

## **An Irish Dermatology Department in the Era of COVID-19**

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*“All’s changed, changed utterly” – WB Yeats*

The COVID-19 pandemic has had a monumental impact on the delivery of healthcare globally. Dermatology is a predominantly outpatient-based, particularly visual speciality, with a high volume of medically complex patients and therapies. We summarise the adaptations made in a large dermatology centre in Cork, Ireland, to enhance patient and professional safety, and to streamline practice. While some of these changes are being reversed as the nation exits lockdown, this document could provide a blueprint for management of a second wave, or future outbreak.

### **Pre-COVID-19 Surge**

Tutorials were organised by our general medical and anaesthetic colleagues to re-skill in resuscitation, acute medical emergencies, and practical skills such as cannulation and arterial blood gases. Lectures on analgesia and end-of-life care were delivered by our pain management and palliative care colleagues. Teaching on personal protective equipment (PPE) was delivered by our infection control colleagues. Medical staff with backgrounds in medical or paediatric medicine volunteered for additional work in ‘Covid pods’ in the city’s regional acute hospital. Local dissemination of ‘fake news’ regarding COVID-19 was confronted. <sup>1</sup>

### **COVID-19 Surge**

#### *Dermatology referrals and correspondence*

The department offers a long-standing photo-advice service via email for General Practitioners (GPs) with urgent queries. All GPs in the catchment area were emailed to remind them of the service for urgent queries, to prevent delayed or missed emergencies. A sharp and massive increase was noted in the volume of phone calls from GPs, as many GPs were unable to review patients in person. Several patients were directly referred onwards to other surgical specialties for definitive management to minimise healthcare exposure. There was increasing reliance on email for clinical photos from other doctors and from patients. Prescriptions were emailed directly to pharmacies. Patient letters were emailed directly to GPs.

### *Dermatology clinics*

Dermatology clinics were immediately converted to telephone clinics for return patients. Doctors received training in teledermatology, due to the potential pitfalls in communication. Patients were contacted by administrative staff to verify that they could take a phone call during their allotted time. Our 'did not attend' rate decreased from 22% pre-COVID to a 'did not answer' rate of 7% during this period. Video consultations for new patients were introduced, using software previously enabled for dictation. Patient selection for video review was refined to prioritise common conditions such as psoriasis, eczema, or acne. Lesions were excluded from video review due to difficulties viewing lesions and the need for in person follow up for biopsy or excision. Face to face reviews were still held due to clinical necessity. Pigmented lesion clinics continued due to the serious risk of missed melanomas.<sup>2</sup> Excisions of suspicious pigmented lesions were performed immediately to avoid return visits. Melanoma follow up clinics, involving full skin and lymph node examinations, were held in a local private hospital which had been rented by the public health system.

### *Dermatology procedures*

Surgical lists were complicated by the fact that the patient population requiring surgery was generally at higher risk of COVID-19 (older and/or immunosuppressed). The number of appointments for 'direct biopsy' (lesion review +/- surgery if required) was increased. Parallel clinics/biopsies were run so that if a patient required surgery it could be performed immediately. Absorbable sutures were used if feasible to prevent re-attendance for suture removal. Equipment and rooms required deep cleaning between patients. Where possible, topical therapy (e.g. 5-fluorouracil) was prescribed instead of cryotherapy or surgery. Wide local excisions were deferred. Intralesional steroid injections and neuromodulator injections for hyperhidrosis were deferred.

Phototherapy for inflammatory or neoplastic dermatoses was initially deferred considering the risk of close contact with potential cases. It was gradually reintroduced on a limited basis.

Patch testing for identification of cutaneous allergens was also initially deferred and was gradually reintroduced on a restricted basis. The 48-hour assessment was performed at home to reduce exposure to healthcare.

### *Dermatology therapies*

The risk-benefit ratio of biologic and systemic therapy was explained to every patient on immunomodulatory therapy. The lack of knowledge on the effects of these therapies on acquisition and severity of COVID-19 was highlighted. The risk of severe untreated inflammatory skin disease was also discussed. The importance of influenza and pneumococcal vaccination was emphasised. Blood monitoring was reduced in frequency if feasible.

