3.6 Breast Surgery

Monday 18 and 19 April 2016
## Day One - Monday 18th April 2016

### 08:45 - Registration and Coffee

### 09:25 - Welcome: Mr Umraz Khan

### Session 1 - Assessment and oncology update

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<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
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<tr>
<td>09:30</td>
<td>Measurement, photography and 3D analysis</td>
<td>Mr P Harris</td>
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<td>09:50</td>
<td>Radiological assessment in breast reconstruction</td>
<td>Dr A Redman</td>
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<td>10:10</td>
<td>Update on oncology issues affecting breast reconstruction</td>
<td>Dr M Kelleher</td>
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<td>Use of I125 seed localisation in therapeutic mammoplasty</td>
<td>Mr H Cain</td>
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<td>Questions and panel discussion</td>
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<td>11:10</td>
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### Session 2 - Oncoplastic surgery

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<tr>
<td>11:30</td>
<td>Volume displacement techniques in partial breast reconstruction</td>
<td>Mr D Macmillan</td>
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<td>11:50</td>
<td>Volume replacement techniques in partial breast reconstruction</td>
<td>Mr S McCulley</td>
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<td>12:10</td>
<td>Skin and nipple sparing mastectomy</td>
<td>Ms J Rusby</td>
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<td>12:30</td>
<td>Radiotherapy and breast reconstruction</td>
<td>Ms F MacNeill</td>
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<td>Questions and panel discussion</td>
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### Session 3 - Fat transfer – Sponsored by HumanMed UK

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<th>Time</th>
<th>Topic</th>
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<tbody>
<tr>
<td>14:00</td>
<td>The science behind successful fat transfer</td>
<td>Dr K Ueberreiter</td>
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<td>14:20</td>
<td>Safety and efficacy of fat transfer</td>
<td>Mrs E Weiler-Mithoff</td>
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<td>14:40</td>
<td>Achieving consistent results in traditional fat transfer</td>
<td>Mr F Fatah</td>
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<td>15:00</td>
<td>Water assisted fat harvest and The BEAULI technique</td>
<td>Dr K Ueberreiter</td>
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<td>15:20</td>
<td>Questions and panel discussion</td>
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<td>15:35</td>
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### Session 4 – Implants – Sponsored by Mentor

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<tr>
<th>Time</th>
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<tr>
<td>16:00</td>
<td>Biofilms and capsular contracture</td>
<td>Dr R Wixtrom</td>
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<td>16:20</td>
<td>Evolution of implant reconstruction - The last 20 years</td>
<td>Mr G Gui</td>
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<td>16:40</td>
<td>Breast implant associated ALCL – An update</td>
<td>Dr R Wixtrom</td>
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<td>17:00</td>
<td>Use of individualised risk assessment in prosthetic and autologous breast reconstruction</td>
<td>Prof J Kim</td>
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<td>17:20</td>
<td>Questions and panel discussion</td>
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17:40 Close
Day Two—Tuesday 19<sup>th</sup> April 2016

07:50 Registration and Coffee

**Session 1 - ADMs and meshes in breast reconstruction** — Sponsored by PFM Medical

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<thead>
<tr>
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<tr>
<td>08:30</td>
<td>Selective use of ADM and surgical mesh in primary and revision breast surgery</td>
<td>Prof J Kim</td>
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<td>08:50</td>
<td>Achieving consistent results using ADMs in breast reconstruction</td>
<td>Mr J Murphy</td>
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<td>09:10</td>
<td>The Tiloop bra and synthetic mesh techniques in breast reconstruction</td>
<td>Dr S Paepke</td>
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<td>09:30</td>
<td>iBRA: Auditing outcomes using ADMs and meshes in implant reconstruction</td>
<td>Ms S Potter</td>
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10:20 Coffee and Trade Exhibitions

**Session 2 - Autologous flap reconstruction**

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<tbody>
<tr>
<td>10:50</td>
<td>Achieving consistent results with the autologous latissimus dorsi flap</td>
<td>Mrs E Weiler-Mithoff</td>
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<td>11:10</td>
<td>Achieving consistent results in DIEP flap breast reconstruction</td>
<td>Mr V Ramakrishnan</td>
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<td>11:30</td>
<td>Achieving consistent results in TUG flap breast reconstruction</td>
<td>Prof T Scholler</td>
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<td>11:50</td>
<td>Achieving consistent results using buttock and non-standard perforator flaps</td>
<td>Mr J Farhadi</td>
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<td>12:10</td>
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12:30 Lunch and Trade Exhibitions

**Session 3- Corrective surgery**

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<tr>
<td>13:20</td>
<td>Contralateral surgery and flap reshaping</td>
<td>Mr N Collis</td>
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<td>13:40</td>
<td>The failing flap: What to do?</td>
<td>Prof T Scholler</td>
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<td>14:00</td>
<td>Nipple reconstruction</td>
<td>Mr J Scott</td>
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<td>14:20</td>
<td>Autologous salvage of the failed implant-based breast reconstruction</td>
<td>Mr P Harris</td>
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<td>14:40</td>
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15:00 Coffee and Trade Exhibitions

**Session 4 – Service provision, training and the future**

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<tr>
<td>15:20</td>
<td>How do we continue to fund breast reconstruction services?</td>
<td>Ms Olsen</td>
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<td>15:40</td>
<td>Oncoplastic breast surgery training in the UK</td>
<td>Mr I Mackay</td>
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<td>16:00</td>
<td>What will breast surgery look like in Europe and the UK in 2025?</td>
<td>Ms S Downey</td>
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16:20 Questions and discussion panel

16:40 Close

CME Points
Day 1: 6.5 points
Day 2: 6.5 points
Whole: 13 points
Faculty Biographies

Mr Henry Cain

Henry Cain qualified in 2001 from Leicester and returned to the North of England to complete his surgical training. Following the award of MD in breast cancer signalling pathways and higher surgical training he spent a year as the Oncoplastic Fellow at the Canniesburn Unit in Glasgow. He was appointed a Consultant Oncoplastic surgeon at the Royal Victoria Infirmary Newcastle upon Tyne in 2013. Henry Cain maintains numerous research activities along with a commitment in teaching advanced oncoplastic breast surgery. He is a member of the Faculty for the ABS advanced breast disease course and organises the ABS annual Trainees Meeting. He is a faculty member for the National Breast TIG fellow’s course. Clinically he has been one of the lead surgeons in the introduction of Radioactive Seed Localisation of impalpable breast cancer to the UK.

Mr Nick Collis

Nick Collis has been a consultant plastic surgeon at the Royal Victoria Infirmary, Newcastle upon Tyne since 2004. He has a special interest in breast reconstruction for congenital, weight loss and cancer including oncoplastic breast surgery and microvascular breast reconstruction. He trained in Yorkshire and obtained a Masters in Philosophy from the University of Bradford from which several papers were published surrounding the use of silicone breast implants.

Ms Sarah Downey

Sarah started training in Nottingham and did postgraduate research in Manchester in breast cancer. She has been a Consultant Breast Surgeon since 2001. She was a member of the Court of Examiners for the Royal College of Surgeons of England for seven years and Chairman of the Court for the last two of these years. She is the Deputy Programme Director for the East of England Regional Registrar Training Committee. She has sat on the Specialty Advisory Committee in General Surgery since Feb 2015 and acts as External Liaison member for Wessex. Sarah represents the Association of Breast Surgeons on the National Training committee, Emergency General Surgery Board and the Oncoplastic Fellowship Committee. She is an etutor for the Mastership Course based at the UEA, a Clinical and Educational Supervisor and teaches the UEA undergraduates in surgery. Within the National Breast Screening Programme, she is the quality assurance surgeon for the East of England and part of the National Committee.
Mr Jian Farhadi is the head of the Department of Plastic & Reconstructive Surgery at St Thomas’ Hospital in London, United Kingdom, where he is also a consultant Plastic Surgeon specialising in reconstructive breast surgery.

