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# Complications of nasal and pharyngeal swabs: a relevant challenge of the COVID-19 pandemic?

Bandik Föh <sup>1,6</sup>, Max Borsche <sup>2,6</sup>, Alexander Balck <sup>2</sup>, Stefan Taube <sup>3</sup>, Jan Rupp <sup>4</sup>, Christine Klein <sup>2</sup> and Alexander Katalinic <sup>5</sup>

**Affiliations:** <sup>1</sup>Institute of Nutritional Medicine, University of Lübeck, Lübeck, Germany. <sup>2</sup>Institute of Neurogenetics, University of Lübeck, Lübeck, Germany. <sup>3</sup>Institute of Virology and Cell Biology, University of Lübeck, Lübeck, Germany. <sup>4</sup>Dept of Infectious Diseases and Microbiology, University of Lübeck, Lübeck, Germany. <sup>5</sup>Institute of Social Medicine and Epidemiology, University of Lübeck, Lübeck, Germany. <sup>6</sup>Shared first authorship, equal contributions.

**Correspondence:** Christine Klein, Institute of Neurogenetics, University of Lübeck, BMF, Building 67, Ratzeburger Allee 160, 23538 Lübeck, Germany. E-mail: christine.klein@neuro.uni-luebeck.de

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**Although swab procedures during SARS-CoV-2 testing are generally safe (3 adverse events in 11476 swab procedures; 0.026%), increased awareness of complications is necessary, considering approximately 5.1 million tests conducted worldwide daily.** <https://bit.ly/2J5sd96>

**Cite this article as:** Föh B, Borsche M, Balck A, *et al.* Complications of nasal and pharyngeal swabs: a relevant challenge of the COVID-19 pandemic?. *Eur Respir J* 2021; 57: 2004004 [<https://doi.org/10.1183/13993003.04004-2020>].

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## To the Editor:

The coronavirus disease 2019 (COVID-19) pandemic comprises approximately 50 million confirmed cases and over 1.2 million deaths as of 10 November, 2020 [1], affecting healthcare systems worldwide in an unprecedented way. In the absence of effective treatments or preventive measures, all attempts to control the pandemic are based on reliable diagnostic procedures, particularly RT-PCR of upper respiratory specimens, which is considered the diagnostic gold standard [2]. A previously unimaginable number of these diagnostic procedures has been performed since the beginning of the pandemic and there is a clear trend towards further expanding the number of tests [3]. Although specimens are frequently obtained by semi-skilled temporary staff, the collection is generally considered safe. However, possible adverse events of the procedure have largely escaped systematic recording and reporting to date. A Pubmed search, performed on 10 October, 2020, using every possible combination of the search terms “complications”, “adverse events”, “adverse effects” and “nasal swab”, “oral swab”, “nasopharyngeal swab”, “oropharyngeal swab”, revealed only three publications relevant for the question of adverse events caused by pharyngeal swab procedures. The first one represents a case report describing the break of a nasal swab by triggering the swab’s breakpoint mechanism during the examination of an uncooperative patient [4]. The second publication compared commercially available swabs with three-dimensional printed nasopharyngeal swabs, reporting different mild complications in several individuals, and one individual with severe epistaxis needing medical help [5]. Lastly, one case of cerebrospinal fluid leak requiring endoscopic surgical repair was reported after a nasal COVID-19 test [6]. Of note, even the second study investigated adverse events in only 176 individuals [5].