

# BAPRAS

British Association of Plastic  
Reconstructive and Aesthetic Surgeons

**16<sup>th</sup> BAPRAS**

**Undergraduate Day**

**Saturday 28<sup>th</sup> October, 2017**

**Carriageworks , Leeds**



**BAPRAS**

British Association of Plastic  
Reconstructive and Aesthetic Surgeons

**16th Undergraduate Day**  
**Saturday 28<sup>th</sup> October, 2017**  
**Carriageworks, Leeds**

09:00	<b>Registration and refreshments</b>		<b>Parallel session</b>
	<b>Session 1</b>		
09:45	Welcome and introduction to Plastic Surgery	Mr Dean Boyce	
10:00	The place of Plastic Surgery in surgical history	Mr Umraz Khan	<b>Surgical Skills session 1</b>
10:20	Reconstructive Surgery Trials Network (RSTN)	Mr Luke Geoghegan	(10:00 to 11:20)
10:40	Trauma surgery	Miss Grainne Bourke	
11:00	Skin cancer	Mr Alex Jones	
11:20	<b>Refreshments</b>		
	<b>Session 2</b>		
11:40	Life in Plastic Surgery – myths and reality	Professor Simon Kay	
12:00	Burns surgery	Mr Alan Phipps	<b>Surgical Skills session 2</b>
12:20	Breast surgery	Miss Orla Austin	(11:40 to 13:10)
12:40	Aesthetic surgery	Mr Aidan Fitzgerald	
13:00	The role of e-learning in plastic surgery	Mrs Sarah Pape	
13:10	<b>Lunch and poster presentations</b>		
	<b>Session 3</b>		
14:00	Hand surgery	Mr Dean Boyce	<b>Surgical Skills session 3</b>
14:20	Lower limb surgery	Mr Umraz Khan	(14:00 to 15:10)
14:40	Elective presentation	Mr Alex Macmillan (elective awardee)	
14:50	Elective presentation	Ms Alice Mortimer	
14:55	Elective presentation	Ms Sasha Wilson	
15:00	Elective panel discussion	All Elective presenters	
15:10	<b>Refreshments</b>		
	<b>Session 4</b>		
15:30	Cleft surgery	Mr Peter Hodgkinson	<b>Surgical Skills session 4</b>
15:50	Research in Plastic Surgery, a practical guide	Mr James Paget	(15:30 to 16:50)
16:10	Plastic Surgery overseas	Mr Muhammad Faheem Khadim	
16:30	PLASTA	Mr Andreas Shiatis	
16:50	<b>Prizes Awarded – Surgical skills prize and best poster prize</b>		
17:00	<b>Close</b>		

CME points: 5.5

## Faculty Biographies

**Miss Orla Austin**



Miss Austin is a fully trained and qualified NHS Consultant Plastic Surgeon, employed at the Pinderfields hospital in Wakefield, West Yorkshire, specialising in reconstructive breast and burn surgery.

Initially qualifying as a doctor from University College Dublin in 1990, She completed her basic surgical training culminating in attainment of the FRCSI in 1994. She was also awarded the Registrar's prize for her surgical research during that time. She then went on to fulfil a lifelong ambition to train as a Plastic Surgeon, firstly in Dublin and then as part of the Yorkshire Regional Plastic Surgery Training Scheme. Throughout the course of that training, she decided on a sub speciality of breast reconstructive surgery together with burn reconstruction. She completed her training and passed the specialist exam in Plastic Surgery (FRCS Plast) in 2001 and was awarded the certificate for completion of Specialist training (CCST) and gained entry on to the GMC Specialist Registrar for Plastic Surgery.

**Miss Grainne Bourke**

**Mr Dean Boyce**



Dean Boyce is Consultant and Clinical Lead of the Welsh Centre for Plastic Surgery and Burns. He was appointed in 2003 after training in South Wales, the West Midlands, Manchester, Wrightington, and Sydney, Australia. He has a strong academic background, having been awarded a Hunterian Professorship for research into human and scar less wound healing. His current research areas mirror his clinical interests in peripheral nerve surgery, congenital hand surgery, upper limb cerebral palsy and Dupuytren's disease. He is heavily involved in postgraduate training and is currently selection lead for the national ATP fellowships in hand surgery. He is a Council Member of the British Society for Surgery of the Hand and Vice Chair of Education for the British Society of Plastic, Reconstructive and Aesthetic Surgeons.

**Mr Aidan Fitzgerald**



Aidan Fitzgerald has been Consultant Plastic Surgeon since 2003 in Sheffield with an interest in surgery of the head & neck as well as skin cancer.

He trained as a registrar in Edinburgh and Glasgow with subsequent fellowships in Melbourne and Toronto.

He has maintained an interest in training having been the regional training programme director in Yorkshire and the East Midlands for 9 years and recently been the Chair of the SAC in Plastic Surgery. He was previously the Chair of the Reconstructive Aesthetic Trainee Interface Group but most recently was appointed Chair of the Interface Trainee Oversight Group overseeing all TIG groups.

Mr Fitzgerald is also an MRCS examiner, an FRCS(Plast) examiner, a Royal College of Surgeons of Edinburgh regional advisor and General Medical Council associate.

Mr Fitzgerald is currently undertaking his Doctorate in Education

**Mr Luke Geoghegan**



Luke Geoghegan is the Undergraduate Lead for the Reconstructive Surgery Trials Network (RSTN) and is currently a 5th year medical student based at Imperial College London. Luke's role as Undergraduate Representative is to increase undergraduate interest in reconstructive surgery and facilitate medical student involvement in collaborative multi-center randomised controlled trials. Luke's research interests are based around optimising outcomes after extensive extremity trauma and the immunobiology of Vascularised Composite Allotransplantation.

**Mr Peter Hodgkinson**



Peter Hodgkinson qualified in Manchester in 1985 having undertaken a PhD in cleft lip and palate dysmorphology as a medical student. After general surgical training in Manchester he trained in plastic surgery in Manchester, Slough, Newcastle upon Tyne, Chepstow/Swansea and Adelaide, South Australia. He was appointed as Consultant Plastic Surgeon in 1996 and became clinical lead and lead surgeon of the Newcastle cleft service in 2002. He is the immediate Past-President of the Craniofacial Society of Great Britain and Ireland, a member of the Cleft Development Group and a Trustee of the Cleft Lip and Palate Association. He has personally operated upon more than 1200 new babies with clefts and has been responsible for the surgical management of all adults and children with cleft in the north-east since 2002.

