The objective of this research is to develop methods and tools to enable clinicians to register data of high quality that are useful for supporting clinical practice and at the same time serve as basis for management, reimbursement, quality assessment and research. Reuse of data within and across Clinical Information Systems (CIS) can be realized by use of the international standardized clinical terminology SNOMED CT. The prerequisite for reuse of data from different patient contacts is that the terms and concepts entered by clinicians are well-defined, structured and can be processed automatically by computers. SNOMED CT can support automatic terminological reasoning but it requires that the CISs are developed and configured to enter and store SNOMED CT concepts and expressions. The size and complexity of SNOMED CT challenge consistent use of concepts across organizational borders, hampering comparability and hence reuse of data. Thus, methods that support consistent concept selection is important for SNOMED CT implementation projects, to utilize the structure of SNOMED CT to ensure comparability of clinical data. This thesis presents the theoretical foundation for comparability of data along with four studies addressing SNOMED CT implementation and reusability of clinical data.

Keywords: SNOMED