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„Optimization of patient logistics“

Abstract

High division of work, demands of quality, cost pressure and rising competitive atmosphere in the hospital environment lead to the need to improve the management of cross-sectional processes in hospital care. The 90 percent shift of structural organization to process organization in hospital management calls for optimized clinical and non-clinical patient logistics. The medical performance in hospital care is mainly influenced by the resources itself and the target oriented management of clinical and non-clinical pathways. Therefore it is necessary to reduce complexity and improve information transparency along the hospital transformation process. Patient logistics in hospital are all conducted and non-conducted movements of outpatient as well as in-patient hospital accommodation (e.g. waiting room, sick room, bedside).

Patient logistics are determinate on the one hand by the individual behaviour of patients and health professionals, on the other hand by the partly nondeterministic occurrence of emergencies, waiting periods, delays and cancellations at any time. Also there is the challenge to bring the needed resources (e.g. health professional, patient, examination room, diagnostic or therapeutic equipment) for the individual medical service in time together. Another important and service relevant factor is the communication towards the patient as well as between different departments and actors. The implementation of optimizing strategies depends on actual and reliable shared information between the involved players. Therefore the lack of needed timely updated information, IT-supported centralized scheduling and resource allocation has to be reduced. The research project “Optimizing patient logistics supported by smart-objects in health care (Olog-PAT)” focuses on optimizing the clinical and non-clinical pathways as well as the utilization of resources by using organizational and technical improvements supported by conditioned algorithms. An optional achievement of the research project is a technical device that equipped the patient with PDA or wristband for short-range track and tracing plus individual information and scheduling.

The goal of the presentation is to introduce the research project Olog-PAT and to discuss characterization and requirements of agile patient-oriented processes as well as options to improve patient logistics through organizational changes and technical enhancement supported by conditioned algorithms.