

## The Lessons Learned from Managing Malignant Melanoma During COVID-19 in a Plastic Surgery Unit in Ireland

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**Abstract :** Introduction: The COVID-19 pandemic continues to present unprecedented challenges for healthcare systems. This has resulted in the pragmatic shift in the practice of plastic surgery units worldwide. During this period, many units reported a significant fall in urgent melanoma referrals, leading to patients presenting with advanced disease requiring more extensive surgery and inferior outcomes. Our objective was to evaluate our unit's experience with both non-invasive and invasive melanoma during the COVID-19 pandemic and characterize our experience and contrast it to that experienced by our neighbors in the UK, mainland Europe and North America. Methods: a retrospective chart review was performed on all patients diagnosed with invasive and non-invasive cutaneous melanoma between March to December of 2019 (control) compared to 2020 (COVID-19 pandemic) in a single plastic surgery unit in Ireland. Patient demographics, referral source, surgical procedures, tumour characteristics, radiological findings, oncological therapies and follow-up were recorded. All data were anonymized and stored in Microsoft Excel. Results: A total of 589 patients were included in the study. Of these, 314 (53%) with invasive melanoma, compared to 275 (47%) with the non-invasive disease. Overall, more patients were diagnosed with both invasive and non-invasive melanoma in 2020 than in 2019 ( $p < 0.05$ ). However, significantly longer waiting times in 2020 (64 days) compared to 2019 (28 days) ( $p < 0.05$ ), with the majority of the referral being from GP in 2019 (83%) compared to 61% in 2020. Positive sentinel lymph node were higher in 2019 at 56% ( $n=28$ ) compared to 24% ( $n=22$ ) in 2020. There was no statistically significant difference in the tumor characteristics or metastasis status. Discussion: While other countries have noticed a fall in the melanoma diagnosis. Our units experienced a higher number of disease diagnoses. This can be due to multiple reasons. In Ireland, the government reached an early agreement with the private sector to continue elective surgery on an urgent basis in private hospitals. This allowed access to local anesthetic procedures and local skin cancer cases were triaged to non-COVID-19 provider centers. Our unit also adapted a fast, effective and minimal patient contact strategy for triaging skin cancer based on telemedicine. Thirdly, a skin cancer nurse specialist maintained patient follow-ups and triaging a dedicated email service. Finally, our plastic surgery service continued to maintain a virtual complex skin cancer multidisciplinary team meeting during the pandemic, ensuring local clinical governance has adhered to each clinical case. Conclusion: Our study highlights that with the prompt efficient restructuring of services, we could reserve successful management of skin cancer even in the most devastating times. It is important to reflect on the success during the pandemic and emphasize the importance of preparation for a potentially difficult future

**Keywords :** malignant melanoma, skin cancer, COVID-19, triage

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