# What is a post mortem examination

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## Purpose of the autopsy

- To establish a cause of death and associated pathologies
- To confirm antenatally diagnosed abnormalities
- To direct other investigations genetics, thrombophilia screen, infection screen
- Identify risk factors to enable LMC to plan for subsequent pregnancies

#### Two main types of autopsy

- Hospital autopsy
  - Death certificate can be signed
  - LMC, paediatrician, parent may make the request
  - May proceed ONLY with parent signature
  - Report sent to the requester and put on hospital record

- Coroner's autopsy
  - Death certificate cannot be signed
  - Parental consent not needed
  - Police involved
  - Pathologist instructed by Coroner
  - Death certificate issued by Coroner
  - Report distributed by Coroner

NB: Coroner does NOT investigate stillborn infants

## The request for autopsy

- Part of continuing care
- The requester should understand why they are asking
- Should be able to clearly explain the reasons for asking
- Should be able to clearly explain the procedure involved

## If you think a PM is not 'needed'

- Can you justify your decision to your colleagues?
- What further information will you be able to give the parents at the debriefing in 8 weeks time?
- How will you advise the parents if a second infant in the family dies?
- Studies have shown it is extremely rare for families to regret having a post mortem; much more common that people regret not having a post mortem performed on their loved one

What is required for a post mortem?

#### **Paperwork**

- Consent for autopsy if agreed
- Medical Certificate of Causes of Fetal and Neonatal Death
- Cremation form if needed
- Transfer of body form if taking home
- Return to Patient form if placenta to be returned
- Photocopy of the notes / full clinical summary and scan results

## Alternatives to full postmortem

- External only post mortem
- Photography and x-rays
- Limited post mortem
- Examination confined to area of interest
- Placenta only
- MRI

Problems: limited information gained

## Options after the post mortem

- Child returned to family
- Child uplifted by funeral director
- Family may or may not wish to see infant after procedure
- Should siblings see the infant?

## Expectations from the autopsy

 Autopsy remains the gold standard for post mortem investigation

Autopsy may not explain the cause of fetal death

A completely 'negative' autopsy is unusual

#### Post mortem examination

### The post mortem examination

- External photographs and external examination
- Internal examination
  - Like a surgical procedure
  - Y incision
  - Head midline posterior incision from crown to base of neck
  - Organ examination
  - Photographs if required
  - Sampling for microscopy, microbiology, genetics as required
- No organs retained without parental permission
- Suture and dressing
- The placenta is an integral part of the post mortem

### Who is at the post mortem

- Pathologist
- Mortuary technician
- Occasionally a pathology registrar
- LMC if they want to be

#### Tissue retention

- Samples taken for microscopy processed into wax blocks, thin sections are cut and put on a glass slide. Stained with a dye for microscopic evaluation by the pathologist.
- Wax blocks are kept indefinitely and slides may be sent away for further opinion or reviewed if the family has another IUFD or infant death
- Blocks and slides may be returned if family wish (sign waiver)

## Ancillary investigations

- Radiology
- Microbiology
  - Swabs of lung, stomach, placenta
- Genetics
  - Psoas muscle, rib cartilage
  - Liver / spleen frozen for storage in some cases
- Guthrie card if appropriate

#### Reconstruction

## The report

- Medical document
- Not in lay language
- Parents should be offered a copy after discussion with LMC
- Usual time of issuing 8-10 weeks after the pm
- Ensure that the report is available at the time of the postnatal debriefing

## Summary

- A post mortem examination is part of the on going care of the infant and mother
- Provides important information in regards to planning of subsequent pregnancies, can direct further investigations, acts as an internal clinical audit
- A cause of death is not always found, however a completely negative autopsy is rare
- The placenta is an integral part of the post mortem examination