**Mr Alex Jones**



Mr Jones is the Consultant Plastic Surgeon based at the James Cook University Hospital in Teesside and the Friarage Hospital in North Yorkshire.

His practice covers the breadth of plastic surgery including both reconstructive and cosmetic procedures. He has specialist interests in head, neck and facial reconstruction following skin and intraoral cancer and in breast reconstruction for patients following breast cancer. He is actively involved in the management of soft tissue trauma injuries including lower limb reconstruction following major trauma.

He is the local lead for education in plastic surgery for CT and ST grade doctors and is a regular panel member for national ST3 recruitment into plastic surgery. He has authored the question and answer book "Essentials of Plastic Surgery a Q&A Companion" with US surgeon Dr Jeff Janis, as well as a number of articles in peer reviewed journals.

**Professor Simon Kay**



Simon Kay was born in Kuwait in 1952, raised in Guernsey and educated at Shrewsbury and Oxford. After qualifying as a doctor, he trained in surgery before starting a career in plastic surgery as a means of becoming a hand surgeon.

He spent time in Australia and Kentucky, USA refining his skills in microsurgery before taking a consultant post at Leeds Teaching Hospitals. He spent 25 years there developing the role of microsurgery in the reconstruction of children's hands after birth defects, and establishing a large major nerve injury service.

He has also been involved in the organisation of the specialty, becoming President of two specialty associations and Editor of the major UK journal in this field.

In the last three years he has focused on the development of hand allografting, undertaking the UK's first hand transplant in December 2012.

**Mr Muhammad  
Faheem Khadim**



Faheem graduated from Quaid-e-Azam Medical College, Bahawalpur Pakistan and made a move to the UK for surgical training. He received basic and higher surgical training in Belfast, Northern Ireland. He did fellowship in microvascular surgery with Mr Umraz Khan at Bristol. He is Consultant Plastic Surgeon at Hull and East Yorkshire NHS Trust. His areas of interest are limb reconstruction and microsurgery. He visited Lahore, Pakistan with Mr Umraz Khan as a faculty member for the Microvascular Surgery Course. He has led a medical expedition to Iraq as well. His passion is about extending plastics and microvascular services to the less privileged in the third world. He is a keen calligrapher in English, Arabic, Persian and Urdu script.

**Mr Umraz Khan**



Umraz Khan was the Council Member for the South West of England, sitting from 2012-2014. Mr Khan graduated from University College London in 1991. He went on to undertake general surgical training in Bath and higher surgical training in Plastic Surgery on the London rotation. He undertook a trauma fellowship at Liverpool, Sydney Australia before taking up a consultant job at Charing Cross Hospital in London in 2002. He was program director for training in London prior to taking up a post in Bristol in 2006. He has published many papers on limb reconstruction and remains actively involved in this area of surgical research. He is now an a faculty member in the UK and visiting professor to the Allama Iqbal Medical School in Lahore.

**Mr Alex Macmillan**



Alex qualified from the University of Leeds in 2017. During undergraduate training he undertook an intercalated BSc in Clinical Anatomy, completing a project on microvascular reconstruction in Head & Neck cancer.

In 2016, with the help of the BAPRAS student bursary, Alex travelled to New Zealand to complete his elective with the Head & Neck team based at Auckland City Hospital.

Alex is currently working as an FY1 based at Harrogate District Hospital.

**Ms Alice Mortimer**



Alice Mortimer graduated from The University of Manchester in July 2017 and is currently working as academic foundation year one doctor at Manchester Royal Infirmary. During her undergraduate study, she became increasingly interested in pursuing a career in plastic surgery and completed several clinical and academic placements in this field. She was involved in service improvement and undertook a research Master's degree focusing on peripheral nerve repair. She has been fortunate enough to present her work at several national conferences and has recently had a research paper accepted for publication. For her medical elective she chose to spend eight weeks at The Children's Surgical Centre in Cambodia. This was a fantastic opportunity to learn about plastic surgery pathology and surgical technique, as well as experiencing a vastly different healthcare system. Moving forward she hopes to continue her research into peripheral nerve repair and secure a position as a core surgical trainee.

**Mr James Paget**



James Paget is a microvascular research fellow at the Royal Marsden Hospital and the Institute of Cancer Research, where he is undertaking a PhD investigating protecting free-flaps from radiation damage sustained during radiotherapy. His research is supported by a Wellcome Trust Clinical Research Fellowship, a BAPRAS research fellowship and the Mason's Medical Research foundation. He is on an Out of Program Research placement from his training number in Scotland.

**Mrs Sarah Pape**

Mrs Sarah A. Pape

Sarah A. Pape has been Consultant Plastic Surgeon at the Royal Victoria Infirmary, Newcastle upon Tyne since 1995. Her main interests are burns, paediatric plastic surgery and skin lasers. In 2006 she was awarded a Masters in Clinical Education from the University of Newcastle upon Tyne. She is currently the National Clinical Lead for the joint BAPRAS and Department of Health project e-Learning for Plastic Reconstructive and Aesthetic Surgery (e-LPRAS).

**Mr Alan Phipps**

**Mr Andreas Shiatis**



Andreas Shiatis is currently an ST5 in Plastic Surgery at the London Deanery after securing his National Training Number in 2014. Prior to studying medicine he completed a BSc in Biochemistry and Molecular Biology at Boston University, USA as a Fulbright Scholar. He then moved back to the UK to undertake the 4 year graduate entry Medical Degree at the University of Nottingham. He completed his foundation and core surgical training in London prior to commencing his Plastic Surgery training which is based in central London Hospitals such as Royal Free and Chelsea and Westminster Hospital. Andreas has been involved in research throughout his training with publications and presentations at a national and international level. Other interests include setting up surgical smartphone applications, as well as teaching. He has been involved with PLASTA for the last 2 years, serving as the Secretary for 1.5 years and recently as elected president. He plans to complete his training in London and to specialise as a reconstructive surgeon.

**Ms Sash Wilson**



Completed her final exams at University of Liverpool medical school and is currently studying a Masters in Medical Law and Ethics with the help of a scholarship from the Institute of Medical Ethics. She recently carried out her medical elective in plastic surgery at Sarawak General Hospital, Malaysian Borneo. Further to her hands-on experience in plastics, she set up the University of Liverpool's first teaching society dedicated to plastic surgery, LivPlast, in academic year 2016-2017.

## Posters

Posters will be judged by the faculty and a prize awarded to the best poster presenter at the end of the day.

