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The Tragedy of Venous Needle Dislodgement: How to Minimize the Risks

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Although haemodialysis (HD) has become a routine treatment, adverse side effects and even life threatening complications still occur. Venous needle dislodgement (VND) is one of the most serious accidents that can happen during HD. Dialysis staff should be aware that the venous pressure alarm may not function because the small drop in venous pressure that occurs when the venous needle is withdrawn from the access is often too small to activate the protective system.

The incidence of VND is not known with certainty due to lack of systematic reporting. Nevertheless, S. Sandroni estimates 136 fatal VND incidents per year in the USA.

A project group of the European Dialysis and Transplant Nurses Association/European Renal Care Association was established in 2007 to produce educational materials on VND. A poster with 12 recommendations how to minimize the risks of VND was distributed to the EDTNA/ERCA members.

We focussed especially on the taping technique, the visibility of the access and the importance of regular checks of the access by dialysis staff.

One of the recommendations was to assess each patient for the risk of VND. Therefore, the project group got back together this year to develop a simple tool to allow staff to identify patients at risk of a serious VND accident.

The tool calculates the overall risk from the likelihood of staff failing to observe an actual VND, the likelihood of the patient himself failing to raise the alarm, the likelihood of the patient acting in a way that may dislodge the needle and the likelihood of the taping failing to ensure that the needle is secure.

In conclusion, minimizing the risks of VND requires a combination of human skills, vigilance and technology. Effective education, secure taping, regular monitoring, visibility of the access and the use of an assessment tool may reduce the risks of VND significantly.

The assessment tool allows staff to identify the highest risk patients for whom devices intended to detect blood loss to the environment can be used to ensure that an alarm is raised if VND occurs.

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