



Irish Melanoma Forum – 13th Annual Scientific Meeting 2025

Date: Friday 23rd May, 2025.

Venue: O' Reilly Hall, UCD, Belfield, Dublin 4, Ireland.



Oral Presentation Abstracts

001

Regression within Primary Melanomas: Frequency and associated features in an Irish cohort

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Background

Regression is a histopathological term indicating the replacement of melanoma tumour cells by fibrosis and an infiltrate of lymphocytes and/or melanophages. 10%-35% melanomas show regression, but its clinical significance and prognostic implications are debated. Regression may lead to underestimation of Breslow thickness, when the deepest melanoma cells are no longer present, however, it may reflect activation of the host immune response.

Aim

While existing literature describes regression in other populations, there is a dearth of knowledge regarding the Irish population. This study aimed to determine the frequency of histologically-reported regression in a cohort of Irish melanoma patients and its association with other histological parameters.

Methods

A retrospective analysis was conducted on histopathological reports of 284 consecutive melanoma cases at a single centre. The association between the presence of regression and clinical and pathological features was assessed. These included sex, age at diagnosis, site, melanoma subtype, Breslow thickness, mitotic rate, ulceration, TILs, microsatellites, coexistent naevus, sentinel lymph node biopsy status, metastases, pathological and clinical stage. Statistical significance was determined using chi-squared and Mann–Whitney U tests with a threshold of $P < 0.05$. Logistic regression was used to account for potential confounding variables.

Results

Regression was present in 68 cases (23.9%). It was significantly associated with increasing age, decreasing Breslow thickness, and site located on the trunk ($P < 0.05$). No significant associations were found between regression and the remaining clinical or pathological features.

Conclusion

This study describes the frequency and factors associated with regression in an Irish melanoma cohort. The findings suggest potential biological and anatomical influences. The association with advancing age may imply different immunological dynamics over one's lifetime. Further prospective, multicentre studies with long-term follow-up are warranted to clarify the prognostic significance of regression and its role in melanoma management and response to treatment.



Oral Presentation Abstracts

002

Sarcopenia as a prognostic indicator in advanced melanoma; a retrospective cohort study.

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Introduction

Melanoma poses a significant global health burden due to its aggressive nature and propensity for metastasis. Despite advances in therapeutic strategies, the prognosis of advanced melanoma remains suboptimal, urging researchers to explore novel prognostic factors and therapeutic targets. Recent research has shed light on the role of sarcopenia, a multifaceted condition characterized by skeletal muscle loss and dysfunction, we know that sarcopenia can lead to poor progression and overall survival in advanced solid tumours, however the role of sarcopenia in advanced melanoma is unclear. This study reviews our own population of advanced stage melanoma patients and their sarcopenia profile, how does it affect their overall survival?

Methods

A retrospective cohort study of stage 2b melanoma patients and above were assessed for sarcopenia on their follow up disease monitoring CT scans and their subsequent 1, 5 and 10 year survival was analysed between those with and without sarcopenia.

Results

Over a 12 year period, between years 2006 and 2018, Galway University Hospital managed 150 patients with melanoma classified at stage 2B or above. The average age was 62.5years (range 19-96 years), with n=73 females and n=77 males included. One hundred and fourteen patients (76%) had evidence of sarcopenia in the population cohort (80% (n=61) of the male cohort and 77% (n=56) of the female group). At time of data retrieval 65% (n=97) of the patient group had died. Less than '1 year survival' was found in 13% (n=20)(n=9 females v n=11 males), '2-5 year survival' only was found in 43% of this patient group (n=29 females v n=36 males) and 39% (n=58)(n=34 females v n=24males) had over ten year survival with 4% lost to follow up (n=7, n=1 female, n=6 males). In the 1,5 and 10 year survival groups we found that 95% (n=19), 76% (n=50) and 67% (n=39) had evidence of sarcopenia respectively.

Discussion

Sarcopenia has been linked to poorer response rates to immunotherapy and targeted therapies, suggesting its potential role as a predictive biomarker in treatment selection. Our results demonstrate that sarcopenia is a poor prognostic indicator for survival in advanced melanoma, with the rate of sarcopenia decreases in those who survived for 10 years or longer. We therefore propose and highlight the importance of comprehensive assessment tools for sarcopenia in the context of melanoma. Traditional methods, such as body mass index (BMI), fail to capture the nuanced changes in muscle mass and function. Instead, emerging techniques, such as computed tomography (CT) scans and bioelectrical impedance analysis (BIA), offer more accurate and reliable assessments of skeletal muscle quality and quantity.

To conclude, we emphasize the emerging significance of sarcopenia in melanoma, highlighting its potential as a novel prognostic factor and therapeutic target. Understanding the complex relationship between sarcopenia and melanoma may lead to the development of personalized treatment strategies aimed at mitigating muscle loss, improving treatment outcomes, and enhancing the quality of life for patients with melanoma.



Oral Presentation Abstracts

003

Analysis of extracellular vesicles as a source of novel biomarkers for the detection of primary and metastatic uveal melanoma

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Uveal melanoma (UM) is the most common primary intraocular malignancy in adults, characterized by a high rate of metastasis, particularly to the liver. Despite advances in local tumor control, long-term survival remains poor due to late detection of systemic spread. Efficacious treatments and better prognostication approaches for MUM are urgently needed. Plasma biomarkers offer a promising avenue for non-invasive surveillance, early detection of metastasis, and personalized therapeutic strategies. Previous work in the Kennedy lab identified a putative ferroptosis-related biomarker signature associated with UM progression and therapeutic response which correlated to UM-patient survival.

This study assessed extracellular vesicles (EVs) as a potential source of novel biomarkers. EVs offer a minimally invasive window into disease processes and could enable earlier detection and personalized interventions. Identifying EV-based biomarkers holds urgent clinical relevance and could significantly improve outcomes through earlier diagnosis and tailored therapeutic strategies.

EVs were isolated by sucrose cushion ultracentrifugation from 13 Healthy Donors, 33 Primary Uveal Melanoma (PUM) Patients and 12 Metastatic Uveal Melanoma (MUM) Patients. Initial characterisation by western blot and transmission electron microscopy confirmed EVs hallmarks. Flow cytometry assessed particle size and numbers. Comparative proteomics was performed via Data-Independent Acquisition Mass Spectrometry (DIA-MS). Differential protein expression was analyzed between healthy donor, primary and metastatic cohorts, with a cut-off fold change of 1.5 and $p < 0.05$.

10 proteins were significantly increased in abundance in MUM cohorts versus healthy donors, while 29 proteins were significantly increased in abundance in MUM cohorts compared to PUM cohorts. Of these, several were identified as candidate biomarkers for future analysis and validation by ELISA.

Ultimately, this work aims to identify novel biomarkers to enhance earlier detection of PUM and MUM disease, facilitating better clinical management of uveal melanoma.



Oral Presentation Abstracts

004

Targeting NR4A orphan nuclear receptors for novel drug development in melanoma

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Aim/Background

The NR4A1-NR4A3 group of nuclear receptors respond to stress stimuli to control a range of physiological and pathological processes. Compelling evidence suggests perturbation of their expression and activity can modify the local cellular microenvironment and modulate the development and course of several cancer types. Our work is focused on the relevance of such NR4A-associated effects to the progression of cutaneous melanoma and their translational utility as treatment targets for this cancer. A novel feature of NR4As is their flexibility to form distinct monomeric and dimeric species, with particular interest a capacity to associate as a heterodimer with retinoid X receptor (RXR). In this study, we examine the hypothesis that targeted diversion of tumoral NR4As to preferentially associate with RXR may provide a biological switch of their activities to limit melanoma progression.

Methods and Results

A series of cell-based bioassays for a panel of novel 'rexinoid' compounds, designed as ligands for RXR, was performed. We identified several lead candidates that exhibit a significantly heightened potency in RXR transactivation and its ability to selectively form NR4A-RXR heterocomplexes. In reflection of their transcriptional and dimerization profiles, these compounds achieve a more significant growth inhibition of BRAFV600E melanoma cell lines over the clinically established rexinoid, Bexarotene (Targretin). Expression profiling of BRAFV600E melanoma cell lines reveal NR4A1 and NR4A2 to be the most predominant and highly expressed among nuclear receptor transcription examined (n=3). Notably, inhibition of oncogenic BRAFV600E function within tested cell lines reveals a marked decrease of NR4A1 and 2 mRNA levels, highlighting latent association between their expressions and tumoral MAPK pathways.

Conclusions

Although preliminary, these data provide basis that aberrant, high expression levels of NR4As may be linked to oncogenic BRAFV600E activity within melanoma tumours, and a potential component to disease progression. In targeting NR4As, our data provide basis for the prospective of 'designer' rexinoids that selectively divert NR4As to form NR4A-RXR heterocomplexes that regulate alternate pathways, achieving a dissociative effect that opposes tumour progression.



Oral Presentation Abstracts

005

Assessing the Impact of the National Cancer Control Programme (NCCP) guidelines versus the older NICE 2022 guidelines on radiological staging/surveillance of patients with melanoma

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Aim/Background:

The NCCP melanoma radiological staging guidelines were published in 2024. The NICE guidelines on this topic were updated in 2022. These guidelines may impact radiology workload and investigation burden on patients. This audit evaluated the likely impact at SVUH.

Methods:

A retrospective audit patients diagnosed with invasive melanoma in 2022–2023 was conducted; 211/250 were eligible for inclusion. Anonymised data including stage at diagnosis were extracted. Initial scan recommendations, modality, and follow-up under both guidelines were applied and compared to actual practice.

Results:

Under NICE 2022, imaging was “to be considered” in 49.7% (105/211, stages 1b–2b), not recommended in 41.2% (87/211, stage 1a), and clearly recommended in 9% (19/211, stage 2c+). NCCP 2024 recommended imaging in 15.2% (32/211, stage 2b+) and none in 84.8% (179/211, 1a–2a). NICE recommended 388 total scans—67% (262/388) were “to be considered”. The most commonly recommended modality both in the “to be considered” and recommended category was ultrasound 65% (252/388). NCCP recommended 136 scans with no ambiguous categories. CT brain and CT whole-body scans were each recommended 54/136 scans under NCCP for stage 2b/2c tumours.

In practice, PET-CT was most commonly used (68.6% of imaged patients). A subset analysis identified 7 stage 2a tumours imaged by PET-CT despite following MDT recommendation due to high risk histopathology (outside AJCC8 staging) such as lymphovascular or perineural invasion.

Conclusion:

NCCP 2024 reduces ambiguity by providing firm recommendations for 6-monthly imaging over 1–3 years in stage 2b+ tumours. Total scans recommended following NICE 2022 were 388 reducing to 136 when NCCP 2024 were followed. This was primarily due to the lack of a “to be considered” category in the NCCP guidelines. However, recommendation for CT and PET-CT scans was greater, with eligible patients rising from 19/211 (NICE) to 32/211 (NCCP), leading to an estimated annual increase from 68 to 120 higher radiation dose scans. Implications for service provision and investigation burden on patients warrant attention.



Oral Presentation Abstracts

006

Exploring Irish Cancer Patients' Attitudes to Accessing Their Own Medical Records

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Background

Access to personal medical records empowers patients and supports safer, more efficient care. In Ireland, limited digital infrastructure delays information sharing across services. For cancer patients—who often interact with multiple specialists—timely access is especially valuable. This project aimed to explore current barriers to accessing personal medical records and to identify key patient needs for the design of a digital health record.

Methods

An anonymous online survey with 21 questions was developed by a patient advocate and shared through patient networks and social media. It included multiple-choice and open-text questions exploring access, understanding, and gaps in current provision. The survey was open to anyone diagnosed with cancer and treated in Ireland.

Results

A total of 1,547 people responded; 1,280 had cancer and were treated in Ireland. 31% knew they had a right to access their records, just 16% knew how to, and only 15% had ever requested access. Of these 13% were refused access. 39% of applicants were granted access in a month or less. More used informal methods (27%) to view data (e.g. taking photos). Over 90% wanted easy access to their up-to-date medical file. Most preferred secure digital platforms, and valued immediate access to test results, consultation notes, and treatment summaries.

Conclusion

Findings show that while most cancer patients want timely access to their health records, many face barriers including; lack of awareness, lack of clarity around process and slow response times. There is strong support for a user-friendly digital system offering immediate access to key information. As one respondent shared: "Health records should be readily available to patients unless they ask not to receive them. ... the patient is expected to be able to recount detailed information about their diagnosis, treatment etc., but the patient often hasn't been provided with any written information and is left to rely on memory or notes that they have made themselves." The current system is paternalistic and inefficient. A national patient-centered digital solution is urgently needed to respect patient autonomy, enhance communication, and improve overall quality of cancer care.



Moderated Presentation Abstracts

M01

Development of a preclinical model of melanoma using human skin explants

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Background:

Melanoma is the deadliest type of skin cancer and treatment management of metastatic patients is a major challenge, making evident the need for new therapies that improve therapeutic outcome. To that aim, it is crucial to unveil the molecular mechanisms underlying tumor metastasis, for which it is essential the use models that faithfully recreate tumor physiology. 3D skin equivalents have helped to overcome some drawbacks of the traditional 2D models however, they still have limitations as they do not exactly recapitulate tumor microenvironment and lack a fully-formed basement membrane, crucial for spread beyond the *in situ* (intra-epidermis) melanoma status. The objective of this study is the development of a human melanoma model that facilitates the study of how human melanoma cells engage with the basement membrane zone (BMZ) and basal keratinocytes in human skin, as this is the main barrier that melanoma cells must overcome to metastasize to the dermis.

Methods:

Intact human skin explants were exposed to 100 °C water for 10, 15, 30 and 45 seconds to promote superficial blister formation along the basal layer of the epidermis and BMZ. Spheroids (~1mm across) formed from human pigmented melanoma cells were injected into the intra-blister space and incubated at the air-liquid interface for different times, before until molecular analysis of specific markers.

Results:

The optimum seeding concentration and post-seeding time for human melanoma spheroid injection was 1,000 cells and 8 days respectively. These spheroids were large enough and pigmented to facilitate manipulation and administration centrally to the blister space. Blisters reformed at 45 seconds boiling water contact provided appropriate exposure of the BMZ to the melanoma cells. Detection of melanoma markers on cryosections of blister-containing spheroids demonstrated successful inoculation of spheroids.

Conclusion

We have been able to generate a novel *in vitro* melanoma model based on the intra-epidermis administration of melanoma spheroids into living human skin. We will use this model as a tool to study critical steps involved in melanoma cell invasion through the BMZ in a highly physiological environment.



Moderated Presentation Abstracts

M02

Investigating the Therapeutic Potential of Targeting Kinase Suppressor of RAS 1 (KSR1) in Cutaneous Melanoma

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Background:

90% of cutaneous melanomas exhibit aberrant RAF-ERK activation due to activating mutations in the RAS-ERK pathway including BRAF (50%) and NRAS (30%). BRAF driven melanomas can be treated with targeted therapies, such as combinations of RAF and MEK inhibitors (i). However, these targeted therapies are ineffective in NRAS mutated melanomas. Previous work from our group revealed that combinations of structurally diverse RAFi successfully target NRAS driven melanomas. However, NRAS driven melanomas are capable of overcoming this combination therapy by driving oncogenic ERK signalling through the scaffold Kinase Suppressor of Ras 1 (KSR1). This highlights that KSR1 plays a critical role in melanoma signalling but the exact mechanism of how KSR1 enacts cell survival is unknown. This project aims to elude this by firstly investigating the effect of RAFi and MEKi in correlation with KSR1 expression.

Methods:

Wildtype (WT) and CRISPR/Cas9-mediated KSR1^{-/-} (KO) SK-MEL-239 and MEL-JUSO melanoma cell lines were treated with MEKi, cobimetinib and trametinib, or RAFi, dabrafenib and encorafenib, for 72 hours and cell viability was assessed by MTS assay. Western blotting was also carried out on the aforementioned untreated cell lines.

Results:

Our data suggest that WT MEL-JUSO were more sensitive to MEKi than their KO counterpart. Conversely, KSR1^{-/-} MEL-JUSO cells showed no changes in sensitivity to RAFi. Importantly, depletion of KSR1 in SK-MEL-239 cells impacted sensitivity to both RAFi and MEKi. This data was supported by western blotting.

Conclusion:

Preliminary data suggests that KSR1 loss can sensitise cutaneous melanoma to MAPK inhibition. However, it is highly dependent on oncogenic background and pathway setup. Future directions will explore testing RAFi and MEKi combinations in MEL-JUSO and SK-MEL- 239 WT and KO cells.



Moderated Presentation Abstracts

M03

Pathological assessment of lymph nodes in post-neoadjuvant metastatic melanoma

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Background

The pathological response in patients receiving neoadjuvant immunotherapy for metastatic melanoma can direct treatment post-surgery. Cork University Hospital (CUH) is adopting this novel approach, hence justifying the stratified evaluation of residual melanoma in lymph nodes. We examined our current histopathology practice as a preamble to support patient outcome studies.

Methods

Post-neoadjuvant melanoma patients with subsequent lymph node dissection were identified. The corresponding histology slides were reviewed and the items in their pathology reports were assessed against the standards proposed by Tetzlaff and colleagues (2018).

Results

15 patients were identified. Only 7 (47%) of the requisition forms noted the patients received neoadjuvant treatment. Three-dimensional measurements of individual lymph nodes and an attempt to measure the metastatic foci were performed in 2 (13%) cases. The total number of nodes were counted in 14 (93%) cases. Appropriate submission of nodes by size was undertaken in 9 (60%) cases. Our reports included 1 (7%) attempt at pathological response quantification and 8 (53%) cases with documented treatment effects, i.e., melanosis, necrosis, and fibrosis. Nodal metastasis was staged in all cases, with 6 (40%) of these earning ypN0. 10 (67%) cases were submitted for molecular testing, showing 5 cases of NRAS mutations, 4 cases of BRAF mutations, and 1 case that was negative for detectable mutations.

