Publication Brief

Comparison of Different Methods to Assess Fistula Flow

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OBJECTIVE:
The purpose of the study was to evaluate three access flow (AF) monitoring techniques: blood dilution using ultrasound (US), blood temperature monitoring (BTM), and online clearance monitoring (OCM).

STUDY:
We compared three access flow (AF) monitoring techniques:
• Blood dilution using ultrasound (US),
• Blood temperature monitoring (BTM), and
• Online clearance monitoring (OCM)
Also, the impact of dialyzer blood flow (QB) measurement point time and patient’s position was investigated.
• 20 patients at QB 200 mL/min..
• US and BTM measurements were repeated in 10 patients at QB 200 mL/min: in 15 patients at the first weekly HD start and end and at the midweek HD start, and switching position during mid-week.

RESULTS:
• US and BTM measurements of access flows of 1,104 ± 607 mL/min (US) versus 1,264 ± 664 mL/min (BTM).
• Online clearance monitoring (OCM) was unreliable for measuring AF and was therefore further omitted.

STUDY’S CONCLUSIONS:
Access flows measured by BTM and US correlated well and may be measured at QB200-300 mL/min in all measured positions.

Reference: