

Department of Obstetrics and Gynaecology

PGD Lab, 4/F, Block K, DTB, Prince of Wales Hospital, The Chinese University of Hong Kong Shatin, N.T., Hong Kong SAR Tel: (852) 3505 1557 | Fax: (852) 3505 4810 | www.obg.cuhk.edu.hk



Instructions for Prenatal Diagnosis Testing

Specimens for Testing

Specimen	Quantity	Container	Specimen delivery and storage
Amniotic fluid	$15 - 30 \text{ ml}^+$	Sterile bottle	Specimen should arrive in the laboratory: Mon-Fri: 9 a.m. to 3:30 p.m. Excluding Saturdays and public holidays (working day: call before 12 noon, sample will be collected on same day) Overnight specimens may be stored at 4°C in the refrigerator but must NOT be frozen.
Chorionic villi	Villi tissue (about 25 mg)	Sterile bottle with medium*	
Blood for karyotyping	3 ml^{Δ}	Heparin Bottle	
Blood for molecular genetic test	3 ml^{Δ}	EDTA Bottle	
Other tissues	Tissues pieces (about 25 mg)	Sterile bottle with medium	

* Containers with medium can be obtained from the Prenatal Genetic Diagnosis Laboratories (PGDL)

⁺ For earlier gestational age or with additional examination request (e.g. Fetal DNA Chips), higher volume (e.g. 30-40 ml fluid) is recommended

 $^{\Delta}$ 1.5 ml for fetal/cord blood

Referral Instructions

Referral clinic is recommended to contact PGDL first to confirm the availability of test requested.

The molecular genetic and cytogenetic request form (<u>PWH/ACPPD-L0701-A-V6-F1</u>) and consent form must be completed together with the specimen and send to PGDL as soon as possible:

Prenatal Genetic Diagnosis Laboratories 4/F, Block K (Day Treatment Block) Prince of Wales Hospital Shatin, N.T., Hong Kong

Referral and Specimen	3505 1557	
Results enquiry:	Cytogenetic test:	3505 1557
	Molecular genetic test:	3505 1538

Specimen taking and sending

1 Laboratory Operation Procedures

1.1 **Prenatal diagnosis** is offered to patients at risk of chromosome anomalies/genetic diseases.

Reasons for referral will include the following:

- Abnormal ultrasound scan
- Carrier of a chromosomal structural rearrangement/genetic disease
- Elevated risk indicated by biochemical and/or ultrasound screening
- High risk indicated by non-invasive prenatal screening
- Advanced maternal age
- Previous chromosome anomaly

Specimens for Prenatal diagnosis are usually one of the following sample types:

- Amniotic fluid
- Chorionic villi / placental tissues
- Fetal blood / peripheral blood

2 Specimens

2.1 All prenatal diagnostic laboratory tests should be prearranged with the laboratory for test availability and specimen bottles to be supplied with special instructions for specimen taking, storing and transport.

2.2 Collection of amniotic fluid

2.2.1 Amniotic fluid about 15 to 30 ml should be collected in sterile universal.

2.3 Collection of chorionic villi / placental tissues

2.3.1 Chorionic villi fragments about 25 mg should be collected in sterile universal bottles with transport medium.



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2.3.2 Transport medium bottles can be obtained from the Prenatal Genetic Diagnosis Laboratories. If it is not used immediately, it should be kept at 4°C in the refrigerator for maximum three months (expiry date is stated on the tube).

2.4 Collection of fetal blood and peripheral blood

- 2.4.1 At least 3 ml peripheral blood (1.5 ml for fetal/cord blood) should be put in heparin bottles for chromosome analysis.
- 2.4.2 At least 3 ml peripheral blood (1.5 ml for fetal/cord blood) should be put in EDTA bottles for molecular genetic analysis.
- 2.4.3 Fetal blood should be verified of the fetal origin by the sender or referral unit
- 2.4.4 Heparin and EDTA bottles are obtainable from Prenatal Genetic Diagnosis Laboratories or the general Pathology Laboratory.

2.5 Specimen delivery

- 2.5.1 Specimen should be sent to the laboratory at cool room temperature on the sampling day.
- 2.5.2 If specimen cannot be sent on the sampling day, it can be kept at 4°C in the refrigerator but **must not be frozen**. Specimen should arrive in the laboratory within 48 hrs of sampling.
- 2.5.3 For overseas, specimen should be shipped at 4°C to the laboratory by overnight express. Specimen should arrive in the laboratory within 48 hrs of sampling and **must not be frozen**.

3 Test charges

Please contact the laboratory for details. (Tel: 3505 1538)