Conclusion

Our service requires notification of prior neoadjuvant treatment for the lymph nodes to be assessed according to the correct macroscopic and microscopic protocols. Guidelines have been developed to assist our evaluation of lymph nodes in the post-neoadjuvant setting, as the presence of response can dictate subsequent treatment. Potential improvements in pathological reporting will be the subject of further study.



Moderated Presentation Abstracts

M04

Genetic Syndromes Associated with Melanoma: What Clinicians Need to Know

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5. *School of Medicine, University College Dublin, Belfield, Dublin 4, Ireland*

Aim/Background:

Malignant melanoma is the most lethal cutaneous malignancy when not detected and treated early. Genetic predisposition plays a critical role in melanomagenesis. Clinicians involved in the care of melanoma patients must understand these genetic factors to optimise diagnosis, surveillance, and treatment strategies.

Methods:

A comprehensive review of current literature was conducted to identify key pathogenic variants associated with melanoma. Existing clinical recommendations for genetic screening and patient management were compiled, with attention to the broader cancer risks linked to these variants.

Results:

Multiple pathogenic variants have been identified that increase the risk of developing melanoma. Many of these also contribute to other malignancies, forming part of various hereditary cancer syndromes. Recognition of these variants can support early diagnosis and guide more individualised surveillance and intervention approaches. Awareness of these syndromes is essential for delivering holistic patient care.

Conclusion:

An understanding of the genetic basis of melanoma is increasingly important for all clinicians managing affected patients. Incorporating these insights into practice can enhance personalised care and may improve long-term outcomes. Broader consideration of associated cancer risks further strengthens comprehensive patient management.



Moderated Presentation Abstracts

M05

Efficacy and safety of Stereotactic Radiosurgery (SRS) in the management of brain metastases in patients with metastatic melanoma.

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Background:

Up to 40-50% of patients with metastatic melanoma (MM) develop brain metastases (BM). These are often very vascular, with potential for spontaneous bleeding. This leads to caution with the use of SRS.

Methods:

We conducted a retrospective analysis of MM patients receiving SRS at our center from 11/2015-11/2023. Primary objectives were median overall survival (mOS [months]) and incidence of bleeding. Survival analysis was performed on Prism 10.1.1. Extraction from electronic medical records was undertaken by authors, with local R&D committee approval.

Results:

81 patients were evaluable. Median duration of follow up was 54.1m (using actuarial methods). 119 individual treatment courses were delivered. There were no bleeding events (BE) in the first 7 days after SRS. There was 1 BE within 28 days (0.8%) and 19 BE within 90 days (16%). Mean size of lesions treated was 4.34cc for those with BE compared to 3.66cc for those without BE (P=0.89). Of those treated, 7.6%(N=9) of patients died within 90 days of SRS, and 25.2% (N=30) died within 6m of treatment.

There were no deaths within 30 days or related to treatment with SRS.

mOS was 17.6m (95% CI 9.20-35.05). Significantly inferior survival outcomes were observed for patients with elevated lactate dehydrogenase (LDH), poor performance status (Karnofsky performance status [KPS]), higher total treated intracranial volume (GTV) and total number of BM present. Median OS of patients with a normal LDH was 37.0m vs 5.2m for those with LDH greater than the upper limit of normal (HR 4.40, P<.0001). This was also true on multivariable analysis including KPS, number of metastases and BM size (HR 3.75 95% CI 1.94-7.30, p= <0.0001). For patients with KPS ≥90 mOS was 35.0m compared to 7.7m for KPS ≤80 (HR 2.55, P<.0004). This was also true using the same multivariable analysis mentioned above (HR 2.12 95% CI 1.123-3.948, p=0.0181).

Conclusions:

Despite theoretically high risk of bleeding after SRS in MM BM, the incidence of bleeding in our cohort was low. Median OS was reasonable with SRS, compared to historical controls of 6-17 months. As expected, abnormal LDH and poor performance status predicted poorer outcomes. Further prospective research is needed to interrogate these findings, including the impact of systemic therapies on bleeding risk to guide local therapies in MM with BM.



Moderated Presentation Abstracts

M06

Empowering the Melanoma Journey: Creating a Personalised Digital Platform for Irish Melanoma Patients

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3. *Dept of Dermatology, Galway University Hospital, Galway*
4. *Melanoma Support Ireland Patient Advocacy Organisation.*

Introduction:

Melanoma is the most serious form of skin cancer, with increasing incidence in Ireland. While advances in treatment have improved outcomes, patients continue to face significant information gaps at all stages of the care pathway. Personalised, accessible, and culturally relevant patient education tools are essential to support informed decision-making, improve psychological wellbeing, and enhance engagement with care.

Aim:

To develop a personalised digital patient information platform for Irish melanoma patients, co-designed with patients, clinicians, and advocacy representatives, and integrated within the national My Patient Space digital infrastructure.

Methods:

A multi-stakeholder development process was undertaken in collaboration with Melanoma Support Ireland (MSI), and industry partners BMS and MSD through educational grants. Content was co-created through structured workshops with Irish melanoma patients, survivors, and clinicians. The platform was built within the My Patient Space framework to ensure secure, scalable delivery within the Irish healthcare system. Usability testing and pilot evaluation will be conducted with a cohort of patients and healthcare professionals across multiple melanoma treatment centres.

Results:

The platform delivers comprehensive, stage-specific, evidence-based information tailored to the Irish melanoma care pathway. Core modules include diagnosis and staging, treatment pathways, side effect profiles, clinical trials information, psycho-oncological support resources, survivorship and follow-up. Content was co-created with melanoma patients, survivors, and clinicians to ensure accuracy, clarity, and relevance. All materials align with NCCP and international guidelines and were reviewed by specialist melanoma clinicians. Integration with My Patient Space enables dynamic content updates and secure, personalised delivery. Feedback emphasised the importance of culturally contextualised, jargon-free content and the value of real patient stories embedded throughout the platform.

Conclusion:

This co-designed, digitally integrated platform represents a significant advance in melanoma care in Ireland, delivering personalised, accessible information that empowers patients, improves understanding of treatment options, and supports emotional wellbeing throughout the cancer journey.



Poster Presentation Abstracts

P01

Genetic Syndromes Associated with Melanoma: What Clinicians Need to Know

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5. *School of Medicine, University College Dublin, Belfield, Dublin 4, Ireland*

Aim/Background:

Malignant melanoma is the most lethal cutaneous malignancy when not detected and treated early. Genetic predisposition plays a critical role in melanomagenesis. Clinicians involved in the care of melanoma patients must understand these genetic factors to optimise diagnosis, surveillance, and treatment strategies.

Methods:

A comprehensive review of current literature was conducted to identify key pathogenic variants associated with melanoma. Existing clinical recommendations for genetic screening and patient management were compiled, with attention to the broader cancer risks linked to these variants.

Results:

Multiple pathogenic variants have been identified that increase the risk of developing melanoma. Many of these also contribute to other malignancies, forming part of various hereditary cancer syndromes. Recognition of these variants can support early diagnosis and guide more individualised surveillance and intervention approaches. Awareness of these syndromes is essential for delivering holistic patient care.

Conclusion:

An understanding of the genetic basis of melanoma is increasingly important for all clinicians managing affected patients. Incorporating these insights into practice can enhance personalised care and may improve long-term outcomes. Broader consideration of associated cancer risks further strengthens comprehensive patient management.



Poster Presentation Abstracts

P02

Superficial spreading malignant melanoma mimicking a pigmented basal cell carcinoma

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Background:

Pigmented basal cell carcinoma (PBCC) is an uncommon variant of basal cell carcinoma that can clinically resemble malignant melanoma (MM). While biopsy is necessary for histopathological diagnosis, PBCC and MM have distinct dermoscopic features which can improve diagnostic accuracy and facilitate correct surgical techniques.

The preferred biopsy technique for suspected melanoma is a narrow excisional biopsy with a 1-3 mm peripheral margin and of sufficient depth to prevent transection at the base.¹ In contrast, there are different surgical techniques that can be utilised for diagnosis and management of BCC, including punch and shave biopsies, curettage and cautery and full thickness excisions.

Below, we describe a case of a superficial spreading malignant melanoma, which macroscopically appeared consistent with an ulcerated pigmented basal cell carcinoma, with subsequent dermoscopic findings supportive of a diagnosis of malignant melanoma.

Case Report:

A 34-year-old female presented to the dermatology outpatient clinic with a longstanding erythematous plaque on her left upper back that had recently increased in size. She denied any associated symptoms including pain, pruritus or bleeding. She had no significant past medical or family history.

On initial inspection the lesion appeared consistent with an ulcerated pigmented basal cell carcinoma (PBCC) with pearly rolled edges and an area of pigmentation. Subsequent dermoscopic examination revealed a pigment network at 11 o'clock, a blue-grey veil, ulceration and irregular vessels. These findings supported a diagnosis of malignant melanoma (MM).

Full-thickness excisional biopsy was performed, and histology confirmed an ulcerated superficial spreading malignant melanoma, Breslow thickness 1.1 mm, stage pT2b. The patient subsequently underwent wide local excision and sentinel lymph node biopsy, which were negative.

Discussion:

PBCC is a variant of BCC than can clinically resemble MM. Dermoscopic evaluation is key in differentiating between the two clinically similar entities and improving diagnostic accuracy.

Characteristic dermoscopic features of MM include an irregular pigment network that stops abruptly, radial streaming, pseudo-pods, brown globules, black dots, and black/grey colour.² Dermoscopic features of PBCC include arborising telangiectasia, spoke-wheel or maple leaf-like areas, ulceration and blue-grey ovoid nests or globules.^{2,3}

This case highlights the value of dermoscopy in differentiating between MM and PBCC, guiding the clinician to utilise best surgical techniques.



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Poster Presentation Abstracts

P03

Molecular Landscape and Clinico-pathological Features of Primary Cutaneous Melanoma at an Irish Tertiary Referral Centre: A 2-Year Retrospective Analysis

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Background: Primary cutaneous melanoma remains one of the most lethal cutaneous malignancies. Despite advances in targeted therapy based on the molecular biology of the disease, there is a need for a greater understanding of the molecular pathogenesis to guide new treatments and optimise patient outcomes. Analysis of clinico-pathological features also allows the biological activity of different molecular drivers to be investigated. Therefore, this study aimed to investigate genetic variants in primary cutaneous melanoma cases at our institution and their associated clinico-pathological features over a 2-year period.

Methods: All cases of primary cutaneous melanoma at our institution from 2022 – 2024 inclusive on which molecular analysis was performed were identified in the laboratory information system. Those without a genetic aberration were excluded and the following information was extracted: variant identified, patient age at primary excision, sex, site of melanoma (head and neck, trunk, upper limb, lower limb), Breslow thickness and mitotic rate (per 10 high-power fields [HPF]). Descriptive statistical analysis was then performed.

Results: 119 cases of primary cutaneous melanoma were identified from the molecular database. *NRAS* variant was detected in 59 (50%), *BRAF* variant in 49 (41%), *CKIT* variant in 7 (6%), *GNAQ* variant in 2 (2%), *ERBB2* variant in 1 (1%) and *HRAS* variant in 1 (1%). The mean age, Breslow thickness and mitotic rate were highest in the *NRAS* group (68 years, 4.1mm and 6/10 HPF). The mean age was higher in the *NRAS* group than the *BRAF* group (68 vs 61 years). More males than females had an *NRAS* variant (30 [51%] vs 29 [49%]) and more females than males a *BRAF* variant (27 [55%] vs 22 [45%]). Regarding site of melanoma, the most frequent site for lesions with *NRAS* variants was the lower limb (19 [32%]) and for *BRAF* variants the trunk (19 [39%]).

Conclusion: In this cohort of patients with primary cutaneous melanoma at our institution on which molecular analysis was performed, variants of the *NRAS* gene were most frequently observed (50%), followed by *BRAF* (41%). *NRAS*-associated cases also had a greater mean Breslow thickness and mitotic rate than others, which reflect increased biological aggressiveness.



Poster Presentation Abstracts

P04

Pathological assessment of lymph nodes in post-neoadjuvant metastatic melanoma

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Background

The pathological response in patients receiving neoadjuvant immunotherapy for metastatic melanoma can direct treatment post-surgery. Cork University Hospital (CUH) is adopting this novel approach, hence justifying the stratified evaluation of residual melanoma in lymph nodes. We examined our current histopathology practice as a preamble to support patient outcome studies.

Methods

Post-neoadjuvant melanoma patients with subsequent lymph node dissection were identified. The corresponding histology slides were reviewed and the items in their pathology reports were assessed against the standards proposed by Tetzlaff and colleagues (2018).

Results

15 patients were identified. Only 7 (47%) of the requisition forms noted the patients received neoadjuvant treatment. Three-dimensional measurements of individual lymph nodes and an attempt to measure the metastatic foci were performed in 2 (13%) cases. The total number of nodes were counted in 14 (93%) cases. Appropriate submission of nodes by size was undertaken in 9 (60%) cases. Our reports included 1 (7%) attempt at pathological response quantification and 8 (53%) cases with documented treatment effects, i.e., melanosis, necrosis, and fibrosis. Nodal metastasis was staged in all cases, with 6 (40%) of these earning ypN0. 10 (67%) cases were submitted for molecular testing, showing 5 cases of NRAS mutations, 4 cases of BRAF mutations, and 1 case that was negative for detectable mutations.

Conclusion

Our service requires notification of prior neoadjuvant treatment for the lymph nodes to be assessed according to the correct macroscopic and microscopic protocols. Guidelines have been developed to assist our evaluation of lymph nodes in the post-neoadjuvant setting, as the presence of response can dictate subsequent treatment. Potential improvements in pathological reporting will be the subject of further study.



Poster Presentation Abstracts

P05

Regression within Primary Melanomas: Frequency and associated features in an Irish cohort

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Background

Regression is a histopathological term indicating the replacement of melanoma tumour cells by fibrosis and an infiltrate of lymphocytes and/or melanophages. 10%-35% melanomas show regression, but its clinical significance and prognostic implications are debated. Regression may lead to underestimation of Breslow thickness, when the deepest melanoma cells are no longer present, however, it may reflect activation of the host immune response.

Aim

While existing literature describes regression in other populations, there is a dearth of knowledge regarding the Irish population. This study aimed to determine the frequency of histologically-reported regression in a cohort of Irish melanoma patients and its association with other histological parameters.

Methods

A retrospective analysis was conducted on histopathological reports of 284 consecutive melanoma cases at a single centre. The association between the presence of regression and clinical and pathological features was assessed. These included sex, age at diagnosis, site, melanoma subtype, Breslow thickness, mitotic rate, ulceration, TILs, microsatellites, coexistent naevus, sentinel lymph node biopsy status, metastases, pathological and clinical stage. Statistical significance was determined using chi-squared and Mann-Whitney U tests with a threshold of $P < 0.05$. Logistic regression was used to account for potential confounding variables.

Results

Regression was present in 68 cases (23.9%). It was significantly associated with increasing age, decreasing Breslow thickness, and site located on the trunk ($P < 0.05$). No significant associations were found between regression and the remaining clinical or pathological features.

Conclusion

This study describes the frequency and factors associated with regression in an Irish melanoma cohort. The findings suggest potential biological and anatomical influences. The association with advancing age may imply different immunological dynamics over one's lifetime. Further prospective, multicentre studies with long-term follow-up are warranted to clarify the prognostic significance of regression and its role in melanoma management and response to treatment.



Poster Presentation Abstracts

P06

Sustained clinical response to fifth-line novel immunotherapy LAG3 inhibitor in recurrent metastatic acral melanoma

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Background:

Immune checkpoint inhibition (ICI) is the backbone of treatment of advanced melanoma. However, treatment options for the significant proportion of patients, up to 40%, who progress on first line anti-programmed death ligand (PD-1, PDL-1) therapy including BRAF wild type, remain limited (1). A recently approved option for first line treatment of advanced melanoma is Opdulag, a lymphocyte-activation gene-3 (LAG-3) inhibitor relatlimab, in combination with the anti-PD1-therapy, nivolumab.

Case/Methods:

Following upfront partial amputation of the right hallux for an ulcerated acral melanoma and 6 months of adjuvant pembrolizumab, a 69-year-old gentleman presented with in-transit melanoma metastases (ITMs) in the right leg. The primary lesion was Breslow thickness 5 mm, Clark level 4, BRAF wild type, NRAS codon 12 mutated. The ITMs were resected, and dual immunotherapy with Ipilimumab 3 / Nivolumab 1 was initiated. Local electrochemotherapy was administered to the ITMs and after 3 cycles of dual immunotherapy, clear disease progression was again evident. The patient travelled overseas and commenced an oral MEK inhibitor via clinical trial. Within two months on trial, the disease progressed. The trial team recommended Opdulag. The patient returned to Ireland and was commenced on fifth line treatment, dual ICI of nivolumab and relatlimab.

Results:

Clinical and radiological response to nivolumab and relatlimab was observed after only 2 cycles of treatment. After 6 cycles, there is no active disease visible on PET-CT and no evident side effects.

Conclusion:

Current trial data supports the use of relatlimab and nivolumab in the first line treatment of advanced melanoma (2). The phase I/II Relativity-020 trial examined nivolumab and relatlimab in patients that had progressed on anti-PD-1/PDL-1 therapies with durable clinical activity in a proportion of patients, including those with acral melanoma (3). In this case, the significant response to fifth line dual immunotherapy suggests that further studies in this area could offer an effective treatment option for patients who progress on one or more initial lines of therapy.



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Poster Presentation Abstracts

P07

Sarcopenia as a prognostic indicator in advanced melanoma; a retrospective cohort study.