Poster presenters should make themselves available for questions during the lunch break.

### **1. An Evaluation of the Preferred Methods of Reconstruction of Skin Cancer Defects**

Luke Allen, Howard Peach, Grainne Bourke  
(Leeds General Infirmary)

#### Introduction

Management of skin cancer forms an essential part of training in plastic surgery. However, this is becoming a highly subspecialised area and surgical competence in previously routine procedures is variable.

#### Objectives

The aim of this project is to evaluate consultant plastic surgeons and national trainees holding FRCS (Plast) preferred method of reconstruction of defects left following excision of different skin cancers, whether they have previously independently performed their preferred reconstructive option, and if they are currently comfortable independently reconstructing the defect.

#### Method

Twelve consultant plastic surgeons and nine national trainees holding FRCS (Plast) in our unit have been asked to review eight different images of skin cancers of different histological subtypes in different anatomical locations. Information on the participants training, and previous and current practise is illustrated.

#### Discussion

Our null hypothesis is "reconstructive plastic surgery training has not changed over time."

### **2. Validated Outcomes in the Grafting of Autologous Fat to the breast – the VOGUE Study: Development of a core outcome set for research and audit studies**

Miss M. Ahmed, Mr. R. Agha, Mr. T. Pidgeon, Dr. M. Borelli, Dr. T. Orkar, Mr. N. Dowlut.  
Dr. D. Orgill

#### Introduction

Autologous fat grafting (AFG) is an important technique when dealing with women affected by breast cancer. The debate over safety and efficacy continues to rage within the literature; work by our group has shown significant heterogeneity in outcome reporting. Core outcome sets (COS) have been shown to reduce this. We aimed to develop an AFG COS for breast reconstruction.

#### Methods

We published our protocol a priori. A DELPHI consensus exercise amongst key stakeholders was conducted using the long list outcomes generated through our previous work. These were divided into six domains previously identified; oncological, clinical, aesthetic and functional, patient-reported, process and radiological.

#### Results

In the first round 71% (55/78) of participants completed the exercise reaching consensus on 9 of the 13 outcomes. The clarity of results and lack of additional suggested outcomes deemed further rounds unnecessary.

#### Conclusion

Through this study, we developed a much-needed COS in the active research front and clinical area of AFG. We hope that clinicians, researchers and authors will use the COS when auditing, designing and writing up their studies. We encourage journals and surgical societies to promote their use to help the scientific quality of the debate, the discourse and the literature going forward.

### **3. Do Commercials Advertising Cosmetic Surgery Comply with Current Ethical Guidelines?**

Zeeshaan Arshad, Priyanka Chadha, David Pettitt  
(University of Oxford, Oxford)

There is concern regarding the lack of regulation of cosmetic advertisements, including TV commercials. As these may be watched by anyone, at any time, it is important they adhere to ethical guidelines. This study aimed to assess adherence of American commercials to standards set by the American Society of Plastic Surgeons.

207 individuals were surveyed. The expected compliance rate of 100% was compared to current practice using the CHI-squared test. Prior to distribution using Survey Monkey, the survey was pre-tested to ascertain face validity and inter-rater reliability ( $k=0.8$ ).

Compliance to all criteria was statistically significant in their extent of non-compliance ( $p<0.05$ ). Opinion regarding non-compliance was associated with female gender, advancing age, higher educational level, being from a minority race, and having previously had cosmetic surgery ( $p<0.05$ ). Breaches of the criteria: 'appeasement to layperson's fears, or emotional vulnerabilities', or 'use of exaggerated claims likely to attract patients', were thought to be most unethical.

Media can be used to better inform and gain the trust of patients by accurately displaying the benefits and risks of surgery. Lack of adherence to published guidelines, as demonstrated in this study, can breach these ideals. It is essential that guidance be enforced to protect patient safety.

#### **4. Seeding Keratinocytes on Papillary and Reticular Dermal Layers Remodels Skin Explants Differently: Towards Improved Skin Grafting**

Timothy Bage, Trevor Eydmann, Anthony Metcalfe, Baljit Dheansa, Lubinda Mbundi  
(Blond McIndoe Research Foundation, Queen Victoria Hospital)

##### **Introduction**

Previous studies have highlighted differences between the papillary and reticular dermal characteristics in wound healing, but the efficacy of this towards improving surgical interventions and burn care remains unclear. To our knowledge, the remodelling of these layers when seeded with keratinocytes *ex vivo* is characterised here for the first time.

##### **Methods**

Keratinocytes were seeded onto exposed papillary or reticular dermis. Explants were cultured for 1-3 weeks, and processed for histological and immuno-stains.

##### **Results**

Keratinocytes seeded on the papillary layer showed less tissue infiltration and remodelling, and formed clusters across the surface with evidence of basement membrane formation (laminin) in week 2. In contrast, keratinocytes seeded onto reticular dermis achieved complete coverage by week 2, with increased infiltration of keratinocytes and structural changes in the surrounding dermis akin to the papillary layer.

##### **Discussion and Conclusions**

The observed differences in re-epithelialisation, structural integrity and protein expression after keratinocyte seeding suggests that graft thickness and wound depth, with respect to papillary and reticular dermal layers, needs to be taken into account. Moreover, this observation also shows that keratinocytes contribute directly to the remodelling of underlying tissue and that spraying papillary fibroblasts into deeper wounds may speed up basement membrane formation and re-epithelialisation.

#### **5. Defining Möbius Syndrome**

Mr C Bell, Dr D Jenkins, Dr V McKay, Mr A Fattah  
(Alder Hey Children's NHS Foundation Trust)

**Introduction:** Minimum diagnostic criteria (MDC) as defined by the 2007 Moebius Foundation Symposium are defined as "congenital uni- or bi-lateral non-progressive facial weakness with limited abduction of the eyes", but Moebius syndrome is an etiologically heterogeneous disorder, with wide variability in diagnostic criteria.

**Objective:** Review the literature to extract phenotypic information to determine the frequency of associated anomalies.

**Methods:** A search was performed using PubMed and the NHS Evidence Databases. Cases from included papers were recorded.

**Results:** The search generated a list of 1010 titles. Titles and abstracts were evaluated using the inclusion/exclusion criteria for relevance. Included articles were reviewed for

further references. In total details of 449 cases of Moebius syndrome were retrieved. Findings include that all patients meeting MDC have a strong correlation with epicanthic folds, swallowing difficulties and abnormal tongue. Poland anomaly occurred in 22%. Meta-analysis of the cohort is underway.

