

**COMPLICATIONS AND DEATHS
FOLLOWING: TRANSFUSION OF
BLOOD, LIQUID AND THROMBO-
EMBOLISM**

**LECTURER: PROF. MWANDA O. W
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7.00AM – 8.00AM

Competences

At the end of the lecture the learner should be able to

- Describe what causes the complication and death following transfusion of blood , liquids and thromboembolism.
- Use the knowledge and skills in identifying these while undertaking forensic evaluation

Categorisation of complications

- **Mild**
- **Moderate**
- **Severe**

Commonly complications leading to death are due to severe forms

May occur immediately, delayed

Attributable to complications and death

- Occurs within 24 hr following occurrence
- Explainable on cause of complication or death

Physical

Metabolic

- Act on major body organ and system

Transfusion of blood

Causes due to

- Transfusion of mismatched blood products Red Cells.
- Group involved; ABO,

Majority are due to clerical error,

- Other groups in previously transfused, special circumstances

These are due to

- Immunological
- Physical
- Biochemical
- Sepsis

2. Massive blood transfusion

Resulting in

- Coagulation status
- Blood biochemistry
- Acid base balance
- Temperatures
- Homeostasis

In these mild complications: during or several days later.

- Allergic reactions hives and itching fevers.
- Post transfusion Purpura – moderate to severe thrombocytopenia.

Transfusion Related Deaths

- Transfusion related acute lung injury (TRALI).
- Haemolytic transfusion reactions (HTRs).
- Transfusion associated sepsis (TAS).
- Transfusion Associated Graft versus Host Disease (TA-GVHD).
- Transfusion transmitted infection (TTI).
- Anaphylaxis.
- Post transfusion purpura (PTA).

FLUIDS

Intra Venous fluids complications depend on.

- Speed and method of delivery.
- Hyper/hypotonic solutions.
- Mild Irritation, bacterial phlebitis.

Sever Associated with Hypervolemia

- Elderly.
- Children.
- Infants.
- Cardiac or pulmonary disease.
- Cerebral or renal disease/injury.
- Expectant women.

Features; Raised CVP, Distended neck veins

Pulmonary oedema, Cyanosis, Weight > 2kg 24 to 48 hours.

Other complications

- Extravasations fluids into the tissues
- Vein injury.
- Tamponade
- Too large cannula.
- Cannula dislodgment during insertion.
- Inadequate securement of cannula.
- Constriction of the vein above infusion.
- Air Embolism.

Allergic reaction/Anaphylaxis

Complications and systems involved.

- Skin – urticarial.
- Respiratory bronchospasm.
- Oedema.
- Cardiovascular
 - Low BP
 - Shock
 - Tachycardia

Cellulitis

- Erythema, pain, tenderness, swelling.
- Infection.
- Redness.
- Swelling.
- Skin discolorations.
- Purulent discharge.
- Pain.

THROMBOEMBOLISM

Formation in blood vessel of a thrombus that breaks loose and is carried by blood stream.

- Vessel ; to lung Pulmonary embolism, brain (stroke) .
- Abrupt onset of signs and symptoms.
- Loss of consciousness .
- Seizures.
- Collapse.
- Death.

Others

Chemo port

Description:

- Port: Plastic or metal with a self sealing cover top.
- Single or double lumen.
- Non – covering needle put through skin and into port.

- One of central veins access Devices.
- Port attached to a catheter that enters a large vein.
- Port receive long term intravenous medicine or treatments.
- Chemotherapy
- Antibiotics.
- Total parenteral nutrition

- Failure to adhere to written instructions on caring for Central line
- Non covering needle
- Tubing
- Bandage
- Tap.

Question time