

Burden of Illness the first year after Diagnosed Bladder Dysfunction among People with Spinal Cord Injury or Multiple Sclerosis

Buchter ML, Kjellberg J, Ibsen R, Sternhufvud C, Petersen B. Expert Rev Pharmacoecon Outcomes Res. 2022; 28: 1-8. (a Danish register study)



Objective

The objective is to estimate the burden of illness of spinal cord injury (SCI) and multiple sclerosis (MS) the first year after diagnosed bladder dysfunction.

Study design



A nationwide cohort study using national register data on all Danish citizens from 2002-2015. SCI and MS cases are matched with healthy controls. Primary outcome measures are the total healthcare utilization and societal costs of SCI and MS, and secondary outcome measures are the resource utilization and healthcare costs of bladder and bowel dysfunction.



Population

There are 2132 SCI cases with 30% females and a mean age of 56 years (SD = ± 17.5), and 1887 MS cases with 63% females and a mean age of 53 years (SD = ± 12.8).

Results



Overall, healthcare utilization and societal costs per patient-year are significantly higher for cases compared to controls due to inpatient care. Cases with urinary tract infections (UTIs) have significantly higher inpatient costs per patient-year compared to controls (SCI: 544 EUR vs 23, $p < 0.05$; MS: 497 EUR vs 6, $p < 0.05$) and medication for constipation is significantly more costly per patient-year (SCI: 178 EUR vs 3, $p < 0.05$; MS: 78 vs 1, $p < 0.05$).

Strengths and limitations



Strengths: Large population obtained from real-world register data covering hospital records of all Danish citizens; data based on official diagnosis and medication codes; including societal costs besides the healthcare system; each patient is matched with 4 controls based on age, sex, marital status, and municipality; following individuals in registers for one year after diagnosis.

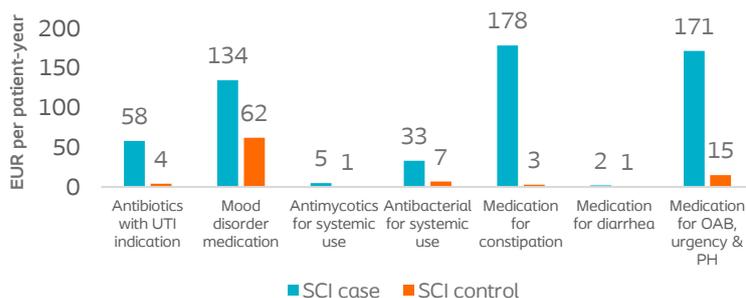


Limitations: Patient-reported data on QoL and social costs are not included in register data; costs at municipality levels are not included; no possibility of differentiating between catheter use; lack of data on nursing home admissions costs could make cost estimates conservative; data are only based on hospital contacts and not data from the GP; only earned income was included; study was observational; thus, causality cannot be determined.

Conclusion

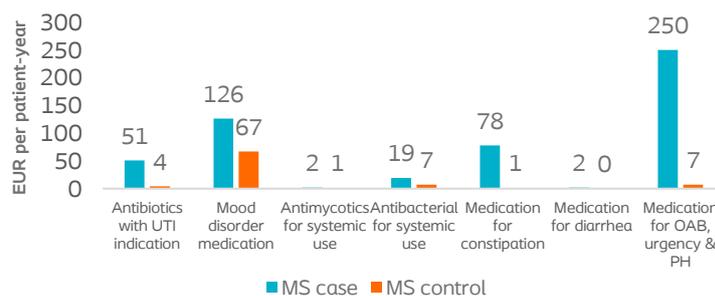
The authors conclude that SCI and MS patients are burdened with hospitalizations and use of medication, which are also costly for the healthcare system and society. This shows a need for medical and social interventions to reduce the burden of illness.

Selected prescription medications for cases with spinal cord injury (SCI) and controls



Note. SCI: spinal cord injury; EUR: Euro; UTI: urinary tract infection; OAB: overactive bladder; and PH: prostate hyperplasia.

Selected prescription medications for cases with multiple sclerosis and controls



Note. MS: multiple sclerosis; EUR: Euro; UTI: urinary tract infection; OAB: overactive bladder; and PH: prostate hyperplasia.