

As per Dr. Sekkides' advice (presubmission enquiry to The Lancet Microbe)

Running title: Anosmia/hyposmia in healthcare workers with a SARS-CoV-2 infection

High prevalence of anosmia/hyposmia in healthcare workers suggests a significant number of undiagnosed SARS-CoV-2 infections.

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On 18 May 2020, Public Health England added the symptom of 'new loss of taste or smell' to the symptoms related to Covid-19, following suit with the Centers of Disease Control and Prevention (CDC) and the World Health Organisation (WHO)^{1,2}. Loss of sense of smell as an indicative symptom of SARS-CoV-2 is particularly relevant in healthcare professionals at the frontline of the current pandemic who are at high risk of both contracting and spreading SARS-CoV-2³. Anonymous self-reported questionnaires were distributed to staff in Barts Health NHS Trust, based in Central and East London, the largest trust in the UK. In total, 262 healthcare workers from 4 hospitals completed a questionnaire from 17-23 April 2020, a representative sample of the Trust's patient-facing workforce; 58.8% female; 41.2% male, 58.0% were aged <40 years; 5.7% aged >60 years. A total of 73 (27.9%) participants had been tested for Covid-19; 56 (76.7%) of these had a confirmed positive test. Of participants reporting symptoms, 48.5%, 47.9% and 3.6% were mild, moderate and severe, respectively. In total 168/262 (64.1%) responders reported losing their sense of smell/taste in the last 2 months. There was strong evidence of an association between losing sense of smell/taste and Covid-19. Participants who lost their sense of smell/taste were more likely to have a positive Covid-19 test (Odds Ratio OR=4.9, 95%CI: 1.4-17.1, p=0.01), i.e. a 4.9-fold increased risk within the tested subgroup. Ninety-seven participants responded to the follow-up survey (22–27 May 2020); 47% reported that their sense of smell/taste had completely recovered, 42.3% had recovered partially and 7.2% had not recovered. In summary, around two-thirds of the

participants report loss of sense of smell/taste in the last 2 months which is highly indicative of Covid-19 infection. In comparison, the prevalence of self-reported smell loss varies between 1.4% and 15.3% across studies^{4,5}. Testing for healthcare workers in the NHS has hitherto been limited and only recently made more widely available. This suggests a large proportion of healthcare workers may have already been infected with SARS-CoV-2, albeit suffering from mild symptoms, with only a small number being tested. Importantly, healthcare professionals are at the frontline of the current pandemic and are at high risk of both contracting and spreading SARS-CoV-2. In conclusion, there is a need for awareness and early recognition of anosmia as a means to identify, urgently test and isolate affected healthcare workers in order to prevent further spread of disease.

(400 words)

References

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