Abstract

Background and objectives: Drug-Related Problems (DRP), which would be mostly preventable by pharmaceutical interventions, may lead to rehospitalisation and increased health care costs. To be able to use the clinical pharmaceutical resources more specifically and effectively, the Drug Associated Risk Tool (DART), a screening tool to identify patients at risk for DRPs, was developed. A prospective Validation study in 2013 showed a good feasibility, comprehensibility and acceptability of the tool. False positive results could be excluded with a high probability but the reliability (regarding sensitivity) of the tool can still be improved. The goal of this thesis is to improve the sensitivity of the DART.

Methods: Three statements of the DART were new formulated by the use of corresponding terms to liver insufficiency, kidney insufficiency and cardiac insufficiency from patient leaflets. To validate the revised tool, a prospective study was conducted from 6th of April 2015 to 13th of May 2015. The patient answers of the DART were compared with the objective patient data of medical record and laboratory data.

Results: A revised version of the DART was created including the three new formulated statements “I have a limited renal function/ renal dysfunction/ kidney disease”, “I have a liver dysfunction/ liver disease”, and “I have a cardiac insufficiency/ cardiac performance weakness”. 31 in-patients of the medical and geriatric wards of the hospital Bruderholz participated in our clinical trial (median of age: 82 years old, range: 59-96 years old; 61% female, 39% male). First statement to renal impairment reached a sensitivity of 0.39 and a specificity of 0.80. Second statement to hepatic impairment reached a sensitivity of 0.0 and a specificity of 1.0. Third statement to cardiac insufficiency reached a sensitivity of 0.82 and a specificity of 0.60.

Conclusion: The sensitivity of the DART could be partly improved by a change of the statements’ wording. Two of three statements were able to identify the most part of patients at risk for DRPs.