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, the laboratory cannot accept intact fetuses > 10 weeks or large fetal parts.*

- **1 cm³**  Chromosome analysis with/without chromosomal microarray (CMA)

Placenta (from site of cord insertion) and fetal tissue (gonad, kidney, lung, fascia lata)
For CMA, fetal tissue is preferred (gonad, kidney, lung, fascia lata; also umbilical cord < 16 weeks)
  - 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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