



# ESPEN Congress Glasgow 2002

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

**Which Device for which Patient?**

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Which Device for Which Patient?

PICC - Hickman - Broviac - Venous port

# Clinical Assessment Prior to VAD

## Placement (Hamilton & Fermo 1998)

- General clinical stability of patient
- Cardiovascular stability
- Respiratory function
- Neurological status
- Renal function
- Immune status

*All issues potentially can influence the venous site, the size and type of device*

# Clinical Assessment continued

(Hamilton & Fermo 1998)

- Current fluid status – overload or dehydration ?
- Haematological status
- Infection risks to proposed vascular access e.g. tracheostomy, stoma, open wound, abdominal drains
- Complications associated with previous venous access ( thrombosis and stenosis)
- Excessive diaphoresis / cause
- Current medications

# Assessment of Venous Anatomy

- Careful examination of potential venous sites
- Size of proposed vessel (essential in cannulae and PICC placement)
- Evidence of thrombosis involving great vessels ?
- Evidence of infection particularly involving venous system ?
- Location of vein
- Other VADs in situ
- Relevant VAD history/ associated complications

# Issues to Consider When Selecting a VAD for Hospital

- Consider the safest method of VAD insertion for current patient condition
- Consider experience of operator
- Select the smallest diameter for proposed VAD
- Patient mobility and comfort
- Education necessary for users of device?
- Consider the potential for additional IV agents plus PN
- Phlebotomy access

# Types of VADs Suitable for Hospital

- Peripheral cannulae – 72 hours, or remove at first sign of phlebitis
- Non-tunnelled VAD – 5-10 days maximum if antibiotic coated (Chlorhexidine + Sulphadiazine)
- Midline – maximum 14 days
- PICC – 7 days > long term
- Hickman or Broviac catheter – 4 weeks > long term
- Subcutaneous port – long term

# Issues to Consider When Selecting a VAD for Home Use

- Duration of proposed therapy, potential restrictions
- Patient lifestyle – working environment
- Infection risks – stomas, pets
- Needle phobia – a port may therefore not be ideal
- Cosmetic issues – position of VAD and scarring on removal
- Ease of access, if self caring
- Security, reliability of device and risk of displacement
- Consider size of VAD, small– to avoid thrombosis/ stenosis

# VADs Suitable for Home

- Small PICC (3 or 4fg)– depending on venous size and preferably placed in non dominant arm, reducing risk of phlebitis
- Small Hickman or Broviac catheter (7fg) tunnelled, cuffed – preferably placed in RIJ or RSCV, reducing risk of thrombosis (Hamilton 2002)
- Small subcutaneous port – reducing risk of thrombosis and stenosis

# Summary

- **Assess** patient's condition
- **Assess** IV requirements, short and long term
- **Assess** duration of therapy
- **Assess** whether home or hospital
- **Assess** risks
- **Assess** which VAD meets patient's needs!