The Impact of GERD Symptoms on Worker Productivity and Absenteeism

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CONCLUSIONS

- **GERD symptoms appear to impair employee productivity by reducing productive time while at work rather than causing absenteeism.**
- **Reduced work productivity is related to symptom severity and may result in substantial costs to employers.**

BACKGROUND

- Symptoms of gastroesophageal reflux disease (GERD) occur in approximately 14 to 20% of the population on at least a weekly basis.[1,2,3]
- Symptoms of GERD may result in a large burden on employers through increased absenteeism and decreased performance while remaining at work impaired by health problems.

OBJECTIVE

- To determine the impact of GERD on an employed population, as measured by the impact of symptoms on worker productivity and absenteeism.

METHODS

Data Source:

- A database of >600,000 households representative of the US population and maintained by a national survey research firm.
- Respondents to an initial survey who had GERD symptoms were mailed daily diaries to record symptom severity and frequency. They were also telephoned to ascertain current employment status and work productivity (n=9,128).

Patient Sample:

- Currently employed patients reporting chronic heartburn and using prescription strength medication.

Survey Instruments:

- Work Productivity and Impairment Questionnaire for Patients with Symptoms of Gastroesophageal Reflux Disease (WPAI-GERD), a validated instrument for self-reported absenteeism and productivity.
- 30-day diary of heartburn occurrence and severity.

Study Measures:

- Multiple measures of productivity and absenteeism were calculated using the WPAI-GERD.
- Severity was measured as the mean level across the 30 days. Mean severity was also categorized into 3 levels (mild, moderate, and severe).

Data Analysis:

- Work productivity was quantified using WPAI-GERD measures including the Worker Productivity Score (WPS).
- The presence of reduced work productivity was explored across varying severity levels.
- The impact of reduced work productivity was quantified in annual salary loss, adjusting for the age and sex of individuals.

RESULTS

- 1003 currently employed individuals with GERD symptoms were surveyed.
- 32% were male; mean age was 50.3 years (range 22-82 years).
- Patients with symptoms of GERD worked an average of 4.8 ± 1.3 S.D. days during the week prior to the survey, with GERD symptoms present during 1.4 ± 1.8 S.D. of the days.
- While GERD symptoms affected almost half of all the patients (48.1%) during at least one workday during the week, absenteeism resulted in less than 1% of total work time missed due to GERD symptoms (Table).

Table. Lost work productivity among participants with GERD symptoms

Loss of productivity measure	Mean Percent
Average percent of work time absent due to GERD	<1%
Average reduced productivity while working	5.8 %
Average overall work impairment due to GERD	6.1%
Average reduced productivity while doing daily activities	7.6%
WPS representing reduced productivity as a percent of total potential work productivity	6.0%

- When measures of absenteeism and presenteeism (reduced productivity) are combined into the overall WPS, respondents report 6.0% lost productivity attributable to GERD symptoms.
- Work productivity was strongly associated with heartburn severity ($\chi^2 = 97.07$, $P<0.001$).
- The proportion of individuals with reduced productivity increased as severity level increased (Figure).
- Using age- and sex-adjusted median weekly earnings of US full-time salary workers, reduced productivity was equivalent to an annual loss of $1,704 per GERD sufferer.

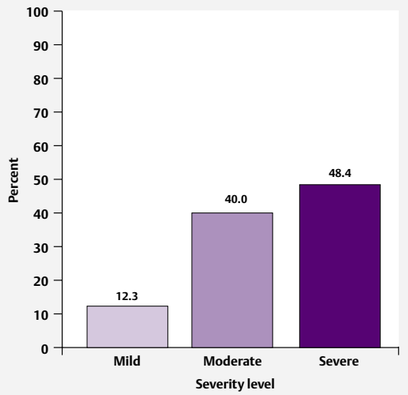

Figure. Proportion of individuals with reduced productivity by heartburn severity level. Overall, *P* value <0.001.

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