Autopsy in special circumstances
Examination of pneumothorax

- X-ray / CT scan
DEMONSTRATION OF PNEUMOTHORAX AT AUTOPSY

- 16 gauge needle attached to 25 ml syringe filled with water
- Inserted through intercostal space into pleural cavity
- Air bubble will appear in the syringe
- Make pocket containing water in the side of chest after cutting skin along with muscle away from rib cage
- Inverted graduated glass cylinder is held over the water
- Small incision made on Intercostal space
- Gas bubble replace water in the cylinder
Thrombosis

- Open pulmonary artery before any other part of heart
  - Can be pulled out by making a longitudinal incision
- Exposure and transection of calf muscles
  - Longitudinal cutting of superficial skin
  - Transverse cut on muscles
  - Expose vein
- Junction between thrombus and vein wall provide most information about thrombus
ANTE MORTEM THROMBUS

- Transverse ridges
- Coiled upon itself
- Size of femoral veins
- Popping out as sausages from the transected vein

POSTMORTEM CLOTTING

- Smooth/shiny
- Yellow in color (chicken fat clot)
- Soft and red (currant jelly)
- Flabby
- Does not pop out
- Bends under the influence of gravity
Embolism

- Solid
- Liquid
- Air
Embolism

- Fat embolism
- Intrinsic fat embolism
- Extrinsic fat embolism

- Pulmonary fat embolism
- Systemic /arterial fat embolism
Pulmonary fat embolism

- Must open under water with pair of scissors before the heart and lungs
  - Squeezed out fluid from the lungs
- Stained for fat
  - Sudan III or osmic acid
• Systemic / arterial
  ➢ Punctate hemorrhages in the white matter of brain
  ➢ Diagnosis confirmed microscopic examination of frozen section of tissue stained
Air embolism

- Pulmonary /venous
- Systemic /arterial
POSTMORTEM ARTEFACTS

• Any change or alteration that has been added to the natural state of body by processing or handling likely to be misinterpreted at autopsy constitutes an artefacts. Such artefacts may be introduced before death, at the time of death or after the death.
• **Cause**

  - Postmortem phenomena
  - Interference by scavengers
  - Post mortem handling
Introduce during systemic death

• Therapeutic
Introduce during systemic death

• Agonal
Improper autopsy procedure
Introduce during postmortem period
Decomposition changes
Internal

• Pancreas
• Esophagus

• Acute pancreatitis

• Strangulation
• Neck fracture
• Stomach
  • Autolytic rupture
  • Gastromalacia

• Myocardium
  • Rigor
  • Dark discoloration of posterior part due to hypostasis

• Corrosive poisoning
  • Ragged, irregular margins

• Ulcer
  • Indurated, regular, punched out defect

• Left ventricular hypertrophy

• Infarction
• Liver
• Mesentery
POSTMORTEM ARTEFACTS DUE TO PREDATORS

• Ants
  - Abrasion
    • Position, margins, lack of bleeding

• Rats/rodent

• Fish
  - Incised wounds

• Vulture
  - Lacerated wound
POSTMORTEM BURNING
INDUCE DURING AUTOPSY
Exhumation

Disinterment of dead body for post-mortem examination (Re-examination)

Done upon orders of the Court by an authorized medical officer / a Medical Board designated by the Provincial Government
Exhumation Procedure