Nurses’ Educational Session: Getting Started in TPN

Management and Complications

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Management and Complications of Vascular Access Devices

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Thrombosis - phlebitis - occlusion - infections
Thrombosis - prevention

- small device
- large straight vein
- tip in lower SVC
- expert practitioner
- ? 1mg warfarin
Thrombosis

• Detection
  – Oedema
  – collateral veins
  – darkening skin

• Treatment
  – removal + anticoagulant
  OR
  – anticoagulant via line
Infection - prevention

Skin exit site
- Handwashing
- Strict non-touch technique
- Aseptic technique
- Clean dry dressing

Septicaemia
- Type of line
- Education / training
- Minimise manipulations
- Self care
- Cleansing solutions
- EPIC Guidelines
- Insertion technique
Phlebitis - prevention

Cannula, midline

- choice of vein, device and position
- heat
- anchoring
- osmolarity and pH
- site rotation

PICC

- heat
Phlebitis - treatment

**Cannula**
- remove device

**PICC**
- heat
- minimise arm movement
- infuse warm fluids
- anti-inflammatory creams
- heat / ice alternating
- remove device
Occlusion - prevention

- Flush technique
- Heparinised saline flush
- Valved catheter
- Positive pressure bungs

*Push-pause*

- Turbulent flow removes intraluminal debris

*Positive pressure*

- Prevents backflow of blood up catheter
Occlusion - treatment

- **Lipid**
  Ethyl alcohol
  1% normal solution of sodium hydroxide
- **Blood**
  5000u urokinase in 2mls
- tPA
- **DO NOT** use smaller than a 10ml syringe
Conclusion

- *Prevent* complications if at all possible
- *Detect* complications early
- *Treat* complications immediately

No references provided by the author(s)