

**"Given the new normal post COVID-19,
what changes do you see in dermatology
services over the next 5 years?"**

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Introduction

Last December, reports circulated of a new coronavirus, SARS-CoV-2 in Wuhan, China. One year and seventy-one million cases later¹, Pfizer's vaccine has been shown to have 95% efficacy. However, its duration of protection is still unknown², and if the immunity provided is shorter, recurrent outbreaks could be common. Furthermore, challenges to distribution and even uptake exist, with vaccine hesitancy being rife³. With many unknowns we must prepare for a prolonged era of COVID-19. This essay will draw from evidence in the dermatological literature to provide insight into how dermatology will be affected for the next five years in four main areas: diagnosis, treatment, training and cutaneous issues of COVID-19.

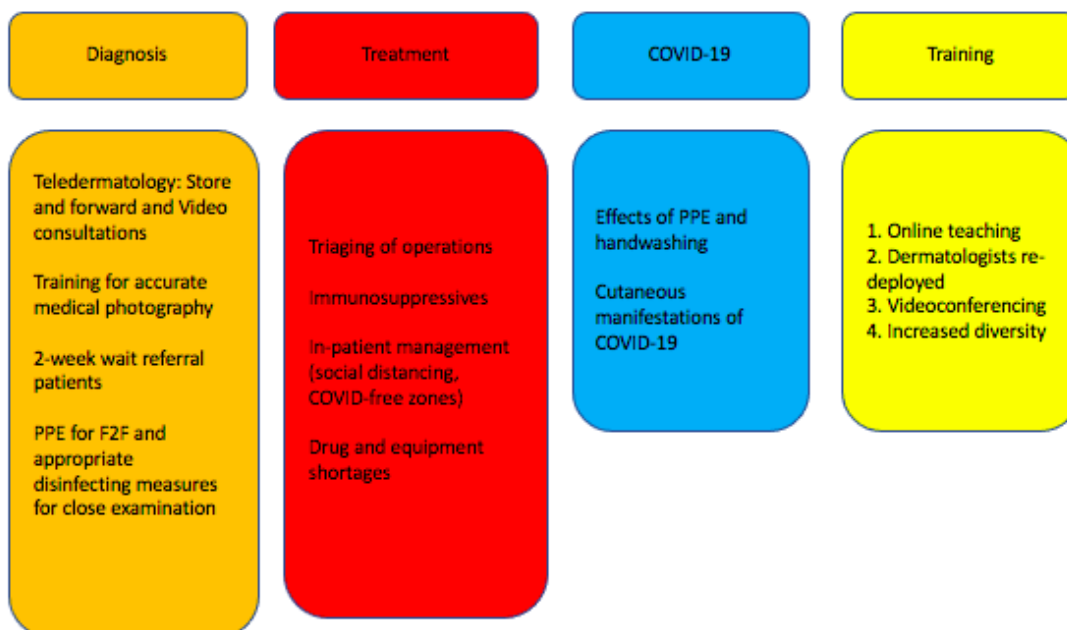


Figure 1

Diagnosis

Approximately 40% of all SARS-CoV-2 infections are asymptomatic, rendering symptom-based screening insufficient⁴. One study also found that dermatological examinations *may* be a vector for spread⁵. Combined with the vulnerabilities and health-

anxieties of patients, teledermatology is here to stay across a wide-range of clinical scenarios (Figure 2). Where a face to face (FTF) consultation is essential, appropriate PPE must be worn⁶.

Model	Function
Consultative	Teledermatologists provide recommendations to the GP but patient remains in primary care
Triage	Prioritising patients and determining need FTF visits. Useful for 2ww referral as most referred lesions are benign
Follow-up	Supports remote input into chronic skin conditions and to assess therapy

Figure 2

Teledermatology

The benefits of teledermatology are numerous including its geographical flexibility afforded for both the patient and doctor, as well as reductions in waiting lists, costs and unnecessary referrals⁶⁻⁸. Disadvantages include possible loss of patient satisfaction, and technical difficulties like poor audio and video quality or security breaches⁹. Additionally, the inability to palpate or complete a full skin survey may affect use, supported by one study which showed a higher number of follow-up FTF appointments and a significant administrative workload compared to in-person consultations¹⁰.

