

PORTS

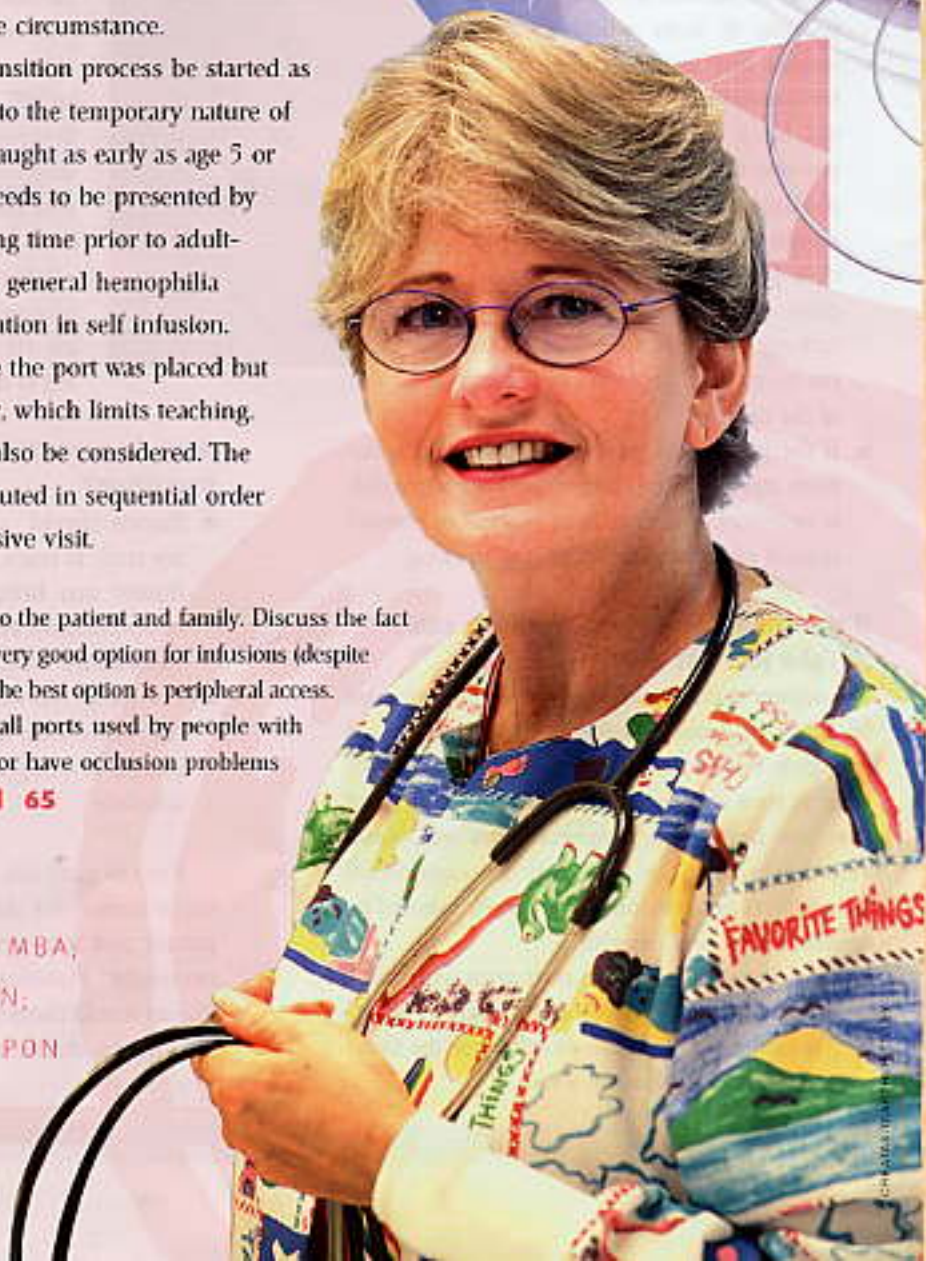
A Nurse's Guide

The following guidelines have been developed for nurses working in a hemophilia treatment center to assist in the transition from a central venous access device (CVAD) to peripheral venous access. They are intended to help make the transition from CVAD to peripheral access easier for the patient and parent and should be individualized for each patient and each separate circumstance.

