

Introduction

- For home hemodialysis (HHD) patients, self-cannulation empowers patients to take control of their own care.¹
- Self-cannulation promotes independence, reduces access infections, and may help preserve the vascular access.^{2,3}
- Fear of self-cannulation can present a significant barrier to HHD.^{4,5}

Objective

The objective of this study was to identify factors that contribute to patient success with self-cannulation.

Methods

- Short surveys were administered to HHD nurses and HHD patients at a large dialysis organization in the US.
- The surveys posed a series of questions about experience with HHD and self-cannulation.
- Survey answers were collated to identify common themes.

Results

Nurse Survey Results

How do you handle training for a patient with a new fistula?

Common Themes:

- Teach the basics of aseptic technique, thorough assessment of the access.
- Initiate cannulation with smallest (17g) needles.
- Use of touch cannulation allows the patient to feel and visualize the correct position when placing fistula needles.

How do you handle training for a patient with a mature fistula?

Common Themes:

- Nurse should cannulate initially (~3 treatments), but it is very important for the patient to start cannulating early (day 4) to develop the skill.
- There may be a benefit to obtaining a fistulagram or surgical diagram of the vascular access to assist the nurse with the best site selection for needle placement.

Do you teach buttonhole? If yes, does the patient create the site?

Common Themes:

- Many patients prefer to use the buttonhole technique.
- It is important to train patients to use sharps in case of future need.
- There is variation in whether the nurse or patient creates the site.

How does the patient sit during training?

Common Themes:

- It is important that the patient learns to cannulate in the same position they will ultimately be using at home.
- Patients are most successful sitting in a straight back chair at a table during training.
- Access arm should be stabilized by resting on the chair arm or a small table.

Do you train both patient and care partner how to cannulate?

Common Themes:

- This depends on the physical ability of the patient.
- It is preferable for the patient to cannulate because they can feel proper placement more easily than a care partner.
- If time allows, training the care partner can be helpful to better assist the patient if needed.

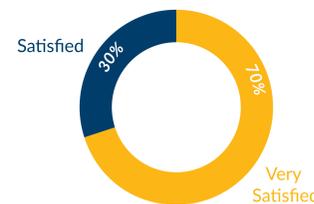
What are the most successful training tools you have used?

Common Themes:

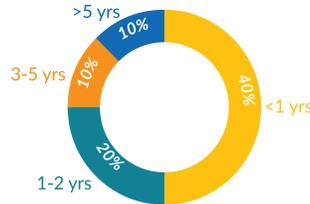
- Use a model for the patient to practice with:
 - An orange
 - Pool noodle
 - Mannequin arm
 - Blood pump tubing segment taped to a saline bag
- Be flexible, adapt your teaching technique to the patient learning style.

Patient Survey Results

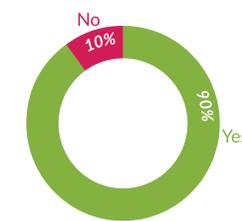
How do you feel about inserting your own needles?



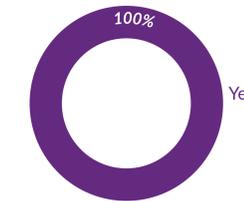
How long have you been inserting your own needles?



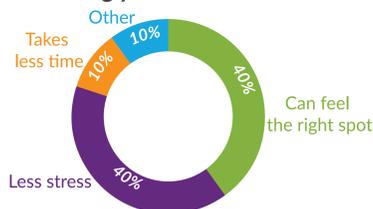
Do you use buttonholes?



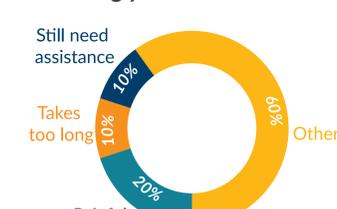
Do you feel adequately trained to insert your own needles?



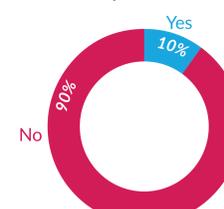
What is the best thing about inserting your own needles?



What is the worst thing about inserting your own needles?

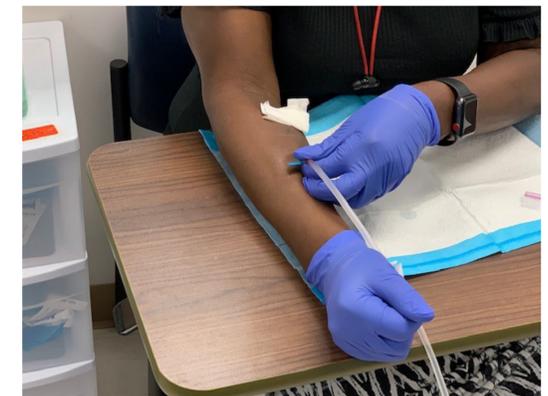


Have you ever had an access infection?



Conclusions

- Overcoming the fear of self-cannulation is critical to a patient succeeding on HHD.
- In our experience, successful self-cannulation training requires flexibility and creativity.
 - Training should be tailored to the patient's home environment, physical ability, and learning style.



Self-Cannulation Training is a Team Effort!

References

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