Mr Farhadi earned his medical degree at the University of Basel, Switzerland, and the University Pitié-Salpêtrière in Paris, France, and completed his general and plastic surgical residencies in Switzerland. He completed research fellowships at Yale University in New Haven, Connecticut, and at the University Hospital Basel; a plastic surgery fellowship at the University Hospital Basel; and a reconstructive microsurgery fellowship at St Thomas’ Hospital in London.

Mr Farhadi is actively involved in teaching and research. He is an associate professor at the University of Basel. He is co-director of the European Masters in Breast Surgery, Reconstructive and Aesthetic Surgery and he is the Chairman of the London Breast Meeting. He is an author of over 50 publications and several book chapters.

Fazel Fatah is a consultant Plastic Surgeon, retired from the NHS and practices at The Westbourne Centre, Birmingham. He has a wide experience of fat graft in breast and facial rejuvenation surgery and, in the past, has advised the National Institute of Clinical Excellence on matters related to the subject of fat graft. He is co-author of the current national guidelines on lipomodelling with fat graft in breast reconstructive surgery.

Mr Gerald Gui qualified from University College and Middlesex Hospital Medical School, London in 1986. His postgraduate training in surgical oncology was based at St Bartholomew’s Hospital and St George’s Hospital, London. Mr Gui is a Fellow of both the Royal College of Surgeons of England and Edinburgh, and was awarded the Surgeon-in-training medal of the Royal College of Surgeons of Edinburgh in 1994. He was a travelling fellow of the Royal College of Surgeons in New York in breast reconstructive surgery at Emory University, Atlanta, USA. He was awarded the Master of Surgery degree from the University of London. Mr Gui is a teacher and examiner for the University of London and is visiting examiner for several other British universities. Mr Gui was appointed Consultant Surgeon to the Royal Marsden in 1996 as a specialist breast surgeon and is Honorary Senior Lecturer in the Institute of Cancer Research, London.
**Mr Paul Harris**

Paul Harris is a consultant Plastic Surgeon at The Royal Marsden Hospital and The London Clinic. He specialises in both reconstructive and aesthetic of the breast and has been instrumental in developing several microvascular techniques in the UK. He has published widely on microvascular surgery with current research focusing on gene therapy techniques to radioprotect microvascular flaps. He is also Honorary Secretary of the British Association of Aesthetic Plastic Surgeons (BAAPS) a board member of a Plastic Surgery specific indemnifier [PRASIS].

**Dr Muireann Kelleher**

Dr Muireann Kelleher is a consultant medical oncologist specialising in the treatment of patients with breast cancer. Dr Kelleher assesses the need for chemotherapy hormone therapy and targeted treatment in early breast cancer and plans with each woman which treatments are required. She also provides lifelong treatment to patients with metastatic breast cancer. Dr Kelleher graduated from National University of Ireland in 1998 with an honours degree in medicine. Her specialist oncology training was completed at The Royal Marsden and Guy’s and St Thomas’ Hospitals. She was awarded her PhD from Kings College London in 2009 for research developing novel methods of imaging protein-protein interactions to better predict which breast cancers might metastasize and improve targeted more personalised therapies.

**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.
John Kim is Professor of Plastic and Reconstructive Surgery at Northwestern Feinberg School of Medicine in Chicago.

He is a magna cum laude graduate of Harvard College and received dual degrees in medicine and literature from Stanford University. At Stanford, Dr. Kim was a Howard Hughes Research and Clinical Fellow. Dr. Kim has published over 150 peer-reviewed articles and holds 17 patents on novel medical devices. He is an associate editor of Plastic and Reconstructive Surgery and on the editorial board of Annals of Plastic Surgery. He is the Chair of the American Society of Plastic Surgeons’ Breast Sub-Committee and Co-Chair of the Santa Fe Breast and Body Symposium. His clinical and research focus is on breast surgery and concomitant outcomes.

Iain Mackay, consultant Plastic Surgeon, Canniesburn Unit, Glasgow Royal Infirmary since 1996. He Graduated Dundee University 1981. Subspeciality interests breast reconstruction, lasers and vascular anomalies. Previously Scottish Programme director. Previously SAC member and member of curriculum development group. Previously Scottish BAPRAS representative. Currently chair Oncoplastic TIG. Member of Cosmetic TIG. Director Canniesburn Microsurgery courses.

Fiona has been a specialist breast and oncoplastic surgery trainer, educator and mentor for over 20 years. She qualified from St Bartholomew’s Hospital, London and was awarded an MD thesis investigating first generation aromatase inhibitors. As Breast Tutor at the Royal College of Surgeons of England she established the first educational courses in oncoplastic breast surgery and was key to rolling out the UK sentinel lymph node training programme NEW START. Awarded the Silver Scalpel Trainer of the Year in 2006.

She has lectured on oncoplastic breast surgery education and training world wide and was awarded the inaugural Querci Della Rovere Prize for ‘Excellence in Cancer Surgery’ ESSO/BASO 2014. As President of ABS she is working with the joint colleges, SAC and GMC to develop a breast specialty training framework.
Stephen McCulley graduated in the UK in 1989 and has specialist training in both the UK and South Africa, being registered as a specialist Plastic Surgeon in both countries. He returned to the UK in 2000 and has been a consultant Plastic Surgeon in Nottingham since 2002.

He specialises in all aspects of cosmetic, oncoplastic and microvascular breast surgery. He has been a leading figure in the development of breast-conserving oncoplastic techniques in the UK over the last 10 years, particularly in mammoplasty techniques and perforator flaps. He has also trained in breast oncology surgery and performs both the oncological excision and reconstruction.

As part of the Nottingham team he has helped develop and refine the use of MRA pre-operative assessment for DIEP flaps and continues to develop processes to improve the efficiency and outcomes in DIEP flap reconstruction and other microvascular breast reconstruction techniques. He is co-founder of the ORBS (Oncoplastic Breast Reconstructive Surgery) International meeting in Nottingham.

Douglas Macmillan qualified at the University of Glasgow in 1988 and trained in Glasgow, Edinburgh and Nottingham. He was appointed as consultant oncoplastic breast surgeon at the Nottingham Breast Institute in 2001 where he is also the clinical lead for breast surgery and breast cancer. He leads a research group in oncoplastic breast Surgery, collaborates with the Nottingham University Breast Cancer Research Unit and has published extensively (over 130 original articles and over 20 book chapters). He has given over 150 invited presentations at international meetings and performed many live surgery demonstrations. In oncoplastic surgery he has a particular interest in the techniques of therapeutic mammoplasty, chest wall perforator flaps and implant reconstruction. He is co-director of the International Oncoplastic and Reconstructive Breast Surgery Congress and manages the associated on-line resource for oncoplastic and reconstructive breast surgery.
Mr John Murphy

Mr Murphy graduated from the University of Liverpool Medical School in 2000, commencing his career in Surgery in 2001 and has worked in Breast Surgery since 2003. He is an NHS consultant oncoplastic and reconstructive breast surgeon who appears on the specialist register of the General Medical Council. During his training, he completed prestigious TIG National Fellowships in Oncoplastic Breast Surgery and Cosmetic Reconstructive Surgery. His specialist area is breast cancer surgery, breast reconstruction and aesthetic breast surgery. His sub-specialist clinical interest is in revisional breast surgery.

He is also involved in the training and teaching of medical students, trainee breast and plastic surgeons at both local and national levels. He is a tutor on the Masters in Oncoplastic Breast Surgery Course.

Mr Murphy has also completed a period of research culminating in the award of a PhD (cell inflammation and cell death) and has authored numerous high impact research papers and presented his work at many national and international conferences.

