IAPS
Irish Association of Plastic Surgeons

25th June 2026,

Flanagan Lecture Theatre

Royal College of Surgeons , St Stephen's Green, Dublin

RECONSTRUCTION, REGENERATION & REHABILITATION


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Fáilte-Welcome- Croeso- Fair Fae Ye- Fàilte

Fáilte go Colláiste na Máinlia in Éireann-Welcome to the Royal College of Surgeons in Ireland to our annual Scientific meeting.

We are delighted to welcome our friends and colleagues from overseas, we have deep connections over many years, and are delighted to welcome you to Dublin. This cooperation and collegiality has been strengthened by BAPRAS council meeting held at RCSI as well as an aesthetic training day led by BAAPS faculty on Friday 26th June.

We have an exciting and busy programme, with national and international speakers. We have had a huge interest in the meeting, and look forward to a very high standard of presentations on the podium and as posters. There is a breadth and depth of impressive clinical and basic science research, with many international collaborative studies.

Coffee and tea breaks will be upstairs in the exam hall, and I ask that everyone takes an opportunity to view the posters . The list of all presentations is included. Please take time to review the poster presentations as they may spark future collaborative partnerships.

We also ask you to visit the exhibition stands, we are immensely grateful to our industry partners whose support greatly contributes to the success of the meeting.

Having networked over refreshments please return promptly to the Flanagan theatre after breaks .

Following close of the meeting there will be a reception prior to dinner at the Long room Library, Trinity College Dublin, where you will have an opportunity to see the Book of Kells, followed by Dinner at Trinity College Dining hall,

We hope that you have a wonderful stay in Dublin

Odhran Shelley

MB BCH BAO FRCSI FRCSI Plast FEBOPRAS PhD

President IAPS

4. IAPS Officers:

Odhran Shelley

President IAPS

Jack Kelly

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Roisin Dolan

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Patricia Eadie

Treasurer

Paul McArthur

BAPRAS President

Nora Nugent

BAAPS President

Invited Speakers:

Eamon Francis ,

Consultant Plastic Surgeon St James Hospital Dublin

Peter Dziewulski,

Consultant Plastic Surgeon St Andrews Centre for Plastic Surgery and Burns

Professor Plastic Surgery Anglia Ruskin, BAPRAS Council

Mark Fisher

Plastic Surgeon Johns Hopkins, Baltimore

Associate Professor of Clinical Plastic and Reconstructive Surgery

Patricia Eadie ,

Consultant Plastic Surgeon RCSI Dublin

Treasurer IAPS

Adam Reid

Consultant Plastic Surgeon, Manchester

Editor JPRAS

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IAPS ANNUAL CONFERENCE 2026

25TH JUNE 2026

DUBLIN, IRELAND

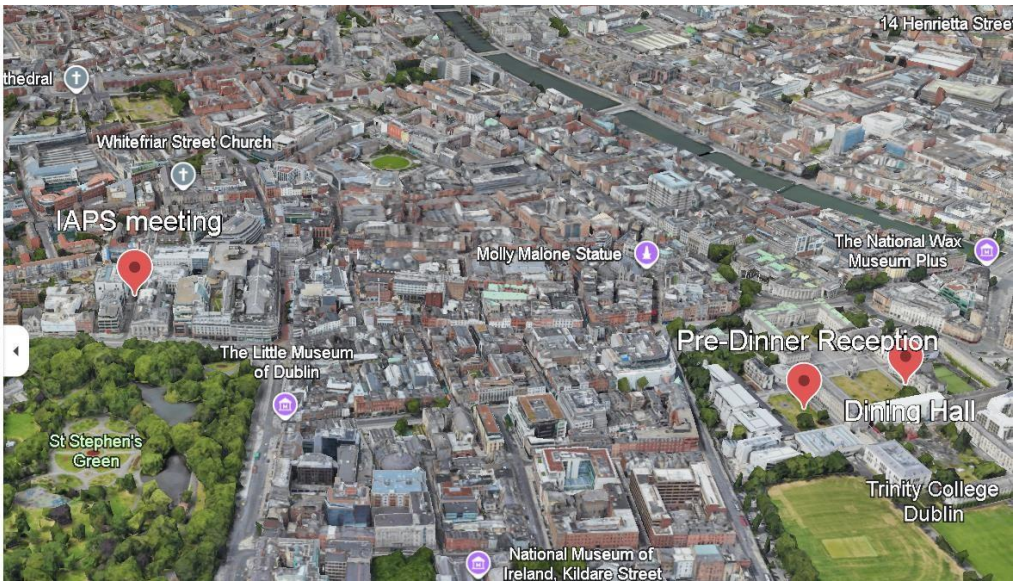
RECONSTRUCTION, REGENERATION & REHABILITATION

Thursday 25th June 2026	
8:00am	**Registration opens**
	Free Papers – Session 1 **Chairs: Jack Kelly and Simon Woods**
08:30	**Welcome**
08:40	**1. A GIRFT Analysis of Nerve Conduction Studies in Carpal Tunnel Syndrome** ***Maud van den Hurk,*** *Aisling Coen, Brian O'Ceallaigh, Kenneth Joyce , University Hospital Galway*
08:48	**2. Surgical Strategies for Painful End Neuromas of the Hand: A Systematic Review and Meta-analysis** ***Omar Quidwai,*** *Linda Abdul Jalil, Nicola McShane, Aine O'Dywer, Roisin DolanSt Vincents Dublin*
08:56	**3. Donor Deficits Following Nerve Transfer for Obstetric Brachial Plexus Palsy: A 20 Year Review** ***Ciara Walsh,*** *Lynn Morrison, Robert Milling, Christine Quinlan, Billy Lane O Neill, Grainne Colgan, Kevin Cronin Mater Hospital Dublin*
09:04	**4. Pilot Study of Amyloid Detection During Carpal Tunnel Release: Early Findings from an Irish Cohort** ***Jordan E. Wilkinson, Helen Connaughton, Adham Juhdi, Sinead Murphy, Claire Davidson***
09:12	**5. Heterotopic Replantation of Upper Limb for Shoulder Reconstruction Following Axillary and Chest Wall Sarcoma Resection *Patrick Tabet,*** *Christopher Duff, Dishan Samarathunga, Eustace Fontaine, Ronnie Davies, Adam Reid, Wythenshaw Manchester*
09:20	**6. Assessing the effectiveness of combined local anaesthetic with pre injection preparation of injection site with ethyl chloride (cryogesic ®) spray versus local anaesthetic alone in reducing pain during injection of local anaesthetic in plastic surgery. Chloe Spillane,** Eoin Creagh, Roisin Baker, Maria Murphy, Angela Canas, Joseph Siby, Jason Kelly University Hospital Cork
09:28	**7. Osteocutaneous Approaches and Free Tissue Transfers for Skull Base Tumours** *Horácio Costa, Filipa Poleri, Filipa Monte, Carolina Chaves, Rui Machado, David Gonçalves, Rui Leitão,* ***José Teixeira,*** *José Carvalho, Diogo Castelo, Mário Resende, Horácio Zenha* ***Portugal***
09:36 – 09:45	**Panel Discussion**
09:45 – 10:05	**Chimera Versus Orochi -The Battle for Complex Orofacial Reconstruction** **Eamon Francis**
10:05-10:15	**Panel Discussion**

Coffee/Exhibitors and Posters 10:15 – 10:50	
Free Papers – Session 2 **Chairs: Paul McArthur and Odhran Shelley**	
10:50	**8.Optimising Surgeon Ergonomics During Microsurgery: Evaluating Whole-Body Posturing Using the Movella™ Motion Sensor System** ***Iulia Marinescu Presenting ,*** *Stephanie Bollard, Laoise Kenny, Ben Griffin, Colin Morrison, Jack Woods, Linda Abdul Jalil, Andrew Diver, Tomas O'Neill, Barry O'Sullivan, Roisin T. Dolan*
10:58	**9. Novel 3D Biomimetic Scaffolds: Optimising Biocompatibility and Preliminary In Vitro Immune Modulation with Future Applications in Transplant Immune Biology** ***Cian Hehir presenting,*** *Ian Woods, Aamena Mejevdiwali, Gemma Leon, Fergal O'Brien, Annie Curtis, Roisin Dolan*
11:06	**10. SimU-Skin: A 4D Tactile Simulation Platform to Improve Patient Recognition of Sentinel Skin Flap Changes Following Solid Organ Transplantation** ***Omar Quidwai Presenting*** *Helena Paran, Aileen Igoe, Henk Giele, Omar El Sherif, Roisin Dolan*
11:14	**11. Patient Reported Outcome Measures on the Effect of LPG Endermologie® Treatment on Burns Scar Quality: A Ten-Year Prospective Service Evaluation.** Colleen Keogh, **Shane Cullen Presenting ,** Lucia Ramsey, Amy Gillen, Odhran Shelley, St James Hospital
11:22	**12. High-Fidelity Synthetic Model for Safer Internal Mammary Vessel Isolation: Development and Validation in Autologous Breast Reconstruction Training** ***Iulia Marinescu, Presenting*** *Adam F. Roche, Caoimhin O'Conghaile, Stephanie Bollard, Jack Woods, Colin Morrison, Anton Fries, Adrian McArdle, Jamie Martin-Smith, Barry O'Sullivan, Roisin T. Dolan*
11:30 – 11:50	**Prof. Peter Dziewulski The armamentarium of reconstructive surgery in Complex Burn Care**
11:50 – 12:10	**Prof . Mark Fisher Principles and Priorities of Plastic Surgery and Burn Reconstruction**
12:10-12:20	**Panel discussion**
Lunch, Exhibitors & Posters 12:25 – 13:08	
12:25 – 12:45	**Poster review**
Free Papers – Session 3 **Chairs: Roisin Dolan and Aidan Fitzgerald**	
13:08	**13. Extracellular vesicle-associated LRG1 in melanoma-microenvironment crosstalk** ***Natasha Christodoulides,*** *Yashna Chabria, Stephanie Bollard, Lorraine O'Driscoll, Shirley Potter*
13:16	**14. An Audit Evaluating Adherence to Post-Treatment Ultrasound Surveillance Guidelines in Cutaneous Melanoma** ***Ailbhe Kenny,*** *Maria Murphy, Laura Wrafter, Jack Kelly*
13:24	**15. The use of Electrochemotherapy as an adjunct for cutaneous metastases of melanoma in the era of immunotherapy** ***Gary Fenn,*** *Lauren Olivia Birchenough, Kate Russel-Ryan, Anthony James P Clover*
13:32	**16. Arterial injury patterns and reconstruction outcomes in open lower limb fractures: A single major trauma centre experience** ***Michalis Hadjiandreou****, Samim Ghorbanian, Parviz Sadigh, Nicki Bystrzonowski, Georgios Pafitanis*
13:40	**17. An Update on Orthoplastic Trauma Service Delivery at The Mater Hospital: A Review of Activity, Growth, and Practice** ***David Carolan*** *Christine Quinlan et Al*
13:48	**18. Novel Lateral Position Below-Knee Amputation with Primary Targeted Muscle Reinnervation: Preliminary Findings** ***Maged Elsafti,*** *Yousef Abdalazeem, Yasser Hijazi*

13:56	*19 The Hidden Cost of Recovery: Infective Complications of Open Long Bone Fractures in Major Trauma Care.* *Robert Milling , Donal Murphy ,Ciara Walsh (Presenting), Christine Quinlan ,Mater Misericordiae University Hospital, Dublin, Ireland*
14:04	**20. Speaking Up in Plastic & Reconstructive Surgery: A National Survey of Doctors' Experiences and Barriers to Protected Disclosure** *Shu Ying Chee, Aoife Feeley, Omar Quidwai, Silvia Marino, Andrew Diver, Tomas O'Neill, Jack Woods, Colin Morrison, Roisin Dolan*
14:12	**21. Shaping the Specialty: A 50-Year Review of Plastic Surgery in Ireland** *Nicola McShane, Eimear Phoenix, Roisin Scally, Kieran Ryan, Donnacha Ryan, Shirley Potter*
14:20-14:40	**Diary of a Complaint** **Dr. Patricia Eadie**
14:40-14:50	**Panel Discussion**
Coffee, Exhibition & Posters **14:50– 15:15**	
SpR Presentations – Session 4 **Chairs: Barry O Sullivan and Fuan Chan**	
15:15 – 15:25	**Excision of Subscapularis Sarcoma with Shoulder Reconstruction** **Sean Curran – on behalf of Cork University Hospital**
15:25 – 15:35	**Ring Avulsion Injury** **Prakash Chintapalli – on behalf of Galway University Hospital**
15:35 – 15:45	**Single-stage forehead flap nasal reconstruction: reducing psychosocial distress and operative burden. A case report William Murray – on behalf of St. James's Hospital**
15:45 – 15:55	**Rare but Devastating: Expanding Ulnar Artery Aneurysm Presenting as Compartment Syndrome in Ehler-Danlos Syndrome Shu Chee St Vincents Hospital**
15:55 – 16:05	**Robert Milling Bridging the gap in orthopaedic trauma.Mater**
16:05 – 16:15	**Reconstruction in paediatric polytrauma: Feile's Journey** **Robert Browne – on behalf of Children;s Health Ireland**
16:15 – 16:25	**In Vivo Revascularisation of Bilateral Lumbar Artery Perforator Flaps Using a Perfused In Situ Deep Inferior Epigastric Extension *P.J. O'Donoghue* , Beaumont Hospital, Dublin, Ireland**
16:25 – 16:45	**Getting Published in JPRAS** **Mr. Adam Reid Editor JPRAS**
16:45	**Prize giving, close of meeting**
Tours of the Grand Library Long Room, Trinity College Dublin **Followed by drinks reception and dinner** **19:15 – 20:30 Tours and drinks** **20:30 - 23:00 Dinner** **A Pay Bar will also be available**	

Map of Events:



There has long been learning associated with this site. St Patrick came to Ireland in 432, and there is a well attributed to him beside the Provosts house. The Book of Kells is itself an international collaboration between closely linked monasteries in Scotland , Northern England and Ireland of today. And is one of the oldest books in the world dating from 750-800 AD . But there are older in at the Royal Academy – the Cathach of Columba is from 561, Trinity College was Established 1592 by Queen Elizabeth, on the site of An Augustinian Foundation called Old Hallows, which had been demolished by her father Henry VIII, who was something of a disruptive politician, having also disestablished the existing University of Dublin (1320)at St Patrick's Cathedral. Old Hallows itself had been established by Diarmait Mac Murchada King of Leinster in 1166. When he lost his Kingship he invited the Normans to help him regain control and one, Strongbow, married his daughter Aoife.The city was at that time controlled by Hiberno-Norse, a Stein outside on Nassau St. indicates a Viking burial site. Opposite Trinity is the Irish House of Parliament, both this and the Parliament in London voted to form the United Kingdom which came into effect January 1 1801.The Red Saltire of St Patrick (on the flag of RCSI at front) with the saltire of St Andrew and the St Davids cross of England combine to form the Union Jack Flag ever since.

Whitefriars Church- St Valentine's remains (3mins walk)

Archaeology museum Kildare St. (5-7min)

Trinity college Book of Kells (7-10min)

National Art Gallery(10min)

Dublin Castle (15min)

Chester Beatty library, ancient Buddhist, Christian, Islamic, Jewish, &Samaritan books (15min)

Christchurch Cathedral- oldest building in Dublin and burial place Strongbow (20min)

St Patricks Cathedral – (its Dean Jonathan Swith wrote Gullivers travels- 15 min)

Epic Museum and Jeanie Johnson tall ship - Irish around the world (20 min)

Dublinia Viking immersion experience (20min)

Guinness tour (25 min)

ABSTRACTS

1. A GIRFT Analysis of Nerve Conduction Studies in Carpal Tunnel Syndrome

Introduction
Nerve conduction studies (NCS) are widely accepted as the gold standard investigation in carpal tunnel syndrome (CTS). Recent guidelines focus on best practice but also focus on issues of access to health care services (NHS GIRFT – Getting it right first time).

Maud van den Hurk
Dept of Plastic & Reconstructive Surgery, Galway University Hospital, Ireland, Galway, Ireland

Aim
To assess the ongoing role of NCS in the management of CTS and its impact and influence on patient outcomes.

Materials & Methods
Patients referred for CTS to our hand therapy-led clinic between January 2024 and June 2025 were included. Retrospective data was collected and compared to the BSSH GIRFT adult carpal tunnel guideline.

Results
158 patients were referred. Average waiting time from referral to review was 166 days. A decrease in waiting time was seen from 200 to 96 days in 2024 and 2025 respectively. The average age was 54 years (range 22-89). 66% (76 patients) had symptoms bilaterally.

NCS were requested for 52 patients (46%). 37% (n=19) of these requests were made prior to specialist review. NCS were only deemed necessary in 12% (n=6) of cases following specialist review. The average waiting time for NCS was 448 days (range 68-1659 days). CTS was confirmed on NCS in 84% of cases. 39% (n=12) of patients received a steroid injection in addition to being referred for NCS.

36% of our patients received conservative treatment alone, which was successful in 88% of cases. Waiting time for surgery was longer than waiting time for injection, with average time being 158 and 100 days respectively.

Discussion
Our study identifies referral for NCS as the most significant delaying factor of treatment. Referrals for NCS should be restricted to cases where an alternative diagnosis is considered. We recommend the use of corticosteroid injection as a diagnostic and therapeutic intervention.

2. Surgical Strategies for Painful End Neuromas of the Hand: A Systematic Review and Meta-analysis Omar Quidwai (Presenting) Linda Abdul ,Nicola McShane ,Aine O'Dywer ,
Roisin Dolan, St Vincent's University Hospital, Dublin, Ireland
UCD School of Medicine & Medical Sciences, University College Dublin, Dublin, Ireland

Aims: Painful sensory end neuromas in the hand are a major cause of persistent disability, yet optimal surgical management remains uncertain. We performed a systematic review to evaluate the reported clinical outcomes of defined surgical strategies and identify evidence gaps.
Methods: A PRISMA-compliant systematic review was registered with PROSPERO (CRD420251133868). PubMed, Ovid Medline, Embase, Scopus, and the Cochrane Library were searched to 1st August 2025. Eligible studies reported outcomes of surgical treatment for symptomatic end neuromas of the hand, without distal reconstruction. Pain reduction was the primary endpoint; functional outcomes and neuroma recurrence were secondary. Data were pooled using a random-effects meta-analysis with subgroup analyses by technique.
Results: Fifteen studies (431 patients, 655 neuromas) were included, predominantly retrospective (Level IV–VI). Excision alone achieved the lowest meaningful pain reduction (41–65%) and highest recurrence rates. Relocation techniques showed wide variability (14–96%) depending on tissue site. Nerve capping yielded 41–81% relief with early silicone devices and 78% with newer bioresorbable copolyester caps. Centro-central neurorrhaphy and epineural ligation achieved >90% pain reduction but were based on small series. Regenerative peripheral nerve interface (RPNI) achieved 85% improvement in a single study. Functional outcome reporting was inconsistent; the few studies using validated PROMs (DASH/QuickDASH) demonstrated post-operative improvement.
Conclusions: Surgical management reliably reduces pain in patients with end neuromas of the hand, but current evidence does not support one definitive technique. Excision alone should no longer be considered an acceptable primary strategy. Advancement in care will depend on prospective multicentre studies using standardised, validated PROMs, and on translational approaches that target the underlying biology of neuroma formation.

3. Donor Deficits Following Nerve Transfer for Obstetric Brachial Plexus Palsy: A 20 Year Review
Ciara Walsh (Presenting) Lynn Morrison ,Robert Milling ,Christine Quinlan ,Billy Lane O Neill , Grainne Colgan ,Kevin Cronin Mater Misericordiae University Hospital, Dublin, Ireland,Central Remedial Clinic, Dublin, Ireland

Intro
Nerve transfers for restoration of function following obstetric brachial plexus palsy (OBPP) are increasing in popularity. While nerve transfers provide reliable functional gains subtle impairments may be under-recognized, and the long-term impact of donor nerve sacrifice during development remains unclear.
Methods
20 years of theatre log books were reviewed from the single national tertiary referral centre. 25 patients who underwent nerve transfer surgery for OBPP were identified. Retrospective chart review was performed of prospectively collected data. Pre and post intervention Active Movement Scale (AMS), passive range of motion, Toronto score, Mallet score, Modified Mallet score and Functional independence Measure (FIM) scale were recorded. Statistical analysis was performed with SPSS.
Results
35 motor nerve transfers and 2 sensory nerve transfers were performed on 25 patients, with up to 10 years follow up. Nerve transfers included spinal accessory to suprascapular nerve (SAN-SSN) (n=13), single/double Oberlin transfer (median/ulnar to biceps/brachialis) (n=10), long head triceps (radial) to axillary (n=6), medial pectoral nerve to triceps (n=1), medial pectoral nerve to musculocutaneous (n=1), intercostal to musculocutaneous (n=3) and intercostal to triceps (n=1). Donor deficits were noted in radial to axillary transfer. There were no statistically significant deficits post Oberlin transfer and SAN-SSN transfer. Sensory deficits were not recorded.
Conclusion

This is the largest study to date reporting exclusively on donor site morbidity following nerve transfer for OBPP. Nerve transfers provide meaningful functional improvements, supporting their growing role in reconstructive strategies. However, this study highlights that donor site morbidity may be under-recognized, particularly in transfers such as radial to axillary nerve, where deficits were consistently observed. While commonly performed procedures like Oberlin and SAN-SSN transfers did not demonstrate statistically significant donor deficits, the lack of objective and standardized assessment tools limits definitive interpretation

4. Pilot Study of Amyloid Detection During Carpal Tunnel Release: Early Findings From an Irish Cohort Jordan Wilkinson (Presenting) Helen Connaughton ,Adham Juhdi ,Sinead Murphy, Claire Davidson ,Department of Orthopaedics, Department of Neurology, Department of Plastic and Reconstructive Surgery Tallaght University Hospital, Dublin, Ireland

Background:
Carpal tunnel syndrome (CTS is increasingly recognised as an early manifestation of systemic amyloidosis, particularly transthyretin (ATTR) amyloidosis, often preceding cardiac involvement by several years. Recent national and international guidance supports opportunistic amyloid screening during carpal tunnel release (CTR). This pilot study evaluates the feasibility of intra-operative tissue sampling, early findings, and pathway development for amyloid detection in an Irish hand surgery cohort.
Methods:
This is a single-centre prospective pilot study involving patients undergoing CTR at Tallaght University Hospital. Transverse carpal ligament is routinely sampled and sent for Congo-red staining. Positive specimens undergo further typing via immunohistochemistry and/or mass spectrometry at the National Amyloidosis Centre UK (Royal Free Hospital, London). Patients with positive findings are recalled for serum testing to exclude AL amyloidosis (SPEP, FLC, BNP, Troponin-T) and for TTR genetic analysis. Subsequent referral to Haematology or Neurology/Cardiology is undertaken as appropriate.
Results:
15 patients have been enrolled to date. These preliminary results demonstrate that intra-operative sampling is feasible, adds no operative morbidity, and can be integrated into routine CTR workflows. Multidisciplinary coordination and referral pathways have been successfully established. Definitive prevalence data are not yet available. Recruitment is ongoing, with planned expansion to a larger cohort.
Conclusion:
This pilot study confirms the feasibility of amyloid screening during CTR in an Irish setting. With expanded enrolment, we anticipate prevalence rates in keeping with published international literature. Ongoing data collection will allow refinement of referral pathways and inform future service development.

