

The Current Home Hemodialysis Practices and Patients' Safety Related Factors: A Case Study from Germany

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Abstract : The increasing costs of healthcare on one hand, and the rise in aging population and associated chronic disease, on the other hand, are putting increasing burden on the current health care system in many Western countries. For instance, chronic kidney disease (CKD) is a common disease and in Europe, the cost of renal replacement therapy (RRT) is very significant to the total health care cost. However, the recent advancement in healthcare technology, provide the opportunity to treat patients at home in their own comfort. It is evident that home healthcare offers numerous advantages apparently, low costs and high patients' quality of life. Despite these advantages, the intake of home hemodialysis (HHD) therapy is still low in particular in Germany. Many factors are accounted for the low number of HHD intake. However, this paper is focusing on patients' safety-related factors of current HHD practices in Germany. The aim of this paper is to analyze the current HHD practices in Germany and to identify risks related factors if any exist. A case study has been conducted in a dialysis center which consists of four dialysis centers in the south of Germany. In total, these dialysis centers have 350 chronic dialysis patients, of which, four patients are on HHD. The centers have 126 staff which includes six nephrologists and 120 other staff i.e. nurses and administration. The results of the study revealed several risk-related factors. Most importantly, these centers do not offer allied health services at the pre-dialysis stage, the HHD training did not have an established curriculum; however, they have just recently developed the first version. Only a soft copy of the machine manual is offered to patients. Surprisingly, the management was not aware of any standard available for home assessment and installation. The home assessment is done by a third party (i.e. the machines and equipment provider) and they may not consider the hygienic quality of the patient's home. The type of machine provided to patients at home is similar to the one in the center. The model may not be suitable at home because of its size and complexity. Even though portable hemodialysis machines, which are specially designed for home use, are available in the market such as the NxStage series. Besides the type of machine, no assistance is offered for space management at home in particular for placing the machine. Moreover, the centers do not offer remote assistance to patients and their carer at home. However, telephonic assistance is available. Furthermore, no alternative is offered if a carer is not available. In addition, the centers are lacking medical staff including nephrologists and renal nurses.

Keywords : home hemodialysis, home hemodialysis practices, patients' related risks in the current home hemodialysis practices, patient safety in home hemodialysis

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