Mr Joe O'Donoghue

Joe O’Donoghue is a consultant plastic, reconstruction and oncoplastic breast surgeon based at the Newcastle Upon Tyne NHS Trust, UK. He is the lead clinician for the oncoplastic breast service in Newcastle where more than 600 cancers per year are managed. He was previously a member of BAPRAS Council, Chair of the Education and Research Committee, member of the SAC, ISCP Editor, member of the breast TIG and Honorary Secretary of BAPRAS. He is currently Chairman of the BAPRAS Breast SIG, Deputy Editor of JPRAS Open and non-executive director of the Plastic Surgery indemnity scheme PRASIS.

Miss Sisse Olsen

Miss Olsen is an oncoplastic breast surgeon working at the Royal Devon and Exeter. She started medical school in her native Denmark but qualified from Imperial College London where she remained for most of her surgical training and PhD. In 2006 she completed a PhD focusing on patient safety in surgery. She went onto becoming an expert advisor to the WHO joining an international team setting up national studies of adverse event in developing and transitional countries as well as developing new methodologies of assessing harm from healthcare in data poor environment.

During the latter years of her registrar training Miss Olsen became the first TIG fellow in Exeter and has remain active within the TIG for oncoplastic breast surgery since. In addition she is also joint module lead for the oncoplastic MS management and leadership module. Spurred on by the Prepare2Lead program offered by the London deanery she developed a keen interest in service improvement and the financial challenges of running a successful modern oncoplastic breast service areas in which Miss Olsen is still very active.
Dr Stefan Paepke
Since 2009 Stefan has been with the German Breast Group as an Advisory Board member. Prior to this he was the Chair of the International Society for Breast Endoscopy. Stefan is a member of many societies including the German Society for Ultrasound in Medicine (DEGUM), German Society for Gynecology and Obstetrics and Subboard member of the German Breast Group.

Miss Shelly Potter
Shelley Potter is an academic clinical lecturer in general surgery at the Bristol Centre for Surgical Research at the University of Bristol and Honorary Speciality Registrar in General Surgery in the Severn Deanery. Her research interest is improving outcomes for women undergoing breast reconstruction and she is lead investigator for the NIHR Research for Patient Benefit funded iBRA Study. She is chair of the Mammary Fold Academic and Research Collaborative and trainee representative on the NCRI Breast Clinical Studies Group. She has recently been appointed as a TIG oncoplastic fellow for 2016/17.

Mr Venkat Ramakrishnan
Mr Venkat V. Ramakrishnan is a consultant Plastic Surgeon at the St. Andrew’s centre for Plastic Surgery and Burns, Chelmsford, United Kingdom. His main area of work involves microsurgical reconstruction of the breast and aesthetic surgery of the breast. His secondary interests are microsurgical reconstruction of chest wall, abdomen and lower limb. He has a major role as a trainer in microsurgery and was the inaugural Tutor in Plastic surgery at the Royal College of Surgeons of England, London. He was the Director of the St. Andrews Centre till recently and has had roles in the BAPRAS council and the project board of the National Mastectomy and Reconstruction Audit. He is a member of the editorial board of Journal of Plastic, Reconstructive and Aesthetic Surgery and the Archives of Plastic Surgery. He is a fellow of the Royal College of Surgeons of England and the Royal Australasian College of Surgeons. Mr Ramakrishnan has numerous publications and presentations at national and international meetings. His main areas of research and audit work are in microsurgical techniques, service delivery and microcirculation in free flaps. He is a visiting Professor at the Anglia Ruskin University.
Dr Alan Redman

Dr Alan Redman FRCR, Consultant Radiologist, Gateshead Health NHS Foundation Trust since 2003. His work covers all aspects of breast radiology, encompassing the symptomatic and screening programmes, and the public, private and medico-legal sectors. He is actively involved in teaching and research, and in the development of new guidelines and novel interventional techniques. Dr Redman has a special interest in breast implant imaging.

Miss Jennifer Rusby

Jennifer Rusby trained in medicine at the University of Oxford. After house jobs in Oxford and Birmingham, she proceeded to surgical training in Wessex. She spent 18 months as a research fellow at Massachusetts General Hospital looking at the anatomy and pathology of the nipple with the aim of improving the decision-making and surgical approach to nipple-sparing mastectomy. On her return to the UK, Jennifer was a T1G fellow in Birmingham, then oncoplastic fellow at the Royal Marsden Hospital, London. She is now a consultant oncoplastic breast surgeon at the Royal Marsden. In addition to nipple-sparing mastectomy, her clinical interests include oncoplastic breast conserving surgery and the management of the axilla. She is currently supervising an MD investigating the utility of 3D surface imaging in breast cancer surgery.

Professor Thomas Scholler

Stefan currently works as a university professor for Plastic Surgery at Marienhospitat Stuttgart. Stefan conducting training 1998–2009 specialist in plastic surgery and attending Surgeon at the Department of Plastic and Reconstructive Surgery, Medical University Innsbruck, Austria [Director: Prof. Dr. G. Pierer]. Stefan has been an invited lecturer in a meeting organised and endorsed by IPRAS, EURAPS, IFSSH, FESSH, IFSM, FESM, ISAPS.

Mr John Scott

John R Scott MB ChB, FRCS, FRCS(Plast)

John Scott is a consultant plastic and reconstructive surgeon in Canniesburn Unit, Glasgow Royal Infirmary. He is a member of BAPRAS and was recently appointed an honorary member of the Association of Breast Surgeons. He is currently Secretary of the Intercollegiate Specialty Board in Plastic Surgery and an Intercollegiate Specialty Examiner in Plastic Surgery. John is also the BAPRAS / Royal College of Physicians and Surgeons of Glasgow (RCPSG) Northern Tutor in Plastic Surgery. His professional interests include breast reconstruction and skin cancer surgery.
Miss Jo Skillman
Joanna Skillman studied medicine at Cambridge and Oxford Universities. She undertook broad and varied surgical training in Oxford, London, Durham, Sydney and Birmingham. She developed particular skills in breast reconstruction, microsurgery and cosmetic surgery. She completed an oncoplastic fellowship and a cosmetic fellowship in the West Midlands. In addition to clinical work, she is also a trainer on the oncoplastic skills course at the Royal College of Surgeons and for the MS in oncoplastic surgery. She was a co-author of the National Oncoplastic Guidelines, which sets quality standards in the UK. She is currently an NHS consultant in plastic and reconstructive surgery at a University Hospital Coventry and Warwickshire specialising in reconstruction for people with injuries and breast or skin cancer.

Dr Klaus Ueberreiter
Dr Klaus Ueberreiter studied medicine at the Free University, Berlin. He wrote his thesis about intestinal parasitis, which included twelve months of field studies in Bolivia.

After training in a number of hospitals in Berlin in general and orthopaedic surgery he graduated in general surgery. Thereafter he undertook specialised training in Berlin at Hannover University to become both a German and European board-certified plastic surgeon.

In 1998 he became head physician of the newly founded Department of Plastic Surgery, Asklepios Klinik Birkenerder/Berlin. Since 2007 he developed the BEAULI method of mega volume fat graft especially for breast reconstruction and augmentation. In 2012 he founded with two colleagues his own private hospital of Plastic Surgery, the Park-Klinik Birkenwerder, Berlin, which he is currently leading.

