



ESPEN Congress Glasgow 2002

**Nurses' Educational Session: Getting Started in
TPN**

Management and Complications
Sarah Drewett

Management and Complications of Vascular Access Devices

Sarah Drewett RGN, CMS,
BSc(Hons)

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

- DO NOT use smaller
than a 10ml syringe

- Blood

5000u urokinase in
2mls

- tPA

Conclusion

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