5. Heterotopic Replantation of Upper Limb for Shoulder Reconstruction Following Axillary and Chest Wall Sarcoma Resection Patrick Tabet (Presenting) ,Christopher Duff ,Dishan Samarathunga ,Eustace Fontaine
,Ronnie Davies ,Adam Reid ,Wythenshawe hospital, Manchester, United Kingdom

Introduction
Reconstruction of composite chest wall and forequarter defects remains a significant challenge, resulting in loss of shoulder contour, function and substantial cosmetic deformity. Spare-part surgery with heterotopic replantation offers a means of maximising autologous tissue use whilst restoring form.
Case
We present a 64-year-old man with locally recurrent dedifferentiated high-grade liposarcoma of the right upper lateral chest wall and axilla, involving his brachial plexus and axillary vessels, without metastasis. Following neoadjuvant chemotherapy, en bloc resection included ribs 3–7, scapula, glenohumeral joint, and partial clavicle and humerus. The ipsilateral upper limb was temporarily shunted intraoperatively to preserve viability.
Chest wall reconstruction was performed using a biological ovine collagen and polypropylene mesh (OviTex® Permanent). The distal arm and forearm were used as an osteomyocutaneous free fillet flap with anastomosis of the brachial to the subclavian vessels. The humerus was plated to the clavicle recreating symmetrical shoulder tip distance with the olecranon forming the neo-shoulder contour; the arm was opened and redraped as soft tissue coverage; the hand was amputated at the wrist, and the distal radius secured to the eighth rib. A local fasciocutaneous flap from the shoulder provided necessary additional skin coverage. Targeted muscle reinnervation and regenerative peripheral nerve interfaces were performed to reduce neuroma-related pain.
Postoperative complications included flap tip necrosis of the fasciocutaneous flap alongside a potential space between the chestwall mesh and forearm. A free gracilis flap anastomosed to the ulnar artery of the replanted forearm provided good soft tissue filler and skin coverage to heal uneventfully thereafter.
Conclusion
Heterotopic replantation using upper limb spare parts can achieve durable coverage and restore shoulder contour following radical oncologic resection. This approach requires multispecialty teamwork and detailed planning but maximises autologous tissue use and represents a valuable option in complex forequarter reconstruction

6. Assessing the effectiveness of combined local anaesthetic with pre injection preparation of injection site with ethyl chloride (cryogesic ®) spray versus local anaesthetic alone in reducing pain during injection of local anaesthetic in plastic surgery

Chloe Spillane ,Eoin Creagh ,Roisin Baker ,Maria Murphy ,Angela Canas, Joseph Siby ,Jason Kelly , Plastic Surgery Department, Cork University Hospital, Cork, Ireland

Introduction: Local anaesthesia is widely used in minor plastic surgery procedures; however, injection-related pain remains a significant source of patient anxiety and discomfort. Vapocoolant sprays such as ethyl chloride (Cryogesic®) offer a rapid, non-invasive method of analgesia, but evidence supporting their use prior to local anaesthetic infiltration in plastic surgery is limited. This study aimed to evaluate whether the use of Cryogesic® prior to administration of local anaesthetic reduces perceived pain during injection compared with local anaesthetic alone

Methods: A prospective, pair-matched randomised controlled study was conducted in a tertiary plastic surgery unit. Adult patients undergoing elective minor procedures requiring at least two sites to be infiltrated with local anaesthetic at least 4cm apart but within the same operative field were included. Each participant received Cryogesic® with local anaesthetic (CLA) at one end of the lesion and local anaesthetic alone (LAA) at the other, in randomised order. Pain was assessed immediately after each injection using a Numeric Rating Scale (NRS). Statistical analysis was performed using non-parametric paired and unpaired tests.

Results: Thirty-two participants were included, yielding 64 pain scores. The median NRS score was significantly lower in the CLA group compared with the LAA group (4.5 vs 6; $p = 0.003$). Pain reduction with Cryogesic® was consistent regardless of injection order. Higher pain scores were observed for injections to the arm, lower leg, and chest, although anatomical comparisons were not sufficiently powered for statistical significance. No association was found between pain scores and lesion size, pathology, or injection order.

Conclusion: Cryogesic® is a simple, low-cost, and effective adjunct that significantly improves patient comfort during local anaesthetic injection in elective minor plastic surgery procedures.

7. Osteocutaneous Approaches and Free Tissue Transfers for Skull Base Tumours Horácio Costa (Presenting) Filipa Poleri ,Filipa Monte ,Carolina Chaves ,Rui Machado ,David Gonçalves Rui Leitão ,José Teixeira ,José Carvalho ,Diogo Castelo ,Mário Resende ,Horácio Zenha
Gaia Plastic Reconstructive Craniomaxilofacial Hand and Microsurgical Unit, Vila Nova de Gaia, Portugal,Aveiro University, Aveiro, Portugal

The potential for an upper facial or intracranial tumor, whether malignant or non-malignant, to involve the cranial base must always be anticipated. For the clinician, the diagnostic process is crucial, as early suspicion guides adequate preoperative investigation and surgery carried out by a multidisciplinary team including plastic and neurosurgeons; in selected cases, otolaryngologists and ophthalmologists should also be involved.
Experience gained from congenital craniofacial deformities has emphasized the value of exposure osteotomies in tumor approaches, allowing en bloc resections for most pathologies.
The skull base can be surgically divided into segments; this segmentation improves understanding of tumor spread, symptoms related to specific regions, and greatly aids in 3D planning of both resection and reconstruction. Free tissue transfer plays a major role in skull base reconstruction by providing well-vascularized tissue.
The authors report their experience with 32 patients presenting tumors involving the anterior, middle, and posterior cranial fossae.

8. Optimising Surgeon Ergonomics During Microsurgery: Evaluating Whole-Body Posturing Using the MovellaTM Motion Sensor System

Iulia Marinescu ,Stephanie Bollard ,Laoise Kenny ,Ben Griffin ,Colin Morrison,Jack Woods , Linda Abdul Jalil
,Andrew Diver ,Tomas O'Neill ,Barry O'Sullivan,Roisin T. Dolan ,
Beaumont Hospital, Dublin, Ireland, St. Vincent's University Hospital, Dublin, Ireland
UCD School of Medicine & Medical Sciences, Dublin, Ireland

Background: Work-related musculoskeletal disorders are highly prevalent among surgeons, yet objective, procedure-level evidence of intraoperative postural strain remains limited. Deep inferior epigastric perforator (DIEP) breast reconstruction is particularly demanding, requiring prolonged static, high-precision work. To address this gap, we conducted an innovative intraoperative study using continuous whole-body kinematic monitoring and compared exposure against International Organization for Standardization (ISO) static-posture thresholds.
Methods: In a prospective observational study at a tertiary plastic surgery unit, microsurgeons wore Movella™ inertial motion-capture sensors during repeated DIEP procedures. Two operative phases were analysed: flap raise and microanastomosis. Metrics included the proportion of time spent in ISO-defined neutral, awkward, and severe zones for head/neck and trunk; longest uninterrupted static-hold duration; and Rapid Upper Limb Assessment (RULA) scores (1-7) as an independent ergonomic risk measure. Participants completed questionnaires assessing the feasibility of using this monitoring system intraoperatively.
Results: Data was obtained from four participating surgeons across 20 DIEP procedures. During flap raise, surgeons spent 69.2% of operative time in awkward trunk flexion (severe 5.0%), 68.1% in awkward head inclination (severe 17.8%), and 18.0% in awkward neck flexion (severe 0.5%). Static holds were maintained for 1,115s (trunk), 920s (head) and 206s (neck). Mean RULA score was 5 ± 0.55. During microanastomosis, head inclination was awkward 52.6% of the time (severe 13.5%), neck flexion 28.5% (severe 9.2%), and trunk flexion 25.2% (severe 9.5%), with static holds up to 1,959s (head) and 2,106s (neck) and a mean RULA score of 4.4 ± 0.89. All participants agreed that the system is useful for assessing surgeon posture without interfering with workflow.
Conclusions: This continuous motion-capture analysis shows that microsurgeons routinely exceed ISO static-posture thresholds during both phases of DIEP reconstruction. Intraoperative ergonomic monitoring is feasible and yields high-resolution insight into postural risk, supporting targeted training and theatre-ergonomics optimisation.

9. Novel 3D Biomimetic Scaffolds: Optimising Biocompatibility and Preliminary In Vitro Immune Modulation with Future Applications in Transplant Immune Biology Cian Hehir (Presenting) Ian Woods ,Aamena Mejevdiwali ,Gemma Leon ,Fergal O'Brien,Annie Curtis ,
Roisin Dolan Tissue Engineering Research Group (TERG), Royal College of Surgeons in Ireland, 123 St. Stephen's Green, Dublin, Ireland, Department of Plastic & Reconstructive Surgery, St. Vincent's University Hospital, Dublin, Ireland, UCD School of Medicine & Medical Sciences, University College Dublin, Dubin, Ireland

Background: Immunocytes are highly sensitive to both mechanical and biochemical stimuli within their target environments. We describe the concept of 3D biomaterial scaffolds as a novel modular platform. We explore use of optimised scaffolds to deliver localised key cellular stimuli, with future potential to influence the local immune response in Vascularised Composite Allotransplantation.
Aims
To fabricate a 3D biomaterial scaffold which is biomimetic to skin. To generate a scaffold with mechanical properties suitable to t-lymphocyte modulation. To demonstrate biocompatibility of the chosen scaffold with respect to key innate and adaptive immune cells.

Methods: A homogenous solution of microfibrillar type 1 collagen (1% or 0.5% w/v), glycosaminoglycan (0.86%w/v) and 0.5M acetic acid was degassed prior to fabrication of 8mm diameter scaffolds using a -80C freeze drying method. Scaffolds were cross-linked using chemical catalysts 1-Ethyl-3-(3-dimethylaminopropyl)-carbonamide (EDAC) or glutaraldehyde. Mechanical testing was performed to assess the compressive modulus. All scaffolds were seeded with human fibroblasts for 7 days. 1%C-GAG scaffolds were seeded with primary human naïve-t lymphocytes following activation with anti-CD4 and anti-CD8 beads in the presence of IL-2 and TGF-beta.

Results: The mechanical stiffness of the fabricated scaffolds ranged from 1.8-4.5Kpa. Swelling ratio ranged from 14-27.9. Fibroblast viability was optimal in 1%Collagen-GAG, EDAC crosslinked scaffolds at 5 and 7 days. Seeding of scaffolds with naïve t-lymphocytes resulted in a population of regulatory T-Cells of 68% purity at day 7.

Conclusions: We describe the development of a 3D macroporous collagen-glycosaminoglycan scaffold capable of modulating T-lymphocyte response.

10. SimU-Skin: A 4D Tactile Simulation Platform to Improve Patient Recognition of Sentinel Skin Flap Changes Following Solid Organ Transplantation Omar Quidwai(Presenting) Helena Paran ,Aileen IgoeHenk Giele ,Omar El Sherif ,Roisin Dolan

Lean & Systems Redesign Lead, Mater Transformation Programme, Dublin, Ireland Department Of Plastic & Reconstructive Surgery, Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom Dept Of Hepatology, St Vincent's University Hospital, Dublin, Ireland,Department of Plastic & Reconstructive Surgery, St Vincent's University Hospital, Dublin, Ireland,University College Dublin, Dublin, Ireland

Background
Early detection of acute rejection following solid organ transplantation is critical to graft survival and long-term outcomes. The Sentinel Skin Flap (SSF), involving co-transplantation of a small donor-derived skin patch onto the recipient's forearm, provides a visible and accessible marker of alloimmune activity. However, its effectiveness depends on patients recognising subtle visual and tactile changes over time and escalating concerns appropriately. Unlike standard post-operative instructions, this places patients in an active surveillance role that evolves across weeks and months following discharge, a sustained and nuanced task for which existing consent and education approaches may offer limited preparation.
Methods
We developed SimU-Skin, a 4D tactile simulation platform designed to bridge the gap between patient education and post-transplant monitoring behaviour. Using a multidisciplinary, human-centred co-design approach, we collaborated with design researchers from the National College of Art and Design (NCAD) DesignLabs Health and patient and public involvement (PPI) contributors through iterative prototyping and refinement. The platform combines high-fidelity silicone models demonstrating the temporal progression of normal healing and early pathological change with an illustrated education resource identifying features that require clinical escalation.
Results
The co-design process produced a multimodal simulation toolkit intended for integration into pre-transplant counselling and post-operative education pathways. The platform provides patients with a structured, tangible reference to support recognition of clinically relevant changes, reinforce learning over time, and guide timely escalation following discharge.
Conclusion
SimU-Skin addresses a key gap between innovative surgical monitoring and the patient behaviours on which its success depends. By shifting from passive information delivery to experiential, tactile learning, this co-designed intervention offers a novel approach to patient-led surveillance in transplantation. Planned evaluation with PPIE groups across Ireland and the United Kingdom will assess its impact on patient understanding, confidence, and early recognition of rejection within the SENTINEL Study.

11. Patient Reported Outcome Measures on the Effect of LPG Endermologie® Treatment on Burns Scar Quality: A Ten Year Prospective Service Evaluation.

Colleen Keogh ,**Shane Cullen(Presenting)** ,Lucia Ramsey ,Amy Gillen ,Odhran Shelley ,
St. James's Hospital, Dublin, Ireland ,University of Ulster, Derry, United Kingdom, Trinity College Dublin

Background:

LPG Endermologie® is a non-invasive mechanotherapy that applies combined suction and motorised rollers to improve tissue mobility and scar characteristics. Although it is widely used in burn rehabilitation, high-quality evidence supporting its effectiveness remains limited. This study aimed to evaluate the effect of LPG Endermologie® on burn scar quality using both patient- and clinician-reported outcomes.

Methods:

A service evaluation was conducted using prospectively collected data from patients treated with LPG Endermologie® following burn injury. Patients were selected by a consultant-lead burns specialist multidisciplinary team. based on clinical indications including reduced scar pliability, subjective tightness, and scars ≥6 months post-healing. Scar quality was assessed using the Patient and Observer Scar Assessment Scale (POSAS) version 2. Scores were recorded prior to the first treatment and following completion of a standardised course of approximately 10 sessions. Changes in total and individual POSAS domains were analysed.

Results:

Forty-six patients were included. There was a statistically significant improvement in overall POSAS scores from both patient and observer perspectives ($p < 0.001$). On the patient scale, significant improvements were observed in overall opinion ($p = 0.001$), pain ($p = 0.001$), stiffness ($p = 0.05$), thickness ($p = 0.01$), colour ($p = 0.05$), and irregularity ($p = 0.02$), with a non-significant improvement in itch. On the observer scale, significant improvements were seen across all domains, including vascularity ($p = 0.001$), pigmentation ($p = 0.001$), thickness ($p = 0.003$), relief ($p = 0.001$), pliability ($p = 0.001$), and surface area ($p = 0.001$).

Conclusion:

This study demonstrates that LPG Endermologie® is associated with significant improvements in burn scar quality across both patient-reported and clinician-assessed outcomes. These findings support its role as a useful adjunct in burn scar rehabilitation. Further controlled studies are required to confirm efficacy and determine long-term outcomes.

12. High-Fidelity Synthetic Model for Safer Internal Mammary Vessel Isolation: Development and Validation in Autologous Breast Reconstruction Training

Iulia Marinescu (Presenting),Adam F. Roche ,Caoimhin O'Conghaile, Jack Woods,Colin Morrison ,Anton Fries ,Adrian McArdle
,Jamie Martin-Smith, Barry O'Sullivan Roisin T. Dolan,
Temerty Faculty of Medicine, Toronto, Canada ,University of Toronto, Department of Surgery, Division of Plastic, Reconstructive & Aesthetic UT Health San Antonio, Division of Plastic Surgery, San Antonio, United States, Beaumont Hospital, Department of Plastic and Reconstructive Surgery, Dublin, Ireland,Vincent's University Hospital, Department of Plastic and Reconstructive Surgery, Dublin, Ireland, RCSI SIM Centre for Simulation Education and Research, Dublin, Ireland

Background: The precise and safe preparation of internal mammary recipient vessels is a critical component of microvascular autologous breast reconstruction. These vessels lie within a confined, dynamic space, requiring refined dexterity and careful tissue handling. Existing training adjuncts are limited. This study aimed to develop and validate a novel synthetic simulation model to support early surgical training and establish baseline proficiency before operating.
Methods: A synthetic post-mastectomy chest model was designed in collaboration with technicians at the RCSI SIM Centre, with iterative refinement informed by consultant microsurgeon feedback. Five novice trainees completed pre- and post-training questionnaires assessing confidence. Face and content validity were evaluated by five expert microsurgeons. Performances were video-recorded and independently scored by two blinded external expert assessors using a task-specific checklist and the six-domain Objective Structured Assessment of Technical Skills (OSATS) global rating scale to test construct validity.
Results: Novices demonstrated a statistically significant mean increase in confidence of 2.75 points (SD 0.96, p<;0.05) on a 1–10 scale. Experts rated model fidelity highly: skin 4.25, soft tissue 4.25, 3rd rib 4.75, perichondrium 4.75, vessel dissection 3.25, overall realism 4.5, teaching suitability 4.25, and utility for higher surgical training 4.25 (all on 1–5 scales). OSATS scoring successfully distinguished experts from novices for both assessors (Assessor 1: 21.2±4.0 vs 17.4±4.2; Assessor 2: 25.8±4.0 vs 20.4±2.6), yielding 80% sensitivity and 60% specificity.
Conclusions: This synthetic model demonstrates high fidelity and robust construct validity, providing a practical, objective platform for teaching and assessing the technical skills needed for safe internal mammary vessel preparation.

13. Extracellular vesicle-associated LRG1 in melanoma-microenvironment crosstalk

Natasha Christodoulides (Presenting), Yashna, Stephanie Bollard ,Lorraine O'Driscoll ,Shirley Potter
Department of Plastic and Reconstructive Surgery, St James' Hospital, Dublin, Ireland
Trinity St. James' Cancer Institute, Dublin, Ireland (RCSI), Dublin, Ireland

Introduction

Cutaneous melanoma is the most aggressive form of skin cancer, characterised by early dissemination and therapeutic resistance. Its progression is driven not only by tumour-intrinsic factors but also by complex signalling within the tumour microenvironment (TME). Extracellular vesicles (EVs)—nano-sized, membrane-bound particles released by all cells—are key mediators of this crosstalk, facilitating the transfer of bioactive cargo that promotes angiogenesis, immune evasion, and metastasis. Leucine-rich alpha-2 glycoprotein 1 (LRG1) is a pro-angiogenic and immunomodulatory protein associated with adverse outcomes in multiple malignancies. However, its role in melanoma, particularly as an EV-associated signalling molecule and potential circulating biomarker, remains poorly defined. This study aims to characterise melanoma-derived EVs and investigate LRG1-mediated EV signalling in tumour–TME interactions.

Methods

Melanoma cell lines with confirmed LRG1 expression were cultured under EV-depleted conditions. EVs were isolated and characterised using nanoparticle tracking analysis to assess size and concentration. EV-associated LRG1 was quantified using ELISA and validated by mass spectrometry and proteomic profiling. Plasma-derived EVs from melanoma patients were analysed in parallel to enable comparison with in vitro cell line-derived EVs. Functional assays, including endothelial and fibroblast models, were performed to assess the biological effects of LRG1-positive EVs on TME signalling.

Results

Robust EV isolation was confirmed. Stage-dependent differences in LRG1 expression were observed, with higher levels in primary tumour-derived cell lines compared with metastatic lines, suggesting a role in early TME signalling. ELISA analyses demonstrated concordant LRG1 expression in cell line-derived and plasma EVs, supporting its potential as a circulating biomarker. Functional assays to evaluate the biological effects of LRG1-positive EVs are ongoing.

Conclusions

LRG1 is a promising mediator of EV-driven signalling in melanoma, with potential as a minimally invasive biomarker and therapeutic target.

14. An Audit Evaluating Adherence to Post-Treatment Ultrasound Surveillance Guidelines in Cutaneous Melanoma Ailbhe Kenny ,Maria Murphy ,Laura Wrafter ,Jack Kelly
University Hospital Galway, Galway, Ireland

Background: The NCCP National Clinical Guideline on Radiological Staging and Surveillance of Patients with Cutaneous Melanoma (HSE, May 2024) recommends that patients with Stage III positive sentinel lymph node (SLNB) cutaneous melanoma who have not had a complete lymph node dissection should receive ultrasound (US) surveillance of the draining nodal basin every four to six months for years 1 to 3, and every six months for years 4 to 5 (Recommendation 2.2.7). The national target compliance is 90%.
Aim: To assess compliance of the GUH Plastic Surgery melanoma service with NCCP Recommendation 2.2.7 and identify gaps in surveillance.
Methods: A retrospective review of the US surveillance database since 2020 was performed. 87 patients were included. Patients were classified as having a missed scan (scheduled next scan date had passed without a completed scan documented in the database), not yet due (less than 6 months post-SLNB), or up to date. Those not yet due were excluded from the compliance denominator. Descriptive statistics were used throughout.
Results: Of 87 patients, 11 were not yet due and excluded from analysis, leaving 76 eligible patients. 65 (85.5%) had missed a surveillance scan. Ten patients (11.5%) had no US scan history recorded in the database. 6 were deceased at the time of data collection, these were excluded for evaluation of up to date scans. 11/70 (15.7%) patients had up to date surveillance, falling well short of the 90% target.
Conclusion: US nodal basin surveillance compliance at GUH falls significantly below the national standard - 15.7% vs target 90% compliance. Patients with overdue scans require immediate contact and scheduling. These findings will be presented to the MDT to agree a coordinated, standardised scheduling and documentation process for US surveillance involving our radiology colleagues and all stakeholders. Re-audit is planned for September 2026.