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Introduction

Melanoma poses a significant global health burden due to its aggressive nature and propensity for metastasis. Despite advances in therapeutic strategies, the prognosis of advanced melanoma remains suboptimal, urging researchers to explore novel prognostic factors and therapeutic targets. Recent research has shed light on the role of sarcopenia, a multifaceted condition characterized by skeletal muscle loss and dysfunction, we know that sarcopenia can lead to poor progression and overall survival in advanced solid tumours, however the role of sarcopenia in advanced melanoma is unclear. This study reviews our own population of advanced stage melanoma patients and their sarcopenia profile, how does it affect their overall survival?

Methods

A retrospective cohort study of stage 2b melanoma patients and above were assessed for sarcopenia on their follow up disease monitoring CT scans and their subsequent 1, 5 and 10 year survival was analysed between those with and without sarcopenia.

Results

Over a 12 year period, between years 2006 and 2018, Galway University Hospital managed 150 patients with melanoma classified at stage 2B or above. The average age was 62.5years (range 19-96 years), with n=73 females and n=77 males included. One hundred and fourteen patients (76%) had evidence of sarcopenia in the population cohort (80% (n=61) of the male cohort and 77% (n=56) of the female group). At time of data retrieval 65% (n=97) of the patient group had died. Less than '1 year survival' was found in 13% (n=20)(n=9 females v n=11 males), '2-5 year survival' only was found in 43% of this patient group (n=29 females v n=36 males) and 39% (n=58)(n=34 females v n=24males) had over ten year survival with 4% lost to follow up (n=7, n=1 female, n=6 males). In the 1,5 and 10 year survival groups we found that 95% (n=19), 76% (n=50) and 67% (n=39) had evidence of sarcopenia respectively.

Discussion

Sarcopenia has been linked to poorer response rates to immunotherapy and targeted therapies, suggesting its potential role as a predictive biomarker in treatment selection. Our results demonstrate that sarcopenia is a poor prognostic indicator for survival in advanced melanoma, with the rate of sarcopenia decreases in those who survived for 10 years or longer. We therefore propose and highlight the importance of comprehensive assessment tools for sarcopenia in the context of melanoma. Traditional methods, such as body mass index (BMI), fail to capture the nuanced changes in muscle mass and function. Instead, emerging techniques, such as computed tomography (CT) scans and bioelectrical impedance analysis (BIA), offer more accurate and reliable assessments of skeletal muscle quality and quantity.

To conclude, we emphasize the emerging significance of sarcopenia in melanoma, highlighting its potential as a novel prognostic factor and therapeutic target. Understanding the complex relationship between sarcopenia and melanoma may lead to the development of personalized treatment strategies aimed at mitigating muscle loss, improving treatment outcomes, and enhancing the quality of life for patients with melanoma.



Poster Presentation Abstracts

P08

Histopathological Changes Post Immunotherapy for Melanoma – A look at local findings and guidelines

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Background:

Immunotherapy for metastatic melanoma has improved outcomes. The International Neoadjuvant Melanoma Consortium 2017 published guidelines for pathological assessment of lymph node dissection post immunotherapy.

Aim:

To review and categorise a series of four cases of metastatic melanoma post immunotherapy and to evaluate applicability of these guidelines in routine practice.

Method:

Cases were identified from the Head and Neck and melanoma MDT; four patients were identified in a one year period. The original reports and histological features were reviewed.

The gross description was compared with the 2017 recommendations.

Cases were categorised as follows: Pathologic complete response (pCR), major pathologic response (<10% viable tumour), partial pathologic response (<50% viable), no pathologic response.

Results:

Three of four showed treatment response. Two showed a pCR; one showed a major pathologic response. In all three, marked inflammatory changes denoted the tumour bed. The two cases with CPR both showed granulomatous inflammation, with central necrosis, in one case mimicking Mycobacterium Tuberculosis. Pigmented histiocytes with fibrosis characterised the case with MPR. No pathological response was present in one case, which showed sarcomatoid differentiation, with heterologous chondrosarcoma and osteosarcoma, not noted in the pre-treatment specimen. Sampling was inadequate in two cases, and unable to be assessed in one case due to ambiguous wording.

Conclusion:

A complete or major pathological response was present in three of four cases. Of note, the non-responsive case showed extensive sarcomatoid differentiation, which was not present pre-treatment. Treatment response was characterised by necrotising granulomatous inflammation and pigmented histiocytes. The 2017 sampling guidelines were not followed in 75% of cases;- a standardised template for reporting should be explored.



Poster Presentation Abstracts

P09

Immunotherapy-mediated Sarcoid-Like Reactions in Solid Tumours: A Case Series

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Background

Immune checkpoint inhibitors (ICIs) are used to treat a range of solid tumours in both early stage and metastatic settings. They are associated with toxicities known as immune-related adverse events (irAEs) that can affect any system in the body, presenting as both a diagnostic and therapeutic challenge. Sarcoid-like reactions (SLR) are granulomatous reactions affecting the lungs, lymph nodes and skin, and are a rare but recognised irAE which can mimic disease progression. They are most frequently associated with melanoma in published literature. The clinical presentation, management and outcomes of immune-related SLRs (IR-SLRs) are poorly understood. We conducted a retrospective study aimed at identifying patients who had developed IR-SLR from ICIs in Beaumont Hospital.

Methods

We generated a local database of patients who had received ≥ 1 cycle of ICI between June 2015 and October 2024 ($n=625$). This was interrogated via clinical chart review for IR-SLR, defined as histologically confirmed non-necrotising granulomata on biopsy taken post-ICI start. Patient characteristics, treatment data and outcomes were collected.

Results

We identified 5 patients with IR-SLR (3 thoracic; 2 cutaneous). The majority of patients were male (4/5, 80%). 1/5 (20%) had prior autoimmune disease. The majority of patients (80%, 4/5) had melanoma, in keeping with published data. Patients received single agent ICI (atezolizumab=1, nivolumab=2) combination (ipilimumab + nivolumab=1) or clinical trial (anti-PD-1+/-anti-LAG3). 80% were low grade (grade 1 =4/5) and treated with observation. One patient presented as grade 2, revised to grade 3 following clinical deterioration, and treated with corticosteroids. 80% of patients (4/5) developed other irAEs, including hypophysitis ($n=1$), hypoadrenalism ($n=1$), and diarrhoea ($n=2$). The majority sustained an anti-tumour response (80%, 4/5), one of which has been durable for >3 years.

Conclusion

Herein, we present a case series of the clinical presentation, treatment and outcomes of IR-SLR in a single centre. The cases identified will be added to an international collaborative effort across >20 centres in the USA and Europe, to identify clinical characteristics and outcomes of IR-SLR globally.



Poster Presentation Abstracts

P10

A Bibliometric Systematic Review of Extracellular Vesicles in Cutaneous Malignant Melanoma from 2005 to 2025

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4. All-Ireland Cancer Liquid Biopsies (CLuB) Consortium

Introduction:

Extracellular vesicles (EVs) have emerged as critical mediators of intercellular communication in cancer biology, particularly in cutaneous malignant melanoma (CMM). Their roles in tumour progression, immune modulation, and metastasis have prompted growing scientific interest. However, the scope, trends, and impact of EV-related research in melanoma over the past two decades remain to be systematically evaluated.

Objective:

This study aims to provide a comprehensive bibliometric and systematic review of global research output on EVs in CMM from 2005 to 2025, identify emerging research themes, influential contributors, collaborative networks, and evaluate knowledge gaps and future directions.

Methods:

A systematic search was conducted using PubMed, Scopus, and Web of Science databases for peer-reviewed literature published between January 2005 and March 2025. Bibliometric analysis was performed using VOSviewer, CiteSpace and Bibliometrix to assess publication trends, author networks, institutional productivity, international collaborations, keyword co-occurrence, and citation metrics. PRISMA guidelines were followed.

Results:

A total of 382 articles met inclusion criteria. Bibliometric mapping revealed exponential growth in EV-related melanoma publications post-2015 (**Fig. 1**). Thematic clustering identified high-impact research on exosomal microRNAs, EV-based immunomodulation, and biomarker discovery. The United States, China, and Italy led in research output, while leading institutions included the NIH, University of Queensland, and Sapienza University. The Journal of Extracellular Vesicles published the greatest number of articles, with Peinado H. and Thery C. being the most cited authors. Network analysis demonstrated robust international collaboration.

Conclusion:

The field of EVs in CMM has matured significantly over the past two decades, reflecting both mechanistic complexity and translational potential. Strategic investment in interdisciplinary research is warranted to harness EVs for diagnostic and therapeutic innovations in melanoma.

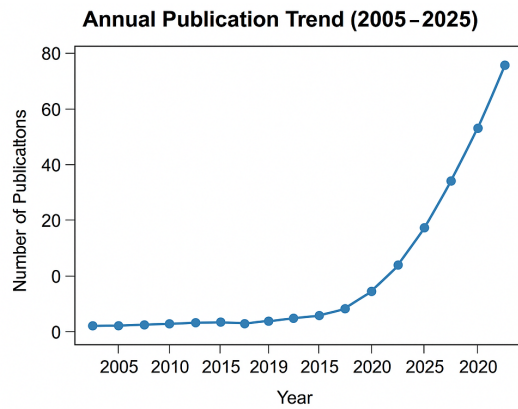


Fig. 1: Annual publication trend in EV-related research in melanoma between January 2005 and March 2025.
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Poster Presentation Abstracts

P11

Immunoelectron Microscopic investigation of CD63 and TYRP1 co-expression in Extracellular Vesicles secreted by UVB-Irradiated Human Melanoma Cells.

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Aim/Background:

Ultraviolet B (UVB) radiation is a major environmental factor contributing to cutaneous melanoma development. Extracellular vesicles (EVs) play a crucial role in intercellular communication and so could potentially transfer oncogenic signals from melanoma cells to surrounding cells in the tumour microenvironment. Recently, it has been suggested that the pigment cell-specific organelle, the melanosome, may be considered an EV. CD63, a well-known EV marker, and tyrosinase-related protein-1 (TYRP1), a melanocyte lineage marker involved in melanin synthesis, may help identify melanoma-derived EV activity. This study aims to investigate the (co)expression of CD63 and TYRP1 on EVs secreted by human melanoma cells *in vitro* before and after UVB exposure using immunoelectron microscopy.

Methods:

Metastatic human melanoma cells were exposed to UVB radiation, and EVs ranging in size from 50-300 nm were isolated from the melanoma-conditioned media using ultracentrifugation. Human dermal fibroblasts were used as a control, as they do not contain melanosomes. The presence and morphology of EVs was confirmed via transmission electron microscopy (TEM) and nanoparticle tracking analysis (NTA). Immuno-TEM was employed to investigate the localisation and expression of CD63 and TYRP1 on melanoma EV membrane before and after UVB irradiation.

Results:

UVB-exposed melanoma cells secreted EVs into the medium of approximately 50-300nm. While all EVs expressed CD63, a subpopulation expressed both CD63 and the melanosome marker TYRP1. No CD63+ve EVs from fibroblast-conditioned medium expressed TYRP1.

Conclusion:

Immuno-TEM analysis provided high-resolution visualisation of the melanoma EV surface membrane. This preliminary study examines how UVB exposure influences the secretion and molecular composition of melanoma-derived EVs. Identifying changes in the release of CD63 single-positive versus CD63-TYRP1 double positive EVs may help elucidate the role of EV-mediated communication in melanoma development and serve as a foundation for future therapeutic strategies targeting EV signalling pathways.



Poster Presentation Abstracts

P12

Analysis of extracellular vesicles as a source of novel biomarkers for the detection of primary and metastatic uveal melanoma

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Uveal melanoma (UM) is the most common primary intraocular malignancy in adults, characterized by a high rate of metastasis, particularly to the liver. Despite advances in local tumor control, long-term survival remains poor due to late detection of systemic spread. Efficacious treatments and better prognostication approaches for MUM are urgently needed. Plasma biomarkers offer a promising avenue for non-invasive surveillance, early detection of metastasis, and personalized therapeutic strategies. Previous work in the Kennedy lab identified a putative ferroptosis-related biomarker signature associated with UM progression and therapeutic response which correlated to UM-patient survival.

This study assessed extracellular vesicles (EVs) as a potential source of novel biomarkers. EVs offer a minimally invasive window into disease processes and could enable earlier detection and personalized interventions. Identifying EV-based biomarkers holds urgent clinical relevance and could significantly improve outcomes through earlier diagnosis and tailored therapeutic strategies.

EVs were isolated by sucrose cushion ultracentrifugation from 13 Healthy Donors, 33 Primary Uveal Melanoma (PUM) Patients and 12 Metastatic Uveal Melanoma (MUM) Patients. Initial characterisation by western blot and transmission electron microscopy confirmed EVs hallmarks. Flow cytometry assessed particle size and numbers. Comparative proteomics was performed via Data-Independent Acquisition Mass Spectrometry (DIA-MS). Differential protein expression was analyzed between healthy donor, primary and metastatic cohorts, with a cut-off fold change of 1.5 and $p < 0.05$.

11 proteins were significantly increased in abundance in MUM cohorts versus healthy donors, while 29 proteins were significantly increased in abundance in MUM cohorts compared to PUM cohorts. Of these, several were identified as candidate biomarkers for future analysis and validation by ELISA.

Ultimately, this work aims to identify novel biomarkers to enhance earlier detection of PUM and MUM disease, facilitating better clinical management of uveal melanoma.



Poster Presentation Abstracts

P13

Evaluating the Predictive Accuracy of Detection Methods for Molecular Signatures in Uveal Melanoma

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Background:

Uveal melanoma is the most common form of intraocular tumour worldwide, with consistently high rates of metastasis despite advancements in modern therapeutics. The prognosis of patients is most often predicted using three biomarkers: BRCA1-associated protein 1 (BAP1) expression loss, loss of one copy of chromosome 3 (monosomy 3), and gain of the q-arm of chromosome 8 (chromosome 8q gain). The presence of these biomarkers helps clinicians stratify patients for more frequent surveillance for metastatic disease.

However, the current strategies used to detect these biomarkers—immunohistochemical (IHC) studies and fluorescence in situ hybridisation (FISH) studies—each have limitations. IHC analysis for BAP1 protein can detect the presence or absence of BAP1 but cannot assess the functionality of the protein or identify the genetic mutations responsible for BAP1 expression loss. Similarly, FISH analysis has limitations in detecting monosomy 3 and chromosome 8q gain in uveal melanoma, such as its inability to detect copy-neutral loss of heterozygosity (cnLOH).

Aims:

The aim of this study was to perform whole-exome sequencing (WES) analysis on a cohort of patients to:

1. Predict BAP1 expression loss through somatic variant calling.
2. Detect monosomy 3 and chromosome 8q gain using copy number variant (CNV) calling algorithms.
3. Correlate the WES results with the FISH/IHC findings and derive concordance rates.

Results:

The results showed that WES-based CNV calls were largely concordant with FISH results, with exceptions where sequencing outperformed FISH in some cases and vice versa. BAP1 expression loss was associated with large deletions or frameshift variants in the catalytic domain of BAP1. Cases with IHC-detected BAP1 expression carried either no variants or non-coding variants, with the exception of one missense variant detected.

Conclusion:

To conclude, using WES analysis in conjunction with FISH/IHC could increase the predictive power and provide more insightful prognostic evaluation for patients in clinical settings, rather than the use of one method over the other. An increased cohort size and data with a higher depth of read coverage would further strengthen this study's conclusions.



Poster Presentation Abstracts

P14

TGFβ2-treated scalp hair follicle fibroblasts as a potential cell therapy against skin cancer development in the Recessive Dystrophic Epidermolysis Bullosa

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Aim

The genetic skin-blistering disorder recessive dystrophic Epidermolysis Bullosa (RDEB) is associated with increased risk of aggressive squamous cell carcinomas (SCC). The cumulative risk of SCC-related death is 39% by 35 years, rising to 70% by 45 years. Haired scalp is largely protected from blistering and carcinogenesis. Here, we used TGFβ2 stimulation of scalp RDEB hair follicle (HF)-derived dermal sheath fibroblasts (DS) *in vitro* to assess whether this could be a cell therapy-based approach via induction of skin cancer prevention gene pathways.

Methods

Primary DS fibroblasts cultured from scalp HFs of a RDEB patient were stimulated with TGFβ2 (5 ng/ml) for 24 hours.

Results

RNA-Sequencing of the TGFβ2-treated fibroblasts and control non-stimulated RDEB DS cells was subjected to Ingenuity Pathway Analysis (IPA)-related Machine Learning disease analysis. This exhibited significant inhibition of the following pathways in the TGFβ2-treated RDEB cells only: a) Occurrence of tumor (Z-score=-2.33, p-value=1.55E-03), b) Skin depigmentation /hyperpigmentation (Z-score= -2, p-value= 2.41E-02). Decreased signaling was also exhibited for: a) Advanced malignant solid tumour (Z-score=-1.41, p-value=2.1E-03), b) Skin hyperpigmentation (Z-score=-1.51, p-value=2.07E-04), c) Skin pigmentation disorder (Z-score=-1, p-value=1.06E-04), d) Intraepithelial neoplasm (Z-score=-1.4, p-value=5.75E-03).

IPA Top Upstream regulator analysis revealed that TGFβ2-treatment inhibited VEGF (p-value=3.75E-47). IPA Canonical Pathway analysis revealed pathway inhibition for: a) Cell cycle checkpoints (Z-score=-4.012, p-value=2.87E-02); b) Degradation of extracellular matrix (Z-score=-2.183, p-value=1.01E-03). Decreased signaling was detected in the following pathways: a) Tumor Microenvironment pathway (Z-score=-1.67, p-value=3.56E-02); b) Senescence-Associated Secretory Phenotype (Z-score=-1.07, p-value=3.68E-02); c) ERK/MAPK signaling (Z-score=-1.0, p-value=1.32E-02).

