B BRAUN
SHARING EXPERTISE

VND – A COMMON ADVERSE OCCURRENCE?

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Introduction:

- As we all know, HD has become one of standard treatment methods of our patients. However, it can still threaten their lives or health through such serious complications as VND which should **never** take place.
- Using BBraun Avitum Poland Adverse Patient Occurrence reports we keep a record of such unwanted incidents to analyse their causes and undertake future precautions.
- Until we started reporting adverse occurrences I thought VNDs were a rare incident. I was wrong.
- This is what we found out after a year's observation.

Objectives:

- To analyse 1,500 patients and 229,500 treatments conducted in 19 DCs within 12 months in which 25 VNDs were reported

Method:

- The study of Adverse Patient Occurrence reports of VNDs at the DCs and a detailed analysis of the causes of such events. They gave us an insight into the frequency of VNDs.
- We analysed: Who noticed the VND? nurse, patient, someone else?, How big was the blood loss?, Which hour of HD did the VND occur? , What needle was used? arterial, venous or SN?, What taping technique was used?, What were the blood lines attached to? patient's clothing, bed sheets, bed/chair?, How did the patient react?, Was HD continued or terminated?, Was hospitalization necessary?

What were the most common causes of VNDs?

- From staff:
- insufficient patient supervision – too many patients with high VND risk and too few staff members,
- not following the procedures and instructions on needle and lines safety taping,
- wrong patient placement in dialysis room – not taking VND risk into account,
- insufficient knowledge of VND risk.
- From patients:
- no co-operation (patients with cognitive disorders),
- insufficient knowledge of VND risk,
- not following staff instructions.
- From materials and equipment:
- adhesive tapes, eg. too short, not sticking or too sticky
- no secure bloodlines and assurance of Access Visibility, which we most constantly remind our patients of

Results:

- All VNDs were quickly discovered preventing adverse effects to the patients. 23 VNDs were observed by a nurse and 2 were reported by a patient. Blood loss was from 0 to 200ml. The occurrences were: 17 VNDs, 5 ANDs, 2 SNDs and 1 AVND.
- Needle dislodgments occur most often in the second part of dialysis, are usually caused by patients changing position and patients with cognitive disorders, who are agitated and disorientated, are threatened the most.
- Thus constant patient and staff training on VND risk, prevention and effects was necessary. It included vascular access observation, reporting unsticking tapes, dislodging needles or too taut blood lines.
- Nurses responsible for VND risk assessment and additional patient and staff training have been appointed. VND risk assessment is done once a year for every patient and after an occurrence, esp. if a patient shows higher VND risk, eg. through progressive senile dementia.

Conclusions:

- in the last or one-but- last hour of treatment patients show signs of tiredness due to constant position in the dialysis chair/bed, they try to change position and forget about the needles, complications such as cramps or hypotonia usually occur in the last hour of treatment
- VNDs at the beginning of HD were usually caused by the patients' senile dementia
- staff inability to observe all patients because other HDs are in progress. We have introduced: patient rearrangement plan in dialysis room – high VND risk patients to be placed under closer staff observation for quicker reaction
- repeated training for both patients and staff to follow procedures and proper safety needle taping, not cover vascular access site
- we monitor every patient's AVF hourly and patients' with high VND risk every 30 minutes or more often
- all these actions led to VND reduction but constant training is necessary

Thanks to this changes we have reduced VND this year. At present we have reduced VNDs to 1 incident a month and still work with both staff and patients

THANK YOU FOR YOUR ATTENTION