Dr Roger Wixtrom
Dr. Roger Wixtrom is a board-certified toxicologist with a Ph.D. in pharmacology and toxicology and more than 26 years experience evaluating the safety and clinical performance of breast implants, including pre-clinical and clinical testing design and data analysis, critical review of published literature and unpublished studies, attendance and testimony at FDA and Health Canada advisory panels, and expert panels on breast implants. He has presented to thousands of surgeons worldwide on a range of medical device related topics, including biomaterials safety, biofilms and surgical infections.
Objective preoperative assessment and record is an essential part of all plastic surgery procedures. This is exemplified in aesthetic and reconstructive breast surgery where accurate planning is needed to optimise outcomes. Recent developments in 3D photographic assessment have not only allowed greater objectivity of this process, but also improved communication between surgeon and patient, and allowed more accurate evaluation of outcomes.
Radiological assessment in breast reconstruction

Successful use of imaging is dependent on requesting the right test at the right time. It also requires some understanding of the phraseology included in radiology reports, and a low threshold for direct clinico-radiological discussion in any areas of uncertainty. In this talk I will look at the role for breast radiology prior to risk reducing surgery, reconstruction and cosmesis; and I will consider the role for radiology in the reconstructed breast, including imaging of postsurgical complications, implant complications, and potential malignancy.
Day 1 Session 1 – 10:10 – 10:30

Dr M Kelleher

**Update on oncology issues affecting breast reconstruction**

Dr Kelleher will outline the role of the medical oncologist in the breast cancer MDT. She will review the rationale for chemotherapy in early breast cancer and discuss the sequence of treatment, particularly the choice of neo-adjuvant versus post-operative chemotherapy.

The talk will encompass drug choices and their impact on wound healing and include a discussion of the impact of chemotherapy and radiotherapy choices on reconstructive options.

There will be a review of new treatment options and the optimal timing of radiotherapy in the treatment algorithm.

The role of plastic and reconstructive surgery in metastatic disease will be discussed.
Use of I125 seed localisation in therapeutic mammoplasty

With an expansion in the breast screening program there are increasing numbers of patients whom require pre-operative localisation of impalpable breast cancers. This is traditionally performed using guide wires inserted on the day of surgery. Interpretation of the location of the wire tip can be problematic, especially when multiple wires are used to “Bracket” larger areas of breast tissue removed in therapeutic mammoplasties.

The localisation of these tumours using radioactive Iodine (I125) seeds localisation (RSL) is a new concept in the UK. This presentation will give an overview of initial results of breast conservation surgery using I125 seed and the extension of its application by the use of multiple bracketing seeds in therapeutic mammoplasties.
Volume displacement techniques in partial breast reconstruction

Therapeutic Reduction Mammaplasty

For women with large breasts, particularly those with morbidity associated with breast size, bilateral breast reduction should always be offered. This is a good option for any woman wishing or accepting of a reduction, with any cancer size deemed suitable for breast conservation including those with very small cancers. Breast reduction can reduce the additional morbidity from radiotherapy, as well as achieve a quality of life benefit. For those with larger cancers, a significant reduction can enable breast conservation and be a particularly attractive option when compared to mastectomy and reconstruction in such cases. In this category of procedure therefore, women are undergoing a significant reduction in overall breast size with a large volume of normal breast tissue being removed in addition to the wide local excision. The breast shape is usually maintained by creating secondary pedicles, in addition to the nipple pedicle. There are, however, many ways of achieving an acceptable breast shape and not every large breasted woman with breast cancer is a great candidate for a standard technique of breast reduction. In such high risk cases, simplified forms of breast reduction can safely achieve the same aims if a woman is accepting of the associated scarring, and breast reduction becomes particularly simple if a woman is accepting of having her nipples removed as part of the resection.

Therapeutic Mastopexy

For women with ptotic breasts who do not necessarily wish a breast reduction, but are accepting of an alteration in breast shape, therapeutic mastopexy is often the procedure of choice. The principle here is that the only breast volume reduction is the wide local excision itself. Hence there is usually only a small overall reduction in breast volume with the procedure being more akin to a mastopexy than a reduction, and an improved breast aesthetic is the usual additional benefit. This category of procedure has a wide range of possibilities for the technique used and many are described that involve some form of skin reduction and nipple re-positioning combined with wide local excision. The preference in Nottingham would be to use whole or hemi-breast rotations. This category of procedure is most commonly indicated for women with well-proportioned breasts who have some degree of ptosis.
Day 1 Session 2 – 11:50 – 12:10

Mr S McCulley

*Volume replacement techniques in partial breast reconstruction*
Skin and nipple sparing mastectomy

Approximately 43% of women with surgically treated breast cancer undergo mastectomy (53% of symptomatic cancers and 27% of screen-detected breast cancers). [Second All Breast Cancer Report 2011, available via the NCIN website].

Local recurrence rates are now low in women who undergo mastectomy for early breast cancer. The challenge is therefore to maintain excellent oncological control while continuing to improve aesthetic outcome. Several studies have demonstrated an improved aesthetic outcome and patient satisfaction when the skin of the breast is preserved (skin-sparing mastectomy, SSM) [Ueda Surgery 2008].

Several observational studies have been published, none showing any oncological detriment in preserving the skin. Lanitis et al carried out a meta-analysis of these studies and concluded that this showed no statistically significant difference in local recurrence between non-skin-sparing mastectomy and SSM when they are performed as treatment for operable T1-T3 breast cancer. [Lanitis Ann Surg 2010].

Rationale for NSM:

A further improvement in patient satisfaction and aesthetic outcome is obtained when the nipple is also preserved (nipple-sparing mastectomy, NSM), [Didier Breast Cancer Res Treat 2008, Djohan PRS 2010]. In addition to patient-reported outcome, surgeons note that there is no need for secondary nipple reconstruction or tattooing, and NSM preserves skin and hence natural shape at the tip of the breast “cone” which is otherwise blunted by removal of the nipple-areola complex.

NSM adds challenges:

The primary concern is that of oncological outcome. The consensus is that NSM is safe in the risk-reducing setting. Patient selection is the key in therapeutic cases. Factors such as tumour size and distance from the nipple should be considered, as should the patient’s attitude towards risk [Rusby BJS 2010]. The second concern is that of nipple viability. The risk of nipple loss in the literature appears to be between 5 and 15%. Here, surgical technique is all important. Incision placement, raising of the skin flaps and management of the retroareolar tissue are crucial.

The third concern is that of aesthetics. Controlling the redraping of the breast skin onto the reconstruction mound can be difficult, and an asymmetrical preserved nipple may be less aesthetically pleasing than a well-positioned, high quality reconstructed nipple. Finally, when free-flap reconstruction is undertaken, incision-placement must take account of planned access to recipient vessels.
Key learning outcomes: this talk will cover anatomy and oncological pathology of the nipple, and surgical technique to minimise risk associated with nipple-sparing mastectomy.
Radiotherapy and breast reconstruction

Post-mastectomy chest wall radiotherapy (PMRT) has a local and small survival benefit in high risk breast cancer: indications are T3/T4 disease and/or high (>4 nodes positive) axillary disease. Depending on disease extent and risk PMRT may be given to the chest wall +/- axilla, SCF and IMN. PMRT indications have increased over the last decade such that up to 35% of mastectomy patients will now require RT.

RT generally has a deleterious impact on soft tissue resulting in fibrosis, shrinkage and tissue hardening with loss of pliability etc. Irradiated tissue is frozen in time and place while the surrounding non-irradiated tissue changes with age: the impact of RT is well illustrated by the short and long term changes seen in the irradiated conserved breast. Women who may require PMRT are often advised against immediate reconstruction because of the potential for RT to reduce the longer term aesthetic.

However, the impact of PMRT on the aesthetic outcomes of immediate breast reconstruction, especially autologous, either as assessed by patients or health professionals lacks a robust evidence base. There is increasing evidence to suggest autologous reconstruction is feasible and gives acceptable outcomes. Novel sequencing studies are now underway whereby RT is given prior to mastectomy. In 2016 women should not be denied immediate reconstruction in the face of PMRT.
The science behind successful fat transfer

There are some basic principles which are paramount to be observed for successful fat grafting. It has been shown, that they are some negative influences inhibiting the ingrowth of the transplanted fatty tissue. Most important points are especially:
- avoiding shear forces,
- collection and redrafting of aliquots below 1.5mm diameter
- and a significant blood content.
- Other points are negative influences by certain local anesthetics,
- temperature and time,
- the diameter of the cannulas both for grafting and transplantation.