Conclusion

In summary TGFβ2-stimulation of scalp RDEB DS fibroblasts may together be an approach against RDEB-associated skin cancer development.



Poster Presentation Abstracts

P15

Development of a preclinical model of melanoma using human skin explants

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Background:

Melanoma is the deadliest type of skin cancer and treatment management of metastatic patients is a major challenge, making evident the need for new therapies that improve therapeutic outcome. To that aim, it is crucial to unveil the molecular mechanisms underlying tumor metastasis, for which it is essential the use models that faithfully recreate tumor physiology. 3D skin equivalents have helped to overcome some drawbacks of the traditional 2D models however, they still have limitations as they do not exactly recapitulate tumor microenvironment and lack a fully-formed basement membrane, crucial for spread beyond the *in situ* (intra-epidermis) melanoma status. The objective of this study is the development of a human melanoma model that facilitates the study of how human melanoma cells engage with the basement membrane zone (BMZ) and basal keratinocytes in human skin, as this is the main barrier that melanoma cells must overcome to metastasize to the dermis.

Methods:

Intact human skin explants were exposed to 100 °C water for 10, 15, 30 and 45 seconds to promote superficial blister formation along the basal layer of the epidermis and BMZ. Spheroids (~1mm across) formed from human pigmented melanoma cells were injected into the intra-blister space and incubated at the air-liquid interface for different times, before until molecular analysis of specific markers.

Results:

The optimum seeding concentration and post-seeding time for human melanoma spheroid injection was 1,000 cells and 8 days respectively. These spheroids were large enough and pigmented to facilitate manipulation and administration centrally to the blister space. Blisters reformed at 45 seconds boiling water contact provided appropriate exposure of the BMZ to the melanoma cells. Detection of melanoma markers on cryosections of blister-containing spheroids demonstrated successful inoculation of spheroids.

Conclusion

We have been able to generate a novel *in vitro* melanoma model based on the intra-epidermis administration of melanoma spheroids into living human skin. We will use this model as a tool to study critical steps involved in melanoma cell invasion through the BMZ in a highly physiological environment.



Poster Presentation Abstracts

P16

Investigating the Therapeutic Potential of Targeting Kinase Suppressor of RAS 1 (KSR1) in Cutaneous Melanoma

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Background:

90% of cutaneous melanomas exhibit aberrant RAF-ERK activation due to activating mutations in the RAS-ERK pathway including BRAF (50%) and NRAS (30%). BRAF driven melanomas can be treated with targeted therapies, such as combinations of RAF and MEK inhibitors (i). However, these targeted therapies are ineffective in NRAS mutated melanomas. Previous work from our group revealed that combinations of structurally diverse RAFi successfully target NRAS driven melanomas. However, NRAS driven melanomas are capable of overcoming this combination therapy by driving oncogenic ERK signalling through the scaffold Kinase Suppressor of Ras 1 (KSR1). This highlights that KSR1 plays a critical role in melanoma signalling but the exact mechanism of how KSR1 enacts cell survival is unknown. This project aims to elude this by firstly investigating the effect of RAFi and MEKi in correlation with KSR1 expression.

Methods:

Wildtype (WT) and CRISPR/Cas9-mediated KSR1^{-/-} (KO) SK-MEL-239 and MEL-JUSO melanoma cell lines were treated with MEKi, cobimetinib and trametinib, or RAFi, dabrafenib and encorafenib, for 72 hours and cell viability was assessed by MTS assay. Western blotting was also carried out on the aforementioned untreated cell lines.

Results:

Our data suggest that WT MEL-JUSO were more sensitive to MEKi than their KO counterpart. Conversely, KSR1^{-/-} MEL-JUSO cells showed no changes in sensitivity to RAFi. Importantly, depletion of KSR1 in SK-MEL-239 cells impacted sensitivity to both RAFi and MEKi. This data was supported by western blotting.

Conclusion:

Preliminary data suggests that KSR1 loss can sensitise cutaneous melanoma to MAPK inhibition. However, it is highly dependent on oncogenic background and pathway setup. Future directions will explore testing RAFi and MEKi combinations in MEL-JUSO and SK-MEL- 239 WT and KO cells.



Poster Presentation Abstracts

P17

Targeting NR4A orphan nuclear receptors for novel drug development in melanoma

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Aim/Background

The NR4A1-NR4A3 group of nuclear receptors respond to stress stimuli to control a range of physiological and pathological processes. Compelling evidence suggests perturbation of their expression and activity can modify the local cellular microenvironment and modulate the development and course of several cancer types. Our work is focused on the relevance of such NR4A-associated effects to the progression of cutaneous melanoma and their translational utility as treatment targets for this cancer. A novel feature of NR4As is their flexibility to form distinct monomeric and dimeric species, with particular interest a capacity to associate as a heterodimer with retinoid X receptor (RXR). In this study, we examine the hypothesis that targeted diversion of tumoral NR4As to preferentially associate with RXR may provide a biological switch of their activities to limit melanoma progression.

Methods and Results

A series of cell-based bioassays for a panel of novel 'rexinoid' compounds, designed as ligands for RXR, was performed. We identified several lead candidates that exhibit a significantly heightened potency in RXR transactivation and its ability to selectively form NR4A-RXR heterocomplexes. In reflection of their transcriptional and dimerization profiles, these compounds achieve a more significant growth inhibition of BRAFV600E melanoma cell lines over the clinically established rexinoid, Bexarotene (Targretin). Expression profiling of BRAFV600E melanoma cell lines reveal NR4A1 and NR4A2 to be the most predominant and highly expressed among nuclear receptor transcription examined (n=3). Notably, inhibition of oncogenic BRAFV600E function within tested cell lines reveals a marked decrease of NR4A1 and 2 mRNA levels, highlighting latent association between their expressions and tumoral MAPK pathways.

Conclusions

Although preliminary, these data provide basis that aberrant, high expression levels of NR4As may be linked to oncogenic BRAFV600E activity within melanoma tumours, and a potential component to disease progression. In targeting NR4As, our data provide basis for the prospective of 'designer' rexinoids that selectively divert NR4As to form NR4A-RXR heterocomplexes that regulate alternate pathways, achieving a dissociative effect that opposes tumour progression.



Poster Presentation Abstracts

P18

Investigating Melanocortin 1 Receptor (MC1R) Genotypes and Red Melanocyte Marker Expression in Human Skin Specimens

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Melanoma, although representing only 1-2% of skin cancers, is responsible for the majority of skin cancer deaths due to its high metastatic potential (1). The MC1R gene is essential for tanning; loss-of-function variants impair this process by reducing eumelanin, increasing pheomelanin, and are linked to red hair and higher melanoma risks (2). This study aimed to determine if the transcriptional differences observed in melanocytes from red-furred, MC1R mutant "red" melanocyte mice, are reflected in human skin specimens.

To investigate, we extracted DNA from skin biopsies, performed PCR amplification, and used Sanger sequencing to identify MC1R polymorphisms. Among 103 sequenced samples, three exhibited two strong MC1R polymorphisms. We prepared tissue sections from samples with significant MC1R dysfunction (harboring two polymorphisms), wild-type MC1R with fair skin, and wild-type MC1R with darker skin types. Double immunofluorescence staining was performed using antibodies against SOX10—a key transcription factor in melanocyte development (3)—and three proteins previously identified by the Fisher Lab in 'red' melanocytes from MC1R mutant mice: Peptidylarginine Deiminase Type II (PADI2), Sodium Leak Channel, Non-Selective (NALCN), and Gamma-Aminobutyric Acid Receptor Subunit Beta-2 (GABRB2). While SOX10 expression was successfully detected, the other markers were not observed, suggesting that further optimisation of the staining protocol is necessary.

Effectively we successfully optimised protocols for MC1R sequencing, identified human specimens with MC1R polymorphisms, and optimised SOX10 immunofluorescence for melanocyte identification. Additional studies will be necessary to assess whether melanocytes from fair-skinned/haired individuals display a transcriptional profile akin to that of mouse 'red' melanocytes.

The aforementioned non-pigmentation-related genes identified in red mouse melanocytes have not been previously linked to melanocytes. Investigating these pathways may uncover novel therapeutic strategies and improve melanoma prevention and treatment, particularly for those with red hair and fair skin, who are at increased risk.

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Poster Presentation Abstracts

P19

Patterns of recurrence after neoadjuvant immunotherapy for melanoma: more to learn

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Introduction:

Neoadjuvant immunotherapy in melanoma is a new approach to treat patients with resectable stage III/IV melanoma. This is based on late phase trials such as SWOG S1801 trial in which neoadjuvant and adjuvant pembrolizumab showed a 72% benefit in event-free survival at 2 years compared with adjuvant pembrolizumab alone, at 49%. Other trials such as NADINA and OpacinNEO have further explored this approach using response-directed therapies where patients with a complete pathologic response to treatment, show even greater benefits in event-free and overall survival. Despite this, the patterns of recurrence of melanoma in patients treated with neoadjuvant immunotherapy for melanoma remain poorly understood. In this case report, will describe a case of a patient treated with neoadjuvant-adjuvant pembrolizumab, who developed CNS-only recurrence after sustaining a pathologic complete response to treatment, but had disease recurrence in less than 2 years.

Case Report:

A 69-year-old female with no past medical history presented to the dermatology clinic in May 2020 with a 6-month history of an enlarging pigmented lesion on the left anterior shin with a negative sentinel lymph node, staged as a pT3bN0 nodular melanoma. However, in August 2023, she developed new palpable inguinal lymph nodes, which were confirmed on biopsy to represent metastatic melanoma, which was BRAF wild-type and NRAS-mutant. A staging PET scan and brain MRI did not show distant metastases. The case was discussed at the Beaumont RCSI Cancer Centre melanoma multidisciplinary meeting and started on neoadjuvant pembrolizumab on 6/11/2023. She completed three cycles of pembrolizumab on 18/12/2023 and underwent left inguinal lymphadenectomy on 17/01/2024. The histopathology report demonstrated a complete pathological response to the treatment, and she commenced on adjuvant pembrolizumab on 29/3/2024 and completed a total of 15 cycles on 2/12/2024. Immunotherapy was well-tolerated with no symptoms or signs of immune-related toxicity, and an end-of-treatment CT showed no definite evidence of metastatic disease. Sadly, 3 months later on 3/3/2025 she presented with a 2-week history of slurred speech and drowsiness. CT brain and MRI brain at the time revealed a solitary left frontal lobe mass for which she underwent surgical resection on 4/3/2025, consistent with an isolated melanoma metastasis. Unfortunately the patient died several weeks later, because of aspiration secondary to brain injury.

Conclusion:

Although neoadjuvant immunotherapy has been shown to confer benefit in event-free and overall survival, particularly in those who sustain a complete response to therapy, disease recurrence may occur in a subset of patients and led to poor outcomes.



Patterns of recurrence and biologic features of non-response or acquired resistance to treatment, may help to elucidate whether a subset of patients require further treatment, combination approaches, or specialized treatments for areas that are high-risk for recurrence, such as prophylactic cranial irradiation.

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Poster Presentation Abstracts

P20

"Wrong Turn? An Audit of a Pigmented Lesion GP Referral Pathway"

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Introduction

The NCCP recommends that primary care referrals for patients with pigmented lesions are conducted through the designated National Pigmented Lesion GP Referral Form. This ensures timely triage and diagnosis. Pigmented lesions suggestive of melanoma should be urgently assessed in a National Pigmented Lesion Clinic (NPLC). Incorrect referral pathways increases the risk of diagnostic delays and inefficiency in dermatology services.

Aims

To evaluate whether referrals for pigmented lesions from primary care to a regional dermatology department adhere to the National Cancer Control Programme (NCCP) referral pathway standard, by use of the National Pigmented Lesion GP Referral Form.

To identify presence of pigmented lesion referral descriptors, as delineated in the National Pigmented Lesion GP Referral Form.

Methods

Data was prospectively collected from 50 patients, referred with pigmented lesions, to a Regional Dermatology Department.

Data that was prospectively recorded on patients referred with pigmented lesion, included presence of referral information described on a National Pigmented Lesion GP Referral Form.

Results

Referral Patterns

Of the 50 referrals audited, none used the correct National Pigmented Lesion Referral Form. Instead, 47 used the General Dermatology Form and 3 were by general letter. All cases met NCCP criteria for urgent referral, meaning 100% were misrouted by an incorrect pathway.

Baseline characteristics

The audit reviewed 50 patients with an average age of 48.1 years. The group was 54% female and 46% male.

Anatomical site of referred pigmented lesion

Pigmented lesions referred was specified as at a single site in 70%, and multiple sites in 24% of referrals. The most common pigmented lesion sites were the back (4 cases), left shoulder (3), and abdomen (2).

These findings suggest a predominance of lesions on the trunk and upper limbs, This is consistent with sun exposed and visually accessible areas commonly checked during self-examination or GP review.

Clinical Impression at Primary Care Referral

Four patients were referred as a likely melanoma, 17 had a changing mole requiring assessment, and three were described as having a benign mole. The "ugly duckling" sign was cited in two referrals, and one queried nail bed melanoma.

ABCDE Classification

ABCDE Melanoma Assessment Criteria identified at pigmented lesion referral, included:

Asymmetry in 14% of patients, border irregularity in 28%, colour variation in 6%, diameter over 6mm in 22% and evolution of lesion in 40%.

The most frequently cited feature was evolution of the pigmented lesion. This suggests a clinical focus on dynamic changes by GP's when referring pigmented lesions.



Risk Factors

No referrals mentioned atypical moles, fair complexion, or a high number of moles in the general referral. Only one patient had immunosuppression or a family history of melanoma identified, while none had documented sunbed exposure.

In two cases, anticoagulant status was not listed, which may itself impact procedural planning. This paucity of documentation of key melanoma risk factors in the general referral letters, could affect triage accuracy. It may reflect the lack of use of the National Pigmented Lesion GP Referral Form, where risk factors are clearly delineated.

Conclusions

This audit found that none of the 50 referrals for pigmented lesions to a regional dermatology department used the NCCP designated referral form, despite all meeting criteria for its use. Clinical detail and risk factor documentation were found to be lacking in detail. The authors have engaged with primary care to perform a root cause analysis of referral practices. A targeted educational intervention is planned to improve referral quality and pathway adherence ahead of the next planned audit cycle.



Poster Presentation Abstracts

P21

Latest skin cancer trends in Ireland

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Background

Ireland has among the highest incidence rates of skin cancers reported globally. Skin cancers accounted for 34% of all invasive cancers in Ireland in 2018-2022.

Methods

Data on new primary diagnoses of melanoma and non-melanoma skin cancers (NMSC) 1994-2022 were extracted from the National Cancer Registry Ireland (NCRI). The number of deaths and population estimates were obtained from the Central Statistics Office. Age-standardised incidence and mortality rates and net survival were calculated by cancer sub-type and by sex. Joinpoint regression was used to determine incidence and mortality trends.

Results

NMSC account for 89% of all skin cancers, 74% of which were basal cell carcinoma (BCC) and 26% squamous cell carcinoma (SCC). The age-standardised incidence rate (ASIR) of BCC increased significantly from 1994 to 2019, with an average annual percent change (AAPC) of 1.2% for females and 1.3% for males. The ASIR of SCC were stable over the entire period 1994-2019 for both males and females. Age-standardised mortality rates (ASMR) for NMSC increased for males and females over time. 5-year net survival for was 100% and 97% for BCC and SCC, respectively. Melanomas accounted for 11% of skin cancers per year 2018-2022. The majority of melanomas were diagnosed early, with 87% of females and 81% of males being diagnosed at stage I or II. The age-standardised incidence rate increased significantly over 1994-2019, with an AAPC of 2.5% for females and 4.4% for males. ASMR for melanoma increased significantly between 1994 and 2010 in males and between 1994 and 2014 in females. In recent years mortality rates have remained stable. 5-year net survival for melanoma 2014-2018 was 93%, with higher survival seen in females than in males across all periods, age-groups and stage at diagnosis.

Conclusion

Understanding the trends in skin cancer is vital for public health awareness and prevention strategies. Many of these cancers could be prevented with wider adoption of safe sun practices and avoidance of sun beds.



Poster Presentation Abstracts

P22

Linear Melanonychia

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Background

Linear melanonychia is typically characterized by the presence of longitudinal, well-defined, pigmented bands on the nail plate. While the majority of melanonychia cases are benign, it can be an early presentation of melanoma of the nail unit.

Nail unit melanoma (NUM) can pose a diagnostic challenge due to the delay between the onset of pigmentation and referral to an appropriate specialist service, inadequately performed biopsies, and challenging histopathological interpretation.

Methods

We undertook a ten-year retrospective review of linear melanonychias biopsied in a tertiary referral centre. Multiple parameters were collected including method of referral, clinical information on referral letter, procedure details, complications, positivity rates, further procedures performed in the case of melanoma, and follow-up.

Results

A total of 57 linear melanonychia cases were identified during the 10-year period, 16% (n=9) of which had reported malignancy or atypical melanocytic proliferation: invasive melanoma (n=1), melanoma in situ (n=6), and atypical lentiginous melanocytic hyperplasia (n=2). All 9 patients underwent further surgery including wide local excision (n=3), wide local excision and full thickness skin graft (n=5), and amputation and sentinel lymph node biopsy (n=1).

The majority of patients were referred by a dermatology service (66.7%). Most initial biopsies were performed as punch biopsies (50.9%) or incisional biopsies (19.3%). 17.5% of patients had documented complications from the initial biopsy including pain, nail deformities, and surgical site infections. Finally, 75.4% of patients had postoperative clinical follow-up ranging from 1 week to 5 years.

