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cases of COVID-19 (the so-called iceberg phenomenon that is common for most infectious diseases) and the institution of RT-PCR as a diagnostic standard, radiological examination seems less important as a diagnostic tool than it used to be. Pneumonia is often considered a leading life-threatening risk for children.<sup>2</sup> Radiological evidence is crucial in assessing organ damage, as indicated by the presence of pneumonia when COVID-19 progresses from mild or asymptomatic to severe. This potential for rapid disease progression justifies the definition of the moderate clinical type, which is mainly defined by the presence of mild pneumonia.

Therefore, we used the same definitions of disease severity for our follow-up study (unpublished) as used in our previous cohort study.<sup>1</sup> After analysing the prognostic value of the chest CT scans from 127 paediatric patients with COVID-19 in our follow-up study, we found that length of hospitalisation and body temperature were significantly higher for children with pneumonia than for those without pneumonia. Bilateral pneumonia was often associated with a higher white blood cell count, suggesting mixed infections. Right-lobe pneumonia persisted after 1 month of follow-up, but left-lobe pneumonia did not. Although only a small proportion of paediatric patients progress to severe illness or become critically ill, and COVID-19 pneumonia seems milder than H1N1 pneumonia,<sup>3</sup> the outcome is often serious once patients with COVID-19 enter a severe condition. Among the three patients in our follow-up cohort who had severe disease, one patient died and one became critically ill.

Because of the paucity of long-term follow-up data from the COVID-19 pandemic, more time is required to fully understand the value of radiological examinations. Additionally, from the onset of SARS-CoV-2 infection to the diagnosis of COVID-19, the sensitivity of chest CT

scans appears to be higher than that of RT-PCR.<sup>4</sup> Digital radiology might be a suitable choice to reduce the amount of radiation exposure to children. We agree that radiological examinations might not be necessary when looking after a large number of patients, where radiological examinations are not available, or when patients can be diagnosed with mild COVID-19 by an experienced clinician. Nevertheless, using CT scans to diagnose pneumonia helps to define moderate disease severity, provides valuable information about outcome, and increases the accuracy and sensitivity of screening.

The proposition by Buonsenso and colleagues to define moderate disease by a combination of symptoms might produce ambiguous results compared with the direct and objective evidence gained from radiological scans. Patients with COVID-19 often have lung lesions detectable by CT scanning before they exhibit symptoms. Furthermore, a more clinically based diagnosis of pneumonia requires experienced clinicians, and the wheezing, abnormal breath sounds, and snoring in Buonsenso's definition might result from mixed infections or be present intermittently.

We declare no competing interests. DC and FT contributed equally to this Correspondence.

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## COVID-19 screening of health-care workers in a London maternity hospital



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There have been increasing calls for universal screening of health-care workers for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).<sup>1</sup> We have been screening health-care workers at The Portland Hospital for Women and Children (London, UK) since March 17, 2020. By April 16, 2020, we had tested nasopharyngeal swabs taken from 266 staff members (>50% of the workforce) using SARS-CoV-2 RT-PCR, and 47 (18%) were found to be positive. Of these positive cases, 31 (66%) were symptomatic and 16 (34%) were asymptomatic (figure). Overall, 28 (48%) staff members remained positive at 7 days after the initial test was taken, 16 (34%) at 10 days, and four (9%) at 14 days, with one health-care worker remaining positive until 26 days. Of 25 symptomatic staff members who initially tested negative and were retested, only one (4%) became positive after 7 days. Potential factors associated with SARS-CoV-2 positivity are summarised in the figure.