15.The use of Electrochemotherapy as an adjunct for cutaneous metastases of melanoma in the era of immunotherapyGary Fenn (Presenting) ,Lauren Olivia Birchenough ,Kate Russel-Ryan ,Anthony James P Clover

Mirai Medical, Galway, Ireland &Plastic and Reconstructive Surgery Department, Cork University Hospital,

The treatment for cutaneous metastatic melanoma was significantly improved with the advancements in immunotherapy, however, there remains a cohort of patients who develop cutaneous metastases despite optimal systemic and locoregional control. Electrochemotherapy (ECT) is well established as a treatment for cutaneous metastatic melanoma with high therapeutic response. ECT can be used in patients with disseminated disease and remains a useful treatment option for loco regional control even in the palliative setting.

Methods

This is a retrospective review of five years of cases from Cork University Hospital, currently the only centre offering this treatment nationally. Cases were accrued both locally and nationally after MDT discussion and optimisation of other options. Response rates per lesion and per patient were assessed using RESIST Criteria.

Results

27 patients (211 lesions) were treated with ECT. Lesions with a minimum 3-month follow-up (n=146 lesions; n=19 patients) were included. 104 lesions across 16 ECT-naïve patients and 42 in 3 patients who received multiple treatments. 17 patients were treated under GA, 2 patients under LA.

In ECT-naïve lesions, the overall response rate (ORR) at 3 months was 88.4%; 74% (n=77) Complete Response (CR) and 14.4% (n=15) Partial Response (PR). Responses were durable, with CR rates of 79% at 6 months and 90% at 12 months among evaluable lesions. Lesions with partial response or progression were managed with excision or repeat ECT.

ECT is highly effective in patients who are retreated with ECT, with 97.6% ORR at 3 months (CR=30; PR=11). Responses remained durable over time, with CR maintained in all evaluable lesions beyond 6 months, including follow-up to 5 years.

Conclusion

ECT remains an excellent option for locoregional control for progressive cutaneous metastases where other standard treatments have failed. ECT provides durable control on occasion or often palliation in patients with symptomatic lesions.

16. Arterial injury patterns and reconstruction outcomes in open lower limb fractures: a single major trauma centre experience Michalis Hadjiandreou (Presenting) Samim Ghorbanian, Parviz Sadigh ,Nicki Bystrzonowski ,Georgios Pafitanis St Andrew's Centre for Plastic Surgery and Burns, Chelmsford, United Kingdom The Royal London Hospital, London, United KingdomThe Royal London Hospital, London, United Kingdom

Objectives:
Arterial injury plays a critical role in determining the success of lower limb reconstruction. This study aimed to evaluate the differential impact of arterial injury on free and local flap outcomes.

Methods:
A retrospective review of 816 cases of lower limb reconstruction was conducted, including 119 cases with arterial injuries. Free and local flap outcomes were compared using statistical analysis, with specific attention to complications and their relationship to injury energy levels and polytrauma status.

Results:
Free flap complications were significantly higher in cases with arterial injury (7.56%) compared to those without (1.58%), reflecting a nearly fivefold increase. In contrast, local flap complications were slightly lower in cases with arterial injury (0.84% vs. 1.43%). High-energy injuries and polytrauma demonstrated strong associations with arterial injury ($p < 0.000001$ for both), while patient comorbidities such as COPD, ischemic heart disease (IHD), and smoking were not significantly related.

Conclusion:
Arterial injury substantially increases the risk of complications in free flaps, underscoring the need for comprehensive vascular management and early intervention, particularly in high-energy trauma cases.

17. An Update on Orthoplastic Trauma Service Delivery at The Mater Hospital: A Review of Activity, Growth, and Practice

David Carolan (Presenting) ,Robert Milling ,Billy Lane O'Neill ,Michael McBride,Frank Lyons ,Sven O'hEireamhóin ,Michael Mara ,Shane O'Neill ,Mark Quinn ,John Gibbons ,Damir Rasidovic , Kevin McSorley ,Christine Quinlan ,Mater Misericordiae University Hospital, Dublin, Ireland

Aims: Integrated orthoplastic care is critical for the optimal management of complex trauma. This study aims to characterise the activity, growth, and scope of practice for the orthoplastic service in the management of open long bone trauma at the Mater Hospital, since 2023, through evaluation of clinical activity, case volume, reconstructive complexity, and adherence to best-practice standards.
Methods: A retrospective review of all patients with open long bone fractures who received combined orthopaedic and plastic surgical management was undertaken. Data collected included patient demographics, number and type of surgical procedures, reconstructive modalities employed, annual unit case volume, and consultant presence at initial debridement.
Results: A total of 139 patients were cared for. Many had multiple injuries requiring several surgical interventions, reflecting the complexity of injuries managed. In total, 309 surgical procedures were performed during this period. Soft tissue reconstructive techniques required included 35 free flaps, 23 local or pedicled flaps, 15 split-thickness skin grafts and 15 amputations.The remainder were managed with primary closure. Case volume increased following service establishment, with 15 cases in 2023, 73 in 2024 and 58 in 2025. In 79% of cases, a consultant orthopaedic surgeon and consultant plastic surgeon attended the initial debridement.
Conclusions: The orthoplastic service demonstrates sustained growth and an ability to deliver high-volume, complex trauma care across a broad reconstructive spectrum. High rates of dual-consultant involvement reflect excellent interdisciplinary collaboration and strong adherence to guidelines. These findings support the continued development of integrated orthoplastic services to optimise trauma care and patient outcomes

18. Novel Lateral Position Below-Knee Amputation with Primary Targeted Muscle Reinnervation: Preliminary Findings Maged Elsafti (Presenting) ,Yousef abdalazeem ,Yasser Hijazi , Royal Preston Hospital, Manchester, United Kingdom

ims: To evaluate whether RPNI without TMR is sufficient to improve residual limb pain (RLP), phantom limb pain (PLP), neuroma formation, and functional outcomes in patients undergoing lower limb amputation in case of technical challenges in performing Targeted Muscle Reinnervation (TMR).
Method: A systematic review was performed in accordance with PRISMA guidelines, searching PubMed, MEDLINE, and Cochrane Library for studies reporting outcomes of RPNI in lower limb amputation patients. Inclusion criteria allowed all ages, amputation indications, and both acute and delayed RPNI procedures. Primary outcomes included RLP, PLP, neuroma formation, and ADLs. Pain was assessed using VAS or PROMIS T-scores, and prosthetic use.
Results: Three studies met the inclusion criteria out of 14, involving 85 patients who had AKA, TKA, or BKA treated with RPNI only. No patients have developed neuroma, and ADLs were consistently better postoperatively. VAS, PROMIS Pain Interference Scores, and prosthetic use were assessed in 14 patients and showed a reduction to 0/10 and an improvement from 61.8 to 52.6, respectively, with pain-free prosthetic use. No significant complications were attributed to RPNI. Follow-up ranged from 6 months to 18 months.
Conclusions: Lower limb amputation with RPNI is superior to lower limb amputations only with improved outcomes, and it is a promising adjunct if there are difficulties in performing TMR. Although current evidence is limited to small cohort studies, findings support a wider evaluation of RPNI in lower limb amputation protocols.
Keywords: Lower limb Amputation , RPNI, RLP , PLP , Neuroma , TMR

19. The Hidden Cost of Recovery: Infective Complications of Open Long Bone Fractures in Major Trauma Care Robert Milling ,Donal Murphy ,**Ciara Walsh (Presenting) ,** Mater Misericordiae University Hospital, Dublin, Ireland

Purpose

The financial burden of major trauma on healthcare systems is well established, however, the cost associated with secondary complications remains poorly characterised. As an evolving Major Trauma Centre, we aimed to quantify cost associated with fracture related infection as this typically necessitates complex multidiscipinary input.

Methods

Cases were identified via our prospectively constructed open fracture database. MDT discussion outcomes, hospital records and charts were reviewed. Outcomes assessed included operative time, inpatient length of stay, outpatient visits, laboratory investigations, imaging requirements, and the cost of outpatient antibiotic therapy (OPAT).

Results

Over 2.5 years 168 open long bone fractures were treated; of which 13 (7%) developed fracture related infections (FRI). These cases required 16 additional operations, requiring 208 additional inpatient days and a mean of 19 outpatient visits. Microbiological testing ranged from 1 to 16 additional samples per patient. Imaging included a mean of 2.14 CT scans, 10.2 radiographs, 2.2 image intensifier uses, 1 MRI, and 2.1 ultrasound scans. The cost of 28 weeks of OPAT was €140,000.

Conclusion

Treatment of an uncomplicated open fracture is estimated to cost approximately €29’000. The cost of complications including fracture related infections is significantly higher and currently not resourced. Our findings highlight the substantial resource implications of infection following open fracture fixation and underscore the need for dedicated funding for this.

20. Speaking Up in Plastic & Reconstructive Surgery: A National Survey of Doctors' Experiences and Barriers to

Protected Disclosure Shu Ying Chee(Presenting) ,Aoife Feeley ,Omar Quidwai ,Silvia Marinos,Andrew Diver
,Tomas O'Neill , Jack Woods ,Colin Morrison ,Roisin Dolan,
St Vincent's University Hospital, Dublin, Ireland, University College Dublin School of Medicine & Medical Sciences, Dublin, Ireland

Introduction

Protected disclosure, or 'whistleblowing', is a critical mechanism for safeguarding patient safety and maintaining professional standards. In Ireland, the *Protected Disclosures Act 2014* (amended 2022) mandates robust reporting procedures (1). However, the unique hierarchical structure of surgical training may present distinct barriers. This study aims to evaluate the knowledge, attitudes, and experiences regarding protected disclosures among plastic surgery doctors in Ireland to identify barriers and areas for intervention.

Methods

A cross-sectional national survey was conducted between June and September 2025 across all six university teaching hospitals with plastic surgery units in Ireland. The study population included interns, senior house officers (SHOs), registrars/specialist registrars, fellows, and consultants. A validated 29-item questionnaire assessed demographics, experiences with whistleblowing, knowledge of policies, attitudes, and perceived barriers.

Results

51% had encountered situations warranting disclosure, however, most concerns (88%) were raised informally rather than through formal protected disclosure pathways. Significant knowledge gaps existed, with one-third unaware of local policies and nearly half lacking confidence in reporting procedures. Fear of damage to professional relationships (88%), reputational harm (85%), hierarchical pressures (85%), and professional repercussions (83%) were the dominant barriers to reporting.

Conclusion

Despite legislative protections, cultural and structural barriers to whistleblowing persist in Irish plastic & reconstructive surgery. There is a critical need for targeted educational interventions, transparent reporting pathways, and a cultural shift to ensure patient safety and staff protection.

21. Shaping the Specialty: A 50-Year Review of Plastic Surgery in Ireland Nicola McShane **Eimear Phoenix (Presenting) ,**Roisin Scally ,Kieran Ryan ,Donnacha Ryan ,Shirley Potter ,
St James' Hospital, Dublin, IrelandThe Royal College of Surgeons in Ireland, Dublin, Ireland

Introduction
Plastic Surgery training in Ireland has evolved significantly over the past 50 years, shaped by advances in healthcare systems, surgical techniques, and medical education. The Royal College of Surgeons in Ireland (RCSI) has played a central role in this development, transitioning from informal apprenticeship-based models to a structured national training programme. Despite these changes, a comprehensive account of this evolution and its impact on trainees and trainers remains lacking.
Aims
This study aims to document the origins and milestones of Plastic Surgery training in Ireland, analyse structural changes, and capture the experiences of past and present trainees and trainers. It also aims to evaluate trends in gender balance and workforce development, and to analyse the career trajectories of graduates, including geographic distribution and practice setting, while creating an accessible archive for future generations.
Methods
A mixed-methods approach was employed. Archival research utilised the RCSI Library, Irish Association of Plastic Surgeons (IAPS) records, hospital archives, and relevant literature to construct a chronological timeline. Oral histories were gathered through semi-structured interviews and surveys involving key institutional figures. Quantitative data on trainee demographics, training numbers, and gender distribution were collected from national training bodies and analysed for longitudinal trends.
Findings
Findings demonstrated a clear transition from unstructured apprenticeship models to formalised Core and Higher Surgical Training pathways, alongside increasing sub-specialisation and standardised assessment. Since 1981, 117 trainees have completed Plastic Surgery training in Ireland (66 males, 51 females), reflecting an evolving gender balance. The findings also highlight shifts in key aspects of training, including logbooks, examinations, and assessment.
Conclusion
This work provides a comprehensive historical account of Plastic Surgery training in Ireland. By preserving institutional memory and documenting the specialty's evolution, it will serve as a valuable archival resource for current and future generations of Plastic Surgeons.

22. Single-stage forehead flap nasal reconstruction: reducing psychosocial distress and operative burden. A case report William Murray (Presenting) ,Lily Nolan ,Odhran Shelley ,
St James Hospital Dublin, Dublin, Ireland, Trinity College Dublin

Introduction
The paramedian forehead flap is often described as the gold standard for reconstructing multiple nasal subunits. The standard technique involved a two-stage procedure comprising flap raise and inset, followed by pedicle division. This does require an interim period of 3-4 weeks, which often results in significant psychosocial stress and typically leaves a raw area at the posterior aspect of the pedicle. This raw area is often associated with postoperative bleeding, one of the most common complications of the procedure. The single-stage forehead flap utilising a pedicle based in the medial canthal area facilitates a low pivot point and arc of rotation, thereby removing the need for an externalised pedicle and the complications associated with it.
Methods
A late 70's patient on apixaban for atrial fibrillation and a previous CVA underwent reconstruction of the left nasal ala, soft triangle, and dorsal nasal skin utilising a single-stage forehead flap based on a medial canthal pedicle. The angular artery was identified using a Doppler. Preoperative marking was performed as per Kleintjes et al., noting the lateral limit of the pedicle base, just medial to the vertical line of the angular artery, which is 5 mm medial to the medial canthal vertical line. Flap raise was performed in standard fashion, distal to proximal and subcutaneous to subperiosteal. The patient was followed up at 1, 3, and 6 months.
Results
Healing progressed as expected, and the overall cosmetic outcome was acceptable to the patient.
Conclusion
The single-stage forehead flap with a medial canthal pedicle is a viable alternative in select individuals and patients who may be at an increased risk of postoperative bleeding with an exposed pedicle. Some fullness of the nasal radix may be noted postoperatively and is amenable to delayed thinning if deemed cosmetically or functionally unacceptable.

Case Presentations

23. Rare but Devastating: Expanding Ulnar Artery Aneurysm Presenting as Compartment Syndrome in Ehler- Danlos Syndrome Shu Ying Chee (Presenting) Nauar Knightly,Silvia Marino
St Vincent's University Hospital, Dublin, Ireland

Background: Ehlers-Danlos syndrome (EDS) is a group of hereditary connective tissue disorders caused by defects in collagen synthesis, with an overall prevalence of approximately 1 in 10,000 to 25,000 (1). Vascular Ehlers-Danlos syndrome (vEDS) accounts for around 5–10% of EDS and is the subtype most strongly associated with catastrophic arterial rupture and spontaneous visceral perforation (2). Peripheral arterial aneurysm rupture causing forearm compartment syndrome is exceptionally rare, and surgery in this population carries substantial morbidity, as vessel fragility increases the challenge of open repair in maintaining vessel integrity, limb perfusion, and haemostasis.

Case: A 28-year-old man with known vEDS sustained a minor fall while intoxicated abroad, initially developing forearm bruising without pain. After boarding a flight, he presented to our emergency department, where serial assessment showed rapid enlargement of a previously 0.8 cm ulnar artery aneurysm over 48 hours. He developed progressive paraesthesia in the ulnar nerve distribution, followed by tense forearm swelling and pain on passive stretch with median and ulnar nerve sensory disturbance. Repeat CT angiography demonstrated marked interval expansion, and a duplex ultrasound suggested leak/rupture. A joint vascular and plastic surgery assessment confirmed evolving compartment syndrome secondary to ruptured ulnar artery aneurysm. Emergent fasciotomy and ligation were performed, followed by staged reconstruction using negative pressure wound therapy, biodegradable temporising matrix, and split-thickness skin grafting.

Results: Limb perfusion was restored, neurological recovery progressed gradually, and definitive soft tissue closure was achieved without early vascular complication. Functional follow-up was favourable with preserved hand viability.

Conclusion: This case underscores a rare but critical cause of compartment syndrome in vEDS. Early serial imaging, prompt operative intervention, and close vascular-plastic collaboration are essential for limb salvage. This case adds to the very limited literature on forearm compartment syndrome in vEDS requiring surgical treatment.

Poster Presentations

24. Impact of diabetes mellitus on clinical outcome in burns patients managed in a national burns centre. ***Thomas Russell (Presenting)***

Stephen Keelan ,Sorcha Leary ,Conor Lacey ,Olivia Novaes ,Shane Carr ,Odhran Shelley
St James's Hospital, Dublin, Ireland , Trinity College Dublin

Background

The effect of diabetes mellitus on morbidity and mortality following burn injury remains unclear. This study aimed to characterise diabetic burn patents and investigate the impact of diabetes on patient outcomes at a national burns centre.

Methods

A retrospective cohort study was performed at the Nation Burns Unit, St. James's Hospital, Dublin, reviewing all admissions from 2012 to 2022. Data were extracted from the Hospital Inpatient Enquiry (HIPE) database. Patients with complete data (n = 870) were divided into diabetic (n = 55) and non-diabetic (n = 815) groups. Patient demographics, comorbidities, injury characteristics and outcomes were compared. Descriptive analyses of patient and injury characteristics were performed. Multivariable logistic regression was conducted to determine the association between diabetes and mortality after adjusting for age and total body surface area (TBSA).

Results

Diabetic patients were older (mean age 65.6 vs 47.8 years, p <0.001) and had increased rates of cardiovascular, respiratory and renal comorbidities. They experienced more complications including acute decompensated heart failure (5.5% vs 0.5%, p = 0.007), acute kidney injury (12.7% vs 2.8%, p = 0.002), and urinary tract infection (14.5% vs 5.6%, p = 0.016). Median length of stay was longer (13 vs 9 days, p <0.001). Mortality was higher in diabetic patients on univariable analysis (12.7% vs 4.4%; OR 3.16, 95% CI 1.33 - 7.46, p = 0.009). However, after adjusting for age and TBSA, diabetes was no longer significantly associated with mortality (Adjusted OR 1.29, 95% CI 0.41 - 4.10, p = 0.667).

Conclusion

Diabetic burn patients tend to be older, have more significant comorbidities, suffer greater morbidity and require longer stays in hospital. While diabetic patients have a higher mortality rate, this finding is attributable to increased age rather than diabetes itself.

25. Combined External Fixation Frames and Autologous Bone Graft Reconstruction in Thumb Proximal Phalanx Bone Loss: A Case Series

Sean Curran ,Ciaran Hurley ,Safwat Ibrahim , Jamal El Deib Department of Plastic & Reconstructive Surgery, Beaumont Hospital, Dublin, IrelandRoyal College of Surgeons Ireland, Dublin, Ireland, Prince Sultan Military Medical City, Riyadh, Saudi Arabia

Background: Proximal phalangeal fractures with significant bone loss are inherently unstable, often resulting in significant malalignment secondary to the high degree of instability. Often significant bone loss is not amenable to surgical fixation alone and bone grafts are required to maintain length and reconstruct the given defect.
Objective: This cases series exhibits three cases of fixation of proximal phalanx fractures of the thumb with associated bone loss using an independently constructed external fixation frame in combination with delayed autologous iliac crest bone graft to restore bone stock and digit length.
Methods: 3 patients were included, all of whom suffered proximal phalanx fracture(s) of the thumb with associated bone loss requiring autologous bone graft and external fixation.
Results: All 3 patients achieved radiographic union. The minimum Kapandi opposition score noted at 1 year postoperatively was 8. No postoperative complications were recorded.
Conclusion: We believe that our combined approach of iliac crest bone grafting and independently constructed external fixation frame achieves restoration of bone and digit length with simultaneous fracture reduction and stabilisation in cases with significant bony destruction.

26. Ecthyma gangrenosum: An ominous finding in a paediatric patient

Yamen Al-Fathil ,Sean Curran ,Justin Chatterjee , Cork University Hospital, Cork, Ireland

Intro

- We are presenting a case of ecthyma gangrenosum (EG) in a paediatric patient which represented the first clinical sign of an underlying leukaemia.

Presentation

- A 3 year old child with no past medical history presented to the emergency department septic with a 4 day history of a right lower abdominal evolving necrotic lesion and new neutropenia. Urgent plastics surgery input was sought and they were taken to theatre for urgent debridement and source control, which revealed pseudomonas soft tissue infection consistent with ecthyma gangrenosum. Further investigation revealed the presence of blast cells and a diagnosis of acute lympboblastic leukemia was reached. They were transferred to paediatric haematological oncological centre for ongoing management, and the wound was allowed to heal by secondary intention.

Discussion:

- Ecthyma gangrenosum (EG) is a severe cutaneous infection classically associated with Pseudomonas aeruginosa, which accounts for approximately 89% of reported paediatric cases, though other organisms have been implicated. Diagnosis is primarily clinical in immunocompromised patients presenting with typical lesion and confirmed on microbiology/histopathology testing . Management requires early recognition, prompt empiric antipseudomonal therapy, consideration of surgical intervention for source control. Identification and treatment of underlying immunosuppression, which remains the most important prognostic factor.

Conclusion:

- We present a case of EG in an otherwise healthy child to highlight the importance of clinical suspicion for this pathology even in individual without a known immunodeficiency, and multidisciplinary management with antipseudomonal therapy, surgical debridement, and prompt work up for possible immunosuppressive pathology.