Conclusion

16% of patients within this cohort had reported malignancy or atypical melanocytic proliferation. Despite the recognised morbidity, biopsies of linear melanonychia should be performed when clinical suspicion is present. We believe a standardisation of the referral pathway, clinical assessment including dermoscopy, biopsy, and histopathological analysis is essential and would improve prompt diagnosis and treatment.



Poster Presentation Abstracts

P23

Frailty in Melanoma Patients

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Background

With an ageing population, advising the “gold-standard” treatment is often the easiest option, but not necessarily the best one for the patient. Using frailty scores in patients with skin cancer enables clinicians to have non-biased discussions with patients about realistic benefits of treatments, risks of not treating certain skin cancers or accepting less than gold standard treatments.

Methods

A retrospective review was carried out of 55 patients with melanoma discussed at a single tertiary referral centre’s skin cancer multidisciplinary team meeting (MDT). Data collection included: demographic data, skin cancer histology, outcome from the MDT, and the final outcome following consultation with the patient. The two frailty scores that were calculated were the Charlson Comorbidity Index (CCI) and the Modified 5-Item Frailty Index (mFI-5).

Results

The average age was 64.9 years, 38% female (n=21). 23.6% (n=13) of patients had in situ disease and 76.3% (n=42) had varying stages of invasive disease. 18.1% (n=10) had nodal or in transit metastases and 5.4% (n=3) had distant metastases.

36.3% of patients (n=20) had a CCI of ≥ 4 , meaning an estimated 10 year survival $\leq 53\%$. For these 20 patients, the MDT outcome recommended: surveillance 35% (n=7), LA surgery 30% (n=6), GA surgery 25% (n=5), chemotherapy/immunotherapy 5% (n=1), and radiotherapy 5% (n=1). Meanwhile, the MDT recommended GA surgery in only 20% (n=7) of patients who were not frail.

Overall, there were 5 patients whose MDT outcome was not concordant with their final outcome. 60% (n=3) of these were frail. The MDT had recommended GA surgery for all 3 of these patients, but they underwent surveillance instead as they were deemed to not be appropriate surgical candidates.

Conclusions

36.3% of patients discussed at the melanoma MDT have an estimated 10 year survival $\leq 53\%$. The MDT recommends GA surgery in 25% of frail patients. 60% of cases where the final outcome is not concordant with the MDT recommendation are frail. Including frailty scores at the time of MDT discussion will lead to more constructive MDT recommendations and holistic conversations with patients.



Poster Presentation Abstracts

P24

Malignant Melanoma with Neuroendocrine Differentiation – A case report (screen your naevi before they hatch!)

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Background:

Melanoma is a complex and deadly group of malignancies. 75% of cutaneous melanomas arise de novo and 25% from pre-existing naevi. It can be associated with neuroendocrine tumour (NET) syndromes, yet there are very few documented cases of Melanoma with NE differentiation.

Case presentation:

62 year old Caucasian male, presenting with abdominal distension, weight loss, fatigue and hepatomegaly. CT scan showed diffuse hepatic metastases but no obvious primary site. Morphologically the liver biopsy showed a small blue cell tumour with strong positive CD56 and weak positive synaptophysin and MNF116 (LMWtCK), negative chromogranin and negative TTF-1, with a Ki67 of 60%. Urinary 5HIAA and serum chromogranin A were normal. The working diagnosis was extra-pulmonary small cell carcinoma of unknown primary site. The burden of liver disease warranted urgent systemic anticancer treatment and he received 6 cycles of carboplatin-etoposide chemotherapy, with only a partial response prompting a second pathologic review. S100 and SOX1 were diffusely, strongly positive. HMB45 and MelanA were negative. Clinical exam had noted a hyper-pigmented lesion on the right areola present since birth. Excision of this lesion confirmed a malignant melanoma with BRAF V600E mutation and our patient commenced Ipilimumab Nivolumab doublet immunotherapy.

Discussion:

Melanomas presenting as NETs are a rare and diagnostically difficult entity. Previous case reports have highlighted the variation in expression of melanocytic markers in these rare NETs, and have suggested that markers that are commonly seen in all cases included SOX10 and S100. There are also rare cases of malignant melanomas presenting as neuroendocrine syndromes, which raises the question of these cancers having a derivation from neural crest cells, and may suggest this to be a developmental related aetiology.

Conclusion:

This case highlights the rare clinical entity of malignant melanoma with neuroendocrine differentiation presenting as an advanced NET. Comprehensive clinical, radiologic and histopathological assessment of neuroendocrine carcinomas must be undertaken to ensure that patients can avail of all appropriate treatment options.



Poster Presentation Abstracts

P25

Clinical Outcomes of Patients with Advanced (Stage III/IV) Unresectable Melanoma Treated with Ipilimumab/Nivolumab in the First-Line Setting: A Retrospective Review of February 2018-2023 in a Single Tertiary Cancer Centre

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April 2025*

Background

Dual immune checkpoint inhibitors are standard-of-care in the treatment of advanced stage III/IV melanoma. This study compares outcomes of patients with relapsed or de novo metastatic melanoma according to BRAF status, treated with ipilimumab/nivolumab in the first-line setting in a single tertiary cancer centre.

Methods

A retrospective chart review was carried out through pharmacy records, then anonymised and collated into two groups according to BRAF status. The primary endpoint was overall survival (OS) at 2 years from time of first treatment cycle, with secondary endpoints of incidence of immune-related adverse events (irAEs) requiring treatment interruption/discontinuation.

Results

A total of 53 patients received first-line ipilimumab/nivolumab between February 2018-2023, with 60% (n=32) male, and 39% (n=21) BRAF-positive. The median age at initial diagnosis was 59.1 years. The most common site of origin was cutaneous melanoma, with 3 cases of mucosal melanoma. 25 patients had de novo metastatic disease (48% [n=12] stage M1a, 12% [n=3] stage M1b and 40% [n=10] stage M1c), whilst 28 patients had relapsed disease, 1 of which was diagnosed in pregnancy. All patients had an ECOG status of 0 – 1.

OS at 2 years from time of first treatment cycle for all patients was 49% (47% in BRAF-positive group [n=9], with 2 patients lost to follow-up, vs. 53% [n=17]). The median number of cycles completed was comparable between the groups (3.25 for BRAF-positive vs. 3.1).

38% of patients had irAEs of any grade – most commonly gastrointestinal (17%, n=9), endocrinopathies and skin rash, with 45% of those ≥grade 3. BRAF-positive patients had comparable rates of any-grade toxicities compared to BRAF-wildtype (38% [n=8] vs. 37.5% [n=12]), but a lower risk of ≥grade 3 irAEs (9% [n=2] vs. 25% [n=8]).

Conclusion

This real-world retrospective, single institution study shows similar OS and toxicity profiles as landmark prospective randomised clinical trials. It also highlights the importance of early multidisciplinary specialist care for treatment-related toxicities to optimise patient outcomes.



Poster Presentation Abstracts

P26

A prospective study examining tanning bed use among dermatology patients

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Aim/Background

Tanning beds were declared to be carcinogenic by the World Health Organisation in 2009. Clinical research has shown an increased risk of melanoma and non-melanoma skin cancers associated with sunbed use. This is especially true for those who engage in tanning bed use early in life. Health misinformation has become a major issue worldwide. False claims of the benefits of tanning beds, propagated through the Internet and social media are of concern. These includes the self-management of several medical conditions such as inflammatory dermatoses. The aim of our aim study was to explore the prevalence of and behaviours surrounding tanning bed use in patients attending Irish dermatology service.

Methods:

Ethics approval was granted by the Clinical Research Ethics Committee of the Cork Teaching Hospitals. Informed written consent was obtained from each participant prior to being enrolled in the study. Study participants were recruited through the dermatology outpatient departments at South Infirmary Victoria University Hospital in Cork, Ireland, and Mallow General Hospital in Cork, Ireland. The study period was from September 2023 to November 2023. The design of this study was an anonymised written questionnaire on tanning bed use. Data regarding skin phototype, acne history and sunbed exposure were collected. Inclusion criteria were Irish residents actively attending dermatology outpatient departments (both new and follow-up patients). Exclusion criteria were patients who were not fluent in English. 377 questionnaires were completed by patients attending our services.

Results:

Almost a third (31%) of participants reported ultra-violet radiation (UVR) bed use outside of a medical setting. More than half of the patients reporting previous tanning bed use were attending pigmented lesion clinics (52%). Participants were more likely to use tanning beds if they were female and older (mean age of sunbed users = 43 years). Seventeen per cent of tanning bed users engaged in this behaviour to self-treat an underlying condition such as acne.

Conclusion:

Our results show that despite the amended legislation introduced, tanning beds are still in vogue in Ireland. Dermatologists should be alert to the false claims regarding potential health benefits of sunbed use, and should aim to counter health misinformation claims whenever possible.



Poster Presentation Abstracts

P27

Dermoscopy and Woods light Dermoscopy to aid margin delineation in surgical management of Lentigo Maligna in rural Ireland in the absence of Confocal Microscopy

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Background:

Lentigo Maligna (LM) is a subtype of melanoma in situ, characterized by a slow-growing proliferation of melanocytes on chronically UV-exposed skin. It carries a heightened risk of local recurrence compared to other melanoma subtypes, although its progression to invasive melanoma is relatively lower. The global standard of care is surgical excision with a 5 mm peripheral margin to achieve histological clearance. However, delineating LM margins remains a clinical challenge due to indistinct peripheral borders, skip areas, and its potential to extend beyond visibly pigmented regions. In the absence of confocal microscopy or Mohs micrographic surgery, patients often require serial excisions to ensure histologic clearance, increasing morbidity and healthcare burden.

Objective:

This study aims to evaluate whether dermoscopy, incorporating polarized, non-polarized, and ultraviolet (UV) light (Woods lamp) imaging, enhances surgical margin delineation in biopsy-proven LM. Specifically, the study will:

- (A) Assess whether dermoscopy improves pre-operative margin identification in LM lesions on the head, neck, and face.
- (B) Evaluate the efficacy of UV light dermoscopy as an adjunctive tool to enhance surgical mapping, with the goal of achieving complete histological clearance on the initial excision attempt.

Study Design:

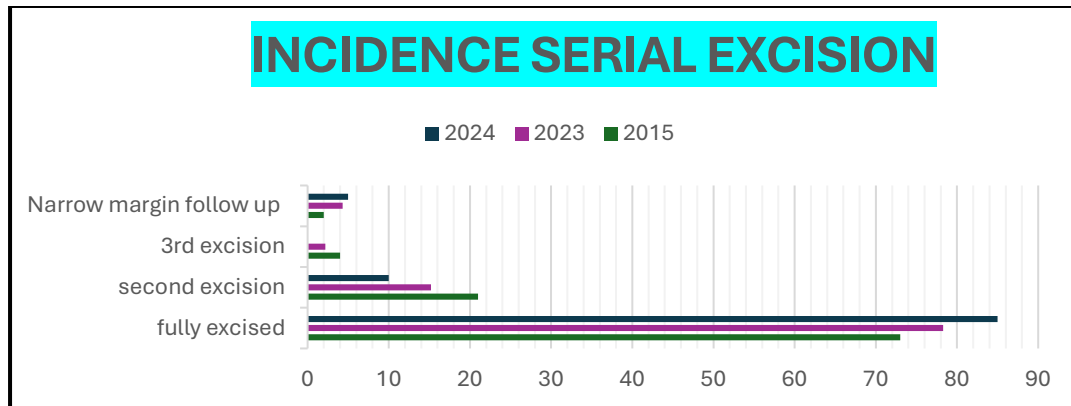
This observational study will compare histological clearance rates between two cohorts:

1. **Prospective Cohort (2024):** The first 20 consecutive biopsy-proven LM cases requiring wider excision will undergo surgical margin mapping using a combination of polarized, non-polarized, and UV light dermoscopy.
2. **Retrospective Control Cohort (2015–2017):** A historical group of 50 LM cases that underwent standard excision with a 5 mm margin, without the use of dermoscopy, will serve as a comparator.

All cases in both cohorts are sequentially selected to minimize selection bias, with inclusion limited to pigmented LM lesions on the face, head, and neck. Histological clearance rates from both arms will be compared to assess the impact of dermoscopic-guided excision.

Conclusion:

The study demonstrated that systematically combining Wood's light, polarized, and non-polarized dermoscopy plays a significant role in delineating the peripheral margins of lentigo maligna (LM). This approach provided an 85% histological clearance rate on the preliminary excision and reduced the incidence of serial excision.



Dermoscopy, combined with UV imaging, offers a cost-effective, non-invasive approach to enhance LM diagnosis and surgical management, potentially optimizing patient care and reducing unnecessary excisions. Future research should focus on larger, randomized trials to confirm these preliminary findings and refine best practices in LM management.



Poster Presentation Abstracts

P28

Bridging the Gap Between National Guidelines and Practice: A Melanoma Imaging Audit at Mater Misericordiae University Hospital.

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Aim/Background

In May 2024, the NCCP published national guidelines on the radiological staging and surveillance of patients with cutaneous melanoma. This audit evaluates current practice at the Mater Misericordiae University Hospital (MMUH) against these standards, with a view to identifying delays or deviations and informing quality improvement.

Methods

A retrospective audit was conducted of all Stage IIB, IIC, III and IV cutaneous melanoma patients discussed at the MMUH Skin MDT between May and October 2024. Data on staging and surveillance imaging were extracted from electronic records and cross-verified with NIMIS. Standards were derived directly from NCCP 2024 guidance.

Results

Twelve patients were included (mean age 74.5 years; 75% male, 25% female).

Staging

- 92% (11/12) of patients received guideline-recommended staging (PET/CT and MRI brain).

Imaging turnaround times:

- PET-CT:
Avg. time from diagnosis to scan: 80.4 days
Avg. time from order to scan: 36.7 days
- MRI brain:
Avg. time from diagnosis to scan: 89.9 days
Avg. time from order to scan: 31.9 days

Surveillance

- PET/CT within recommended timeframe: 55%
- MRI/CT brain within timeframe: 27%
- Ultrasound surveillance: 100% compliance among eligible patients

Conclusion:

There was high compliance with guideline-recommended imaging modalities for staging. However, delays in scan turnaround and underuse of surveillance imaging highlight the need for improved access, communication, and local workflow adjustments. Stakeholder engagement and a second audit loop are planned to drive service improvement.



Poster Presentation Abstracts

P29

Prospective Observational Study of Skin Toxicity in Patients Treated with Immune Checkpoint Inhibitors at a Single Irish Centre

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Background:

Immune checkpoint inhibitors (ICIs) have transformed cancer treatment, but skin toxicity remains a concern. Immune-related cutaneous adverse events (ircAEs) are common, affecting over 50% of patients. Most reactions are mild and don't interfere with treatment. These reactions can range from nonspecific maculopapular rashes to autoimmune-like manifestations such as psoriasis and bullous dermatoses. This study aimed to evaluate the incidence and severity of skin toxicities in patients treated with ICIs in a real-world clinical setting.

Methods:

Thirty-two patients receiving ICIs were prospectively followed for 12 months to assess skin reactions. The cohort included 4 with small cell lung cancer, 13 with lung adenocarcinoma, 3 with lung squamous cell carcinoma, 8 with melanoma, and 4 with renal cell carcinoma. Median age was 67 years (range: 49–80). Pre-existing skin conditions, including psoriasis (n=3) and eczema (n=4), were noted. Skin toxicity was graded using the Common Terminology Criteria for Adverse Events (CTCAE).

Results:

Fourteen patients (44%) developed skin reactions: 1 (7%) with grade 3, 3 (21%) with grade 2, and 10 (71%) with grade 1 toxicity. The most common manifestations were eczematous eruptions (n=7, 50%), morbilliform eruptions (n=2, 14%) and pruritus (n=2, 14%). Two patients experienced worsening of pre-existing skin disease (Psoriasis, n=1 & Rosacea, n=1). One patient required a treatment delay, but no patients had their treatment permanently stopped due to skin toxicity. Management primarily involved emollients and topical steroids.

Conclusion:

In this cohort, skin toxicity was common but mostly mild to moderate in severity. Pruritus, eczema, and maculopapular eruptions were the most frequent reactions. Treatment was not stopped in any case due to skin toxicity. These findings align with clinical trials and ESMO guidelines, suggesting that skin toxicities can often be managed effectively without halting cancer therapy. Future developments should focus on implementing specialized oncodermatology services and dedicated management pathways for skin reactions in oncology patients, to reduce treatment delays and improve patient morbidity.



Poster Presentation Abstracts

P30

Real-World Use of Cemiplimab in Advanced Cutaneous Squamous Cell Carcinoma: A Retrospective Cohort Study

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Background:

Cemiplimab, a PD-1 immune checkpoint inhibitor, has become a key therapeutic option for patients with advanced cutaneous squamous cell carcinoma (cSCC). While clinical trials have demonstrated its efficacy, real-world data—particularly in older, comorbid populations—remain limited. We present data from a cohort treated at University Hospital Waterford (UHW).

Methods:

We retrospectively reviewed data from 10 patients with advanced cSCC who received Cemiplimab between November 2022 and March 2025 at UHW. Patient demographics, ECOG performance status, disease extent, prior treatments, number of Cemiplimab cycles, clinical response, toxicity, and immune-related adverse events (irAEs) were assessed.

Results:

The median age was 78 years (range: 50–89), with 70% of patients presenting with ECOG 2 (range 1–3). irAEs were reported in 40% of patients, with skin and gastrointestinal toxicities most commonly observed. Most irAEs were Grade 1, two patients had Grade 3 toxicities requiring systemic steroids, only 1 patient had recurrent Grade 3 hepatitis for which the treatment was discontinued. Treatment was generally well tolerated, with complete tumour regression in 40% of patients, partial response in 20%, stable disease in 30% and not assessable in 1 patient who died of comorbidity before the second cycle of treatment. Median number of cycles received was 5 (range 1–20). No treatment-related deaths occurred but 3 patients received only 1 cycle of treatment due to medical frailty.