Discussion: A large composite case series was extracted from the literature and analyzed. Given the paucity of large series, this study provides useful information regarding the frequency of anomalies in patients reported in the literature. Distinct groups of anomalies cluster together; there is scope for sub-classifying Moebius syndrome, including with pending future genetic studies.

## **6. Purpura Fulminans: A Surgical Perspective**

Miss Saarah Ebrahim BSc, Dr Mohammed Asif MD, Dr Luis Quiroga MD, Dr Seth Ladd DO, Dr Julie Caffrey DO

(Johns Hopkins Burn Center, Department of Plastic and Reconstructive Surgery, The Johns Hopkins University School of Medicine)

Purpura fulminans (PF) is a severe medical emergency and potentially fatal thrombotic disorder. It most commonly progresses from the acute inflammatory response to subsequent disseminated intravascular coagulation (DIC) seen in severe bacterial septicemia. Here, we present a case of a patient with PF who was treated at a tertiary burns centre. When the patient was deemed to have improved clinically and the necrosis delineated, surgical management was implemented with subsequent involvement of various rehabilitation services. A review of the literature has shown that an aggressive treatment of critical care (fluid resuscitation, specific antibiotics, respiratory and inotropic support) and surgery (debridement, excision and skin grafts) can improve survival. Patients who survive the acute clinical presentation, face a high morbidity rate due to the insidious skin necrosis and infections that can arise. The case highlights the importance of a multidisciplinary team management and an awareness of the clinical presentation to ensure effective support and better outcomes. Given the increased risk of post-operative complications, management of these achievements is best achieved in burn units where newly published protocols can help achieve optimum treatment. In this high dependency, intensive care setting, temporary allograft can be used before preparing the tissue bed for autograft reconstruction. This case study is in line with the findings from an extensive review of the literature.

## **7. Improved Survival in Pectoralis Major Myocutaneous Flap Reconstruction of Head and Neck Defects**

Dr. SGL Edmunds, Miss. K Anesti

(Royal Devon and Exeter Foundation Trust)

### **Aims**

The purpose of this study is to evaluate surgical outcomes after head and neck defect reconstruction in patients with primary orofacial cancer, recurrence or osteoradionecrosis, with a pectoralis major myocutaneous flap (PMMF).

## Method

15 patients (11 male, four female) mean age 67 (range 48-85) were recruited over a two-year period. Five patients received pre-operative chemotherapy; eight received pre-operative radiotherapy. All consecutive patients' details have been prospectively entered in the BAPRAS National Flap Audit.

## Results

Two patients suffered post-operative complications requiring a further procedure for an abscess formation and necrotising fasciitis; both patients received a PMMF following primary carcinoma excision. The PMMF was preserved in all patients with 0% skin necrosis. All patients were discharged well with established oral intake (average hospital stay 22 days).

## Conclusions

The PMMF remains a valuable reconstructive option in the head and neck. When correctly performed, by following the anatomic principles, success may be maximised. However, it must be remembered that the ultimate success of the skin paddle is likely a function of both technical considerations and unique patient factors. Despite the popularity of free flaps, there is still a role for PMMF in patients whom are high risk for free flap surgery.

## **8. Syndactyly, developments in research and impact on management**

Miss AIG Fort-Schaale  
(Hull-York Medical School)

### Aim:

To evaluate the relative importance of scientific and surgical advances upon the management of Syndactyly.

### Approach:

Relevant systematic-reviews and papers were identified through literature database searches and analysed.

### Discussion:

Scientific developments have enabled phenotypical classification of Syndactyly, however, it is complicated by Syndactyly's heterogeneous inheritance and penetrance, therefore anatomical classification remains widely employed.

The SHH and ZPA pathways are critical in Syndactyly's aetiology, yet in terms of impact upon management, the contribution from genetic discoveries is currently negligible and the mainstay of treatment remains surgical. However, no gold standard operation exists, instead common techniques are employed, usually requiring dorsal metacarpal or rectangular flaps with skin grafts for web-space reconstruction.

Contracture and web-space creep are key complications that new flap techniques aim to avoid; dorsal separated V-Y advancement flaps and volar triangular flaps have yielded

promising results. Sub-cutaneous tissue flaps may also diminish the requirement for skin grafts.

Conclusion:

The benefit of Syndactyly's genetic research is yet to be determined, future approaches including genetic modification may be facilitated if the condition can be accurately genetically defined. However, in the short term, management is more likely to progress through surgical advances. Abbreviations: SHH – Sonic Hedgehog, ZPA – Zone of Polarising Activity

## **9. The Benefits of the MEEK Skin Grafting Technique for Major (>40%) Burns in a Paediatric Population, South Africa.**

L. Horseman

(Red Cross Memorial Hospital, Cape Town, South Africa)

Autologous skin grafting is the gold standard for burns treatment. However, limited surface area of donor skin post major burns is a compromising factor in patient survival and outcome. Novel skin grafting techniques are required to achieve full wound coverage. The MEEK technique is proposed as a pioneering option for treatment of major burns. A split thickness skin graft is created using fragments of autologous donor skin placed on a cork block. This is then expanded with a true expansion ratio of 1:3 to 1:9 and stapled to the skin bed on gauze. The gauze is later removed.

The procedure has multiple benefits; uniform islands of re-epithelisation are created, with aesthetic outcome comparable to a traditional 1:3 meshgraft. Skin is soft and pliable on follow up. The technique provides a 'rescue method' for major burns whose outcome would previously been poor. This is exemplified by the case study of child A, a 4-year-old with 85% TBSA flame burns sustained after non-accidental injury. Donor skin was harvested from the patient's scrotum, and MEEK successfully undertaken to achieve full burn coverage.

To conclude, MEEK has provided plastic surgeons with an invaluable option to improve patient morbidity and mortality in major burns.

## **10. Are Operative Notes Documented Appropriately? An Audit Assessing Compliance with RCS Guidelines in the Plastic Surgery Department**

Mr A Kitchin, Miss S Hunt, Dr M Sherafati, Mr M Tamimy  
(City Hospital)

Background:

The Royal College of Surgeons' (RCS) 'Good Surgical Practice' guidelines (2014) outline key criteria to be met in operative notes. This audit aims to identify surgeons' compliance with 15 of these and how to improve their adherence.