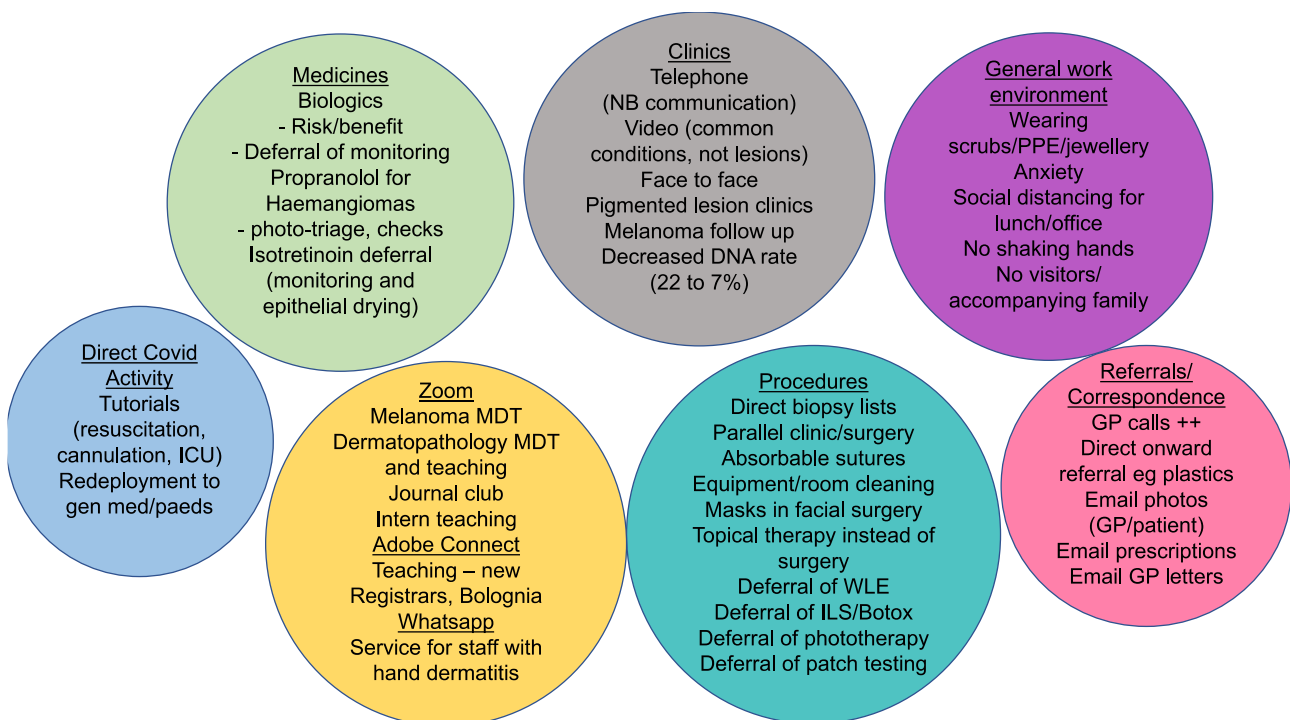
The department had previously established a photo-triage system for infantile haemangiomas, which continued throughout the crisis.<sup>3</sup> This facilitated urgent review if required and eliminated a significant volume of unnecessary visits. Propranolol monitoring (weight, blood pressure, heart rate) was moved to our hospital due to an infection-related ward closure in the local paediatric hospital. Isotretinoin therapy was cautiously initiated during the crisis, due to the need for frequent monitoring, and the unknown risk of retinoid-induced epithelial drying. Female patients who were already on treatment attended our department for urinary pregnancy testing, performed home urinary testing and forwarded us the results, or had monitoring blood tests including  $\beta$ -hCG.

## Use of technology

Video consults were performed using T Pro Health system. Melanoma and dermatopathology multidisciplinary meetings changed from physical meetings to Webex meetings. Dermatopathology teaching, journal club, and tutorials for our new interns were performed using Zoom. Adobe Connect was used for nation-wide teaching including introduction to dermatology for new trainees, weekly trainee teaching, and lectures from external sites. A WhatsApp service was established for healthcare workers in the city who developed skin problems related to hand hygiene or personal protective equipment (PPE).

## Work environment

Several less conspicuous but personal changes took place in the hospital work environment. Outfits changed to scrubs. PPE was donned and doffed. Jewellery was not worn. Anxiety was particularly palpable at the onset of the crisis, as meetings were held regarding deployment, and uncertainty about the future of the department took hold. Social distancing was enforced in the office and at break time. Shaking hands with patients was suspended, and nursing staff no longer comforted patients intraoperatively by holding their hand. Visitors and accompanying family members or friends were limited.



**Figure 1.** Summary of departmental changes

## Post COVID-19 Surge

The initial surge has had a major impact on outpatient waiting times. Face-to-face reviews are being reintroduced on a phased basis. Patients referred with lesions are now seen in a 'see and treat' surgical list. Patients on biologics will attend virtual clinics for the foreseeable future. Arrangements are being put in place to deliver undergraduate dermatology teaching virtually.<sup>4</sup> Routine procedures are being performed once again.

## **Conclusion**

COVID-19 has had a devastating impact on the global healthcare system and economy. We have outlined the changes made in one department which has successfully negotiated an unprecedented clinical environment. As we emerge from the first surge of COVID-19 in Ireland, we must share experiences, successes, and failures, to inform future planning.

## **Keywords:**

COVID-19; SARS-CoV-2; dermatology; service provision

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