

Collecting and utilising data, to setting standards for vascular access longevity

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Introduction

Patients requiring long-term haemodialysis therapy depend on a sustainable and trouble free vascular access. The three basic kinds of vascular accesses for chronic haemodialysis are an Arteriovenous Fistula (AVF), an Arteriovenous Graft (AVG), and a central venous catheter. AVF is considered the best long-term vascular access for haemodialysis because it provides adequate blood flow, lasts a long time with proper care, and has lower complication rates than AVGs or catheters. AVF is the recommended [1] and the most frequently used vascular access in chronic haemodialysis patients [2]. Even in the USA with their historically high rate of patients on catheters and AVGs we saw a renaissance towards AVF in recent years [3] which could be partly regarded a success of the Fistula First Breakthrough Initiative.

Objectives

Vascular access (VA) problems such as low blood flow rates and loss of patency are frequently noted in dialysis units.

These issues can reduce dialysis adequacy and frequent hospitalisations.

Being proactive in preventing vascular access complications, by monitoring and surveillance, thus leading to VA longevity.

Methods

To record and report a vascular access assessment data for each patient, for every treatment (Fig.1), in a clinical database (EuClid).

Head-nurses needed to be strongly committed and should motivate their personnel at intervals over the course of the days to increase the data collection adherence.

Results

Data was extracted for 18,164 patients having AVF, from 1,617,874 treatments performed.

Cannulation technique distribution was as follows: rope-ladder 55.8%, area 27.9% and buttonhole 16.3% of patients (Fig.1).

Thrill was reported as clear for 99.0% of the treatments, dull for 0.9% and absent for 0.1% (Fig.3).

Pulse was reported as normal for 98.3% of the treatments, hyperpulsation for 0.9%, hypopulsation for 1.3% and absent for 0.1% (Fig.3).

Conclusion

Vascular access data collection offers many advantages for the patient, the health care professionals and the organisation.

During the nurses' training, special effort should be made to teach the correct clinical procedure and the importance of data collection which lies at its core.

Data integrity is essential to prevent the patients' care plan from resting on a fragile footing.



Figure 1: Vascular Access management and data collection

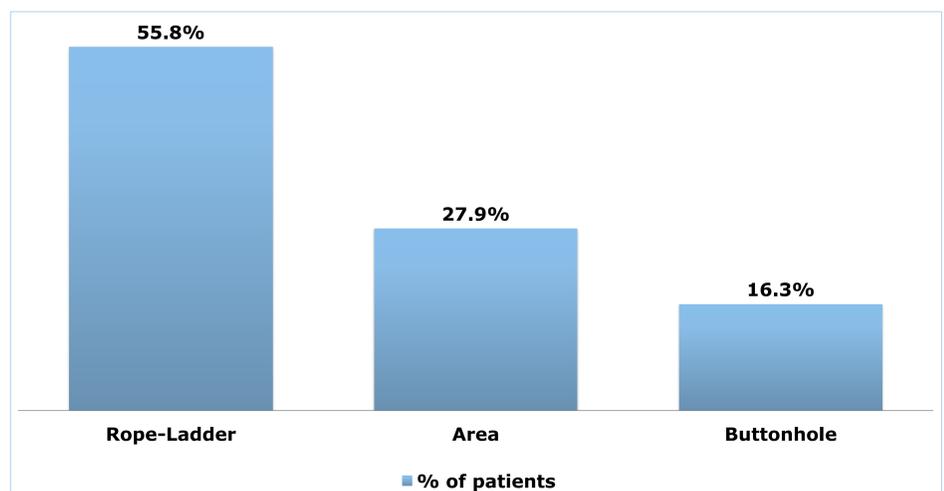


Figure 2: Cannulation technique distribution

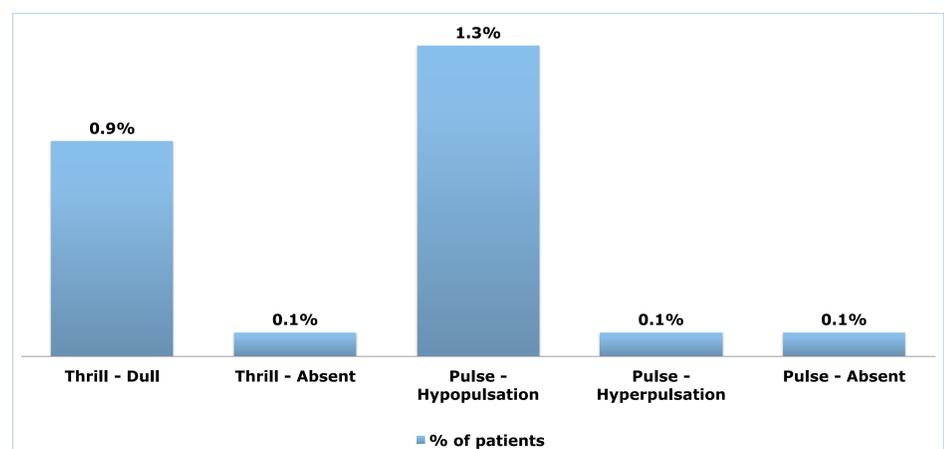


Figure 3: Arteriovenous fistula patency problems reported

References

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