Method:

Audit cycles were performed assessing the quality of 100 operative notes using the RCS's guidelines as a gold standard. The first audit cycle assessed concordance,

highlighting areas for improvement. As an intervention, the Nottingham City Hospital Plastics Department was educated on the common shortcomings with regards to operative note writing. In addition, post-operative proformas were designed and implemented. The following audit cycles evaluated the rate of uptake of proformas as well as the efficacy of education and proformas to enable notes to comply with the RCS guideline.

#### Results:

After the introduction of these interventions 10 out of 15 criteria had increased adherence, however there was no change in 1 and a decreased adherence in four. There was a 16% usage of the post-operative proformas. When used, 8 out of 15 criteria were met perfectly.

#### Conclusion:

This audit highlights the importance of education related to operative note making and identifies the potential of proformas to greatly increase the standard and clarity of post-operative care.

### **11. Cutaneous Pyoderma Gangrenosum of the Hand**

Mr T Mihailidis<sup>1</sup>, Mr S Gujral<sup>2</sup>, Mr D Izadi<sup>3</sup>

(Department of Medicine, University of Bristol<sup>1</sup>, Department of Plastic Surgery, Southmead Hospital<sup>2</sup>, Department of Plastic Surgery, Royal Devon and Exeter Hospital<sup>3</sup>)

Pyoderma gangrenosum (PG) is a autoimmune, neutrophilic dermatosis of unknown aetiology. This case study (ePlasty, Open Access Journal of Plastic Surgery) presents a patient clinically diagnosed with cutaneous PG of the hand: a 65-year-old man presented with a left non-traumatic thumb lesion. Inflammatory markers were raised and infection initially diagnosed. Despite surgical debridements and intravenous antibiotics, wounds deteriorated, extending to his index finger. Microbiology and histology were non-specific. A diagnosis of PG was made and successful treatment with steroids was initiated.

Though rare, an index of suspicion should be maintained as PG can present similarly to other conditions in the hand such as fulminating infection and malignancy, that would traditionally be managed surgically. Although international diagnostic criteria are yet to be established, prompt diagnosis is essential in avoiding significant clinical consequences.

The work highlights to the surgeon the dangers of pathergy (a non-specific hypersensitivity reaction of skin to minimal trauma, leading to persistent ulceration at the site of surgical incision) with debridement of inflammatory ulcers or surgery in a patient with inflammatory disease: inappropriate surgical debridement of PG in the hand can lead to persistent and worsening ulceration and poor outcomes, such as digital amputation, so should be avoided.

### **12. Epidermal Grafts vs Autologous Cell Therapies in the Treatment of Vitiligo: A Systematic Review and Protocol**

Mr DM Murphy, Mr JCR Wormald, Mr DP Collins

(Norwich Medical School, University of East Anglia)

#### Background:

Vitiligo is a skin disorder characterised by a patchy loss of skin pigmentation. Surgical treatment is becoming popular, either using tissue grafts(TG) or autologous cell therapies(ACT). Autologous epidermal grafts(EG) are a type of TG. The uppermost skin layer is harvested from an autologous unaffected site and transplanted onto a prepared vitiliginous patch. ACTs involve the transplantation of epidermal cells, melanocytes, or both melanocytes and keratinocytes. Cells are obtained from an autologous unaffected site, separated by laboratory techniques, held in suspension, then transplanted onto a recipient site.

#### Aim:

To compare the efficacy of EG and ACT in the treatment of stable vitiligo, enabling professionals to provide optimal patient care.

#### Methods:

A search strategy involving electronic databases and trial registers identified appropriate primary studies, review articles, dissertations and theses. Participants were adults(>18yrs) with stable vitiligo. Primary outcomes included patient-reported satisfaction and short-term re-pigmentation(%). Secondary outcomes included long-term re-pigmentation(%), quality of re-pigmentation, and adverse events. After assessing 58 ACT and 80 EG full-texts, 32 and 40 articles were deemed appropriate for descriptive statistical analysis of relevant outcomes.

#### Results:

EG and ACT are safe and effective for re-pigmentation in vitiligo. Both are satisfying for patients. Further evaluation in adequately powered trials is necessary.

### **13. The Status of Burns: the Association between Burns Injury and Socioeconomic status in Wales**

Miss C Okorocho

(Burns and Plastic Surgery Unit, Morrison Hospital, Swansea)

Burn injuries contribute to a significant health burden in the UK, making up 5.4% of serious injuries. Several underlying factors e.g poor housing and inaccessibility to healthcare, make socioeconomic deprivation (SED) a well-known risk factor for burns injury. Therefore, using the postcodes of patients presenting to the SWUK Burns Centre Swansea, from January 2013–2016, the correlation of SED and burns injury was determined.

A Welsh Index of Multiple Deprivation (WIMD 2014) score was calculated. Those of lowest socioeconomic (WIMD  $\leq$  191 /LSES) and highest socioeconomic status (WIMD  $\geq$  956 /HSES) were extrapolated and studied. 3,047 patients presented over this time, with a statistically significant increase in numbers/year ( $p = 0.00049$ ). Comparing the two groups revealed little difference in epidemiology: double incidence of male to female patients, commonest injury was scalds, and a large proportion of patients were  $<5$  years old. Swansea remained the highest presenting area for LSES and HSES, but the Centre's

location skews data. Cardiff and Newport followed closely behind for LSES, Caerphilly for HSES.

Although burns prevention programmes focus on protecting toddlers from scalds, emphasis should continue to be on targeting deprived areas in Wales; and further research needed to determine the association of burns risk with occupation.

#### **14. Objectively Scoring Cleft Lip & Palate information websites: Are the best websites coming out on top?**

Rangaraju M., Lloyd M., Khan K  
(Birmingham)

Background:

Whether a new diagnosis or for ongoing care, the Internet is a frequented resource for health information. The aim of this study was to assess the correlation between the first 50 ranked websites for cleft lip and palate via the Google search engine versus those ranked with a patient information scoring tool.

Methods:

The first 50 websites ranked by Google® were recorded for search items 'Cleft Lip', 'Cleft Palate' and 'Cleft Lip and Palate'. Quality assessment was performed using the DISCERN score, an objective and validated patient information website scoring tool. Google® rankings were compared to DISCERN rankings to assess correlation.

Results:

Based on Google® rankings, 36% of websites were the same across the search terms used. The DISCERN ranking scores demonstrated no evidence of correlation when compared to Google® rankings. In the top 10 DISCERN ranked websites for each search item, four websites appear in the top 10 Google rankings.

Conclusion:

This is the first study that demonstrates high-quality information on cleft lip and palate is available on the Internet. This may be confusing for parents to access due to internet search engine's ranking system. Cleft professionals should be aware of these problems when recommending websites to patients.