27. Incidence trends of cutaneous melanoma in young adults in Ireland: a 30-year population-based analysisNatasha Christodoulides ,Clara Doran ,Aline Brennan,Megan Lim ,Deidre Murray Shirley Potter Department of Plastic and Reconstructive Surgery, St. James' Hospital, Dublin, Ireland,Trinity St. James' Cancer Institute, Dublin, Ireland (RCSI), Dublin, Ireland

Background
Melanoma incidence continues to rise, with evidence of distinct epidemiological patterns in younger populations. We examined temporal trends in melanoma incidence in Ireland, focusing on young adults.
Methods
Population-based melanoma incidence from the National Cancer Registry of Ireland (NCRI) were analysed using age-standardised rates from 1994 to 2023. Trends were assessed using Joinpoint regression to estimate annual percentage change. Cases were stratified by sex, age group (15–34, 35–49, ≥50 years), and stage at diagnosis (early I/II; late III/IV).
Results
Overall melanoma incidence increased, driven predominantly by rising rates in older adults and males. In contrast, young adults aged 15–34 demonstrated a distinct pattern: incidence was higher in females than males (mean 8.45 versus 4.41 per 100,000), with a modest increase in females (annual percentage change 1.65%, $p<0.05$) and overall (1.05%, $p<0.05$), while rates in males remained stable.
Early-stage melanoma accounted for most diagnoses and increased over time (26.4 to 31.1 per 100,000, 2014–2023). Late-stage incidence remained comparatively low and stable (3.7 to 5.2 per 100,000), but was consistently higher in males.
A strong age gradient was observed, with individuals aged ≥50 years demonstrating the highest incidence of both early-stage (up to 56.4) and late-stage disease (up to 9.6 per 100,000). The 35–49 group showed intermediate rates, while young adults had low absolute incidence, stable early-stage rates (approximately 5–7 per 100,000), and minimal late-stage disease (<1 per 100,000).
Conclusions
Melanoma incidence in Ireland is increasing, driven by rising detection of early-stage disease. Distinct age- and sex-specific patterns persist, with higher incidence in young females and a disproportionate burden of advanced disease in older males. Although incidence in young adults is low, the long-term survivorship burden is significant, highlighting a critical window for targeted prevention and earlier diagnosis.

28. Reconstructive hair transplantation in children: a publicly funded cross-specialty pathway integrating tertiary plastic-surgery assessment and private surgical delivery

Maurice Collins, Dmitri Wall David Vondrys, Hair Restoration Limited, Dublin, Ireland, UCD Charles Institute, Dublin, Ireland, Mater Hospital, Dublin, Ireland

Background:
Paediatric scarring alopecia arising from trauma, infection, congenital anomalies, or reconstructive surgery (e.g. excision of giant congenital naevi) can have substantial psychosocial and developmental consequences. Traditional reconstructive techniques such as tissue expansion or local flap advancement can create new scars that may widen or distort with growth, and often require multiple procedures under general anaesthesia. Recent series (*Jin et al.*, *Pediatr Dermatol* 2022; *Wang et al.*, *Adv Ther* 2023) [1,2] confirm that autologous follicular unit transplantation (FUT) and extraction (FUE) are effective for paediatric cicatricial alopecia, achieving graft survival rates of 85–93 %, but these were performed under general anaesthesia within single tertiary centres.

Objective:
To describe and evaluate a novel, nationally funded pathway that integrates public plastic-surgery assessment with private hair-transplant delivery, enabling minimally invasive reconstruction under local or regional anaesthesia.

Methods:
Children with non-progressive alopecia due to trauma, infection, or congenital causes were screened by a plastic-surgery service and referred to our centre for FUE or FUT transplantation. Parameters included indication, anaesthesia type, graft number, complications, and satisfaction.

Results:
From 2022-2025, 9 children (age range 9–16 years) underwent transplantation. Graft numbers ranged from 368-2,659 per patient to date. Graft survival rates were good with no major complications. All procedures were performed under local or regional anaesthesia. Cosmetic improvement and satisfaction were uniformly high, with subtle, natural results and minimal scarring—avoiding the expanding linear scars sometimes associated with tissue expansion techniques.

Conclusion:
This cross-specialty, publicly funded pathway demonstrates that paediatric reconstructive hair transplantation can achieve durable, natural outcomes with reduced morbidity, minimal scarring, and avoidance of general anaesthesia. It provides an effective and reproducible model that complements—and in selected cases supersedes—traditional plastic-surgical approaches.

29. Grisel Syndrome: Atlanto-axial subluxation following bilateral paediatric otoplasty

Áine Lucey ,Anthony Hennessy Seán T O' Sullivan, Department of Plastic and Reconstructive Surgery, South Infirmary Victoria University Hospital, Cork, Ireland

Background:

Grisel syndrome is a rare, non-traumatic atlantoaxial subluxation associated with inflammatory processes following upper respiratory infections or head and neck surgery in children. It is most commonly reported after otolaryngological procedures, while occurrence following paediatric otoplasty is exceedingly rare. Early recognition is critical to prevent chronic deformity and prolonged morbidity.

Case Presentation and Investigations:

A healthy early school-aged child underwent uncomplicated bilateral otoplasty under general anaesthesia. In the immediate postoperative period, persistent neck pain and torticollis were noted. The patient remained systemically well without neurological deficit. Due to ongoing symptoms, imaging was performed several months later. Magnetic resonance imaging demonstrated atlantoaxial malalignment, and computed tomography with rotational views confirmed C1/C2 rotatory subluxation. Differential diagnoses included muscular torticollis, positional spasm, infection, and cervical instability; imaging findings established the diagnosis of Grisel syndrome.

Treatment and Outcome:

The patient was referred for specialist neurosurgical management. Initial cervical halter traction was followed by halo traction due to persistent subluxation, with gradual radiological improvement. Subsequent immobilisation in a halo jacket allowed further stabilisation. Surgical fixation was not required. The patient achieved full neurological recovery with resolution of pain and torticollis, and follow-up imaging confirmed satisfactory reduction.

Discussion:

This case highlights a rare complication of paediatric otoplasty and underscores the importance of clinical vigilance for atlantoaxial instability in children presenting with persistent postoperative torticollis. Diagnostic delay, as observed here, is common due to non-specific symptoms and absence of neurological signs, yet may prolong treatment and increase psychosocial burden. The proposed mechanism involves inflammatory-mediated ligamentous laxity, potentially exacerbated by perioperative positioning. Early imaging and multidisciplinary management are essential. Conservative treatment remains effective even in delayed presentations, though earlier diagnosis may reduce treatment duration and morbidity.

30.The Management of Flexor Pollicus Longus Attrition Rupture Following Volar Plate Fixation of Distal Radius Fractures: A Case Series

Áine Lucey ,Justin Chatterjee ,Laura Kearney ,Department of Plastic and Reconstructive Surgery, Cork University Hospital, Cork, Ireland

Aims

Flexor pollicis longus (FPL) attrition rupture is a recognised but uncommon complication following volar locking plate fixation of distal radius fractures (DRF). This study aims to review our centre's experience with FPL attrition rupture and to describe the management strategies and reconstructive options employed.

Methods

A retrospective case series was conducted at a single tertiary referral centre. Patients treated for FPL attrition rupture following volar plate fixation of DRF between October 2022 and September 2025 were identified. Demographic data, time intervals from rupture to presentation, from presentation to surgery, and from initial plating to rupture were recorded. Management strategies and reconstructive techniques were reviewed.

Results

Six cases were identified over a 2-year 11-month period. There were three males and three females, with a mean age of 54 years 7 months (range 41 years 1 month to 72 years 4 months). Two patients were intra-hospital referrals from our centres local orthoapedic unit and four were referred from external centres. The mean time from rupture to initial plastic surgery review was 7 days (range 1–32 days). Mean time from review to surgery was 177 days (range 63–436 days). The average interval from volar plating to FPL rupture was 31 months 18 days (range 3 months 17 days to 79 months 10 days). Management included two single-stage reconstructions, two two-stage reconstructions, and two cases managed conservatively. Single-stage reconstructions utilised flexor carpi radialis and palmaris longus tendon grafts. Two-stage reconstructions employed a plantaris tendon graft.

Conclusion

FPL attrition rupture following volar locking plate fixation is a delayed complication that can occur several years post-operatively. A variety of management strategies may be required depending on patient factors and chronicity. Awareness of this complication and timely referral to specialist hand services are essential to optimise outcomes.

31. Reconstruction of the Nasal Soft Triangle: A Systematic Review

Ailbhe Coyle ,Donal Murphy ,Barry O'Sullivan ,Sinclair Gore ,Jack Woods, Roisin Dolan
Beaumont Hospital Dublin,Oxford University Hospitals NHS Trust, Oxford, United Kingdom St Vincent's University Hospital, Dublin 4, Ireland,Royal College Of Surgeons, Dublin, Ireland

Introduction: The nasal subunit of the soft triangle is an area known for its unique reconstructive challenges due to its complex anatomical structure coupled with its critical aesthetic and functional roles.
Methods: The systematic review was performed using PRISMA guidelines to evaluate techniques for soft triangle reconstruction and help guide surgeons for their best-fit reconstruction based on the size and composition of the defect they are faced with. A literature search was conducted to include the databases of MEDLINE via OVID, EMBASE, CINAHL, PubMed, and Cochrane central registry of trials.
Results: In the review, 13 studies were selected, encompassing 900 patients with differing defects ranging from 0.6 to 5.5 cm in size. Our study outlines complication rates experienced, revision rate, and surgeon vs patient outcome measures where they are reported. We have found that while composite grafts are effective for smaller defects, they experience a high number of complication rates, and therefore, for larger defects, we recommend using vascularized interpolated flaps with cartilage support grafts.
Conclusion: This review underscores the importance of tailored approaches, anatomical understanding, and patient-centred decision-making. Future research should prioritise comparative studies and standardized evaluation metrics to enhance evidence-based guidelines.

32 A Helping Hand (X-ray) in Predicting Frailty Progression Roisin Baker
RCSI, Dublin, Ireland,Vincent's, Dublin, Ireland, Beaumont Hospital, Dublin, Ireland

Intro: Upper limb fractures may be the first sign of frailty in the older population. Population studies have suggested that frailty progresses at a rate of approx. 3% per annum. We aimed to assess frailty progression in this vulnerable cohort. Given the association between osteoarthritis and frailty, we hypothesised that those with concurrent OA and upper limb fractures may be particularly vulnerable to frailty progression.
Method: Retrospective analysis for radiographic evidence of the thumb carpometacarpal joint (CMCJ) OA using the Eaton-Litler classification and frailty scores over a period of 3-4 years of elderly patients who presented to the Department of Plastic & Reconstructive Surgery Trauma Unit for management of low-velocity hand fractures from January 2019 to March 2022.
Results: At baseline the two groups, CMCJ OA (n=13) and No CMCJ OA (n=23), were broadly similar across age, sex, and baseline frailty. At follow-up, frailty progression was higher in those with CMCJ OA (two-sample t-test $p = 0.049$). Furthermore, adjusted linear regression showed CMCJ OA to be an independent predictor for frailty progression, with CMCJ OA associated with a 60% increase in Frailty Index scores (95% CI 0.62–6.06; $p = 0.018$).
Discussion: While this study was a single-centred and retrospective analysis the results suggest that the opportunistic, or indeed intentional, identification of radiographic evidence of OA, in particular CMCJ OA, could be a readily accessible and useful tool for predicting a patient's risk of frailty progression. In particular this could be a useful tool in the pre-frail vulnerable cohort, for whom early detection and intervention by clinicians and allied healthcare professionals may be most beneficial.

33. Plastics in Plastics! An Investigation into Staff Attitudes towards and the Effect of Education on Recycling Practices in Theatre

Ferdia Browne ,Muireann Keating ,Mar Cotter ,Vincent Wall James Clover
South Infirmary Victorian University Hospital, Cork, IrelandCork University Hospital, Cork, Ireland

Introduction

Operating theatres generate substantial waste, much of which is recyclable if appropriately segregated. Incorrect segregation increases landfill burden, carbon emissions, and costs. Healthcare contributes approximately 4-5% of global greenhouse gas emissions, with theatres among the most resource-intensive areas. Although approximately 85% of healthcare waste is non-hazardous, Irish data show up to 32% is recyclable, indicating significant mis-segregation. Non-hazardous waste is also frequently over-classified as healthcare risk waste, leading to unnecessary incineration and higher costs (€2,125 per tonne vs €0-€170 per tonne for recycling). Despite initiatives such as the *Green Healthcare Programme*, effective recycling depends on staff knowledge, behaviour, and infrastructure. This study assessed knowledge and attitudes among Plastic Surgery and Maxillofacial theatre staff and evaluated a targeted educational intervention.

Methods

A prospective pre- and post-intervention study was conducted among doctors and nurses in Cork University Hospital and South Infirmary Victoria University Hospital. Participants completed a structured questionnaire assessing knowledge and attitudes toward recycling. A targeted educational session was delivered with the *Clean Technology Centre*, followed by reassessment. Pre- and post-intervention scores were compared using paired t-testing.

Results

Twenty-seven participants were enrolled. Engagement was high: 100% valued recycling and desired further education. However, 66% (18/27) had no prior training, and processes were often unclear. The main barrier was inadequate infrastructure and as bin availability. Knowledge scores did not significantly improve (p = 0.67). However, behavioural intent improved: 62.9% (17/27) reported increased confidence, 62.9% (17/27) intended to change practice, and 96% (26/27) supported wider sustainability education.

Conclusion

Staff are motivated but limited by structural barriers. Education alone is insufficient; system-level changes are required for sustained improvement.

34. The role of wearable UV sensors in skin cancer prevention: A systematic review

Katie Nolan,Kenneth Joyce ,Galway University Hospital, Galway, Ireland

Background

Ultraviolet exposure is a modifiable risk factor for the development of skin cancer. Greater awareness of skin cancer prevention and the rise of wearable smart devices enables users to access regular and continuous health monitoring with non-invasive assessment of personalised biomarkers. There are estimated fifteen commercially available wearable UV sensors on the market. This is the first systematic review of wearable UV sensors employed for UV exposure awareness in a personalised medicine setting and providing data on behavioural changes regarding UV safety and sun protection.

Methods

This systematic review identified studies that examined wearable UV sensors for skin cancer prevention between 2000-2025. PubMed, MEDLINE and EMBASE were searched according to PRISMA guidelines. 14 studies met inclusion criteria. Primary outcomes included UV exposure accuracy, participant behavioural change and marketable prototype.

Results

We identified 10 proof of concept studies that included human testing, 2 RCT studies and 2 cohort studies. A variety of substrates were tested with 6 wearable devices utilising colour change upon UV exposure using photochromatic dyes, 7 photo diode sensors that exported data to smartphone apps and 1 solar panel UV measuring device. 71% of devices were wristband models making them easy to wear and portable. 57% of studies used integrative technology to quantify data. 5 studies surveyed patients post UV exposure assessing behavioural change based on UV sensing data finding that UV sensors increased sunscreen application, encouraged shade-seeking behaviour and reduced UV exposure in patients with a history of melanoma.

Conclusions

Wearable UV sensors are cheap and commercially available methods to identify excess UV exposure, enhance protective behaviours and reduce the incidence of skin cancer. Further data is required to establish the most effective modality. Dissemination to patient population could prove a helpful adjunct to skin cancer prevention and UV exposure awareness.

35. Evaluating the role of frailty scores in determining indication for sentinel lymph node biopsy in elderly melanoma patients

Chloe Spillane ,Maud Van Den Hurk ,Dervla McManus ,Eiran Gannon ,Laura Wrafter , Kenneth Joyce
Galway University Hospital, Galway, Ireland

Background
Ultraviolet exposure is a modifiable risk factor for the development of skin cancer. Greater awareness of skin cancer prevention and the rise of wearable smart devices enables users to access regular and continuous health monitoring with non-invasive assessment of personalised biomarkers. There are estimated fifteen commercially available wearable UV sensors on the market. This is the first systematic review of wearable UV sensors employed for UV exposure awareness in a personalised medicine setting and providing data on behavioural changes regarding UV safety and sun protection.

Methods
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Conclusions
Wearable UV sensors are cheap and commercially available methods to identify excess UV exposure, enhance protective behaviours and reduce the incidence of skin cancer. Further data is required to establish the most effective modality. Dissemination to patient population could prove a helpful adjunct to skin cancer prevention and UV exposure awareness.

36. Otoplasty: the creation of a surgical simulator. Augustin Msellati ,Leonie Heskin ,Jason Kelly
Cork University Hospital, Cork, Ireland

Introduction:
Otoplasty is an aesthetic procedure performed to correct prominent ears in adults and children. In the case of an under-developed anti-helical fold, suture fixation of the cartilage back on itself can help correct this deficiency. The Mustardé technique is a common cartilage sparring technique which creates and secures an anti-helical fold with 2–4 fixation sutures.
For trainee surgeons, executing a Mustardé suture to recreate the anti-helical fold, achieve adequate setback, and ensure symmetrical aesthetics between both ears is most challenging.
To date, there is no available simulator to practice this technique or to help judge when a trainee is safe to perform this operation on a living patient. Our aim was to address this gap by enhancing hands-on learning and practice of this procedure in a safe simulated environment prior to operating on patients.

Methods:
This simulation model was designed in collaboration with the authors and industrial designers from the national college of art and design.
After the procedure was observed by the designers, a full cognitive task analysis was performed. Surrogate ears were then moulded to create unique models as close to real life in terms of anatomy, flexibility, recoil and tactile feedback. The model facilitated the insertion of Mustardé sutures in a realistic manner.
A head model was subsequently created with replaceable elements to allow for multiple right and left ear models to be mounted for practical multiple uses.
Surgeons experienced in otoplasty performed validation studies of this surgical simulator. The outcomes of these studies are presented.

Conclusion:
This innovative simulator addresses a gap in surgical training for plastic surgery trainees. It allows to practice an otoplasty procedure with correct placement of sutures. It also provides a method of judging a trainee's understanding and ability to perform this challenging procedure.

37. Radical Resection and Reconstruction of Recurrence: A Case Report of Multidisciplinary Surgical Management of a Locally Invasive Breast Cancer Recurrence Ailbhe Kenny (presenting)

Darragh Rice ,Katie Nolan ,Alan Soo,Carmel Malone,Gerard Kelly ,Alan Hussey
University Hospital Galway, Galway, Ireland

Introduction: Locally advanced breast tumours invading the chest wall pose significant surgical and reconstructive challenges. Achieving complete oncological clearance often requires en bloc resection of the breast, chest wall structures, and immediate reconstruction. Surgical management is complex due to prior surgery, radiotherapy induced tissue changes, and the need to balance radical resection with preservation of chest wall function and acceptable aesthetic outcome.
Case Presentation: A 67 year old female developed a left breast mass involving the anterior chest wall, at the site of previous wide local excision and radiotherapy for left breast Ductal Carcinoma In Situ, as well as a new contralateral invasive lobular carcinoma. She was started on neoadjuvant therapy, with the aim of reducing the tumour burden. At 8 months, there was minimal tumour regression. Multidisciplinary team re-evaluation confirmed the need for bilateral mastectomy with en bloc resection of involved ribs and diaphragm. Immediate reconstruction involved bovine pericardium patch diaphragm repair and rigid skeletal stabilisation with a Methyl Methacrylate Plate. A pedicled Latissimus Dorsi flap for soft tissue coverage was raised in the supine position, facilitated by the extent of chest wall exposure, avoiding the need for intraoperative repositioning. A split thickness skin graft from the left thigh achieved surface closure.
Conclusion: Although prognosis after chest wall recurrence is guarded, this case illustrates that radical chest wall resection with an extensive defect can be successfully reconstructed using a combination of prosthetic materials and a regional flap, even in previously irradiated fields. The pedicled Latissimus Dorsi flap is a reliable option for coverage, and this case highlights the technical advantage of flap harvest in the supine position in selected cases. Furthermore, it demonstrates that while neoadjuvant therapy is preferred in initially unresectable disease, failure of response should prompt reconsideration of surgical resection.

38. Fifteen-Year Experience of the National Paediatric Facial Palsy Service: Epidemiology, Surgical Strategies and Outcomes

Guillermo Vega ,Christoph Theopold,Dylan Murray
CHI - Temple Street Hospital, Dublin, Ireland

Introduction: Paediatric facial palsy represents a group of heterogeneous conditions requiring specialised, multidisciplinary care. The National Paediatric Facial Palsy service at CHI - Temple Street integrates surgery, physiotherapy, psychology, and clinical photography. We present a summary of epidemiology, treatment strategies and outcomes over the 15 years since the service inception.
Methods: A retrospective cohort study was conducted on all patients referred to the paediatric facial palsy service. Data collected included demographics, aetiology, age at presentation, and treatment. Clinical outcomes of surgical and non-surgical interventions were assessed using the Sunnybrook scale, functional recovery of modiolus excursion, and the need for further intervention. Representative cases illustrating good, average, and unsatisfactory results will be presented.
Results: A total of 134 patients have attended over a 15 year period, with a predominance of congenital facial palsy (n=97, 72%) over acquired causes (n=37, 28%). Most patients were referred early, 62% under 5 years of age. The service demonstrated a strong surgical focus, with 30 facial reanimation procedures performed. These included masseteric-to-facial nerve transfer, free gracilis functioning muscle transfer, and cross-facial nerve grafting. Botulinum toxin was used in 8 cases. Outcomes varied depending on aetiology and the degree of palsy. Age is found to be an important factor in the success of physiotherapy, and the ultimate utilisation of the reconstruction.
Conclusions: This study highlights the need for early referral to optimise intervention and outcome. Management philosophy depended on aetiology: in congenital cases, intervention is typically deferred until maturity to undergo reconstruction (free functional muscle transfer if complete palsy), while acquired cases warranted intervention within a year to prevent irreversible denervation and allow functional preservation of the existing facial musculature. The variability observed further highlights the need for individualised, multidisciplinary care. Given the low case volume, these findings support continued centralisation of expertise.

39.Trends in Practice and Predictors of Complications in Immediate and Two-Stage Implant-Based Breast Reconstruction: A Single-Centre Retrospective Study from 2019 – 2025

Dhruv Kapoor ,Rachel Hinds,Laura Neilan ,Ailbhe Kenny,Niall McInerney ,Alan Hussey
Máire-Caitlín Casey Department of Plastic & Reconstructive Surgery, University Hospital Galway, Galway, Ireland

Background
Approaches to alloplastic breast reconstruction continue to evolve. Various types of meshes are now available and the use of prepectoral plane has increased. This study aimed to evaluate short-term outcomes (<6 months) following direct-to-implant (DTI) and two-stage expander–implant reconstruction at University Hospital Galway between 2019 and 2025.
Methods
A retrospective review was conducted of all patients undergoing DTI or two-stage expander–implant reconstruction, with a minimum follow-up of 6 months. Primary outcomes included implant loss, infection, and wound complications requiring surgical intervention. Secondary outcomes were postoperative haematoma, length of hospital stay, and drain duration. Variables analysed included age, BMI, ASA grade, comorbidities, oncologic treatments, smoking status, scaffold use, mastectomy type/size, and reconstructive plane. Statistical analysis was performed using Fisher's exact test, point-biserial correlation, and univariable logistic regression.
Results
A total of 99 reconstructions were included: 86 DTI and 13 two-stage. In the DTI cohort, mean age was 45.7 years and 47.7% were bilateral. The subpectoral plane was used in 65.1% of cases overall; however, by 2025, 76% of reconstructions were prepectoral. Scaffolds were used in 91.9% of cases, predominantly ARTIA (81.4%).
Complication rates in the DTI group included implant loss (12.8%), infection (16.3%) and operative wound debridement (22.1%). The haematoma rate was 2.3%. Mean length of stay was 4.5 days, and mean drain duration was 12.1 days.
Active smoking was the strongest predictor of adverse outcomes, significantly associated with infection (OR 11.8, 95% CI 1.93–72.27, p=0.008), wound dehiscence (OR 13.3, 95% CI 2.72–43.61, p=0.005), and implant loss (OR 7.9, 95% CI 1.34–46.89, p=0.023).
Conclusions
Active smoking is the strongest predictor of complications following implant-based breast reconstruction. Practice has shifted towards DTI and prepectoral techniques. A national prospective audit is warranted to evaluate early and long-term outcomes.