All those factors should be defined by a clinical protocol to enable any comparison between different methods and investigate the clinical outcome. In this presentation will be given in the overlook about basic biology of fat at the essentials to be observed in successful grafting and an example of a clinical successful protocol will be given.
Day 1 Session 3 – 14:20 – 14:40

Mrs E Weiler-Mithoff

**Safety and efficacy of fat transfer**

Advanced Educational Courses in Plastic Surgery
Breast Surgery
Manchester 18-19 April 2016

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Day 1 Session 3 – 14:40 – 15:00

Mr F Fatah

**Achieving consistent results in traditional fat transfer**

Fat graft is a relatively simple procedure that has revolutionised many aspects of plastic reconstructive and aesthetic surgery, either as a primary or a secondary procedure to achieve optimal results. Fat graft can solve many complex and complicated cases but it also has its limitations. The success of the procedure is highly technique dependent; to get consistent results it is necessary to follow a strict protocol in harvesting, preparing and grafting of the fat. Frequently, in fat graft, less is more as far as the rates of successful fat graft take is concerned. Patient selection and compliance are also important, as often many patients require multi-staged procedures to achieve the desired effects.
Water assisted fat harvest and the BEAULI technique

Goals/Purpose:

In the last 8 years we performed far more than 1000 mega fat grafts (100 – 400 ml) mainly to breast and buttocks. The applied BEAULI™ protocol had been evaluated in a prospective clinical study from 2007 to 2010 and a follow up from 2012-2015. The clinical and MRI evaluation showed a high volume persistence and almost complete absence of side effects like cysts etc.

Methods/Technique:

The operation was performed according to a standardised [BEAULI] protocol. The fat was harvested, separated in the "Lipocollector" and reinfiltated by a specially designed cannula (2.5 mm/150mm) without any further processing. For quantification of the results, MRI’s of the breasts were taken preoperatively and six months. Clinical examinations were done preoperatively, and on day one, after one week, three months and six months and five years postoperatively.

Results/Complications:

In all patients, a significant increase of subcutaneous fat tissue was achieved. The volume gain after comparative MRI volumetry was $76 \pm 11\%$ of the transplanted fat after six months. The five-year results show a complete persistence of the fat grafted and a typical change in breast form. We performed aesthetic breast augmentations, corrections of asymmetries, tuberous breast correction, reconstruction after cancer, buttock augmentation and other defect fillings.

Conclusion:

The method is fast and easy to perform with a high reliability in all forms of mega fat grafts. In patients with sufficient fat deposits it can successfully replace silicone implants. The BEAULI™ protocol based on Waterjet® harvested fat has proven to be an excellent method of fat harvesting and transfer.

Literature

Day 1 Session 4 – 16:00 – 16:20

Dr R Wixtrom

**Biofilms and capsular contracture**
Implant based surgery has endured a shift from delayed to immediate reconstruction which in turn has progressed in various forms from elective two-stage tissue expansion techniques to planned one-stage surgery. A constant principle is that breast reconstruction is a process of care that seeks to optimise the breast mound and achieve best symmetry to the opposite side. In addition, with implant reconstruction there is an ongoing need for maintenance surgery over time. Cross-fertilization between oncologic and plastic surgical teams working together enabled greater understanding of common ideas and the UK has led the way in oncoplastic surgical training.

In the early days of delayed breast reconstruction, surgeons were faced with tissue where little aesthetic consideration was given at the time of the oncologic resection. Skin flaps were typically very thin and the place of post-mastectomy radiotherapy had not yet been defined. Tissue expansion was a multi-step process with subsequent outpatient inflation and implant exchange to a fixed volume implant at a further procedure. The range of available implants evolved with modifications to shape, dimension, gel type and texture. Elastomer surface technology saw the transgression from smooth surfaces to open pore, including polyurethane, and the association of pore size with tissue integration. Along the way, various alternative implant fillers came and went leaving silicone and saline as the initial contenders and final players in the field.

One stage implant reconstruction was popularised with the development of permanent expandable implants. Initial experience with the Becker prosthesis with its removable remote port enabled a breast mound to be defined at the primary operation, inflated to create projection, overinflated and subsequently deflated to create pseudo-ptosis. Round expandable implants were followed by expandable anatomical devices in attempts to mimic breast form. These devices consisted of a fixed volume silicone bladder anterior to an expandable saline bladder. Whilst one-stage permanent expander implants were being used extensively in Europe, the USA was still restricted by limitations imposed on silicone devices. Implant exchange to saline devices remained the mainstay in the USA for longer than in Europe. As patient expectation from their reconstructions increased, secondary implant exchange of permanent expandables to the superior range of fixed volume devices rekindled an interest in elective two-stage surgery.

The major contemporaneous game changer back to planned one-stage implant based surgery was the acceptance of acellular dermal matrix (ADM) technology. Until then, the ability to place a fixed volume device into a primary reconstruction was limited by available tissue cover to create a stable pocket. Incorporation of an ADM allowed immediate cover of the lower pole of the implant, in effect lengthening the pectoralis major muscle, enabling precise positioning and recreation of the inframammary and
lateral breast fold. Refinements in surgical technique, patient selection and the sheer simplicity has established the place of ADM in current implant based surgical practice.

The second current major game changer in implant based surgery has been fat transfer. Fat grafting can be used in the preparation of mastectomy skin-flaps, whether to the flat chest wall prior to delayed breast reconstruction or to the reconstructed primary breast mound, prior to scheduled implant exchange. Lipomodelling to optimise the established breast mound after definitive implant reconstruction is effective in improving implant cover. With the capacity to incorporate regenerative adipocytes into irradiated mastectomy flaps, new paradigms may develop on implant use after planned or unplanned radiotherapy.

The range of biological matrices and synthetic meshes now available, in parallel with the routine use of microvascular surgery in autologous reconstruction thus sparing muscle morbidity, is likely to lead to a decline in hybrid procedures of implant with myocutaneous flaps, such as the implant assisted latissimus. Patients can expect to benefit from a choice of procedures to best match individual expectations. The reconstructive multidisciplinary team will be the driving force of future directions in this challenging field.
Day 1 Session 4 – 16:40 – 17:00

Dr R Wixtrom

**Breast implant associated ALCL – An update**
Use of individualised risk assessment in prosthetic and autologous breast reconstruction

The recent surge of interest in surgical quality improvement and evidence-based decision making has generated a demand for high-quality clinical studies that may better guide our understanding of patient risk. At the heart of this statistical revolution lies big data – with a large number of studies beginning to leverage multi-centred, national registries to address the questions at hand. The multiple applications of big data in risk assessment and outcome prediction, particularly in the setting of breast reconstruction, are reviewed here. Specific applications of big data, including: benchmarking outcomes, studying rare events such as VTE, and individual risk assessment and risk calculators will be discussed in detail.
Selective use of ADM and surgical mesh in primary and revision breast surgery

ADM is being used increasingly in the U.S. for both primary and secondary breast reconstruction. Approximately 60% of all primary breast reconstructions in the U.S. are now ADM prosthetic reconstructions. The risks and benefits of ADM use in this setting are reviewed. Given the costs associated with ADM, an evidence-based approach to selective use of ADM is also proposed.
Mr J Murphy

**Achieving consistent results using ADMs in breast reconstruction**

The use of ADMs in breast reconstruction has revolutionised implant-based reconstruction in the last decade. Consistent long-term patient and surgeon satisfaction with implant/ADM-based reconstruction is achievable with low complication rates. In 2009 the Mastectomy and Breast Reconstruction Audit demonstrated implant loss rates of ~ 9% nationwide*, raising concerns on a multitude of levels – including possible oncological treatment delays, patient morbidity as well as financial implications to health institutions.