#### **15. A challenging case of complex facial reconstruction for Marjolin's ulcer following extensive burns in an HIV-positive female**

Miss E M Rosario<sup>1</sup>, Dr C Sofianos<sup>2</sup>

(The Medical School University of Sheffield Sheffield S10 2RX <sup>1</sup>

Department of Plastic and Reconstructive Surgery, University of the Witwatersrand Johannesburg, South Africa <sup>2</sup>)

A 39-year-old African female, with a childhood history of facial and upper body burns, presented with a painful cheek mass with enlargement and intermittent bleeding for over 12 months (figure 1). Biopsy confirmed a squamous cell carcinoma (Marjolin's

ulcer). CT scan demonstrated mandibular involvement. CD4 count was 178 with unsuppressed viral load despite antiretroviral therapy.

Wide local excision, lymphadenectomy and hemi-mandibulectomy with reconstruction of the defect by plate and anterolateral thigh (ALT) flap was performed. Poor healing resulted in dehiscence at the medial, superior and lateral flap inset. Repeated debridement allowed partial wound closure, however the mandibular prosthesis remained exposed (figure 2).

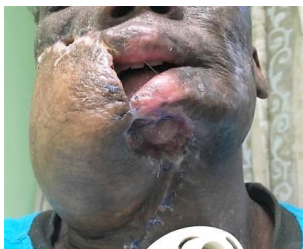
Six weeks after initial surgery, a pedicled pectoralis major flap with split skin graft (SSG) was used to cover the intraoral prosthetic exposure. Chest burns precluded concomitant use of a skin island. The patient was discharged ten days later with all wounds healed. A second stage fibular transfer is planned for definitive osseous mandibular reconstruction.

Late presentation of head and neck cancer in resource-poor settings and accompaniment of HIV disease present reconstructive challenges. Poor wound healing is common in such patients with poor HIV control. Pedicled muscle flaps allow useful salvage and management of flap or donor-site complications.

**Figure 1**



**Figure 2**



## **16. Follow-up requirements after excision of low-risk squamous cell carcinomas (SCC)**

Mr N Jakharia-Shah, Dr P Chadha, Ms J Geh  
(St Thomas' Hospital)

### **Introduction**

No guidance on post-operative follow-up of low-risk SCCs is documented, leading to varied practice between trusts and inefficient use of resources.

## Aim

We evaluated the need and cost of follow-up for low-risk SCCs and propose a sustainable follow-up regime.

## Methods

We analysed SCC recurrences and follow-ups retrospectively over a two year period. Case notes, operation notes and electronic appointment systems were utilised for data collection.

## Results

Data was collected for 90 patients, comprising 119 SCCs (Table 1).

Group	Group criteria	No. of tumours	Mean follow-up (range)	Total No. of follow-up appointments (range)	Recurrence (%)
Low-risk	Well-differentiated or SCC in-situ	70	8.9 weeks (0-45)	99 (0-5)	5 (7%)
High-risk	Moderately/poorly-differentiated or perineural invasion	49	15.4 weeks (0-96)	115 (0-9)	5 (10%)

Table 1: Data summary

Around 14,420 SCCs are reported each year. Extrapolating our data, assuming 50% are low-risk, equates to roughly 10,200 appointments. At approximately £120 per out-patient appointment, this costs the NHS £1.2million per-year. Given the low recurrence rates supported by our study (7%), we believe regular specialist follow-up is not indicated.

## Conclusion

Discharging patients after first follow-up would save approximately £350,000 annually. An emphasis on self-examination or discharge to primary care is needed to ensure safe long-term management.

## 17. Innovative usage of platysma in the management of pharyngocutaneous fistula following a total laryngectomy

Mr H. Shariff, Miss K. Anesti

(Royal Devon and Exeter Hospital)

### Background:

Pharyngocutaneous fistula (PCF) is the most common complication following total laryngectomy and is associated with increased morbidity, delay in adjuvant treatment, prolonged hospitalisation and increased treatment costs. Surgical intervention is indicated following a failed conservative approach and may include primary closure, loco-regional flaps and free flaps.

The present study examines the use of platysma flap in the management of PCF following a total laryngectomy.

#### Materials and Methods:

A retrospective study recruiting consecutive patients who presented (2015 -2017) with persistent PCF following total laryngectomy despite medical management and treated with the use of platysma flap.

There were five patients, all males, with a mean age of 74 years (range 64-82). Post-operative evaluation was carried out with a formal clinical and radiological swallow assessment.

#### Results:

All patients demonstrated no recurrence of leakage following the procedure.

The mean hospital stay for patients following the operation was 14.8 days (range 2-29).

The mean total days post op for a successful swallow blue dye test was 9.6 days (range 6-12). There was no donor site morbidity.

#### Conclusions:

A novel use of platysma flap for PCF can substitute free flaps and loco-regional flaps in treating PCF and may confer better health outcomes in patients with extensive co-morbidities.

### **18. How do outcomes following breast surgery compare with patient preferences?**

SB Smith, H Boyd, T Reekie, A Malyon

(Canniesburn Plastic Surgery Unit, Glasgow Royal Infirmary)

#### Introduction

Breast reconstruction aims to provide patients with a symmetrical bust. Numbers of operations required to achieve this must be minimised, however procedures occasionally yield inadequate outcomes which require further surgery. This study recorded patient preferences, and whether a symmetrical outcome was achieved in one operation.

#### Methods

Retrospective study of 73 patients stating bust size preferences prior to reconstructive breast surgery for cancer between January 2012 and December 2015 was performed. Preferences were categorised (smaller, similar, bigger), and compared to outcomes (symmetrical, or requiring secondary surgery). Cup size, operative technique and smoking status were assessed to discover potential relationships.

#### Results

Rate of symmetry was 56.16% (n=41). 23 patients required secondary surgery, nine were excluded. 18 patients desired smaller bust - eight achieved symmetry, eight required secondary surgery. 47 patients preferred to stay similar - 29 achieved this (14 required secondary surgery). Four patients requested larger - three achieved symmetry - and four stated no preference.

#### Conclusions

Pressure is increasing to limit the number of procedures allowed in pursuit of breast reconstruction. Although our study shows that over half of patients achieve symmetry in one operation, many still required symmetrising procedures which highlights the

importance of commissioners being realistic when setting limits on reconstructive techniques.