40.Identifying Surgeon Ergonomic Vulnerabilities in Carpal Tunnel Surgery

Ben Griffin ,Stephanie Bollard ,Roisin Pollock ,Sylvia Marino,Roisin Dolan ,
University College Dublin, Dublin, Ireland

Aim: To assess and identify the ergonomic risks of surgeons performing Carpal Tunnel Release surgeries
Methods: Surgeon posture during open carpal tunnel release was recorded using the Xsens MVN Awinda system with 17 wireless IMU sensors. Motion data were processed in MVN Analyze to derive joint kinematics, and ergonomic risk was quantified using the Rapid Upper Limb Assessment (RULA). Each case was analyzed from incision to wound closure.
Results: N = 25, analysis demonstrated sustained non-neutral postures of the neck and trunk in the majority of cases. RULA scores indicated moderate to high ergonomic risk, with the neck frequently flexed >20° for prolonged durations. Trunk posture showed repeated forward inclination, contributing to elevated cumulative risk scores. The impact of maladaptive positioning on surgeon function was assessed using the Extended Nordic Musculoskeletal Questionnaire (NMQ-E), Neck Disability Index (NDI) questionnaire and Brief Resilience Scale (BRS).
Conclusion: Use of wearable motion capture identified consistent ergonomic strain on the neck and trunk during carpal tunnel surgery. These findings highlight the need for ergonomic interventions in hand surgery, including surgeon positioning, instrument design, and operating room setup, to reduce long-term musculoskeletal risk

41 "No Note, No Defense". Closing the Documentation Gap in Plastic Surgery, A Closed Loop Audit.

Rachel Hinds
,Dhruv Kapoor ,Jack Kelly
Department of Plastic & Reconstructive Surgery, University Hospital Galway, Galway, Ireland

Aims: Accurate clinical documentation is a cornerstone of patient safety and medico-legal accountability. This audit assessed compliance of plastic surgery inpatient clinical records at University Hospital Galway against Royal College of Surgeons in Ireland (RCSI, 1994) and General Medical Council (GMC, 2024) guidelines, and evaluated the impact of a structured educational intervention.
Methods: A prospective audit was conducted over two weeks (August 2025) using a 16-element validated checklist, assessing 163 expected clinical entries across 25 inpatients. Following identification of deficiencies, a four-component intervention was implemented comprising a formal presentation, educational session, departmental meeting, and written communication. A re-audit using identical methodology was subsequently performed.
Results: Thirty-nine entries (24%) were absent at baseline. Among 86 evaluable entries, mean compliance across all domains was 88.4%. The lowest-performing elements were documentation of time in 24-hour format (56%), diagnosis (69%), and identification of the most senior clinician (83%). Following intervention, compliance improved in 12 of 16 domains, with mean compliance rising to 94.6% — a 6.2 percentage point increase. The greatest gains were in author role (+18pp), diagnosis (+16pp), time in 24-hour format (+15pp), and senior clinician identification (+12pp).
Conclusions: A structured multi-modal educational intervention produced meaningful and measurable improvements in documentation compliance. In the context of the Patient Safety Act 2023 and evolving Irish and UK professional standards, these findings support embedding prospective documentation audits into departmental governance cycles, with particular attention to formal training at induction.

42 Optimising the Management of Pre-Tibial Lacerations Management in a Tertiary Setting: A Six-Year Retrospective Review

Simone Lesley Kneafsey,Stephanie Bollard ,Iulia Marinescu ,Jonathan Kearney ,Shu Chee Tomas O'Neill ,Roisin Dolan
Department of Plastic and Reconstructive Surgery, St. Vincent's University Hospital Dublin, Dublin, Ireland, UCD School of Medicine, University College Dublin, Dublin, Ireland

Background:
Pre-tibial lacerations in older adults are associated with significant morbidity, including delayed healing and prolonged hospitalisation. Care pathways remain inconsistent and referral to Plastic Surgery is variable. This study evaluates management patterns over six years and examines surgical outcomes in a subgroup using the Dunkin criteria, to identify deficiencies in current practice and inform a structured approach to triage and surgical management.

Methods:
A retrospective review of patients presenting with pre-tibial lacerations to St Vincent's University Hospital (2020–2025) was performed using Emergency Department, inpatient, and theatre records. A subgroup analysis was conducted on patients presenting in 2024–2025, where injury severity was assessed using the Dunkin classification. Outcomes included time to healing, mobilisation, and complication rates.

Results:
Over the six-year period, n=88 patients presented with pre-tibial lacerations, with a median age of 79.5. Seventy-three required admission and n=53 underwent surgery. Fifteen were managed in the Emergency Department with dressings (n=11) or primary closure (n=4). Non-operative patients were mainly admitted under medical teams (85%). Among surgical patients, admission was under Plastic Surgery (57%), Orthopaedics (28%), General Surgery (6%), and medical teams (9%). In the 2024–2025 subgroup, n=19 underwent surgery and were retrospectively classified. Median age was 78 and median Dunkin classification was 3. Higher-grade injuries were managed by Plastic Surgery [n=11], while grades 1–2 were managed by plastic surgery [n=2] or orthopaedics [n=6]. Median time to healing was 35.1 days, mobilisation 2.4 days, with complications in n=4 cases.

Discussion:
Dunkin grade predicts complexity and need for plastic surgery involvement in pre-tibial lacerations, yet referral remains inconsistent. These findings highlight a need to optimise management. This has informed an ongoing HSE Spark funded study examining ICG angiography in intraoperative debridement decision-making, alongside a structured referral pathway to accelerate healing and minimise morbidity outcomes.

43. An unusual source of hand infection: opening a can of worms?

Patrick O'Donohoe ,Odhran Shelley ,St James's Hospital, Dublin, Ireland, TCD Dublin

Hand infections are a common emergency treated by plastic surgeons. Herein we describe an unusual case of a palm infection.

A 52 year old male presented to the emergency department with a four day history of swelling and pain affecting the left volar palm. On examination there was a tender swelling at the base of the index finger with associated cellulitis and fluctuance, along with raised inflammatory markers. The patient had noted no significant preceding trauma to the hand. The patient had no significant past medical history and had emigrated to Ireland from India.

The patient was brought to theatre for washout of a suspected abscess under general anaesthetic. On incision there was found to be a firm subcutaneous mass, separate from both neurovascular bundles and the flexor sheath. The mass was carefully excised en bloc and sent for pathological examination. During laboratory review of the specimen, filarial worms were noted within the capsule of this mass- microscopic investigation confirmed these to be of the genus Dirofilaria. The patient was reviewed by the Infectious Diseases team who advised no further systemic treatment was required. The patient's hand healed well with no complications.

Dirofilariasis is an uncommon zoonotic infection in humans, with species of Dirofilaria normally infecting other mammals such as dogs. The larvae can be transmitted to humans via mosquito bite resulting in the development of cutaneous, ocular, and pulmonary lesions. As this organism is considered unable to reproduce in humans, surgical excision is generally considered sufficient treatment, with systemic use of anti-filarial drugs reserved for cases where excision is not possible or in other high risk cases. As plastic surgeons frequently see patients to diagnose and treat subcutaneous masses and infections, knowledge of unusual aetiologies is important to ensure suspected cases are managed appropriately.

44 Assessing the effectiveness of combined local anaesthetic with pre injection preparation of injection site with ethyl chloride (cryogesic ®) spray versus local anaesthetic alone in reducing pain during injection of local anaesthetic in plastic surgery

Chloe Spillane ,Eoin Creagh ,Roisin Baker ,Maria Murphy ,Angela Canas, Joseph Siby ,Jason Kelly , Plastic Surgery Department, Cork University Hospital, Cork, Ireland

Introduction: Local anaesthesia is widely used in minor plastic surgery procedures; however, injection-related pain remains a significant source of patient anxiety and discomfort. Vapocoolant sprays such as ethyl chloride (Cryogesic®) offer a rapid, non-invasive method of analgesia, but evidence supporting their use prior to local anaesthetic infiltration in plastic surgery is limited. This study aimed to evaluate whether the use of Cryogesic® prior to administration of local anaesthetic reduces perceived pain during injection compared with local anaesthetic alone

Methods: A prospective, pair-matched randomised controlled study was conducted in a tertiary plastic surgery unit. Adult patients undergoing elective minor procedures requiring at least two sites to be infiltrated with local anaesthetic at least 4cm apart but within the same operative field were included. Each participant received Cryogesic® with local anaesthetic (CLA) at one end of the lesion and local anaesthetic alone (LAA) at the other, in randomised order. Pain was assessed immediately after each injection using a Numeric Rating Scale (NRS). Statistical analysis was performed using non-parametric paired and unpaired tests.

Results: Thirty-two participants were included, yielding 64 pain scores. The median NRS score was significantly lower in the CLA group compared with the LAA group (4.5 vs 6; $p = 0.003$). Pain reduction with Cryogesic® was consistent regardless of injection order. Higher pain scores were observed for injections to the arm, lower leg, and chest, although anatomical comparisons were not sufficiently powered for statistical significance. No association was found between pain scores and lesion size, pathology, or injection order.

Conclusion: Cryogesic® is a simple, low-cost, and effective adjunct that significantly improves patient comfort during local anaesthetic injection in elective minor plastic surgery procedures.

45. A Review of the Care Needs of Patients With Syndromic Craniosynostosis and Their Families

Ellen Geary ,Riona Sparkes ,Emily O'Brien ,Shirley Bracken ,Noelle O'Mahony ,Dylan Murray,Craniofacial
Research Group, National Paediatric Craniofacial Centre, Children's Health Ireland at Temple Street, Dublin,
Ireland

Introduction
Syndromic craniosynostosis encompasses cases of premature fusion of cranial sutures in association with a pathogenic gene variant. Whilst clinical phenotypes are well characterised, quantitative data on the cumulative care needs imposed for patients is limited. The aim of this study is to determine complexity of care for patients with syndromic craniosynostosis managed at a national tertiary unit.
Methods
A single center retrospective review of all patients attending the National Paediatric Craniofacial Center at Children's Health Ireland was performed. Data was extracted from healthcare records and business intelligence reporting. Patients included were all cases with syndromic craniosynostosis who attended the service between 2016 - 2025.
Results
One hundred and twenty two patients (65 male, 57 female) were included. On average, each patient required 6.2 admissions (range 0–38), 6.4 procedures (0–53), 41 clinic visits (0–177), and input from 8 distinct specialties (0–22).
Patients with a named genetic syndrome (n = 77) demonstrated significantly greater care needs than those without a confirmed genetic diagnosis (n = 45). This was illustrated by mean admissions 7.8 vs 3.4, mean clinic attendances 52.3 vs 22.0 and mean number of specialties 9.4 vs 5.7.
Looking at individual syndromic groups, Apert syndrome carried the highest care needs across all metrics (mean 19.5 admissions, 97.1 clinic visits, 14.2 specialties per patient). Pfeiffer syndrome accounted for disproportionate inpatient needs, generating 2,560 cumulative bed days across only 8 patients (mean 320 bed days per patient) which may reflect increased medical complexity.
Conclusion
This study provides a quantification of cumulative care needs in a national syndromic craniosynostosis cohort spanning over two decades. These findings support the use of genetic diagnosis as a tool to aid in future service planning and resource allocation.

46. Sentinel lymph node biopsy in pT1b melanoma: Time to align practice with NICE 2022 guidelines? Yen Xian Lee ,Aoife Lally ,Jack Woods ,Roisin Dolan ,Tomas O'Neill
St Vincent's Hospital, Dublin, Ireland

BACKGROUND/AIM:
Sentinel lymph node biopsy (SLNB) provides staging information in melanoma but remains controversial in pT1b disease due to low positivity rates and procedure-related morbidity. We evaluated whether adopting NICE 2022 guidelines (ulceration, lymphovascular invasion, or mitotic index ≥2/mm²) would optimise SLNB utilisation compared with current nomogram-based practice.
METHODS:
A retrospective analysis of 81 patients with pT1b melanoma (2020-2025) was performed. SLNB utilisation in current practice, guided by Memorial Sloan Kettering (MSKCC) and Melanoma Institute Australia (MIA) nomograms, was compared with projected utilisation based on NICE criteria. Descriptive statistics, concordance and correlation analysis, and group comparisons were performed, with p-values reported.
RESULTS:
Current nomogram-based practice resulted in 67.9% SLNB utilisation, with no positive nodes identified (0/55). MSKCC and MIA demonstrated moderate correlation ($r=0.62$, $p<0.001$) but limited exact agreement (41%). NICE criteria identified 18 patients (22%) who had significantly higher predicted risk than non-eligible patients (MSKCC: 5.22±3.10 vs 3.47±1.63, $p=0.002$; MIA: 9.17±4.60 vs 6.75±3.36, $p=0.017$). Adoption of NICE criteria would reduce SLNB utilisation from 67.9% to 22% (~46% reduction; 37 procedures avoided). Recurrence-free survival was 96.3%, with no clear difference between MIA and NICE strategies. MSKCC did not capture any recurrence.
CONCLUSIONS:
Current practice demonstrates high SLNB utilisation with low diagnostic yield in pT1b melanoma. In this Irish cohort, international nomograms may overestimate SLN positivity. NICE criteria may enable selective SLNB, improving efficiency and resource utilization. These findings support guideline-led selection complemented by nomograms, while recognising limitations of a small sample size and the need for multicentre validation.

47. A Prospective Observational Cohort Study Determining the Effect of Perivascular Botulinum Toxin Injections for the Treatment of Post Traumatic Cold Intolerance

Jessica Lynch,Carissa Jacobs ,Anna Riemen ,Gary Masterton ,Paul McArthur
Whiston Hospital, Liverpool, United Kingdom

Aim: To determine whether perivascular botulinum toxin injections can improve the symptoms of post traumatic cold intolerance.
Material & Methods: Patients were referred by the hand trauma or hand therapy teams to a cold intolerance clinic if they reported symptoms. The patients were seen at an initial appointment, 3-4 weeks and 3months post injection. 28 patients received perivascular injections, comprising 20 units to each artery affected. The McCabe Cold-Sensitivity Severity Scale (CSSS) were completed at each appointment. Parametric and non-parametric data was analysed using the paired t-test and the Wilcoxon signed rank test respectively.
Results: 22(75%) patients attended follow up. There were statistically significant improvements in patients' CSSS scores (p=0.0118) and the perception of weakness of their injured hands (p=0.0008) at 3-4 weeks follow up . 81% of patients said they would recommend the treatment to a friend with a similar problem, the remaining 19% said they were unsure, and 0% of patients said they would not recommend the treatment.
Conclusions: Perivascular botulinum injections can improve the symptoms of cold intolerance. Further research is needed to determine the timing of the injections and the number of treatments required.

48. Evaluating the Impact of Wound Colonisation on Reconstructive Success FollowingNovoSorb® BTM Reconstruction: A Single Centre Retrospective Cohort Study Laoise Kenny ,Jean Paul Coetser ,Nauar Knightly

,Aoife Feeley ,Andrew Diver ,
St. Vincents University Hospital, Dublin, Ireland

Background:
NovoSorb® biodegradable temporising matrix (BTM) has transformed the management of complex wounds, enabling staged reconstruction in colonised and high-risk environments. However, the clinical significance of wound colonisation remains unclear. This study aims to determine whether microbiological profiles in tissue beds influence reconstructive success.
Methods:
A retrospective cohort study of patients undergoing BTM reconstruction at a single centre between 2020 and 2026 was performed. Microbiological data (pre- and post-BTM placement), including organism type, antimicrobial sensitivity/resistance, wound aetiology and reconstructive outcomes were analysed. Primary endpoints were BTM integration and skin graft take.
Results:
Sixty-two cases were included (58% elective, 42% trauma). BTM integration was achieved in 79% of cases, demonstrating high reliability across diverse wound types. Microbiological sampling revealed a high burden of colonisation, with 95% positive cultures pre-BTM placement. The predominant organisms were Staphylococcus aureus (38.9%), Pseudomonas aeruginosa (22.2%), and mixed Gram-negative species. S. aureus isolates were typically sensitive to flucloxacillin/methicillin and tetracyclines, while Gram-negative organisms showed variable sensitivity to co-amoxiclav, ciprofloxacin, and piperacillin- tazobactam, with a high burden of resistance to frequently prescribed antibiotics. Skin grafting was performed in 74.2% of cases, with successful graft take in 87%. Notably, most colonised wounds progressed to successful grafting (81.8%), highlighting the resilience of BTM in colonised fields. Graft failure (13%) was significantly associated with Pseudomonas aeruginosa colonisation, however this result was not statistically significant (p=0.06). The presence of resistant organisms alone did not reliably predict poor outcomes.
Conclusion:
BTM demonstrates high rates of integration and graft success despite a high prevalence of wound colonisation. While colonisation alone is not predictive of failure, the presence of specific pathogens, including Pseudomonas aeruginosa, may compromise outcomes. Early wound assessment with microbiological profiling can help stratify the use of BTM and advance reconstructive precision in complex wound care.

49 Immediate Lymphatic Reconstruction for Primary Prevention of Upper-Extremity Lymphedema After Axillary Dissection: A National Experience

Shu Ying Chee ,Simone Kneafsey ,Michael Boland ,Jack Woods
St Vincent's University Hospital, Dublin, Ireland

Background

Lymphedema following axillary lymph node dissection (ALND) is a significant source of morbidity, affecting 20–45% of cancer patients and impairing quality of life (1). Immediate lymphatic reconstruction (ILR), also termed the Lymphatic Microsurgical Preventive Healing Approach (LYMPHA), is a microsurgical technique performed at the time of ALND to reduce the risk of secondary lymphedema (2). Our centre is currently the only unit offering ILR for primary prevention of breast cancer- and melanoma-related lymphedema in the Republic of Ireland. We present our early institutional experience.

Methods

We conducted a single-centre retrospective review of all patients undergoing ALND with concurrent ILR between April 2024 and January 2026. Eighteen axillary dissections were performed in 18 patients (17 breast cancer, 1 melanoma). The predominant technique was Boccardo/Campisi intussusception lymphovenous anastomosis into the lateral thoracic or accessory veins. Outcomes were assessed using serial limb circumference measurements, bioimpedance spectroscopy (L-Dex), and LYMPH-Q patient-reported outcome measures at baseline and at 3, 6, and 12 months postoperatively.

Results

Median age was 47 years with a median BMI of 27.3 kg/m². The mean number of lymph nodes removed was 20 (range 9–44), with a mean of five positive nodes. Twelve breast cancer patients (70%) received adjuvant chemotherapy and 15 (88%) received adjuvant radiotherapy. A median of three lymphovenous anastomoses were performed per axilla (range 1–5). At a median follow-up of 9.9 months, no patient (0/18) developed clinical lymphedema. LYMPH-Q scores demonstrated stable symptoms, function, appearance, and psychological well-being. Bioimpedance identified one transient L-Dex elevation that subsequently normalised. Arm circumference measurements remained comparable bilaterally throughout follow-up.

Conclusion

ILR is a safe and effective procedure for primary prevention of upper-limb lymphedema following ALND. This early Irish experience demonstrates favourable outcomes and supports integration of ILR into oncological surgical pathways.

50. Necrotising fasciitis at SVUH: A retrospective case review comparing clinical suspicion with microbiologically confirmed diagnosis in the pre- and post-Covid era. Jean Paul Coetser ,Aoife Feeley ,Ellen Davis ,Eoin Feeney
,Tomás O'Neill
St. Vincent's University Hospital, Department of Plastic Surgery, Dublin, Ireland

Background: Necrotising fasciitis (NF) is a rapidly progressive soft-tissue infection associated with high morbidity and mortality. Evidence regarding evolving microbiological patterns involved in the development of NF have been reported in the post-COVID era, with a predominance of monomicrobial pathogens. The impact of this on clinical presentations and subsequent management are unknown. This study reviews NF cases across the pre-, intra- and post-COVID eras at a tertiary referral centre, assessing diagnostic accuracy and microbiological patterns.

Methods: A retrospective review of cases coded as NF from 2016–2025 was performed using three institutional datasets, pulled from the Hospital In-Patient Enquiry (HIPE). Data collected included clinical suspicion of NF, histological confirmation, and microbiological profiles.

Results: Forty-two cases were analysed. Histological confirmation occurred in 45% (19/42). No culture-negative NF was identified. Microbiological evaluation demonstrated a predominance of polymicrobial infection (26/42; 62%), while monomicrobial cases represented 29% (12/42). Incidence per month of NF was lower during pre- and COVID periods, with increased rates post-COVID (0.35, 0.26 vs 0.42 cases per month). The positive predictive value of clinical suspicion relative to histological confirmation was 45%.

Conclusions: Across all three periods, clinicians consistently suspected NF at presentation, underscoring the high-risk clinical context in which these cases arise. Early surgical intervention remains critical. Histological confirmation remained below 50%, reflecting known diagnostic challenges.
Persistence of polymicrobial pathogens in the Irish population was found, in contrast to international reports. Larger multicentre studies are needed to clarify pandemic impacts on NF epidemiology in Ireland and inform targeted intervention.

51. Cost-effectiveness of a CP-GEP (Merlin)–guided strategy for sentinel lymph node biopsy in cutaneous melanoma: an Irish population-based analysis

Clara Doran ,Natasha Christodoulides ,Shirley Potter
St. James's Hospital, Dublin, Ireland

Background

Sentinel lymph node biopsy (SLNB) is the standard staging investigation for clinically node-negative cutaneous melanoma; however, up to 85% of procedures are negative, exposing patients to unnecessary surgery, morbidity, and costs. The Merlin (clinicopathologic–gene expression profile (CP-GEP) assay integrates tumour biology with traditional risk factors to identify patients at low risk of nodal metastasis. It is likely to enter clinical practice. We therefore evaluated the cost-effectiveness of a Merlin-guided SLNB strategy within the Irish healthcare system.

