A Chronic Illness System using Biomedical Knowledge Sources and Relevance Feedback

CISS+ is a new surveillance system designed to aid clinicians seeking to help patients make healthy decisions about their lifestyle and health. It takes clinical records as queries and uses these records to find articles in the scientific literature that describe risk factors relevant to the patients’ history and medical state. CISS+ is a revision of the earlier CISS system, which used a simple n-gram text retrieval strategy. CISS+ enhances CISS by using higher-relevance terms and concepts taken from the UMLS and MetaMap systems and by using automated techniques related to relevance feedback to refine queries. CISS+ was evaluated via a small set of experimental queries that were sent to other widely available biomedical research search systems. CISS+ returned a small number of results that had better relevance to the goal of identifying risks factors.