

## Award for Innovative Research Presented on Nocturnal Voiding Problems

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### **NOCTURIA RESULTS IN WORK PRODUCTIVITY AND ACTIVITY LOSSES COMPARABLE WITH OTHER CHRONIC DISEASES**

#### Hypothesis / aims of study

Nocturia is defined by ICS as the need to void during the night. Bother from nocturia has been found to start at two voids [1]. Nocturia has a significant disruptive impact on sleep. This could result in reduced physical and mental health potentially leading to impaired performance and absence from work.

The Work Productivity and Activity Impairment questionnaire (WPAI) [2] has been developed as a patient-reported quantitative assessment of absenteeism (i.e. missed work), presenteeism (impairment while working) and daily activity impairment due to health. WPAI is scored between 0 and 100 with a higher value indicating greater impairment.

The impact of a given disease and its treatment on an individual's work and other daily activities (i.e. indirect costs) has become increasingly important. In this context, collection of "real-world" data is an important component of the holistic picture for any illness.

The objective of this analysis is to compare WPAI data in patients with nocturia (2 voids or more) with that in other prevalent chronic diseases, in a real-world context.

#### Study design, materials and methods

Nocturia data have been drawn from the Adelphi Lower Urinary Tract Symptoms Disease Specific Programme® (DSP), a cross sectional real world survey of physicians and their presenting patients conducted in the first quarter of 2013 in the US, France, Germany, Spain and the United Kingdom [3]. Data for other conditions was taken from the "US National Health and Wellness Survey (NHWS)". Both surveys included the WPAI.

#### Results

For the DSP, a total of 635 physicians (264 PCPs and 371 specialists) completed records on 8738 patients. A total of 4768 patients completed the WPAI, of whom 1246 were in employment at the time of the survey. The NHWS, a self-administered internet-based questionnaire, includes data relating to 75,000 individuals across a variety of chronic conditions.

The table below shows the WPAI data relating to nocturia and a number of recently published studies in other chronic diseases.

Disease / Chronic condition	Percent missed work	Percent impairment while working	Percent overall work impairment	Percent activity impairment
Nocturia	3.4	28.6	29.0	38.3
COPD [4]	3.6	19.3	20.9	23.9
IBS-C [5]	7.6	21.2	25.1	33.3
Chronic constipation [6]	9.1	29.5	33.6	46.6
Insomnia [7]	10.7	29.2	24.2	47.6
Asthma [8]	4.5	12.7	16.9	19.1
Rheumatoid arthritis [9]	8.7	24.0	29.1	33.3
Non-malignant chronic pain [10]	19.4	51.1	41.0	71.0
Allergic rhinitis [11]	4.6	23.5	26.8	27.8
GERD [12]	6.5	25.7	25.1	NA

#### Interpretation of results

In nocturia patients, including those with a confirmed diagnosis of Nocturnal Polyuria (NP), alone or in combination with overactive bladder/benign prostatic hyperplasia (OAB/BPH), a work productivity loss of **29 %** and an activity impairment with a **39 %** loss were observed. Nocturia productivity and activity losses are comparable with those of the other listed chronic diseases.

#### Concluding message

This analysis has shown that nocturia is associated with a significant impact on work productivity and therefore on the level of indirect costs to society. It is therefore important to raise awareness around nocturia as being an impactful disease and for physicians to diagnose and treat it appropriately.

#### References

1. Kari A.O. Tikkinen et al. Nocturia Frequency, Bother, and Quality of Life: How often is Too Often? A Population-Based Study in Finland. Eur Urol 57: 488-498, 2010
2. Margaret C. Reilly et al. The validity and Reproducibility of a Work Productivity and Activity Impairment Instrument. Pharmacoeconomics 4 (5): 353-365, 1993
3. Peter Anderson et al. Real-World physician and patient behavior across countries: Disease-Specific Programmes, a means to understand. Curr Med Res Opin 24 (11): 3063-3072, 2008

#### Disclosures

**Funding:** Ferring Pharmaceuticals **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** No patient interactions or involvement. Just a summary literature review **Helsinki not Req'd:** It's not a clinical trial - no human experimentation **Informed Consent:** Yes