Methods

We conducted a multicentre retrospective cohort study using linked National Cancer Registry of Ireland (NCRI), pathology, surgical, and hospital-costing datasets. Patients with clinically node-negative melanoma (predominantly pT1b–pT2a) eligible for SLNB were included. A decision-analytic model (Markov transition states) compared standard SLNB decision-making with a Merlin-guided strategy, in which SLNB is omitted in patients classified as low risk. Analyses were performed from the Irish public payer (HSE) perspective over a lifetime horizon. Outcomes included SLNB utilisation, downstream healthcare costs, recurrence, survival, and quality-adjusted life years (QALYs). Cost-effectiveness was expressed as incremental cost-effectiveness ratios (ICERs; €/QALY), with deterministic and probabilistic sensitivity analyses.

Results

Model-based estimates demonstrate that Merlin-guided strategy reduces SLNB utilisation, particularly in early-stage melanoma. Avoidance of surgery and SLNB-related morbidity reduces per-patient costs. At a population level, this translates into meaningful cost savings while maintaining acceptable oncologic outcomes. The strategy is expected to be cost-effective at the accepted Irish willingness-to-pay threshold, with results across sensitivity analyses.

Conclusion

This study provides the first Irish real-world cost-effectiveness evaluation of genomic risk stratification in melanoma. A Merlin-guided SLNB strategy represents a cost-effective approach to melanoma staging, reducing unnecessary surgery while optimising resource utilisation within the Irish healthcare system. These findings support integration of genomic risk stratification into melanoma care pathways and provide an evidence base for prospective implementation.

52. Reconstructive options following failed replantation of degloving digit injuries, a narrative review.**Thomas Russell** ,Ellen Geary ,Paddy Daly ,Kevin Cahill
Beaumont Hospital, Dublin, Ireland

Background.
Ring avulsion injuries occur when sudden longitudinal traction is applied to a digit, resulting in complete or partial degloving of the soft tissue envelope from the underlying osteotendinous skeleton. Urbaniak Class III injuries, characterised by complete circumferential degloving or amputation, represent the most severe subtype. While recent microsurgical advances have improved replantation success rates to approximately 80%, there remain numerous clinical scenarios in which replantation is impossible or fails, including delayed presentation, patient preference, and a lost or unsalvageable amputate. Numerous salvage techniques have been described, however, no consensus exists as to the optimal approach. This narrative review synthesises the existing evidence to guide clinical practice.

Methods.
A comprehensive search of PubMed, EMBASE, and MEDLINE was performed. Studies describing resurfacing techniques for Urbaniak Class III degloved digits where replantation was not attempted or had failed were identified, categorised by reconstructive technique, and analysed with respect to functional outcomes, sensory recovery, donor-site morbidity, and operative complexity.

Results.
Owing to the rarity of these injuries, the literature primarily comprises small single-centre case series and reports. Limited case numbers and heterogeneity of outcome measures preclude comparative analysis between techniques. The ideal soft tissue reconstruction is sensate, preserves finger length, and is thin and pliable enough to maintain range of motion yet sufficiently durable to withstand daily use. Four broad therapeutic strategies were identified: pedicled groin flaps, local or regional pedicled flaps, free tissue transfer, and dermal substitute application. Terminalisation and ray amputation represent additional definitive options where reconstruction is not feasible. The merits, limitations, and reported outcomes of each strategy are discussed.

Conclusions.
Reconstruction of the Urbaniak Class III degloved finger requires individualised decision-making informed by injury characteristics, patient factors, and institutional capacity. This review highlights a significant evidence gap and the need for future prospective studies.

53.The Weekend Effect: A Hidden Cause of Delay in Acute Hand Trauma Surgery at University Hospital Galway,

Laura Neilan ,Adeline Foo ,Kenneth Joyce ,Jack Kelly
University Hospital Galway, Galway, Ireland

Introduction:
Timely surgical intervention in acute hand trauma is essential to optimise functional outcomes and minimise complications. The British Society for Surgery of the Hand (BSSH) provides evidence-based time-to-theatre guidelines; however, compliance is often influenced by institutional factors such as theatre availability.

Aim:
To evaluate compliance with BSSH time-to-theatre standards at University Hospital Galway (UHG) and identify system-level factors contributing to delay.

Methods:
A retrospective observational audit of 100 patients presenting with acute hand trauma between September and December 2025 was performed. Data were collected from Doctolib Silo and Evolve - electronic hospital systems and analysed against BSSH standards. Hand Injuries included revascularisation/replantation, Open fractures, Flexor Sheath infections, Tendon and Nerve injuries, Animal and human bites.
Compliance was assessed against BSSH standards:

- ≤24 hours: revascularisation/replantation, flexor sheath infection, open fractures, human/animal bites
- ≤4 days: tendon and nerve injuries

Variables included injury type, time from injury and presentation to theatre time, anaesthetic type, and documented reasons for delay. Simple hand traumas such as abscess, tuft fractures, washouts and nailbed injuries were excluded.

Results:
Overall compliance with BSSH guidelines was 86%, with 14% of cases delayed. Most procedures were performed within one day of injury (61%), with 5% performed on the same day. The primary cause of delay was limited theatre access, particularly over weekends (50%), followed by late presentation (36%). Delays were more frequent in cases requiring regional or general anaesthesia (18%) compared to local anaesthetic (8%).

Conclusion:
While overall compliance with BSSH standards was high, a significant and modifiable systems delay exists in the management of weekend local anaesthetic cases. Reintroduction of a weekend minor operations service is currently being evaluated as a targeted intervention to improve compliance, reduce delays, and optimise patient flow and resource utilisation at University Hospital Galway.

54.Optimising Surgeon Ergonomics During Microsurgery: Evaluating Whole-Body Posturing Using the MovellaTM Motion Sensor System

Iulia Marinescu ,Stephanie Bollard ,Laoise Kenny ,Ben Griffin ,Colin Morrison,Jack Woods , Linda Abdul Jalil
,Andrew Diver ,Tomas O'Neill ,Barry O'Sullivan,Roisin T. Dolan ,
Beaumont Hospital, Dublin, Ireland, St. Vincent's University Hospital, Dublin, Ireland
UCD School of Medicine & Medical Sciences, Dublin, Ireland

Background: Work-related musculoskeletal disorders are highly prevalent among surgeons, yet objective, procedure-level evidence of intraoperative postural strain remains limited. Deep inferior epigastric perforator (DIEP) breast reconstruction is particularly demanding, requiring prolonged static, high-precision work. To address this gap, we conducted an innovative intraoperative study using continuous whole-body kinematic monitoring and compared exposure against International Organization for Standardization (ISO) static-posture thresholds.
Methods: In a prospective observational study at a tertiary plastic surgery unit, microsurgeons wore Movella™ inertial motion-capture sensors during repeated DIEP procedures. Two operative phases were analysed: flap raise and microanastomosis. Metrics included the proportion of time spent in ISO-defined neutral, awkward, and severe zones for head/neck and trunk; longest uninterrupted static-hold duration; and Rapid Upper Limb Assessment (RULA) scores (1-7) as an independent ergonomic risk measure. Participants completed questionnaires assessing the feasibility of using this monitoring system intraoperatively.
Results: Data was obtained from four participating surgeons across 20 DIEP procedures. During flap raise, surgeons spent 69.2% of operative time in awkward trunk flexion (severe 5.0%), 68.1% in awkward head inclination (severe 17.8%), and 18.0% in awkward neck flexion (severe 0.5%). Static holds were maintained for 1,115s (trunk), 920s (head) and 206s (neck). Mean RULA score was 5 ± 0.55. During microanastomosis, head inclination was awkward 52.6% of the time (severe 13.5%), neck flexion 28.5% (severe 9.2%), and trunk flexion 25.2% (severe 9.5%), with static holds up to 1,959s (head) and 2,106s (neck) and a mean RULA score of 4.4 ± 0.89. All participants agreed that the system is useful for assessing surgeon posture without interfering with workflow.
Conclusions: This continuous motion-capture analysis shows that microsurgeons routinely exceed ISO static-posture thresholds during both phases of DIEP reconstruction. Intraoperative ergonomic monitoring is feasible and yields high-resolution insight into postural risk, supporting targeted training and theatre-ergonomics optimisation.

55. Lower Limb Necrotising Fasciitis in England: A 20-Year National Analysis

David Carolan(Presenting) ,Conor Hennessy ,Robert Browne, Simon Abram ,Justin Wormald ,Roisin Dolan , Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, Oxford, United Kingdom, Royal College of Surgeons in Ireland, Dublin, Ireland
St Vincents University Hospital, Dublin, Ireland

Aim:
Necrotising fasciitis is a surgical emergency, characterised by fulminant infection of the superficial fascia, with progression to systemic toxicity, septic shock and death if not addressed expediently. Treatment involves resuscitation, urgent surgical debridement and broad spectrum antimicrobials. The lower limb is the most commonly affected site. This study reports the epidemiology of lower limb necrotising fasciitis in England, over a 20 year period.

Methods:
This retrospective population-based cohort study analysed 2002-2022 Hospital Episode Statistics data on lower limb necrotising fasciitis in England. Patients were identified using international classification of diseases, version 10 (ICD-10) and Office of Population Censuses and Surveys Classification of Interventions and Procedures, version 4 (OPCS-4) codes. Demographic data, comorbidities, outcomes, and deprivation indices were assessed, enabling population-level analysis of admissions, complications, and mortality over two decades.

Results:
Between 2002 and 2022, 2512 people were diagnosed with lower limb necrotising fasciitis. The incidence increased seven-fold, ranging from 0.1 to 0.7 per 10,000 population, with the majority of cases diagnosed in patients over age 40. Over one third of cases occurred in patients from the most socially deprived quintile of society. Fifty-five percent of patients had severe concomitant comorbidities at diagnosis. Diagnosis of lower limb necrotising fasciitis was associated with significant morbidity. Over 17% required limb amputation. Thirty day mortality was 13%, rising to 17% at 90 days. Twenty-four percent of the cohort died one year after diagnosis.

Conclusions:
The incidence of necrotising fasciitis appears to be increasing. This may coincide with improved reporting, establishment of registry databases or an ageing population. Mortality remains high, with 24% mortality at 1 year. Social deprivation is a significant risk factor. Urgent public health measures are required to address health inequities and improve patient outcomes.

56. High-Volume Lipofilling & Extended Fat Harvest in Fat-Augmented Latissimus Dorsi (FALD) Breast Reconstructio: A Modern Autologous Strategy with Satisfactory aesthetic Outcomes

Shane Cullen (Presenting),Nicola McShane ,Carmen Torre-Beltrami , St. James's Hospital, Dublin 8, Ireland

Background:

The latissimus dorsi (LD) flap remains a reliable option in breast reconstruction but is traditionally limited by insufficient volume, often necessitating implant augmentation. The evolution of fat-augmented latissimus dorsi (FALD) and latissimus dorsi with immediate fat transfer (LIFT) techniques has enabled fully autologous reconstruction while avoiding implant-related morbidity. However, achieving consistent volume remains a key challenge. This study describes a modified approach combining high-volume lipofilling with extended, systematic fat harvest during flap dissection to maximise autologous volume.

Methods:

A retrospective series of five patients undergoing breast reconstruction using LD flap with high-volume lipofilling was performed. All patients were unsuitable for DIEP reconstruction. In addition to immediate fat grafting, our technique incorporates extended harvest of adjacent adipose tissue and surrounding anatomical fat pads during flap elevation. This approach aims to increase intrinsic flap volume prior to lipofilling. Outcomes assessed included fat graft volumes, complications, secondary revision procedures and aesthetic outcomes. Operative images and videos are presented to demonstrate technical detail.

Results:

No major flap complications were observed in this case series. There were two cases of recurrent donor site seroma and one case of delayed wound healing primarily related to mastectomy skin flaps. Fat graft volumes ranged from 80cc to 380cc during immediate transfer. Three cases have had two further revision surgeries, while two cases required only one. All patient outcomes for volume, shape and contour were rated as good or higher on the global aesthetic scale by independent assessors.

Discussion

The combination of extended fat harvest and high-volume lipofilling represents a reproducible evolution of the LD flap, enhancing volume in a predictable manner while maintaining a fully autologous approach. This technique broadens the applicability of FALD reconstruction, particularly in patients unsuitable for microsurgical options, and offers a compelling alternative within the reconstructive algorithm

57. Establishing a National Service Model for Paediatric Ear Care in Ireland

Aoife Feeley (Presenting) Ken Stewart ,CHI Crumlin, Dublin, Ireland, NHS Scotland

Background

Congenital ear anomalies including microtia and constricted ear are relatively common, often occurring in association with syndromes such as Treacher-Collins, Goldenhar, and craniofacial microsomia. These conditions affect ear position, size, morphology, and may require reconstruction either implant based or staged autologous delivered by a specialised multidisciplinary team, including Plastic Surgery, Otology, and Audiology. Establishing a resilient model of service for ear and ear reconstruction is critical to standard patient care pathways and optimise patient outcomes.

Methods

A national service model was developed with input from key stakeholders, including plastic surgeons, audiologists, nursing staff, and patient representatives. Gaps in access, referral pathways, waiting lists, and surgical capacity were identified. A designated centre of excellence was established in April 2024, providing surgical, audiological, and follow-up care. Standardised referral criteria and clinical pathways were implemented, and service activity was prospectively evaluated.

Results

Integration of the service re-established referral pathways, and provided access to specialist care. A hub-and-spoke model increased surgical capacity and enhanced access to Clinical Nurse Specialist follow-up. Since its introduction, 128 new patients have been reviewed by the service, with 34 patients undergoing surgical intervention across two sites. Most frequent operations consisted of microtia (n:12, bilateral n:1), bilateral constricted ears (n:5), bilateral prominent ears (n:3), and cryptotia (n:2, bilateral n:2). Ten patients have undergone second stage surgery for microtia (n:7), cryptotia (n:2), and constricted ear (n:1). Complications have been infrequently reported, two had cartilage exposed, one was managed conservatively and one required return to theatre for repair.

Conclusion

The establishment of a national model of service for ear reconstruction is feasible, enhancing quality of care for this patient population. Ongoing evaluation, including long-term referral and surgical pathways in addition to patient reported outcomes, is required to ensure patient care is optimised.

58. Establishing an Adult Vascular Anomalies Clinic Clara Doran (Presenting)

Marlese Dempsey ,Catherine de Blacam
St. James's Hospital, Dublin, Ireland

Introduction

Paediatric patients with vascular anomalies are managed at Children's Health Ireland (CHI), but on transition to adulthood, no equivalent dedicated services exist. With advances in paediatric diagnosis and treatment, increasing numbers of patients with congenital vascular anomalies are surviving into adulthood with complex, ongoing needs. Currently, these patients are managed across multiple specialities without coordinated oversight, resulting in fragmented care, poor continuity, delayed interventions, and significant patient distress.

Aim

To establish a dedicated Adult Vascular Anomalies (AVA) Clinic within St. James's Hospital, delivering a structured, multidisciplinary service for adults living with complex vascular anomalies.

Methods and Results

A pilot AVA clinic was established in 2022 and continues to run, averaging 5 clinics per year. The service is staffed by two plastic surgeons and one interventional radiologist. Between 2022 and 2025, 85 new patients were assessed. The most common anomaly subtype was venous (53%), followed by arterio-venous (14%), lymphatic (7%), lympho-venous (5%), and fibro-adipose vascular anomalies (FAVA, 5%). Anatomically, the head and neck was the most frequent site (34%), followed by the lower limb (30%), upper limb (17%), and diffuse malformations (14%). Over half of patients (54%) underwent at least one interventional radiology procedure. Additional treatments included surgery (15%), laser therapy (14%), and medical therapy, including lenalidomide (3%).

Conclusion

The AVA clinic has enabled a structured transition from paediatric to adult services, improving continuity of care. It has enhanced diagnostic accuracy, reduced unnecessary interventions, and facilitated access to emerging medical therapies. The high proportion of head and neck lesions highlights the importance of specialist multidisciplinary input, supporting the need for a formalised national adult vascular anomalies service.

59. Should we still replace the nail? Evidence against routine splinting after nailbed repair
Clara Doran (Presenting) St. James's Hospital, Dublin, Ireland

Objective
Nail plate replacement following nailbed repair is widely performed to splint the eponychial fold and improve nail growth. However, potential increases in infection risk, morbidity and clinic utilisation remain concerns. We evaluated whether routine nail replacement provides meaningful clinical benefit.
Methods
A structured synthesis of comparative studies assessing nail plate replacement versus discard or non-operative management following nailbed injury was performed using PubMed and citation chaining. Primary outcomes were early surgical site infection and cosmetic appearance. Secondary outcomes included complications, follow-up burden and functional outcome. Randomised and comparative observational studies in paediatric and adult populations were included.
Results
Six comparative studies, including 689 patients, were analysed, comprising two paediatric randomised trials, two paediatric comparative studies, one adult randomised study and one adult cohort. In the multicentre paediatric randomised trial (n=451), infection was uncommon and not significantly different (2.2% replacement vs 0.9% discard), with equivalent cosmetic scores. A paediatric cohort demonstrated higher complication rates with replacement (17.6% vs 5%) and increased clinic visits. Adult studies showed no meaningful differences in pain, function or cosmesis, and non-operative management did not increase nail deformity risk. Across studies, replacement showed no consistent benefit and trended toward higher treatment burden.
Conclusion
Current comparative evidence does not support routine nail plate replacement following nail bed repair. Cosmetic and functional outcomes are equivalent, while complications and healthcare utilisation may increase. A selective rather than routine replacement strategy is justified and supports standardisation of hand trauma care pathways.

60. Dural Tear Outcomes in Paediatric Craniofacial Surgery: A Comparative Evaluation of Piezoelectric bone cutting saws and Conventional Bone-Cutting Techniques

Maiss Jassim (Presenting) Claire Stenson ,Dylan Murray, Mater Misercordiae university hospital, Dublin, Ireland

Background:
Craniofacial surgery for craniosynostosis requires precise osteotomies performed in close proximity to the dura, with dural tears representing a recognised source of morbidity, including cerebrospinal fluid leak, infection, and reoperation. Conventional techniques such as craniotomes and high-speed drills are effective but may increase the risk of soft tissue injury, particularly in areas of dense dural adherence. Piezoelectric surgery (piezosurgery) has emerged as an alternative modality that selectively cuts mineralised tissue while sparing soft structures. However, comparative clinical evidence regarding its impact on dural injury remains limited.

Aim:
To evaluate the relationship between bone-cutting modality and dural tear occurrence in craniofacial surgery, supported by a focused review of the literature.

Methods:
A structured narrative review was conducted of studies reporting dural outcomes associated with piezosurgery and ultrasonic bone-cutting devices in cranial and paediatric neurosurgery. This was combined with an institutional analysis comparing dural tear rates between piezoelectric devices and conventional craniotomes across common craniofacial procedures.

Results:
The literature suggests that piezosurgery is associated with improved dural safety, with tears typically smaller, more controlled, and easier to repair, and with fewer clinically significant sequelae. Paediatric and craniosynostosis studies demonstrate no increase in dural tear rates compared with conventional techniques, despite challenging anatomical conditions. However, dural tears are not eliminated and remain influenced by surgical complexity and anatomical constraints. Experimental data support a mechanistic basis for soft tissue preservation. A consistent limitation is increased operative time associated with piezosurgery.

Conclusion:
Piezosurgery is a valuable dura-sparing adjunct in craniofacial surgery, reducing the severity and impact of dural injury rather than its incidence. Further prospective comparative studies are required to better define its role in clinical practice.

61. Early Stakeholder Engagement as a Determinant of Uptake in Translational Surgical Innovation: Insights from the SENTINEL Study Omar Quidwai (Presenting) omar.quidwai@ucd.ie,Laoise Kenny ,Stephanie Bollard ,Fiona Hand ,John Hammond ,Emir Hoti ,Zita Galvin , Audrey Dillon, Masood Iqbal,Andrew Malone,Aurelie Fabre,Ponsawan Netcharoensirisuk ,Adam Byrne,Cormac McCarthy,Helen Heneghan ,Alistair Nichol, Henk Giele, Peter Doran, Omar El Sherif ,Roisin Dolan
Department of Transplant Surgery, Critical Care Medicine and Anaesthesiology, UCD School of Medicine & Medical Sciences, Dublin, Ireland, Clinical Research Centre, Department of Plastic and Reconstructive Surgery, Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom, Department of Pathology, St Vincent's University Hospital, Dublin, Ireland,Department of Transplant Hepatology, St Vincent's University Hospital, Dublin, Ireland
Department of Plastic & Reconstructive Surgery, St Vincent's University Hospital, Dublin, IrelandUCD School of
Medicine & Medical Sciences, Dublin, Ireland

Background
Stakeholder engagement is recognised as essential to translational research. Yet its practical implementation in early-phase, hypothesis-generating work where governance complexity, and cross-disciplinary coordination are high, remains poorly understood. The SENTINEL Study, investigating the Sentinel Skin Flap as a plastic surgery–led approach to early rejection surveillance in solid organ transplantation, provided a setting for a mixed-methods evaluation of what influences healthcare staff willingness to engage in innovative translational research.
Methods
A cross-sectional anonymous survey was distributed to clinical and non-clinical stakeholders at the National Organ Donation Transplant Ireland services and St Vincent's University Hospital. The survey captured perceived barriers, and preferred enablers. Semi-structured interviews were conducted to further explore identified domains, and thematic analysis was performed.
Results
Preliminary results (n=60) from multidisciplinary cohort including consultant clinicians, nursing and allied health staff, laboratory and pathology personnel, and operational non-clinical stakeholders including bed management and senior executive services.
Reputational and social concerns were low, with most respondents reporting minimal concern regarding peer perception or research uncertainty. In contrast, legal and indemnity uncertainty emerged as the dominant barrier, with 56% reporting moderate or significant concern. A lack of confidence in institutional support was also evident, with 34% indicating concern about organisational backing if complications arose.
Operational impact was not perceived as a major limitation, with 81% anticipating no or minor effect on clinical workload. Peer participation was a key enabler, with 61% reporting they would be strongly influenced by other departments engaging in research. Preferred supports included protected staff time (67%), authorship (56%), training opportunities (44%), and formal recognition (44%).
Conclusion
Barriers appear predominantly structural rather than individual, centred on legal clarity and institutional support. Addressing these factors, alongside fostering visible early adopter participation, may enhance enrolment, implementation fidelity, and overall success of early phase surgical research.