### **19. A Systematic Review of Patient Reported Outcome Measures in Facial Reconstruction**

Mr A. Thind, Mr T. Dobbs, Mr B. Patel, Prof I. Whitaker, Prof H. Hutchings  
(John Radcliffe Hospital)

In plastic and reconstructive surgery, patient reported outcome measures (PROMs) remain an important method by which outcome is measured. This systematic review aims to critically analyse the validation methods and summarise the content of PROMs utilised in patients undergoing facial reconstructive surgery.

An electronic search of literature databases (PubMed, Medline, Embase, PsychInfo, Cochrane and Grey literature) was conducted to identify instruments developed for and validated in patients that underwent facial reconstructive surgery. Included PROMs were analysed in terms of development and validation methods according to criteria developed by Terwee et al. The content of each included PROM was summarised to allow comparison.

16,165 articles were obtained from the initial search, 17 PROMs met inclusion criteria. In all but one (Sino-Nasal Outcomes Test 22), included PROMs did not meet criteria for adequate validation. Furthermore, a considerable disparity in terms of content was identified, even between PROMs developed to measure outcomes for the same procedure.

A wide variety of PROMs for facial reconstructive procedures are available, yet, there is a lack of data regarding their reliability and validity. Thus, further validation studies are required to aid clinicians in selecting PROMs that adequately capture patient's perceptions of the surgical outcome.

# Abstracts

Day 1 Session 1 – 10:00 – 11:20

Mr Umraz Khan

## **The place of Plastic Surgery in surgical history**

Plastic Surgery in modern parlance has a bit of an image problem... Why?? It is often only associated with cosmetic practice which includes the voyeurism of reality TV. This talk will help to dispel some of these stereotypes by illustrating the breadth of the specialty. Plastic Surgery is often associated with glamour and wealth.... This talk will show you that a skilled Plastic Surgeon is required as much in the developing world, treating the poorest people on earth. Whether it is tumour or trauma that attracts you, whether it is treating the very young or the very old, whether it is the excitement of team work interfacing with other specialties you will be challenged by Plastic Surgery. Every operation requires clarity of thought and an appreciation of human anatomy. These points will be illustrated with clinical examples.

Day 1 Session 1 – 10:20 – 10:40

Mr Luke Geoghegan

### **Reconstructive Surgery Trials Network (RSTN)**

The RSTN is the UK clinical trials network for plastic surgery set up by the British Association of Plastic, Reconstructive and Aesthetic Surgeons and The British Society for Surgery of the Hand as part of the Royal College of Surgeons clinical trials initiative. The aim is to support the development of prospective, multicentre clinical research to improve patient care through the development of a better evidence base. The RSTN facilitates engagement from all levels of seniority ranging from medical student to consultant. It has recently completed the initial phase of the first undergraduate-led national project in plastic surgery, which investigated the perioperative of women undergoing breast reconstruction (The optiFLAPP Study).

Day 1 Session 1 – 10:40 – 11:00

Miss Grainne Bourke

**Trauma surgery**

Day 1 Session 1 – 11:00 – 11:20

Mr Alex Jones

### **Skin cancer**

The incidence of skin cancer is on the increase and plastic surgery is a major player in its management. The mainstay of treatment for skin cancer is surgical excision, hence Plastic surgeons are commonly involved in the initial diagnosis and treatment of most skin cancers. They are also involved in the management of more advanced skin cancers that have locally infiltrated adjacent tissues or metastasised to regional lymph nodes and distant skin sites. The role of the Plastic surgeon includes not only tumour and metastatic disease resection, but also reconstruction, which can require the full range of plastic surgical reconstructive techniques. Some skin cancers require additional treatment with chemotherapy, radiotherapy or immunotherapy. Specific additional techniques are sometimes used, such as Moh's micrographic surgery and isolated limb perfusion. The management of skin cancer is a growth area of medicine given the large number of patients affected by them.

As with all cancer types, treatment is undertaken under the guidance and support of a multidisciplinary team (MDT) structure. The other members include General Practitioners with specialist interests (GPSI), Dermatologists, Pathologists, Radiologists, Oncologists and Specialist skin cancer Nurses. The extended MDT may involve Vascular, Ear, Nose and Throat, Maxillofacial, General, Neuro-, and Ophthalmology surgeons in cases where skin tumours involve specialist tissues. This talk will outline the main types of skin cancer and the varied roles of the plastic surgeon in treating patients with this broad range of diseases.

Day 1 Session 2 – 11:40 – 12:00

Professor Simon Kay

**Life in Plastic Surgery – myths and reality**

Day 1 Session 2 – 12:00 – 12:20

Mr Alan Phipps

**Burns surgery**

Day 1 Session 2 – 12:20 – 12:40

Miss Orla Austin

### **Breast surgery**

Plastic Surgery is defined as the art of repair, restoration or improvement of lost, injured, defective or misshapen parts of the body, using techniques that utilise the knowledge of structural anatomy and include adjustment, mobilisation, and transfer of tissues to recreate the desired structure, form and function.

There were 55,222 cases of newly diagnosed breast cancer in 2014. These patients were almost all treated with surgery and some with adjuvant chemotherapy and radiotherapy. Surgery is in the form of wide local excision (lumpectomy) or mastectomy. The resultant defect can be quite disfiguring and therefore requires reconstructive surgery to restore shape and symmetry. This may be in many forms including breast implants, local flap reconstruction, fat transfer and free tissue transfer. Reconstructive breast surgery also encompasses symmetrizing surgery including breast uplift, reduction and augmentation. In addition to the management of breast cancer patients, Plastic Surgeons also treat other breast deformities which may be congenital or developmental in nature, including congenital tubular breast deformity together with post-partum and post weight loss breast aesthetics.

Day 1 Session 2 – 12:40 – 13:00

Mr Aidan Fitzgerald

**Aesthetic surgery**

This short talk will provide an overview of the possibilities in Aesthetic Surgery with respect to the Head & Neck, breast and torso. Whilst this can be a rewarding aspect of a Plastic Surgeon's career, the talk will also focus on what it takes to have a safe and effective private practice.

Day 1 Session 2 – 13:00 – 13:10

Mrs Sarah Pape

### **The role of e-learning in plastic surgery**

To be a good plastic surgeon you need to have a broad scope of knowledge of the speciality, in-depth understanding of the concepts of surgical techniques (which are often employed in one-off situations), enjoy working in partnership with patients and colleagues, be creative and be able to apply all of those abilities with meticulous surgical skills. There are many ways to gain knowledge and understanding: reading books and journals, attending lectures, courses and conferences, observing experts at work and work-placed based learning.