In Manchester we have used ADM assisted implant based reconstruction since 2009 – with over 400 patients undergoing such procedures. We have learnt from common mistakes leading to an implant loss rate of around 4%, with patient’s satisfaction scores comparable to other forms of reconstruction in both the short and long term. Here we will describe the factors we routinely use to achieve satisfactory results as well as describe the common pitfalls encountered, to avoid higher complication rates associated with such procedures. The experience gained in Manchester with ADM’s helped with the publication of National Guidelines produced by ABS & BAPRAS in the use of ADM assisted breast reconstruction produced in 2013**. We also describe the Manchester experience with post and pre-pectoral implant positioning in ADM assisted reconstruction.

* National Mastectomy & Breast Reconstruction Audit 2009
* ABS/BAPRAS Guidelines: ADM assisted breast reconstruction procedures 2013
The Tiloop bra and synthetic mesh techniques in breast reconstruction

**Introduction:** In the majority of interdisciplinary breast centres of Germany implant based, mesh-supported operations constitute a total of approximately 50-60% of reconstructive techniques. The vast majority of mesh-supported reconstructive breast surgery is performed with the titanized polypropylene mesh TiLoop®Bra [Zoche H; 2014]. The BreastQ [Pusic AL; 2006] is the most valid and reliable measurement of quality of life aspects in important domains used in clinical routine.

**Material and Method:** Because the patient reported outcome is the most relevant factor reflecting the overall satisfaction from a patient perspective a prospective single arm non-randomised surveillance study with BreastQ-scales at 12 months as primary endpoint was conducted (2013). Overall 205 breasts of 153 pts. were treated between 12/2013 and 9/2015. A pre-planned analysis of the first 60 pts. with completion of the BreastQ after six months (secondary endpoint) was done.

**Results:** Most frequent indication was BC. Almost all surgeries were primary reconstructions (96.6%) and nipple-skin-sparing mastectomies (97.1%). An expander exchange is planned for 20 pts. The most frequent incision was inframammary (n=115), followed by T-shaped (n=45). The average of the pts. was 50 y (19-77); BMI was 22 (17-33), 77.3% were non-smokers. Percentage of neoadjuvant chemotherapy was 23%, of prior radiotherapy was 12%. Radiotherapy showed no significant influence of the BreastQ. Severe events occurred in 46 cases. The most frequent complications were necrosis (n=12), hematoma (n=12); 9 pts. dropped out. The mean score of BreastQ was equal pre- and postoperative after six months (67+/16 to 65+/15); satisfaction with breast from 67+/22 to 61 +/-14; psycho-social well-being from 71+/-17 to 73+/-18; sexual well-being from 62+/-17 to 60+/-19; satisfaction with outcome was 75+/-18 and satisfaction with surgeon 90+/-15. 88.3% were very satisfied, 10.0% somewhat satisfied, only 1.7% somewhat dissatisfied, 0% very dissatisfied.

**Conclusion:** The first analysis of the PROBra-study shows positive results in all outcome parameters. The study will continue until the complete recruitment of the pre-planned 267 pts. within a follow up of at least two years.
iBRA: Auditing outcomes using ADMs and meshes in implant reconstruction

Implant-based breast reconstruction (IBBR) is the most commonly-performed reconstructive procedure in the UK. New techniques to augment the subpectoral pocket have revolutionised the procedure, but there is a lack of high-quality outcome data to support the safety or efficacy of these techniques. Randomised trials provide the best evidence for the effectiveness of an intervention, but there is a lack of high-quality data to inform the feasibility, design or conduct of an RCT and premature progression to a trial may alienate potential participants. The iBRA (implant breast reconstruction evaluation) study therefore aims to use novel trainee collaborative methodology to:

- Define the current practice of IBBR in the UK
- Compare the outcomes of the new approaches to IBBR against standard practice and quality standards defined by the Oncoplastic Breast Reconstruction: Guidelines for Best Practice.
- Inform new guidelines
- Determine the feasibility of a pragmatic trial comparing different approaches to IBBR

iBRA is now the largest prospective evaluation of implant-based breast reconstruction in the world with over 1,400 patients recruited from 65 centres.

The iBRA study will provide comprehensive data relating to the practice and outcomes of IBBR in the UK. It will allow the feasibility of a pragmatic RCT to be explored; variations in the quality of care to be identified and experiences of women undergoing the procedure in the future to be improved.
Achieving consistent results with the autologous latissimus dorsi flap

Introduction

Originally described by Tansini in 1896 for the purpose of covering the radical mastectomy defect the evolution of its use through the 1970s and 1980s led to the most recent and reliable description of the ALD reconstruction by Delay in 1998. Delay described harvesting fat from six additional zones at or below the level of Scarpa’s fascia resulting in increased flap volume. Further published series have since established the ALD flap as versatile, reliable and effective in breast reconstruction.

Advantages

With reasonably consistent anatomy of the neurovascular pedicle the ALD flap is an extremely reliable flap. It precludes implant placement, avoiding the associated complications, and fewer additional procedures are required. Compared with autologous free tissue transfer from the abdomen the ALD flap has lower morbidity, shorter hospital stay and may be more cost-effective. In addition it can be used with safety in obese women.

Disadvantages

ALD flap may not be ideal for women who rely on upper body strength (e.g. wheelchair users, elite athletes). Donor site morbidity includes a long scar and seroma formation is common and often requires repeated aspiration. The colour and texture match of the skin between the back and breast may be suboptimal. ALD is more ideally suited to immediate reconstruction because the total amount of skin and fat may be limited.

Patient selection

Women who desire an autologous reconstruction with small to moderate sized breasts or with larger breasts wishing a contralateral reduction are suited to ALD reconstruction. This technique is especially useful in the context of post-mastectomy radiotherapy where implant reconstruction is often avoided and abdominal tissue transfer delayed. Other indications include chest wall skin unsuitable for expansion, salvage reconstruction following prior reconstruction failure. ALD is ideally suited to bilateral breast reconstruction because it can be performed either synchronous or metachronous in the context of contralateral breast cancer or risk reduction.
Women who have undergone prior posterior thoracotomy cannot usually undergo ALD flap breast reconstruction. Women who have undergone prior axillary surgery/radiotherapy should be carefully assessed to establish an intact thoracodorsal pedicle. Imaging with USS assisted Doppler or CT angiography should be considered. Women who rely on upper abdominal strength for mobility, sport or employment should be counselled regarding the potential impact on shoulder function.

Marking

Preoperative markings are made anteriorly and posteriorly. In the delayed setting the outline of the contralateral breast is transposed to the chest wall. The skin ellipse is ideally centred over the fat roll on the back, orientated within relaxed skin tension lines and is typically 6 to 9cm wide.

Flap Harvest

In most cases the patient can be positioned in the lateral decubitus position and the mastectomy and flap harvest performed simultaneously.

Pre-infiltration of the subcutaneous plane with local anaesthetic reduces postoperative pain and facilitates dissection. The skin flaps are initially raised just beneath Scarpa’s fascia. This level is maintained throughout for smokers, bilateral breast reconstructions and other patients at risk of poor healing. Otherwise a 2cm strip of Scarpa’s fascia is raised to support wound closure. The remainder of the skin flap is raised in the suprafascial plane maximising soft tissue harvest. The sub-scarpa fat overlying the Trapezius is raised along with the adipofascial parascapular extension revealing the posterior border of the LD.

