

Intended for healthcare professionals

🗨️ Rapid response to:

Editor's Choice Editor's choice

The burning building

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Rapid Response:

Inhabitants of Swedish-Somali origin are at great risk for covid-19

In Editor's choice of 19 March Fiona Godlee writes, "With the covid-19 pandemic we have entered extraordinary times, when some things are known but many more are not and where decisions must be made nonetheless."^[1] We fully agree.

Among the first 15 deaths due to covid-19 in Stockholm County, six were reported, by the Swedish-Somali medical society, to be of Somali origin (March 24). Considering that only 0.84% of the Stockholm County population was born in Somalia (n=8,178 by December 2019) this is an astonishing high rate.

Socio-economic factors, e.g. cramped housing accommodation, high rates of smoking and poor understanding of the Swedish language (which in turn leads to poor understanding of health information on covid-19 provided by the authorities) may explain the situation. Another possible explanation is Ethnic benign neutropenia - the most common form of neutropenia worldwide and very common among East African populations.^[2]

A risk factor that we want to highlight, however, is the low vitamin D levels found in the Swedish-Somali population. Vitamin D status is strongly related to low sun exposure and dark skin. In two different studies, the great majority of Swedish women of Somali origin had very low levels of S-25(OH)-D (<25nmol/l).^[3,4] In Finland, Somali women required more than twice the amount of vitamin D in order to maintain recommended vitamin D status. ^[5] In addition, vitamin D deficiency was twice as common, regardless of gender, in immigrants from Africa compared with those from the Middle East.^[6]

There is evidence that vitamin D is involved in our defence against respiratory tract infections. According to a meta-analysis, vitamin D supplementation (daily-weekly dosage) prevents acute respiratory tract infections,

especially in those with 25(OH)-D below 25 nmol/l (NNT = 4).[7] In a randomised trial on individuals with frequent respiratory tract infections, treatment with cholecalciferol 4000 IE/day reduced the need for antibiotic treatment. [8] The mechanism is debated; however, modulation of the renin-angiotensin system has been implicated in animal studies of acute respiratory distress syndrome,[9] and angiotensin-converting enzyme 2 is a well-established receptor for the SARS-CoV virus.[10]

In order to cope with the covid-19 epidemic, preventive measures could be administration of vitamin D to high-risk populations, e.g. dark-skinned adults with low sun-exposure and/or individuals with risk factors for respiratory tract infections. Although it may not always be helpful, it is unlikely to be harmful.

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