

HOME PARENTERAL NUTRITION (SwissHPN-II study):

The design of a follow-on investigation with emphasis on the evaluation of catheter-related complications, on patients' and physicians' questionnaires and on the ethics committee submission

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Abstract

Background: Home parenteral nutrition (HPN) is a long-term treatment, where an artificial nutrition with intravenous administration of nutrients and water is administered to patients, who are not able to meet their nutritional requirements by the oral and/or enteral route, in a home setting. It concerns only a few patients in Switzerland. A first nationwide study (SwissHPN) took place in 2013/2014. Now a follow-on study (SwissHPN-II) will be conducted. For HPN, a central venous access device (VAD) is necessary. Complications with the catheter and their prevention are important in this population. One of the most common problems is the catheter-related infection (CRI). Further catheter-related complications (CRC) exist.

Aim: A focus of the thesis was the evaluation of the CRC. The follow-on research project "SwissHPN-II study" of the University Hospital of Bern requires an ethical approval from the responsible ethics committee. In the framework of the master thesis, the definition of the questionnaires and their pretesting in interviews for the study were committed; further on, the submission of the study protocol to the ethics committee was performed. Additionally, a collaboration with the international study of the HAN&CIF special interest group of the European Society for Clinical Nutrition and Metabolism (ESPEN) was operated.

Methods: An extensive literature search on CRC was undertaken. The establishment of the questionnaires and the study protocol were processed according to the searched literature and with the help of diverse expert rounds. A proof of concept of the questionnaires in form of a pilot study was conducted in selected interviews. For the "March 1st – CIF Action Day" the current HPN patients of the University Hospital of Bern were assessed by a given structured database.

Results: The final version of the questionnaires and of the study protocol is the result of an intensive confrontation and reflection with all the challenges and problems together with multiple professionals. A total of five patients and five physicians were included in the pilot study. The most frequent CRC were infections.

Conclusion: HPN was a new topic for a beginner pharmacist and a most important learning experience. It was a first approach to see the different HPN patient characteristics, such as underlying disease, therapy indications and the living situation. With the help of a multi-professional team, it became possible to create the study protocol of the SwissHPN-II study as well as useful questionnaires to get a maximum of structured information for Swiss HPN characterization and evaluation. In the pilot study, it became clear that, although more mentally than physically, good quality of life is possible and that CRI are frequent. CRC, especially infections, are important and can be prevented. Therefore, the knowledge in care and handling of the catheter is crucial and remains by far the best prevention and guarantee for a successful treatment of CRC.

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