

BURDEN OF ILLNESS OF URINARY INCONTINENCE FOR THE ITALIAN NATIONAL HEALTH SERVICE (NHS): AN EXPLORATORY APPROACH USING ADMINISTRATIVE DATA

Aims of Study

Urinary incontinence carries a substantial burden for both patients (in terms of morbidity, disability, perceived health) and the National Health Service which provides the resources needed to cope with the disease and its complications. The object of this study was to estimate the costs of urinary incontinence to the NHS and describe its components, as well as relevant variations in relation to selected patients' characteristics.

Methods

The study setting was the Province of Lodi, an area near Milan with over 200,000 residents. Automated data were extracted from: Prescription File (all reimbursed drug prescriptions), Outpatient File (all reimbursed specialist outpatient visits), Disability File (all reimbursed supplies and prostheses), Hospitalisation File (all hospitalisations of the residents), Mortality File, Registration File (listing of the residents and their registration status). All subjects who received a prescription for urological supplies (e.g. pads, catheters) between January 1, 1999 and December 31, 2000 were eligible for enrolment. Exclusion criteria were cancer, amputations, disabling fractures, selected renal and gastrointestinal diseases, malformations. Person-time contributed by each patient during the study period was estimated and aggregated across categories of age, gender, catheterisation, neurological comorbidity and selected indications for urological supplies. Three controls for each patient (matched by age, gender, place of residence) were sampled; after exclusions, their person-time contribution was also estimated and stratified. All costs generated by any study subject for urological supplies, selected antibiotics, urological or orthopedic hospitalisations, urological outpatient specialist visits (all reimbursed by the NHS), were estimated per person-year and standardized (based on age and gender distribution of the cases). Overall costs per person-year "attributable" to urinary incontinence were estimated, after accounting for baseline costs generated by the controls.

Results

1732 patients were retained for the analysis. The estimated cost for urological supplies was € 601.72 per person-year (75.5% pads, 24.5% other supplies). Antibiotics, selected hospitalisations and specialist visits added € 216.15 per person-year (9%, 54% and 37% of the added cost respectively), leading to a total cost for the NHS of € 817.87 per person-year. The total cost rose to € 1401.60 per person-year in catheterised patients (€ 856.87 for supplies and € 544.73 for antibiotics, in- and outpatient costs) and up to € 2006.87 (52.8% of which for urological supplies) in catheterised patients with neurological comorbidity and a specific indication of "incontinence". The cost ratio "cases/controls" for urological visits was 2.7 among all patients, 5.0 in catheterised patients and increased to 17.2 in neurological catheterised "incontinent" patients. The cost ratio for antibiotics increased from 3.9 (all patients) to 8.0 (catheterised patients) and up to 12.2 in neurological catheterised "incontinent" patients. In particular, the cost for "other aminoglycosides" (ATC = J01GB) was over 20 times higher among all patients and well over 100 times in neurological catheterised "incontinent" patients.

Conclusions

This study estimates the direct costs of urinary incontinence. The burden of urinary incontinence to the NHS varies considerably in relation to patients' characteristics and is mostly represented by urological supplies. However, selected antibiotic treatments, inpatient and outpatient costs may account for at least 1/3 of the total cost, with increasing shares in the presence of neurological comorbidity.