Anosmia and hyposmia in health-care workers with undiagnosed SARS-CoV-2 infection

On May 18 2020, Public Health England added new loss of taste or smell to the recognised symptoms associated with COVID-19, consistent with those listed by the Centers of Disease Control and Prevention (Atlanta, GA, USA) and WHO. The identification of loss of sense of smell as a symptom of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is particularly important for frontline health-care workers who are at high risk of both contracting and spreading SARS-CoV-2.

Anonymous self-reported questionnaires were distributed to staff at Barts Health NHS Trust (London, UK). In total, 262 health-care workers from four hospitals completed the questionnaire between April 17 and 23, 2020, of whom, 59% were women, 58% were younger than 40 years, and 6% were older than 60 years, providing a representative sample of the patient-facing workforce. 73 (28%) of 262 participants had been tested for SARS-CoV-2; 56 of whom had a confirmed positive test by PCR. 168 (64%) of 262 responders reported losing their sense of smell or taste in the previous 2 months, with 94 (48%) reporting mild symptoms, 93 (48%) reporting moderate symptoms, and seven (4%) reporting severe symptoms.

Losing sense of smell or taste and developing COVID-19 were strongly associated. Participants who lost their sense of smell or taste were more likely to have a positive SARS-CoV-2 test than those who did not report these symptoms (odds ratio 4.9, 95% CI 1.4–17.1, p=0.01). 97 participants responded to a follow-up survey done between May 22 and 27, 2020; 45 (46%) reported that they had completely regained their sense of smell or taste, 41 (42%) had recovered partially, and seven (7%) had not recovered (not applicable for four [4%] responders). 71 (73%) of 97 responders had continued to work as normal. Around two-thirds of participants reported loss of sense of smell or taste in the previous 2 months, which is highly indicative of SARS-CoV-2 infection (appendix p 2). In comparison, the prevalence of self-reported smell loss varies between 1·4% and 15·3% across published studies.

To date, testing for health-care workers in the National Health Service has been scarce and only recently has been made more widely available. Thus, a large proportion of health-care workers might have already been infected with SARS-CoV-2 and had only mild symptoms, resulting in only a small number of health-care workers being tested. In conclusion, awareness and early recognition of anosmia as a presenting symptom of SARS-CoV-2 infection in healthcare workers—a systematic review of the literature, case series, and recommendations for clinical assessment and management. Rhinology 2020; published online May 9. https://doi.org/10.4193/RHnov201393