Conclusions:

In this real-world cohort, cemiplimab was well tolerated and provided meaningful, and in some cases durable, clinical benefit even in patients with advanced age, poor performance status, and significant comorbidities, including immunocompromise/ immunosuppressive therapy. These findings support the integration of Cemiplimab into standard practice for cSCC and highlight the importance of MDT involvement in treatment decision-making.



Poster Presentation Abstracts

P31

A cross-sectional analysis of online availability of sun protective clothing.

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Aim/Background:

The WHO advocates for the use of photoprotective clothing to combat the deleterious effects of UV radiation. The photoprotective standard of clothing is often measured as the ultraviolet photoprotective factor (UPF). The European Committee for Standardisation (CEN) has developed a standard on requirements for test methods and labelling of sun-protective garments. UV protective clothing for which compliance with this standard is claimed must have a UPF of greater than 40 (UPF 40+) and must maintain an average UVA transmittance of less than 5%. We aimed to investigate the frequency of UPF-rated clothing sold online by the UK's largest retailers.

Methods:

The UK's top 30 retailers based on annual revenue generated were identified for the year 2023 – 2024. Each online retailer's website was searched for "UPF clothing" and "UPF" between September and December 2024. Seven online retailers were excluded as they did not sell clothing; the remaining 23 retailers were included for analysis in this study.

Results:

Of these 23 stores, 35% (8/23) sold UPF-rated clothing online. Three retailers sold UV protective clothing for men, women, and children, while this photoprotective clothing was less widely available on the remaining 5 retailer's online catalogues. Of the stores that did have UPF-rated clothing, 50% (4/8) had fewer than 15 UPF-graded items for sale; 25% (2/8) had over 200 UPF-graded items on their website. All UPF-rated clothing identified from these retailers websites were rated UPF 40+ or above, thereby complying with the CEN's guidance on UV protective clothing. The stores that had a selection of UPF-rated clothing on their website included Amazon, H&M, John Lewis, JD Sports, NEXT, House of Fraser, Screwfix and Very. The vast majority of UPF rated clothing identified were activewear and children's swimwear; there was a scarcity of casual clothing with a UPF rating.

Conclusion:

Our online search of UPF-rated garments revealed that this photoprotective clothing is not readily available, with only 35% of the UK's largest online retailers stocking UPF-rated clothing. Public health campaigns may provide a potential solution to target this public health concern, placing emphasis on UPF-rated clothing as an essential photoprotective measure.



Poster Presentation Abstracts

P32

A qualitative review of online content relating to sunscreen misinformation.

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Aim/Background:

Conspiracy theories pertaining to sunscreen use have gained significant traction in the media. The aim of this study was to qualitatively assess online misinformation surrounding sunscreen via a review of popular social media platforms, online google searches, and a literature review on PubMed.

Methods:

A literature review was performed via PubMed in October 2024 using the search terms "sunscreen" AND "conspiracy theories" OR "misinformation". Eight papers were selected for inclusion in this study. Other potential sources of online misinformation were also searched in October 2024: Google; TikTok, Facebook, Instagram, YouTube.

Results:

Three themes emerged in relation to sunscreen conspiracy theories from our online searches; carcinogenic chemicals found in sunscreen, vitamin D deficiency associated with sunscreen use, and the environmental impact of sunscreen use.

Several social media influencers reported that toxic chemicals in sunscreen cause "endocrine disruption" and cancer. While sunscreen may have a degree of systemic absorption, there is no definitive evidence suggesting that sunscreen is harmful to humans. The FDA commissioned two studies addressing concerns relating to the systemic absorption of sunscreen in 2019 and 2020; while elevated plasma levels were demonstrated, the amount of sunscreen used in these studies like far exceeds the amount that is used by the average individual.

Multiple online sources also highlighted that sunscreen use inhibits vitamin D synthesis. There is little supporting evidence in the literature that sunscreen decreases vitamin D concentration in real-life settings. While experimental studies have supported the theoretical risk that sunscreen use may affect vitamin D levels, evidence from observational studies and field trials indicate that this risk is low.

Numerous online sources also highlighted the potential toxicopathological effects of sunscreen on our marine ecosystems. Several studies published over the last decade have implicated UV filters used in sunscreens to negatively affect our marine ecosystems and possibly contribute to coral decline. However, we are unable to extrapolate from these papers alone that the UV filters in sunscreen are responsible for the bleaching and death of coral.



Conclusion:

The anti-sunscreen movement is gaining traction across all forms of non-traditional media outlets. An increased online presence of medical professionals promoting accurate health information could help corroborate false and misleading claims on social media as they arise in real-time.



Poster Presentation Abstracts

P33

Is there ever a role for a completion lymph node dissection: Systematic Review and Meta-Analysis

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Background:

There is growing evidence to support observation over completion lymph node dissection (CLND) in certain groups of sentinel lymph node (SLN) positive melanoma patients. The aim of this systematic review and meta-analysis was to evaluate survival and recurrence rate in subgroups of SLNB positive melanoma patients who underwent CLND, compared with observation.

Methods:

A systematic review of four electronic databases (PubMed, EMBASE, SCOPUS and Cochrane) was undertaken. The primary outcome assessed was melanoma free survival. The secondary outcomes assessed include overall survival, nodal recurrence, and distant metastasis-free survival. Subgroup analysis will be performed to further assess features of nodal metastasis and nodal basin.

Results:

A total of 25 studies, including 15398 patients were identified that met the inclusion criteria. Primary trend results show that there are similar outcomes in melanoma free survival, overall survival, and disease specific survival between the two groups. Analysis will be performed to assess outcomes in the full group. Further subgroup analysis will be used to identify outcomes in patients based on involved nodal basin and features of metastasis.

Conclusion:

Considering RCTs recently published this study aims to further evaluate the role of CLND versus observation in various subgroups of sentinel node positive melanoma patients.



Poster Presentation Abstracts

P34

Assessing the Impact of the National Cancer Control Programme (NCCP) guidelines versus the older NICE 2022 guidelines on radiological staging/surveillance of patients with melanoma

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3. *Department of Radiology, St Vincent's University Hospital*

Aim/Background:

The NCCP melanoma radiological staging guidelines were published in 2024. The NICE guidelines on this topic were updated in 2022. These guidelines may impact radiology workload and investigation burden on patients. This audit evaluated the likely impact at SVUH.

Methods:

A retrospective audit patients diagnosed with invasive melanoma in 2022–2023 was conducted; 211/250 were eligible for inclusion. Anonymised data including stage at diagnosis were extracted. Initial scan recommendations, modality, and follow-up under both guidelines were applied and compared to actual practice.

Results:

Under NICE 2022, imaging was “to be considered” in 49.7% (105/211, stages 1b–2b), not recommended in 41.2% (87/211, stage 1a), and clearly recommended in 9% (19/211, stage 2c+). NCCP 2024 recommended imaging in 15.2% (32/211, stage 2b+) and none in 84.8% (179/211, 1a–2a). NICE recommended 388 total scans—67% (262/388) were “to be considered”. The most commonly recommended modality both in the “to be considered” and recommended category was ultrasound 65% (252/388). NCCP recommended 136 scans with no ambiguous categories. CT brain and CT whole-body scans were each recommended 54/136 scans under NCCP for stage 2b/2c tumours.

In practice, PET-CT was most commonly used (68.6% of imaged patients). A subset analysis identified 7 stage 2a tumours imaged by PET-CT despite following MDT recommendation due to high risk histopathology (outside AJCC8 staging) such as lymphovascular or perineural invasion.

Conclusion:

NCCP 2024 reduces ambiguity by providing firm recommendations for 6-monthly imaging over 1–3 years in stage 2b+ tumours. Total scans recommended following NICE 2022 were 388 reducing to 136 when NCCP 2024 were followed. This was primarily due to the lack of a “to be considered” category in the NCCP guidelines. However, recommendation for CT and PET-CT scans was greater, with eligible patients rising from 19/211 (NICE) to 32/211 (NCCP), leading to an estimated annual increase from 68 to 120 higher radiation dose scans. Implications for service provision and investigation burden on patients warrant attention.



Poster Presentation Abstracts

P35

Evaluation of Pigmented Skin Lesion Referral Pathways and Impact on Waiting Times and Melanoma Detection

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Aim

To evaluate the effectiveness of pigmented lesion clinic (PLC) referral pathways in Ireland in diagnosing melanoma accurately and timely, amidst increased referral numbers contributing to longer waiting times.

Methods

We conducted a retrospective cohort study to assess melanoma pickup rates from pigmented lesion referrals in a tertiary dermatology centre over a 6-month period. The total waiting time, mode, reason for referral, and triage category of referrals were recorded and compared with histologically confirmed melanomas. The results were then analysed using descriptive analysis.

Results

We identified 43 patients with histologically confirmed melanomas. The majority of referrals were from 3 sources - National Cancer Control Programme (NCCP) pathway-24. National General Referral (NGR) pathway-13 and free text letters-6. Thirty-five patients (81%) were seen within 12 weeks, 2 patients (4.6%) were seen within 24 weeks, and 8 patients (18.6%) seen after 24 weeks. Referrals through the NCCP pathway (20/24, 83%) were associated with faster appointments (within 12 weeks). Long waiters (>24 weeks) were triaged based on referral information provided, majority of which (5/8, 63%) were clinically suspicious for non-melanoma skin cancers or were incidental pickups from a general dermatology clinic.

Conclusion

Our triage system appears to effectively stratify suspicious lesions for melanoma. Referrals through NCCP pathway is associated with shorter waiting times. Better recognition of benign skin lesions among referrers is also needed. These findings should be highlighted to primary care physicians to ensure timely and accurate diagnosis. Tele-dermatology or referrals with images could help reduce waiting lists and improve melanoma pickup rates.



Poster Presentation Abstracts

P36

Selling Sunbeds

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Aim/Background:

The sale of sunbeds through online marketplaces in Ireland presents significant public health concerns, occurring outside the regulatory framework of the Public Health (Sunbeds) Act 2014. This legislation seeks to reduce the risks of ultraviolet radiation by prohibiting sunbed use by minors, restricting marketing practices, and mandating health warnings. Online marketplaces pose unique challenges to regulatory enforcement in the digital age. This study aimed to assess the extent and nature of sunbed advertisements on online marketplaces in Ireland.

Methods:

A cross-sectional analysis was conducted in July 2024, examining sunbed advertisements on Facebook Marketplace and DoneDeal. Data on the number of listings, seller type, language used in advertisements, and the presence of health warnings were analysed.

Results:

A total of 29 sunbed advertisements were identified, offering 59 sunbeds for sale. Four advertisements indicated that the sunbeds originated from sunbed businesses. Some advertisements featured persuasive language promoting a "perfect tan" and misleading claims about tanning safety, such as "the safe feeling of skin gentle tanning." No advertisements included the legally required health warnings.

Conclusion:

The absence of regulatory oversight for sunbed sales on online platforms contrasts sharply with the controls imposed on traditional sunbed businesses, increasing consumer risks, particularly for minors. This study highlights the urgent need for enhanced regulatory monitoring of online marketplaces, targeted consumer education on sunbed risks, and potential incentives for the safe disposal of unwanted sunbeds. Strengthening collaboration between regulators and online platforms, while adapting policies to the evolving digital landscape, is critical to safeguarding public health.



Poster Presentation Abstracts

P37

Malignant melanoma in Northern Trust during 2013, 2019, 2020 and 2021 – changing patterns of cases diagnosed by GP referral and disease stage shift.

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3. Northern Ireland Cancer Registry, Queen University Belfast.
4. Public Health Agency, Northern Ireland.

Introduction

Malignant melanoma (MM) is the 5th most common UK cancer, with increasing incidence rates impacting on service pressures.

Aims

Assess patterns of cases diagnosed by GP referral and disease stage shift in Northern Trust (NT) and impact of COVID-19.

Methods

MM patient data from 2013, 2019, 2020-2021 were collected via hospital records (paper and electronic) and merged with the Northern Ireland Cancer Register (NICR) and analysed using STAT v15.

Results

NT has the largest crude number of incident melanoma cases in NI with 96 cases on average per year (2016-2020) compared to 51-88 in other Trusts. The number and proportion of referrals via GP into NT for MM cases increased substantially between 2013 [41/88 (47%)(GP referral/Total MM)] and 2019 [87/104 (84%)], a 112% increase in numbers between 2013 to 2019. In 2020, the first year of COVID-19, the number and proportion of referrals via GP dropped [60/74 (81%)]. An associated stage shift in GP referral cases was found during the first years of COVID-19, with a higher proportion diagnosed with deeper tumours; 25% had a pT4 tumour in 2021 compared to 15% in 2020 and 10% in 2019.

Discussion

The reduced number and proportion of MM cases following GP referral in 2020 highlights the impact of COVID-19. There was a concomitant increase in the proportion of deeper tumours in 2020 and 2021, which have greater risk of recurrence. Prioritisation on early intervention, including quicker access to primary excision, is needed for a sustainable MM service in NI.



Poster Presentation Abstracts

P38

Efficacy and safety of Stereotactic Radiosurgery (SRS) in the management of brain metastases in patients with metastatic melanoma.

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Background:

Up to 40-50% of patients with metastatic melanoma (MM) develop brain metastases (BM). These are often very vascular, with potential for spontaneous bleeding. This leads to caution with the use of SRS.

Methods:

We conducted a retrospective analysis of MM patients receiving SRS at our center from 11/2015-11/2023. Primary objectives were median overall survival (mOS [months]) and incidence of bleeding. Survival analysis was performed on Prism 10.1.1. Extraction from electronic medical records was undertaken by authors, with local R&D committee approval.

Results:

81 patients were evaluable. Median duration of follow up was 54.1m (using actuarial methods). 119 individual treatment courses were delivered. There were no bleeding events (BE) in the first 7 days after SRS. There was 1 BE within 28 days (0.8%) and 19 BE within 90 days (16%). Mean size of lesions treated was 4.34cc for those with BE compared to 3.66cc for those without BE (P=0.89). Of those treated, 7.6%(N=9) of patients died within 90 days of SRS, and 25.2% (N=30) died within 6m of treatment.

There were no deaths within 30 days or related to treatment with SRS.

mOS was 17.6m (95% CI 9.20-35.05). Significantly inferior survival outcomes were observed for patients with elevated lactate dehydrogenase (LDH), poor performance status (Karnofsky performance status [KPS]), higher total treated intracranial volume (GTV) and total number of BM present. Median OS of patients with a normal LDH was 37.0m vs 5.2m for those with LDH greater than the upper limit of normal (HR 4.40, P<.0001). This was also true on multivariable analysis including KPS, number of metastases and BM size (HR 3.75 95% CI 1.94-7.30, p= <0.0001). For patients with KPS ≥90 mOS was 35.0m compared to 7.7m for KPS ≤80 (HR 2.55, P<.0004). This was also true using the same multivariable analysis mentioned above (HR 2.12 95% CI 1.123-3.948, p=0.0181).

Conclusions:

Despite theoretically high risk of bleeding after SRS in MM BM, the incidence of bleeding in our cohort was low. Median OS was reasonable with SRS, compared to historical controls of 6-17 months. As expected, abnormal LDH and poor performance status predicted poorer outcomes. Further prospective research is needed to interrogate these findings, including the impact of systemic therapies on bleeding risk to guide local therapies in MM with BM.



Poster Presentation Abstracts

P39

An Insight into the Implications of the NCCP 2024 Guideline on the Staging & Surveillance of Melanoma

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Background

In 2024, the NCCP introduced changes to the staging and surveillance of cutaneous melanoma. This study aims to evaluate the cost-effectiveness of these changes and the impact on future modelling of services.

Methods

Patients diagnosed with melanoma ($\geq$ pT1b) treated between 2017 and 2023 at Beaumont Hospital were identified. Data were analysed for their journey on an idealized pathway modelled over a 5-year follow-up period according to new guidelines. The increased number and cost of surveillance imaging required was estimated and compared with previous best practice.

Results

According to new guidelines, based on our patient population, an additional 110 surveillance whole-body CT and brain-CT scans could be required annually for stage IIb and IIc melanoma. An additional 390 surveillance MRI-Brain scans could potentially be required annually for stage III and IV melanoma patients. Estimated additional costs are shown in Table 1. 27% of patients with pT3b N0 tumours, 19% of patients with pT4a N0 tumours, and 34% of patients with pT4b N0 tumours progressed to metastatic disease.

Conclusion

This study identifies cost and service access implications with the implementation of these guidelines. The clinical utility of increased surveillance imaging is yet to be determined. There is little evidence at present showing a definite survival benefit to radiological surveillance in stage IIb & IIc disease. There is however an increased risk of recurrence in this cohort when compared to stage IIIa. Prospective data collection to examine outcomes of radiological surveillance in this cohort would be beneficial once the guideline has been implemented. This provides key information for planning future service delivery in the context of an aging population and increased prevalence of melanoma. Table 1. Table showing the estimated increase of surveillance scans required annually for melanoma patients in Beaumont Hospital, the estimated additional direct cost, and the estimated increase in required reporting time.



Imaging Modality	Additional Number per year	Additional yearly Costs	Additional yearly reporting Time (hr)
PET-CT	110	€176,000	55
CT Brain	110	€29,700	55
MRI Brain	390	€140,400	195
Total	610	€346,100	305



Poster Presentation Abstracts

P40

Unravelling the Diagnostic Challenge of Dedifferentiated Melanoma using PRAME: A Case Report.