62. Patient-Led Rejection Surveillance in Transplantation Using a Sentinel Skin Flap: A National Cross-Sectional Acceptability Study Omar Quidwai (Presenting) ,

Grace Buckley ,Linda Kelly,Stephanie Bollard ,Fiona Hand Emir Hoti Zita Galvin,Audrey Dillon , Masood Iqbal ,Andrew Malone,Ponsawan Netcharoensirisuk ,Adam Byrne ,Cormac McCarthy, Helen Heneghan
,Alistair Nichol ,Henk Giele ,Peter Doran ,Omar El Sherif ,Roisin DolanDepartment of Transplant Surgery, Critical Care Medicine and Anaesthesiology, UCD School of Medicine & Medical Sciences, Dublin, Ireland, Clinical Research Centre, Department of Plastic and Reconstructive Surgery, Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom, Department of Pathology, St Vincent's University Hospital, Dublin, Ireland,Department of Transplant Hepatology, St Vincent's University Hospital, Dublin, Ireland
Department of Plastic & Reconstructive Surgery, St Vincent's University Hospital, Dublin, IrelandUCD School of
Medicine & Medical Sciences, Dublin, Ireland

Background:
Invasive protocol biopsy remains the diagnostic gold standard for rejection surveillance after liver transplantation, despite procedural risks and the lack of reliable early predictive biomarkers. Co-transplanted sentinel skin flaps (SSF) have been proposed as a visible, minimally invasive adjunct; however, acceptability data in liver recipients and simultaneous pancreas-kidney (SPK) recipient populations are lacking.
Methods:
We conducted a cross-sectional acceptability study of 100 liver transplant candidates and recipients at a national transplant centre, with a convenience sample of 22 SPK candidates and recipients for exploratory comparison. Following a standardised explanation of SSF, participants rated willingness, perceived benefits, concerns, and confidence in self-monitoring using five-point Likert scales. Exploratory factor analysis (EFA) identified attitudinal domains, and free-text responses underwent thematic analysis.
Results:
Acceptability was high among liver participants, with 89% reporting definite or likely willingness to adopt SSF. Reassurance (93%), empowerment (84%), and confidence in self-monitoring (91%) were key drivers. Cosmetic (29%) and social stigma (19%) concerns were common but did not substantially reduce willingness, with 76–93% of concerned participants remaining willing. EFA identified three domains: perceived benefit and reassurance, acceptance and willingness, and confidence in self-monitoring. Cosmetic concern was the only independent predictor of reduced willingness ($\beta = -0.65$, $p = 0.004$). Thematic analysis confirmed reassurance and early detection as dominant themes, with visibility and body image as key concerns. In the SPK cohort, comparable acceptability was observed, with candidates reporting greater anticipated benefit than recipients.
Conclusions:
Liver transplant candidates and recipients demonstrate high acceptability of forearm SSF monitoring, with cosmetic concern as the primary modifiable barrier. SPK findings support comparable acceptability and warrant evaluation in larger cohorts. These data support progression to early-phase feasibility studies, with pre-operative counselling addressing cosmetic and visibility concerns.

63. The Orthoplastic Gap: A National Survey on the Management of Open Fractures and Systemic Barriers to Collaborative Care in Ireland Paul O'Donovan (Presenting) Paul McCarroll ,Kevin McSorley Christine Quinlan
,University Hospital Waterford, Waterford, Ireland Mater Misericordia University Hospital, Dublin, Ireland UCD

Purpose: International guidelines emphasize early orthoplastic collaboration to prevent bone infection and optimize outcomes in complex open fractures. This study evaluates guideline adherence, clinical practices, and systemic barriers across the Irish trauma network.
Methods: A national cross-sectional survey was distributed to Irish orthopaedic and plastic surgery consultants and trainees, yielding 118 consenting participants.
Results: Although 61.9% of respondents routinely using BOAST standards, infrastructural and clinical deficits are profound. Adherence to acute protocols is low, with 17% reporting that ED wound photography is always performed. Structurally, 62.9% say their hospital lacks a formal orthoplastic pathway. The majority, 78.4%, state orthopaedics alone lead primary debridement, with only 22.7% noting a consultant is always present. Furthermore, only 14.4% report open fractures are always prioritized first on operating lists.
A significant clinical-structural disconnect exists regarding fracture severity. The majority, 81.7%, believe GA2 injuries require orthoplastic care. Yet, 64.8% report GA2 fractures do not actually receive orthoplastic care in practice. Simultaneous definitive fixation and soft-tissue coverage is rare, 11.7%. Post-operatively, 90.2% state joint ward rounds are not conducted. Systemically, 69.3% cite theatre access as a limiting factor, and 27/67 open-ended responses identified the lack of plastic surgery access as their primary challenge. Encouragingly, 81% expressed interest in national orthoplastic training.
Conclusion: Despite awareness of international standards, open fracture management in Ireland suffers from severe collaborative and structural deficits. The absence of joint pathways, and reliable plastic surgery access underscores an urgent need to formalize regional orthoplastic networks to mitigate infection risks and improve limb salvage.

64. Can ChatGPT Replicate MDT Decision-Making? Comparison of AI-Generated Recommendations with Multidisciplinary Team Decisions in Skin Cancer Management Maria Murphy (Presenting)

Áine O'Dwyer
,Gerard Kelly Galway University Hospital, Galway, Ireland

Background:
Multidisciplinary teams currently represent the standard of care for decision making in cancer therapy, but they require significant resources to coordinate, and may be susceptible to human bias. Artificial intelligence tools, such as ChatGPT, have become an integral part of modern day life and work, and may have a role in assisting clinical decision making. This study aims to evaluate the concordance between recommendations proposed by a classic multidisciplinary team meeting and those generated by a large language model (ChatGPT) for management of skin cancer.

Methods:
A retrospective analysis of 182 skin cancer cases discussed at a specialist MDT over a three month period was performed. For each case, ChatGPT-generated management recommendations were compared with MDT decisions and categorised as fully concordant, partially concordant, or discordant. ChatGPT recommendations for formal MDT discussion were also recorded.

Results:
Complete agreement between ChatGPT and MDT outcomes was observed in 130/182 cases (71.4%), while 33/182 cases (18.1%) demonstrated partial agreement. Recommendations differed in 19/182 cases (10.4%).
ChatGPT recommended full MDT discussion in 72/182 cases (39.6%). Among discordant cases, 12/19 (63.2%) were flagged for MDT review, and 20/33 (60.6%) of partially concordant cases were similarly flagged.
In the subgroup of melanoma In situ (n=38), concordance was particularly high, with 36/38 cases (94.7%) demonstrating complete agreement and 2/38 cases (5.3%) differing.

Conclusions:
ChatGPT demonstrated a high level of concordance with MDT decision-making, particularly in low-risk and protocol-driven cases such as melanoma in situ. Importantly, cases with discordant or partially concordant recommendations were frequently identified by ChatGPT as requiring MDT discussion, suggesting potential utility as a triage or decision-support tool. Further work is needed to evaluate its role in clinical workflows and its performance in more complex cases.

65. Sebaceous Carcinoma: A 15-Year Review of Clinical Experience and Current Evidence

Meadhbh Ni Mhiochain de Grae (Presenting) Barry O' Sullivan ,
Beaumont Hospital, Dublin, Ireland

Background:
Sebaceous carcinoma is a rare and aggressive malignancy with a recognised propensity for local recurrence and metastatic spread. Historically classified into periocular and extraocular subtypes, emerging evidence suggests that this distinction may not fully reflect tumour biology or clinical behaviour. Owing to its rarity, pathological complexity, association with hereditary cancer syndromes such as Muir–Torre syndrome, and absence of a universally accepted standard of care, diagnosis and management remain challenging.

Methods:
We performed a retrospective review of all cases of sebaceous carcinoma managed at our national head and neck centre over a 15-year period. Clinical presentation, anatomical site, histopathological findings, management strategies, recurrence patterns, and oncological outcomes were assessed. A focused literature review was undertaken to evaluate current evidence regarding pathological diagnosis, surgical management, genetic predisposition, and emerging systemic therapies.

Results:
Our institutional experience, encompassing a series of 10 patients, highlights significant challenges in both diagnosis and treatment. Histopathological diagnosis frequently required specialist review, with recognition of sebocyte cytological features and immunohistochemical markers essential for differentiation from other cutaneous malignancies. Literature review demonstrates increasing future interest in systemic therapy, with reported high PD-1/PD-L1 expression and case reports describing favourable responses to pembrolizumab in metastatic disease.

Conclusion:
Sebaceous carcinoma remains a rare and complex malignancy with substantial diagnostic and management challenges. Our 15-year institutional experience highlights the critical importance of specialist multidisciplinary care, streamlined diagnostic pathways, and further high-quality research to develop standardised treatment algorithms and better define the role of immunotherapy.

66.Quality Standards in Melanoma Care Q1&2 2025: an NCCP Audit

Iulia Marinescu (Presenting) ,Aoife Feeley ,Aoife Lally ,Tomas O'Neill ,
St. Vincent's University Hospital, Department of Plastic and Reconstructive Surgery, Dublin, Ireland

Background: Timely diagnosis and definitive management are critical in melanoma, where delays can upstage disease and worsen outcomes. Guidelines define key performance indicators (KPIs) to ensure timely diagnosis, appropriate staging, and optimal surgical management. This audit aims to identify barriers across the pathway and inform targeted improvements.
Methods: A retrospective audit of melanoma patients treated at St Vincent's Healthcare Group between January and June 2025 was performed. Data was obtained from the local melanoma database, histopathology reports and clinic letters. Performance was evaluated against KPIs informed by the National Cancer Control Programme (NCCP) and the National Institute for Health & Care Excellence (NICE) 2022 guideline on melanoma assessment and management.
Results: A total of 87 melanoma cases were analysed, out of which 56 (64.4%) were invasive and 31 (34.4%) were in-situ disease. All invasive melanoma cases were discussed at MDT, with complete TNM staging and inclusion of core histopathological data in nearly all cases (98.2%). Only 47.1% of cases underwent primary excision within 6 weeks of referral, 44.6% of invasive cases were discussed at MDT within 4 weeks of excision, histology turnaround targets were met in 43.0% (≤7 working days) and 58.1% (≤10 working days), and wide local excision within 84 days of diagnostic biopsy was achieved in 63.4% of eligible cases. Sentinel lymph node biopsy (SNLB) was performed within 84 days of primary excision in 70.0% of selected cases. Adequate excision was achieved in 77.8% of cases prior to wide local excision, and overall in 79.6%. SLNB practice broadly matched NICE guidance: 75% of eligible cases were offered or underwent SLNB.
Conclusion: While compliance with MDT discussion and staging documentation was high, several key melanoma management targets were not met. These findings highlight opportunities to improve clinical pathways and optimise melanoma care delivery.

67. Xylazine-Associated Wounds as an Ischaemic–Toxic Soft-Tissue Injury Phenotype: Translational Implications for Reconstructive Strategy

Meadhbh Ni Mhiochain de Grae (Presenting) Gary A. Bass Beaumont Hospital, Dublin, Ireland University of Pennsylvania, Pennsylvania, United States

Background: Xylazine, an α-2 adrenergic agonist increasingly identified as an adulterant in the illicit opioid supply, has been associated with rapidly progressive necrotic soft-tissue wounds that differ from conventional injection-related infections. These wounds have been described predominantly in the United States, particularly in the northeastern region, and present a significant challenge for plastic surgeons because of extensive tissue loss, impaired perfusion, and the absence of clearly defined reconstructive management pathways in the literature.
Methods: A narrative synthesis of published clinical case series, microbiological studies, dermatologic descriptions, and experimental models was undertaken to examine wound morphology, underlying microvascular pathophysiology, and reconstructive implications.
Results: Xylazine-associated wounds are characterised by violaceous blistering, adherent eschar, deep ulceration, and frequent exposure of tendon or bone. Histopathological findings include epidermal necrosis and focal microvascular thrombosis. Experimental models demonstrate impaired angiogenesis and delayed wound healing following xylazine exposure. Sustained α-2 receptor-mediated vasoconstriction provides a biologically plausible mechanism for tissue ischaemia and progressive necrosis. Although secondary infection is common, it does not fully account for the severity or pattern of tissue loss. Despite the increasing clinical recognition of these wounds, there remains limited literature guiding optimal debridement, timing of reconstruction, or selection of graft and flap-based coverage.
Conclusion: Xylazine-associated wounds represent a distinct ischaemic–toxic soft-tissue injury phenotype with major implications for reconstructive surgery. Recognition of the underlying perfusion deficit has direct consequences for debridement strategy, graft reliability, flap selection, thrombosis risk, and operative timing. Given the paucity of evidence-based management recommendations, a staged, biology-informed reconstructive framework is required to optimise outcomes.

68. When implants fail: patient-reported outcomes and decision-making after conversion to autologous breast reconstruction Emma Kearns (Presenting) ,Eimear Phoenix
Claragh Healy ,St James Hospital, Dublin, Ireland,Royal College of Surgeons, Dublin, Ireland

Background:
Implant-based breast reconstruction is the most commonly performed reconstructive option following mastectomy. However, a subset of patients experience implant-related morbidity necessitating conversion to autologous reconstruction. This reconstructive pathway is technically complex, often undertaken in a compromised tissue environment, and the patient perspective of this less commonly encountered journey remains poorly described.
Methods:
We conducted a retrospective observational study of a consecutive cohort undergoing conversion from implant-based to autologous breast reconstruction at a tertiary referral centre. Patient-reported outcomes were assessed using a purpose-designed questionnaire capturing experiences at index reconstruction, reasons for conversion, post-conversion outcomes, and reflective decision-making. Clinical and demographic data were collected to contextualise outcomes.
Results:
Eleven patients were included (mean age 54.8 years). The cohort demonstrated low comorbidity but a high burden of adjuvant therapy, with 63.6% receiving radiotherapy. The most common indications for conversion were capsular contracture (54.5%), pain (36.4%), implant complications (36.4%), and aesthetic dissatisfaction (27.3%). Implant-related complications included rupture (n=2) and infection requiring explantation (n=2).
The reconstructive pathway was frequently prolonged, with a mean time to conversion of 6.4 years. Only 3 patients (30%) proceeded directly from implant to DIEP without additional intervention, while 5 patients (50%) required further procedures, including implant revision or explantation prior to conversion.
Following autologous reconstruction, complication rates were low, limited to one seroma and one abdominal wound infection.
Conclusions:
This study highlights the complex and often prolonged pathway associated with implant-based reconstruction failure. Conversion to autologous reconstruction provides meaningful patient benefit despite technical challenges. These findings support improved pre-operative counselling, earlier consideration of autologous reconstruction in selected patients, and enhanced shared decision-making to optimise long-term outcomes.

69. Development and Pilot Evaluation of a Dupuytren's Disease–Specific Post-Operative Patient-Reported Outcome Measure Charles P.B. Higgins,Hui-Qi Chong, Carmel Cooney , Abidur Rahman, Claire Davidson **Jordan E. Wilkinson (Presenting)**
Department of Plastic and Reconstructive Surgery, Tallaght University Hospital, Dublin, Ireland School of Medicine, Trinity College Dublin, Dublin, Ireland ,School of Medicine, University College Dublin, Dublin, Ireland

Background
Dupuytren's contracture is a common fibroproliferative disorder of the hand. While several patient-reported outcome measures (PROMs) exist, most are generic to hand surgery or designed primarily for pre-operative assessment. There remains a lack of concise, disease-specific tools focused on post-operative recovery and patient satisfaction following fasciectomy or dermofasciectomy. [1-3]
Methods
A Dupuytren-specific post-operative outcome measure was developed using a structured multi-stage process informed by literature review, expert consensus, and occupational therapy input. The questionnaire assessed functional recovery, symptom burden, satisfaction, and quality of life using a four-point Likert scale optimised for telephone administration and later adapted to a paper format for routine clinic follow-up. Following pilot refinement, outcomes were collected via structured telephone interviews from patients ≥3 months post-surgery. Non-parametric analyses were used to explore associations between outcomes and demographic and treatment variables.[4-8]
Results
Twenty patients were included. Overall satisfaction was high, with 19/20 patients reporting that they were very satisfied with the outcome of surgery. The greatest improvements were seen in gross hand function, social tasks, and activities of daily living, while fine motor tasks and sensory symptoms showed more variable recovery. Younger patients demonstrated significantly better recovery of fine motor function ($p = 0.037$). A trend toward increased post-operative pain was observed in patients with longer pre-operative disease duration. Dermofasciectomy showed a near-significant association with sensory disturbance.
Conclusions
This Dupuytren-specific post-operative PROM is feasible, sensitive, and well accepted by patients. The instrument captures clinically relevant recovery domains and can be delivered by telephone interview or paper questionnaire during routine follow-up. Larger validation studies are required.[9, 10]

70. A retrospective review of the prevalence of carpal tunnel syndrome (CTS) in Transthyretin amyloidosis patients in a Tallaght University Hospital (TUH) cohort Helen Connaughton (Presenting) Jordan E. Wilkinson
,Colin Clarke ,Marianna Kalaszi ,Geoff Haughton ,Emer Joyce , Mike Alexander ,Claire Davidson ,Sinead M. Murphy
Department of Plastic Surgery, Dept Neurology, Tallaght University Hospital., Dublin, Ireland

Background
Amyloidosis comprises a heterogeneous group of disorders characterised by extracellular deposition of insoluble fibrillar proteins within tissues and organs. Transthyretin amyloidosis (ATTR) is the most common subtype and exists as either hereditary (variant, ATTRv) or acquired (wild-type, ATTRwt). It typically presents with peripheral neuropathy and/or cardiomyopathy, and without treatment survival is limited to 2–6 years from diagnosis. ATTR demonstrates a recognised predilection for tenosynovial tissue, and multiple studies have highlighted an association between carpal tunnel syndrome (CTS) and ATTR. However, tissue obtained at carpal tunnel decompression is not routinely analysed for amyloid.
Methods
We performed a retrospective review of patients with ATTR attending Tallaght University Hospital (TUH) from 2018 to present. History of CTS and/or carpal tunnel decompression, and the interval between CTS symptoms and ATTR diagnosis, were determined using medical records and institutional databases.
Results
Eighty-eight patients with ATTR were identified: 81 (92%) ATTRv and 7 (8%) ATTRwt. Among ATTRv patients, mean age was 60 years; 38 (47%) were male. Fifty-one (63%) reported a history of CTS, of whom 31 (61%) developed CTS prior to ATTR diagnosis. Fourteen (17%) underwent decompression. The mean interval from CTS symptom onset to ATTR diagnosis was 7.1 years.
Among ATTRwt patients, mean age was 81.5 years; 5 (71%) were male. Five (71%) had a history of CTS, all preceding ATTR diagnosis, with a mean interval of 7.2 years. Four (57%) underwent decompression.
Conclusion
CTS frequently precedes ATTR by several years and represents a potential early diagnostic window. Given the availability of disease-modifying therapies that improve outcomes when initiated early, timely diagnosis is critical. These findings support routine histopathological assessment of tissue obtained during carpal tunnel decompression. We have now implemented prospective amyloid screening at the time of decompression.

71.A Systematic Review of Non-Invasive Techniques for Assessing Upper Limb Perfusion lylas Aljohmani (Presenting) ,Simone L Kneafsey ,Laith Ronan Aljohmani ,Kevin Cronin , Oran Kennedy,Christopher Torrens , Roisin Dolan
UCD, Dublin, Ireland RCSI, Dublin, Ireland

Abstract
Background:
Accurate and non-invasive assessment of upper limb perfusion is increasingly recognised as essential in plastic and reconstructive surgery, particularly since objective perfusion endpoints are needed to improve the quality, comparability, and reproducibility of clinical trials. A wide range of modalities—including laser Doppler flowmetry, digital thermography, and pulse oximetry—are used in practice, yet there remains no consensus on which technique provides the most reliable or clinically meaningful assessment. This systematic review evaluates contemporary non-invasive methods for measuring upper limb perfusion and identifies gaps that must be addressed to advance trial design and future research.

Methods:
A systematic review was conducted in accordance with PRISMA guidelines. Electronic databases were searched for studies published up to Dec 2025 evaluating non-invasive measurement of upper limb perfusion in human participants. Fifty-eight studies met inclusion criteria. Extracted data included study design, population, anatomical site, modality and outcomes. Heterogeneity precluded meta-analysis.

Results:
The included studies represented 3,391 patients. The dorsum of the hand was the most frequently assessed site. Laser Doppler ultrasound (56.2%), was the most commonly used modality, followed by pulse oximetry (40.7%), and thermography (34.3%) , with many studies utilising multimodal assessment. Reporting of validation, reproducibility and standardisation was limited. Emerging modalities such as near-infrared spectroscopy and hyperspectral imaging showed potential but lacked comparative data.

Conclusion:
No single technique has been established as a gold standard for non-invasive upper limb perfusion assessment. Current evidence supports a multimodal strategy combining accessible bedside tools with more sensitive perfusion measures. Developing and validating standardised multimodal protocols will be essential to strengthen clinical decision-making and enable more consistent research.

72. Upper Limb Peripheral Nerve Injuries Associated with Subdermal Contraceptive Implants: a Case Series, Systematic Review and Proposed Evidence-based Treatment Algorithm. lylas Aljohmani (Presenting) Roisin Dolan,RCSI, Dublin, Ireland,UCD, Dublin, Ireland

Background:
Subdermal contraceptive implants (SCIs) are a widely used long-acting reversible contraceptive (LARC) with a high efficacy rate (Pearl Index 0.00, 95% CI 0.00–0.14). However, upper limb neurovascular injuries related to SCI insertion and removal are increasingly reported, with an estimated incidence of 1.7%. This study aims to systematically review the literature on SCI-associated upper limb PNIs and present a case series of affected patients treated by the senior authors.
Methods:
Following PRISMA guidelines, a systematic review of the literature was conducted to identify and characterise SCI-associated PNIs. Data extraction included demographics, injury-related factors (incidence, clinical presentation, implant type, timing of injury (insertion/removal), nerve injury classification and functional deficits at presentation, and treatment-related factors (management strategies, and patient outcomes at latest follow-up). A prospectively collated bi-institutional case series of patients presenting with PNI's following SCI procedures, is also presented.
Results:
Systematic review of 24 patients (mean age 28.5, range 19–51) identified 26 PNIs from subdermal contraceptive implants, mostly during removal (67%). The ulnar nerve was most affected (52%, n=14), followed by the median (26%, n=7) and medial antebrachial cutaneous nerves (22%, n=6). Injuries included neuropraxia (33%, n=9), axonotmesis (26%, n=7), axonotmesis with neuroma-in-continuity (33%, n=9), and partial transection (7%, n=2); 56% (n=13) required surgery. At follow-up, 39% (n=9) had full recovery, 43% (n=10) partial, and 9% (n=2) none. Our six-patient series showed similar patterns, from transient neuropraxia to persistent deficits.
Conclusion:
SCI-associated PNIs can cause significant morbidity. The ulnar nerve is particularly at risk, especially during removal, with implant impalpability contributing to injury severity. This study underscores the need for enhanced practitioner training, improved insertion and removal techniques, and consideration of alternative insertion sites to mitigate nerve injury risks. Image-guided removal should be standard practice for impalpable implants.