The anterior edge of the LD muscle is identified and dissected in the proximal third up to the tendinous insertion avoiding additional fat harvest to minimize bulkiness in the axillary tunnel. The medial and inferior origins of the LD muscle are released to allow elevation of the flap from distal to proximal. On the deep aspect of the muscle sizeable intercostal and lumbar perforators must be controlled. Care is taken to avoid inadvertent raising of the Serratus Anterior (SA) and Posterior muscles, or of any interdigitating slips of the External Oblique muscle infero-laterally. Along the posterior border of the SA and the under surface of the LD additional fat can be harvested. It is important to stay within the areolar plane between the LD and SA to protect the vascularity of both muscles. As the two muscles are separated, the Thoracodorsal neurovascular pedicle to the LD and the Serratus branch are identified and preserved. The upper posterior border of the LD muscle is detached from the Teres muscles. The ALD flap is now transferred to the mastectomy defect via a high axillary subcutaneous tunnel. This tunnel has to be wide enough to avoid any constriction and high enough to avoid bulkiness on the lateral chest wall. The LD tendon and the Serratus branch are left intact. The Thoracodorsal nerve is preserved. Quilting of the flaps is performed and suction drains are placed to the donor site.
Flap Inset

This is performed in the supine position with the arms partially abducted and the upper trunk tilted head-up about 30-45º.

The inframammary fold and the lateral border of the breast are secured in their original anatomical position. The LD tendon is routed parallel to the Pectoralis Major tendon. The upper part of the LD muscle is sutured to the lateral border of the Pectoralis Major muscle and the flap rotated 180º. The parascapular extension is folded under the larger upper segment of the LD to create central projection and the lower pole. The flap is sutured to the margins of the mastectomy defect. The inferior aspect of the reconstructed mound is sutured precisely along the inframammary fold. The cleavage inset is carried out last after elimination of gravity. Any excess skin remaining on the ALD flap is de-epithelialized fine tuning of the shape using plication sutures. Skin sparing mastectomy requires replacement of a small skin island only. A Wise pattern may be useful if a concomitant reduction of the opposite breast is planned. If the breast volume is acceptable but both breasts could benefit from a mastopexy, the whole flap can be de-epithelialized and buried to create a less ptotic breast. The volume of the reconstructed breast should ideally be about 25% greater than the contralateral side as post-operative atrophy will occur especially if adjuvant radiotherapy is planned.

Complications

Complications include haematoma, infection, mastectomy skin flap necrosis, delayed healing and partial or total flap loss. The incidence of partial flap necrosis is less than 5-7% and total flap loss occurs in approximately 0.2% of cases. Donor site haematoma and seroma after ALD is more common than after traditional LD with implant. Seroma formation at the donor site after extended LD harvest occurs in up to 80% of cases and this may require repeated aspiration if symptomatic. Spontaneous resolution usually occurs by the sixth week. The re-accumulation of seroma post-aspiration and time course to resolution can be significantly reduced by intracavity injection of Triamcinolone. Preventative techniques include the use of quilting sutures or fibrin sealants during donor site closure.

Shoulder function

ALD flap can lead to impairment of shoulder function but usually causes little long term difficulty with return of shoulder strength and no significant difficulty with activities of daily living. Significant deficit is likely in relation to specific sporting activities. Donor site quilting does not adversely affect shoulder function.

Radiotherapy
Post mastectomy chest wall radiotherapy inevitably leads to collateral irradiation of the ALD with associated volume loss often most prominent in the upper pole. There is atrophy of the subcutaneous fat, LD and Pectoralis major muscles. Despite this, the overall cosmetic outcome remains of sufficient quality and patients remain satisfied irrespective of radiotherapy use\textsuperscript{23,24}.

Secondary procedures

In our audit of 500 ALD flap breast reconstruction performed between 1995-2005 symmetrising surgery was performed following immediate and delayed breast reconstruction in 20% and 60% of cases, respectively\textsuperscript{25}. Focal or global volume deficiencies within the ALD flap can be corrected using fat transfer\textsuperscript{2}. The autologous tissue of the reconstructed breast is an ideal recipient for microdroplet fat grafting and can often restore skin suppleness and soften the reconstruction following radiotherapy.

Conclusions

The ALD can be used to create a moderate breast often without the need for contralateral symmetry surgery. The morbidity rate is low and aesthetic outcome is consistent and durable even in the context of adjuvant radiotherapy. With increasing patient expectations matched with the need for cost-effective surgical practice the ALD should be considered in the majority of breast reconstructions.
References


Achieving consistent results in DIEP Flap breast reconstruction

The DIEP flap has become the workhorse of autologous breast reconstruction today. This is due to its reliability and predictability in providing durable and excellent aesthetic outcomes and in many instances an aesthetic enhancement of the donor site. During the past twenty years, the DIEP flap has undergone many refinements and our understanding of the microcirculation has improved. This alongside, technological advances in anastomotic devices, facilities to assess the abdominal vasculature, and intraoperative assessment of the flap vascularity, has made the DIEP flap our default option in breast reconstruction.

Patient selection, counselling and preoperative assessment which includes CT angiogram are critical in this process. Intraoperative steps have to be planned, including the type of anaesthesia, perioperative patient monitoring, positioning of the patient, temperature control, etc. The surgery has many steps and has to be choreographed and executed with attention to detail. The post-operative management which includes fluid regime and ambulation have an impact on the outcomes. Efficiency in the clinic, operating room and the ward are required to meet the huge demand for DIEP reconstructions today.
Achieving consistent results in TUG flap breast reconstruction

Evaluation of the necessary volume and/or skin paddle size in regard to the available medial thigh tissue is essential. Time should be taken to mould the flap.
Achieving consistent results using buttock and non-standard perforator flaps

The DIEP flaps does offer in most patient the ideal source for an autologous breast reconstruction. Nevertheless, in a number of occasions this option would not be possible, e.g. extensive abdominal scarring, low BMI. Alternatives to the standard DIEP flaps are either the stacked DIEP flaps non-abdominal based ones, like the SGAP, TUG or PAP flap. The only flap which is currently being used more often is the TUG as it is a safe flap. The SGAP flap, although well described, never made it in to the repertoire of the standard flap in autologous breast reconstruction.

The presentation will focus on how to choose patients for SGAP, PAP and stacked DIEP flaps, how to mark them and to raise the flaps safely.
Day 2 Session 3 – 13:20 – 13:40

Mr N Collis

**Contralateral surgery and flap reshaping**

The subject of contra-lateral surgery should be introduced at the time of initial assessment, whether an immediate or delayed reconstruction. The contralateral breast may be too large, too small or too ptotic to match with preferred/available options for reconstruction. The timing of contralateral surgery can then be discussed. Occasionally contralateral surgery may involve a mastectomy and reconstruction, particularly for BRCA1 and 2 gene carriers. Free flap breast reconstruction revision may involve the skin envelope, volume adjustments, contour deformities and nipple areola reconstruction. The timing of surgery and methods will be discussed.
Prof T Scholler

**The failing flap: What to do?**

Early revision and analysing the failure to be able to concentrate on the right issue. Arterial or venous problems might be at hand. An extra venous drainage might be useful and can sometimes be anticipated during the flap harvest.
Mr J Scott

**Nipple reconstruction**

The increasing demands on health care resources require the reconstructive surgical community to promote an evidence-based practice. The role of nipple-areolar complex reconstruction in terms of enhancing patient psychological well-being and performing reconstruction in the immediate or delayed setting are discussed.

Nipple-areolar complex (NAC) reconstruction facilitates the objective of achieving breast symmetry. Paradoxically, perfect breast symmetry is uncommon and strategies for the appropriate location of the NAC on the breast mound are presented.