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Background

Dedifferentiated melanoma (DDM) is a rare but likely under-recognised entity characterised by a biphasic tumour consisting of conventional melanoma and another component, which has undergone a loss of the cellular and immunohistochemical features of melanoma, resulting in a more primitive phenotype resembling atypical fibroxanthoma or pleomorphic dermal sarcoma (AFX/PDS). DDM is typically highly aggressive and resistant to standard treatments. PRAME immunohistochemistry has been shown to show strong and diffuse staining in dedifferentiated and undifferentiated melanoma and weak staining in their differential diagnoses. Molecular genetic analysis for melanoma target genes can also be informative, as the molecular profiles of these tumours are often retained despite their morphological and immunohistochemical changes.

Methods

An 85-year-old man presented with a 4cm ulcerated lesion and an adjacent 2.5cm multinodular lesion on his scalp. Both were biopsied and synchronous diagnoses of AFX/PDS and melanoma were initially made. The entire area was subsequently excised and examined.

Results

The excision specimen showed conventional lentigo maligna melanoma adjacent to a malignant spindle and pleomorphic cell tumour with satellites of conventional melanoma and lymphovascular invasion by the pleomorphic cell tumour.

The conventional melanoma and satellite lesions showed positive staining for the melanoma markers melan A and SOX10 but the pleomorphic tumour was negative for both markers; however, PRAME showed strong and diffuse staining in both, supporting dedifferentiated melanoma. Molecular genetic analysis by NGS of both components did not detect a mutation in the examined genes in the melanoma panel.

Conclusion

Dedifferentiated or undifferentiated melanoma can easily be misdiagnosed as AFX/PDS, especially on biopsy. Our case highlights the utility of PRAME immunohistochemistry to confirm the diagnosis of DDM. The aggressive nature of this tumour was confirmed by rapid development of additional scalp metastases and detection of multiple lung metastases.



Poster Presentation Abstracts

P41

"The Perioperative Patient on Immunotherapy: What the Surgeon Needs to Know"

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Abstract

Background

Immune checkpoint inhibitors (ICI) have become the standard of care for many advanced and metastatic tumours. Neoadjuvant immunotherapy has the potential to reduce tumour volume preoperatively and potentially limit postoperative relapse. ICIs bring their own set of unique inflammatory side effects, now termed immune-related adverse events (irAEs). Due to the inhibition of cytotoxic T-lymphocyte antigen 4 (CTLA-4) or programmed cell death 1 (PD-1), ICIs hyperactivate the immune system causing off-target toxicities, which in turn can affect all organ pathways, and potentially lead to severe or fatal toxicities. The surgeon remains the primary caregiver to patients during the perioperative period. Here we provide a review of irAEs with special interest pertaining to the operating surgeon, focusing on epidemiology, risk factors, presentation, diagnosis, and management for the most common irAEs which may present in the perioperative period. As immunotherapies combined with surgery emerge as a forefront treatment, surgeons must develop new skills to recognize immune-related adverse events (irAEs) and adopt a multidisciplinary approach to guide patient management.

Methods

A review of current literature was performed in order to evaluate current knowledge of complications associated with immunotherapy.

Results

As this study was a review of current literature, there were no formal results.

Conclusions

Over the past decade, there has been rapid progress in the development and use of ICIs. In this study, we provide a succinct review of the most common and challenging irAEs, with particular attention to the perioperative period for surgeons.



Poster Presentation Abstracts

P42

Immunotherapeutic Challenges in Dedifferentiated Melanoma: A Case Report

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Background

This report explores a case of dedifferentiated metastatic melanoma in which the therapeutic course was complicated by significant adverse events.

Case History

A 38-year old male presented to an outside institution with a lesion of the temporal/parietal scalp and imaging confirmed locoregional lymph node involvement. Biopsy showed a poorly differentiated tumour displaying only focal S100 and SOX-10 positivity but no staining with other melanocytic markers. A *BRAF*_{V600} mutation was identified by the Idylla™ *BRAF* Mutation Test. Following initial excision, the tumour recurred and a large re-excision was performed at our institution. This specimen contained only a dedifferentiated component with complete absence of melanoma markers S100, SOX-10, melanA and HMB45; however *BRAF*_{V600} mutation was retained.

Staging imaging post resection revealed metastatic lymphadenopathy and combination immunotherapy with ipilimumab (3 mg/kg) and nivolumab (1 mg/kg) was commenced. One month thereafter, firm pink papules appeared over the first metacarpophalangeal joint of the right hand and dorsal right ankle. Dermoscopy showed no diagnostic features. Biopsies revealed granulomatous dermatitis. Special stains for microorganisms were negative and there was no evidence of sarcoid on imaging. Clinicopathological correlation favoured a diagnosis of immunotherapy induced granulomatous dermatitis.

Following cycle 3 of immunotherapy, the patient was admitted with shortness of breath and a new cough with CT imaging demonstrating diffuse bilateral ground-glass opacification consistent with immune mediated pneumonitis. Treatment was held and high dose corticosteroids administered.

Restaging imaging demonstrated a reduction in lymphadenopathy size and metabolic activity, suggesting an effective response to immunotherapy.

Conclusion

Although immunotherapy has potential benefits in advanced dedifferentiated cutaneous melanoma, serious immune mediated adverse events are common. Immunotherapy induced granulomatous dermatitis should be included in the differential of granulomatous skin eruptions in this setting and may represent another clinical marker of therapeutic response to immune checkpoint inhibitors.



Poster Presentation Abstracts

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Primary iris melanoma simulating uveal metastasis from cryptic cutaneous melanoma

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Aim

To present a rare case of iris melanoma initially mimicking metastatic disease, highlighting the diagnostic challenges and the critical role of multimodal evaluation in establishing an accurate diagnosis and guiding appropriate management.

Methods

A 73-year-old Caucasian male presented with floaters, ocular pain, and redness in his right eye, accompanied by an elevated intraocular pressure of 40 mmHg. Examination revealed an amelanotic vascular iris mass arising from the iridocorneal angle, panuveitis, and secondary glaucoma, raising suspicion for iris metastasis. Ultrasound biomicroscopy measured the lesion at 2.9 mm in thickness. Given the high risk of intraocular haemorrhage, fine-needle aspiration biopsy was avoided, and a diagnostic pars plana vitrectomy was performed. Cytology confirmed malignant melanoma. Systemic imaging identified small pulmonary and renal lesions but no definitive metastases. Re-examination of a prior skin biopsy led to the reclassification of a previously excised atypical fibroxanthoma as invasive cutaneous melanoma. The intraocular tumour rapidly progressed and the eye was enucleated.

Results

Histopathology confirmed primary uveal melanoma with aggressive features, including epithelioid morphology, high mitotic activity, and intra-tumoral lymphocyte infiltration. Genetic analysis revealed no mutations in *BRAF*, *KIT*, or *NRAS*, and *BAP1* expression was retained. As the ocular tumour was the only active disease site, systemic therapy was deferred, and the patient remains under oncologic surveillance.

Conclusion

This case underscores the diagnostic complexity of differentiating iris melanoma from metastatic uveal melanoma and highlights the importance of integrating clinical, radiologic, and histopathological findings for accurate diagnosis and management.



Poster Presentation Abstracts

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Rising Incidence or Random Cluster? Paediatric Uveal Melanoma in Ireland 2010–2025

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Background

Uveal melanoma is predominantly an adult malignancy, with Ireland reporting one of the highest incidence rates at 9.5 cases per million adults annually. Paediatric uveal melanoma is extremely rare, accounting for only 0.8% to 1.1% of all uveal melanoma cases in published series.

Methods

A retrospective review of electronic medical records and treatment details was conducted for all patients aged 18 and under diagnosed with uveal melanoma in Ireland between 2010 and 2025. A literature search on paediatric uveal melanoma was also performed.

Results

Six caucasian patients (five male, one female) aged 6 to 17 at presentation were identified. Tumour locations included five choroidal and one ciliary body melanoma. Management comprised enucleation (two cases), plaque brachytherapy (two Ruthenium-106, one Iodine-125), and proton beam radiotherapy (one case). Histopathology was available in two cases (one mixed cell type and one spindle B). Two patients underwent fine needle aspiration biopsy, yielding one cytological diagnosis and one acellular sample. No biopsy was undertaken in 2 cases. To date there has been no case of metastatic disease within the group.

Discussion

While the incidence of uveal melanoma has remained stable globally, its rarity in children makes trend analysis difficult. In Ireland, six paediatric cases were identified from 2010 to 2025, with five occurring in the last four years – one in 2021, one in 2022, and three in 2024. This may represent a sporadic cluster but merits further evaluation and comparison with trends in other countries.



Poster Presentation Abstracts

P45

Pigmented Lesion Referrals: Review of Clinical Details on eNCCP Referral Form

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Aim/Background:

In Ireland, more than 1,000 cases of melanoma are diagnosed annually. The NCCP introduced guidelines for referral and management of suspicious pigmented lesions and a pigmented lesion referral form over 10 years ago. The aim of these guidelines is to streamline referral, aid triage, and ultimately shorten time from referral to diagnosis of melanoma. This audit aimed to review referral query on electronic NCCP pigmented lesion referral forms and compare with the clinical diagnosis made once patient was seen.

Methods:

All referrals received via the eNCCP pigmented lesion referral form over a two-month period (January-February 2024) were reviewed. The clinical diagnosis for each patient was obtained by reviewing clinic letters, histopathology results, attendance records and medical records/notes where necessary.

Results:

325 eNCCP referrals were received January-February 2024, the referral queries outlined in Table 1. 251 patients ultimately attended. Of these, 6 were diagnosed with melanoma and 5 with in situ melanoma/lentigo maligna. Two had melanoma diagnosed as an incidental finding on full skin examination (at a site different from the referral query). Four of the referrals were for 'a likely melanoma', 7 for 'a changing mole' and 2 with 'ugly duckling sign' (some referrals with > 1 ticked). 15 patients were diagnosed with dysplastic naevi. 21 were diagnosed with actinic keratoses/actinic damage. 20 patients were diagnosed with keratinocyte cancers; BCC, SCC, and SCCis inclusive.

Table 1:

Referral query on eNCCP pigmented lesion referral form (total numbers >325 as >1 diagnosis ticked)

Referral Query	Quantity
A likely melanoma	48
A changing mole – requires assessment	172
A benign mole, but would like an opinion	28
Ugly duckling sign (Mole or lesion which looks different than the patient's other moles)	73
Likely Nail Bed Melanoma	0
Other	45

Conclusion:

Of the 11 patients ultimately diagnosed with either invasive or in situ melanoma/lentigo maligna, four were referred with a likely melanoma, with the remainder being either a changing lesion or ugly duckling lesion. None were referred as likely benign lesions. Removing this option from referral form may help prioritise urgent cases referred electronically.



Poster Presentation Abstracts

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Empowering the Melanoma Journey: Creating a Personalised Digital Platform for Irish Melanoma Patients

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Introduction:

Melanoma is the most serious form of skin cancer, with increasing incidence in Ireland. While advances in treatment have improved outcomes, patients continue to face significant information gaps at all stages of the care pathway. Personalised, accessible, and culturally relevant patient education tools are essential to support informed decision-making, improve psychological wellbeing, and enhance engagement with care.

Aim:

To develop a personalised digital patient information platform for Irish melanoma patients, co-designed with patients, clinicians, and advocacy representatives, and integrated within the national My Patient Space digital infrastructure.

Methods:

A multi-stakeholder development process was undertaken in collaboration with Melanoma Support Ireland (MSI), and industry partners BMS and MSD through educational grants. Content was co-created through structured workshops with Irish melanoma patients, survivors, and clinicians. The platform was built within the My Patient Space framework to ensure secure, scalable delivery within the Irish healthcare system. Usability testing and pilot evaluation will be conducted with a cohort of patients and healthcare professionals across multiple melanoma treatment centres.

Results:

The platform delivers comprehensive, stage-specific, evidence-based information tailored to the Irish melanoma care pathway. Core modules include diagnosis and staging, treatment pathways, side effect profiles, clinical trials information, psycho-oncological support resources, survivorship and follow-up. Content was co-created with melanoma patients, survivors, and clinicians to ensure accuracy, clarity, and relevance. All materials align with NCCP and international guidelines and were reviewed by specialist melanoma clinicians. Integration with My Patient Space enables dynamic content updates and secure, personalised delivery. Feedback emphasised the importance of culturally contextualised, jargon-free content and the value of real patient stories embedded throughout the platform.

Conclusion:

This co-designed, digitally integrated platform represents a significant advance in melanoma care in Ireland, delivering personalised, accessible information that empowers patients, improves understanding of treatment options, and supports emotional wellbeing throughout the cancer journey.



Poster Presentation Abstracts

P47

Disseminated aspergillosis secondary to immunosuppressive therapy for refractory immunotherapy-related colitis in a patient with oesophageal melanoma.

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Aim/Background

Immunotherapy is the mainstay of treatment for advanced melanoma, but side effects such as immunotherapy-related colitis (IRC) are common and can be life-threatening. Prompt multidisciplinary management of IRC along with immunosuppressive therapy is vital, but the latter may have its own unintended consequences.

Methods

A 71 year old woman was diagnosed with advanced oesophageal melanoma and commenced on combination ipilimumab/nivolumab. The first 2 cycles were complicated by rash, hyperthyroidism and NSTEMI. Repeat endoscopy showed excellent treatment response with a normal biopsy (pCR). The patient then developed grade 3 colitis requiring admission to hospital (day 0).

Methylprednisolone 2mg/kg was commenced without delay, but symptoms persisted. Infliximab was commenced on day 10, with some improvement. The patient was discharged. Despite three further doses of infliximab and oral steroids they were re-admitted on day 51, with increasing symptoms; CT showed marked colitis. Vedolizumab was started on day 59, followed by JAK inhibitor tofacitinib 6 days later, without meaningful improvement. A switch to upadacitinib, another JAK inhibitor, on day 90 resulted in prompt resolution of symptoms.

Results

A week later, the patient reported eye pain and progressive vision loss in the left eye and then the right and was diagnosed with bilateral *Aspergillus* endophthalmitis. CT thorax identified a new cavitating lesion, possibly aspergilloma. Subsequent bronchoscopy and fungal cultures were negative. Treatment with intra-vitreous and oral voriconazole, then posaconazole, improved ocular symptoms but significant vision loss persists. Colitis remains resolved, with slow steroid taper ongoing. At 10 months from original diagnosis, CT confirms ongoing remission of melanoma.



Conclusion

Immunotherapy has revolutionised the treatment of melanoma, however its adverse effects can trigger a cascade of potentially life-altering complications. Multidisciplinary input from medical oncology, gastroenterology, respiratory, infectious diseases, and ophthalmology was crucial in optimising this patient's outcome and quality of life.



Poster Presentation Abstracts

P48

Paraneoplastic maculopathy due to metastatic melanoma

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Case Summary:

An 80-year-old male presented to ophthalmology with blurred vision. He was known to them with a history of glaucoma, but his condition was stable and the deterioration in his vision was off baseline. An optical coherence tomography (OTC) showed bilateral macular oedema with an atypical pattern suggestive of acute exudative polymorphous exudative maculopathy (AEPVM).

This is an unusual finding and is most associated with metastatic choroidal or cutaneous melanoma¹.

A CT TAP showed diffuse metastasis (of unknown primary) with lesions in the lung, retroperitoneum and abdomen. There had been no weight loss, and he was physically fit exercising 3-4 times a week.

Medical history included benign prostate hyperplasia and three thin melanomas. The three melanomas had been 2 in-situ (2012, 2015) and one clinical stage 1A (2023). He had no clinically concerning skin lesions. A urology exam and prostate specific antigen was normal. A metastatic lesion in the liver was amenable to a core biopsy by interventional radiology. Histology showed the metastatic melanoma. Molecular testing demonstrated no mutations.

Patients with AEPVM can have a worsening of their eyesight as the melanoma is treated². The mechanism is thought to be an increase in antigen burden secondary to cell lysis and an greater immune-mediated reaction. Targeted immunotherapy of a mutated melanoma is more advantageous as it provides a focus for treatment. This patient may have a paradoxical benefit with his wildtype melanoma as aggressive treatment with BRAF/MEK inhibitors could worsen his vision. The treatment option employed by medical oncology is nivolumab monthly.

1. Thomas AS. Paraneoplastic retinopathies: an update on pathogenesis, diagnosis and management. *Annals of Eye Science*. 2024 Mar;9(1):2-2.

2. Sandhu HS, Kolomeyer AM, Lau MK, et al. ACUTE EXUDATIVE PARANEOPLASTIC POLYMORPHOUS VITELLIFORM MACULOPATHY DURING VEMURAFENIB AND PEMBROLIZUMAB TREATMENT FOR METASTATIC MELANOMA. *Retin Cases Brief Rep*. 2019;13(2):103-107.
doi:10.1097/ICB.0000000000000604



Poster Presentation Abstracts

P49

Anatomical locations of cutaneous melanomas by clinical stage.

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Anatomical locations of cutaneous melanomas by clinical stage.

The occurrence of cutaneous melanomas has been mapped on anatomical locations due to Breslow depth and other histological characteristics¹. However treatment parameters are ultimately determined by the final clinical stage. The final clinical stage is thus more reflective of management once diagnosed. The objective of this study was to obtain an up-to-date review of first presentations of melanoma locations in an Irish population.

We performed a review of melanomas diagnosed and staged by multidisciplinary meeting (MDM) in a tertiary referral centre between 2022 and 2024. MDM records, clinical notes, electronic databases and histology were used to obtain data. The information was anonymised. Cases where a final clinical stage could not be determined were excluded. For cases of metastatic melanoma at initial diagnosis the location of the presenting/first diagnosed lesion was recorded. Cases from previous years that became upgraded to metastatic on imaging findings were also excluded.

