

Guiding Best Practice I:

Routine use of Ultrasound in hemodialysis is important to optimize health, function, and longevity of the AV fistula/graft

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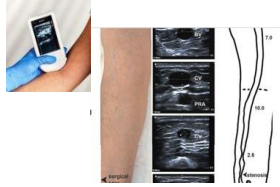
INTRODUCTION

Routine use of point of care ultrasound is gaining significant interest in the dialysis community...

AIM

- Visualizing the location of the AV/G/F
- Successful cannulation of the AV/G/F
- Develop Cannulation Plans for each patient
- Limiting or preventing damage and complications with cannulation
- Prolong the active lifetime of the vascular access
- Best manage development of the NEW FISTULA
- Obtaining sufficient access to the blood, which is essential for dialysis

ROUTINE ULTRASOUND EXAMINATION



HOW DOES ULTRASOUND WORK?

- Sound waves are emitted from the probe
- The waves strike surfaces and are echoed back to the probe
- The reflected waves are picked up by the probe and displayed on the ultrasound screen.
- Depending on the structure density the images will vary from black, grey or white

Industry training and support

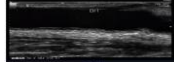
Superusers to support the use of ultrasound

Training and competencies: basic, intermediate and advanced levels

Mentorship programs

Expanded Nephrology Curriculum to include the use of ultrasound for routine vascular access surveillance, pre-dialysis evaluation, US guided cannulation and troubleshooting.

Ultrasound helps to establish Button Hole Tunnels Effectively



ROUTINE TROUBLESHOOTING



ULTRASOUND HELPS NURSE DETERMINE:
Which needle to use:
length/gauge/dialysis catheter or steel



INFECTION CONTROL:
Bacterial contamination of ultrasound (US) transducers is significantly higher than contamination of public toilet seats and bus poles.

Westerway, S. C., & Bassel, J. M., (2017). The ultrasound unit and infection control – Are we on the right track?, *Ultrasound*, Vol 24(1), 53-57

ULTRASOUND GEL MANAGEMENT :



RECOMMENDATIONS:

All access should be examined by the nurse with ultrasound prior to first cannulation

Access should be scanned before cannulation particularly if there were problems with cannulation the previous treatment

If an infiltration occurs during cannulation, the access should be scanned. To ensure that the infiltration has been contained before the patient is discharged home.

Follow best practice for cleaning , infection control and management of ultrasound devices

Individualize cannulation plan for every patient to optimally develop each fistula for long term use

CONTACT INFORMATION

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