



Ambroxol reduces cough frequency (in the daytime and at night) and thereby improves concentration and quality of life

Tobias Mück, PhD

The pharmacy-based study questioned customers who had used one of four different dosage forms of ambroxol for acute cough. The results illustrated the therapeutic benefits of ambroxol in self-medication of acute cough. The different dosage forms showed comparable efficacy.

A pharmacy-based survey of 941 pharmacy customers with an acute respiratory infection showed that ambroxol reduced cough frequency and thereby increased the ability to concentrate and the quality of life [1].

Ambroxol relieves cough symptoms in acute respiratory infections due to its secretolytic, anti-inflammatory, anti-oxidative, antibacterial, antiviral and local anaesthetic effects. Immunomodulatory properties have also been discussed [2].

The pharmacy-based survey in 126 pharmacies focussed on the efficacy of four different ambroxol formulations (soft pastilles, prolonged release capsules, cough syrup for adults or paediatric cough syrup) in different patient profiles [1]. 965 customers were asked to fill in a questionnaire after their purchase. In the case of the paediatric syrup, the questions were answered by the parents. 941 completed questionnaires were included in the evaluations, whilst 24 were excluded from the analysis because of inconsistent information.

The average duration of use of 4.3 (\pm 0.9 days) showed that ambroxol was taken in self-medication to relieve an acute cough. When asked about the onset of action, 50% of patients questioned reported a discernible effect within 30 minutes and 87.9% reported an effect within one hour.

The Bronchitis Severity Score (BSS) is a way to estimate the severity of a respiratory disease. Questions are asked about the key symptoms of bronchitis and patients assess the severity of impairment on a scale of 1–4. A decrease in the score for individual symptoms or the total score is indicative of progressive healing. At the start, the mean total BSS score for five listed symptoms evaluated by patients in the questionnaire

was 9.4 (of a maximum of 20). After taking one of the four formulations of ambroxol, the total BSS score was 3.9. The improvement can be rated as clinically relevant.

In terms of the symptom of cough, the survey differentiated between daytime cough and cough-induced night-time awakenings. Daytime cough frequency improved significantly in about 82% of those questioned, decreasing to between zero and two times during the day [1; „data on file“].

Even more important is the fact that through the use of an ambroxol-containing product, about 84% of patients woke up significantly less often due to the cough at night (see **Figure**). The different formulations all showed similar results.

Summary

About 94% of the respondents were very satisfied or satisfied with the purchased ambroxol formulation and would recommend the product to others. About 97% of the pharmacy customers questioned assessed tolerability as very good or good. These results demonstrate the therapeutic benefits of ambroxol preparations in the self-medication of acute cough. They confirm the findings from scientific studies and illustrate them with data from everyday pharmacy practice (real world evidence).

Literature

1. Kardos et al. BMC Pharmacology and Toxicology.2018;19:40 <https://doi.org/10.1186/s40360-018-0229-y>.
2. Plomer M, de Zeeuw J. Daten zu Ambroxol im Kontext der Behandlung bronchopulmonaler Erkrankungen. MMW-Fortschr Med 2017;159(85):2–13 <https://link.springer.com/article/10.1007%2Fs15006-017-9805-0>.

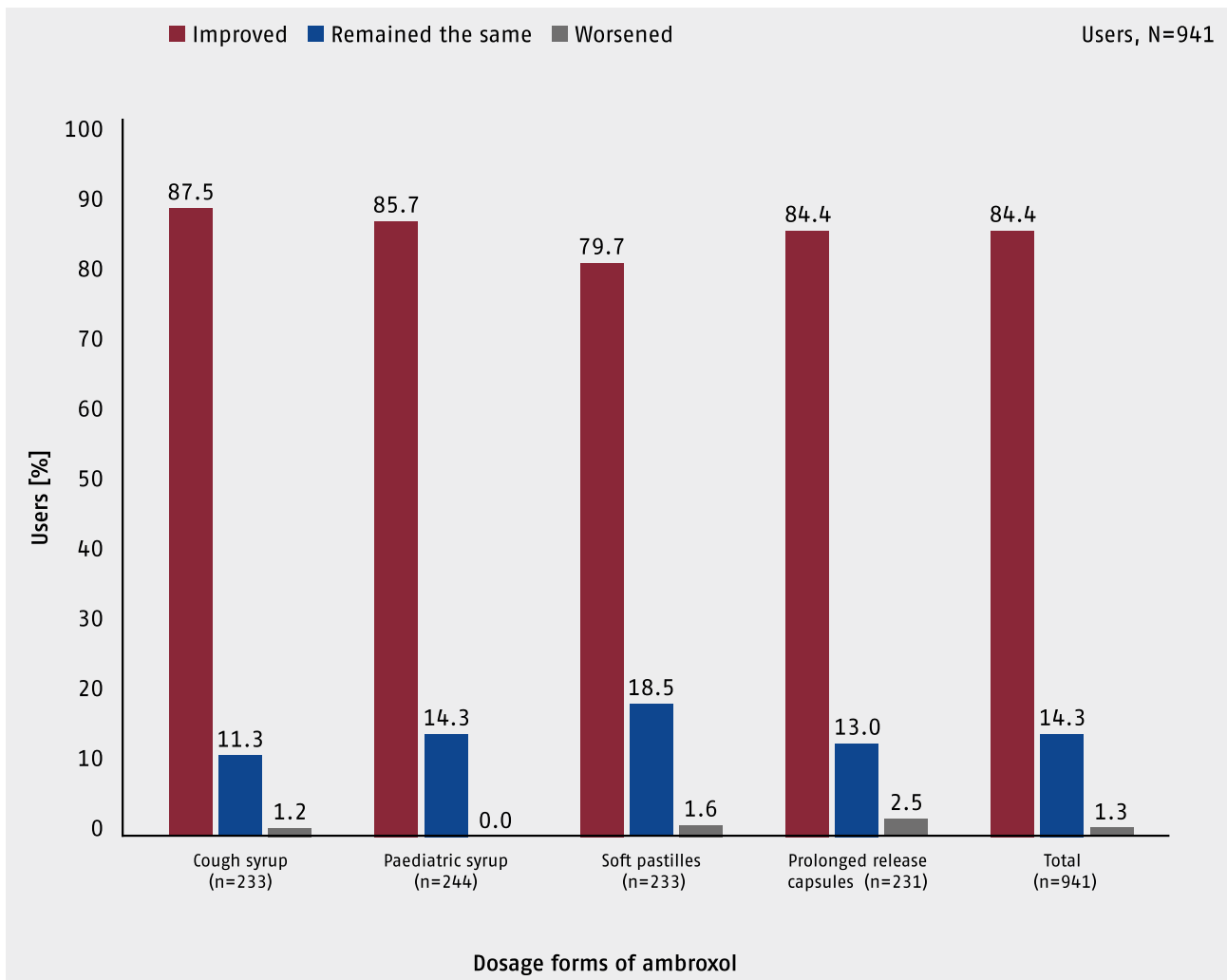


Fig.: Night-time awakening due to cough during treatment with ambroxol

Conflict of interest: T. Mück is an employee of Sanofi.

Disclosure: Medical writing and publication funded by Sanofi Aventis Deutschland GmbH

Information regarding manuscript

Submitted on: 17.09.2020

Accepted on: 27.12.2020

Published on: 16.08.2021