A total of 401 new cutaneous melanomas were diagnosed in three years. Twenty two (5%) could not be given a clinical stage and were excluded. The most common anatomical locations for melanomas are; limbs 41%, head & neck 34%, torso 22%. The majority of melanomas were Stage 0 (50%) and Stage IA (23%). Based upon the 2024 NCCP radiological guidelines; 51 (23%) of cases (stage IIB-IV) are considered/recommended to warrant radiological follow up². A minority, 13 (3%), were metastatic Stage IV, after initial workup.

This review continues to confirm that the majority of melanomas are thin and detected at an early stage. Sun exposed sites such as head & neck and limbs continue to be the highest risk areas for developing melanomas¹. The most common reason for exclusion was unsuitability for further procedures due to comorbidities.

Our study provides an up-to-date record of melanoma anatomical locations in an Irish population. The catchment area of the hospital is suburban and rural and the cohort is predominantly people with Fitzpatrick skin type 1-2.

1. Wee E, Wolfe R, Mclean C, Kelly JW, Pan Y. The anatomic distribution of cutaneous melanoma: A detailed study of 5141 lesions. *Australas J Dermatol*. 2020 May;61(2):125-133. doi: 10.1111/ajd.13223. Epub 2019 Dec 27. PMID: 31880825.
2. National Cancer Control programme, National Clinical Guideline (2024). *Radiological staging and surveillance of patients with cutaneous melanoma*.
<https://www2.healthservice.hse.ie/organisation/national-pppgs/radiological-staging-and-surveillance-of-patients-with-cutaneous-melanoma/>



Poster Presentation Abstracts

P50

Comparing risk factors in melanoma and benign skin lesions in an Irish cohort: Implications for dermatology triage

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Background:

Accurate triage of referrals optimises healthcare resources ensuring timely detection of malignant melanoma (MM). This study evaluated the diagnostic utility of melanoma risk factors (RFs) comparing their prevalence in patients diagnosed with MM versus benign lesions (BL).

Methods:

A single-centre, retrospective chart review analysed data from 50 MM and 50 BL patients attending a pigmented lesion clinic. All patients completed a questionnaire documenting RFs including sunburn history, sunbed use, time spent outdoors, residence in a sunny climate, immunosuppression, and personal/family history of skin cancer. Data on demographics and reason for referral were obtained. RF frequencies were compared using Chi-square test.

Results:

The mean age was 57 years (SD 19) in the melanoma group and 52 years (SD 18) in the benign group, with similar gender distributions. 44% of melanoma patients and 38% of benign lesion patients were referred as "likely melanoma". Previous skin cancer was reported by 8% of MM and 6% of BL patients ($p=0.7$). Family history of melanoma was noted in 24% and 18%, respectively ($p=0.46$). Early-life sunburns were reported in 28% of MM and 32% of BL patients ($p=0.66$). 8% of MM and 18% of BL patients reported living in a sunny climate ($p=0.14$). Sunbed use was reported by 28% of MM and 20% of BL patients ($p=0.35$). 6% of MM and 2% of BL patients reported immunosuppression ($p=0.31$). In both groups, 22% reported spending >20 hours/week outdoors ($p=1$). There were no documented RFs in 28% of the MM and 32% of the BL patients.

Conclusion:

These findings suggest that RFs traditionally associated with MM may not reliably enable diagnostic differentiation versus BL in an Irish cohort, posing challenges for accurate referral triage. This highlights the need for further research to refine referral strategies ensuring the timeliest care for those who most need it.



Poster Presentation Abstracts

P51

Exploring Irish Cancer Patients' Attitudes to Accessing Their Own Medical Records

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Background

Access to personal medical records empowers patients and supports safer, more efficient care. In Ireland, limited digital infrastructure delays information sharing across services. For cancer patients—who often interact with multiple specialists—timely access is especially valuable. This project aimed to explore current barriers to accessing personal medical records and to identify key patient needs for the design of a digital health record.

Methods

An anonymous online survey with 21 questions was developed by a patient advocate and shared through patient networks and social media. It included multiple-choice and open-text questions exploring access, understanding, and gaps in current provision. The survey was open to anyone diagnosed with cancer and treated in Ireland.

Results

A total of 1,547 people responded; 1,280 had cancer and were treated in Ireland. 31% knew they had a right to access their records, just 16% knew how to, and only 15% had ever requested access. Of these 13% were refused access. 39% of applicants were granted access in a month or less. More used informal methods (27%) to view data (e.g. taking photos). Over 90% wanted easy access to their up-to-date medical file. Most preferred secure digital platforms, and valued immediate access to test results, consultation notes, and treatment summaries.

Conclusion

Findings show that while most cancer patients want timely access to their health records, many face barriers including; lack of awareness, lack of clarity around process and slow response times. There is strong support for a user-friendly digital system offering immediate access to key information. As one respondent shared: "Health records should be readily available to patients unless they ask not to receive them. ... the patient is expected to be able to recount detailed information about their diagnosis, treatment etc., but the patient often hasn't been provided with any written information and is left to rely on memory or notes that they have made themselves." The current system is paternalistic and inefficient. A national patient-centered digital solution is urgently needed to respect patient autonomy, enhance communication, and improve overall quality of cancer care.



Poster Presentation Abstracts

P52

Exploring the clinical, economic and patient impact of alternative durations of pembrolizumab treatment in non-small lung cancer and melanoma: a rapid review.

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Introduction:

Pembrolizumab, a programmed cell death protein 1 (PD-1) inhibitor, has been approved for treatment of certain advanced and metastatic cancer indications in Europe since 2015. However, the most efficient treatment duration has yet to be identified. Clinical trials have typically restricted treatment to 24-months duration. However, a stopping rule is not specified in the product licence and treatment can continue until disease progression. This can be challenging for health- decision makers.

Aim:

This review aims to review the literature and explore the outcomes associated with alternative treatment durations of pembrolizumab treatment.

Methods:

A protocol was developed. Systematic search strategies were constructed using search terms related to pembrolizumab, treatment duration, melanoma and non-small cell lung cancers (NSCLC). Melanoma and NSCLC were chosen due to the timeline of the project (8 weeks). Systematic literature searches were conducted in EMBASE and MEDLINE. Data relating to study design, participant characteristics, treatment durations and outcomes were extracted.

Results:

397 records were identified. After full text review, three studies met our inclusion criteria. All three studies were retrospective, observational studies of people who had received pembrolizumab for metastatic melanoma (n=2) and metastatic NSCLC (n=1). For melanoma, the results suggested that discontinuation of therapy after approximately one year of treatment in people who had a complete response may not compromise effectiveness, although available data are limited.

Conclusion:

More robust studies are needed to identify the most efficient treatment duration of pembrolizumab in advanced or metastatic cancer indications. Two phase 3 randomised controlled trials in melanoma (DANTE and STOP-GAP) are currently ongoing in an attempt to address this knowledge gap.



Poster Presentation Abstracts

P53

Sentinel Lymph Node Biopsy in Melanoma: Four-Year Outcome Analysis in 268 Patients and Clinical Utility of Risk Prediction Nomograms

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Background

Excluding non-melanoma skin cancer, melanoma is the fourth most common cancer in Ireland and the incidence is rising. It accounts for 46-65% of skin cancer deaths. Management of melanoma is based on staging with sentinel lymph node biopsy (SLNB) a core element.

Methods

Review of all patients who underwent SLNB in our institution from 2021-2024. Validation of Melanoma Institute Australia (MIA) and Memorial Sloan Kettering Cancer Centre (MSKCC) SLNB nomograms via receiver operating characteristics curves and area under the curve (AUC). Negative predictive values (NPV) were calculated at a risk threshold of 5% and 10% as well as net benefit. The net benefit compares performing SLNB based on either risk prediction nomogram to SLNB for all at guideline endorsed risk thresholds.

Results

Of the 268 patients that underwent SLNB, 15.7% (n=42) were positive for metastatic melanoma. Mean age was 61.5 years (range 22-87), 51.6% female. The SLNB positivity rate has increased significantly from 14.3% in 2021 to 21.9% in 2024 ($p=0.0235$). The median SLNB deposit size decreased from 10mm-1mm ($p=0.002$). Breslow thickness, Clarke level, ulceration and microsatellite invasion were associated with SLNB positivity ($p<0.001$) as were lymphovascular invasion ($p=0.011$), mitotic index ($p=0.009$), and perineural invasion ($p=0.014$). Age, sex and presence of regression were not related to SLNB positivity. The AUC for the MIA and MSKCC nomograms were 0.762 (95%CI:0.687-0.837) and 0.768 (95%CI:0.688-0.848) respectively. Compared to SLNB for all pT1b melanomas (5% risk-threshold) the MSKCC nomogram reduces avoidable SLNB by 1.5:1000 patients, while the MIA nomogram reduces it by 0.09:1000.

Conclusion

The positivity rate of SLNB is rising and the deposit size decreasing significantly in our institution. The net benefit and reduction in SLNB via use of the MIA and MSKCC nomograms are marginal and would be likely to provide minimal clinical utility at endorsed threshold levels.



Poster Presentation Abstracts

P54

Advanced Mucosal Melanoma: a series of 5 cases—all different primary sites—treated in a single institution over the last 10 years.

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Introduction :

Mucosal Melanomas are rare malignant tumours known for their aggressive biology, poor response to treatment and poor outcomes (1, 2). The molecular profile of these tumours differ to cutaneous melanoma with lower rates of BRAF mutations and relatively higher rates of c-kit mutations. (3, 4, 6). There is a paucity of data on these malignancies as they are often excluded from clinical trials. The seminal Checkmate 067 trial, which established the role of Ipilimumab and Nivolumab in advanced melanoma, did include 79 patients with mucosal melanoma. A sub-group analysis suggested higher overall response rates in those receiving combination immunotherapy compared with single-agent; but also confirmed poorer outcomes in general compared with cutaneous melanoma patients (5).

This series describes 5 patients treated in a single centre in the West of Ireland over the last 10 years. Primary sites include conjunctiva, anus; penis; oesophagus and colon.

Case 1

67 year old male presented with a black swelling and discolouration of the medial canthus left eye. Biopsy confirmed conjunctival melanoma, 12mm in size with a maximal thickness of 5mm. The melanoma was nodular with an ulcerated surface, SOX10 positive, Melan-A positive, BRAF negative, NRAS Positive (Q61R), CKIT negative. Surgical exenteration was recommended but patient declined this. He commenced combined ipilimumab plus nivolumab. He initially showed signs of partial response but by cycle 4 had locally progressive conjunctival disease. Immunotherapy was discontinued. Patient still declines surgery and has now been referred abroad for proton beam therapy.

Case 2

70 year old lady was diagnosed with mucosal melanoma arising in anal canal. She underwent an AP resection and left groin dissection. Nine of 28 lymphnodes were positive. Molecular profiling was: BRAF -ve, and NRAS -ve, and c-KIT mutation +ve (exon11). At surgery patient was found to have liver metastases (biopsy-confirmed), and CT revealed lung metastases. Patient commenced combined immunotherapy (Ipilimumab + Nivolumab) which she tolerated well and has had a prompt and subsequently a major response, which is ongoing, coming to the end of 2 years of therapy.

Case 3

72 year old male presented with a lesion on glans penis present x 3 months; biopsy confirmed primary melanoma. He was found to have metastatic disease to bilateral inguinal and iliac lymphnodes, which were borderline resectable. PET scan revealed mediastinal disease (EBUS biopsy negative). Histology was BRAF/NRAS negative, c-KIT positive (exon13) and PDL1 expression 20-30%. Patient commenced CKIT targeted therapy (imatinib), with little benefit. After four months he commenced combined immunotherapy with Ipilimumab + Nivolumab x 4 cycles but failed to respond to this also. He tolerated both therapies with minimal side effects. Third-line treatment with carboplatin and paclitaxel was planned but patient developed brain metastases, deteriorated clinically and died 2 months later.



Case 4

71 year old lady presented with dysphagia. Oesophageal biopsy confirmed malignant melanoma, melan A +, s100 +, HMB 45++, MITF ++, SOX10++, BRAF-, NRAS -, CKIT-. CT and CT PET demonstrated distal oesophageal tumour, and an avid coeliac LN 17mm. Staging scans also showed a suspicious lung nodule, which was too small to be PET avid. Patient was deemed inoperable at GI MDM. She commenced Ipilimumab and nivolumab 12th June 2024, and had three cycles in total but had to stop due to severe colitis requiring prolonged hospitalisation. In hospital she underwent an OGD and oesophageal biopsy which showed no evidence of disease (complete response). Recent CT TAP (February 2025) almost one year from diagnosis, shows no evidence of lymph node or other metastatic disease.

Case 5

In 2014, a 40 old male, presented with extensive cervical LN metastatic melanoma, with unknown primary. PET was negative for other metastases and primary site. Full screen, including dermatology, ophthalmology, OGD and colonoscopy, also failed to reveal a primary site. He proceeded to left neck dissection July 2014. Histology was Melan A positive, BRAF negative. The patient received adjuvant interferon for one year (Kirkwood regimen). In 2017, the patient re-presented with small bowel intussusception. Small bowel resection revealed two separate foci of mucosal melanoma, deemed most likely the primary site. Histology was Melan A +, BRAF-ve, CKIT -ve. Patient had further small volume residual metastatic disease. Treatment with Ipilimumab plus Nivolumab x 3 cycles was delivered, followed by maintenance nivolumab until May 2020. He remains in complete remission 5 years since completing treatment.

Discussion

This series of cases, all with different primary sites, extents of disease, various treatments and outcomes, contributes to the limited data on patients with advanced metastatic mucosal melanoma in Ireland. This is a retrospective review, with all the inherent bias of such reports.

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Poster Presentation Abstracts

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Educating the skin cancer patient on how to check their lymph nodes

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Introduction / background:

As Skin Cancer Clinical Nurse Specialist (CNS) a major part of our role is education about skin cancer prevention and surveillance. People who have already had a skin cancer have a greater risk of getting another one compared to someone who hasn't had skin cancer, this highlights the importance of skin cancer surveillance. Furthermore, the key to increase survival rates in melanoma is early detection. Research suggests that self-checking the lymph nodes monthly has been found to be associated with thinner melanomas at diagnoses (Goddard *et al.*, 2020).

Due to the importance of checking lymph nodes, we created a step-by-step patient information guide to help patient self-check their lymph nodes. As the clinics can be busy the CNS often just has time to show the patient the technique of how to do lymph nodes but often doesn't get the time to let patient practice. Therefore, we decided to do a video to show patients how to check their lymph nodes. This gives the patient and their family the opportunity to watch the video at their own convenience. The video link is found on the patient information leaflet 'How to check your lymph nodes'.

Aims / Objectives

The aim of the project is to create both a visual and readable resource to guide our skin cancer patients on how to check their lymph nodes.

Methodology:

In 2023 questionnaires were provided to patients who were ongoing melanoma surveillance to assess whether they wanted in person or online information resources regarding melanoma surveillance. The feedback concluded that they preferred online information resources. With the support of the organization development department a video was created.

Results and Discussion:

Currently this project is in the roll out phase. After 6 months of publishing the leaflet and video, we will gather feedback from our melanoma surveillance patients.

Conclusion

We hope this project will be a helpful resource for our melanoma surveillance patients.

Future recommendations

If this is a success, we plan on rolling out future information and resource videos that will support the melanoma patient on their surveillance journey.

References

Goddard, L., Yorozya, L. and Hirokane, J. (2020) 'Art of prevention: The importance of melanoma surveillance', *International Journal of Women's Dermatology*, 6(4), pp. 257–259. doi:10.1016/j.ijwd.2020.01.003



Poster Presentation Abstracts

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Impact of the COVID-19 pandemic on cutaneous melanomas in Northern Ireland: a retrospective analysis

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Background

The first case of COVID-19 was detected in Northern Ireland (NI) 27th February 2020. Measures to limit viral transmission urged citizens to stay at home, restructured hospitals for acute care, and postponed routine medical/surgical activities. As early diagnosis and management of melanoma is critical to outcomes, reduced access to medical care was concerning. Our study examines the impact of the COVID-19 pandemic on cutaneous melanoma in NI.

Methods

Using retrospective observational NI Cancer Registry data, we compared trends of new primary melanoma cases alongside changes in dermatology services in NI. As the World Health Organisation declared the global pandemic in March 2020, only data sets from April to December was used.

Results

Between 2018-2019 (pre-pandemic) and 2020 (initial-pandemic), new melanoma cases decreased by 38.6% from 334 to 205, and increased to 353 in 2021 (intra-pandemic). This coincided with major disruptions in dermatology services, including staff redeployment and temporary unit closures for COVID-19 care. New red flag referrals were seen face-to-face, while reviews were mainly virtual via telephone. In-situ melanoma surgeries were delayed up to 6 months, and sentinel lymph node biopsy (SLNB) services ceased.

The number and proportion of stage I tumours fell from 213 (63.6%) in 2018-2019 to 117 (57.1%) in 2020 and rose to 223 (53.2%) in 2021, suggesting possible delayed diagnoses of early-stage melanomas in 2020. Stage IV tumours proportionally increased over the same period from 2.7% (9), 3.4% (7), and 4% (14) respectively.

Regarding treatment within 6 months of diagnosis, hospital-based surgery decreased from 259 (77.3%) in 2018-2019 to 117 (57.1%) in 2020, with limited recovery to 212 (60.1%) in 2021. The number and proportion receiving systemic therapy in 2021 compared to 2018-2019 (26, 7.4% vs 13, 3.9%), as well as those receiving neither (132, 37.4% vs 74, 22.1%) increased. There was no significant difference in observed or net 1-year survival.



Conclusion

Our findings highlight the impact of the COVID-19 pandemic on melanoma diagnoses and outcomes, stressing the importance of maintaining access to cancer pathways. Ongoing investigation into long-term effects is needed.