Labour: Indications for placental examination in pathology

Specimen transport

1. The placenta should be checked; double bagged (plastic), labelled and placed in a plastic container.

2. Ensure a patient addressograph and date is applied on the:
   - outer plastic bag containing the placenta,
   - the container lid
   - the side of the container

3. The placenta is placed in a refrigerator (in the utility room in the Labour and Birth Suite [LBS]) with the completed paperwork until transfer to Specimen Reception.
   - In cases of perinatal death when post-mortem is required the placenta is taken by the Patient Care Assistant to Perinatal Pathology at KEMH. The labelled placenta is placed in the refrigerator in the LBS Perinatal Loss room. In cases when an autopsy is declined, a Pathology form must be completed and sent with the placenta.

Pathology request form- information required

Information provided on the pathology request form should include:
- Consultant’s name legibly written on the form
- Provider number
- Parity
- Gestation
- Pregnancy history
- Intrapartum concerns/abnormalities
- Neonatal: Any abnormalities
- Therapeutic interventions
- Both histopathological and microbiological examination must be requested

**Placentas for routine histological examination:**
- IUGR\(^2\) (3\(^{rd}\) centile)
- Prematurity (< 32 weeks)\(^3\),\(^4\)
- Severe fetal distress or poor condition at birth (scalp lactate >4.5, cord pH <7.2, Apgar ≤ 7 at 5min)\(^2\). These variables MUST be clearly stated on the request form.
- Stillbirth\(^2\),\(^4\)
- Late miscarriage\(^4\) (14 weeks and over)
- Fetal Hydrops\(^4\)
- Twins where chorionicity has been questioned by the clinical team

Report available within 7 working days from the receipt of the placenta.

**Placentas for macroscopic examination and storage:**
Macroscopic examination includes measurements and weights. Storage includes small sections of membranes, cord and placenta tissue being taken and placed in wax blocks and placed on permanent record. Histological slides can be prepared from these as requested.

Where microscopy, culture and sensitivity (MC&S) has been requested on the form, a small sample will be forwarded to microbiology who will issue a report. A Pathologist may, based on the clinical history, decide that routine microscopic examination should proceed.

**Maternal**
- Pre-eclampsia\(^2\),\(^5\), pregnancy induced hypertension;\(^3\) chronic hypertension
- Maternal infection\(^3\),\(^5\) or peripartum sepsis\(^2\)
- Significant maternal disease or conditions
- Drug\(^5\) or alcohol misuse\(^1\)
- Unexplained or recurrent pregnancy problems e.g. stillbirth, early pregnancy loss, preterm birth\(^6\)
- Metastatic malignancy

**Fetal**
- Rhesus (& other) isoimmunisation\(^3\)
- Fetal abnormality
- Neonatal death\(^2\)

**Placental**
- Abruptio\(^2\),\(^3\)
Other

- Medical request

At the time of macroscopic cut-up

- Placenta weight below 5th percentile or over 95th percentile (as determined by the Pathologist at the time of macroscopic cut-up)
- Massive perivillous fibrin deposition suspected at the time of macroscopic cut-up

References and resources

Placenta: Indications for placental examination in pathology

Related WNHS policies, procedures and guidelines

WNHS Policy Consent for Under 20 Week Fetal Autopsy Examinations

KEMH Clinical Guidelines, Obstetrics & Gynaecology:
- **Perinatal Loss**: Legalities and reporting; Perinatal Loss in the third trimester Management
- **Placenta Being Taken Home: Safe Handling**
- **Labour (Third Stage)** Retained Placenta

PathWest Test Directory

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NSQHS Standards (v2) applicable:
- 1: Clinical Governance
- 2: Partnering with Consumers
- 3: Preventing and Controlling Healthcare Associated Infection
- 4: Medication Safety
- 5: Comprehensive Care
- 6: Communicating for Safety
- 7: Blood Management
- 8: Recognising and Responding to Acute Deterioration

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