Maintaining nipple construct projection continues to be a technical challenge. A variety of local flap and autologous graft techniques are presented and the outcome evidence is reviewed. The challenges of reconstruction in the presence pre-existing scars, previous breast mound radiotherapy and the role of micro-pigmentation are discussed. Finally, a novel technique for the correction of nipple inversion is presented.
Mr P Harris

**Autologous salvage of the failed implant-based breast reconstruction**

In recent years it has become standard care for almost all mastectomy patients to be offered breast reconstruction. Resource availability and surgical experience has meant that many of these patients are inappropriately directed towards implant-based methods. Some adjunctive techniques and materials, such as ADMs, have also broadened the use of implants, frequent into adverse clinical situations. Outcomes can therefore be poor and increasingly patients require salvage techniques to rectify these problems. Autologous tissue is invariably required for this complex group of patients. Several authors have quantified this growing area of workload for predominantly microvascular surgeons and Mr Harris will present his experience together with a summary of the literature.
How do we continue to fund breast reconstruction services?

The current financial crisis affecting the NHS as a whole and acute care NHS trusts in particular shows no sign of improving. Oncoplastic breast surgery and breast reconstructive surgery are facing a challenging future. With such tight financial constraints there will be rationing of services at a higher level and in addition individual services and departments will come under pressure to make savings and run a profitable service.

In order to continue to offer our patients the best range of treatment options, surgeons are now forced to understand costing and tariffs of outpatient services and procedures alike to defend and develop our services when engaging with hospital management and CCGs in the wider health community.

Increasingly candidates at consultant interviews are expected to discuss financial matters and the affordability of services.

The aim of this talk is to give trainees a framework for understanding and discussing the current NHS tariff system for oncoplastic and reconstructive breast surgery as well as typical costs of common procedures. It will discuss the anomalies in the system such as payment for bilateral procedures, therapeutic mammoplasties as well as delayed verses immediate breast construction. Examples will be given on how to reduce costs and improve coding to ensure correct payments.
Oncoplastic breast surgery training in the UK

What are the options for Plastic Surgery trainees wishing to obtain subspecialty training in breast surgery? Monospeciality training using the final years curriculum’s oncoplastic breast syllabus is one option, Training Interface Group (TIG) oncoplastic fellowships are another and other local or international fellowships are also popular. Cosmetic TIG and microsurgery fellowships are further training options.

For oncoplastic TIG fellowships the focus for the Plastic Surgery trainees will be to develop knowledge and skills in breast assessment, breast disease and cancer diagnosis and management. The level of knowledge, clinical and technical skills expected by the end of the oncoplastic TIG fellowship will be discussed and compared with other training routes as well as expected indicative numbers.

Advice on obtaining different fellowship posts will be discussed and the effect completing fellowships may have on potential future job prospects.
What will breast surgery look like in Europe and the UK in 2025?

This talk will try to look into the Crystal Ball. Over the next 10 years, there will be advances in:

- Specific Breast Cancer Treatments
- Advances across medicine in terms of technology
- Change within the political landscape of the NHS

Looking back at where we have come from can give us some ideas about the direction of travel. Screening for breast cancer and the organisation relating to it has had a significant impact. Team working has increased and become the norm but how does that reflect professional individual responsibility. What is the role of personal choice by the patient?

Increasingly we are using alternative treatments to limit the amount of surgery required. Will this move to a more percutaneous solution? Certainly there are issues related to individualisation of chemotherapy regimes. How will we harness the new artificial intelligence tools to benefit our patients?

What will be the political pressures within the NHS that will have an impact on our practise? Where are we now and how is the political landscape likely to change. The ageing population is a challenge facing all of medicine. How does the UK fit in with global changes? How will Health tourism progress, what will be the impact of National Registries for implants? Is this an opportunity for us to learn from each other more effectively?

What are the core aspects of our role and how will all of these factors impact on our delivery of that role?
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Contact: 01603667431 email: info@keepingabreast.org.uk

Website: http://www.keepingabreast.org.uk/

Keeping Abreast was established in September 2007 by patients Anna Beckingham and Beverley Birritteri and Breast Reconstruction nurse specialist Ruth Harcourt. They recognised a great need for women, both newly diagnosed with breast cancer and facing the possibility of mastectomy, and also women further down the line who are also considering reconstructive surgery, to be able to meet and talk to other women who have been through similar experiences. This allows women make an informed choice about whether or not to proceed with breast reconstruction.
pfm medical UK Limited

Contact: uk@pfmmedical.com Tel – 01625 875 388
Website: http://www.pfmmedical.co.uk/

pfm medical UK Limited is the UK subsidiary of pfm medical ag. Located in the Cheshire countryside, we are committed to supplying high quality products to the NHS, Private Hospitals, Research and Development Centre’s, Laboratories and all other care services.

We have been established since 2007 and have a strong team of clinical sales consultants and expert support staff.

Regenerys

Contact: info@regenerys.com - Tel 01143830858
Website: www.regenerys.com

Regenerys Ltd is an innovative regenerative medical company. The Adiposet service has been established to enable better cosmetic outcomes in reconstructive procedures following breast cancer surgery and in other procedures utilising adipose tissue. The service facilitates the compliant storage of adipose tissue for subsequent autologous use and is currently provided to the NHS and to private clinics in the UK, Europe and beyond.

Sebbin

Contact: Alison Grayley [0]1494 590416 email alison.grayley@sebbin.uk
Website: http://www.sebbin.com/en/

Groupe SEBBIN designs, manufactures and markets silicone implants dedicated for Aesthetic and Reconstructive surgery and has done so for the last 30 years. Product portfolio includes breast implants with more than 400 options in round and anatomical shapes, with smooth, microtextured or textured envelope, tissue expanders of various shapes, gluteal, calf, testicular, facial implants, nasal stents, and custom made implants based on 3D technology as well as single use kits and devices for lipofilling procedures. Groupe SEBBIN also markets and distributes Meso BioMatrix® an Acellular Peritoneum Matrix designed and developed by DSM specifically for breast reconstruction. It is a surgical bioscaffold that provides easy handling for surgeons with the strength necessary to reinforce soft tissue.
Groupe SEBBIN is present in near 60 countries through its distribution network and also direct through its subsidiaries in Belgium, Germany, Switzerland and Spain. In June 2015 we launched a new branch in the UK to provide your patients with innovative solutions, whilst delivering a first class service.

Groupe SEBBIN is also committed to education and offers high quality courses at the "Sebbin University" in Zurich. Do not hesitate to visit our website on www.sebbin.com to obtain more information on our company and its products.

Speaker Sponsors

Human med

Sponsor of Klaus Ueberreiter

Contact: Tel: +44 (0)208 712 1192

Website: http://www.humanmed.com/en

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Human med UK Ltd is the UK-based branch of Human med AG - an innovative medical technology company with its headquarters in Schwerin, Germany. Our field of activity is "Water Jet Surgery". As the worldwide leading manufacturer of water-jet assisted products for plastic, reconstructive and aesthetic surgery we set benchmarks in natural body contouring.
We have long-term experience in medical technology with water-jet dissectors that allow precise control and delicate tissue handling. On this basis we offer Water-jet Assisted Liposuction (WAL) and Autologous Fat Transfer for aesthetic body contouring, reconstructive surgery and treatment of soft tissue defects including scars and chronic wounds.

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Contact: Tel: +44 (0) 800 973082
Website: www.mentormedical.co.uk

Mentor is a leading, global manufacturer of high quality breast implants for both reconstructive and augmentation procedures. We are committed to the provision of quality products, proven, safe and effective outcomes and differentiated service. This approach is evident in our 25 years dedication and commitment to advance plastic surgery and restore body and life. With a rich history in industry firsts we are delighted to be sponsors at this BAPRAS Winter Scientific Meeting and on behalf of Mentor we wish you all an informative and successful event.

Pfm medical

Sponsor of Dr Stefan Paepke

Contact: uk@pfmmedical.com Tel – 01625 875 388
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