

Nursing approach to the use of Buttonhole and Rope Ladder cannulation of arteriovenous fistulas, based on a survey in Nigeria

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Introduction: Kidney patients on haemodialysis (HD) rely on vascular access for effective regular treatment. Once an arteriovenous (AV) fistula has been surgically created and is mature and ready for pre-treatment cannulation within a few weeks, the fistula can be used for HD using buttonhole (BH) or rope ladder (RL) cannulation techniques.

Objective: The main objective was to see the results of the BH technique compared to RL cannulation in reducing complication rates. We investigated the nursing aspects of two different cannulation techniques and examined the results of cannulation on the AV fistula and analyzed their impact on outcome.

Material and method: A self-developed questionnaire was used to collect the data. Data were obtained at the Rivon dialysis centre in Port Harcourt, Nigeria, with 50 HD patients and 10 HD nurses.

Results: Patients in the BH group reported better outcomes and lower complication rates than patients in the RL group. Patients in the RL group experienced higher pain during haemodialysis treatment. Patients in the BH group reported higher levels of satisfaction. Nigerian HD nurses tended to have higher levels of satisfaction and confidence than nurses using the RL cannulation technique than those using BH.

Conclusions: It can be concluded that the BH site cannulation technique is better in HD patients. HD nurses using the BH technique did not have the right skills and would need proper training.

Keywords: Buttonhole cannulation technique, Rope Ladder cannulation technique, haemodialysis (HD), arteriovenous fistula (AVF), nursing