Traditionally, books and journals were the main learning tools for surgical trainees. However, given the wide scope of plastic surgery the standard text books are multi-volume, expensive and soon out of date. For the past 6 years BAPRAS has been working in conjunction with e-Learning for Healthcare (part of Health Education England) to create a series of web based e-learning sessions to cover the whole of plastic surgery. This enormously ambitious project is nearing completion, with more than half of the topics now online. These are available free of charge to all NHS staff and to medical students via Open Athens. For medical students in the devolved nations there is a workaround solution for access.

If once you have heard my talk you would like to learn more, please visit the e-LPRAS stand during the breaks, where we will be able to demonstrate some of the live sessions and assist you to access the materials.

Day 1 Session 3 – 14:00 – 14:20

Mr Dean Boyce

### **Hand surgery**

Hand surgery is a unique specialty that requires a variety of specialist skills. It can be approached via Plastic or Orthopedic Surgery. Here we describe the plastic surgery perspective

Day 1 Session 3 – 14:20 – 14:40

Mr Umraz Khan

### **Lower limb surgery**

Lower Limb- within Plastic Surgery a Cinderella sub-specialty has emerged. Care of acute severe injuries of the limbs as well as limbs which have a chronic condition such as diabetes and osteomyelitis fall within the remit of 'Lower Limb'. This lecture will demonstrate the fact that increasingly complex, high energy trauma can be salvaged using sophisticated techniques to produce a useful limb. You will also learn the advance in the management of diabetic disease as well as of bone infection.

The learning objectives are:

- 1) what is Ortho-Plastic surgery?
- 2) the basis of modern treatment of severe leg trauma
- 3) diabetic foot disease
- 4) osteomyelitis an it's treatment

Day 1 Session 3 – 14:40 – 14:50

Mr Alex Macmillan (elective awardee)

### **Electives**

Auckland City Hospital (ACH) is New Zealand's largest public sector hospital with over 700 inpatient beds. Furthermore it is one of the busiest surgical centres, completing 23,000 elective discharges per year. Located in Grafton, ACH not only provides care to Auckland's 1.4million residents, but also acts as a tertiary referral centre for much of New Zealand's north island.

This was a six week clinical attachment with the head & neck team at ACH. Much of the workload was focussed on the treatment of head & neck cancers. The team was made up of three consultants, a clinical fellow as well as a specialist registrar. The unit was responsible for the care of patients with all types of head & neck malignancy, including cancers of the upper aero digestive tract, larynx, skin as well as a considerable endocrine practice. There was also opportunity to see some facial plastics and rhinology. A typical day would start off with ward round. Here I was able to learn about issues including wound healing and tracheostomy care. Theatre lists would commence following ward round with two theatres running at any time. If not in theatre there was plenty of opportunity to attend clinic where surgeons were happy to teach. It also helped improve my clinical skills in examining patients. Each week there was an MDT where new patients were discussed and treatment planned. This provided an opportunity to learn about the multidisciplinary approach to treating patients with Head & Neck cancer. I thoroughly enjoyed my elective experience and would highly recommend ACH to any students considering undertaking an surgical elective.

Day 1 Session 3 – 14:50– 14:55

Ms Alice Mortimer

### **Elective presentation**

Ms Mortimer spent eight weeks at the Children's Surgical Centre (CSC) in Cambodia and provided her with a hugely rewarding yet challenging experience. The centre provides rehabilitation surgery free of charge for poor Cambodians, both children and adults. It is also a training centre for young Cambodian surgeons and aims to provide sustainable healthcare for the country. Experiencing surgical care in a developing country was extremely eye opening and provided her with a heightened appreciation for the services that we benefit from in the UK. During her placement she was able to gain hands on surgical experience and witness pathology rarely seen in the developed world. she was also lucky enough to work with a team of visiting UK and Singaporean plastic surgeons to provide specialist hand and peripheral nerve surgery for complex patients. Alongside clinical activities, she also carried out teaching presentations and was involved in several quality improvement projects focussing on improving ward round documentation and patient follow-up. Conducting this elective allowed me to challenge myself both personally and professionally, and has given her a newfound interest in global surgery.

Day 1 Session 3 – 14:55 – 15:00

Ms Sasha Wilson

**Elective presentation**

Summary of how to get started on organising an elective, what was gained from carrying out an elective abroad, along with any challenges experienced, following by a question and answer session.

Day 1 Session 3 – 15:00 – 15:10

All Elective presenters

**Elective panel discussion**

Day 1 Session 4 – 15:30 – 15:50

Mr Peter Hodgkinson

### **Cleft surgery**

The presentation will discuss:-

- How Mr Hodgson became a cleft surgeon
- How cleft surgery is organised in the UK
- An overview of cleft treatment from birth to adulthood

Day 1 Session 4 – 15:50 – 16:10

Mr Muhammad Faheem Khadim

### **Plastic Surgery overseas**

For over 5 billion people around the world basic surgery and treatment is not affordable. For most in the world, survival through diseases is the priority. Surgical advances are collective intellectual property of humanity and therefore should be accessible by all. Plastic surgeons in the UK continue to improve quality of life beyond survival. We are spreading the goodness to the deprived world too. There are many successful stories of British Plastic surgeons establishing and exporting skills to the needy and changing lives. Everyone has a potential to make a difference and anyone is welcome. British organisations including BFIRST are out there to help”.

Day 1 Session 4 – 16:10 – 16:30

Mr James Paget

**Research in Plastic Surgery, a practical guide**

Day 1 Session 4 – 16:30 – 16:50

Mr Andreas Shiatis

## **PLASTA**

The aim of this talk is to introduce PLASTA and its mission to undergraduate trainees. It will present the background of the association, its mission statement as well as an outline of the future events that are planned ahead. The update will also introduce the new website which has recently been launched. The end of the talk will be open to discussion in order to gauge the undergraduate interest in PLASTA and how we can help undergraduates to reach their potential and meet their future goals.

# Trade Exhibition

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e-LPRAS

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Website: [www.e-lfh.org.uk/programmes/plastic-reconstructive-and-aesthetic-surgery](http://www.e-lfh.org.uk/programmes/plastic-reconstructive-and-aesthetic-surgery)

e-LPRAS is an e-learning project for Plastic, Reconstructive and Aesthetic Surgery, which is supported by BAPRAS.

If you would like to find out more about the project (e.g. how to access the learning materials or contribute as an author) then please speak to one of the representatives on the e-LPRAS stand.

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## Notes





