Chronic Cough in America: Descriptive Analysis of Cough Characteristics and Diagnostic History

BACKGROUND

- Chronic cough is a significant burden for patients in the US, yet characteristics of these patients are poorly understood.
- Subjects were recruited from both general- and web-based consumer panel databases, reflective of the US adult population in terms of age, sex, race, and ethnicity.

OBJECTIVES

To describe cough duration, severity, triggers, and diagnosis as well as healthcare resource use (HCRU) and health status among self-reported chronic cough (CC) sufferers in the United States.

METHODS

- Respondents who reported coughing daily for at least 8 weeks or more during the past year in the 2018 National Health and Wellness Survey (NHWS; Kantar, New York, USA) were eligible to complete a questionnaire about their CC experience.
- The CC Questionnaire inclusion criteria were: current CC; no lung disease*; not current smoker/vaper; not regularly taking oral steroids to treat CC, asthma or COPD; not participating in the ACE inhibitor for high blood pressure program.
- Respondents also completed health status questionnaires:
  - Work Productivity and Activity Impairment (WPAI) measures impact of cough on quality of life and the efficacy of cough therapies in chronic coughers.
  - 7 item (GAD-7) scale (0-21) assessing depression severity over 2 weeks.
  - The feeling of something dripping down the back of your nose or throat
  - A strange taste in your mouth

RESULTS

Demographics and Clinical Characteristics

- Of 875 adults who self-reported experiencing CC in the prior 12 months and consented, 36.0% met CC questionnaire inclusion criteria. 10 respondents voluntarily withdrew and 9 were removed during data quality checks.
- 296 adults completed the CC questionnaire, mean age of 60.1 years and most commonly female (72.6%).
- Respondents were: 86.1% non-Hispanic Caucasian, 55.1% with income ≤ $50K, 77.0% overweight/obese, 63.5% reported never smoking, and 53.0% reported exercising regularly for health reasons.
- For the 220 (74.3%) who recalled, cough duration was a mean of 7.4 (±0.3) years and a median of 3.4 (IQR 1.3-9.0) years. 25.9% had CC for 5-10 years (Fig 1).

- Mean cough severity (out of 10) over prior two weeks was 4.9 overall and 5.9 on the worst day.
- Mean of 3.3 cough triggers reported, including seasons (winter 45.9%; spring 38.8%), temperature changes (56.4%), strong smells (51.4%), exercise (43.2%), talking (46.6%), and change in posture (43.2%).
- 80.4% were told by HCPs they had a condition related to their CC; most frequent conditions were: lower airway conditions* (41.9%), and GERD (25.7%).
- Mean amount of daily active life impairment was 42.0%. Among the employed 130 respondents, mean amount of total work productivity impairment was 30.9%.
- 43.6% reported cough interfered with their overall enjoyment of life to some or all of the time during the preceding 2 weeks.
- 56.8% Agree/Strongly Agree that over the past week they felt self-conscious because of their cough. 43.3% reported being hoarse and 36.5% had difficulty speaking on the phone during the past week due to their cough.

CONSIDERATIONS

- A strength of this study is evaluating CC characteristics at the general population level rather than through referral clinics.
- Although the NHWS is sampled to be nationally representative, participation in the CC Questionnaire was optional and required meeting inclusion criteria; results may not be generalizable.
- Causal conclusions cannot be drawn from this cross-sectional questionnaire.

CONCLUSIONS

- This study highlights the general characteristics and impairment of quality of life of those suffering with chronic cough (CC).
- CC is a long-lasting and burdensome condition frequently evaluated and managed in primary care.
- There are a variety of CC triggers, associated diagnoses, and assessments.
- Many CC patients feel that additional actions should be taken to help resolve or reduce their burden.

*No lung disease in this survey means no current or past idiopathic interstitial lung disease or lung cancer.

Figure 1. Chronic Cough Duration: Distribution by Years

The severity of each symptom is generally not extreme but is a problem for the majority of patients (Fig 2).

Figure 2. Selected Items from the HARQ

Health Care Provider (HCP) Interactions

- 91.9% of respondents visited HCPs in prior 6 months, a mean of 6.87 visits.
- 56.8% reported coughing during the past year to complete a questionnaire about their CC experience.
- There are a variety of CC triggers, associated diagnoses, and assessments.
- Many CC patients feel that additional actions should be taken to help resolve or reduce their burden.

- Although 76.4% believe their HCP is somewhat/extremely helpful, 16.6% believe their HCP is somewhat/extremely unhelpful.
- 56.8% agree that over the past week they felt self-conscious because of their cough. 43.3% reported being hoarse and 36.5% had difficulty speaking on the phone during the past week due to their cough.

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