

## CYTOGENOMIC TESTING FOR PERINATAL & NEONATAL SETTINGS

### Products of conception (POC)/Stillbirth or Liveborn infant

Finding the correct genetic test order code for the genetic test needed can be difficult when the test is not ordered on a regular basis. This summary may aid in the selection of test codes.

Of note, when a birth plan is created in advance of delivery, it may be helpful to include test names and order codes for the planned testing. A brief description of the test and a reminder to include sample type in the order (e.g., placental tissue, cord blood) may streamline the testing process.

### Products of Conception (POC)/Intrauterine Fetal Demise (IUFD)/Stillbirth

- Use POC orders when no individual MRN or medical chart is created for a fetus/infant, including miscarriage, IUFD, and stillbirth.
- Orders are placed and results are returned in the mother’s medical record.
- Orders MUST note specific sample type (cord blood, placental tissue, fetal tissue, etc.), which will be included in the report. Note: see the following page for cord blood orders.
- Do NOT expose tissues to formalin if genetic testing is being considered!
- NOTE: Maternal blood samples are not needed for routine POC analysis.
- All POC tissue received in the cytogenetics lab for testing will have a portion snap-frozen for possible future testing, including microarray or other genetic testing. Frozen tissue cannot be used for chromosome analysis (aka karyotype), which requires living cells to undergo cell division.
- Genetic testing of fetal tissue over 20 weeks gestation; if no autopsy is ordered, then the OB must obtain and send a specimen directly to the cytogenetics lab.

Test	Order Code	Details
Products of Conception Chromosome Analysis with reflex to Microarray	POCHF	<ul style="list-style-type: none"> <li>• POC Chromosome Analysis will be performed</li> <li>• If cell culture required for testing fails, order will be canceled and POC Microarray will be performed</li> <li>• A comment can be added to the order to “proceed to microarray if chromosome analysis result is normal”</li> </ul>
Chromosome Analysis, Products of Conception (aka karyotype)	CHRPOC	<ul style="list-style-type: none"> <li>• Cannot be performed on frozen tissue or tissue placed in formalin</li> <li>• Detects mosaicism and structural rearrangements including translocations and inversions</li> <li>• Cannot detect single gene disorders</li> </ul>
Products of Conception Microarray	POCSNP	<ul style="list-style-type: none"> <li>• Can be performed on fresh or frozen tissue</li> <li>• Cannot detect balanced structural rearrangements</li> <li>• May detect copy number gains or losses of unknown significance</li> <li>• Cannot detect single gene disorders</li> </ul>

Additional details available on placing the orders, as well as collection and transport info:

[Genetic Test Ordering for Products of Conception](#)

*see back page*

**Liveborn infant, with or without neonatal death**

- Use the order codes below when a medical chart is created and the records are in the baby's name.
- Sample type **MUST** be clearly identified in the order (cord blood, placental tissue, peripheral blood).
- Report is issued with baby's name and MRN and is saved in the baby's medical record.
- Exception: Cord blood from a POC or stillbirth will also use these codes. Report will be issued in mother's name and MRN.

<b>Order Code</b>	<b>Test Name (Select one from below)</b>
CHRBLD	Chromosome Analysis, Constitutional, Blood
CHRMOS	Chromosome Analysis, Rule Out Mosaicism, Blood
CRMSNP	Chromosomal Microarray, Constitutional, Blood