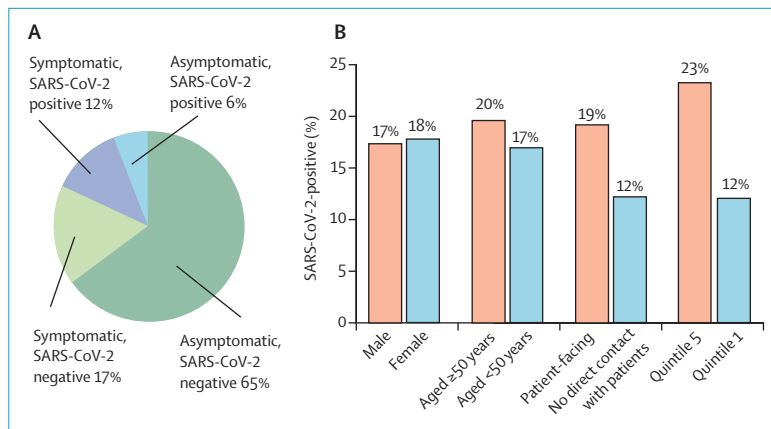
There are several potential benefits of universal staff testing.<sup>1</sup> Importantly, it would ameliorate current workforce depletion due to symptomatic staff self-isolating, because a substantial proportion do not have COVID-19.<sup>2</sup> For example, of 76 symptomatic health-care workers in our analysis, 45 (59%) tested negative for SARS-CoV-2. These health-care workers could, therefore, have returned to work (assuming they were not unwell) as soon as they received their result. Had these



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For the **IMD Postcode search tool** see <https://tools.npeu.ox.ac.uk/imd>



**Figure: SARS-CoV-2 test results of 266 health-care workers at a London maternity hospital**

Test results by symptom status (A) and characteristics (B). The IMD quintile was derived from postcode data using the IMD Postcode search tool, where quintile 1 (least deprived) corresponds to an IDM score  $\leq 8.49$  and quintile 5 (most deprived) corresponds to an IDM score  $\geq 34.18$ . IMD=index of multiple deprivation. SARS-CoV-2=severe acute respiratory syndrome coronavirus 2.

health-care workers not been tested, they would have been obliged to self-isolate for 7 days or more, and their household members for 14 days.

Regular testing also allows asymptomatic SARS-CoV-2-positive health-care workers to be identified and isolated early, thus reducing nosocomial transmission to potentially susceptible patients and other staff, and from the hospital to the community.<sup>3,4</sup> Reducing transmission is particularly relevant when personal protective equipment might be scarce. Health-care workers at our hospital are regularly reminded to self-isolate when symptomatic, and their body temperature is checked daily and they are assessed with structured questionnaires when swabbed. Our finding, however, that 16 (34%) of 47 health-care workers who tested positive for SARS-CoV-2 were asymptomatic, and that 45 (59%) of 76 symptomatic health-care workers tested negative for SARS-CoV-2, highlights a crucial need for the routine testing of all health-care workers, including those who do not have direct contact with patients.

During this pandemic, shortages of health-care staff have been a major challenge. Redeployment of health-care workers has depleted some

specialties and has led to staff working in unfamiliar environments. Training and research have been suspended, and annual leave has been postponed. The UK Health Secretary's promise to reach a target of 100 000 tests per day by the end of April, 2020, was achieved. Therefore, universal testing of health-care workers is feasible, potentially ameliorating the current workforce depletion and reducing the risk of asymptomatic spread of SARS-CoV-2.

RH is the Medical Director of The Portland Hospital for Women and Children (London, UK). KP is a current employee of The Portland Hospital for Women and Children. All other authors declare no competing interests.

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## Silent COVID-19: what your skin can reveal

Clinical manifestations of coronavirus disease 2019 (COVID-19) are rare or absent in children and adolescents;<sup>1,2</sup> hence, early clinical detection is fundamental to prevent further spreading. We report three young patients presenting with chilblain-like lesions who were diagnosed with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. Two of them were asymptomatic and potentially contagious. Skin lesions, such as erythematous rashes, urticaria, and chicken pox-like vesicles, were reported in 18 (20.4%) of 88 patients with COVID-19 in a previous study.<sup>3</sup> These symptoms developed at the onset of SARS-CoV-2 infection or during hospital stay and did not correlate with disease severity.<sup>3</sup> In our cases, lesions involved the acral sites, especially the dorsum of the digits of the feet, beginning as erythematous-violaceous patches that slowly evolved to purpuric lesions and then to blisters and ulceronecrotic lesions, with final complete return to normal. Burning and itching were also present with some of the lesions. Informed consent was obtained from the parents of



**Figure: Chilblain-like lesions on patient 1's left foot**