The aim of this thesis is to explore and describe the process of clinical reasoning among emergency medical service (EMS) clinicians. Clinical reasoning involves the gathering, evaluation, and utilisation of information to make decisions. As EMS clinicians encounter and care for patients of all ages and in possible conditions in various environments clinical reasoning becomes a crucial part of providing safe patient care. This thesis includes four studies.

The findings present clinical reasoning as an iterative and fragmented process that occurs during the physical patient encounter, but also beyond it. EMS clinicians must investigate various sources of information that need to be validated in relation to the wishes and expectations of patients and their loved ones, the laws and regulations of EMS, and the clinicians’ own moral beliefs. The results show that there is limited support for clinical reasoning. Clinicians must rely on themselves or their colleagues to have sufficient knowledge or experience. However, they often involve other collaborators, depending on the task. These tasks fluctuate during the EMS mission, but vital informational cues might be presented at any time, leading clinicians to be vigilant and adaptive in relation to the various task goals. EMS organisations have difficulties providing their clinicians with in-service training and time to develop clinical reasoning skills. These difficulties primarily stem from limited economic resources but also from having to defend EMS against the overall hospital organisation.

This thesis contributes to the field of caring science with detailed descriptions of how clinical reasoning takes place and is influenced during EMS missions in a real-world environment. It also provides insights into where support might be needed on the clinician and organisational levels.

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