Detection of aTTR-CM in a real-world heart failure population by NLP-guided automated data extraction from EHRs

Automated Retrospective Data Extraction from Electronic Health Records Using Natural Language Processing to Identify Transthyretin Amyloid Cardiomyopathy in a Real-World Heart Failure Population

**Background:** ATTR-CM is a fatal and progressive illness that frequently has delays in diagnosis and treatment. The objective of this study is to analyze individuals with ATTR-CM in a real-world population of heart failure (HF) patients and pinpoint single and combined ATTR-CM predictive factors in this European population.

**Result 1:** Out of 3127 HF patients, there were 103 HF patients diagnosed with ATTR-CM. This data was analyzed to detect phenotypes of patients at risk for ATTR-CM. The mean (±SD) diagnostic delay between HF and ATTR-CM was 1.8 (±1.6) years.

**Result 2:** The strongest cardiac predictor was atrial fibrillation, whereas the strongest non-cardiac predictor was carpal tunnel syndrome.

**Methods**

**Conclusion:** With the growing adoption of EHRs, vast databases containing both structured and unstructured clinical data are being produced. They offer a sizable possibility to create algorithms for automatically interpreting data and assisting medical professionals in the diagnosis and treatment of patients.