Future teledermatology platforms must be secure using the latest security and encryption systems in a user-friendly setting. Organisations need to consider the needs of migrants as well as settled residents¹¹.

	Patients	Accuracy	Satisfaction
Piccolo(1999)	66 pigmented lesions examined FTF vs. high-resolution SAF	91% concordance Found that SAF method was better than an interactive teleconsultation	
Livingstone(2015)	248 patients. 'Benign-looking' lesions. SAF	Cost of secondary care is £170 vs. £45 for teledermatology	N=129 100% would recommend
Nicholson(2020)	2WW in London-NHS; n=60		80.5% recommend 42% prefer FTF appointment 33.3% wanted a full skin check
C.Davies(2020)	Compared 200 virtual consultations with 200 FTF		23.5% could not video

Figure 3

As noted, there seems to be little disruption to quality of care but the main value of teledermatology may not lie in its clinical outcomes but in its cost-effective and time-saving nature. Long-term the government needs to support the development of novel telehealth solutions which are equally safe, flexible and tailored to users' needs. Whilst we must consider the increased burden of care on patients, new knowledge can be empowering of clinicians, carers and patients alike¹¹. The COVID-19 pandemic represents a golden opportunity to transform telehealth.

Treatment

'Cancel everything' has been the hashtag of the pandemic, including in dermatological surgery¹¹. The negative impact on health is being realised with one study

showing delayed malignant melanoma diagnosis and management which is concerning as most melanomas have a radial growth period, meaning early diagnosis is crucial¹⁷.

The emotional toll is great, with patients delaying preventive care. A study of emergency visits to University of Rochester A&E had declined by half, and it is likely that a similar trend exists in dermatology¹⁸. To help allay concerns, we must work to intentionally reinforce greater COVID-19 testing, PPE availability and enhanced cleaning¹⁸.

Moving forwards requires creativity but also structural changes to the clinical workflows. The redesigning of systems to care for COVID-19 and non-COVID-19 patients in parallel, as well as rapid, enhanced testing for staff and patients. It is also important to research further into concerns into the use of biologics (Figure 4²⁰⁻²⁴)¹⁹.

	Evidence Level	Recommendations
Biologics	Piaserico (2020) Level II	n=1830 on biologics 6 cases of COVID-19, four developed interstitial pneumonia but none died. Risk-benefits consideration
	Alshiyab(2020) Level II	Maintain continuity of care for those on biologics. n=154: 80% did not have required lab monitoring
Surgery	Glasbey(2020) Level I	Creation of COVID-free surgical pathways (n=9171) with a reduced rate of pulmonary complications and post-operative COVID-19
	Brucher(2020) Level V	3 surgical response phases depending on status of COVID-19 i.e. triage system
	BSDS	Elective: patients isolate for 14 days prior + pre-admission test Time-critical lesions seen and treated on same day to minimise visits Strong communication with patient to allay anxieties Prioritise high-risk patients Infection control: FFP3 mask when operating. Introduce smoke extractors to all operating facilities.

Figure 4

Conclusion

The new normal of COVID-19 will undoubtedly change the way dermatology with training of dermatologists, and medical students moving online, as well as a rise in PPE-related cutaneous effects. In my opinion however, the most important change in dermatology will be in its philosophy. The Black Lives Matter movement has super-charged

initiatives like 'Mind the Gap' and the newly revised BAD handbook which better serve brown and black skin. One is hopeful that long-term, such diversity will diffuse into dermatological research and personnel too, where under-representation has been rife for too long²⁵⁻²⁸.

Word Count (including figures and tables, but excluding references): 1000 words

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