Coping with new technology – nursing familiarization with Berlin Heart EXCOR®

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Introduction
Long-term mechanical circulatory support is increasingly used in paediatric patients as bridge to transplant/recovery or candidacy. The aim of the present study was to evaluate the nursing workload imposed on the paediatric cardiac ICU and paediatric cardiology ward during first-time use of a para-corporal left ventricular assist device and to describe the process of familiarization with the system.

Methods
Berlin Heart EXCOR® was used as bridge to transplant in a 19 months old girl with end stage heart failure due to dilated cardiomyopathy until a successful heart transplantation 4 months later. The child spent 124 days in the ICU/cardiology unit while on the device. A questionnaire survey was filled out by the staff nurses (N=14) covering the following topics: familiarization with Berlin Heart EXCOR®, wound care, physiotherapy and occupational therapy.

Results
The results show how staff nurses were coping with new technology. Newly acquired knowledge was used almost immediately. The results are valuable to focus future education of the nursing staff and further improve nursing care. The process of training nurses for paediatric patients undergoing therapy with the Berlin Heart EXCOR® including photography and video records will be presented.

Conclusions
Long-term mechanical circulatory support by a para-corporal device imposes an additional workload on nursing staff as well as need for training which can be accomplished in a structured and straightforward way.