromosomal microarray (CMA)
  - Collect in sterile, conical/clear plastic screw-top tubes and store at room temperature.
  - Label container with patient’s name and second identifier (e.g. DOB).

*Sub-optimal samples:*
If volume is insufficient, gestational age <16 wks or >30 wks, or sample is compromised (e.g. blood-tinged), CMA testing will be performed on DNA extracted from cultured cells, thus extending turnaround time.

**Chorionic Villus Sampling (CVS)**
- **15 - 20 mg** Chromosome analysis/FISH (includes STAT aneuploidy FISH)
- **20 - 25 mg** Chromosome analysis/FISH/chromosomal microarray (CMA)
  - Collect in sterile plastic screw-top tube filled with sterile transport media at room temperature.
  - Transport media is available (upon request).
  - Label container with patient’s name and second identifier (e.g. DOB).

*Sub-optimal samples:*
If sample size is insufficient (<10 mg), CMA testing will be performed on DNA extracted from cultured cells, thus extending turnaround time. Turnaround time for chromosome analysis results may also be extended.

**Placenta and Fetal Tissue**
*For all fetal tissue samples, laboratory cannot accept large fetal parts or intact fetuses >12 wks*
- **1 cm³** Chromosome analysis with/without chromosomal microarray (CMA)
  - Placenta (from site of cord insertion) and/or fetal tissue (gonad, kidney, lung, fascia lata)
  - For CMA, fetal tissue is preferred (gonad, kidney, lung, fascia lata; also umbilical cord).
  - Collect aseptically in sterile plastic screw-top tube/container filled with sterile transport media or sterile saline solution. Transport media is available (upon request).
  - Label container with patient’s name and second identifier (e.g. DOB).
  - If both fetal and placental specimens are available, send in separate containers and label each container with specimen type.
  - Store at room temperature; refrigerate if overnight.

**Paraffin Embedded Tissue**
- **8 – 10 "charged" Slides** FISH tissue aneuploidy screen
  - Unstained paraffin embedded tissue sections should be 4-5 micron in thickness
Percutaneous Umbilical Blood Sampling (PUBS)

1 – 3 ml  Chromosome analysis
2 – 3 ml  Chromosome analysis and FISH
   • Collect in 4 ml sodium heparin (green top) tube and store at room temperature.
   • Label tube with patient’s name and second identifier (e.g. DOB).

2 ml  Chromosomal microarray (CMA)
   • Collect in 4 ml EDTA (purple/lavender top) tube and store at room temperature.
   • Label tube with patient’s name and second identifier (e.g. DOB).

Maternal Cell Contamination (MCC) Testing

Along with the CVS, amniotic fluid, products of conception (POC) or placenta specimen, a maternal specimen is required:
   • Maternal peripheral blood – 3 ml
      Collect in 4 ml EDTA (purple/lavender top) tube and store at room temperature.
      Label tube with patient’s name and second patient identifier (e.g. DOB).
      OR
   • Maternal buccal/mouth swab - Call lab to request designated collection kit.
      Collection instructions are included in each kit. Store sample at room temperature.
      Label tube with patient’s name and second patient identifier (e.g. DOB).

It is our laboratory’s policy that we only accept DNA that has been isolated in a CLIA-certified laboratory or a laboratory meeting equivalent requirements as determined by the College of American Pathologists (CAP) and/or the Centers for Medicare and Medicaid Services (CMS). Should you have any questions, please call us at 303-724-5701

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