73. Pediatric Brachial Plexus Schwannomas: A Systematic Review of Reported Cases Maged Elsafti (Presenting)

,Yousef abdalazeem ,Mahmoud Farag ,Whiston Hospital, Shakeel Rahman Liverpool, United Kingdom,St Thomas Hospital, London, United Kingdom

Background:
Schwannomas of the brachial plexus are extremely rare in the pediatric population and often present diagnostic challenges due to their subtle clinical manifestations and low incidence. This systematic review aims to synthesize reported pediatric cases to better understand clinical presentation, diagnosis, management, and outcomes.
Methods:
This review was conducted in accordance with PRISMA guidelines. A systematic search of PubMed, Scopus, and Web of Science was performed using the keywords "brachial plexus schwannoma" and "pediatric" OR "child". Inclusion criteria encompassed English-language case reports of histopathologically confirmed brachial plexus schwannomas in patients aged <18 years. After screening, four case reports met the eligibility criteria.
Results:
The four pediatric patients ranged in age from 10 to 16 years, with a slight female predominance. Presentations included monoparesis, upper limb weakness, radiating neuropathic pain, and palpable masses. MRI served as the primary imaging modality, consistently demonstrating encapsulated, hyperintense lesions on T2-weighted sequences. Histopathology confirmed schwannoma in all cases, with positive S100 immunostaining. All patients underwent surgical excision without reported malignant transformation. Postoperative outcomes were favorable, with resolution or improvement of neurological symptoms and no recurrences at follow-up (ranging from 6 months to 2 years).
Conclusions:
Pediatric brachial plexus schwannomas, although rare, demonstrate consistent radiologic and histopathologic features across reported cases. Early diagnosis through MRI and prompt surgical excision can lead to excellent outcomes. Awareness of this entity in pediatric patients with unexplained upper limb symptoms may facilitate earlier intervention and improve functional recovery.

74."Ozempic Face" and the Post-Pandemic Surge: A Google Trends Analysis of Public Interest in Facial Aesthetic Surgery in Ireland and the United Kingdom, 2019–2025 Conor Cuggy
Augustin Msellati (Presenting) Eoin O'Broin CUH, Cork, IrelandRCSI, Dublin, Ireland

Background:
Public interest in facial aesthetic surgery has undergone two potentially defining shifts since 2019: a post-pandemic resurgence in elective cosmetic procedures and the emergence of GLP-1 receptor agonist-associated facial volume depletion - colloquially termed "Ozempic face" - as a driver of corrective aesthetic demand. The relative contribution and temporal relationship of these phenomenon to public search behaviour has not been characterised in an Irish or UK context.
Methods:
Google Trends data for predefined facial aesthetic surgery search terms were extracted for Ireland and the United Kingdom from January 2019 to December 2025. Terms include procedure-specific queries (facelift, rhinoplasty, blepharoplasty, lip filler) and condition-specific terms ("Ozempic face", "Ozempic facelift"). Joinpoint regression analysis was applied to identify statistically significant inflection points in search volume trends and quantify annual percentage change. Ireland and UK trends were compared to assess regional variation.
Results:
Preliminary data demonstrate a sustained post-pandemic increase in facial aesthetic search interest from 2021, with a distinct secondary inflection in "Ozempic face"-related queries from late 2022 coinciding with the mainstream emergence of GLP-1 receptor agonist therapy. Regional differences between Ireland and the UK are apparent and warrant further characterisation.
Conclusions:
Google Trends analysis provides a tractable, real-time measure of public aesthetic interest and may serve as a leading indicator of clinical demand. Understanding the temporal drivers of facial aesthetic interest, including the GLP-1 era, has practical implications for practice planning and public health messaging in aesthetic surgery.

75. Consultant-Led Registrar Elective Lists: Surgical Capacity, Training Value, and Cost Analysis at Cork University Hospital Conor Cuggy **Augustin Msellati (Presenting)** Jemima Doriaj CUH, Cork, IrelandRCSI, Dublin, Ireland

Background: Elective plastic surgery waiting lists persist despite available theatre infrastructure. Registrar workforce expansion represents an underexplored approach to converting existing theatre time into clinical activity, yet its operational and economic impact has not been quantified using real-world activity data.
Methods: A retrospective service evaluation compared registrar-delivered elective local anaesthetic operating activity across two matched six-month periods before and after the appointment of one additional specialist registrar post to a single tertiary plastic surgery unit. Economic value was estimated using 2025 HSE Activity-Based Funding day-case tariffs. Workforce cost applied the upper bound of the Department of Health Consolidated Salary Scales. An outsourcing counterfactual was derived from NTPF Annual Report data. Formal equivalence testing confirmed stable per-list productivity between periods.
Results: Registrar-delivered lists increased from 25 to 82 (+228%). ABF-claimable episodes increased from 100 to 322 (+222%), with total value rising from €76,184 to €242,541 (net +€166,357). Consistent weighted average tariff (€762 vs €753) confirmed comparable case mix. The six-month cost of one post was €48,560, yielding an activity-to-cost ratio of 4.99:1 on total activity and 3.43:1 on net incremental activity. No adverse events were identified on governance record review; prospective outcome data would be required to establish safety equivalence.
Conclusions: Registrar workforce expansion was associated with a 222% increase in elective episodes and economic value substantially exceeding workforce cost. These proof-of-concept findings suggest that registrar expansion may represent an economically favourable approach to increasing elective capacity within existing public hospital infrastructure in units with comparable case mix and governance structures, warranting prospective multicentre evaluation.

76. Scarpa Fascia Preservation Reduces Seroma in Post-Massive Weight Loss Abdominoplasty: A Systematic Review and Meta-Analysis Conor Cuggy **Muireann Keating (Presenting),** Sean T O Sullivan CUH, Cork, IrelandRCSI, Dublin, Ireland

Background: Seroma is the most frequent complication of abdominoplasty and is of particular concern following massive weight loss, where altered tissue architecture and comorbidity amplify risk. Scarpa fascia preservation (SFP) has been proposed to reduce seroma formation, but its efficacy in this population has not been systematically evaluated.
Methods: A systematic review and meta-analysis was conducted per PRISMA 2020 guidelines and registered on PROSPERO. MEDLINE (via PubMed), Embase, CINAHL, and CENTRAL were searched without language restriction. Comparative studies reporting seroma outcomes in massive weight loss patients undergoing abdominoplasty with or without SFP were eligible. Primary outcome was seroma rate; secondary outcomes were time to drain removal and total drain output. Pooled effect sizes were calculated using a DerSimonian-Laird random-effects model with Hartung-Knapp adjustment.
Results: Five comparative studies (n=665) were included. SFP was associated with a significant reduction in seroma rate compared with classical abdominoplasty (RR 0.32, 95% CI 0.15–0.68, p=0.014; I^2=1.2%). Sensitivity analysis including seven studies strengthened this estimate (RR 0.31, 95% CI 0.16–0.59, p=0.006; I^2=0%). Time to drain removal favoured SFP but did not reach significance (MD −2.98 days, 95% CI −6.29 to 0.34, p=0.065). Total drain output showed a non-significant trend favouring SFP (MD −241 mL, 95% CI −590 to 107, p=0.097).
Conclusions: SFP significantly reduces seroma formation in abdominoplasty following massive weight loss and may be recommended with moderate confidence on the basis of a limited but internally consistent evidence base. A dedicated randomised controlled trial in this population remains a research priority.

77. The orthoplastic management of fracture related infection (FRI), early experience of a novel Multi-Disciplinary Team. Katherine Egan (Presenting) ,Eavan Muldoon ,Claire Kenny ,James Woo ,David Moynan ,Collette O' Connor ,Kevin McSorley ,Christine Quinlan Mater Misericordiae University Hospital, Dublin, Ireland

Background: Since July 2023, the Mater Misericordiae University Hospital (MMUH) has experienced an increase in patients with major open limb injuries, of which fracture-related infection (FRI) is a complication. In response, a monthly multidisciplinary team (MDT) meeting was established to optimise patient outcomes with combined surgical contribution from Orthopaedic and Plastic Surgeons, in addition to medical input from Infectious Diseases and Microbiology for antibiotic guidance. The aim of this evaluation was to review the orthoplastic management of FRI in patients discussed at the MDT , in keeping with current treatment recommendations.
Methods: Cases of patients with FRI were identified through Patient Centre records with retrospective review of multidisciplinary meeting outcomes from July 2023-December 2025 inclusive.
Results: A total of 16 patients were identified (n=16). The mean age was 41 years and 31% (n=5) were female. The mean time from surgery for acute fracture management to surgery for orthoplastic management of FRI was 158 days. For orthoplastic management of FRI all patients had debridement with washout. In those with metalwork in situ, 83% (n=11) had replacement and 17% (n=3) had removal of metalwork. Deep histological samples were obtained intra-operatively in 75% of cases, the mean number of samples were taken was 6. 35% samples yielded positive culture results, the majority of which were gram-positive organisms. Local antibiotics were applied in 68% (n=11) of cases. 75% (n=12) required definitive soft tissue coverage with flap reconstruction. Post-operatively, the mean duration of systemic antibiotic treatment for our cohort was 5.25 weeks of intravenous antibiotics followed by 5.85 weeks of oral antibiotic treatment.
Conclusions: A multidisciplinary team (MDT) approach for the management of FRI has been developed at our centre which has allowed for complex treatment regimens to be implemented.

78. Immunosuppression-Associated Hyperalgesia During Local Anaesthetic Plastic Surgery Procedures: A Narrative Review and Scoping Analysis Conor Cuggy Muireann Keating, **Augustin Msellati (Presenting),** Sean T O Sullivan CUH, Cork, IrelandRCSI, Dublin, Ireland

BackgroundImmunosuppressive agents — including calcineurin inhibitors, corticosteroids, and mTOR inhibitors; are associated with peripheral sensitisation and pain syndromes through distinct nociceptive pathways including TRPV1 upregulation and altered substance P signalling. Despite this, the clinical impact of immunosuppression on procedural pain during local anaesthetic (LA) plastic surgery has not been systematically studied. Disproportionate procedural pain in immunosuppressed patients presenting for LA plastic surgery procedures prompted this investigation.
MethodsA narrative review of immunosuppression-associated hyperalgesia and LA resistance was conducted. A parallel scoping analysis of immunosuppressed patients undergoing LA plastic surgery procedures at a single tertiary centre was performed to characterise the clinical phenomenon and inform formal comparative study design.
ResultsThe literature reveals a mechanistically plausible but clinically undercharacterised phenomenon. Calcineurin inhibitors, corticosteroids, and mTOR inhibitors each alter peripheral nociception through distinct pathways; no comparative clinical data exist in the plastic surgery LA setting. Scoping analysis identified a cohort of immunosuppressed patients with documented procedural pain levels, LA supplementation rates, and adjunct requirements. Preliminary findings suggest a pattern warranting prospective evaluation.
ConclusionsImmunosuppression-associated hyperalgesia is a clinically relevant but overlooked consideration in plastic surgery procedural planning. This scoping analysis defines the phenomenon, characterises the mechanistic basis, and establishes the framework for a formal case-control study. Findings will inform peri-procedural counselling and LA dosing strategies in this patient group.

79. In Vivo Revascularisation of Bilateral Lumbar Artery Perforator Flaps Using a Perfused In Situ Deep Inferior Epigastric Extension P.J. O'Donoghue (Presenting) Mahalakshmi Ishwar, Ellen Geary ,Jamie Martin Smith
,Safwat Ibrahim ,Beaumont Hospital, Dublin, Ireland

Introduction: The lumbar artery perforator (LAP) flap is an established option for autologous breast reconstruction when abdominally based flaps are unavailable, but reconstruction may be limited by short pedicle length, the need for vascular extension, and prolonged warm ischaemia during conventional graft preparation.

Case: We report a case of bilateral immediate LAP flap breast reconstruction in a patient unsuitable for DIEP reconstruction because of prior abdominoplasty.

Technique: Bilateral LAP flaps were harvested first in the prone position. After a single turn to supine, the deep inferior epigastric (DIE) vessels were prepared in situ and left in continuity, allowing them to remain perfused before anastomosis to the LAP pedicles. Rather than constructing a vascular extension ex vivo while the flap remains ischaemic, each LAP pedicle was anastomosed in vivo to the still-perfused DIE system, creating perfused LAP-DIE constructs on the patient prior to completion of mastectomy. These constructs remained vascularised while bilateral mastectomy and recipient vessel preparation proceeded. Delayed division was performed only once the internal mammary vessels were fully prepared, allowing a brief final warm ischaemia interval before reperfusion.

Conclusion: This case describes a novel technical modification for bilateral LAP breast reconstruction using a perfused in situ DIE vascular extension to restore flap perfusion before delayed division and final transfer. The approach may reduce the final warm ischaemia interval and improve reliability when pedicle extension is required

80. Selected Peptides Relevant to Plastic Surgery: Mapping Evidence, Regulation, Online Availability, and Social Media Exposure P.J. O'Donoghue (Presenting) Jamie Martin-Smith,Beaumont hospital, Dublin, Ireland **Background:**

Peptides are short chains of amino acids increasingly marketed for regenerative, performance, and cosmetic purposes. Of relevance to plastic surgery, selected peptides are promoted for tanning and pigmentation (Melanotan II), wound or tendon recovery (BPC-157 and TB-500/thymosin beta-4-related products), and skin rejuvenation or scar care (GHK-Cu), despite limited high-quality clinical evidence.

Methods:

We performed a mixed-methods descriptive mapping study integrating a focused evidence review, Google Trends analysis, an Irish online purchasing accessibility audit, a structured social media content audit, and a targeted review of safety statements, with primary emphasis on the Irish context. Four peptide groups were assessed: Melanotan II, BPC-157, TB-500/thymosin beta-4-related products, and GHK-Cu.

Results:

The evidence base was uneven and consisted largely of preclinical studies or low-level human evidence. Google Trends demonstrated clearer and more sustained worldwide relative search interest than in Ireland, where peptide-specific searches were lower in volume and more intermittent. The Irish online purchasing accessibility audit identified consumer-facing purchasing pathways for BPC-157 and TB-500, while Melanotan showed more limited but still identifiable cross-border retail visibility. Comparable GHK-Cu purchasing pathways were less evident. In the coded social media dataset, Melanotan content was predominantly testimonial or promotional, BPC-157 and TB-500 content was mainly recovery-focused, and GHK-Cu content was largely skincare-oriented, with inconsistent safety disclaimers across peptide groups.

Conclusions:

Selected peptides relevant to plastic surgery appear accessible across digital consumer environments despite an uneven and generally limited human evidence base. For Irish plastic surgeons, this has implications for patient counselling, expectation management, and documentation of self-directed peptide use.

81. Introduction of updated fluid management guidelines for paediatric resuscitation burns and review of outcomes Aoife Feeley (Presenting) ,Gráinne Noone ,Kassandra Gressman , Rob Browne ,Catherine de Blacam,CHI Crumlin, Dublin, Ireland

Background: Paediatric burn injury is a significant cause of morbidity worldwide, with fluid resuscitation a central tenet of early management of the severe burn. Risk of fluid creep and its sequelae including pulmonary oedema and compartment syndrome are recognised. Concerns regarding the use of conventional resuscitation formulas leading to over-resuscitation have been highlighted, with challenges including accurate estimation of TBSA.
Methods: A review of outcomes of paediatric patients referred to the National paediatric burns unit with >10% TBSA burns was undertaken (01/2022-02/2025). Following review of international resuscitation practices for paediatric burns, a new set of guidelines was developed and disseminated. Under new guidelines fluid management starts at 15%, resuscitation calculation uses 2mls base rate (2x%TBSA x kg) and is titrated to a urine output 0.5-1ml/kg/hr. Following implementation of guidelines, a review of paediatric burns referred with burns requiring resuscitation was undertaken (02/2025-present).
Results: Fifty patients were included (43 pre-guideline, 7 post-guideline) for analysis, with a mean age of 2.76 years. Scalds accounted for 92% of injuries. Following guideline implementation, urine output remained within or above target ranges (>1ml/kg/hr), consistent with pre-guideline patient outcomes. Four patients 10-15%TBSA were referred post-updated guideline who received no resuscitation fluids, with no evidence of volume depletion through urine output, physiological parameters, or electrolyte disturbances noted. LOS correlated positively with TBSA ($r=0.595$, $p<0.001$). Grafting rates were also similar between patient cohorts (pre- 27.9% vs. post- 28.6%).
Conclusion: The introduction of updated paediatric burn resuscitation guidelines was associated with improved target outcomes including urine output, reflecting adequate fluid status in patients undergoing resuscitation at a higher %TBSA. Further evaluation of outcomes is required, with continued emphasis on education, and early specialist involvement on a national basis to ensure patient care is optimised.

82. A Comparison of English Language Keloid Scarring Patient Education Material Aoife O'Brien (Presenting)

,Grainne McCullough ,Kevin Cahill ,Beaumont, Dublin, Ireland

Introduction

Keloid scarring is a type of excessive scarring,which is clinically characterised as appearing over a period months and extending beyond the boundaries of the initial insult. Keloid scarring progresses to form thickened, firm scars,which rarely spontaneously heal.They occur within 3-12months following an injury to the skin in predisposed individuals.There are many treatments for keloid scarring.The information provided is not always straight forward and patient education materials(PEMs)across a multitude of specialities have been reported as being too difficult to read.Multiple healthcare organisations have recommended that patient education materials be no higher than 6th-8thgrade reading level,or the reading age of 11-14 year-olds.The aim of the current study was to evaluate the PEMs in keloid scarring.A review of patient information on keloid scarring online was undertaken.

Methods

The study combined readability scoring and PEMAT-Pscoring to assess for readability criteria as defined in the2024 healthcare literacy report on English language patient education material on keloid scarring.

Result

The mean understandability across the resources that were assessed was 75.76%and the mean actionability was75.5%.The equivalent readaing age across the sites ranged from 7-16years of age.

Discussion

On review of the ten resources and their readability,there is a vast range from 9-16year reading level across the mean of the resources,and the mean reading age is11.35.However, on review of the SMOG scores for the resources,where a score of 8is equivalent to an 8thgrade reading level(12-14years old),70% of the resources are over 9,which is approximately aimed at 15year-olds, and thus more advanced than the recommendation that PEM resources should be no higher than 6-8thgrade level(11-14 year olds).In conclusion,keloid scarring is a common condition, and readability ratings for available online PEMs have a mixed standard of both readability and PEMAT-P scoring.

83. Endoscopic versus Off-Midline Flap Surgery for Pilonidal Sinus Disease: A Systematic Review of Clinical Outcomes

celia ziane (Presenting) Anirban Mandal , Countess of Chester Hospital, Chester, United KingdomMersey and West Lancashire Teaching Hospitals NHS Trust, Liverpool, UK

Pilonidal sinus disease (PSD) is a common condition affecting young adults, with high recurrence and morbidity. Endoscopic techniques such as endoscopic pilonidal sinus treatment (EPSiT) have gained popularity, but their long-term durability remains uncertain compared with off-midline flap reconstruction. A PRISMA 2020 systematic review of MEDLINE and EMBASE (2000–July 2025) identified studies comparing EPSiT/VAAPS with off-midline flap reconstruction. Studies with ≥50 adult patients and ≥12 months follow-up were included. The primary outcome was recurrence; secondary outcomes included complications, healing time, and length of stay. Given heterogeneity, results were synthesised narratively. A single-centre retrospective V–Y advancement flap case series was analysed separately. Thirty-seven studies were included (2 comparative, 35 single-arm). EPSiT/VAAPS showed clear short-term advantages, including day-case management, shorter hospital stay, and fewer early complications. However, recurrence ranged from 0% to 26.9% and increased with longer follow-up. In contrast, off-midline flap reconstruction showed lower recurrence overall. Many Karydakis and Limberg series reported rates below 5%, although higher rates were observed in selected Bascom and comparative cohorts. The V–Y advancement flap case series (n=15) demonstrated no pilonidal recurrence during follow-up; complications occurred in 6 patients, predominantly minor, with one major complication and a median follow-up of 6 months. Overall, endoscopic techniques offer short-term benefits, whereas off-midline flap reconstruction provides more reliable long-term disease control. Further comparative studies with standardised reporting and long-term follow-up are required.

84. Beyond the Skin Paddle: Visible Light Spectroscopy in Monitoring in Buried DIEP Free Flaps
Lindsay Reid **.Ciara McGoldrick (Presenting)** Chris Hoo,Belfast City Hospital, Belfast, United Kingdom

The T-Stat VLS Tissue Oximeter (Spectros Medical Devices, Houston, TX) uses Visible Light Spectroscopy (VLS)to measure tissue oxygen saturation (StO_2%) and relative hemoglobin (tHb) at the capillary bed level. Unlike near-infrared spectroscopy (NIRS), VLS relies on locally absorbed shallow-penetrating visible light (475–625 nm). Our microsurgical team has found T-Stat for both for intra-operative and post-operative free flap monitoring of huge benefit. Use of Tstat on the surface of a skin paddle of a flaps is established however our team has also used this technology in buried flaps. This is a monitoring challenge that has not been previously characterized for VLS technology.

The objective of our intra-operative study was to observe and record T-Stat VLS measurements of tissue oxygen saturation (StO_2%) and relative hemoglobin (tHb) at three tissue depths—skin, dermis, and subcutaneous fat—within the same DIEP flap, and to report the differences observed between layers.

Ten consecutive patients undergoing DIEP free flap breast reconstruction were prospectively enrolled. The T-Stat 1 cm surface sensor was applied sequentially to skin, de-epithelialized dermis, and subcutaneous fat on the same flap. Measurements were taken intra-operatively following signal stabilization.

A stepwise increase in both parameters was observed with increasing tissue depth in all 10 patients. Mean tHb: Skin 0.080 ± 0.018, Dermis 0.210 ± 0.087, Fat 0.286 ± 0.126. Mean StO_2%: Skin 58.3 ± 9.4%, Dermis 64.4 ± 11.0%, Fat 73.2 ± 7.6%. Inter-patient variability increased with depth.

VLS tissue oximetry readings obtained on dermis and fat differ systematically from those obtained on skin within the same DIEP flap. These findings are reported as observational data. We have found the Tstat monitoring of immense benefit to date and in our presentation we plan to outline our current use of T-Stat and present our current data.