BACKGROUND

- The purpose of this study was to assess the burden of neuropathic pain (NeP) within chronic pain populations in the United Kingdom, France, Spain, Germany, and Italy.
- The burden of NeP is considered in terms of: (i) health-related quality of life (HRQoL); (ii) self-reported health status; (iii) employment status, absenteeism, and presenteeism; and (iv) direct medical costs.

METHODS

- Data were taken from the 2010 National Health and Wellness Survey (NHWS): an Internet survey reporting on some 57,000 individuals in these 5 countries in which respondents were asked to report on their pain experience, pain conditions, comorbidities, HRQoL, employment status, productivity, and health care resource utilization.
- The NHWS is unique in that it is the only national health survey that covers all of these measures in all 5 countries.
- Descriptive assessments and regression analyses were undertaken to identify the profile and characteristics of respondents reporting NeP (n=512) compared with those in the chronic pain population without NeP.
- Characteristics reported included other pain conditions and comorbidities.
- Generalized linear models were used to estimate the independent contribution of the presence of NeP on (i) HRQoL; (ii) self-reported health status; (iii) employment status; (iv) absenteeism and presenteeism (or loss of productivity while employed); and (v) direct medical costs.
- The NHWS has been used to assess the burden of chronic pain in Western Europe 1–3; this is the first time it has focused on the burden of NeP.

RESULTS

- The self-reported presence of NeP had a significant and major deficit impact on HRQoL, self-reported health status, employment status, and direct medical costs (Table 1).
- Relative to the chronic-pain reference group without NeP, subjects with neuropathic pain reported a significantly higher prevalence of severe daily pain (38.12% vs 12.67%; P<0.05), lower labor force participation (39.68% vs 55.56%; P<0.05), higher prevalence of sleep difficulties (59.14% vs 46.73%; P<0.05), insomnia (45.61% vs 29.78%; P<0.05), anxiety (42.42% vs 31.99%; P<0.05), and depression (35.25% vs 24.03%; P<0.05).
- Over 80% of people with NeP reported having other pain conditions, including arthritis and fibromyalgia.
- Those with NeP reported a significantly lower (worse) SF-12 physical component score (PCS) than controls (31.29 vs 41.50; P<0.05) (Table 1) and lower (worse) SF-6D utilities (0.56 vs 0.65; P<0.05); those with NeP were more likely to report their health status as fair or poor (74.65% vs 40.31%; P<0.05).
- Those with NeP reported a lower rate of labor force participation (39.68% vs 55.56%; P<0.05), together with higher rates of absenteeism and presenteeism than controls.
- Median direct medical costs incurred by those with NeP, in the last 6 months, were more than twice as high as for controls (€350.16 vs €146.70; P<0.05).

Multivariate Results

- In the multivariate analysis, the presence of NeP was consistent in its deficit association with outcomes. A summary of the results for NeP is shown in Table 2.
- In the case of SF-12 PCS, the point deficit effect of NeP was –8.196 (95% confidence interval [CI], –9.053 to –7.339), outweighing the point impact on the mental component score (MCS). In the case of SF-6D utilities, the impact was also substantial –0.078 (95% CI, –0.089 to –0.068).

CONCLUSIONS

The experience of pain is a complex phenomenon that presents major challenges for multi-disciplinary pain management programs 4. Those reporting pain are likely to present a number of different pain conditions, with different comorbidities. It would be misleading to attribute the deficits reported to the experience of NeP; rather, the presence of NeP should be considered as a flag for the association of pain experience with a range of other pain conditions and the high prevalence of certain comorbidities (notable sleep difficulties/insomnia, anxiety and depression). The presence of NeP is clearly associated with a significantly increased disease burden and costs in the chronic pain population.