

Abstract

Background: To guarantee comprehensive stroke care in stroke networks, hospitals that do not provide thrombectomy (primary hospitals) collaborate with specialized hospitals (secondary hospitals). Primary clinics are frequently supported with Teleneurologic services by the secondary clinic. In hospitals with different levels of care large variations in treatment quality may occur. Explanations for this are different intra-clinical processes. In order to improve the quality of care in primary hospitals, it is necessary to understand the processes of the stroke care pathway in these facilities.

Research question: What are the pathways of acute stroke care in different primary hospitals and what are the advantages and disadvantages of these pathways?

Methods: A qualitative multicenter study was carried out in three different primary hospitals of a stroke network in the Rhine-Neckar region. Within non-participating observations, stroke care was observed from the patients' arrival in the emergency room until in-patient admission. In addition, 15 semi-structured interviews were conducted with employees of various professions (neurologists, internists, nursing staff, therapists, Emergency Medical Services members). Independent data analysis was performed by two researchers using the analysis software MAXQDA.

Results: The major differences as well as advantages and disadvantages were: The pre-notification of a stroke patient in the primary hospital, the coverage times of acute care by (tele-)neurologists, the processes of tele-neurology, the cooperation with the Emergency Medical Services (EMS) members in case of transfers to the secondary hospital and the cooperation with external neurologists in the context of inpatient treatment.

Conclusion: The following recommendations were developed: The primary clinics should evaluate whether (1) a structured and personal pre-notification of the patient leads to a better acute medical preparation; (2) a more efficient teleneurology process leads to a reduced workload; (4) a coordination between physician and EMS members leads to a faster secondary transport and weather (5) a more intensive cooperation with external neurologists in clinics without in-house neurology leads to a better cooperation between internal and external staff. Further studies are needed to examine these statements in an increased hospital sample size and integrate the patient's perspective.