211. THE COST OF ANKYLOSING SPONDYLITIS TO THE UK NHS

Muhammad J. Husain,1 Sinead Brophy,2 Roxanne Cooksey2
Muhammad A. Rahman2, Ceri J. Phillips3 and Stefan Siebert4
1 Keele Management School, Keele University, Keele, 2 College of Medicine, Swansea University, Swansea, 3 College of Human and Health Sciences, Swansea University, Swansea, 4 Institute of Infection, Immunity and Inflammation, University of Glasgow, Glasgow, UK

Background: There are limited data about the direct costs of AS for the NHS. We estimated the direct NHS costs of AS using a combination of patient-reported and linked routine data.

Methods: Participants in the existing Population-based AS cohort (n = 512) were invited to complete a cost questionnaire, based on their recall of the past 3 months. These patients were also tracked through different healthcare settings using routinely collected NHS datasets. The routine data were linked and compared with the patient-reported data. Where there were discrepancies, the dataset that was most representative of the true situation was used to calculate costs. Direct healthcare costs were calculated using a bottom-up micro-costing approach, at 2010 prices, and reported from the healthcare provider perspective. Logistic regression was used to account for explanatory variables as correlates of cost. Multivariate Ordinary Least Squares regression was used to report the marginal effects of variables on healthcare costs.

Results: 400 patients returned completed cost questionnaires and could be tracked through routine data. 77% of respondents were male; the mean age was 55.5 years (s.d. ± 15.9); mean BASDAI 43 and BASFI 46.9. Linked routine NHS data indicated that patients tended to overestimate the number of healthcare visits. Using routine data, on average the NHS incurs costs of £183 for GP, £358 for outpatient, £710 for inpatient/day unit and £8 for A&E attendance per AS patient per year. The GP read codes in the routine data also allowed additional GP events linked to administration to be captured, which was estimated to incur costs of £395 per AS patient per year. While routine GP data provided detailed prescription data, patient reported questionnaire data were used for TNF-inhibitors as these drugs are prescribed by the rheumatology departments. The mean prescription costs were £899 per AS patient per year, with £817 due to DMARDs and TNF-inhibitors. Using the above combination of patient-reported and routine data, the NHS was estimated to incur average total direct costs of £2753 per AS patient per year. Direct NHS costs were significantly higher in patients with higher disease severity (BASDAI ≥ 40), higher functional impairment (BASFI ≥ 40) and older age (≥ 50 years). A 10 unit increase in BASDAI score was associated with a £416 increase in the NHS cost using patient reported costs and a £263 increase using routine data costs. The marginal effects for a 10 unit increase in BASFI score results in £460 and £251 increases in the NHS cost using patient-reported and routine data costs respectively.

Conclusion: AS patients incur significant direct NHS costs, which are mainly due to costs associated with prescriptions, and outpatient and day unit use.

Disclosure statement: S.S. has received honoraria from BMS, Pfizer, MSD, UCB, Roche and AbbVie; and Grants/research support from Pfizer. All other authors have declared no conflicts of interest.