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## Occupational skin disease during the COVID-19 pandemic, as captured in a Dermatology staff clinic in the United Kingdom

Editor,

A dermatology walk-in clinic available to all hospital staff (HS) was commenced to treat skin problems related to personal protective equipment (PPE) during the COVID-19 pandemic. An observational case series was conducted in a single district general hospital within Wales (United Kingdom) to record the dermatological diagnoses. Our participant sample is comprised of clinical and non-clinical staff working in COVID-19 and non-COVID-19 areas of the hospital. Over the data collection period (6 weeks), a total of 72 patients attended the clinic of whom 62 were females and 10 were males (mean age = 43 years). Data are comprised of demographic data, current occupation (shown in Table 1), duration of symptoms, past medical history, regular medication and treatment interventions. An analysis of the clinical diagnoses seen is reported in Table 2.

Irritant hand dermatitis caused by increased frequency in hand washing and use of alcohol-based hand sanitizers was the most common symptom, affecting 62.5% of patients in agreement with previous research.<sup>1</sup> Similar to Balato *et al.*,<sup>1</sup> our treatment regimen advised regular applications of fragrance-free emollients. To improve treatment acceptance and compliance, we offered a lighter emollient (cream or lotion) to be applied during the day and a lipid-rich emollient (ointment) to be applied at home. We recommended the use of a topical steroid preparation for patients with inflamed skin. Information leaflets were provided, and soap substitutes were suggested for home use. Soap substitutes have not been validated to eradicate SARS-CoV-2 and therefore were not proposed for use in the work environment, as supported by the British Society of Cutaneous Allergy guidance.<sup>2</sup>

Pressure-related facial symptoms, due to mask usage, were also seen in 3 patients (4%) but not observed in as high percentages as Jiang *et al.*<sup>3</sup> Our participant inclusion criteria included all staff rather than only staff caring for COVID-19 patients, and advice had been provided for the prevention of adverse effects, which could explain the difference. Skin protectant film was issued to staff for use prior to mask application and instructions about daily use of an emollient as a skin barrier and avoidance of mask over-tightening was given. Facial cutaneous symptoms can lead to more frequent facial touching for relief of mechanical pressure, therefore increasing the risk of infection. We offered hydrocolloid dressings for use on pressure points on the face. To ensure an appropriate mask seal is not compromised by this intervention, a repeat 'fit mask testing' with the dressings already applied was recommended. Worsening of pre-existing skin conditions was managed following standard treatment of care.

**Table 1** Occupation analysis of participants

Occupation	Number of patients (%)
Nurse	21 (29%)
Doctor	10 (13.8%)
Healthcare Assistant	9 (12.5%)
Administrative staff	6 (8.3%)
Decontamination of equipment in ITU technician	5 (7%)
Phlebotomist	5 (7%)
Laboratory technician	4 (5.5%)
Records clerk	3 (4%)
Domestic cleaner	2 (2.7%)
Paramedic	1 (1.3%)
Business support manager	1 (1.3%)
Paramedic	1 (1.3%)
Midwife	1 (1.3%)
Facility officer	1 (1.3%)
Porter	1 (1.3%)
Physiotherapist	1 (1.3%)

**Table 2** Clinical diagnoses

Diagnoses	Number of patients (%)
Irritant hand dermatitis	45 (62.5%)
Mask adverse effects	3 (4%)
• Pressure related (oedema and erythema)	2 (2.7%)
• Facial ulceration	1 (1.3%)
Worsening of pre-existing dermatological conditions	17 (23.6%)
• Eczema	10 (13.8%)
• Psoriasis	4 (5.5%)
• Rosacea	2 (2.7%)
• Acne	1 (1.3%)
Other diagnoses	17 (23.6%)
• Urticaria	2 (2.7%)
• Benign naevus	2 (2.7%)
• Pseudo-chilblain due to Covid-19	1 (1.3%)
• Allergic contact dermatitis (Hair dye)	1 (1.3%)
• Angular cheilitis	1 (1.3%)
• Polymorphic light eruption	1 (1.3%)
• Grover's disease	1 (1.3%)
• Seborrhoeic dermatitis	1 (1.3%)
• Haemangioma	1 (1.3%)
• Hypopigmentation following burn	1 (1.3%)
• Pityriasis versicolor	1 (1.3%)
• Tinea	1 (1.3%)
• Epidermoid cyst	1 (1.3%)
• Rhinitis	1 (1.3%)

Previous research demonstrates the importance of supporting staff well-being during a pandemic, with particular reference to preventative measures of support at an organizational level.<sup>4</sup> As seen in our data, staff who attended the clinic did so for a variety of reasons, some of which related to previous medical diagnoses,

whilst others directly related to COVID-19 management. Patients stated that their skin disease worsened due to their emotional stress (14%). Consequently, providing timely medical support during a challenging time could have additional advantageous effects on staff well-being.

To conclude, all diagnoses were made by a specialist in contrast to other recent studies<sup>3,5</sup> where diagnoses were self-reported using a questionnaire. Given our study included participants from all occupations within the hospital, this reflects the need for a wider reaching clinic to support staff medical issues and well-being. We recognize that the sample size of this study is small, and data were collected at a single centre. However, these limitations were outweighed by the need to share our experience promptly during the continuously evolving pandemic.

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## Conflict of interest

There was no conflict of interest for this work.

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The corresponding author attests that all listed authors met authorship criteria and that no others meeting the criteria have been omitted. The article was written by Dr Sofia Hadjieconomou and supervised by Dr Jenny Hughes and Dr Sandeep Kamath. I, Sofia Hadjieconomou, confirm that the manuscript is an honest, accurate and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

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