It is recommended that the transition process be started as soon as the CVAD is placed, due to the temporary nature of the device. Self infusion can be taught as early as age 5 or 6. Most definitely, this concept needs to be presented by age 10 to ensure adequate learning time prior to adulthood. These figures are based on general hemophilia nurse experience of patient education in self infusion. Education can start from the time the port was placed but often a port is placed in a toddler, which limits teaching. Parent and child readiness must also be considered. The following guidelines can be instituted in sequential order and/or as part of the comprehensive visit.

- 1 Communicate the risks of ports to the patient and family. Discuss the fact that at an early age the port may be a very good option for infusions (despite the risk), but as the patient gets older the best option is peripheral access. Recent studies suggest that 33% of all ports used by people with hemophilia become infected¹³ and/or have occlusion problems or clots in the veins.¹⁴ ▶▶ TO | 65

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2 Assess the feasibility of transition to peripheral access at each annual visit. Do not wait until the CVAD /port stops functioning to begin the process.

3 During annual visits, the following items should be addressed:


- Discuss the life of a CVAD in order to prepare the child and family that it won't last forever.
- Use a tourniquet to identify new veins that may be potential peripheral sites.
- Discuss the simplicity of peripheral access in contrast to the complexity of the sterile access needed for a CVAD.
- Give the child an exercise ball to squeeze to enhance veins. Exercise balls can also be purchased at a sporting good store, which may be an incentive for some children.

4 Once the child has good peripheral veins, draw blood specimens from the arm in the traditional method. This not only provides better specimens, it normalizes intravenous sticks to the child (this can be started at a young age).

5 When you start teaching the patient the preparation steps for mixing factor, focus on how to access peripheral veins rather than teaching him to use his port. His veins will mature in time for this to be feasible.

6 Consider infusing via a peripheral vein at camp or during supervised focus groups, instead of using the child's port. The child can even learn self-infusion at camp, when the other children are learning also. Peer-pressure and support of medical staff will be added advantages in this setting.

7 If possible, introduce the child to a self-infusing teenager who will demonstrate the technique and discuss some helpful hints. This can be done at camp or clinic.

8 If the parent/caregiver does not know how to infuse peripherally, instruction will be necessary (for back-up purposes). 

REFERENCES

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3. Van Berg, H.M., Fischer, K., Roosendaal, G., Mauser-Bunschoten, E.P. The use of the Port-a-Cath in children with haemophilia—a review. *Haemophilia*. 1998;4: 418-20.
4. Balestrieri, L., DeCicco M., Malovic, M., Coran, F., Morassut, S. Central venous catheter-related thrombosis in clinically asymptomatic oncologic patients. *European Journal of Radiology*. 1995;20(2):108-11.
5. Krzywda, E. Predisposing Factors, Prevention, and Management of Central Venous Catheter Occlusions. *Journal of IV Nursing*. 1999;22(Supp. 6):11.
6. Journeycake JA, Quinn CT, Miller KL, Zajac JL, Buchanan GR. Catheter-related deep venous thrombosis in children with hemophilia. *Blood*. 2001 Volume 98, Number 6, pp.1727-1731.

RESOURCES

1. Baxter Hyland Immuno's "Infusing Your Child at Home- A Parent's Toolkit"
2. Baxter Hyland Immuno's " Self Infusion- A Do It Yourself Kit"
3. Baxter Hyland Immuno's "Factor Station Mat"
4. Armour's video- "Self-Infusion - Gateway to Independence"
5. American Red Cross video- "Treat Yourself to a Brighter Future- Self-Infusion for Hemophilia Care"

