

# Changes in Sore Throat Symptoms throughout the Day and Night: A Questionnaire-Based Survey of Five Countries

## Abstract

**Objective:** Night-time symptoms of upper respiratory tract infection often feel more severe, but it is not known how sore throat symptoms might vary over 24 hours. The aim of the current analysis was to determine any effect of time of day on sore throat symptoms and treatment practices across five countries.

**Methods:** Adults who had used a sore throat remedy at least once in the preceding 12 months answered a 30-minute questionnaire and then undertook a 7-week diary to document sore throat pain and treatment episodes. Analyses were conducted to investigate effect of time of day on sore throat symptoms, severity, and the use of throat products, as well as differences in functional and emotional needs.

**Results:** A total of 5000 participants (1000 in each of the UK, Italy, Russia, USA, and Thailand) took part. Sore throat was reported more frequently in the morning and the evening/night-time, while fewer participants reported sore throat in the afternoon; similarly, sore throat products were reported to be taken more frequently in the morning and the evening/night-time.

**Conclusion:** This survey shows an increased frequency of people reporting sore throat symptoms in the morning and the evening compared with other times of the day. Research is warranted to investigate the potential of a long-acting product such as flurbiprofen for alleviating night-time sore throat (and hence minimising sleep disruption and the impact on next-day functioning).