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**Risk of blood loss due to incorrect rinseback procedure on discontinuing haemodialysis**

One hospital has reported a near-miss incident, where a home haemodialysis (HD) patient connected the venous line (instead of the arterial line) to the infusion bag to commence the rinseback procedure and lost blood into the infusion bag. Whilst in this instance, this was noted immediately and blood loss stopped, excess blood loss could have occurred if not identified immediately.

In July 2012 RA/BRS Patient Safety have previously hi-lighted this as a risk with any haemodialysis treatments. Case studies resulting in 2 patient deaths have been published: Allcock K., Jagannathan B., Hood C.J. and Marshall M.R. (2012) ‘Exsanguination of a home haemodialysis patient as a result of misconnected blood-lines during the washback procedure: A Case Report’ *BMC Nephrology* 13:28

Concerns over this risk continue. In particular, confusion might occur when reversing lines on Central Venous Catheters (CVC), where the arterial HD blood line is connected to the venous lumen of the CVC and is applicable to both home HD and in-centre HD.

**Action**

We advise that all renal units review their rinseback procedure for both in-centre and home haemodialysis patients. The risk of blood loss due to the connection of the venous line to the infusion bag should be minimised within the procedure and measures put in place to ensure early detection of the error.

Some suggested procedural measures to minimise the risk include:

- The rinseback procedure should always be observed by the person completing the procedure, so that blood loss into the infusion bag can be detected and corrected promptly.
- All persons undertaking the rinseback procedure should be made aware of the risk of this error and informed of what action to take should it occur.
- We also recommend that all persons trained in the use CVCs for extracorporeal therapies should have an awareness of the risk of this error, especially when reversing the lumens on the CVC.
- Where available, online rinseback procedures should be used and infusion bags only used if the online rinseback is unavailable due to lack of machine functionality or machine alarm.
- If required, the infusion bag in place for the rinseback should be of the minimum volume required (normally 500mls) and be full.
- Where available within dialysis consumables, a one way valve should be in place between the infusion bag and blood line to prevent the return of blood into the infusion bag.
- Where available, the rinseback volume on the machine should be limited to minimal volume required for adequate washback, prompting the blood pump to stop automatically once this volume has been administered.

We would welcome reports from renal units about any other similar incidents have occurred and any further measures that have been implemented to prevent this error occurring or leading to early detection.

**Please submit comments, solutions, and personal experience to:**
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